



Economic Update

2020 Automotive Outlook Webinar

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The views expressed here are our own and do not necessarily reflect the views of the Federal Reserve Bank of Chicago, the Federal Open Market Committee (FOMC) or the Federal Reserve System.

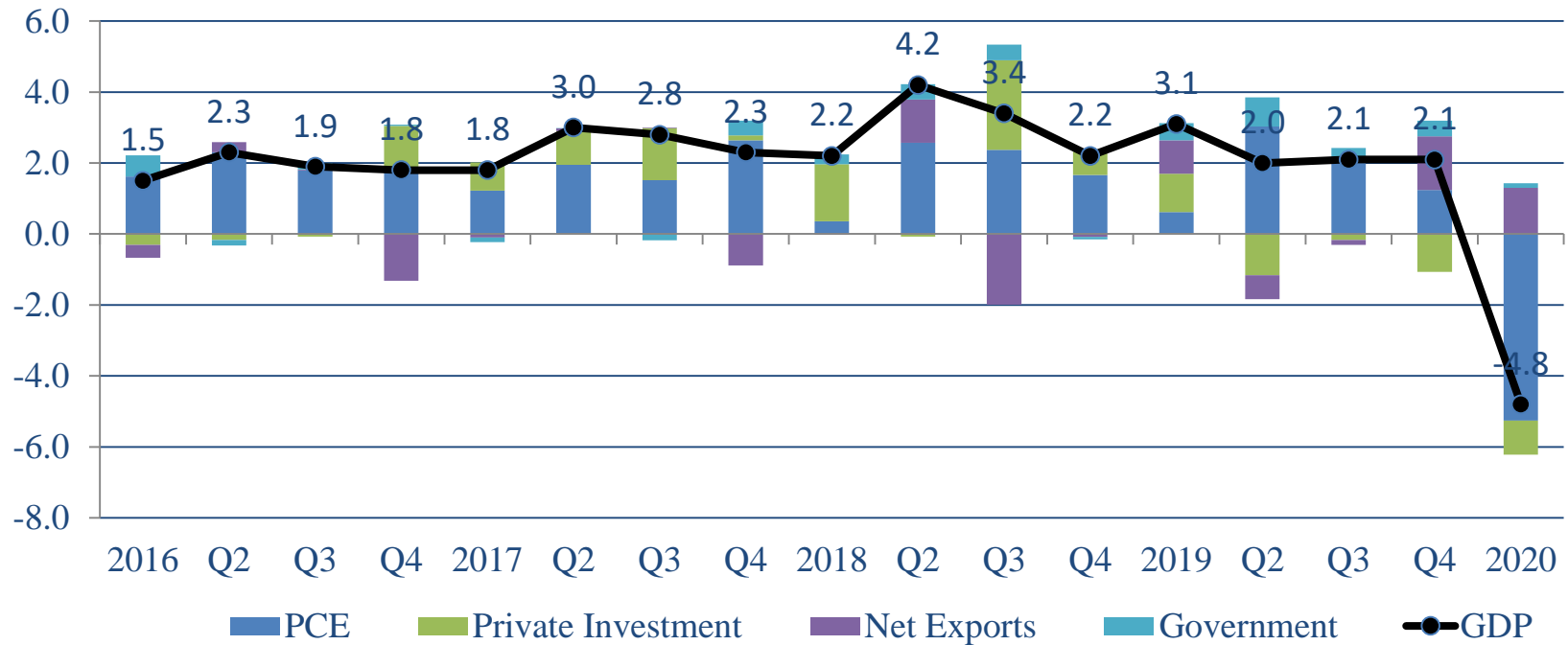
Overview

- **Real GDP for the U.S. fell 4.8% in Q1 2020 and a SAAR Basis, the largest quarterly decline since Q4 2018 with declines in Personal Consumption Expenditures and Private Domestic Investment being somewhat offset by contributions from Net Exports and Government Consumption and Investment.**
- **University of Michigan's April release of its Index of Consumer Sentiment had its largest single month decline since October 2008 falling to its lowest level since November 2011 on fears of a worsening economy.**
- **Business fixed investment declined 5.6% in Q1 2020 with nonresidential investment falling 8.6%, its largest decline since Q2 2009, while residential investment increased 21.0% on a SAAR basis.**
- **The U.S. trade deficit fell by \$83 billion as imports declined 15.3% while exports declined just 8.7%**
- **Labor markets suffer their largest declines in history as over 26 million workers filed unemployment claims in just five weeks and inflation remains below the Fed's target of 2.0%.**

U.S. Real GDP

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

Percent



Contributions Q1 2020

-5.26%

-0.96%

1.30%

0.13%

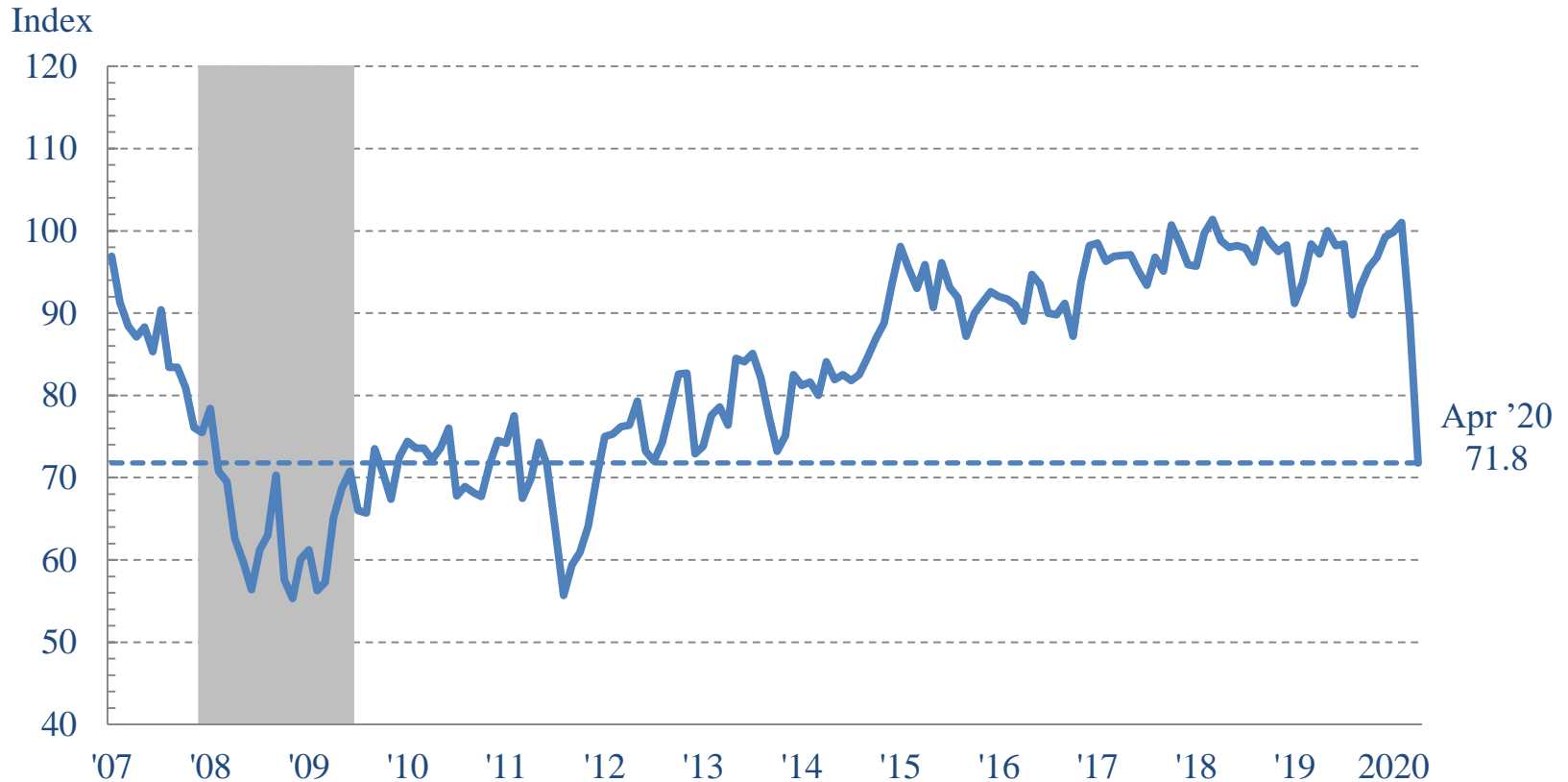
-4.8%

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

Source: U.S. Bureau of Economic Analysis.

Consumer Sentiment

University of Michigan



Source: Thomson Reuters / University of Michigan

Real Disposable Personal Income

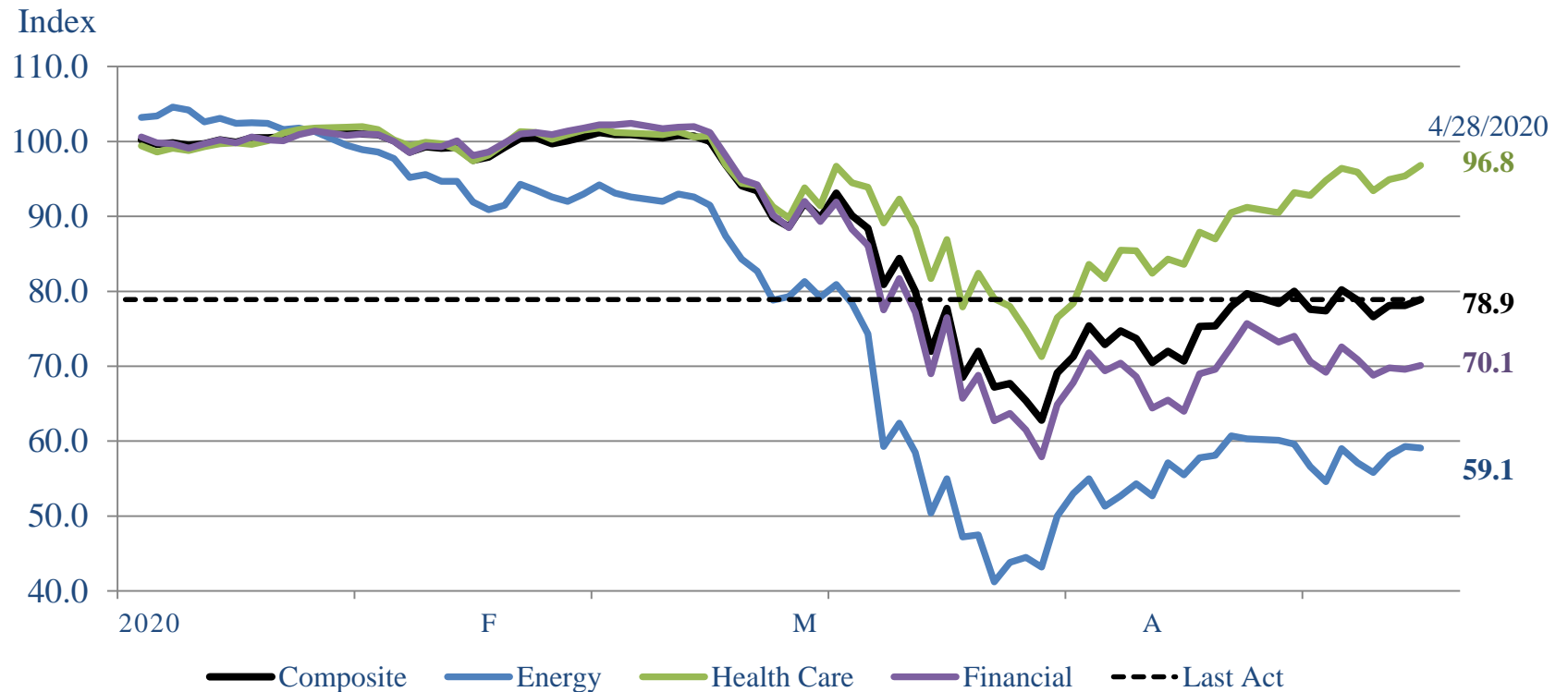
In Billions of Chained 2012 Dollars - Percent Change Yr./Yr.



Source: Bureau of Economic Analysis.

Stock Market

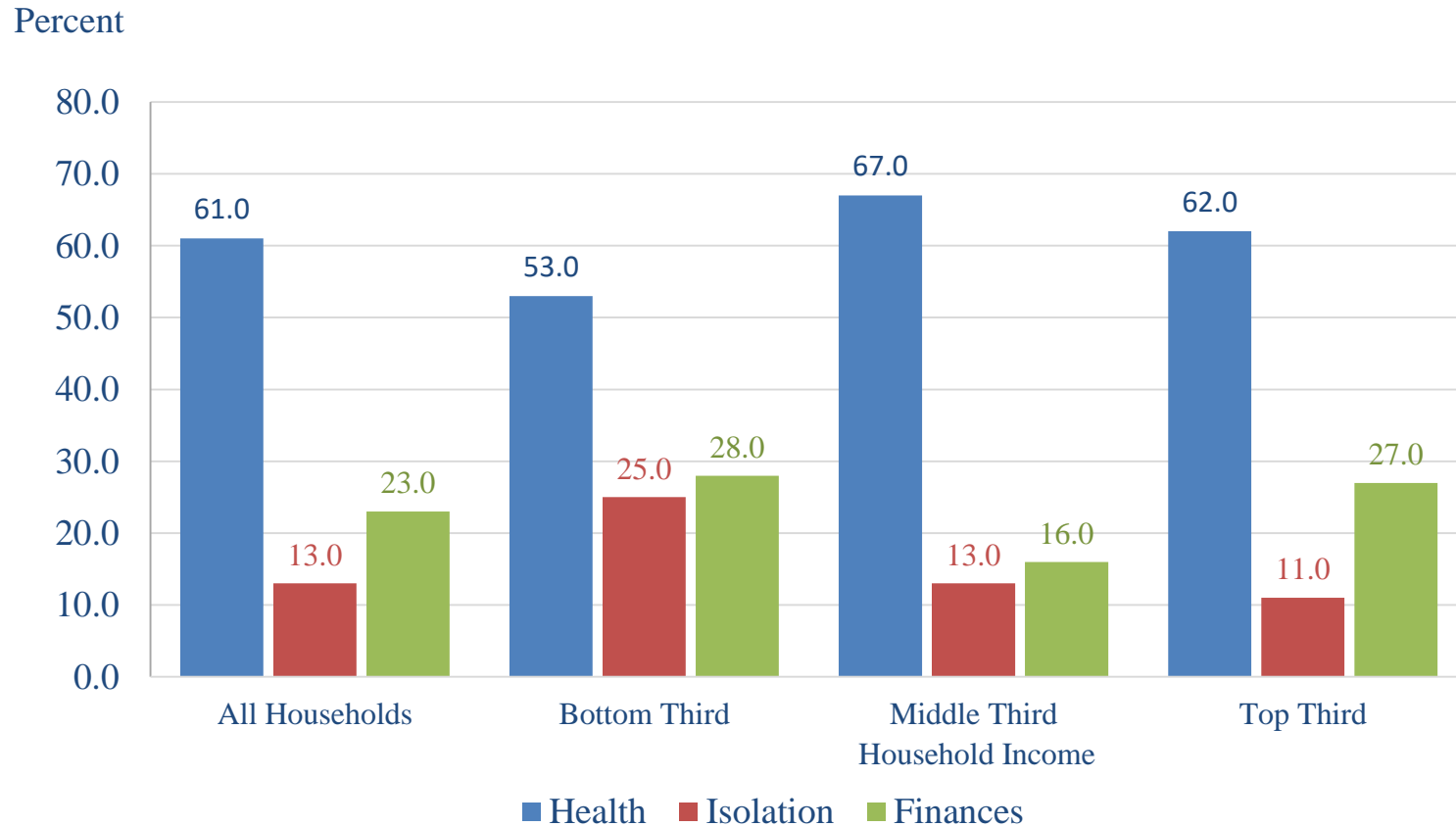
NYSE Stock Price Index, Daily Close - January 2020 = 100



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

Restoring Consumer Confidence

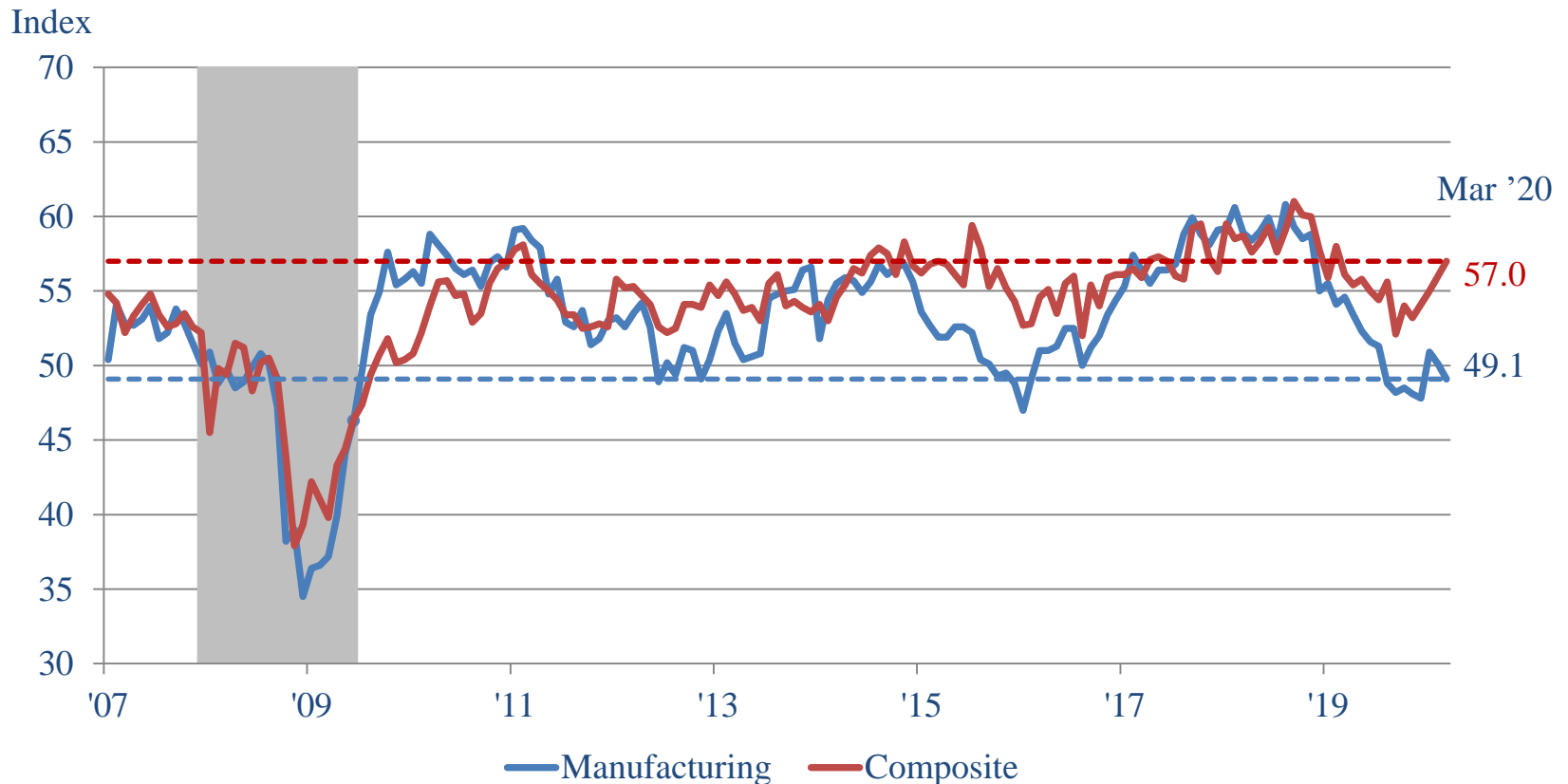
University of Michigan



Source: Thomson Reuters / University of Michigan

Purchasing Managers Index

ISM Manufacturing and Composite Indexes



Note:

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

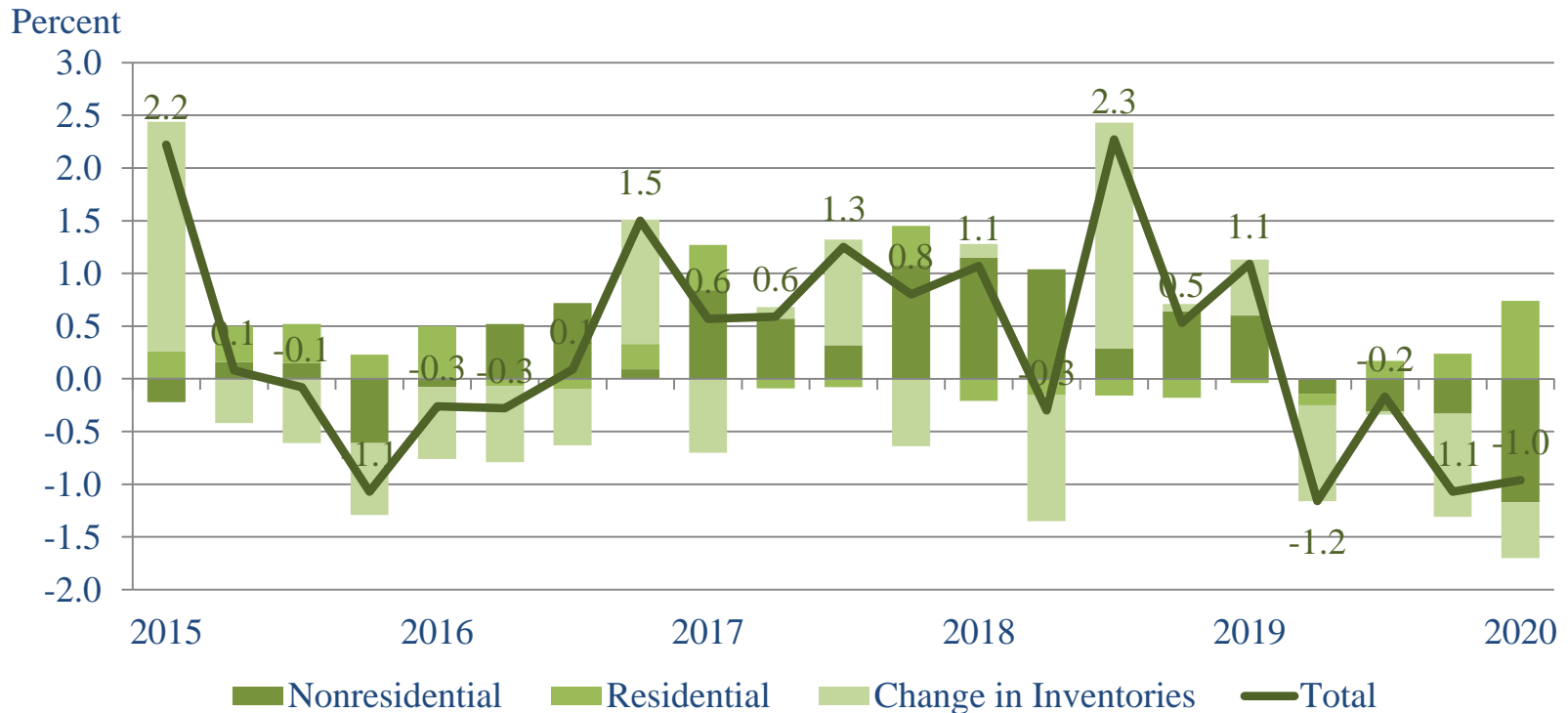
Source: Institute for Supply Management, Richmond Federal Reserve, and Haver Analytics.

April 30, 2020

Federal Reserve Bank of Chicago

Real Gross Private Domestic Investment

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



Contributions Q2 2019

-1.17%

0.74%

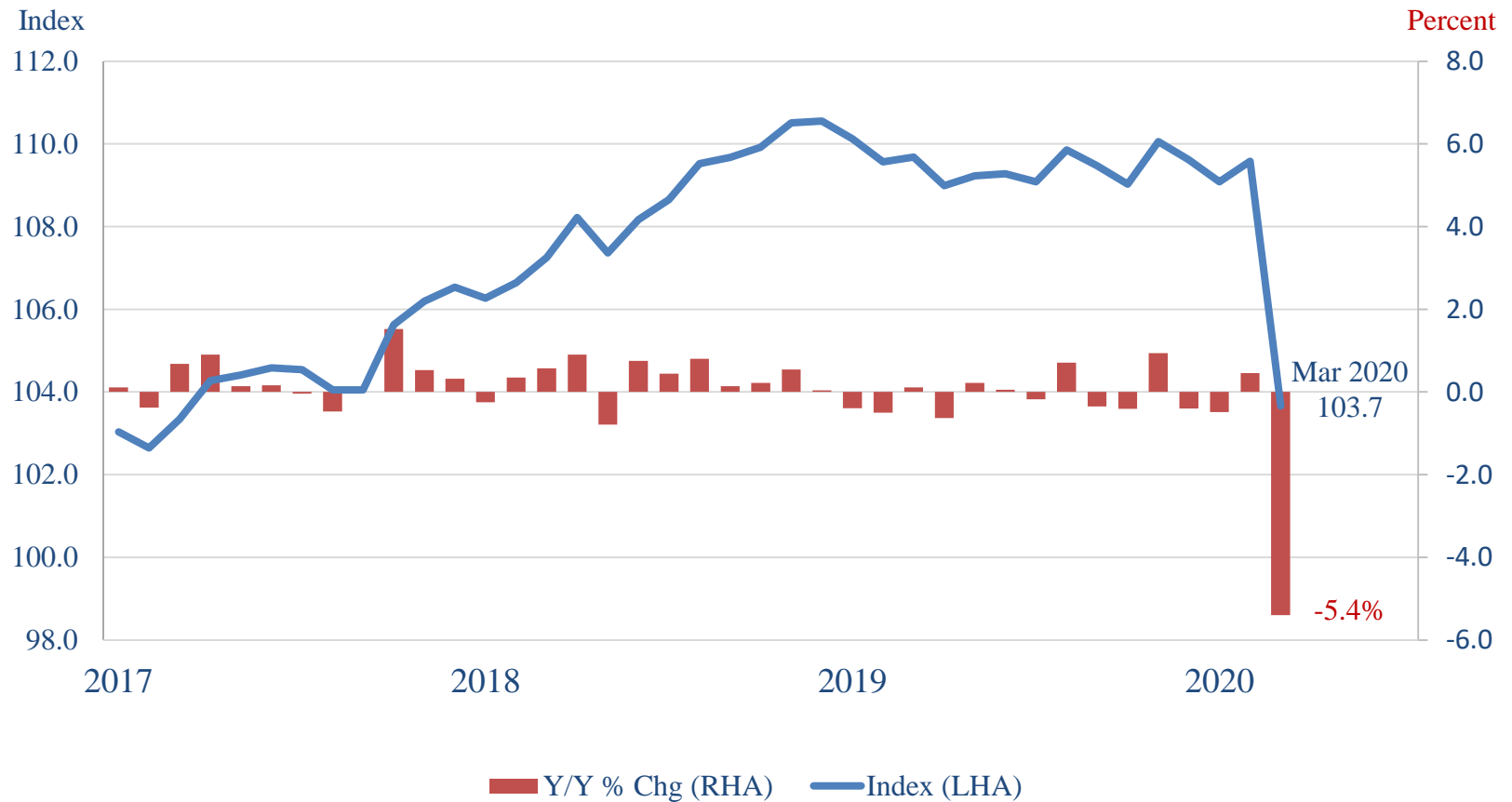
-0.53%

-0.96%

Source: U.S. Bureau of Economic Analysis

Industrial Production - Total

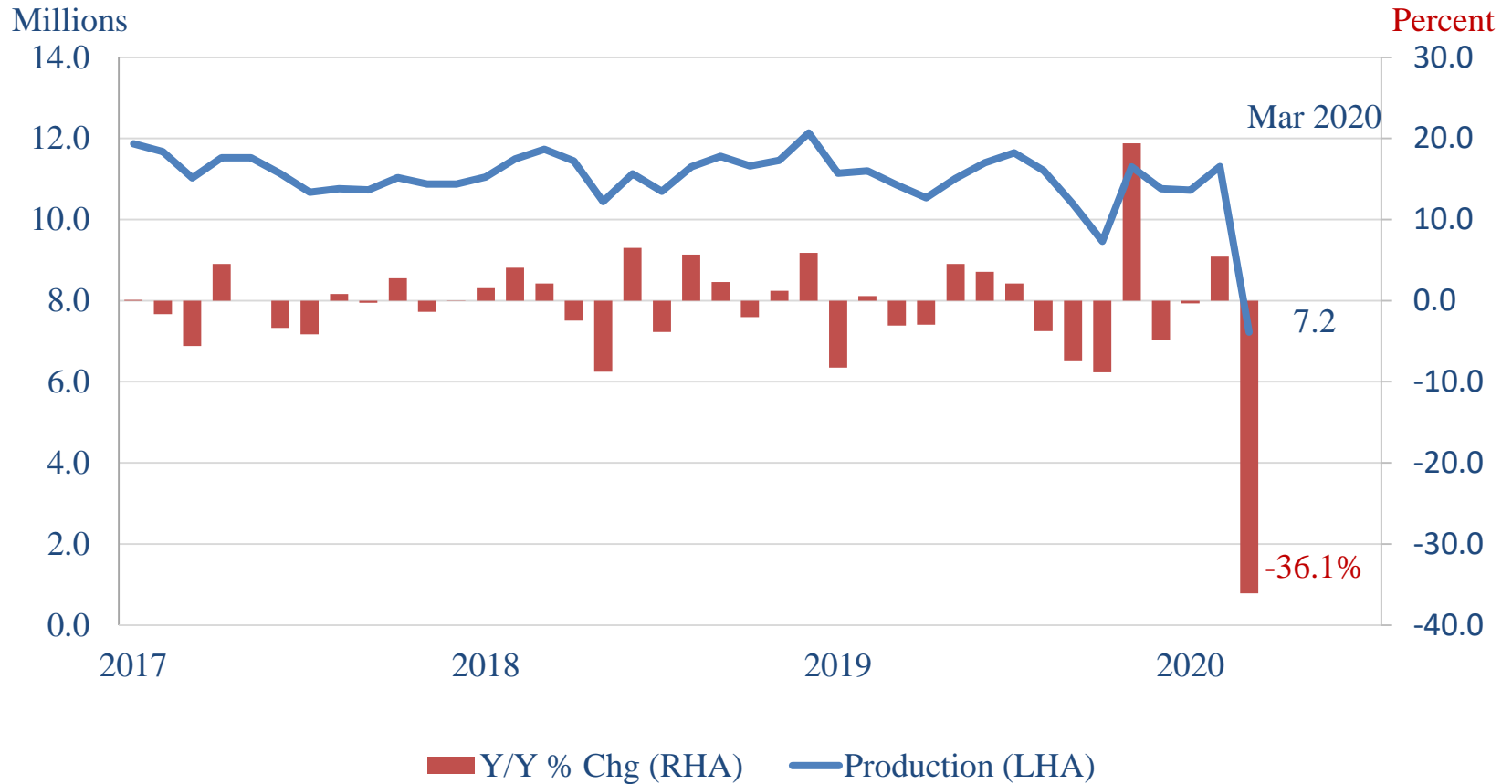
Index 2012 = 100 & Percent Change M/M



Source: Federal Reserve Board

Industrial Production - Automotive

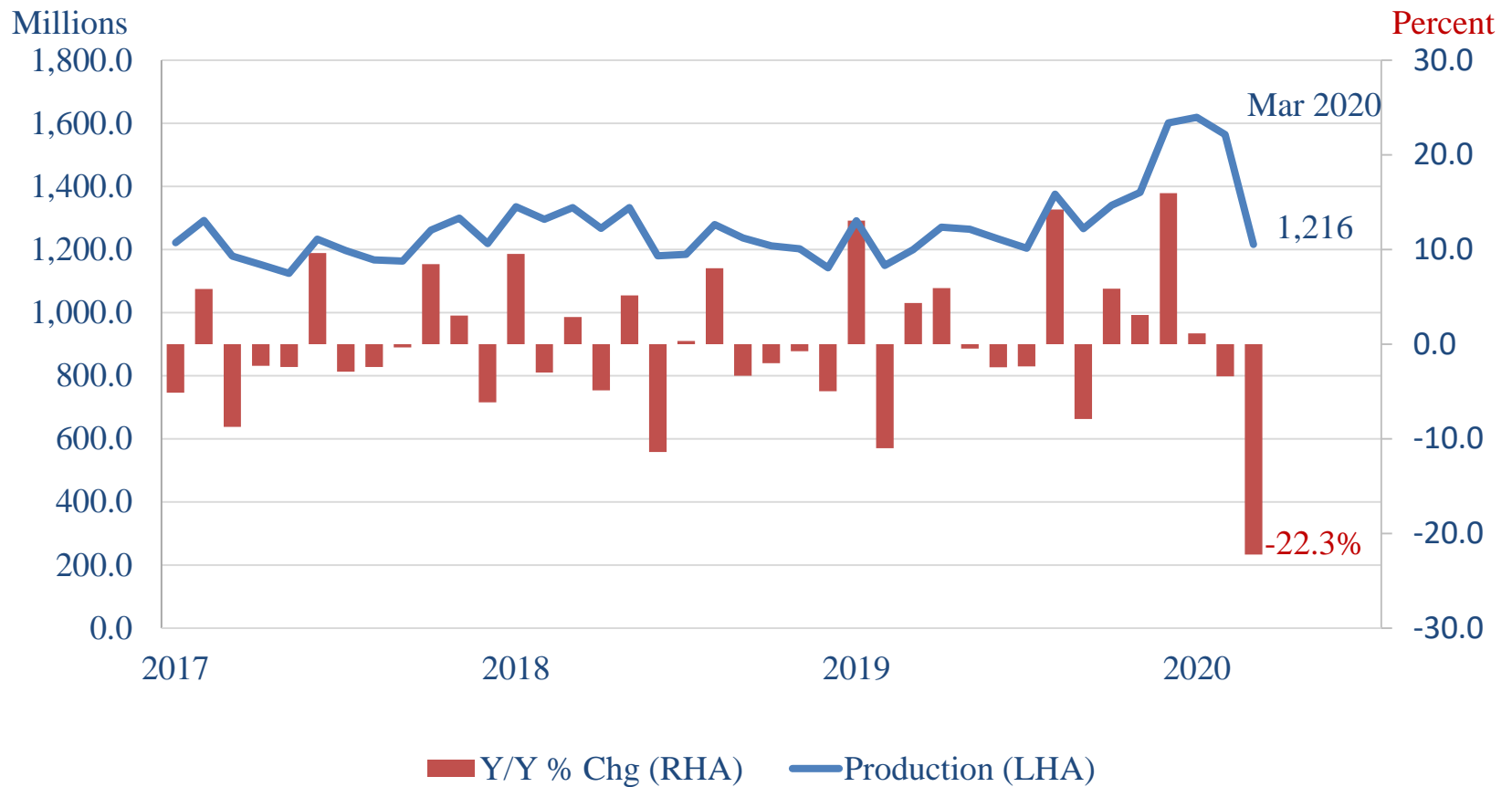
Millions of Units – SAAR & Percent Change M/M



Source: Federal Reserve Board

Housing Starts

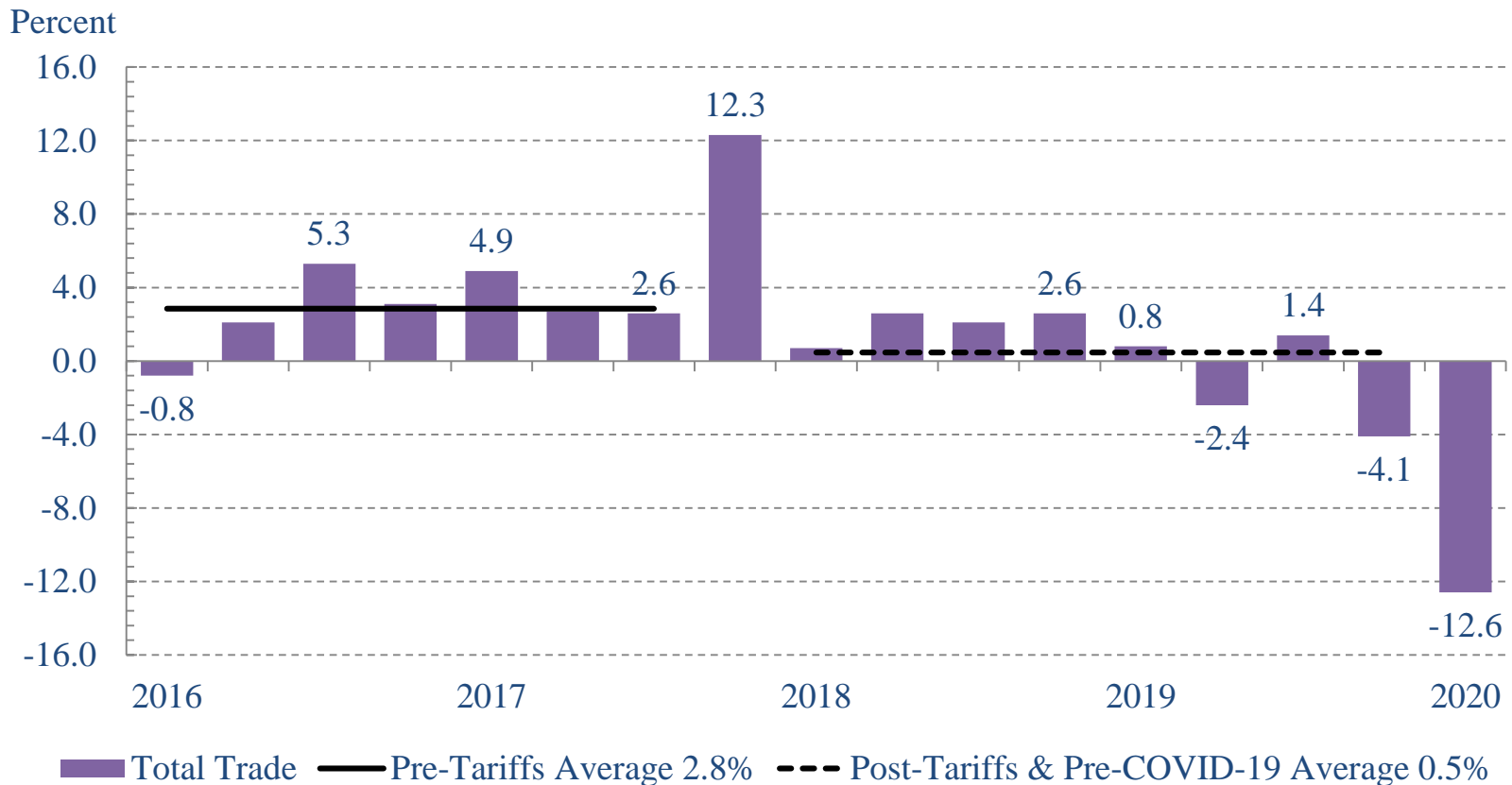
Thousands of Units – SAAR & Percent Change M/M



Source: U.S. Census Bureau

Total Real Trade - Imports and Exports

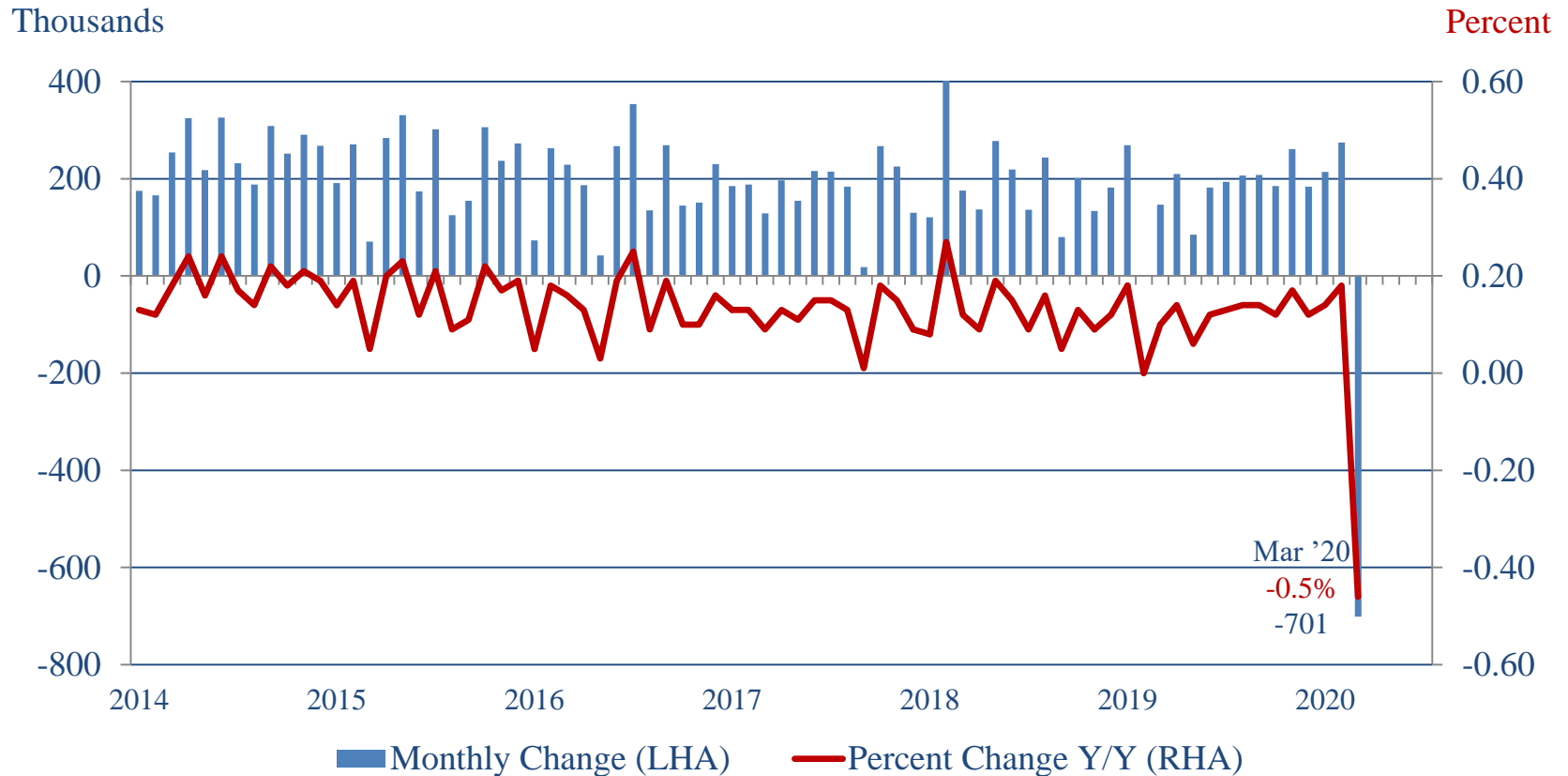
Percent Change Q/Q – SAAR



Source: U.S. Bureau of Economic Analysis

U.S. Nonfarm Payrolls

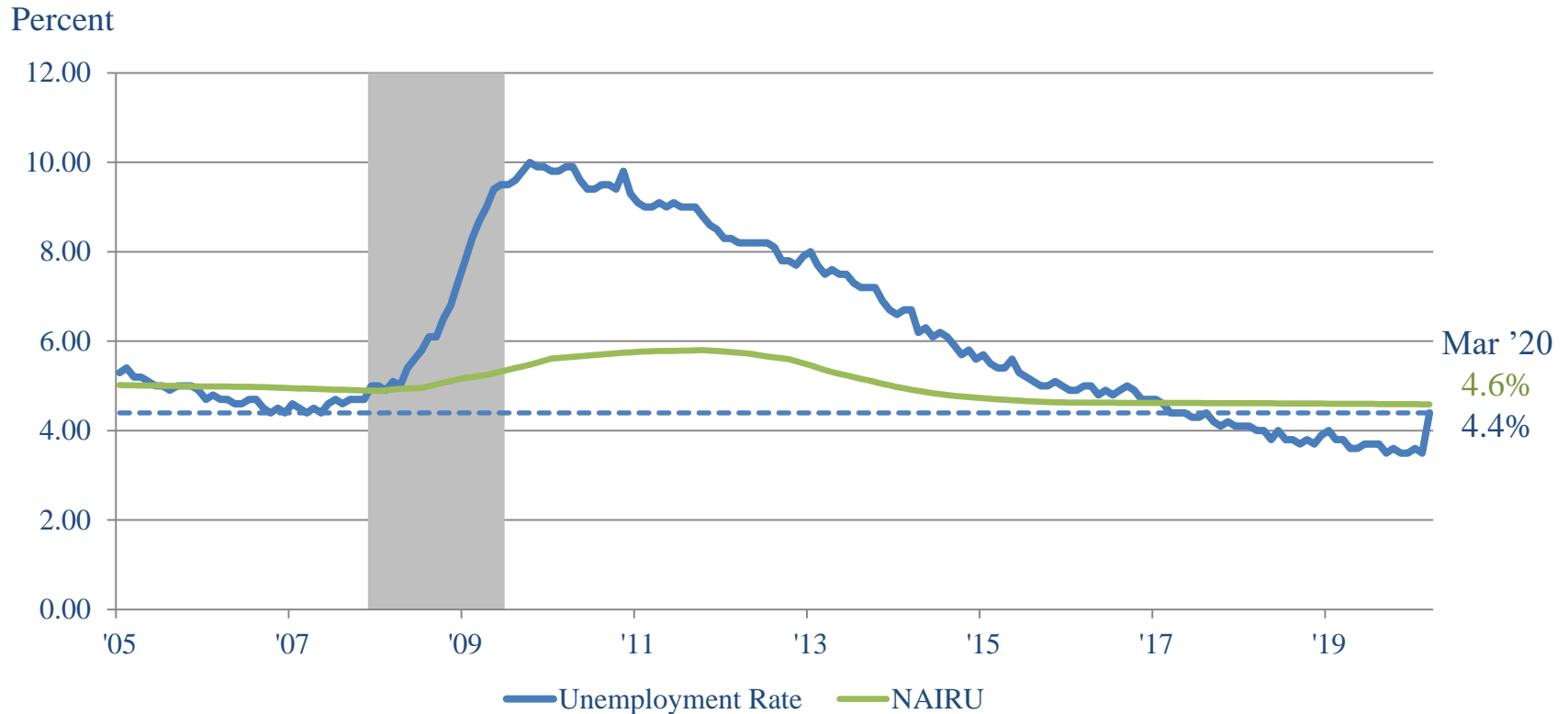
Monthly Change (000)'s and Percent Change M/M



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

U.S. Unemployment

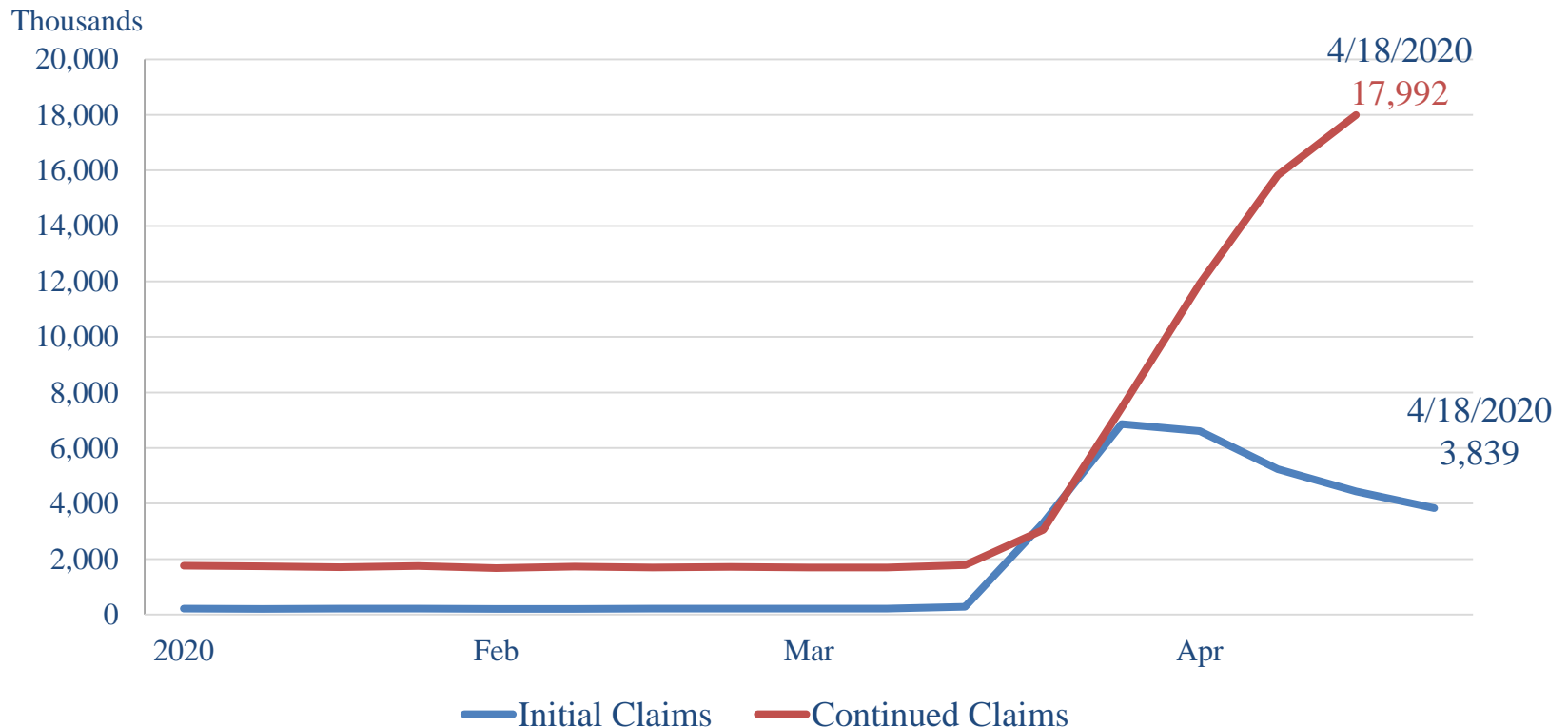
In percent of Labor Force



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

Initial Unemployment Claims

Weekly Claims and Continued Claims, In Thousands

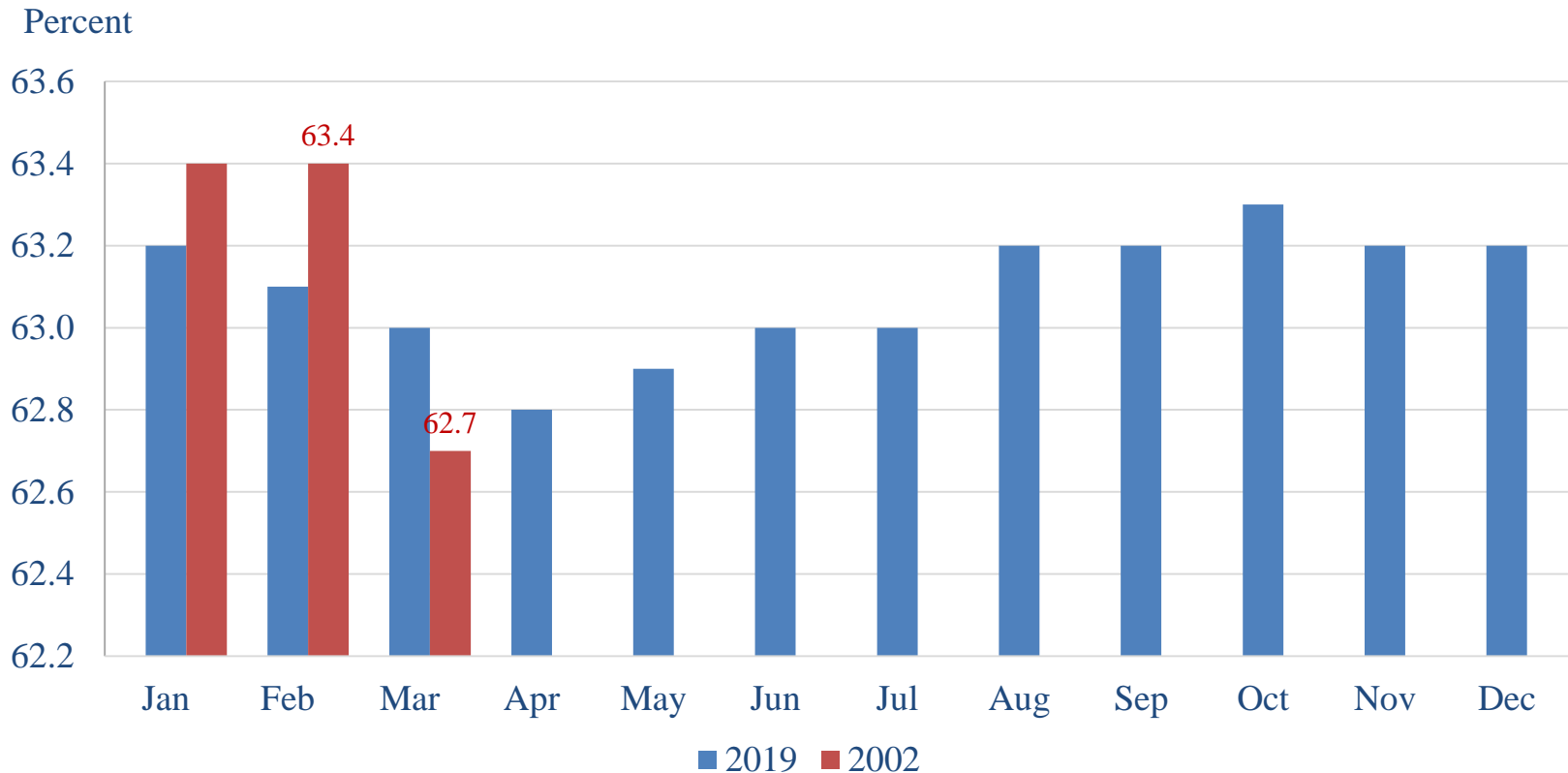


Note: In the three weeks since March 14, 2020, 30,307,000 workers have filed for unemployment.

Source: U.S. Labor and Training Administration

Labor Force Participation Rate

In Thousands



Note: Since January 2020 the labor forces has declined by 380,000 workers.

Source: U.S. Bureau of Labor Statistics

Inflation Expectations

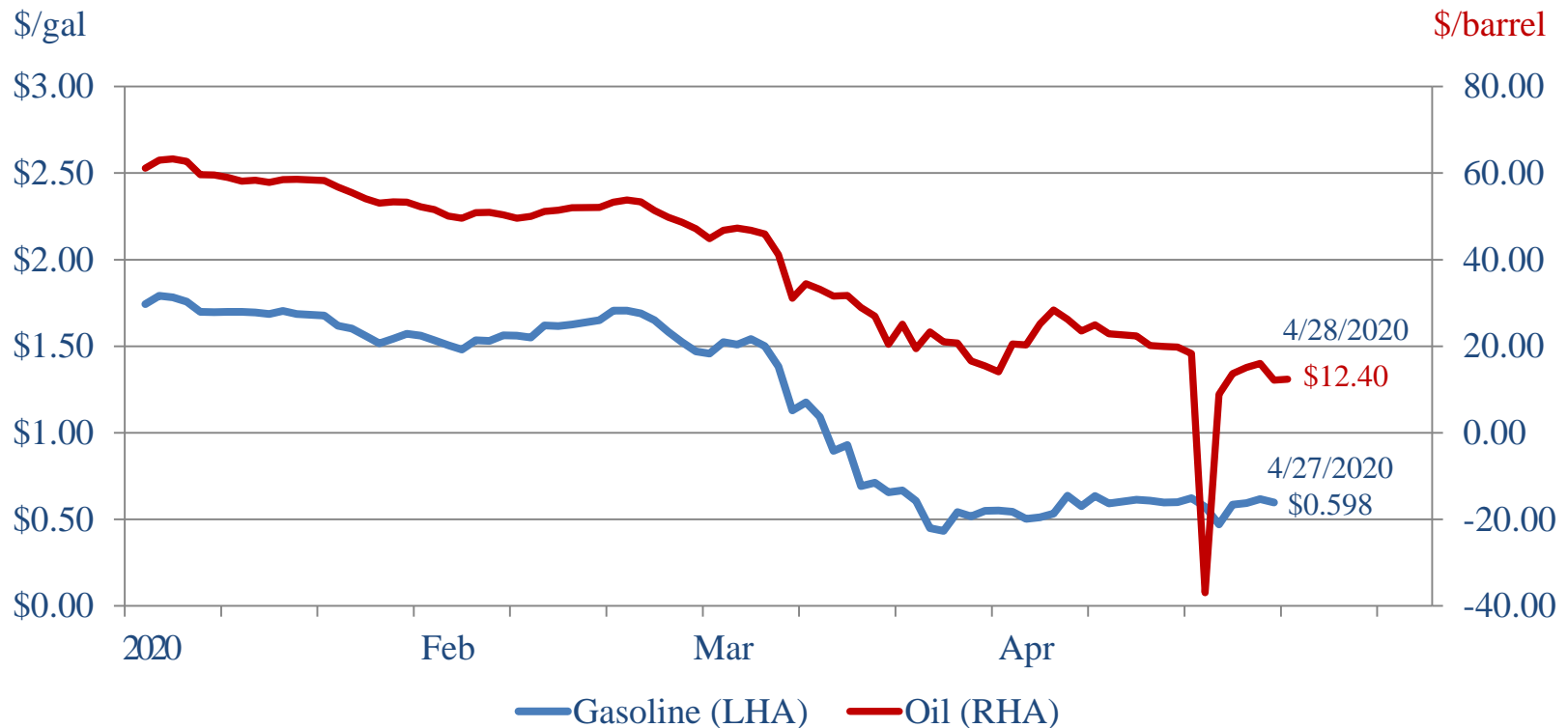
TIPS 5-10 Year Inflation Compensation



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

U.S. Gasoline and Crude Oil Prices

Unleaded Regular & WTI Spot Price – In Current Dollars

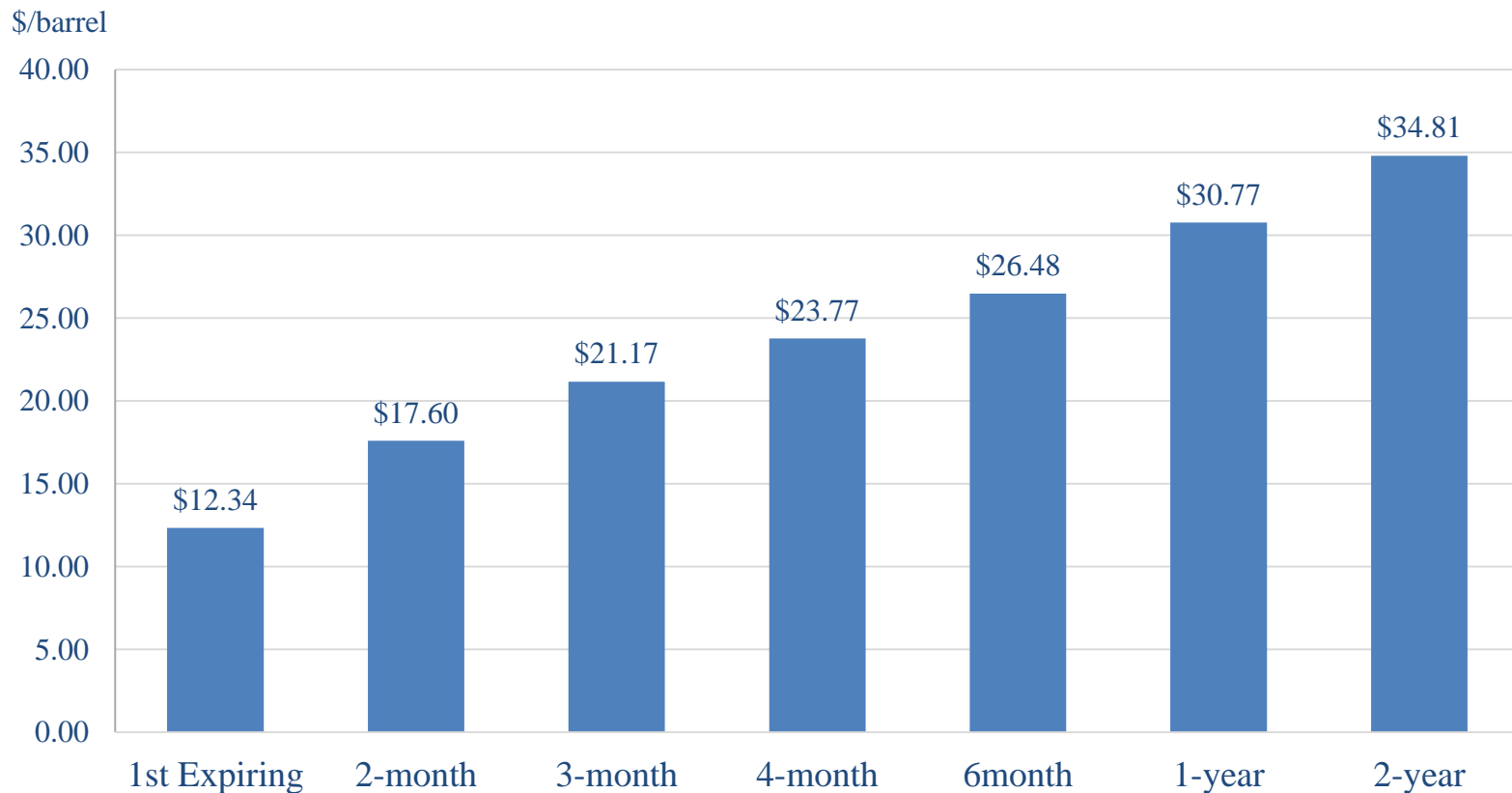


New York Harbor Conventional Gasoline Regular Spot Price FOB (US\$/Gal)
Cushing OK WTI Spot Price FOB (US\$ per Barrel)

Source: Energy Information Administration and Haver Analytics

Light Sweet Crude Oil Futures

WTI, Cushing, OK - 1st Expiring to 2-year Contract Settlement

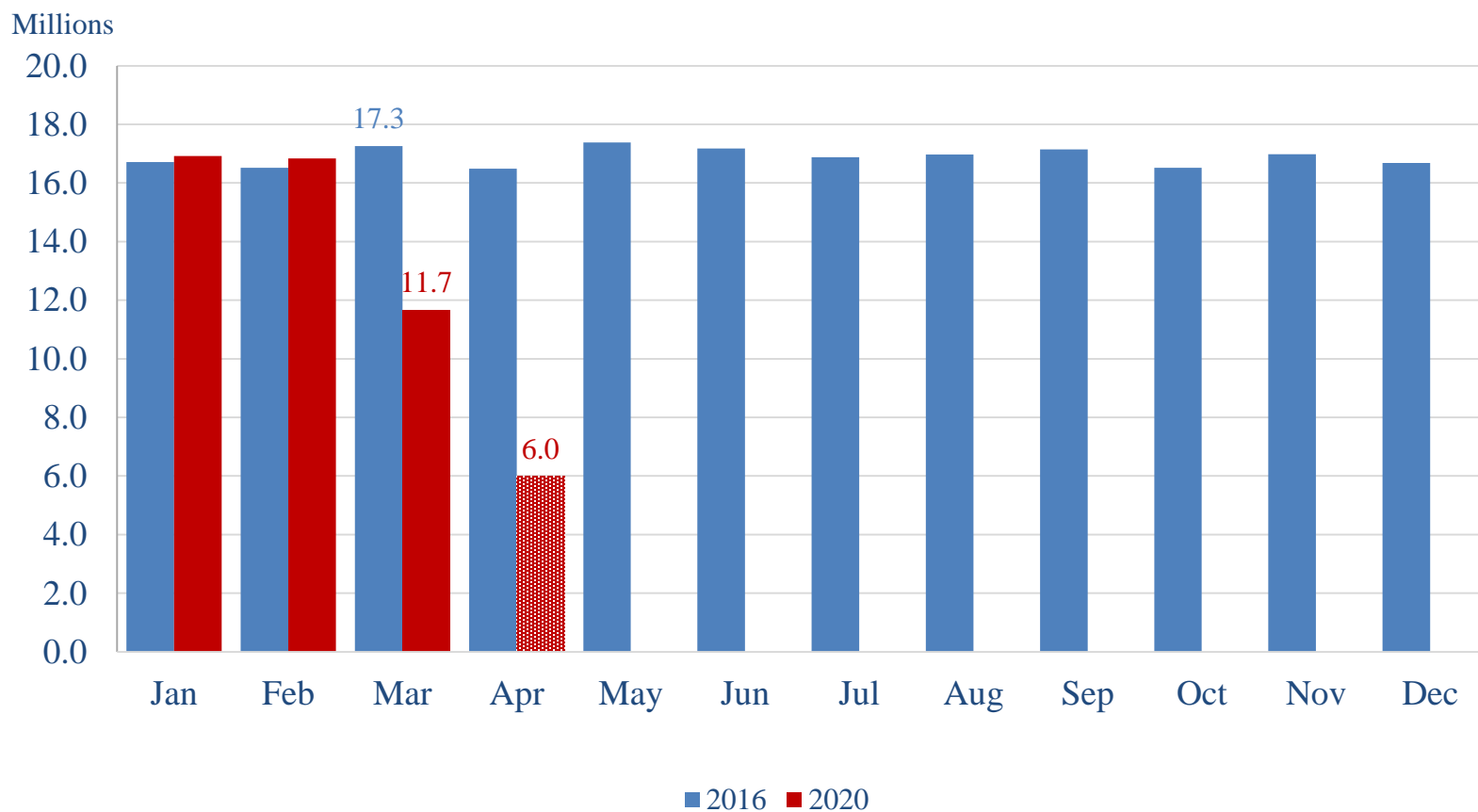


Note: On April 20, 2020 the 1st expiring futures fell to -\$37.63.

Source: Chicago Mercantile Exchange

U.S. Light Vehicle Sales

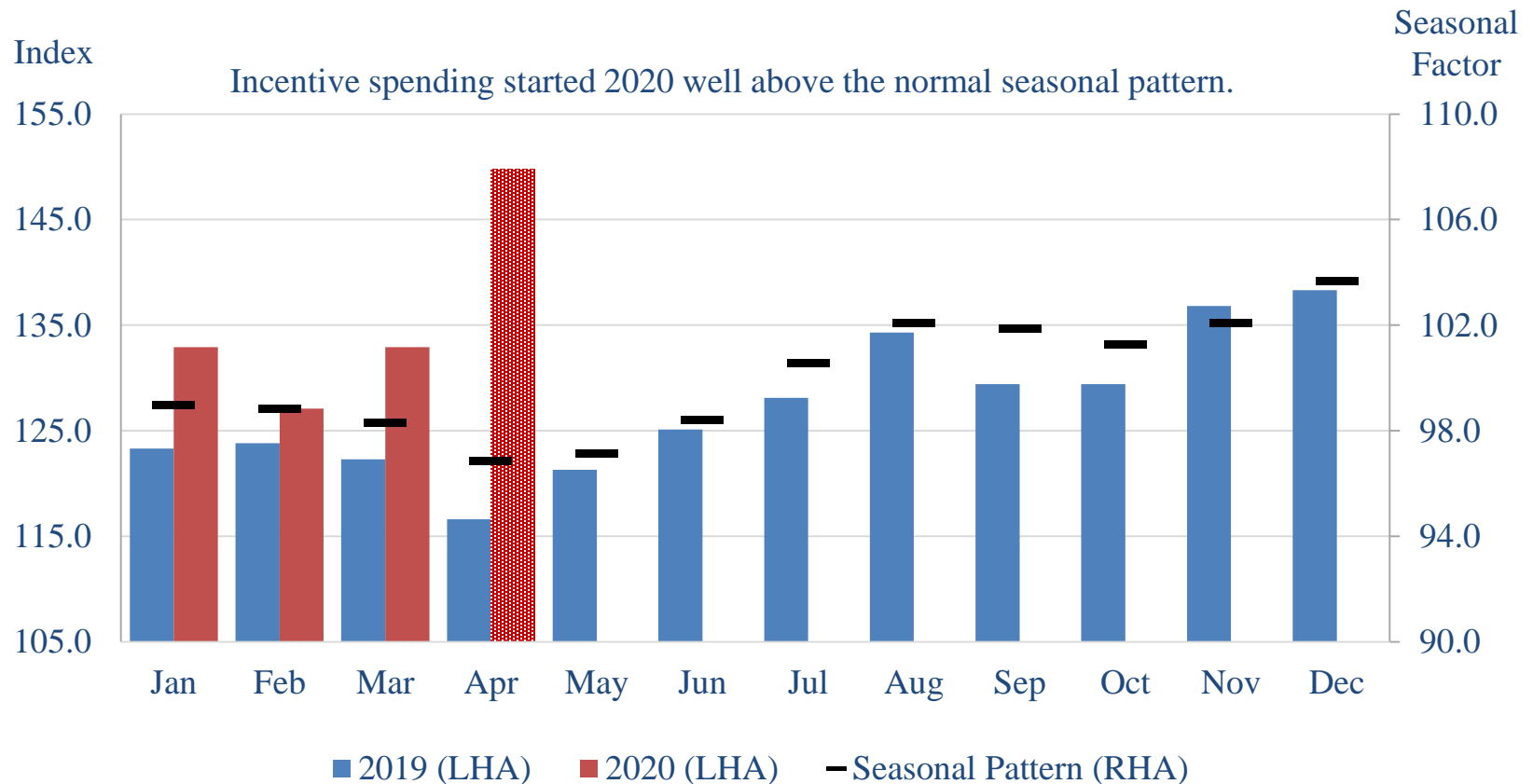
In Millions of Units - SAAR



Source: Standard & Poor's and Haver Analytics

Real Incentive Spend

Index – 2012 = 100* & Seasonal Pattern

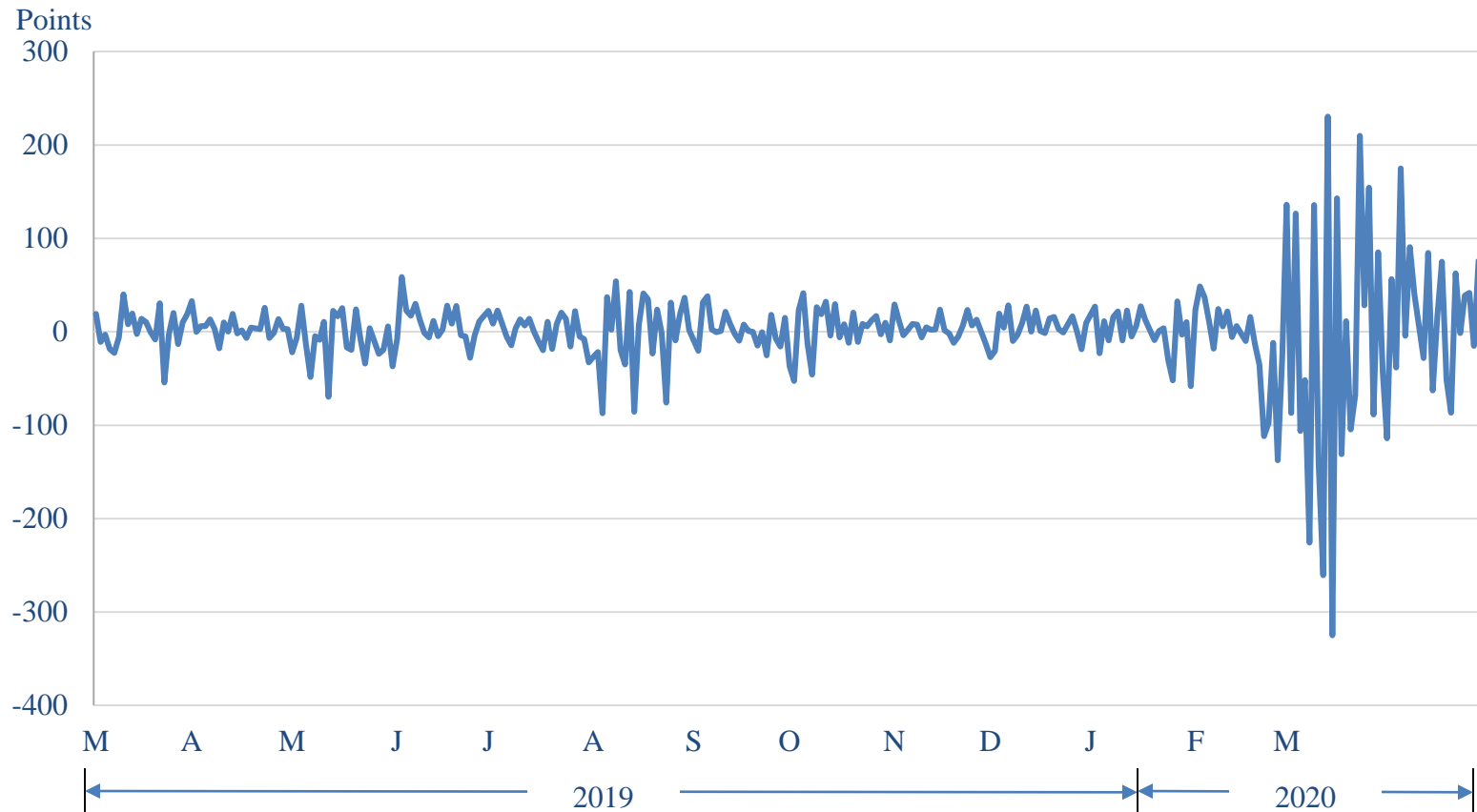


* Incentive spend inflation adjusted using average new vehicle price.

Source: Author's Calculations using J.D. Power and FOMC data.

Stock Market Volatility

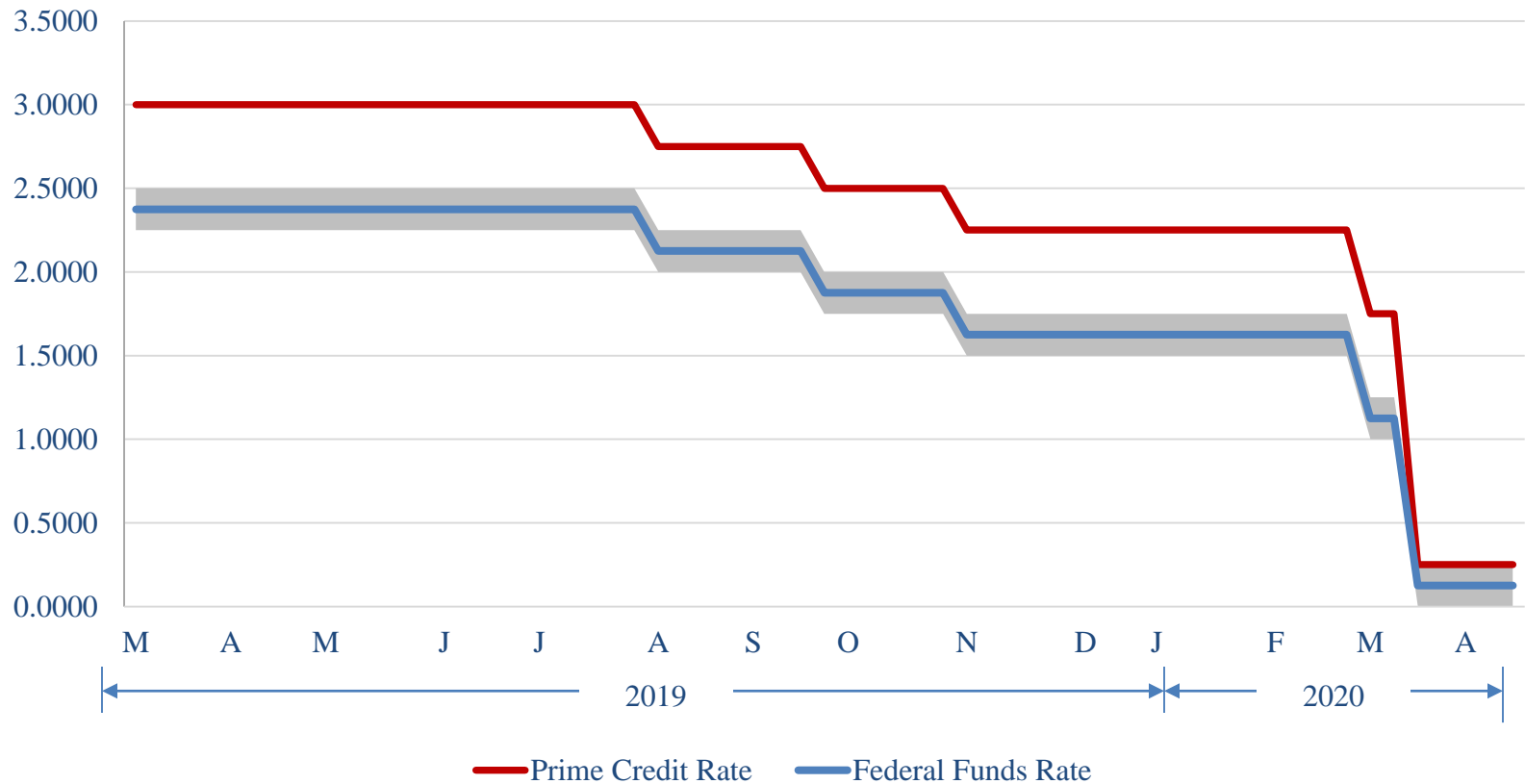
S&P 500 Daily Change – Mar 1, 2019 to Apr 20, 2020



Source: Standard & Poor's and Haver Analytics

Federal Funds & Prime Credit Rates

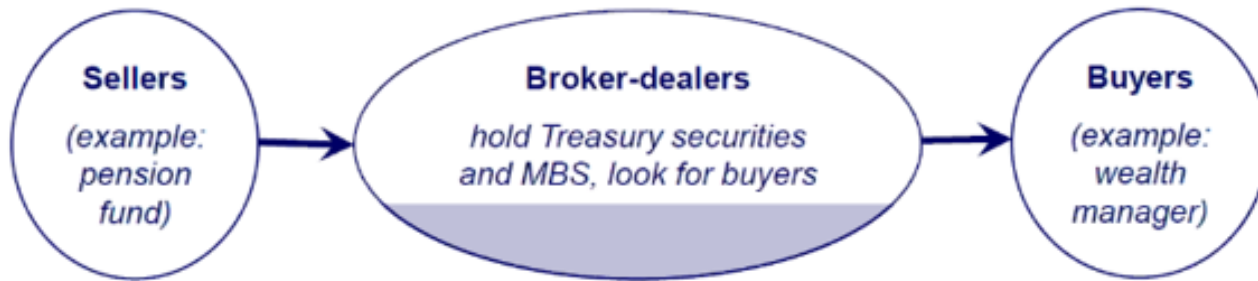
Mar 6, 2019 to Apr 15, 2020



Source: Federal Reserve and Haver Analytics

Unclogging the Treasury and MBS Markets

Normal times:



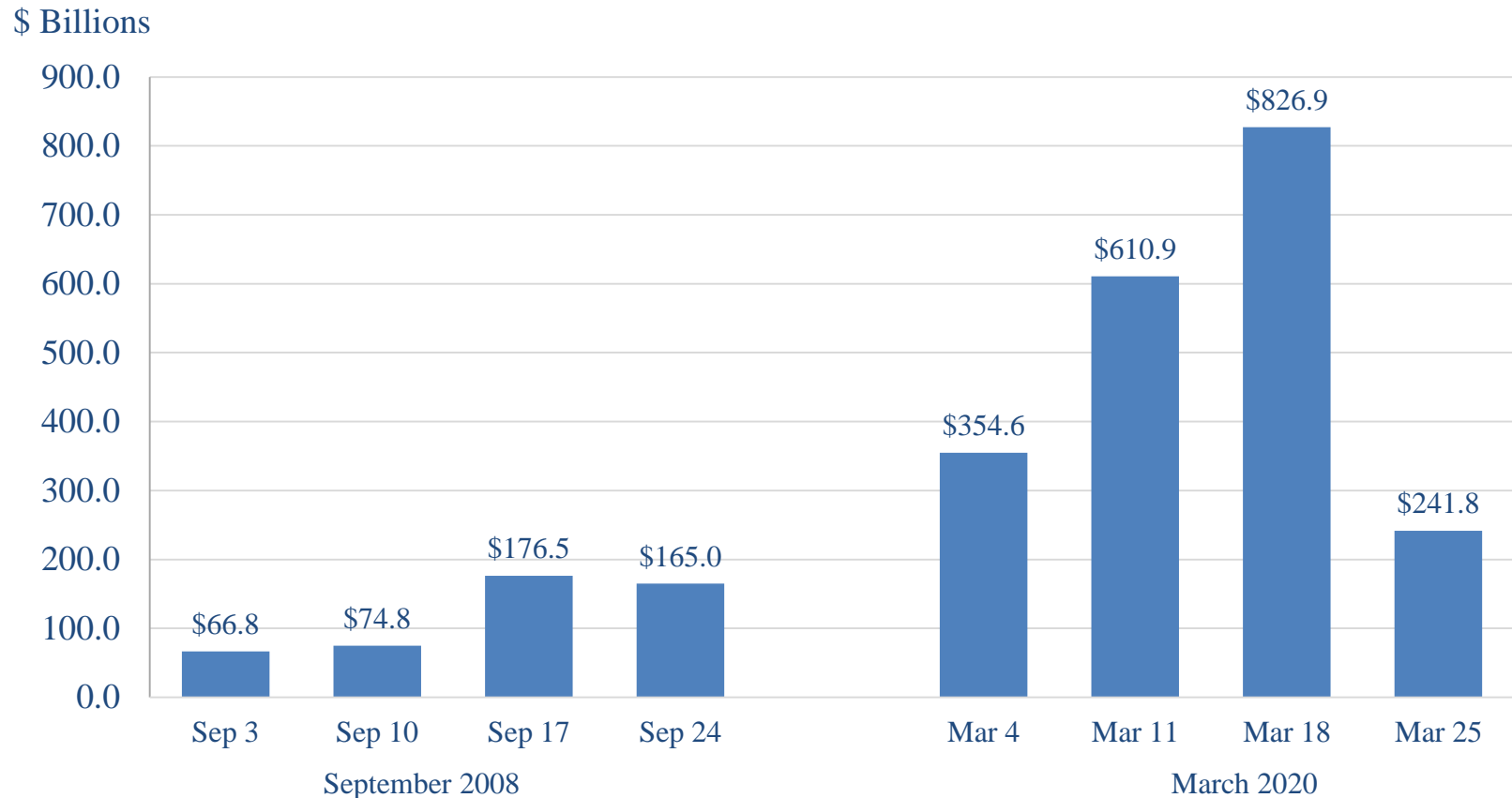
Mid-March:



Source: Federal Reserve Bank of Chicago, Sam Schulhofer-Wohl, Senior Vice President and Director of Financial Policy

Temporary Open Market Operations

In Billions of Dollars, Weekly Operations



Source: Federal Reserve Bank of New York and Haver Analytics

Unclogging the Treasury and MBS Markets

Normal times:



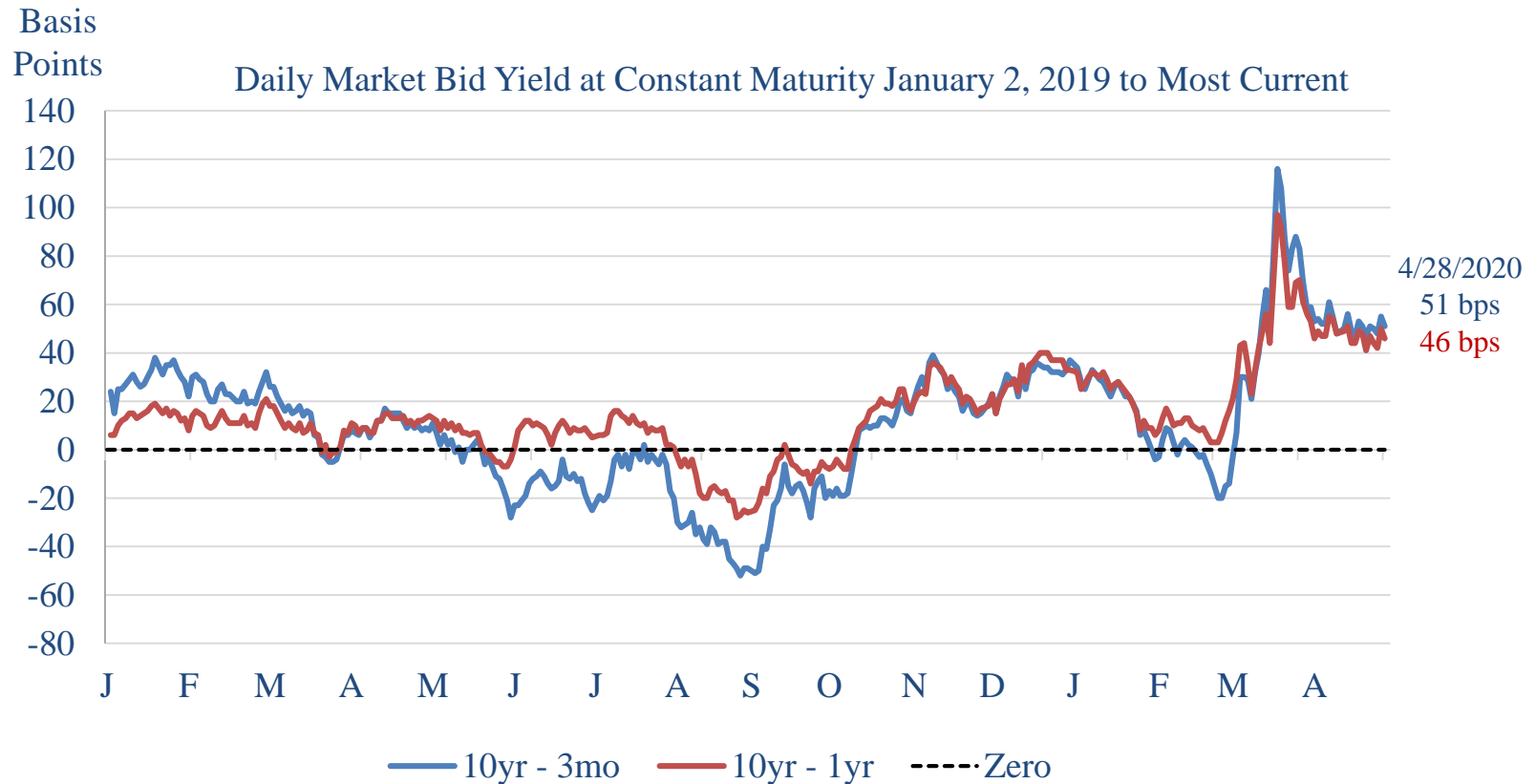
Now:



Source: Federal Reserve Bank of Chicago, Sam Schulhofer-Wohl, Senior Vice President and Director of Financial Policy

Yield Curve

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



Source: Board of Governors – Federal Reserve System

National Financial Conditions Index

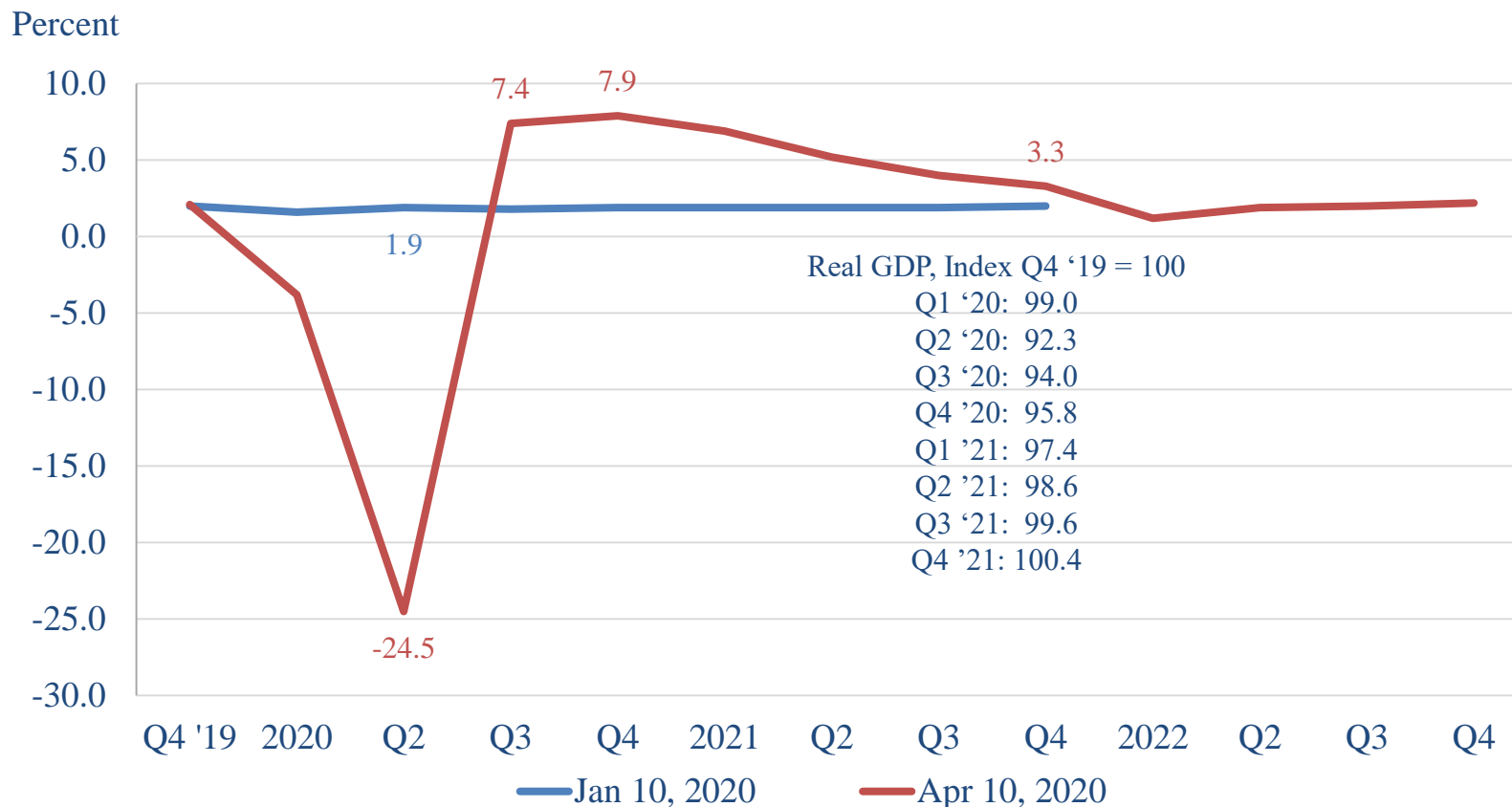
Federal Reserve Bank of Chicago, Positive = Tighter



Source: Federal Reserve Bank of Chicago

U.S. Real GDP – Blue Chip Forecast

Percent Change Q/Q - SAAR

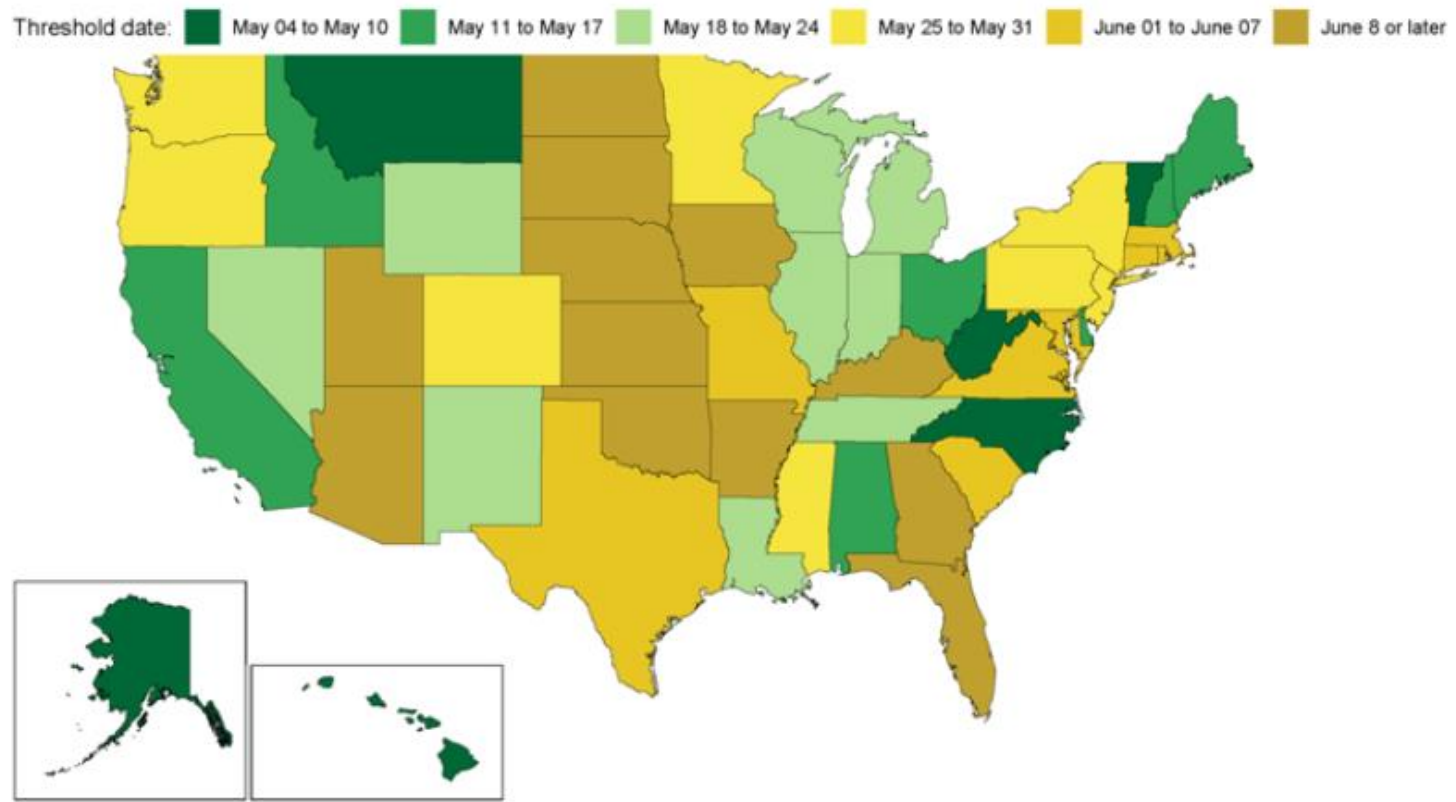


Source: January 10, 2020 and April 10, 2020 Blue Chip Forecast

U.S. COVID-19 Cases

Center for Disease Control

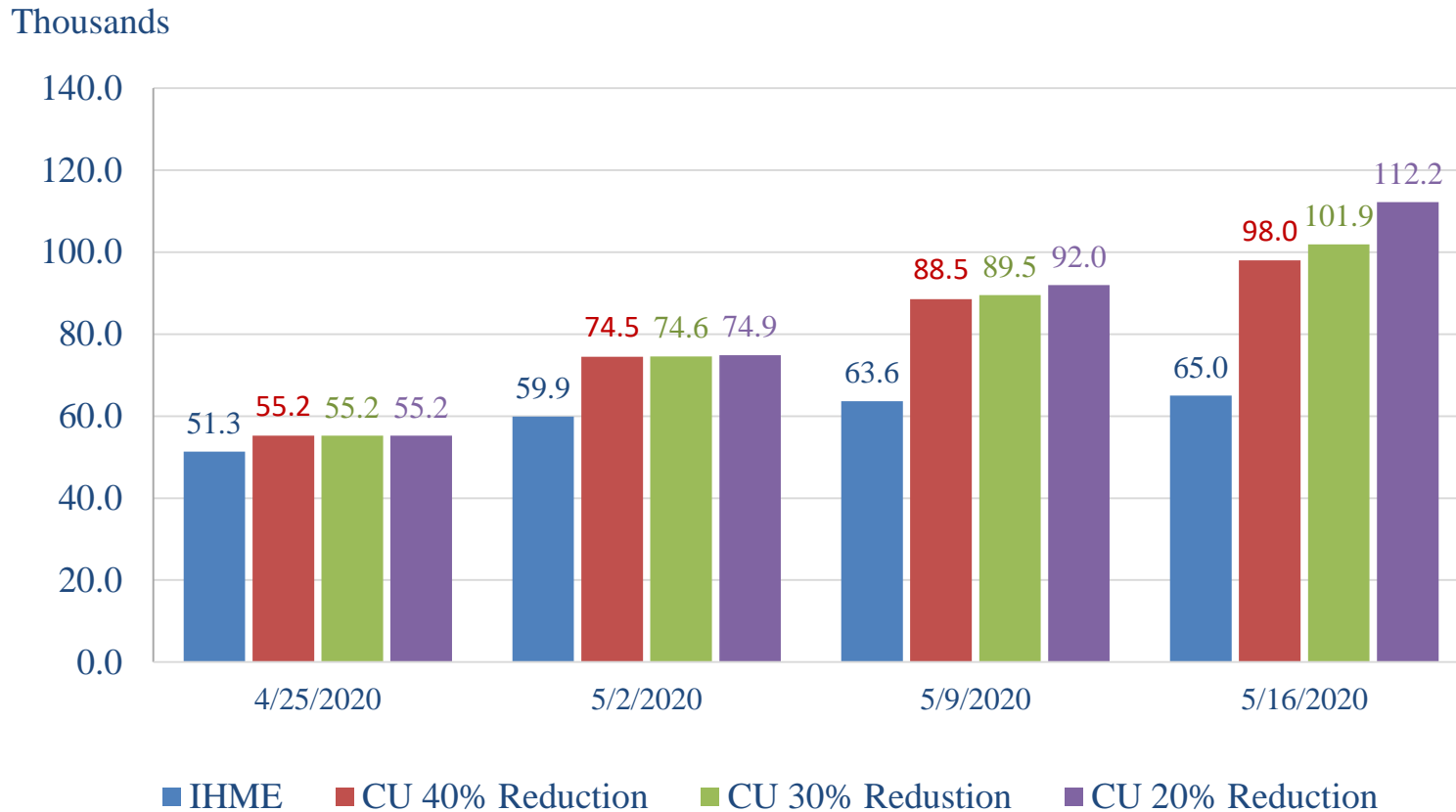
Earliest date social distancing may be relaxed with containment strategies that include testing, contact tracing, isolation, and limiting gathering size. Threshold of 1 infection per million residents.



Source: Institute for Health Metrics and Evaluation (IHME), April 23, 2020.

CDC Death Projections

Contact Reduction Scenarios



Source: Center for Disease Control (CDC), Institute for Health Metrics and Evaluation (IHME), and Columbia University

Summary

- **U.S. economic activity has suffered an unprecedented decline since the start of the COVID-19 pandemic.**
- **Labor markets are showing signs of extreme stress as companies cut workers and prepare for an extended period of lost revenue.**
- **The Federal Reserve has taken extreme actions, using its full range of tools to support the U.S. economy in an effort to promote maximum employment and price stability.**
- **With some states still experiencing day-to-day increases in COVID-19 cases, others are looking for ways to re-open their economies.**
- **However, concerns of a resurgence of the virus remain high, especially if states open their economies too soon without the appropriate amount of testing, contact tracing, isolation, and contact reduction.**

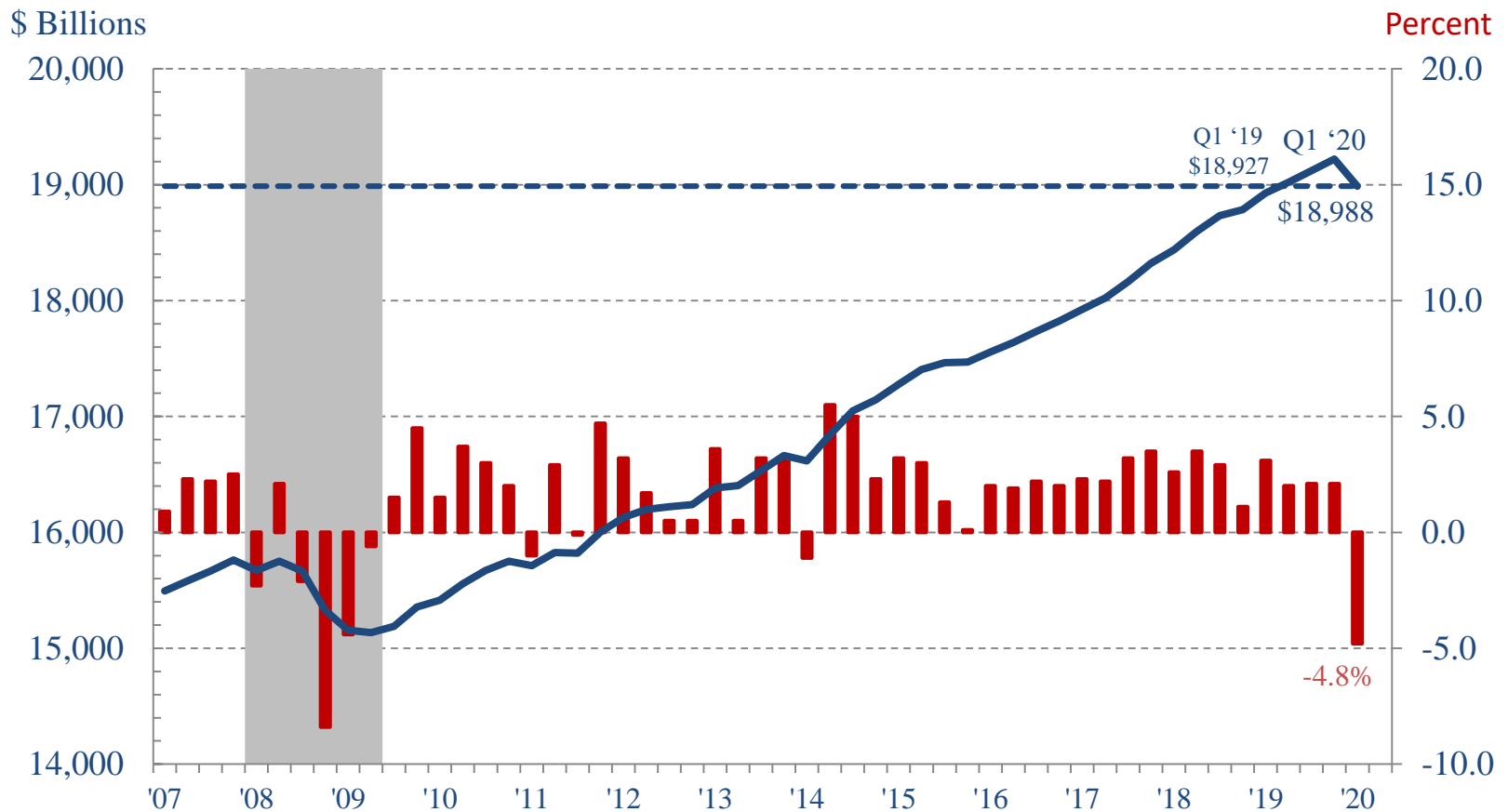
Source: Federal Reserve

Thank You!

Appendix

U.S. Real GDP

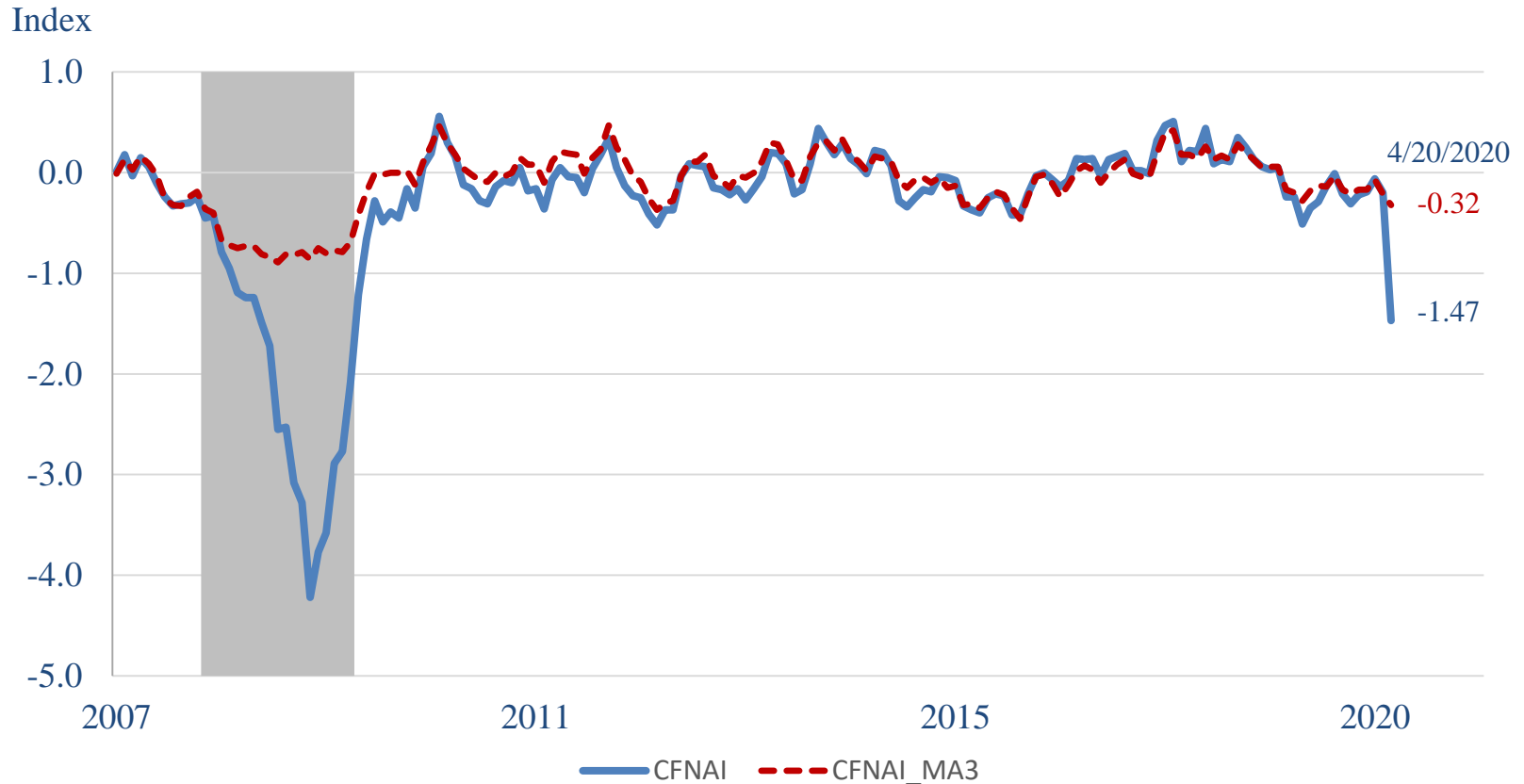
Billions Chained \$2012 and Percent Change Q/Q at SAAR



Source: U.S. Bureau of Economic Analysis

Chicago Fed National Activity Index

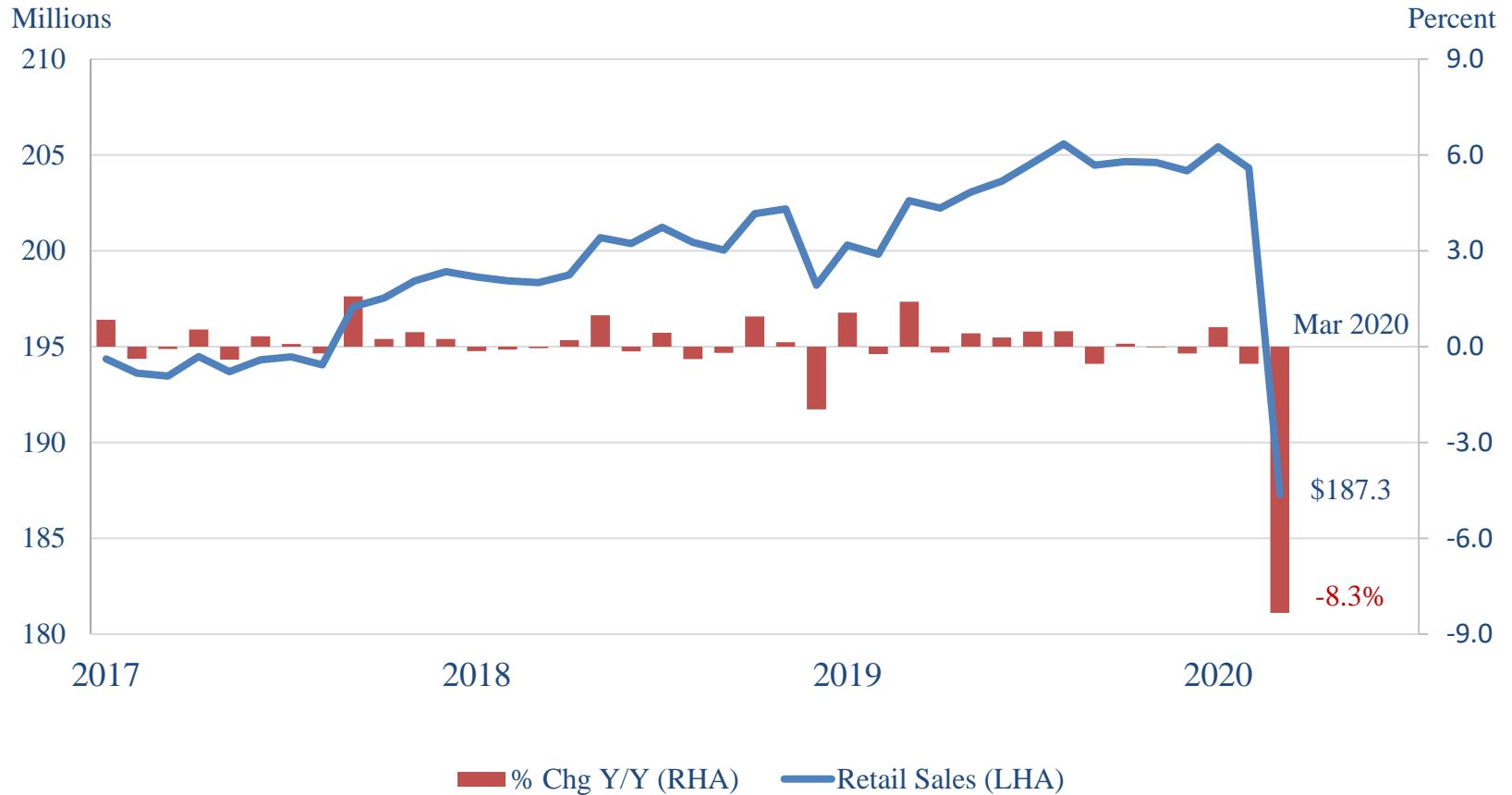
Federal Reserve Bank of Chicago



Source: Federal Reserve Bank of Chicago

Real Advanced Retail Sales

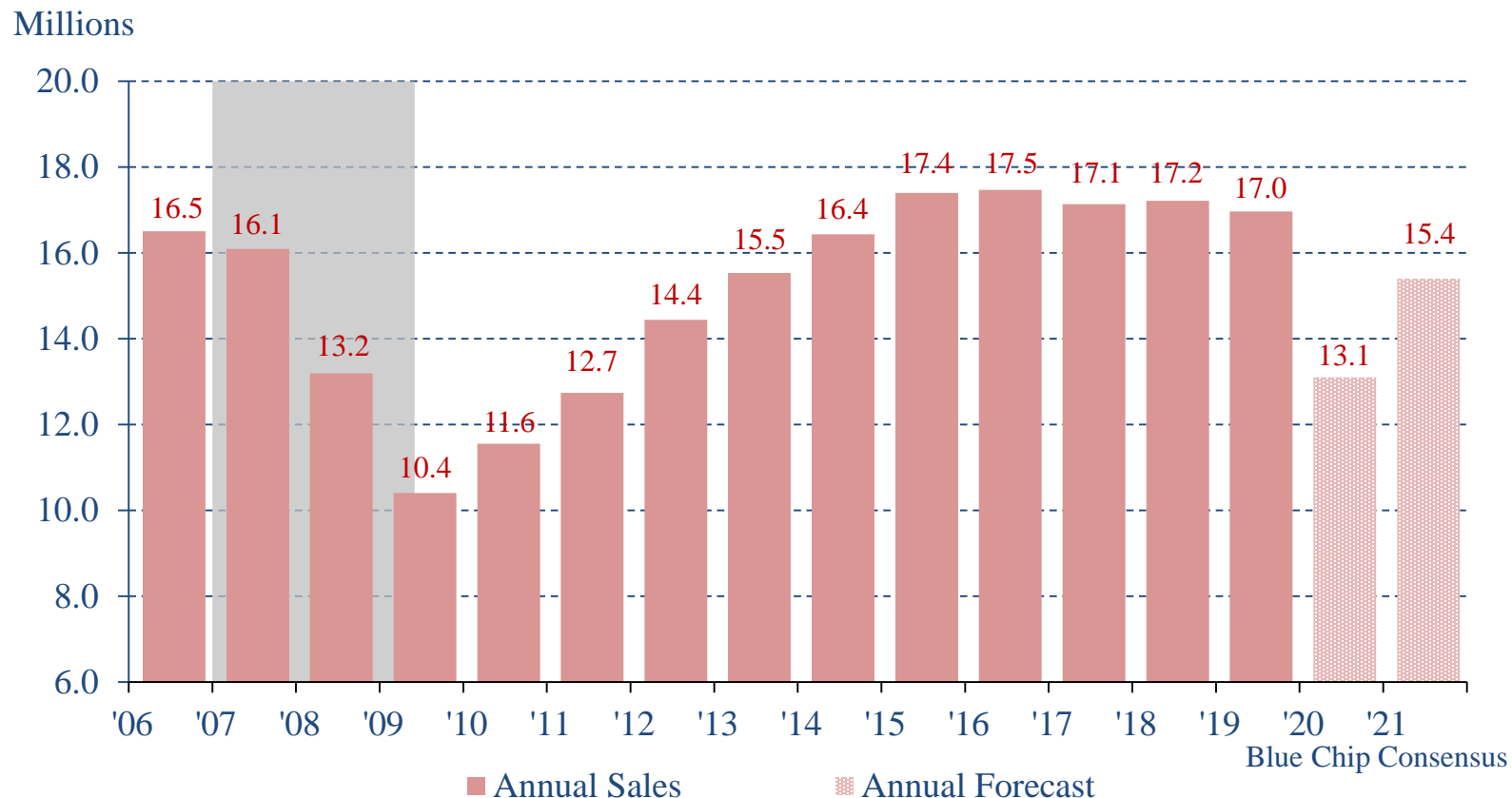
In Millions of Dollars and Percent Change M/M



Source: FRB St. Louis

U.S. Light Vehicle Sales

Millions of Units



Source: WardsAuto Intelligence, BEA, and April 10, 2020 Blue Chip Consensus Forecast