

Economic Update

U.S. & Michigan Webinar

Federal Reserve Bank of Chicago
February 28, 2017

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Main Economic Indicators

Year-over-year Comparison

	<u>2014</u>	<u>2015</u>	<u>2016</u>
GDP – Annual Growth Rate ¹	2.5%	1.9%	1.9%
Unemployment Rate ²	6.2%	5.3%	4.9%
Participation Rate ²	62.9%	62.7%	62.8%
Nonfarm Job Growth ³	2,558	2,876	2,493
PCE Core Inflation Yr. / Yr. ⁴	1.6%	1.4%	1.7%

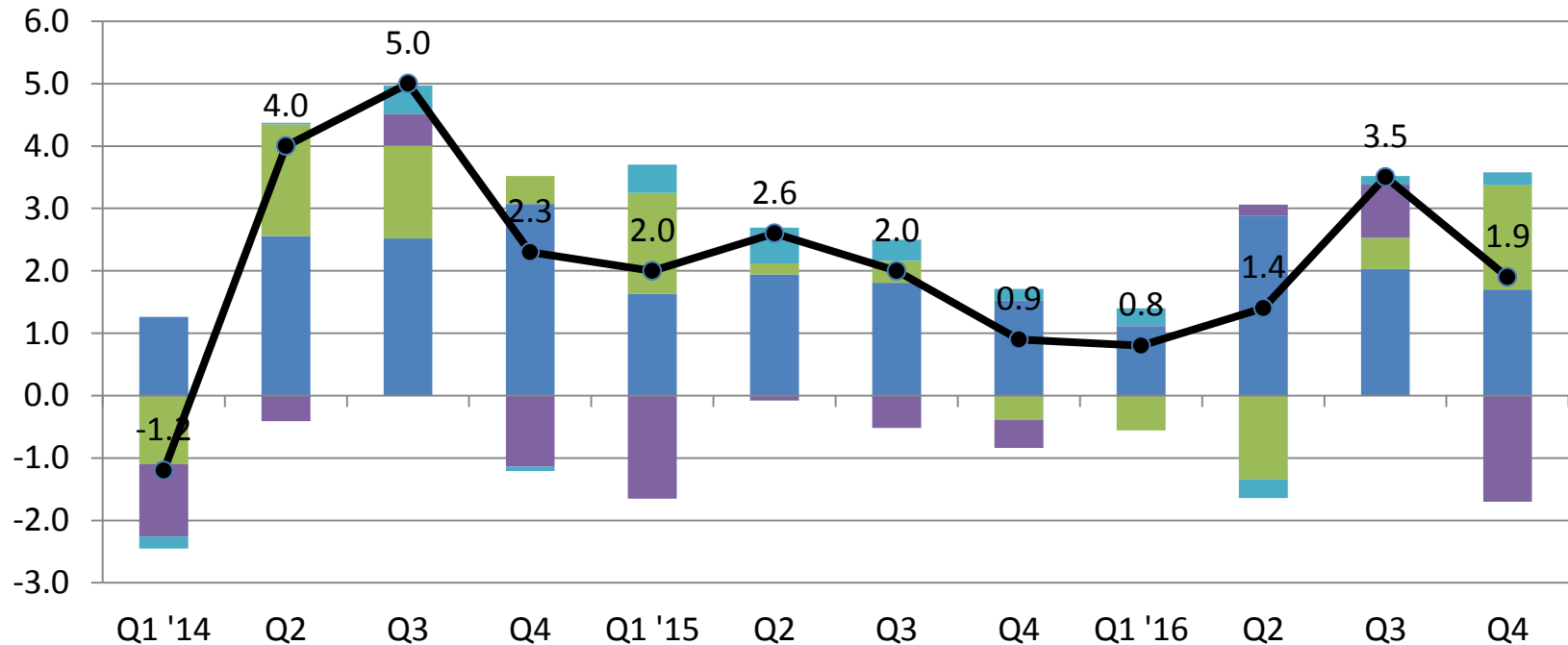
1. Year-over-year (Q4/Q4)
2. Annual Average
3. Annual Average Employment – Year-over-year change in thousands
4. Annual Average PCE Core – Percent change year-over-year

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

Percent



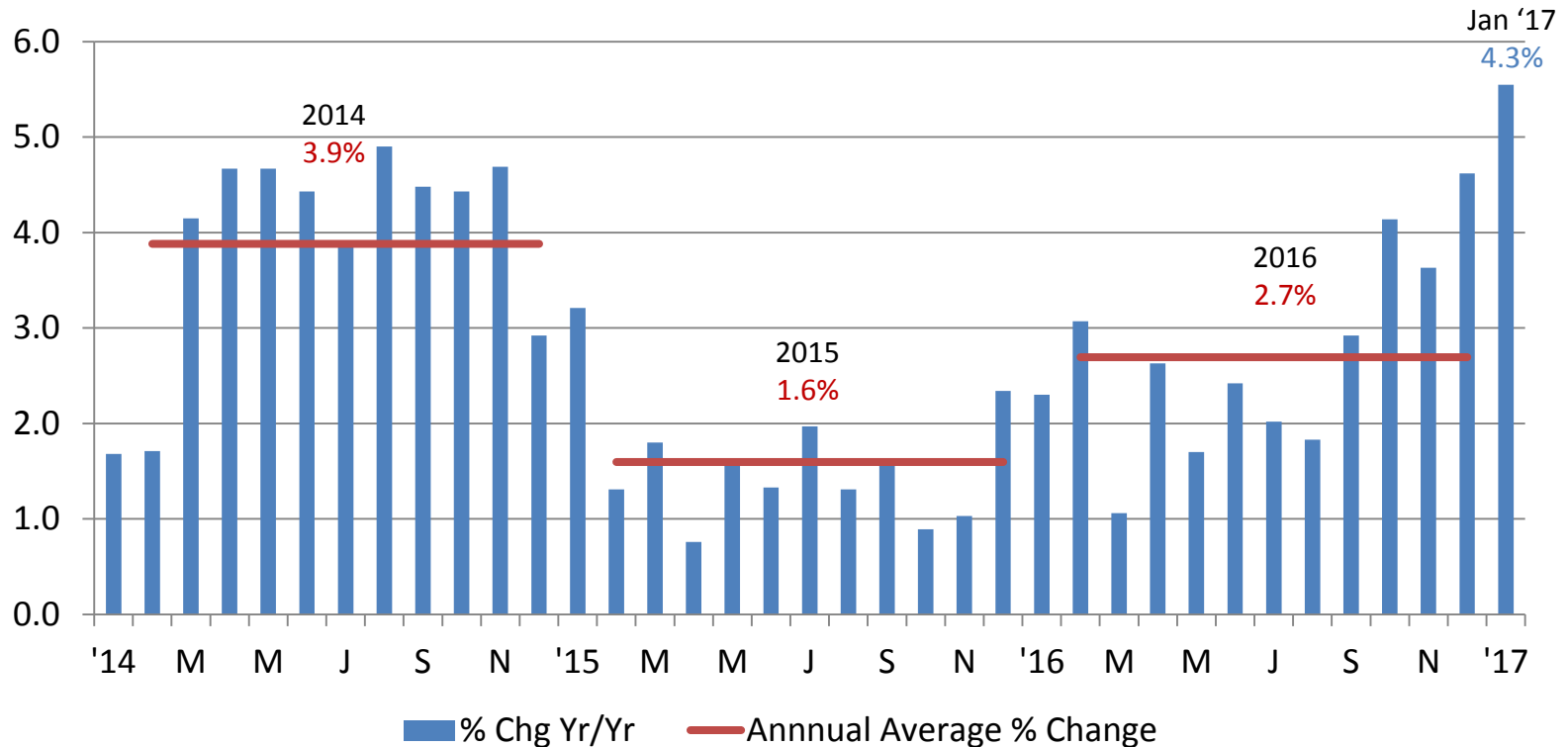
	■ PCE	■ Private Investment	■ Net Exports	■ Government	● GDP
Q4 2017					
Contribution	1.7%	1.7%	-1.7%	0.2%	1.9%

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

Real Retail Sales

Excluding Food Services - % Change Yr./Yr.

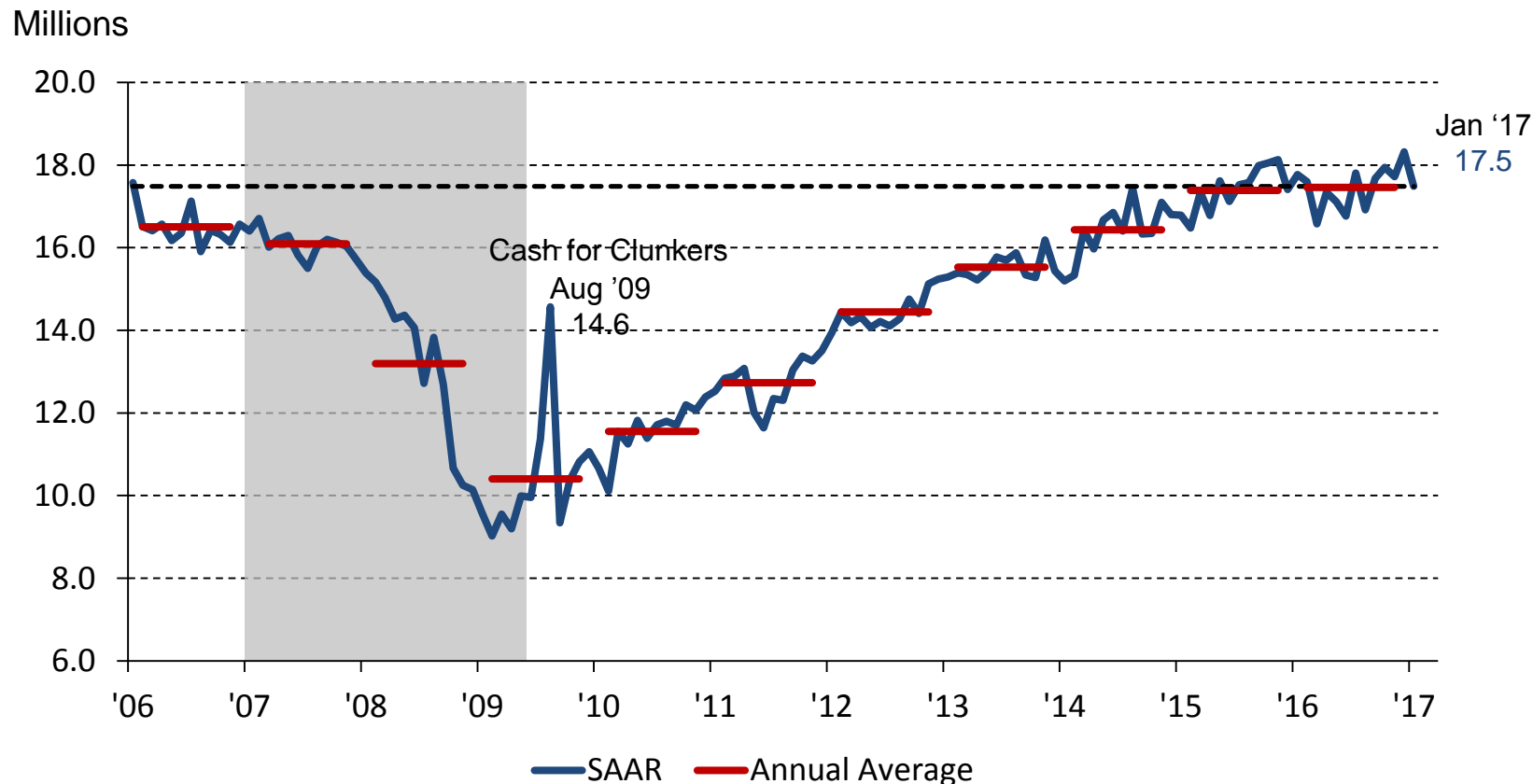
Percent



Source: Bureau of the Census

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

U.S. Light Vehicle Incentives

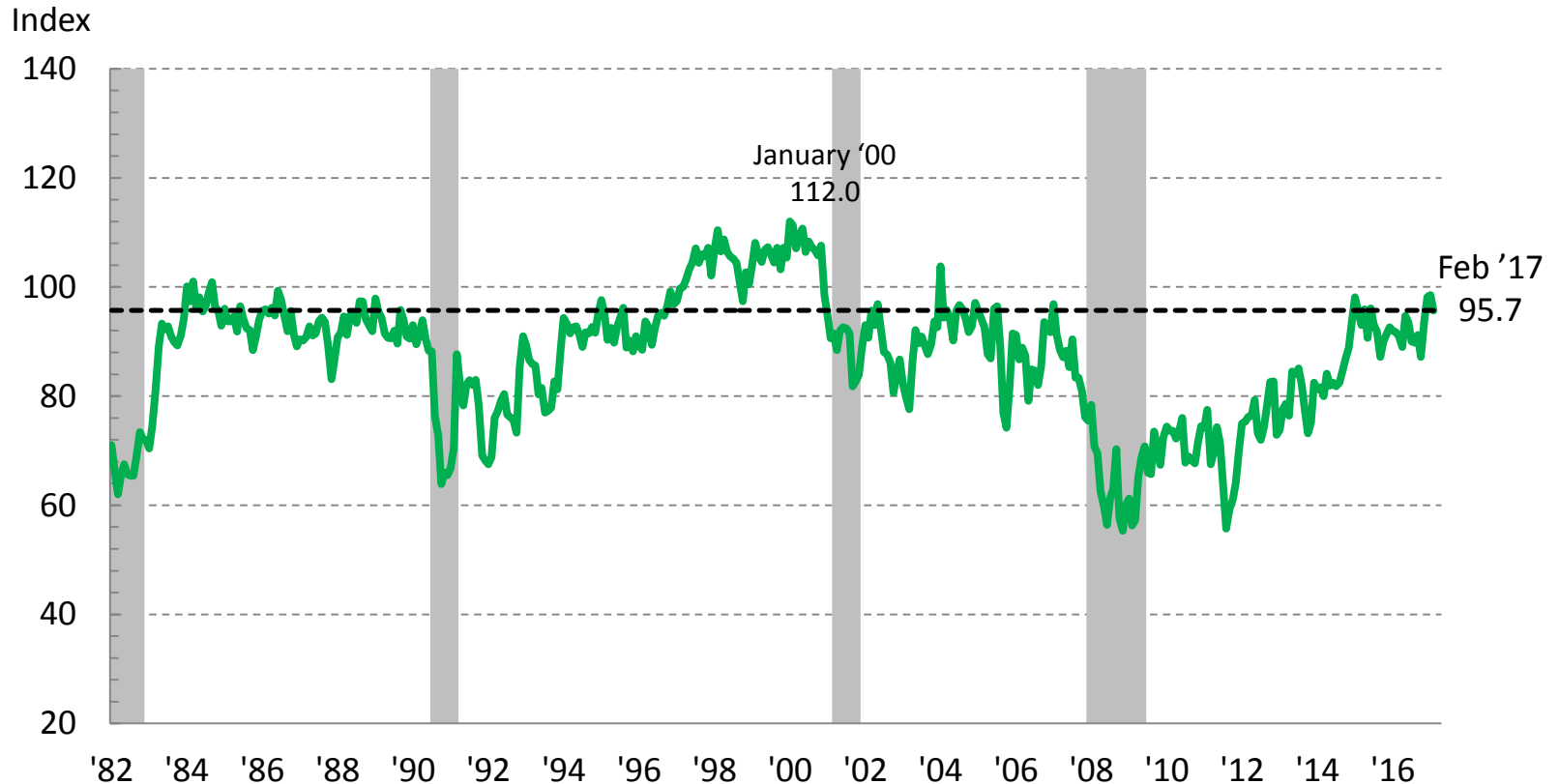
As Percent of Transaction Price - SA



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

Consumer Sentiment

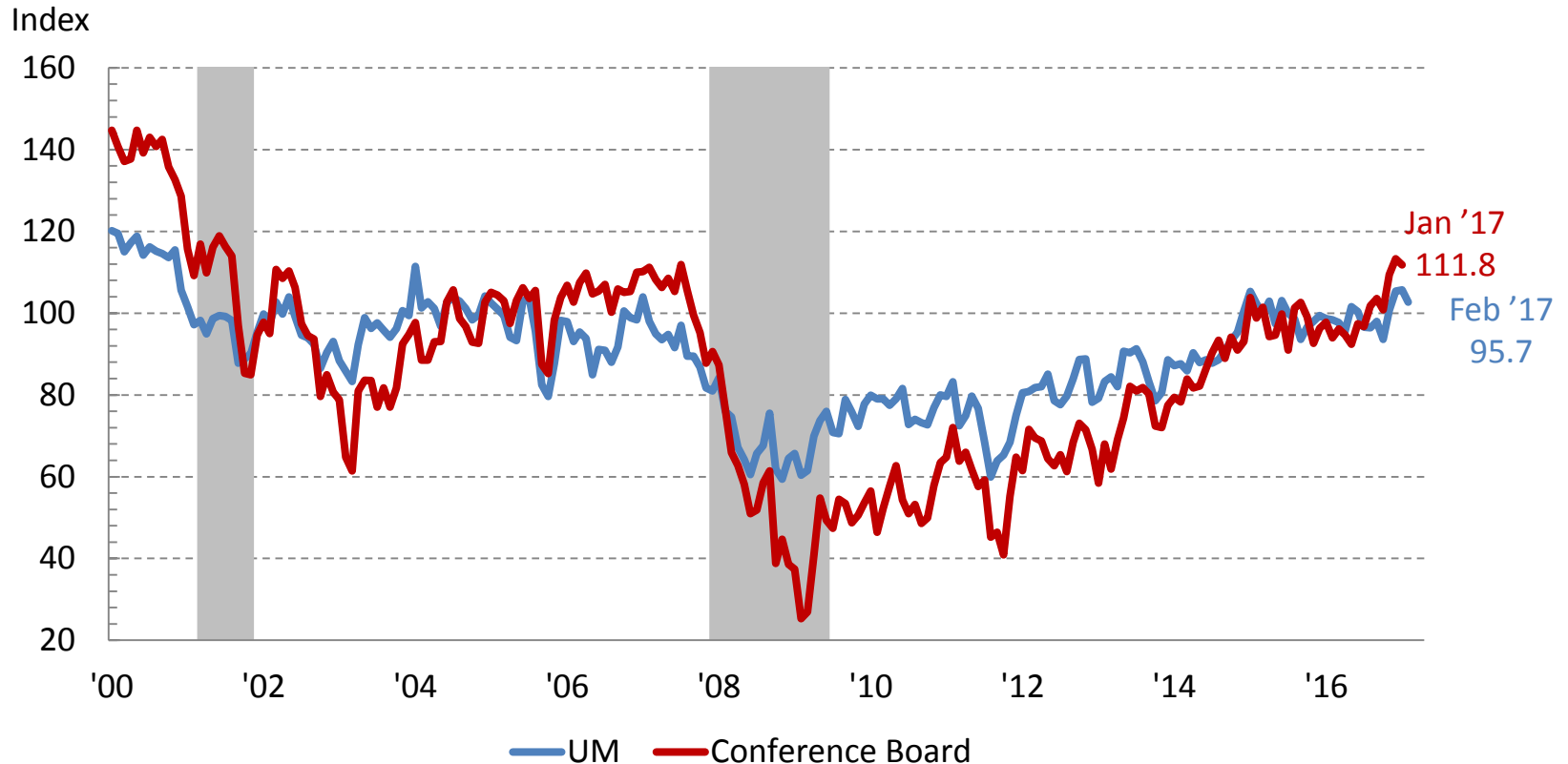
University of Michigan



Source: Thomson Reuters / University of Michigan

Consumer Attitudes

University of Michigan and Conference Board – 1985 = 100



Source: Thomson Reuters / University of Michigan, Conference Board and Haver Analytics

Consumer Sentiment

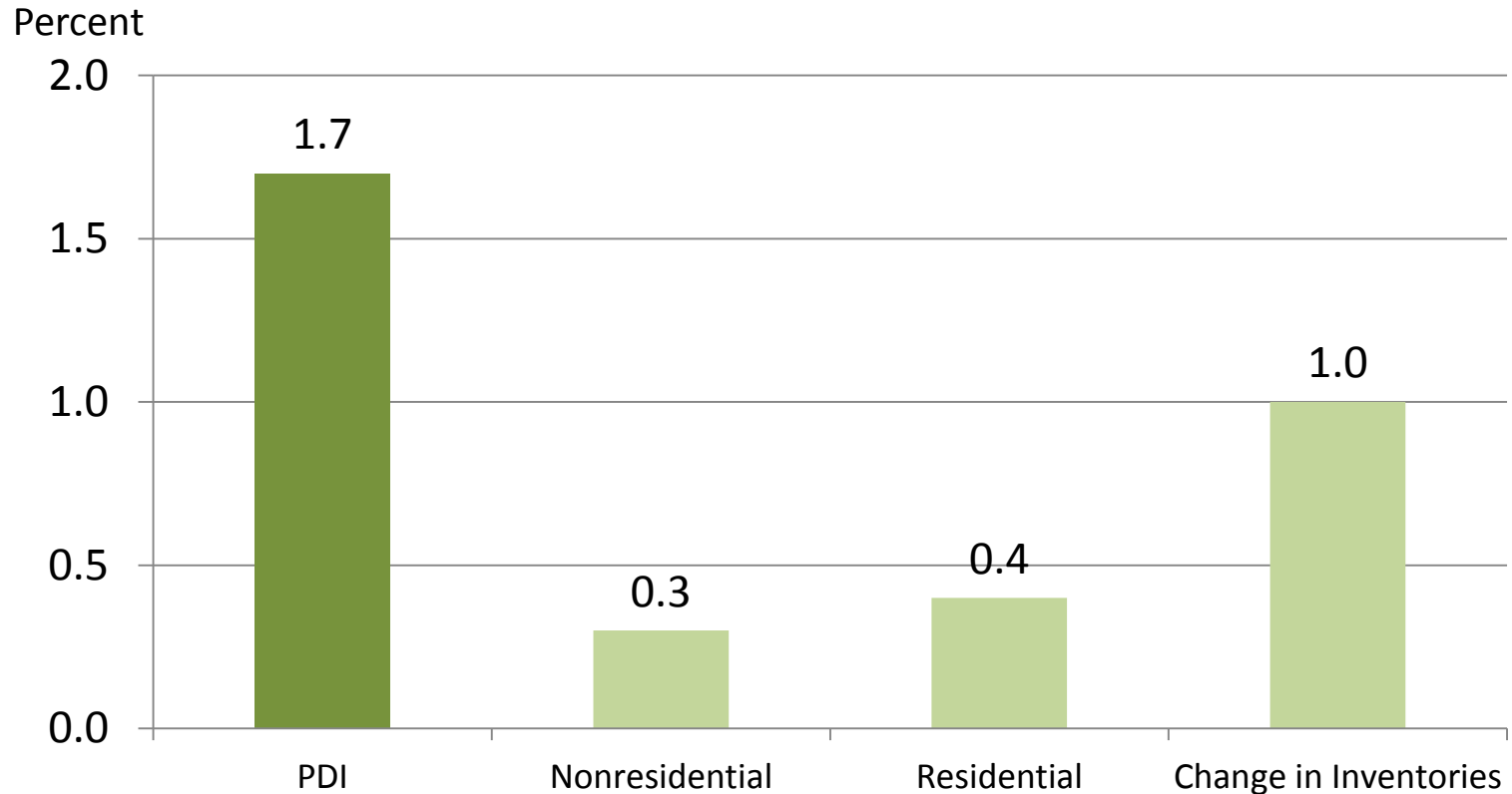
University of Michigan – Partisan Impact on Sentiment

	Opinion Change			Level Data		
	June - December 2016			Jan to Feb 2017		
	Dem	Ind	Rep	Dem	Ind	Rep
Index of Consumer Expcations	-24.1	+14.1	50.5	58.5	91.2	122
Partisan Divide (Dem - Rep)	-74.6			-63.5		
Year-ahead Income Expectations (median %)	-1.3	+1.0	+2.3	1.4	1.8	1.5
Year-ahead Inflation Expectations (median %)	+0.3	-0.7	-0.7	3.3	2.5	2.0
Year-ahead underemployment						
More Unemployment (percentage)	+29	-17	-38	41	24	7
Less Unemployment (percentage)	-18	+18	+53	16	36	58

Source: Thomson Reuters / University of Michigan

Real Private Domestic Investment

Contribution to Percent Change, Q3, 2016 - Q/Q at SAAR

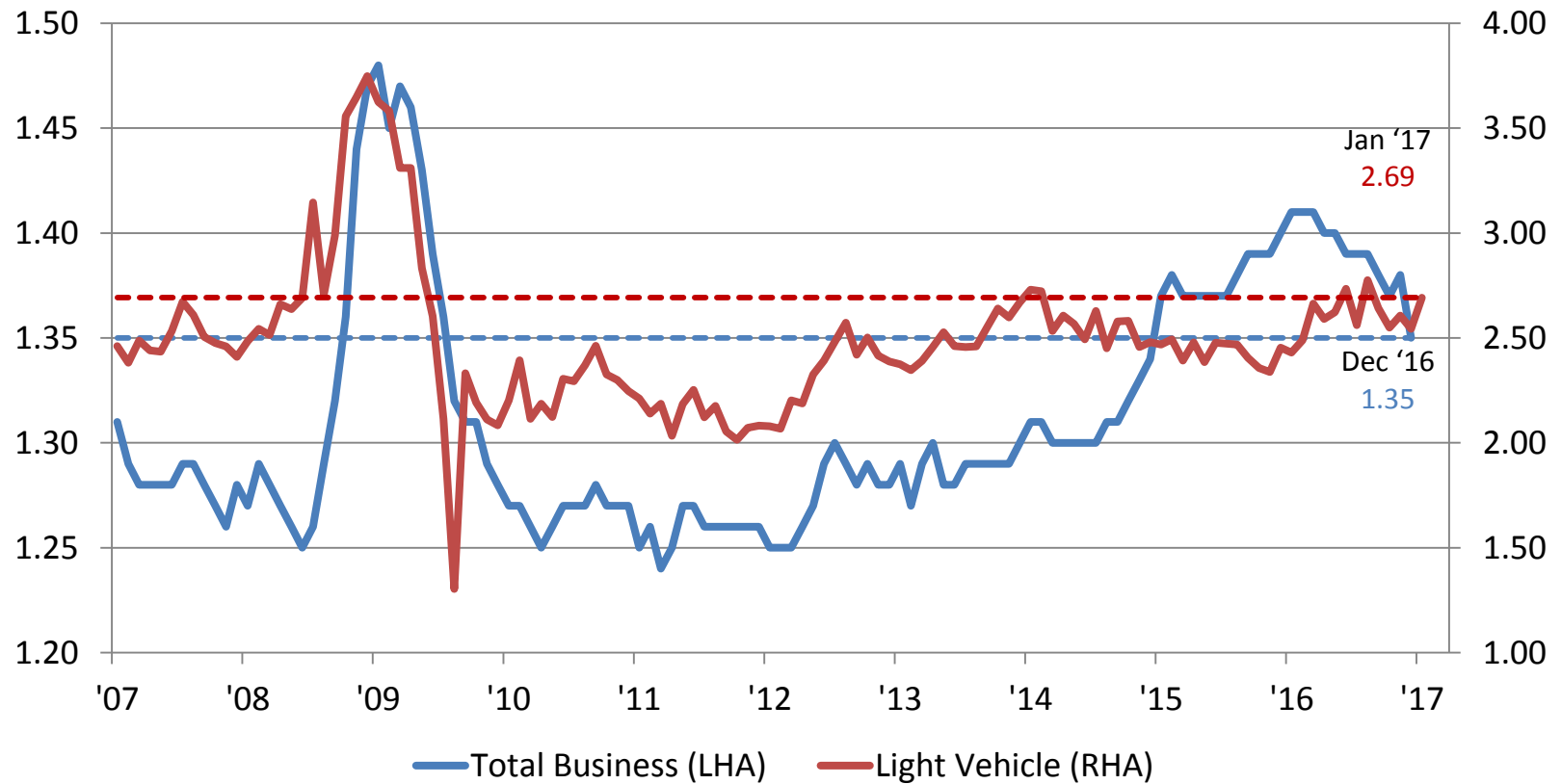


Source: U.S. Bureau of Economic Analysis

I/S Ratios

Total Business and Light Vehicles - SA

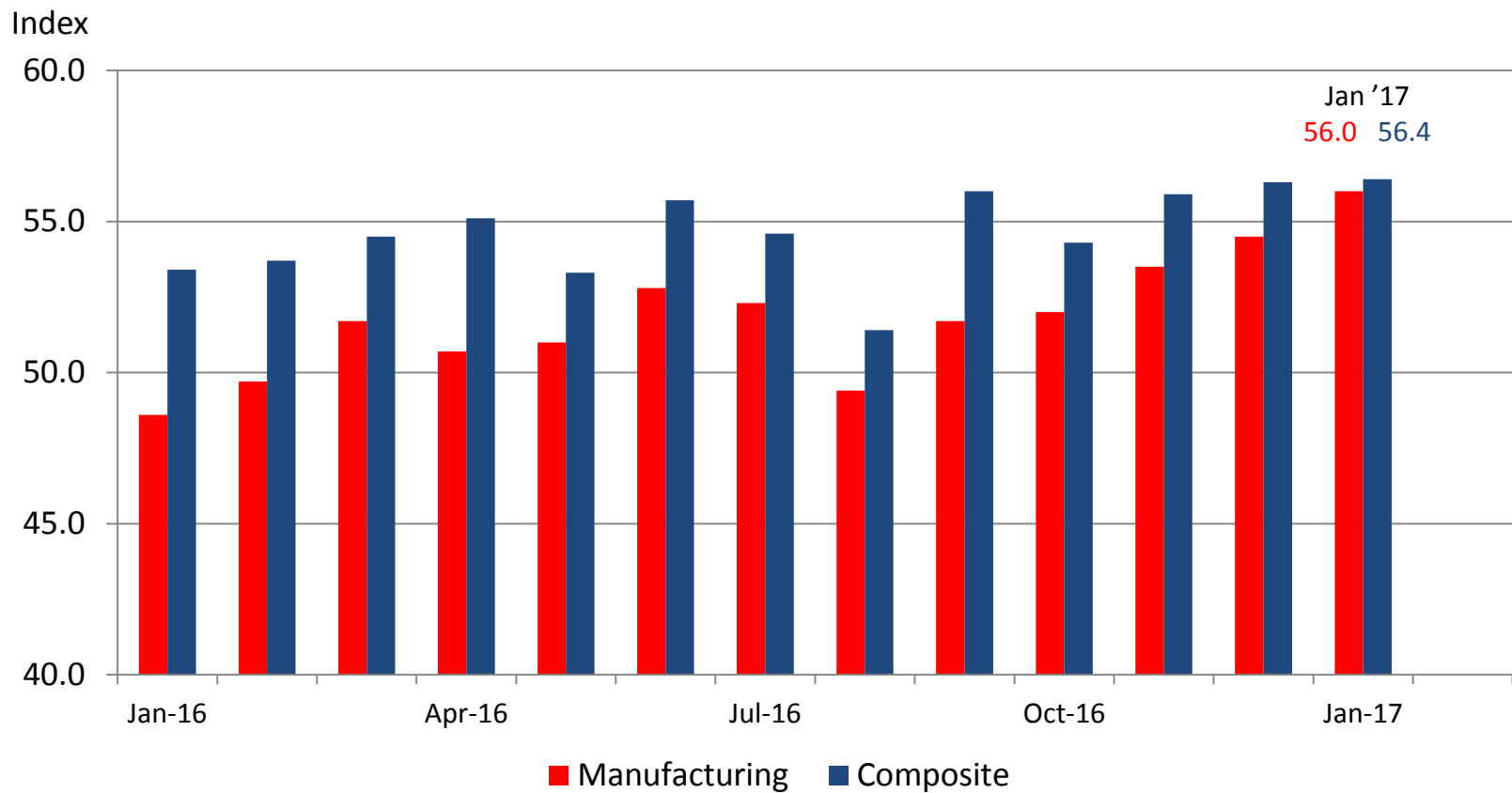
Percent



Source: U.S. Census Bureau and WardsAuto.

ISM Purchasing Managers Index

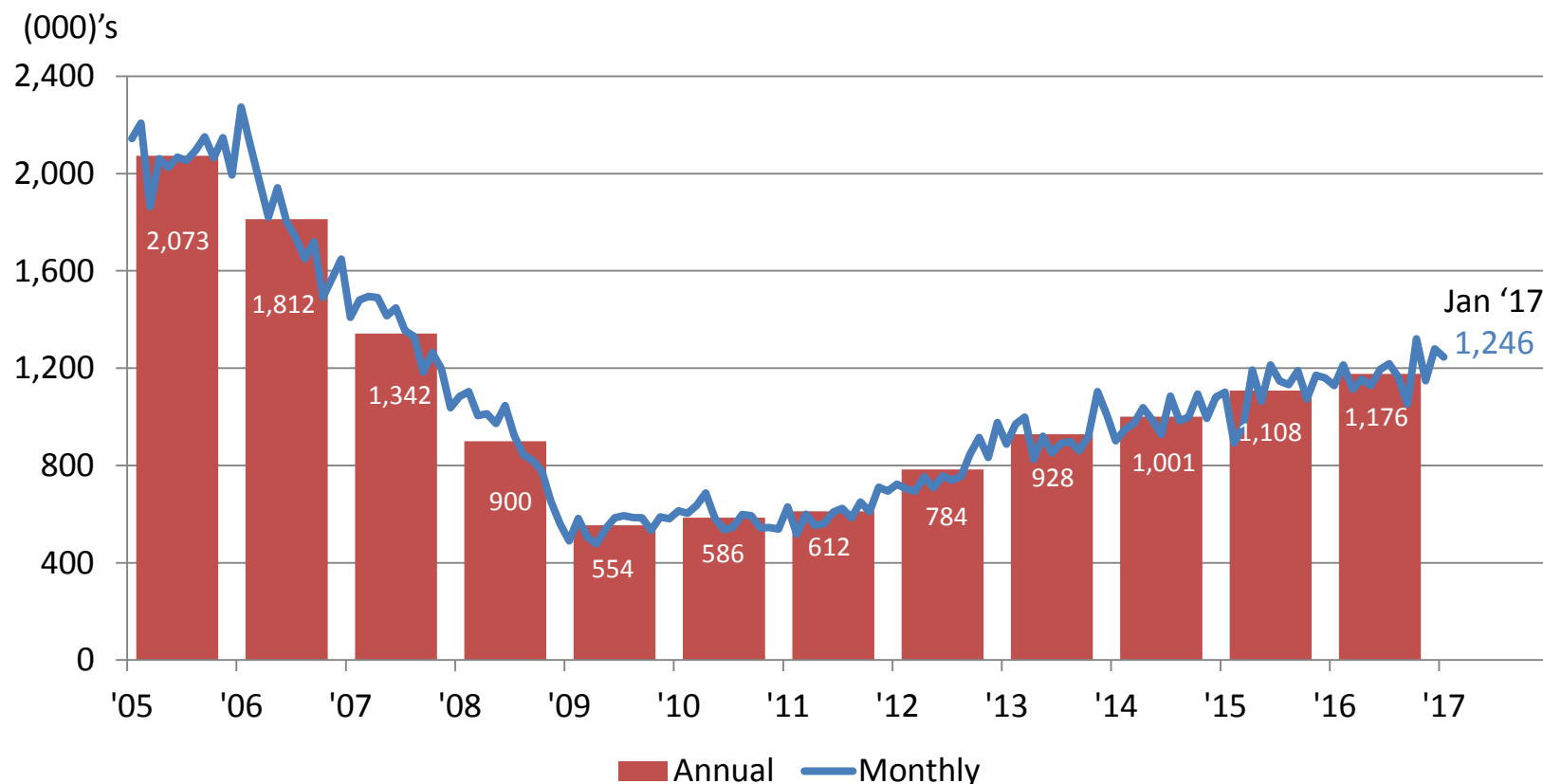
Manufacturing and Composite, SA - Greater than 50 = Expansion



Source: Institute for Supply Management , Haver Analytics and FRED

U.S. Housing Starts

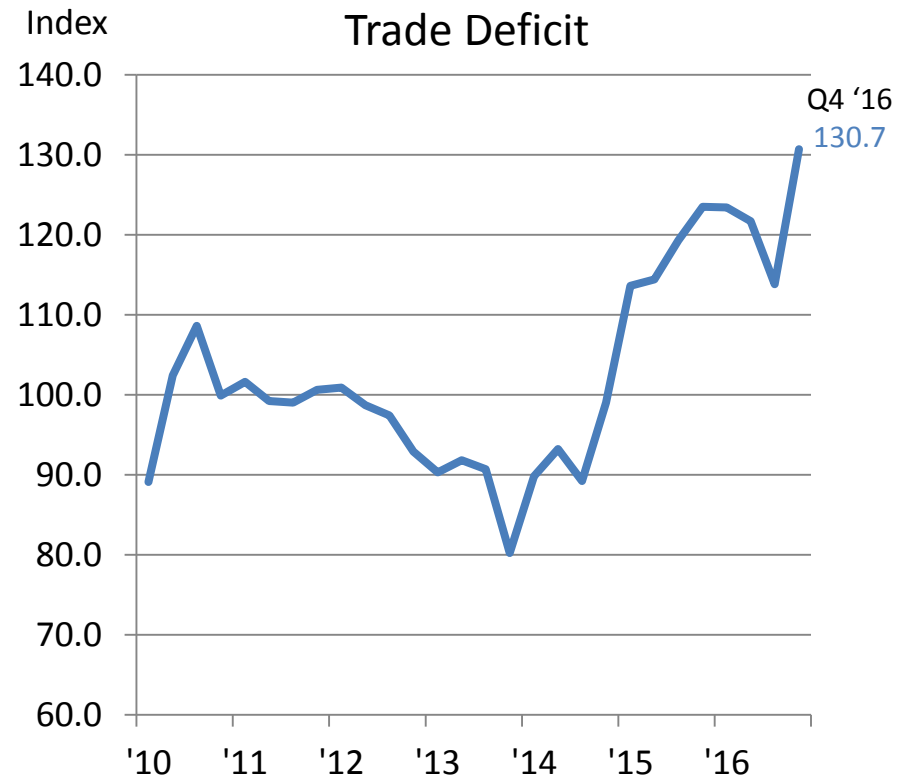
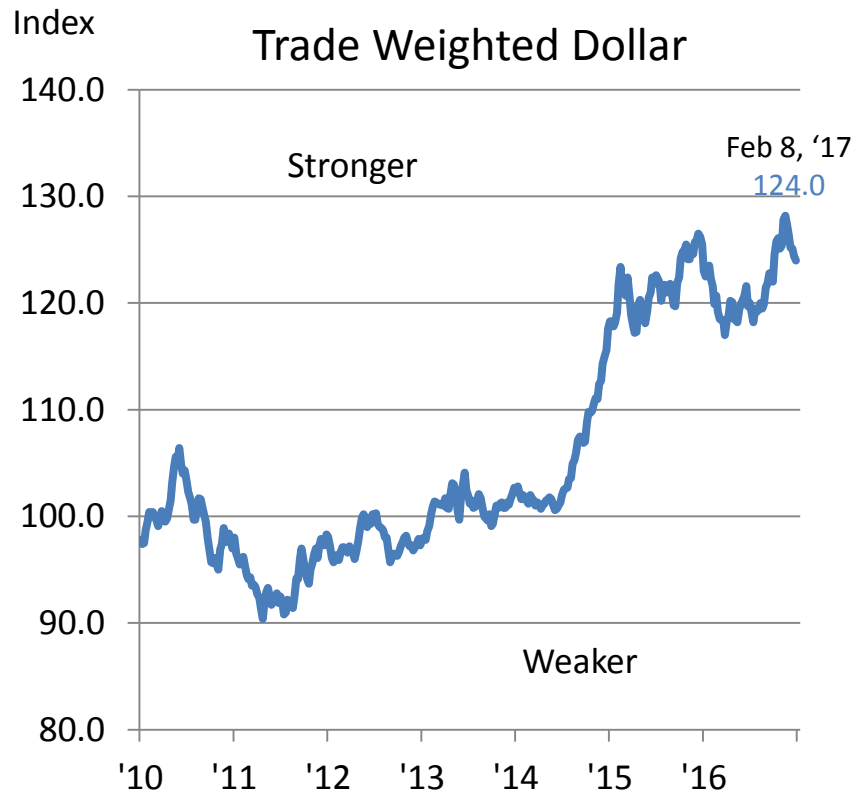
In Thousands of Units (SAAR) – Annual Average & Monthly Data



Source: U.S. Census Bureau

The U.S. Dollar & The Trade Deficit

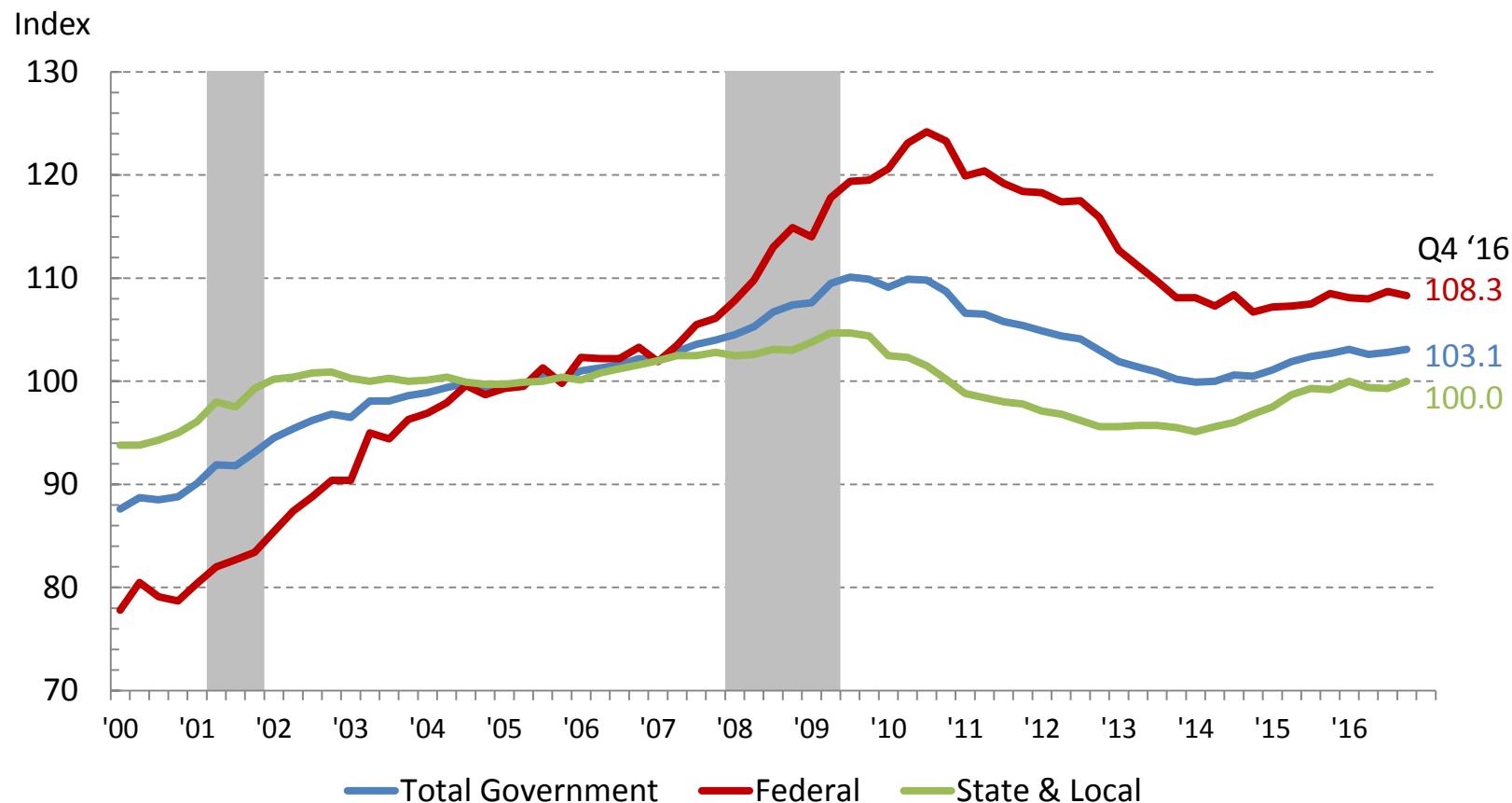
Trade Weighted Dollar- Index 2010 = 100, Trade Deficit – Index 2010 = 100



Source: Federal Reserve Board and Haver Analytics

Real Government Consumption & Investment

Billions Chained \$2009, Index – 2005 = 100



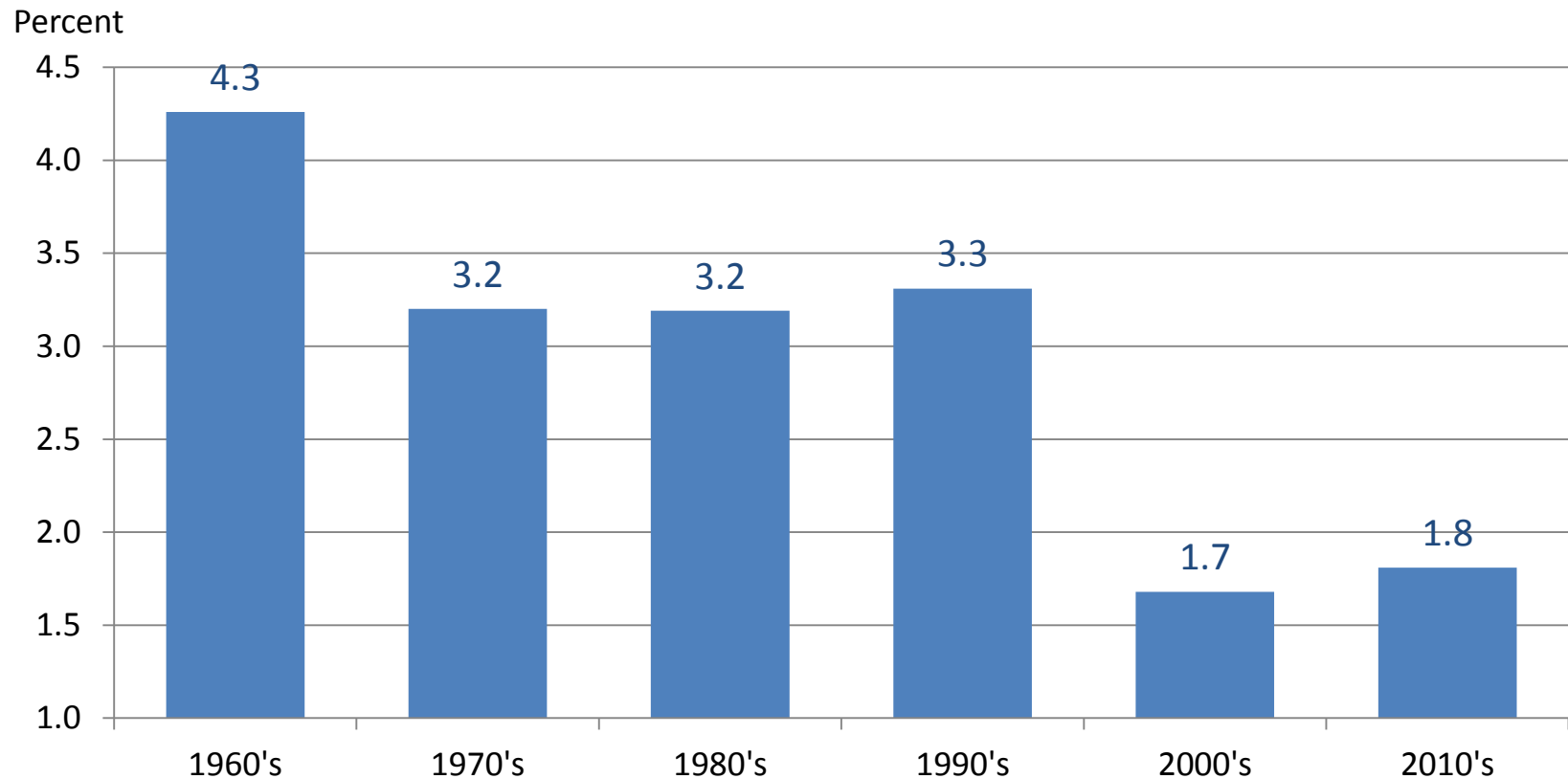
Source: U.S. Bureau of Economic Analysis

Fiscal Stimulus Remains Uncertain

- President elect's plan includes large tax cuts and increased spending
 - Details still lacking in many areas
 - Final package depends on Administration and Congressional priorities
- Estimates of fiscal impact range from 0.5 to 1.0 percent on level of GDP by end of 2018, falling to zero by 2020
- Potential offsets to long-run growth from other policies
 - Trade restrictions
 - Immigration legislation
 - Affordable Care Act
 - Federal Reserves response to stronger demand and higher inflation
- Some analysts have elected not to change previous projections

Economic Potential by Decade

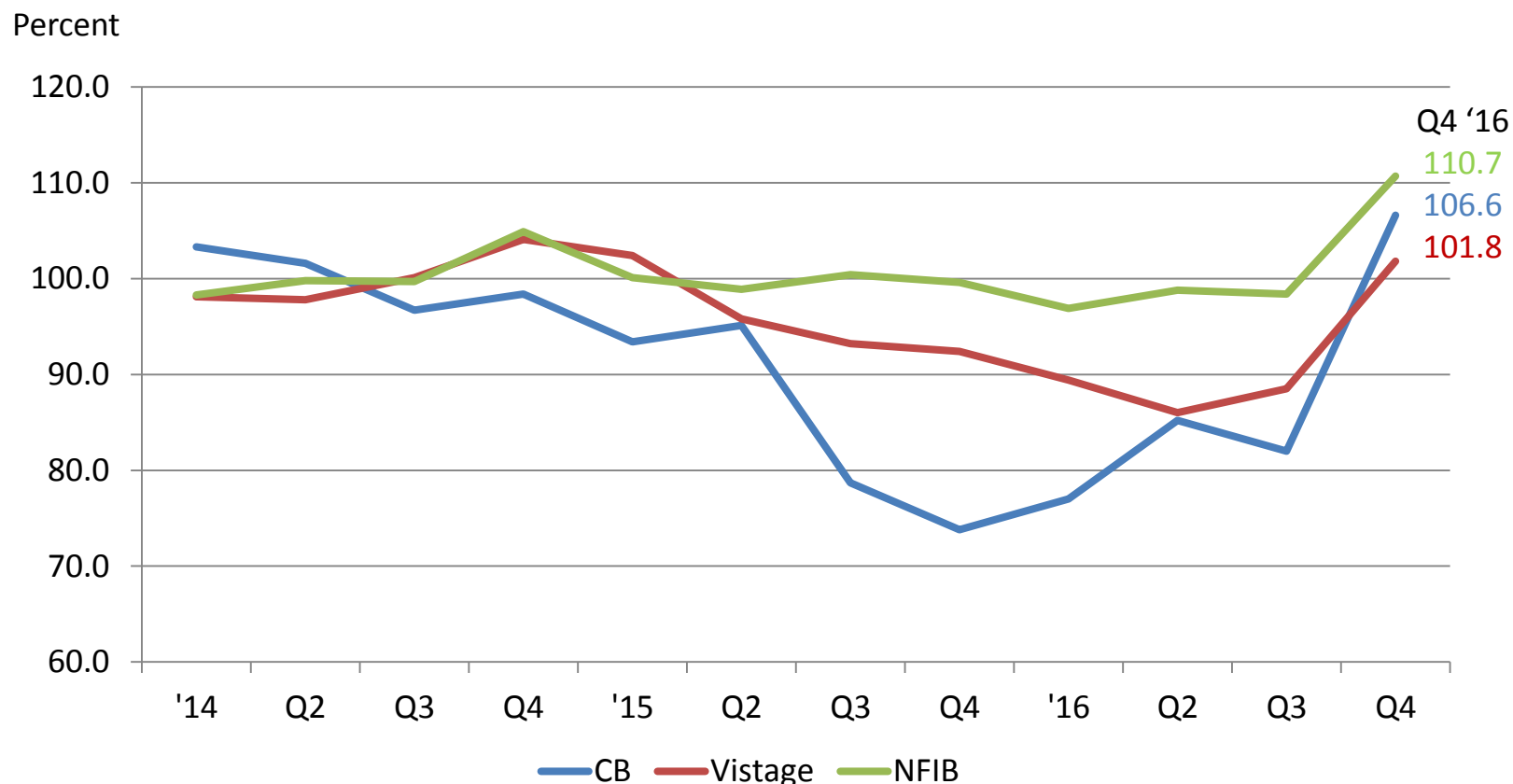
Real GDP Percent Change – Annual Average



Source: U.S. Congressional Budget Office

Business Confidence Surveys

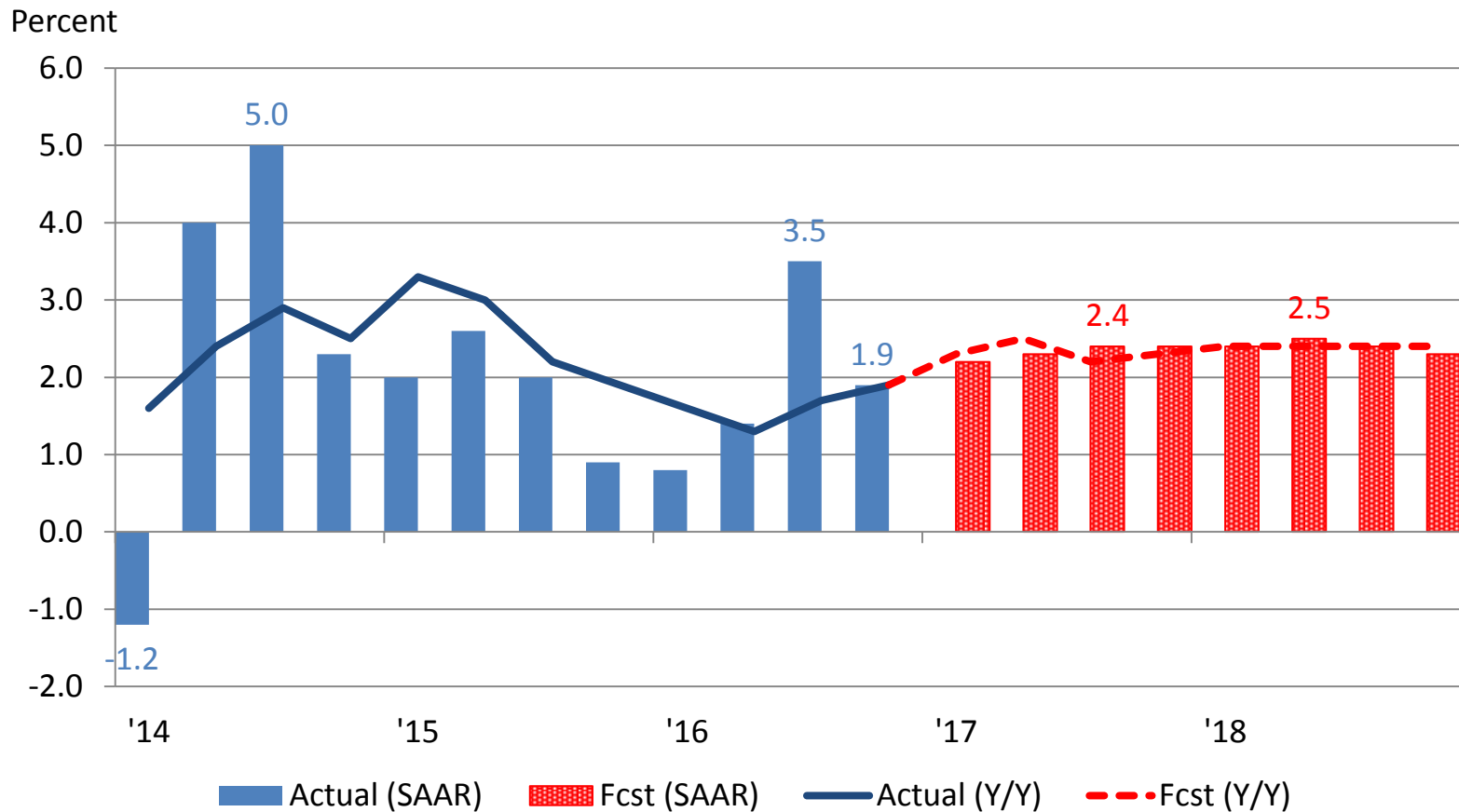
Conference Board, Vistage, and NFIB , Index 2004 = 100



Source: Author's calculations using Conference Board CEO Survey, Vistage Mid-size & Small Business Survey, National Federation of Independent Business Survey data.

U.S. Real GDP Blue Chip Forecast

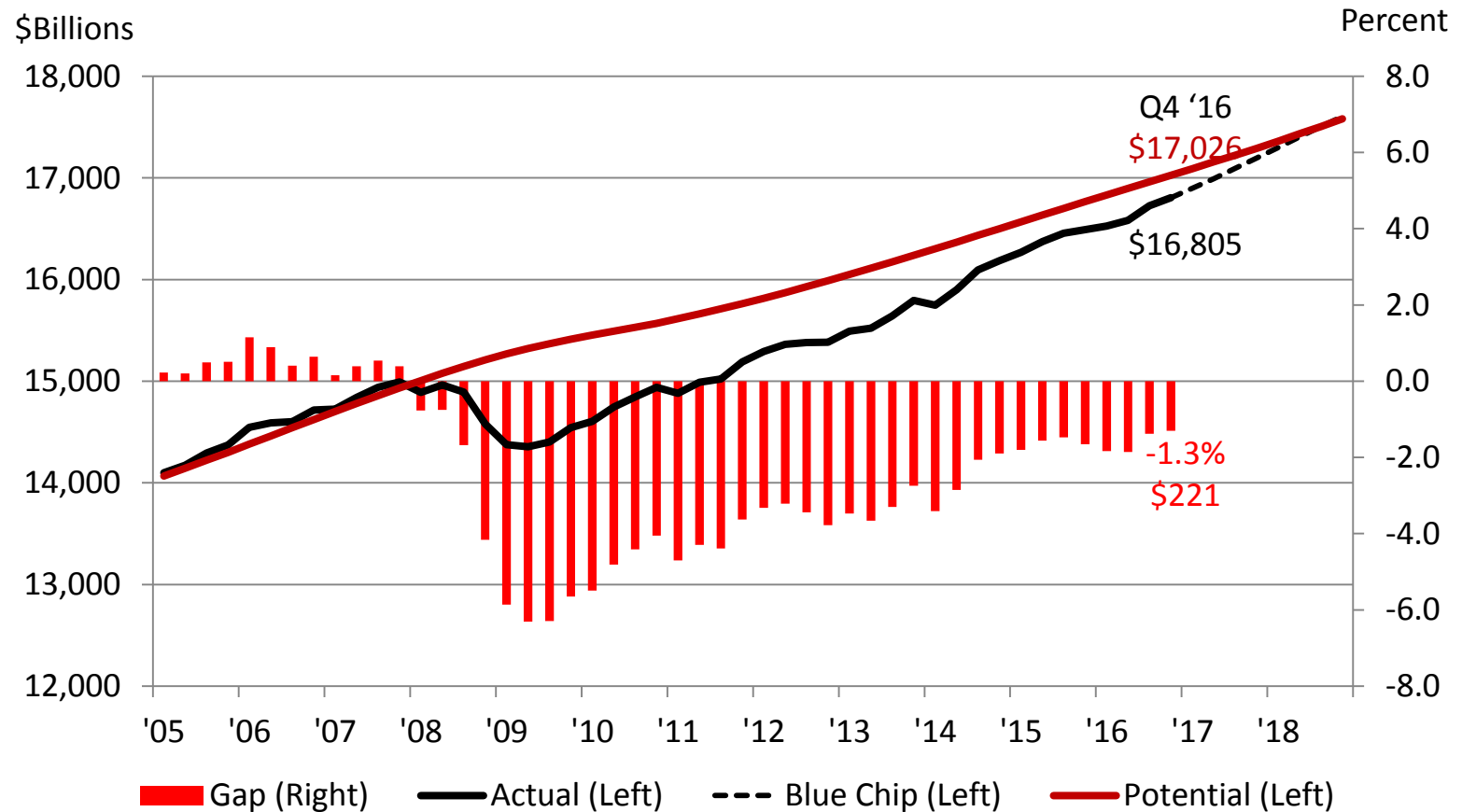
Annual Percent Change – Chained \$2009



Source: BEA and January 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

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Federal Reserve Bank of Chicago

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Monetary Policy Employment & Inflation

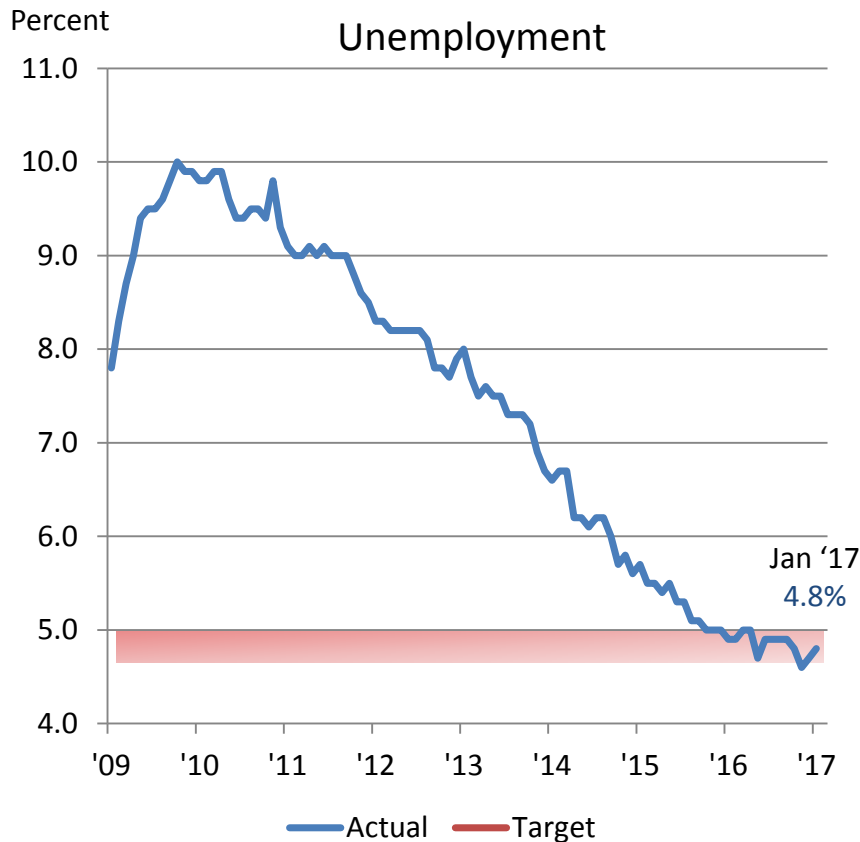
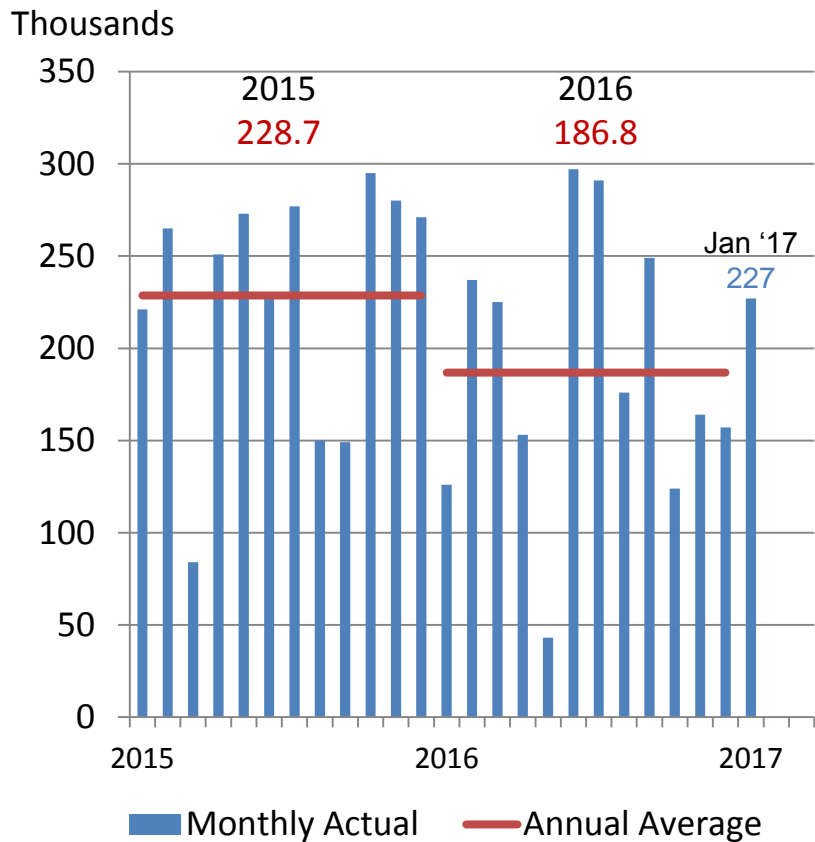
F.O.M.C Statement

February 1, 2017

1. Information since the F.O.M.C. met in December indicates that the labor market has continued to strengthened and that economic activity has been expanding at a moderate pace.
2. Job gains have been solid in recent months and the unemployment rate stayed near its recent low.
3. Household spending has continued to rise moderately business fixed investment has remained soft. Measures of consumer and business sentiment have improved as of late.
4. Inflation increased in recent quarters but is still below the Committee's 2 percent longer-run objective
5. Market-based measures of inflation compensation remain low; most survey-based measures of longer-term inflation expectations are little changed, on balance.

Nonfarm Employment & Unemployment Rate

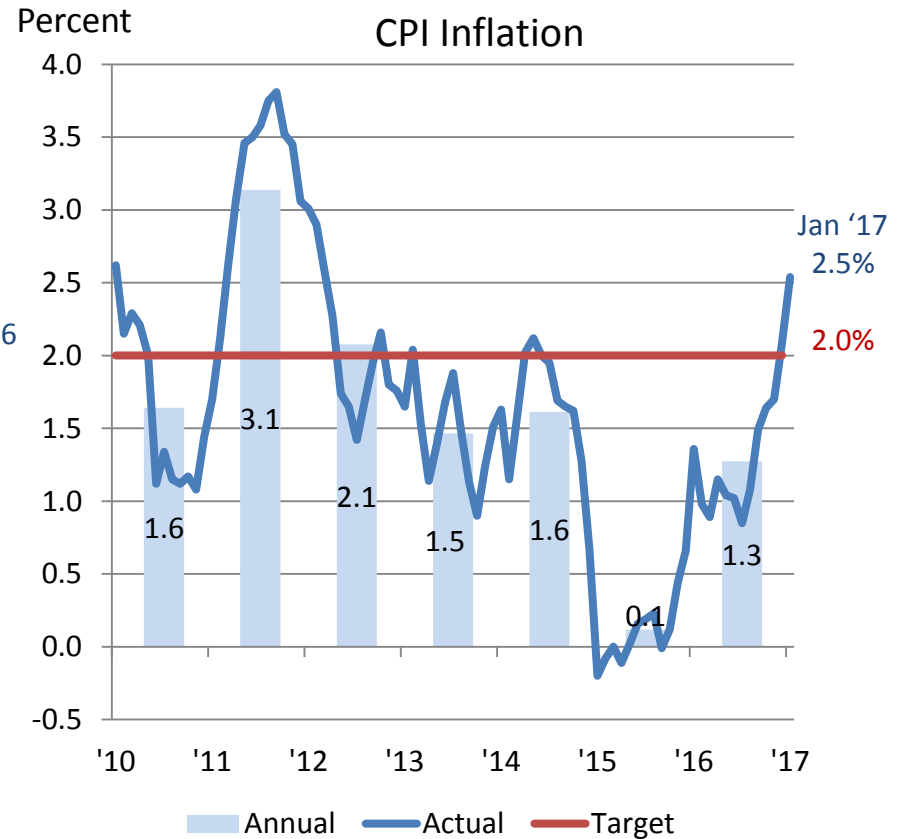
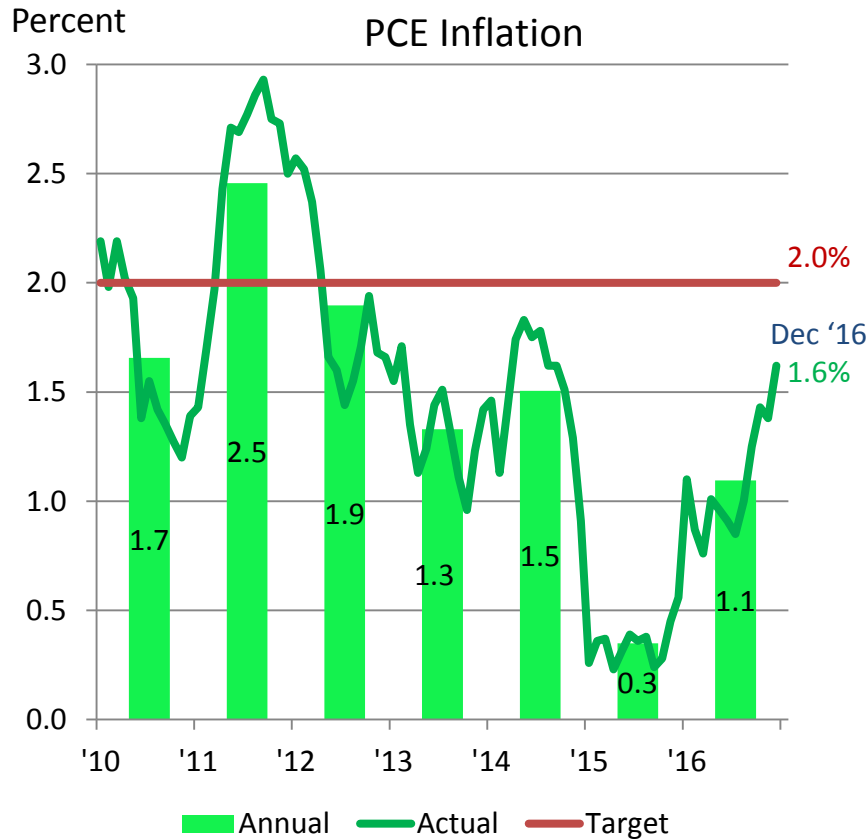
Monthly and Annual Average Job Change & Percent Unemployed



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

Unemployment Rate & PCE Inflation

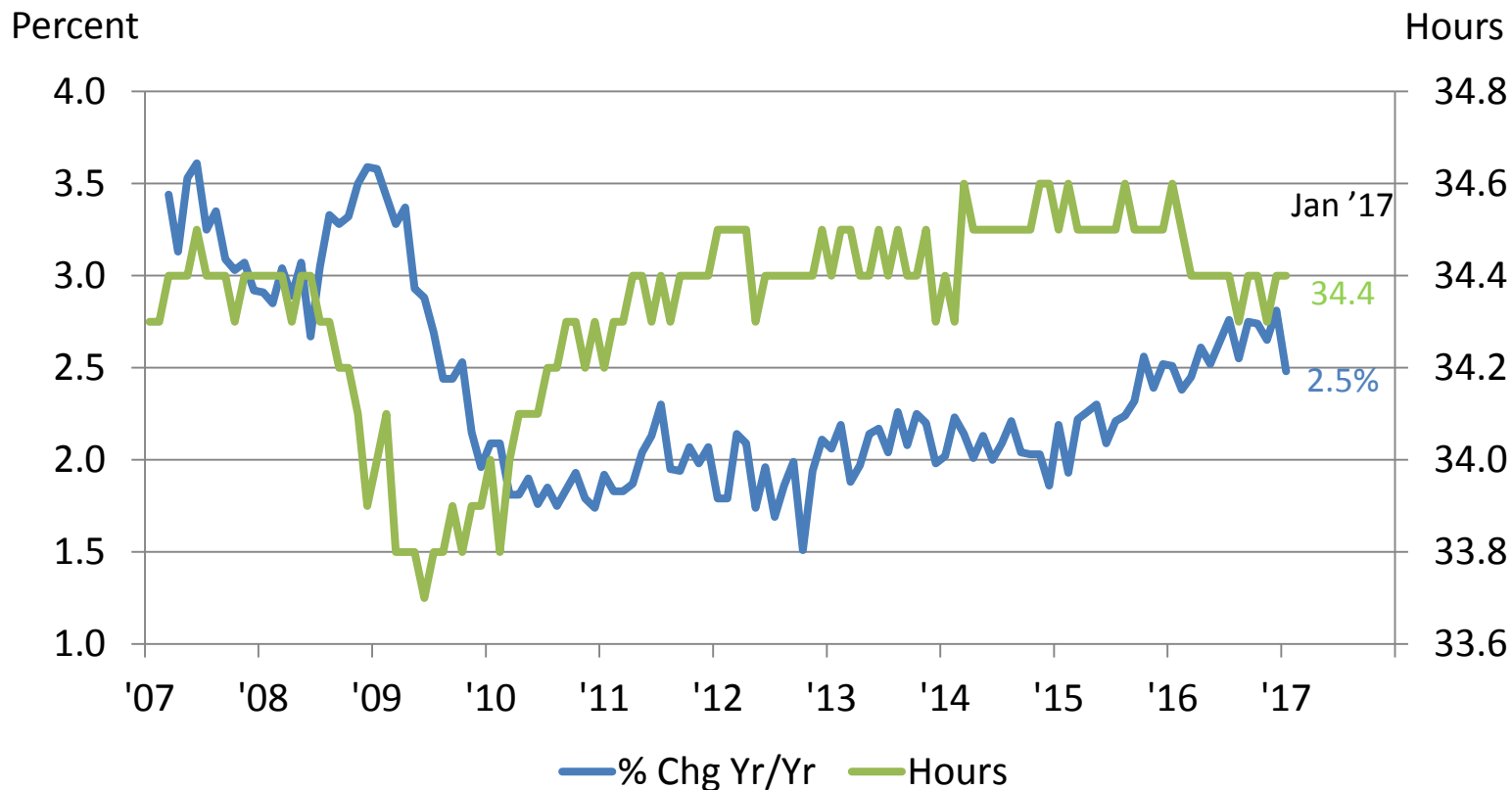
Percent Unemployed, PCE % Change Yr./Yr.



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

Wage Growth and Hours

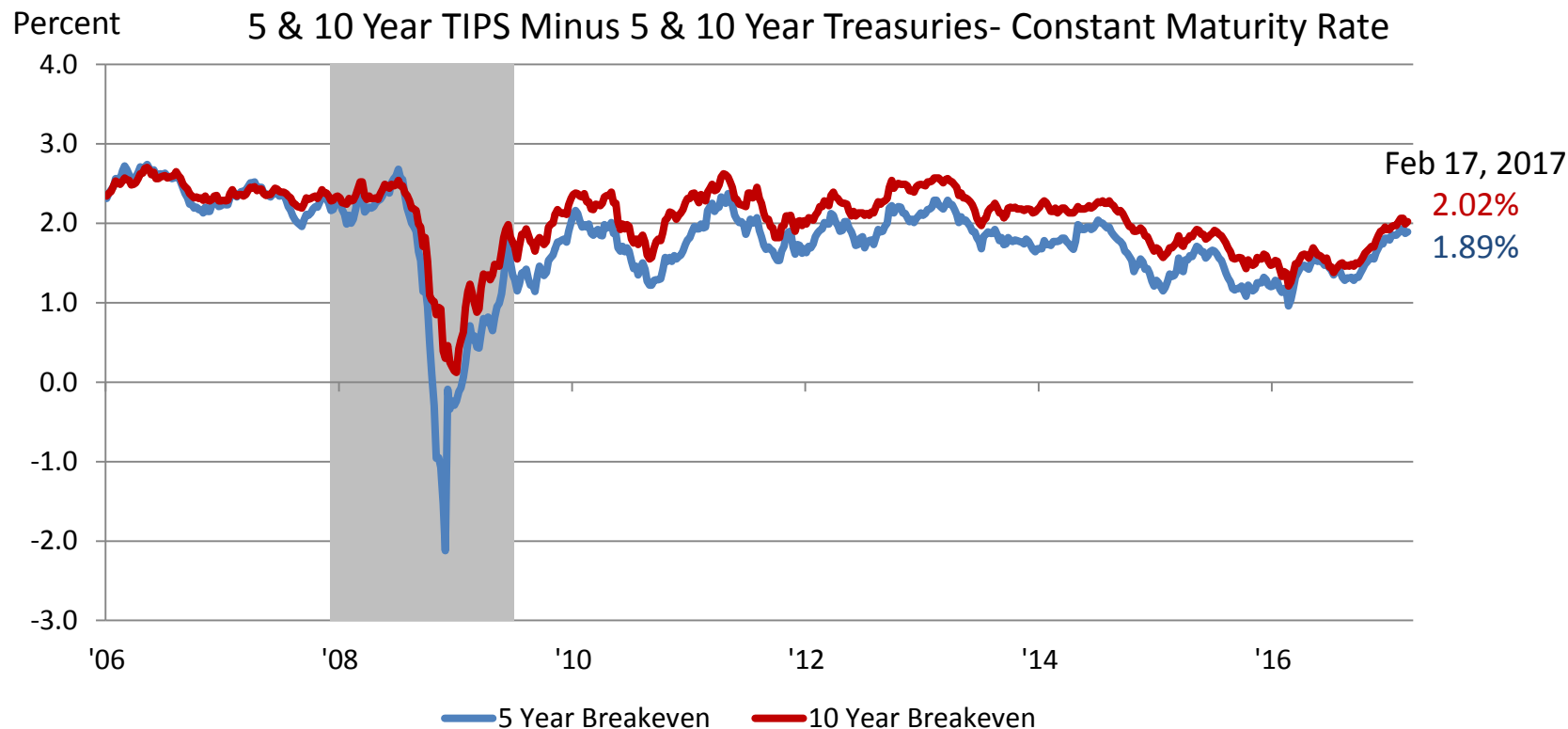
Average Hourly Earnings Total Private - Percent Change Yr./Yr.



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

Inflation Compensation

5 Year and 10 Year Inflation Expectations

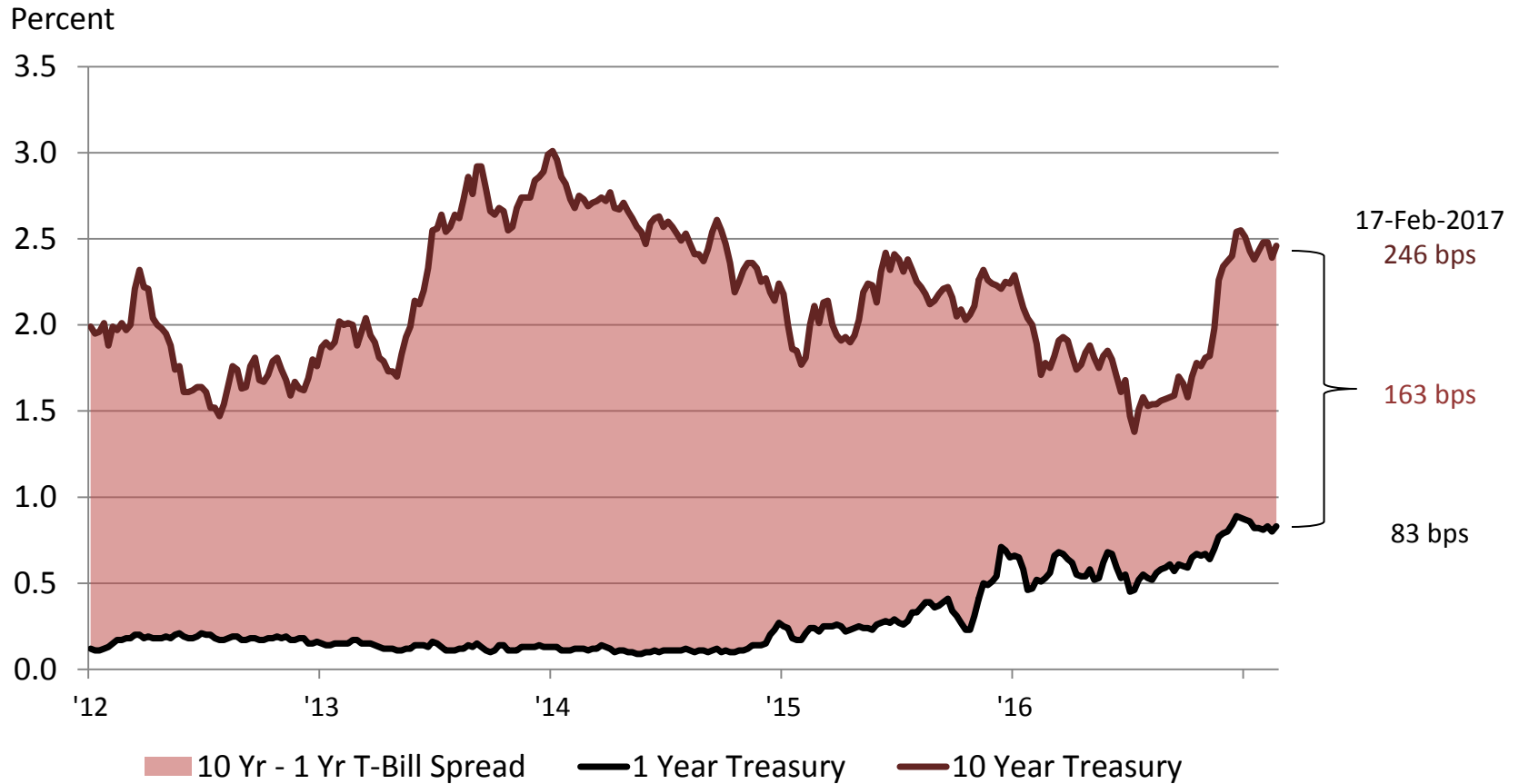


Source: Author's calculation using Federal Reserve System data.

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

Yield Curve

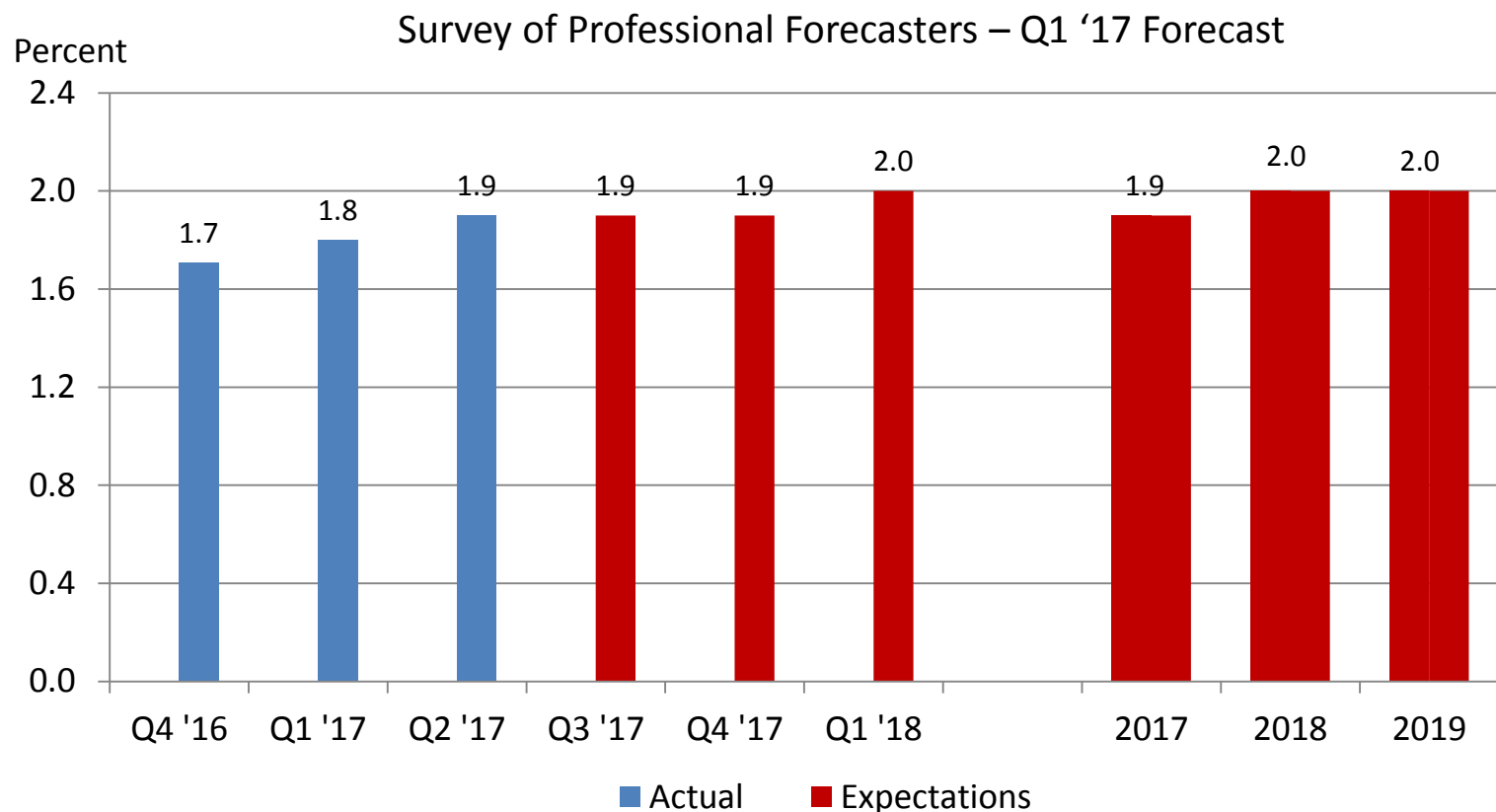
10 Year – 1 Year Treasuries in Basis Points



Source: Board of Governors – Federal Reserve System

Inflation Expectations

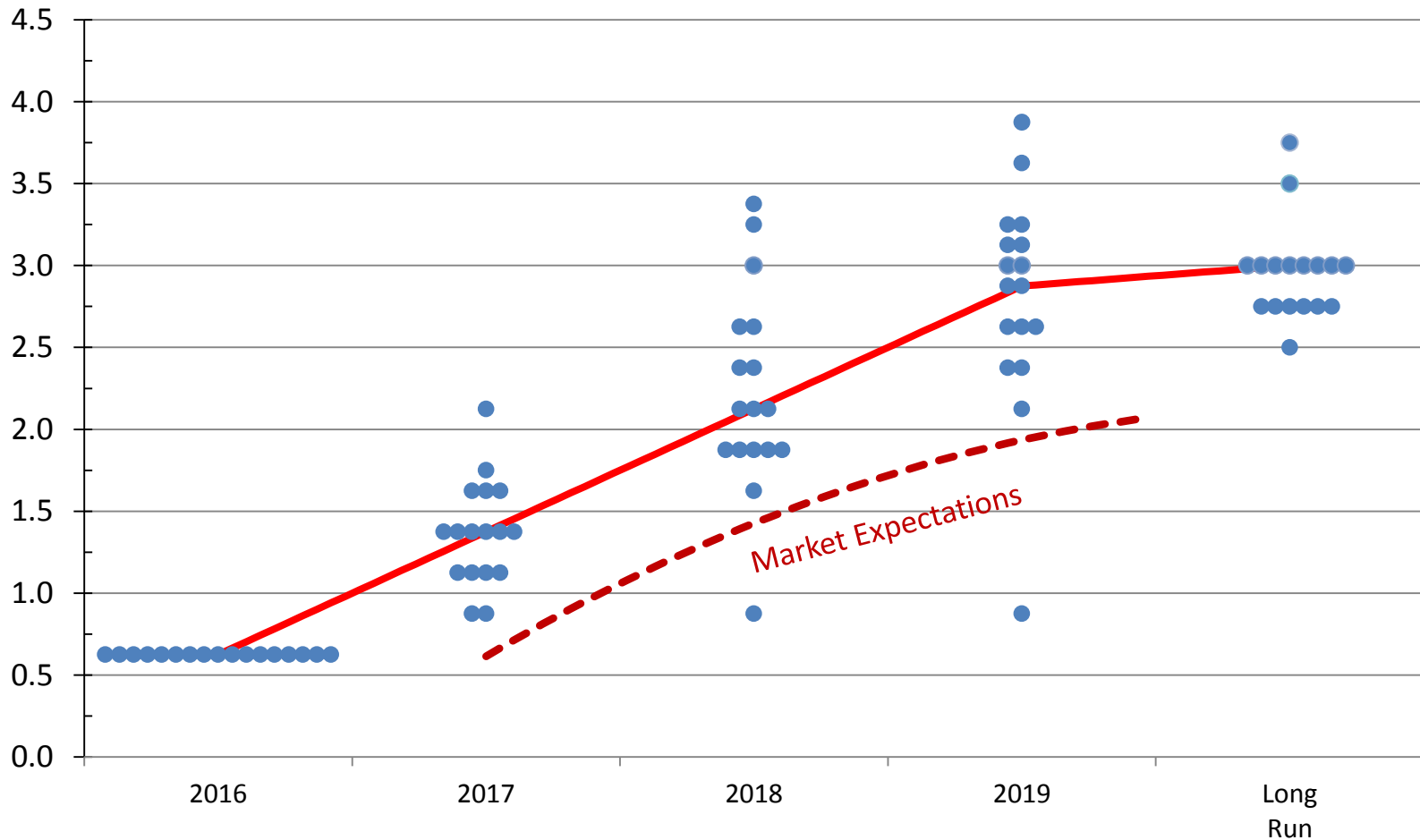
Headline PCE Inflation – Yr./Yr. & Q4/Q4



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

Appropriate pace of policy firming

Fed Funds Rate – Year End Projections



Michigan Economy

Main Economic Indicators

Michigan Data - Year-over-year Comparison

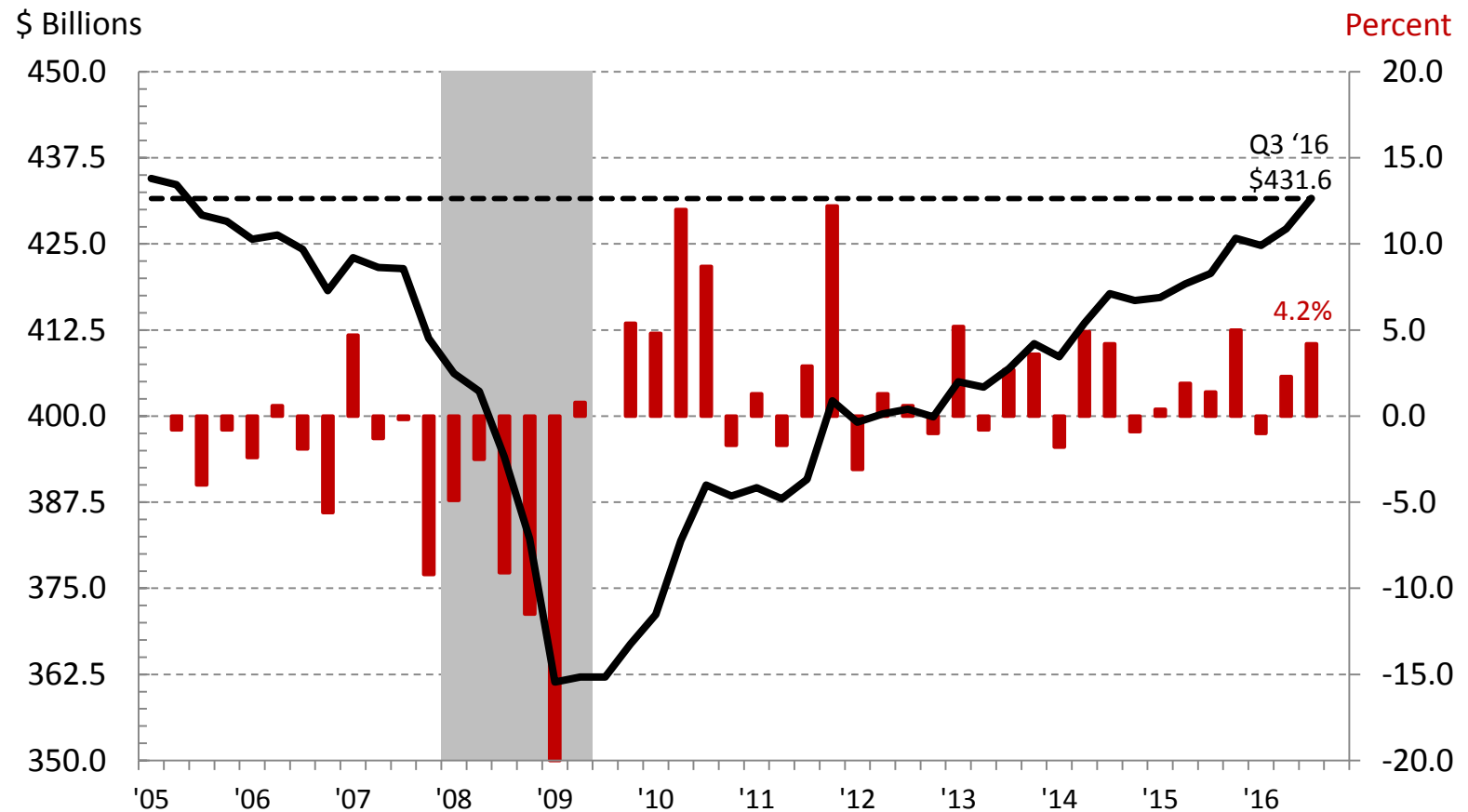
	<u>2014</u>	<u>2015</u>	<u>2016</u>
GSP – Annual Growth Rate ¹	1.9%	1.6%	1.8%
Unemployment Rate ²	7.1%	5.4%	4.7%
Participation Rate ²	60.5%	60.3%	61.3%
Nonfarm Job Growth ³	71.8	63.2	90.6
GSP Price Deflator Yr. / Yr. ⁴	1.6%	1.4%	1.7%

1. Year-over-year (2016 Q3 YTD Average)
2. Annual Average
3. Annual Average Employment – Year-over-year change in thousands
4. Annual Average – Percent change year-over-year

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

Michigan Real GSP

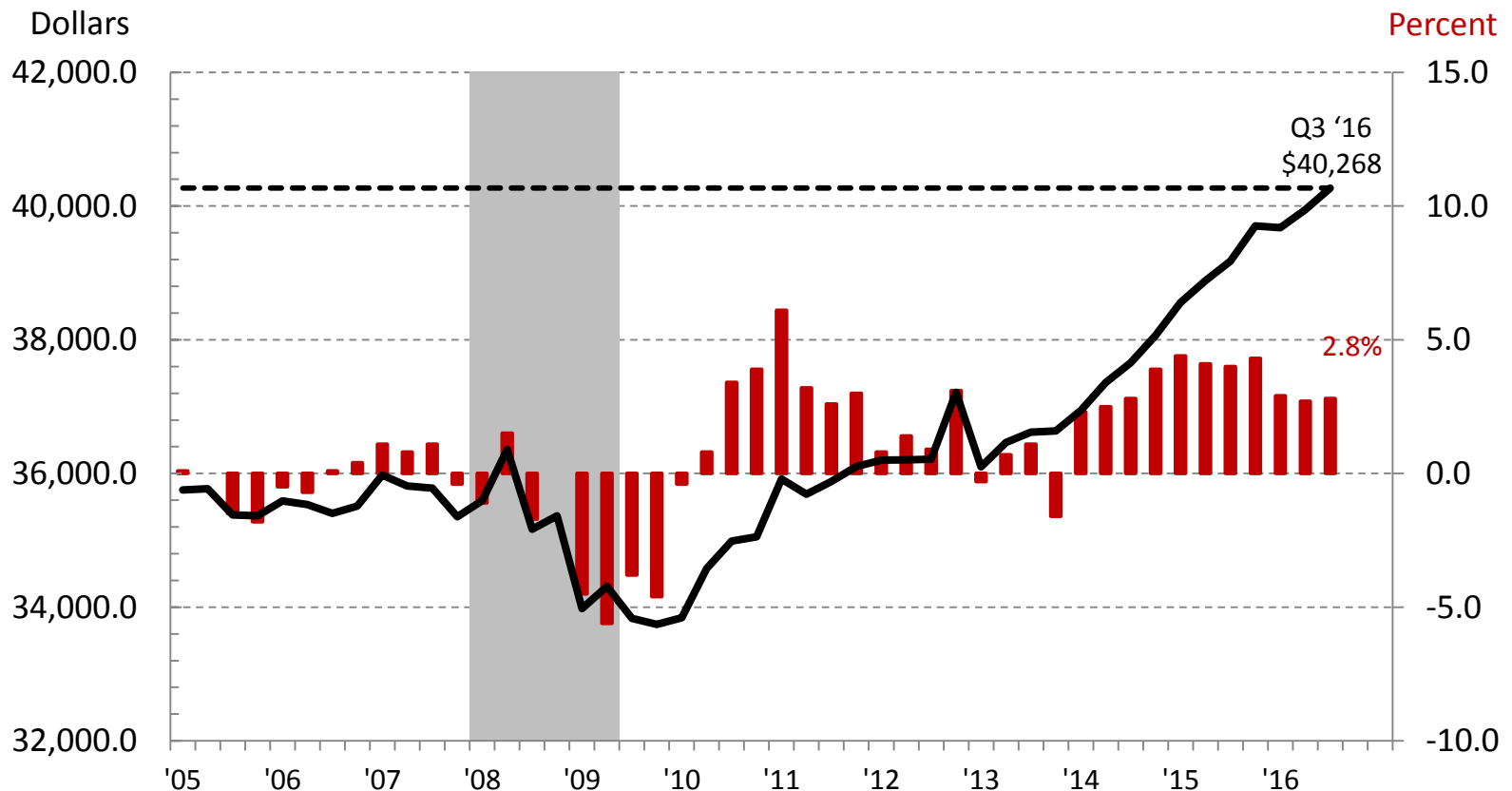
Total of Industries - Billions Chained \$2009, % Change Q/Q at SAAR



Source: U.S. Bureau of Economic Analysis

Real Per Capita Income

Real \$2009, % Change Yr./Yr.

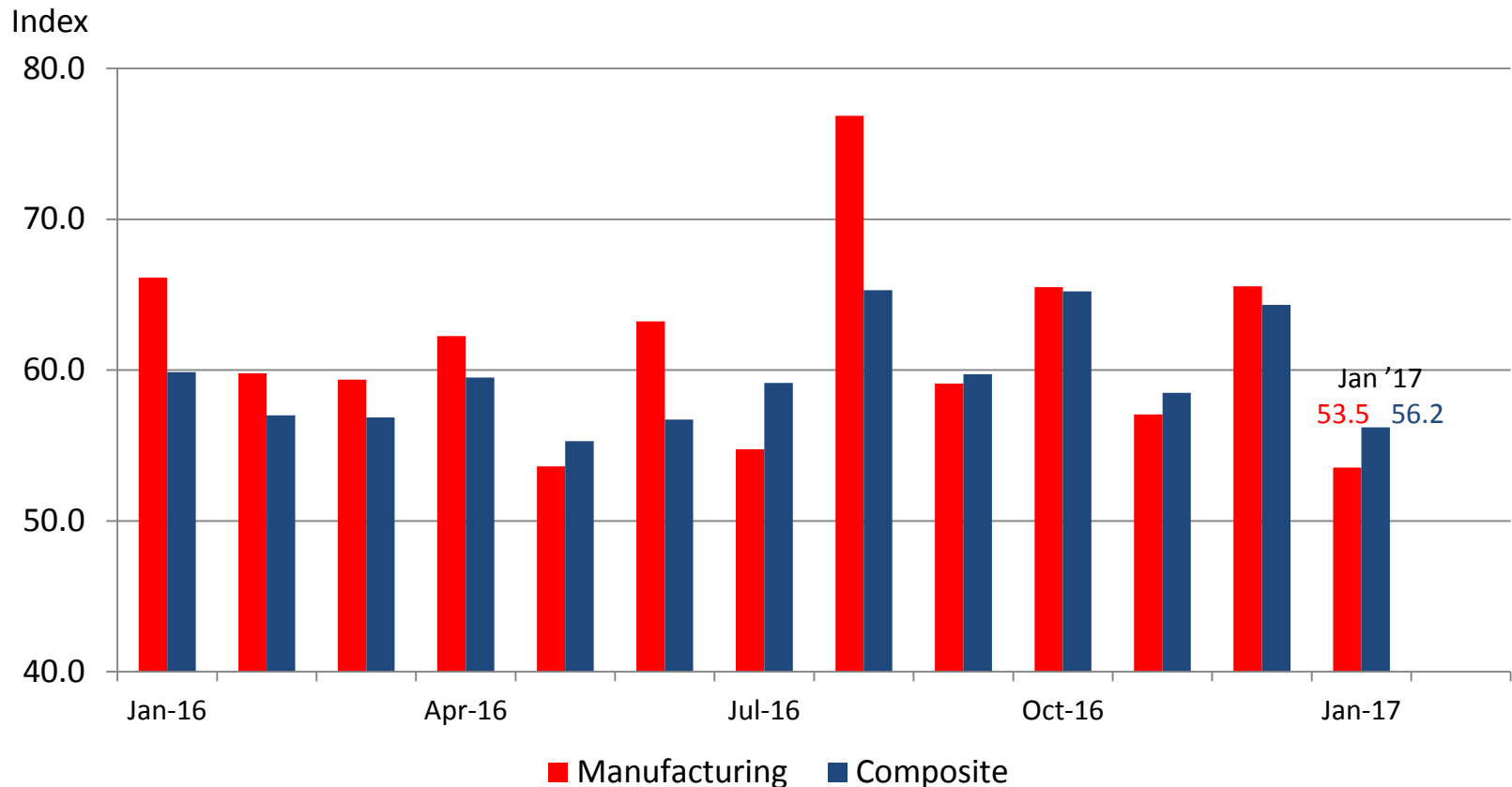


Note: U.S. Q3 '16 Per Capita Income was \$44,792.

Source: U.S. Bureau of Economic Analysis

ISM Purchasing Managers Index

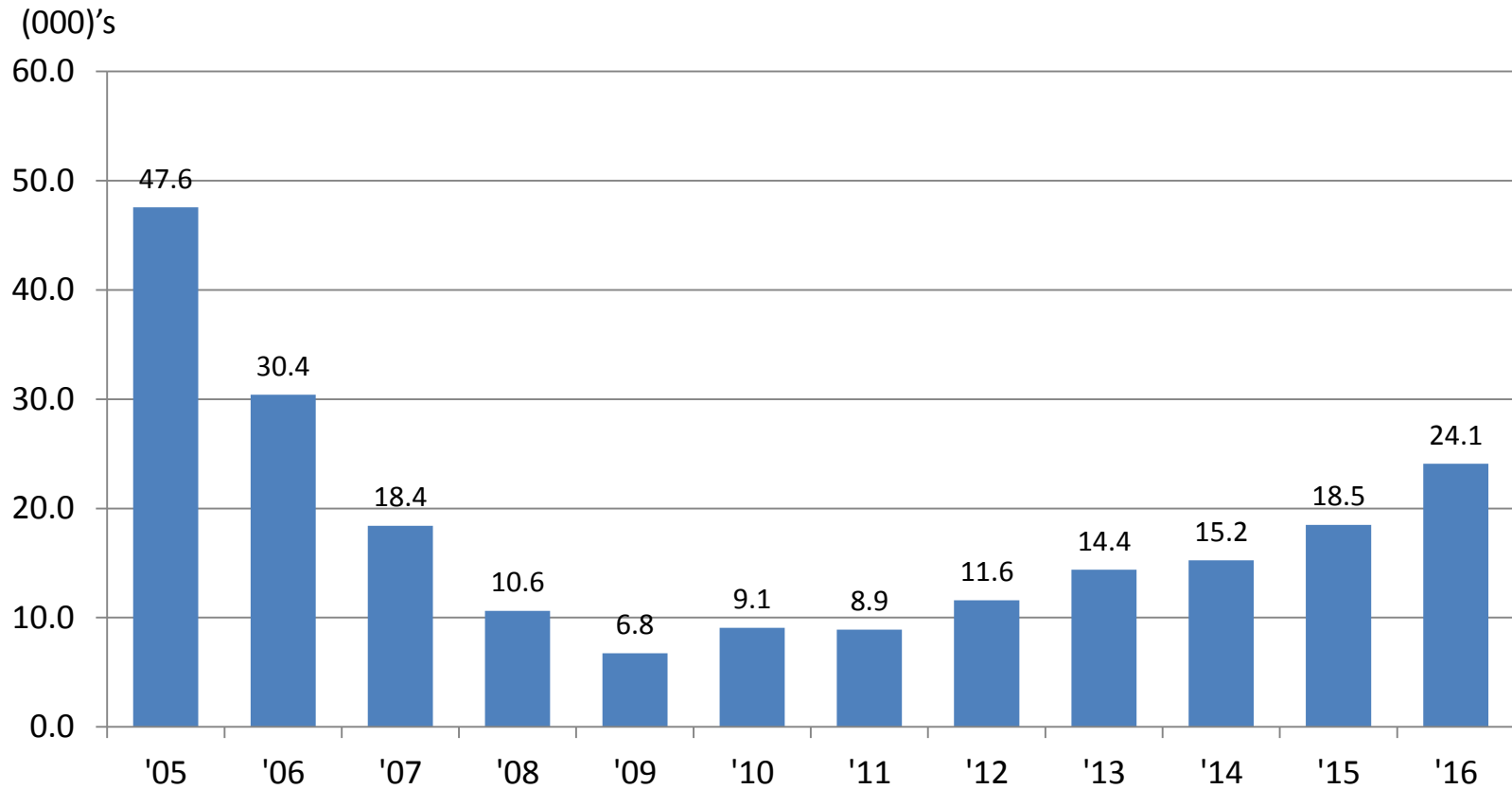
SE Michigan Manufacturing and Composite, SA - Greater than 50 = Expansion



Source: Institute for Supply Management , Haver Analytics and FRED

Michigan Housing Starts

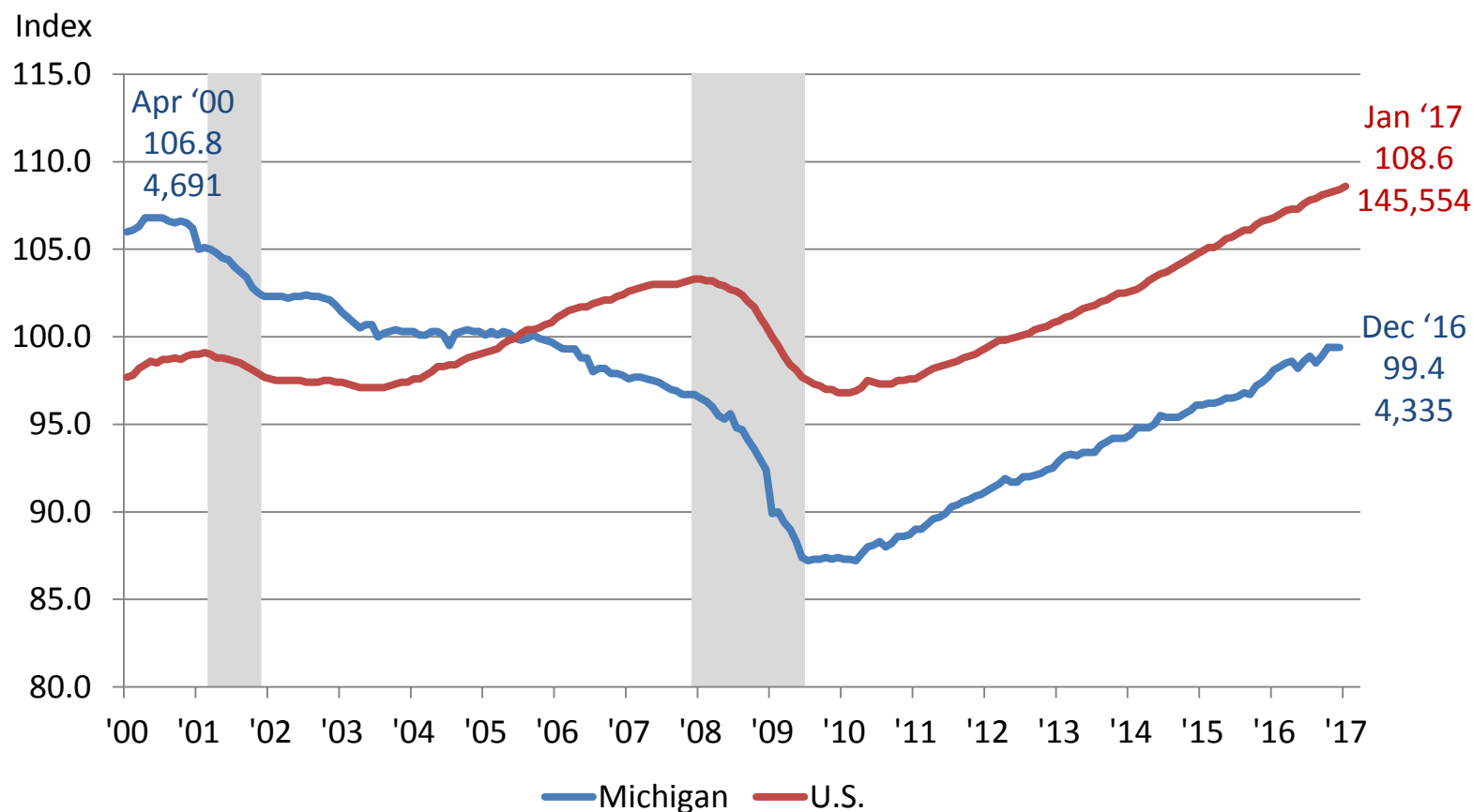
In Thousands of Units



Source: U.S. Census Bureau

Michigan & U.S. Nonfarm Employment

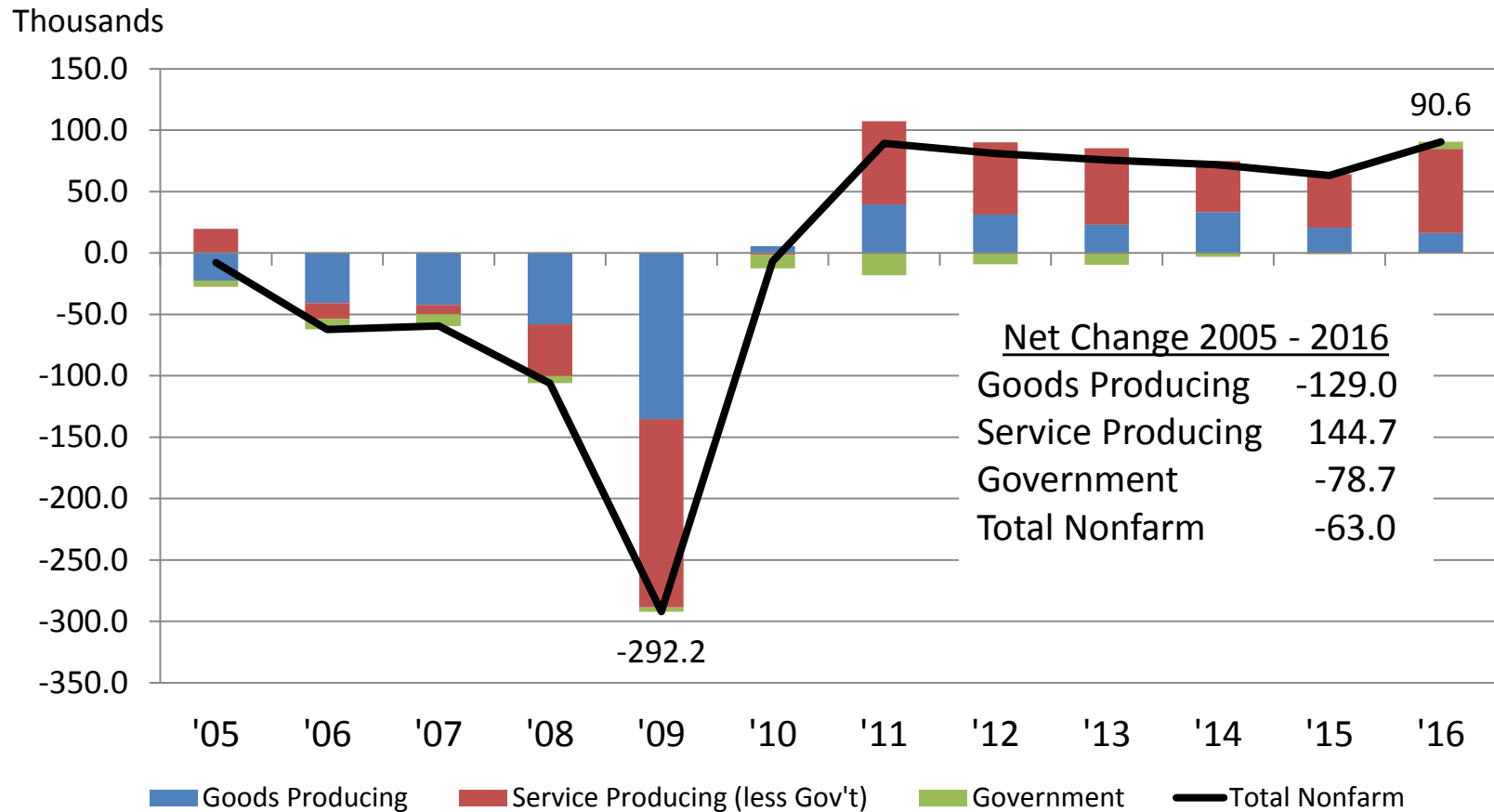
Index 2005 = 100, Thousands of Jobs



Source: U.S. Bureau of Labor Statistics

Nonfarm Employment

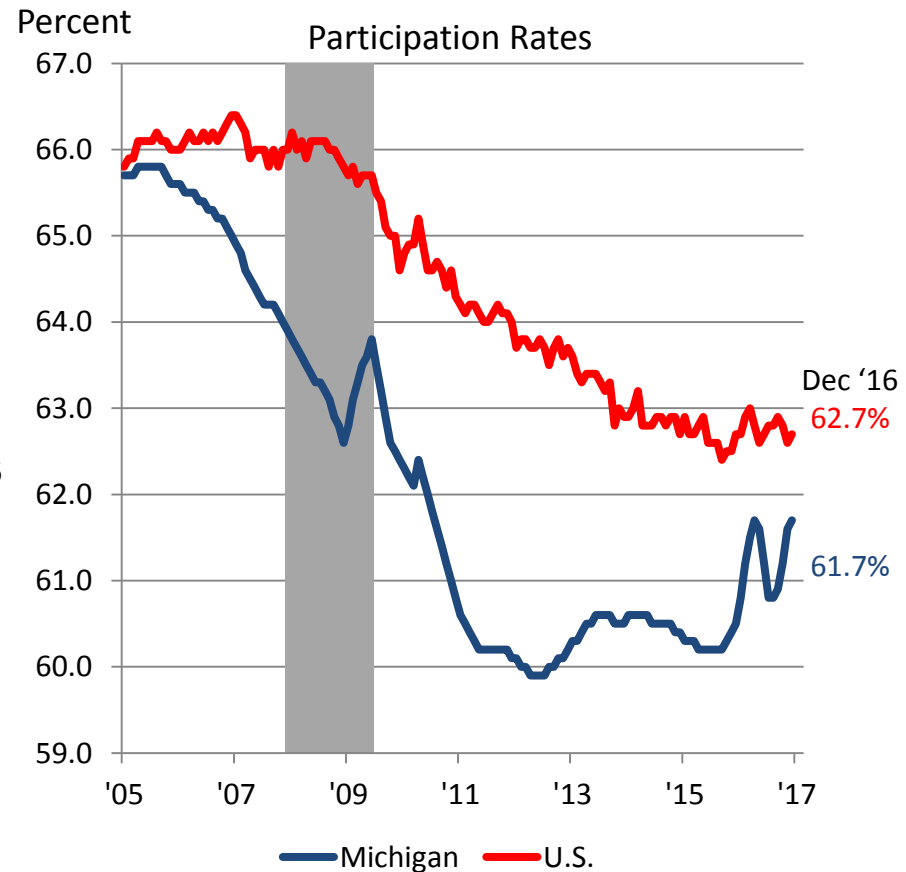
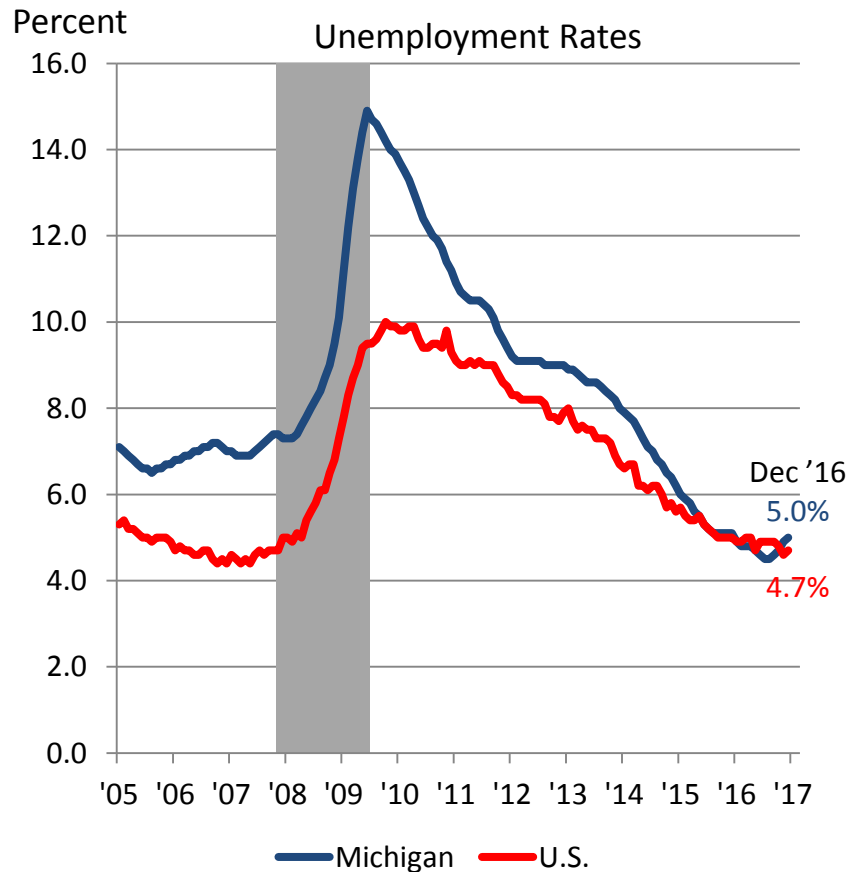
Employment Change, Yr./Yr. and Contribution by Super Sector



Source: U.S. Bureau of Labor Statistics

Unemployment & Participation Rates

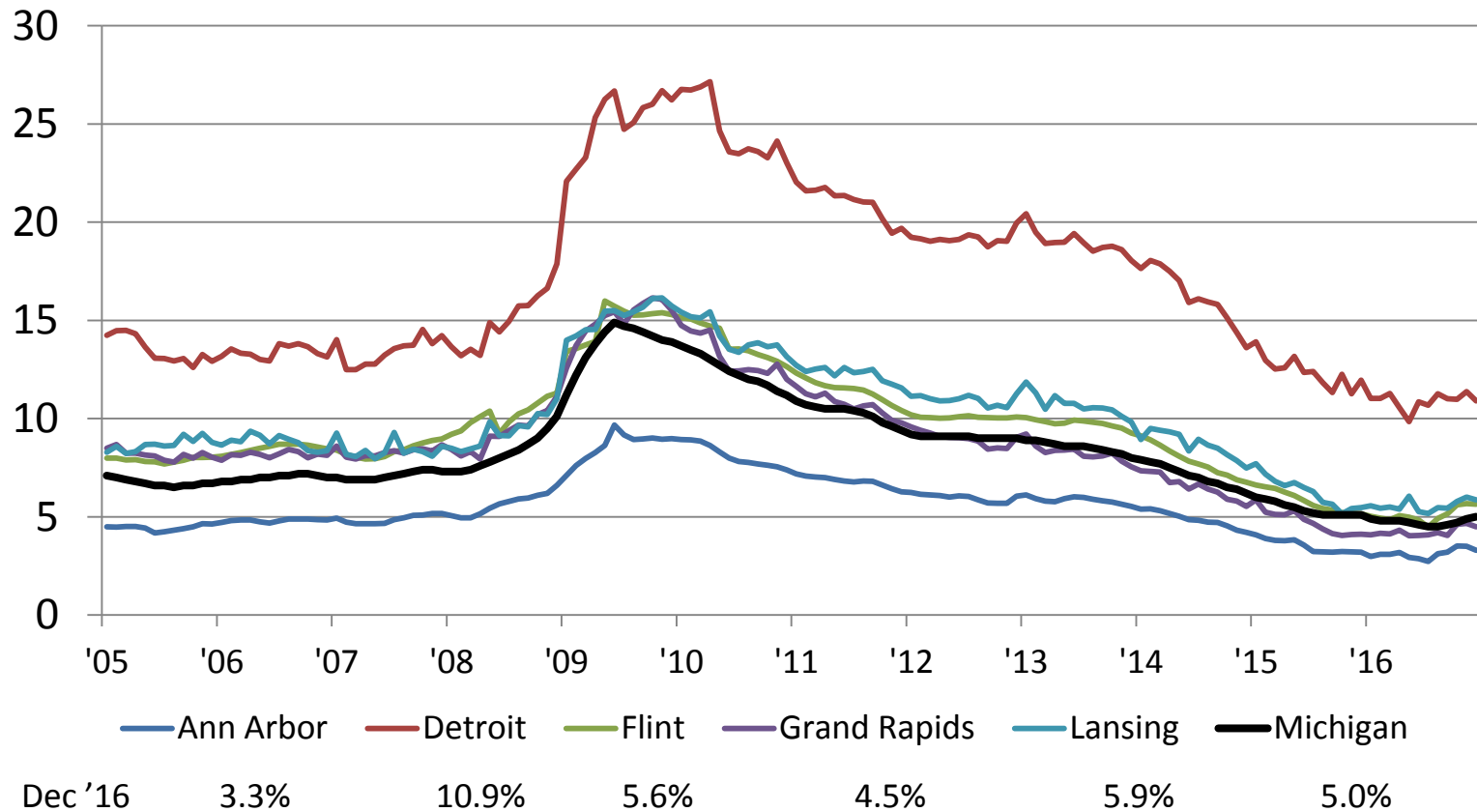
Percent of Labor Force - SA



Source: U.S. Department of Labor: Bureau of Labor Statistics and Haver Analytics

Unemployment by Select Areas

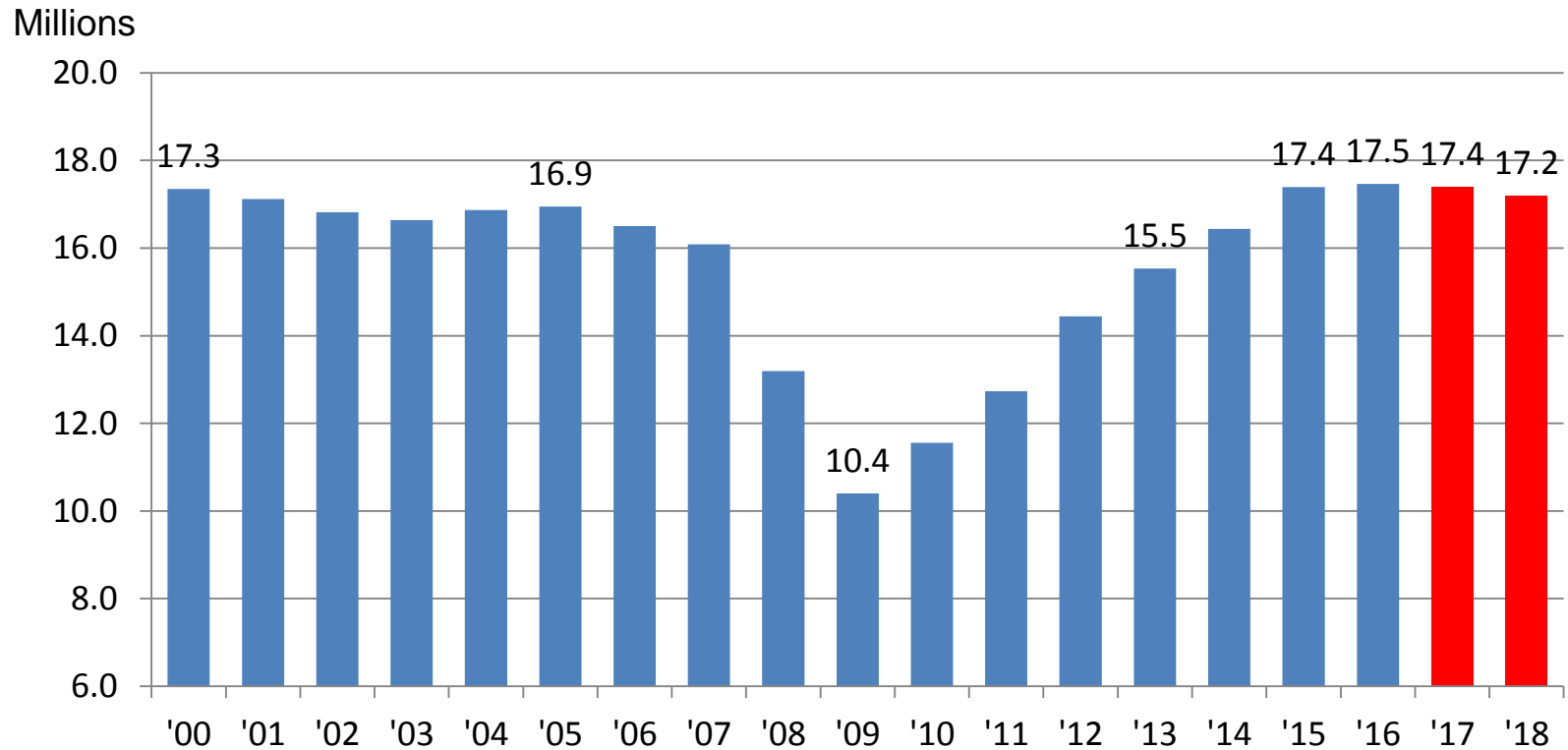
Percent of Labor Force - SA



Source: U.S. Department of Labor: Bureau of Labor Statistics and Haver Analytics

U.S. Light Vehicle Sales

Millions of Units

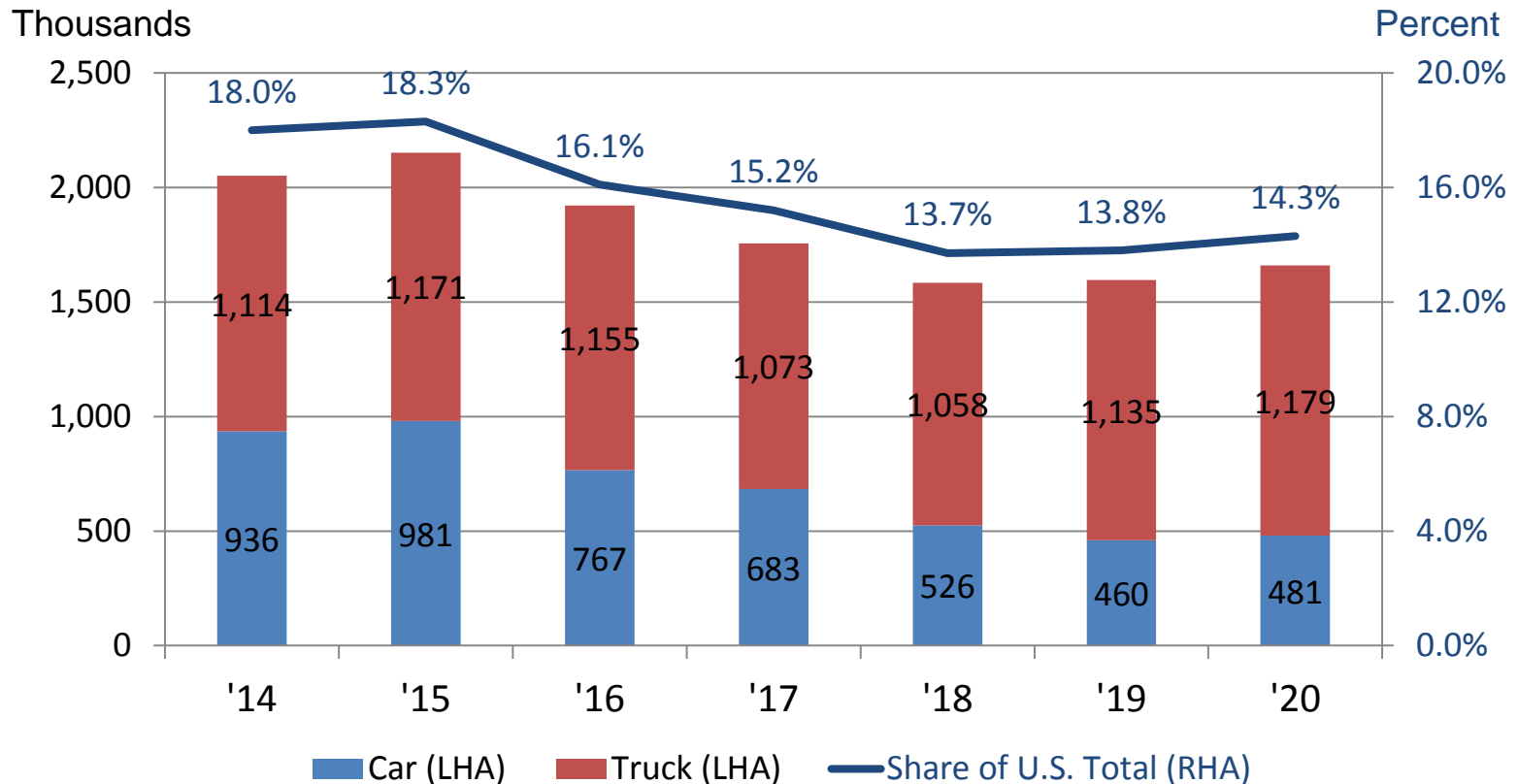


Note: Total 2016 Light Vehicle Sales: 17,465,020 / Including M/H: 17,866,260.

Source: Ward's Automotive and BEA

Michigan Light Vehicle Production

Thousands of Units



Thank You!

