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Final Review of 2018 and Outlook for 2019 United States Economy

Colorado-based Business and Economic Research
Prepared
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Final Review of 2018 and Outlook for 2019 United States Economy

This chartbook expands on the 2019 cber.co U.S. and Colorado forecast that was released in early January. It can be found at <https://cber.co/economic-forecasts/cber-co-economic-forecast/>. It focuses only on the United States economy. This analysis provides additional support for the earlier forecast that the U.S. economy entered 2019 with enough momentum to ensure solid growth through the first half of the year and maybe longer.

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Between now and the end of March, cber.co will release the following reports. February and March are data intensive months for the Bureau of Labor Statistics.

- March 11th to March 18th - Benchmark data and in-depth review for Colorado 2018
- March 22nd to March 29th - Review of first two months of 2019.

Ten Highlights in the Final Review of 2018 and Outlook for 2019 United States Economy

1. There will be solid, but slower global and U.S. real GDP growth.
2. Unfortunately, global tensions are inevitable. Within the U.S. the current political polarization is not healthy for society or the economy.
3. In the U.S., there will be solid consumer and government spending in 2019 accompanied with modest business investment and slower construction activity. The economy may be slower in the second half of 2019, but there will not be a recession.
4. The rate of employment and wage growth will be solid, but less than 2018. The unemployment rate will decline slightly in 2019.
5. Inflation will remain near the Fed's target rate in 2019.
6. Debt can hinder or encourage economic growth; however, a strong case can be made there is too much public and consumer debt.
7. The inventory to sales ratio, IPI, capacity utilization, durable goods orders point to solid growth. Manufacturing and retail sales are poised for modest growth in 2019.
8. The Federal Reserve has been challenged to unwind the quantitative easing at the proper speed. The number of interest rate hikes in 2018 were cited as the cause of the collapse in the equity markets in December. There are likely to be fewer rate increases in 2019.
9. Housing prices are accelerating at a decreasing rate. Residential construction will slow in 2019.
10. Technology will continue to disrupt the energy industry. This will spill over into other sectors.



The Global Economy

Real Gross Domestic Product

Global Real GDP Growth

Based on IMF Forecast

The story of the United States and Colorado economies begins with the projected slowdown of the global economy, i.e. lower real GDP growth in 2019.

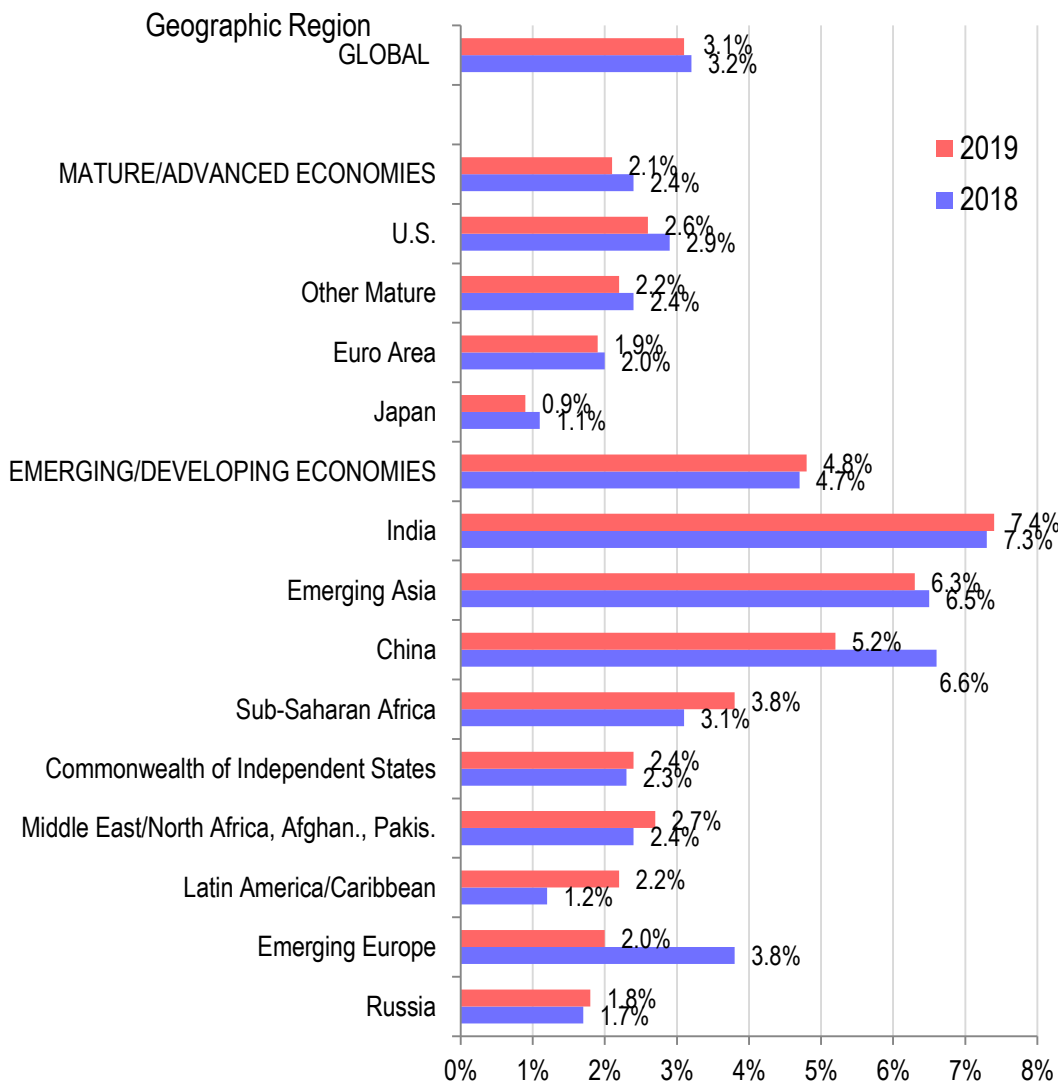
The estimate of real GDP global growth follows:

- **Overall – 3.2% in 2018 and 3.1% in 2019.**
- **Mature Countries - 2.4% in 2018 and 2.1% in 2019.**
- **Emerging Countries – 4.7% in 2018 and 4.8% in 2019.**

Mature 2019 – The U.S. will lead growth in the mature economies at 2.6%. Japan and the Euro Area will have weak growth.

Emerging - In 2018, the Chinese economy is expected to grow by 5.2%. India will lead the region with a 7.4% rate of growth. Most emerging economies will post positive gains in 2019.

Real GDP Growth 2018 vs. 2019



Source: IMF (October 2018), The Conference Board (November 2018), cber.co.



The U.S. Economy

Real Gross Domestic Product

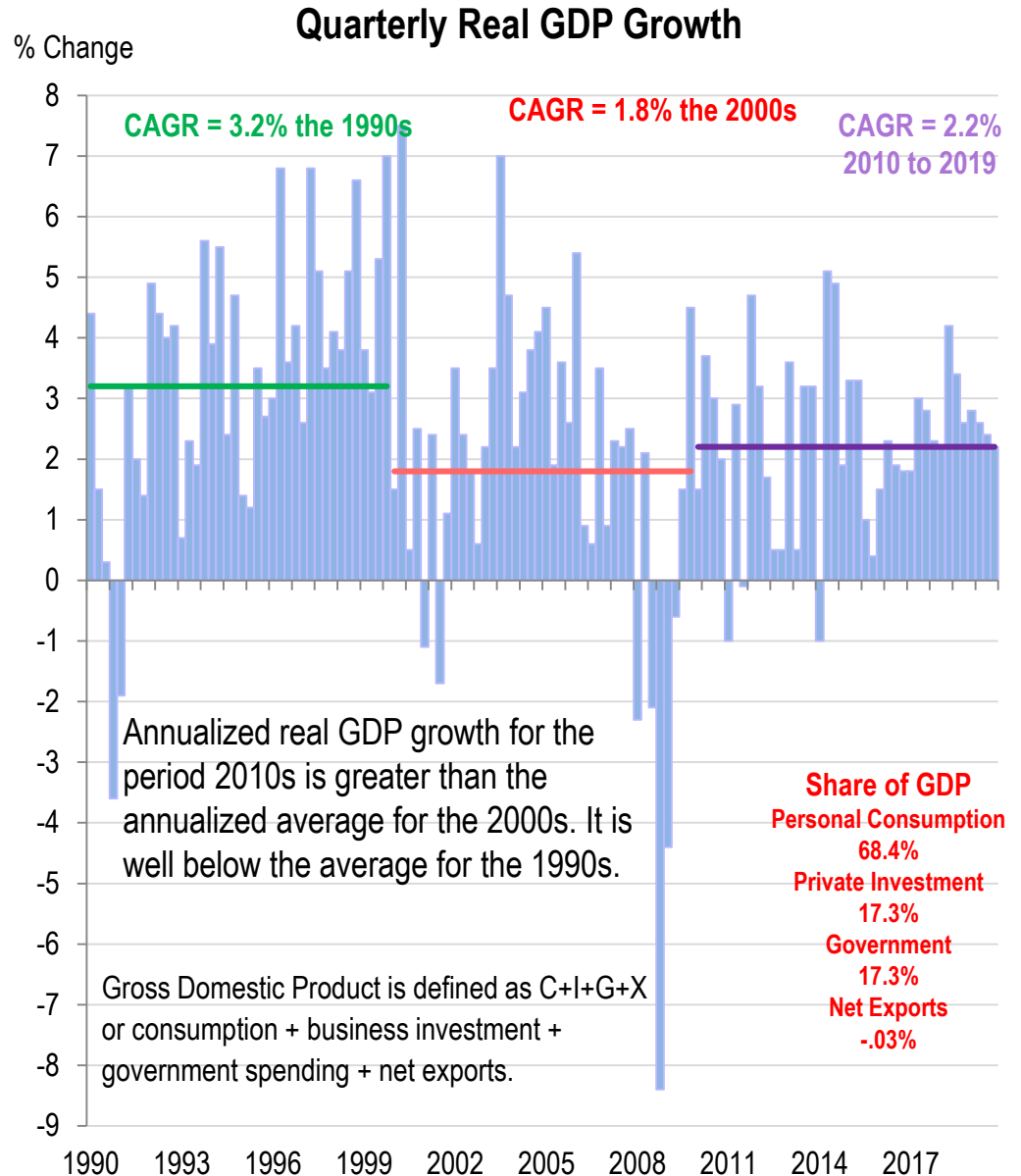
Quarterly Real GDP Growth

Historical United States

Between 2010 and 2019, quarterly real GDP growth ranged from -1.0% to 5.1%.

The forecast for quarterly real GDP growth shows a downward trend starting in Q3 2018 that continues through 2019. The magnitude of the slowdown is not expected to be severe. It is unlikely a recession will occur in 2019.

As a result of the projected growth, there will be 23 consecutive quarters of positive growth since the last quarter of negative growth in 2014.



Source: Bureau of Economic Analysis, Table 1.1.1, Share of GDP based on 2017, cber.co.

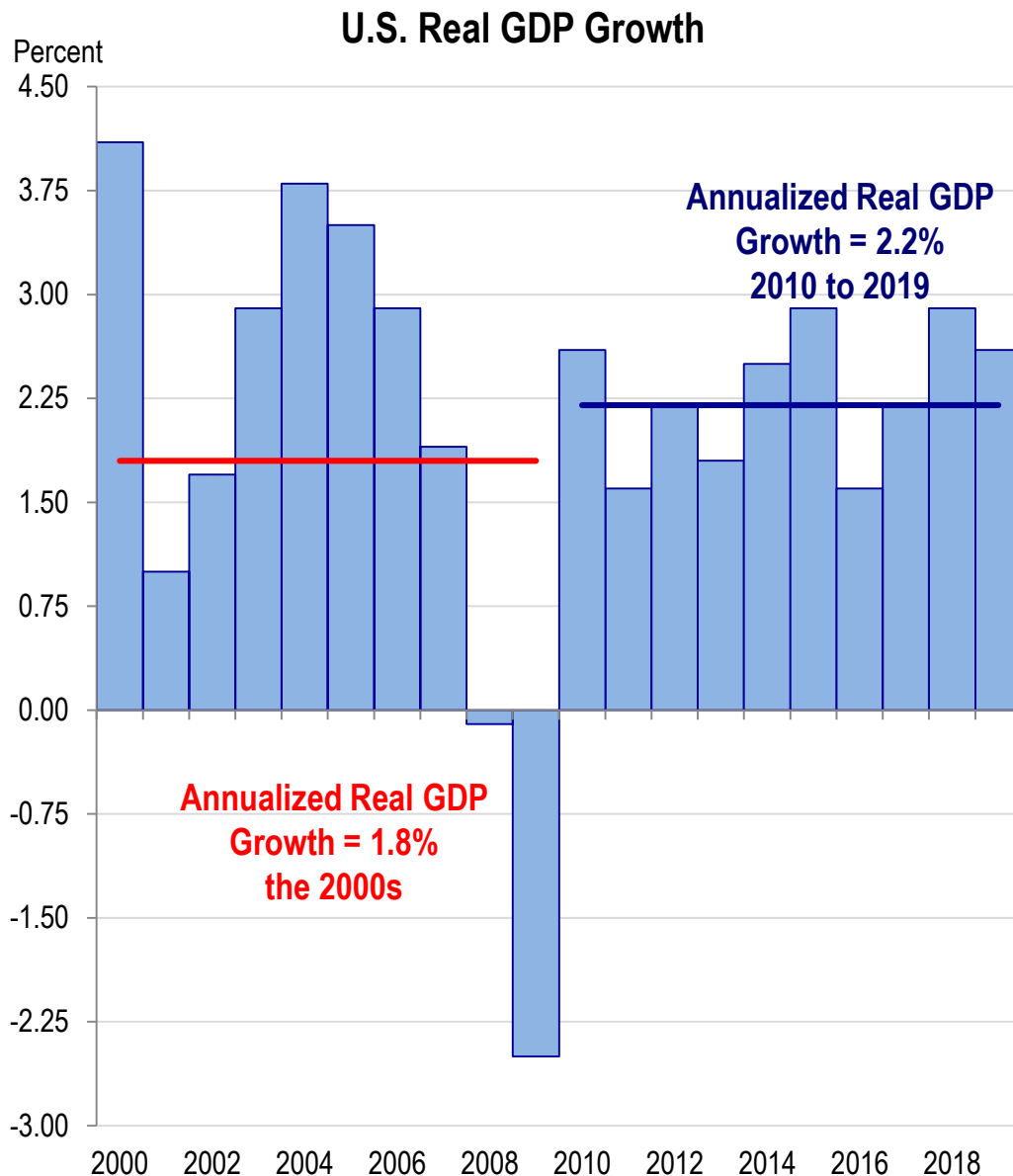
U.S. Real GDP Growth

C+I+G+X

The 2018 cber.co forecast called for U.S. real GDP growth to be 2.3% to 2.7%, with greater upside potential than downside risk. Real GDP for 2018 was 2.9%, slightly better than expected. Growth in 2018 was driven by tax cuts, which helped raise disposable income and personal spending.

The rate of Real GDP growth in 2019 is projected to be 2.6%.

The impacts of the tax cut will be diminished in 2019. There will be solid consumer and government spending in 2019 accompanied with modest business investment and slower construction activity. In addition, the impact of the government shutdown is projected to be 0.05 to 0.1 GDP percentage points for each week the government is shutdown.



Source: Bureau of Economic Analysis, cber.co.

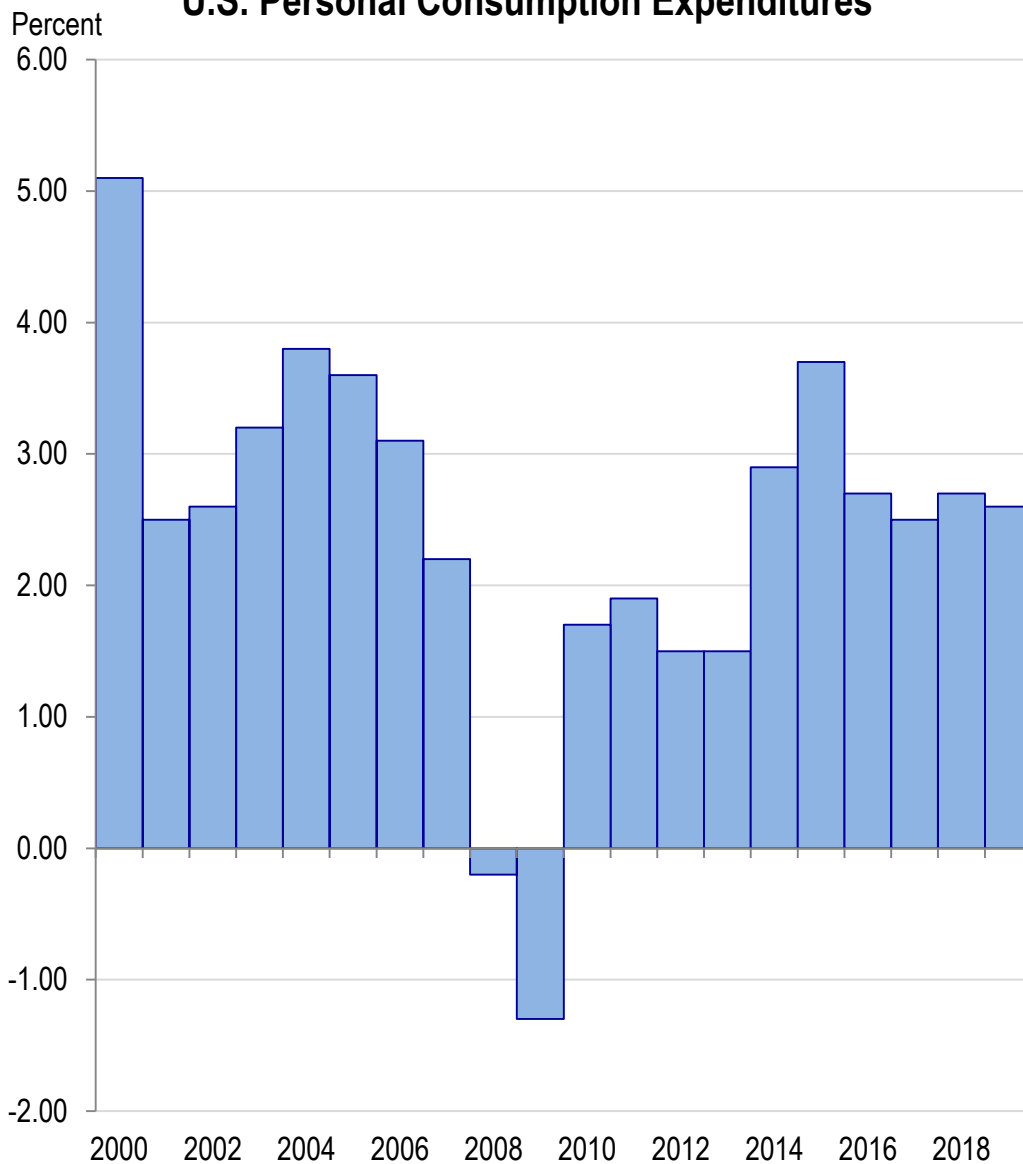
U.S. Personal Consumption Expenditures

Personal consumption is the primary driver of the economy. It accounts for slightly less than 70% of the total GDP.

Personal consumption is expected to increase by 2.6% in 2019.

Business and consumer confidence will remain solid, which will translate into increased hiring, greater personal income, and increased spending.

U.S. Personal Consumption Expenditures



Source: Bureau of Economic Analysis, cber.co.

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U.S. Business Fixed Investment

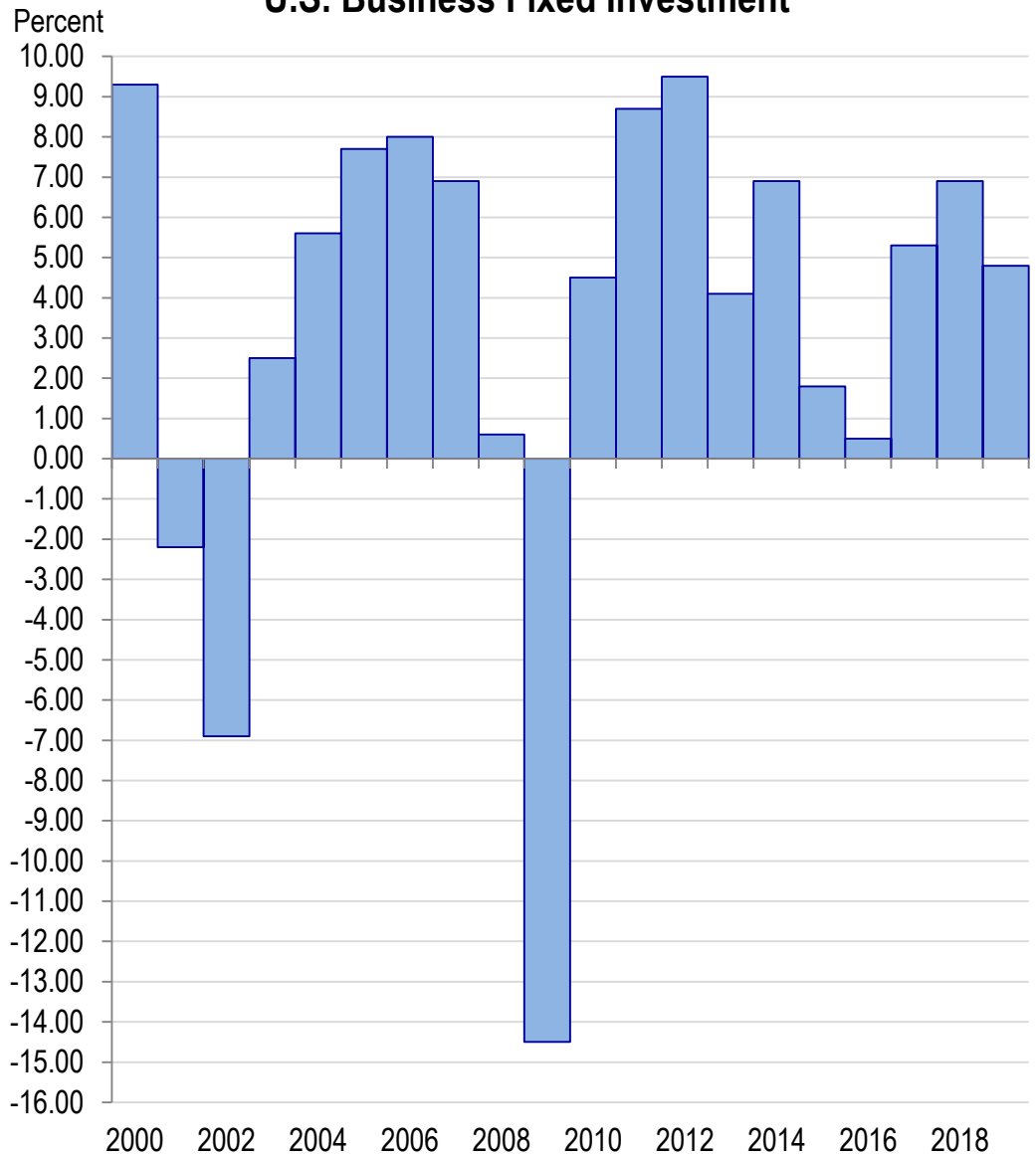
Business fixed investment includes nonresidential structures, equipment, and intellectual property products.

Business (Nonresidential) fixed investment is expected to increase by 4.8% in 2019.

The primary factors preventing stronger growth are the slowing global economy, the waning benefits of the tax cuts, and the struggles companies face finding a qualified workforce.

Uncertainty is prevalent related to Brexit. In addition, the Chinese economy is slowing and tariffs have created problems in some industries. President Trump is expected to address the Chinese tariffs in the first half of 2019.

U.S. Business Fixed Investment



Source: Bureau of Economic Analysis, cber.co.

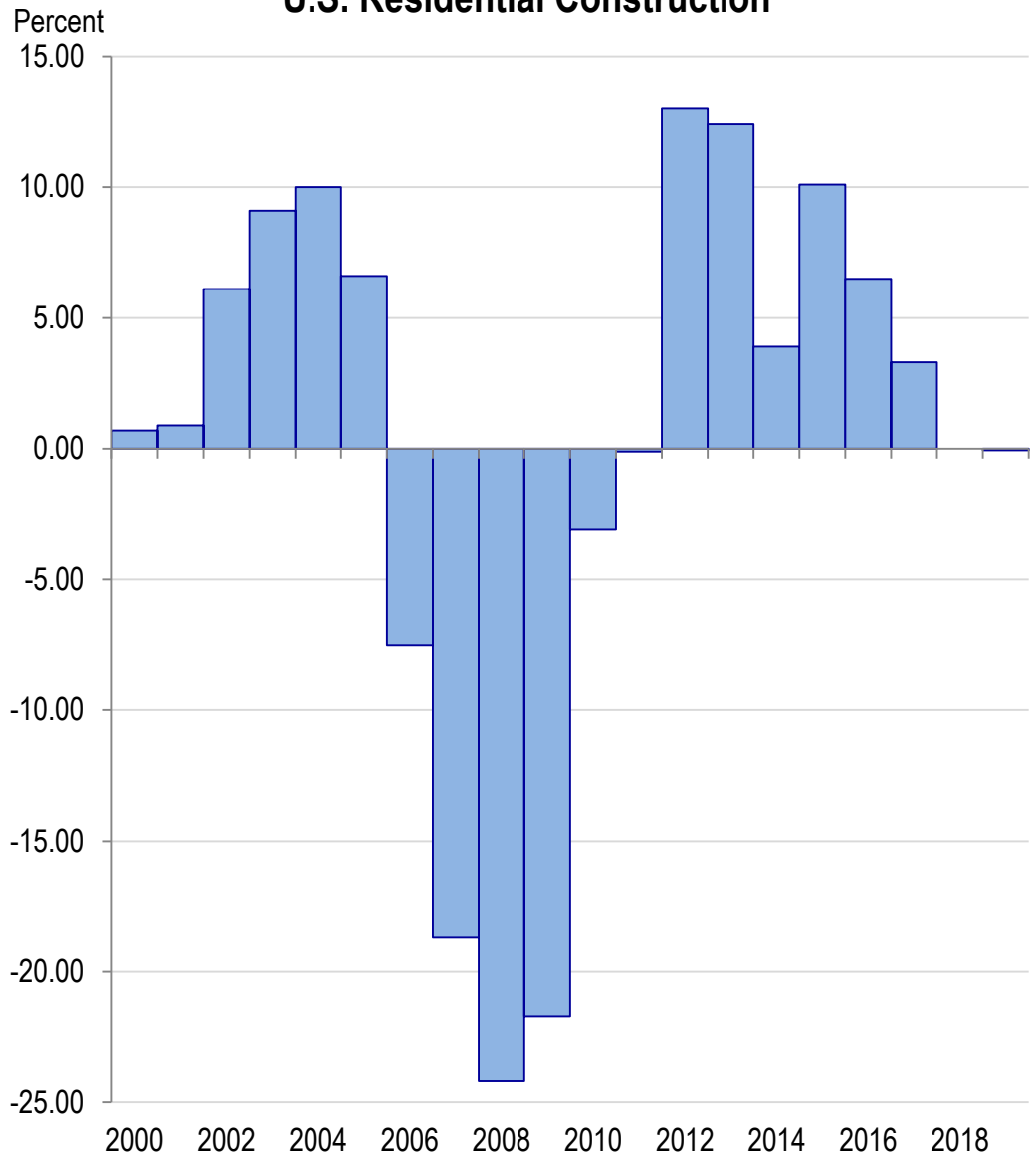
U.S. Residential Construction

Even with a growing population and housing shortages in parts of the U.S., the construction industry will be challenged by higher input costs, higher interest rates, and the lack of qualified labor.

U.S. residential construction is expected to increase at a slightly higher rate in 2019.

Nationally, there will be a greater focus on entry-level housing as more millennials become home owners for the first time.

U.S. Residential Construction



Source: Bureau of Economic Analysis, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

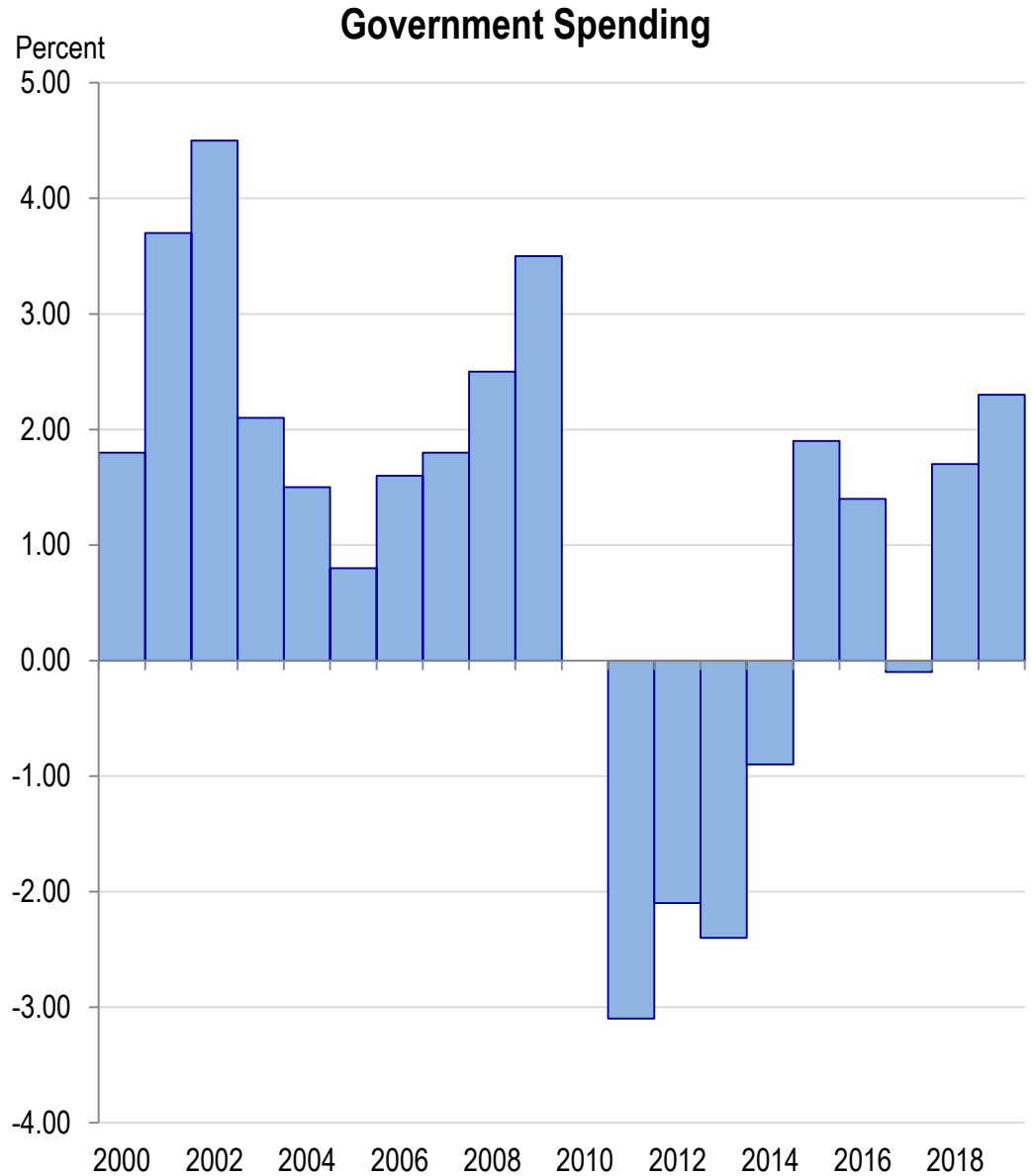


Government Spending



Government spending includes federal, state, and local spending.

In 2019, government spending will increase at its highest rate since 2009. The rate of growth in government spending will be 2.3%.

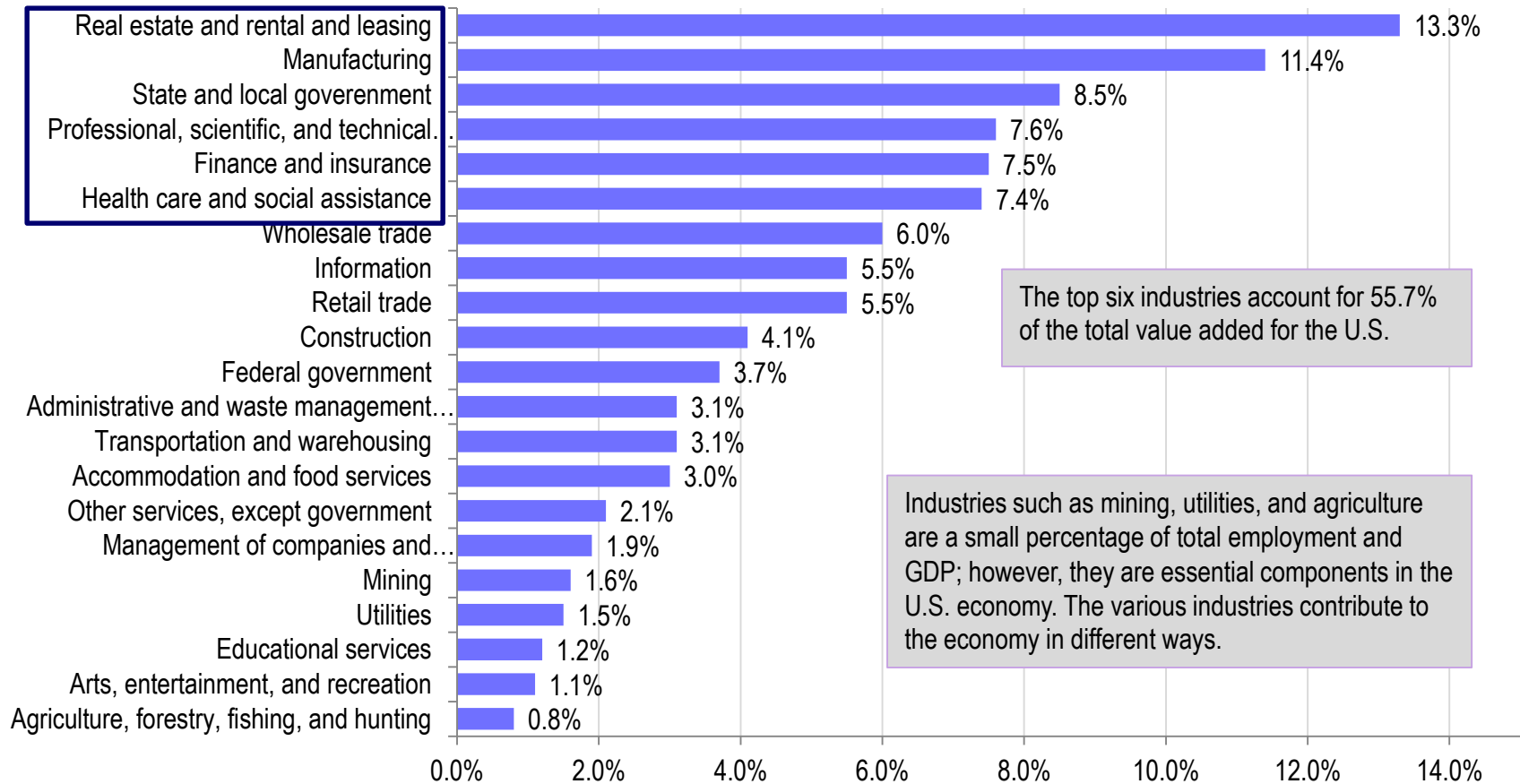


Source: Bureau of Economic Analysis, cber.co.

U.S. Q3 2018 Value Added by Industry

As Percentage of Total GDP

Value Added by Industry as a Percentage of Total GDP



Source: Bureau of Economic Analysis. Note: Total does not equal 100% because of rounding.

Why is GDP Data Important?

Key Points:

- Almost ten years have passed since the trough of the Great Recession. The economy is on solid footing. There is greater downside risk than upside potential.
- The global GDP is slowing.
- The U.S. GDP had momentum going into 2019, although it is expected to slow in the second half of the year. The momentum may be diminished by the partial government shutdown.
- There will be solid consumer and government spending in 2019 accompanied with modest business investment and slower construction activity.
- The top 6 industries account for about 56% of total GDP: real estate; manufacturing; state and local government; professional, scientific, and technical services; finance and insurance; and healthcare.
- Mining, utilities, and agriculture are a small percentage of total employment and GDP; however, they are essential components of the U.S. economy.



The U.S. Economy

The R Word, Federal Reserve Leading and Coincident Indicators, CAB, the University of Michigan Consumer Sentiment Survey, and the NFIB survey.

The R Word

Don't Panic! It Will Happen Soon Enough

When is the next recession?

During Q4, the volatility in the equities markets caused economists and members of the media to suggest the next recession was right around the corner. Some said it would be shallow, while other said it would be severe. Some said it wouldn't occur until 2020. In December 2018, this was a popular topic because the current business cycle is very mature.

Employment and real GDP growth is projected to increase at a slower rate in 2019, interest rates will increase slightly, the severe shortage of labor will continue. In addition, there is a high level of polarization and disgust with the leadership of the country.

Admittedly, there are challenges that are preventing the economy from growing at a faster pace, but at the moment there is little to suggest a recession will occur within the next year. While it is possible that terrorist attacks, natural disasters, or extended political unrest could cause a downturn, such events cannot be predicted.

The Sky Is Falling?

News Flash!! The sky is NOT falling. The U.S. and Colorado economies have momentum that should carry them through the first half of the year, if not longer, and it is likely there will be slower growth in the second half of the year.

Check back for details in six months!



Forward Looking Indicators

No Signs of a Recession

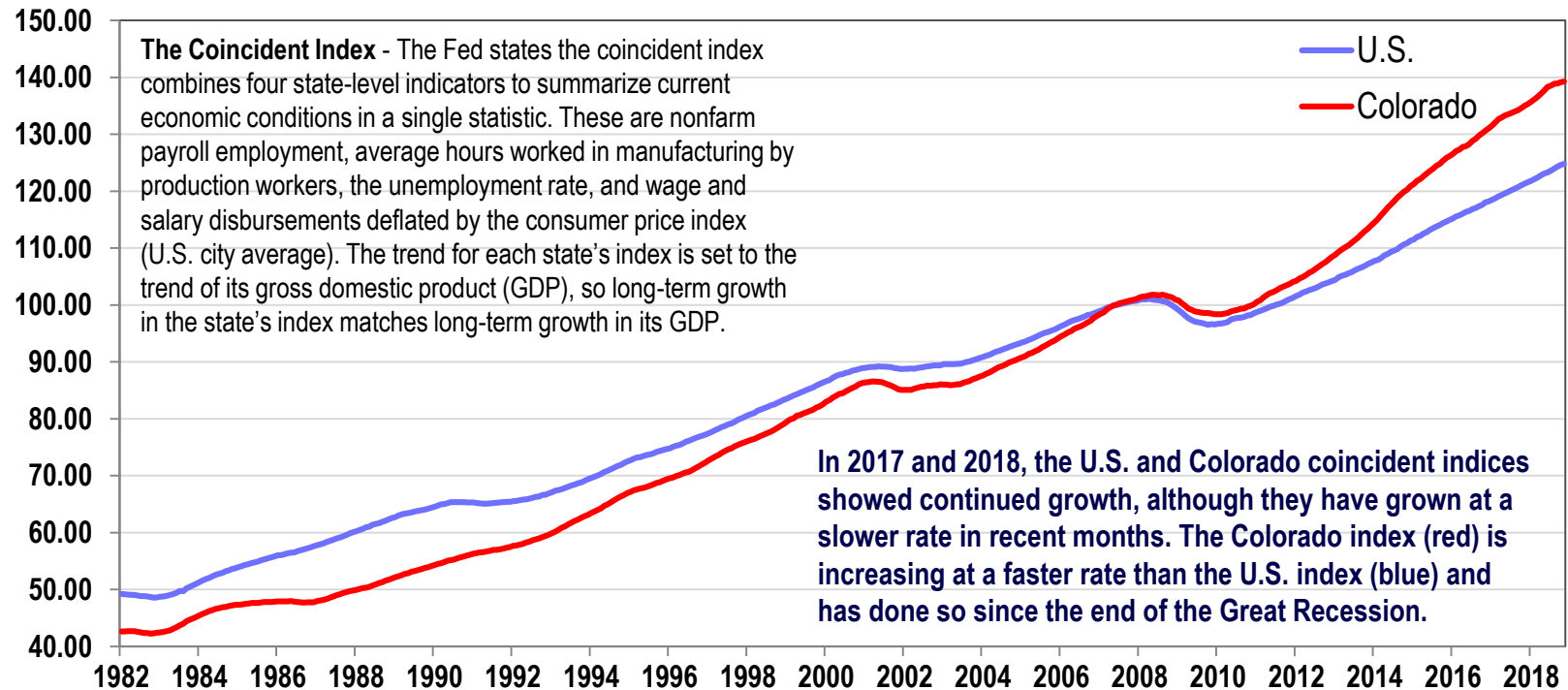
The leading and coincident indices produced by the Philadelphia Federal Reserve are two of many indicators that show the U.S. economy is on solid footing. In addition the Chemical Activity Barometer, Michigan Consumer Sentiment Survey, and the NFIB Optimism Index also suggest there is not a recession on the horizon.

Philadelphia Fed Coincident Index

Colorado vs. U.S.

Philadelphia Federal Reserve Coincident Index – Colorado and U.S.

Index Value



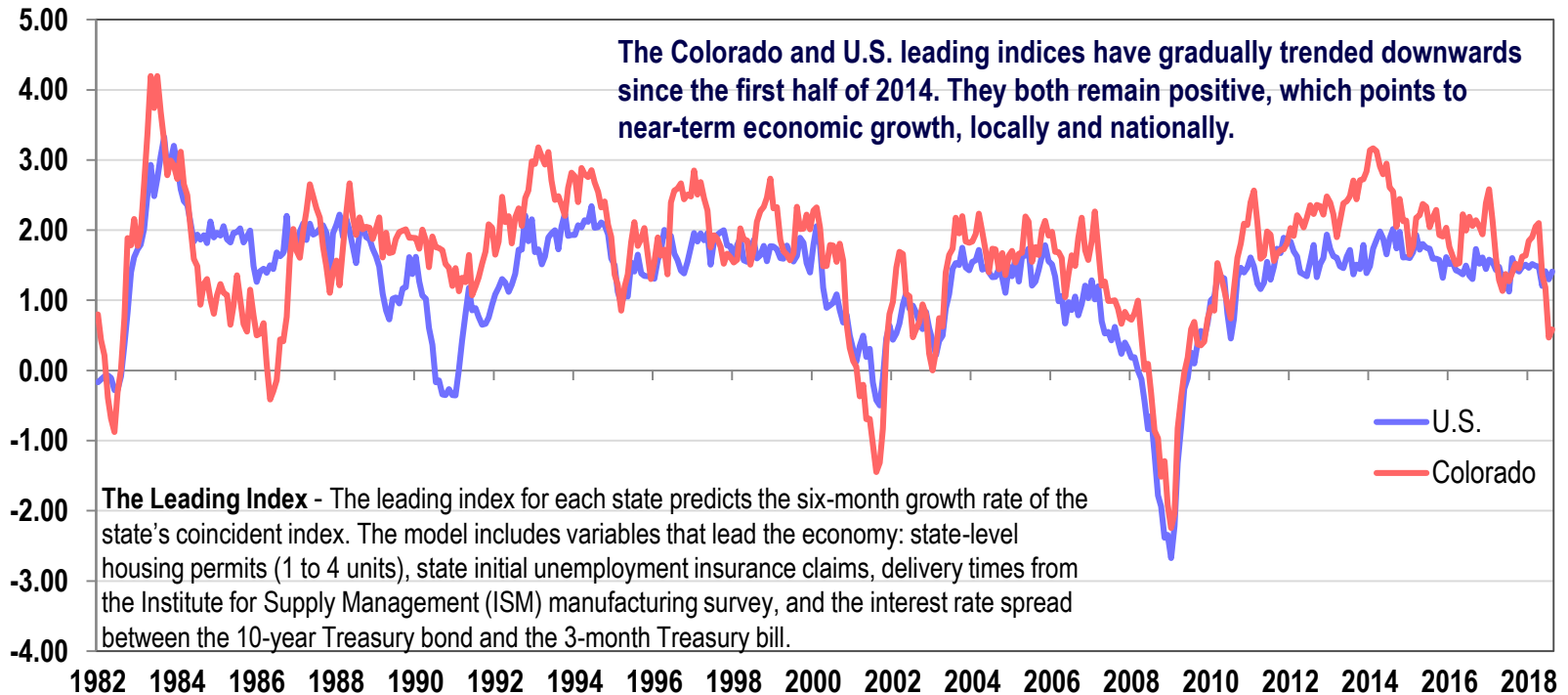
Source: Philadelphia Federal Reserve, cber.co. Note: The leading index predicts the six-month growth rate of the U.S. and state's coincident index.

Philadelphia Fed Leading Index

Colorado vs. U.S.

Philadelphia Federal Reserve Leading Index – Colorado and U.S.

Index Value

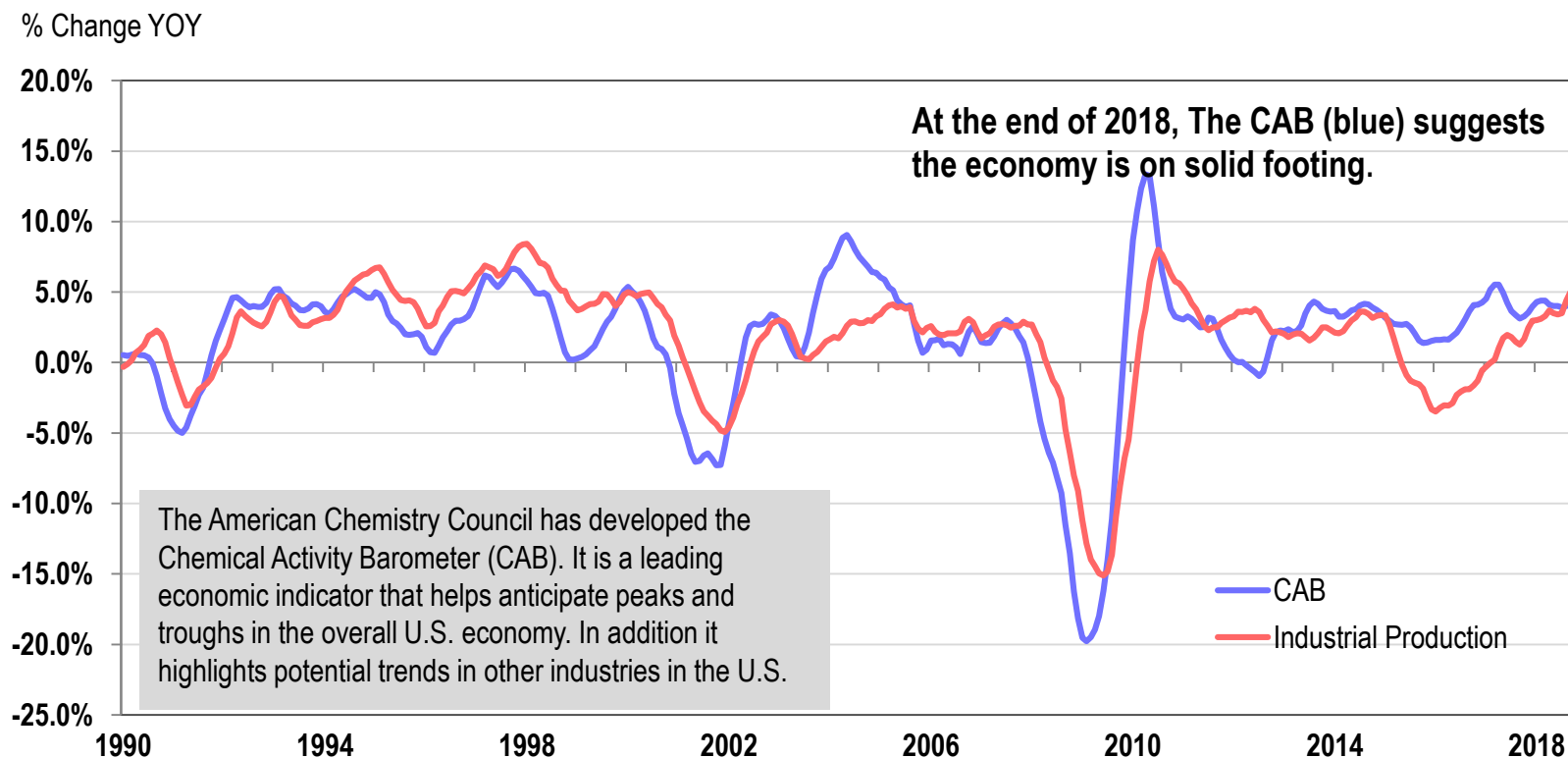


Source: Philadelphia Federal Reserve, cber.co. Note: The leading index predicts the six-month growth rate of the U.S. and state's coincident index.

Change in Chemical Activity Barometer

Compared to Industrial Production

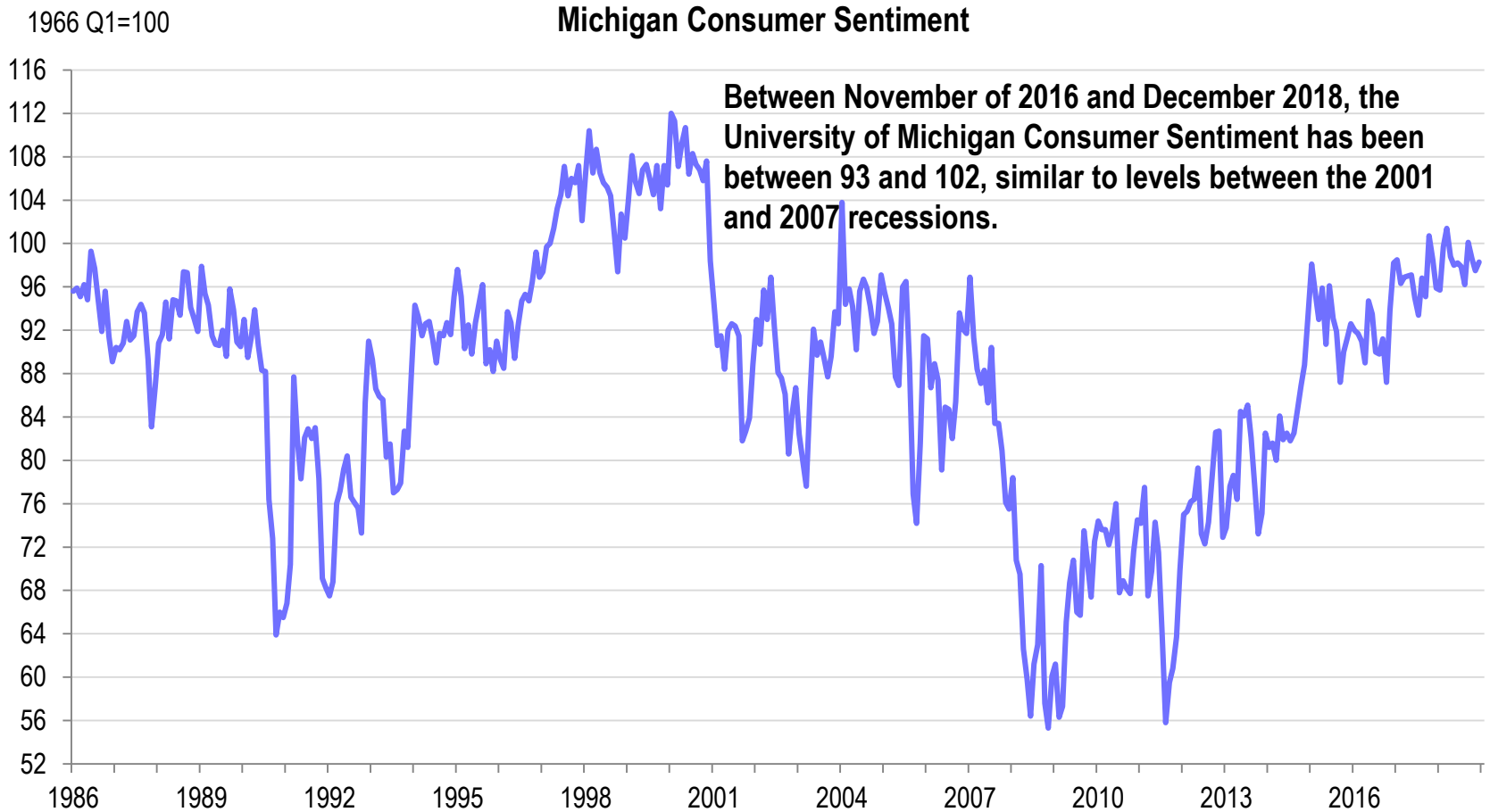
3 MMA YOY Percentage Change in CAB vs Industrial Production



Source: American Chemistry Council, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

University of Michigan Consumer Sentiment

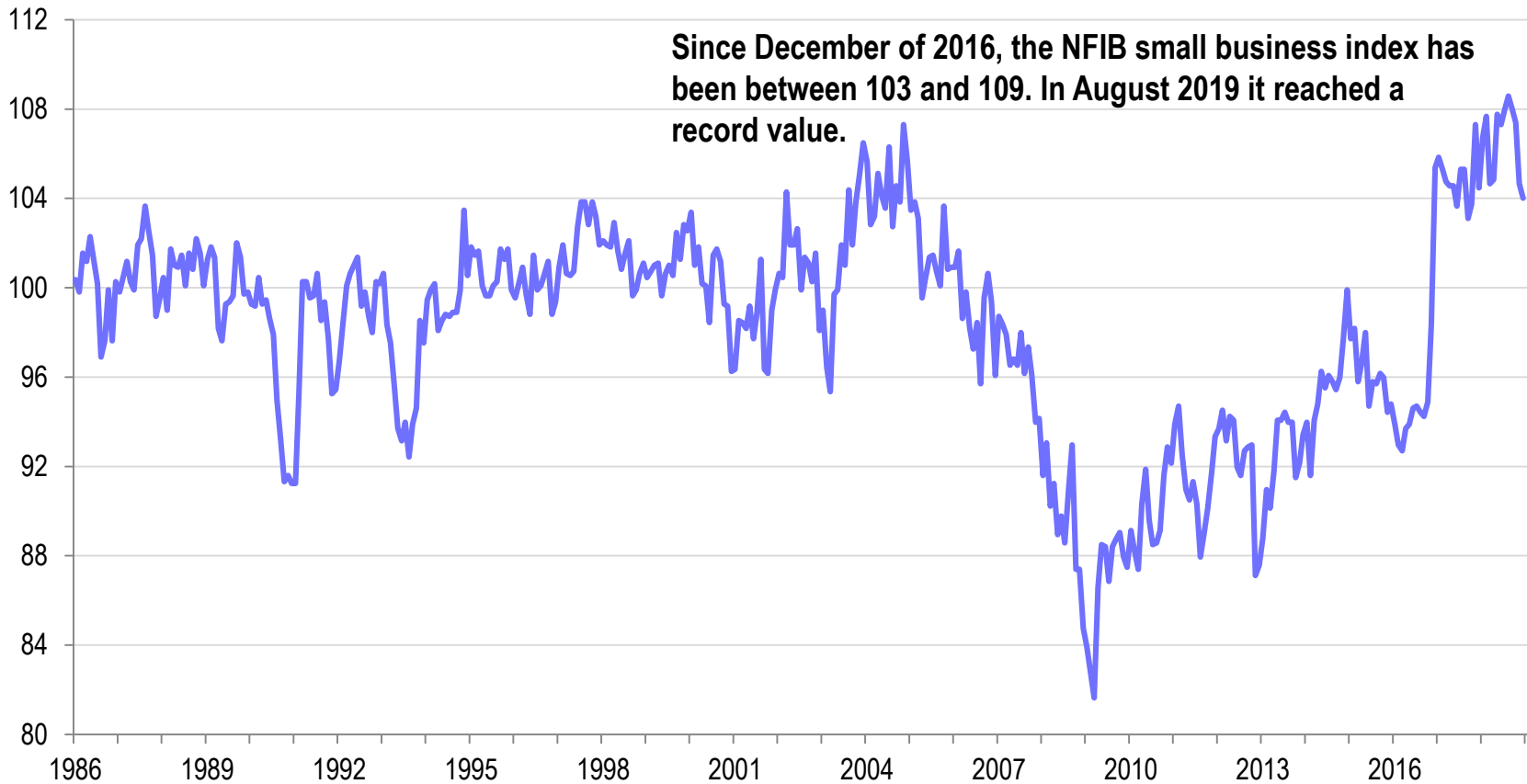


Source: University of Michigan, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

NFIB Small Business Optimism Index

NFIB Small Business Optimism Index



Source: NFIB, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Is a Recession on the Horizon?

Key Points:

- A recession is unlikely in 2019. This is supported by the five indicators in this section, as well as a majority of the indicators in this chartbook.
- There are a variety of legitimate reasons the economy is likely to lose momentum in the second half of the year; however, a slower rate of growth does not mean a downturn or recession.



The U.S. Economy

Employment, Multiple Job Holders, Hires and Separations,
Openings and Hires, Unemployment Rate, and Labor Force
Participation Rate

Annual Change in U.S. Employment

The U.S. added slightly more than 2.4 million jobs in 2018.

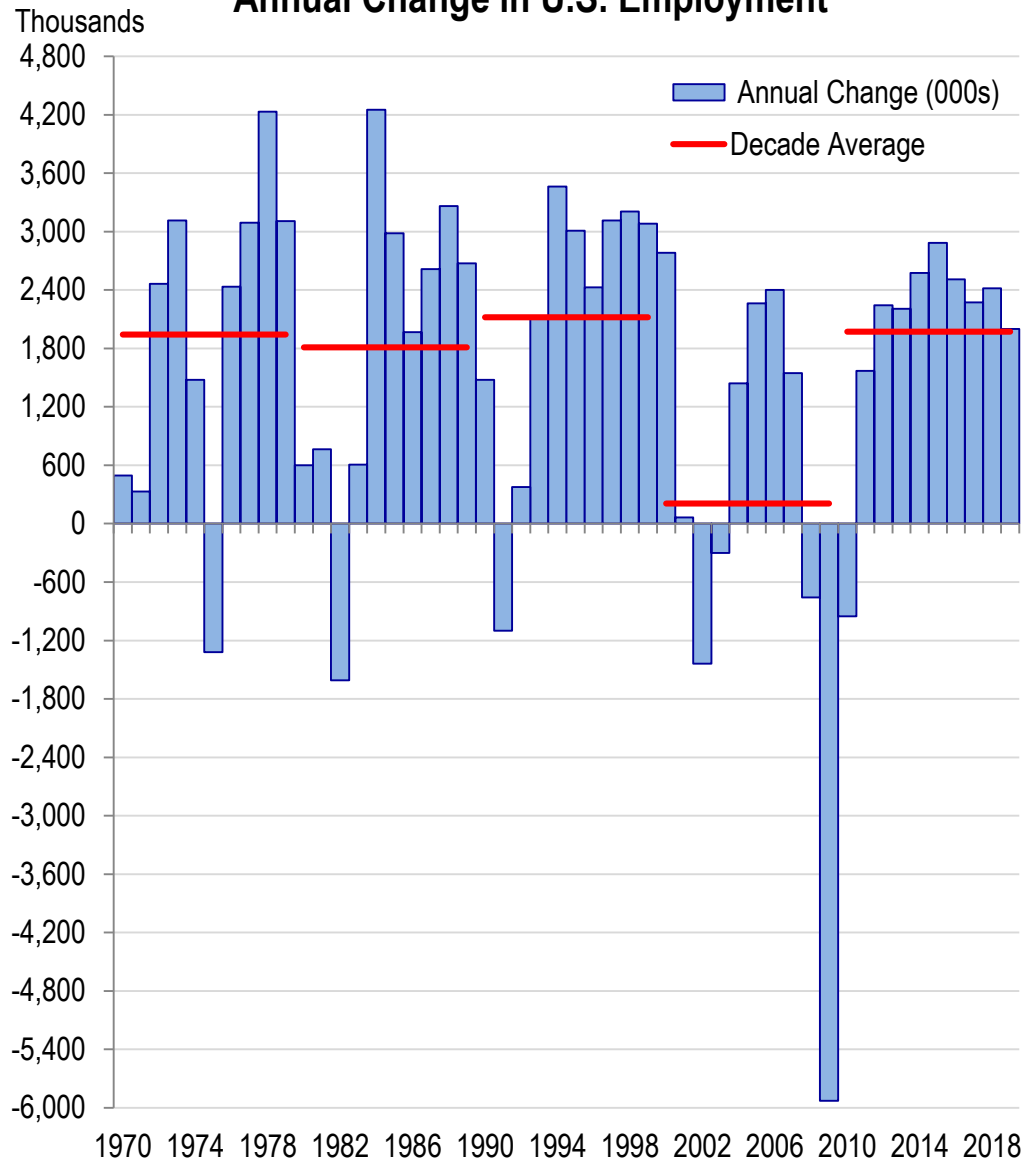
Two million jobs will be added in 2019, or an average of about 170,000 per month.

The average change in employment for the 2010s is 1,973,000, slightly greater than the 1970s. During the 1990s the change in average annual employment was 2,119,000.

The average annual change in millions (red lines) by decade follows:

- 1.9 from 1970 to 1979.
- 1.8 from 1980 to 1989.
- 2.1 million from 1990 to 1999.
- 0.2 million from 2000 to 2009.
- 1.9 million from 2010 to 2019.

Annual Change in U.S. Employment

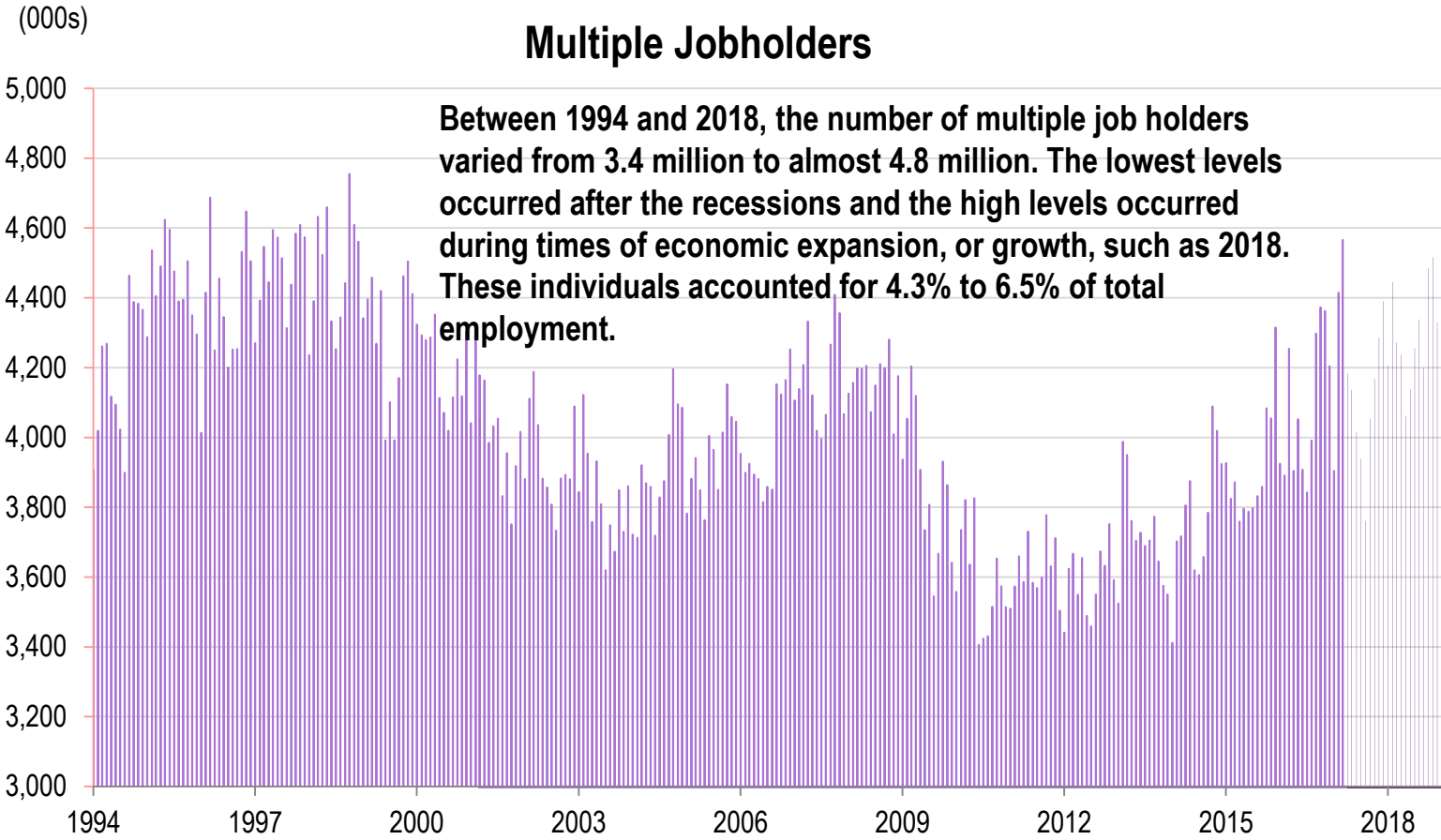


Source: Bureau of Labor Statistics, NSA; cber.co.



Multiple Jobholders

Primary Job Full Time, Secondary Job Part Time

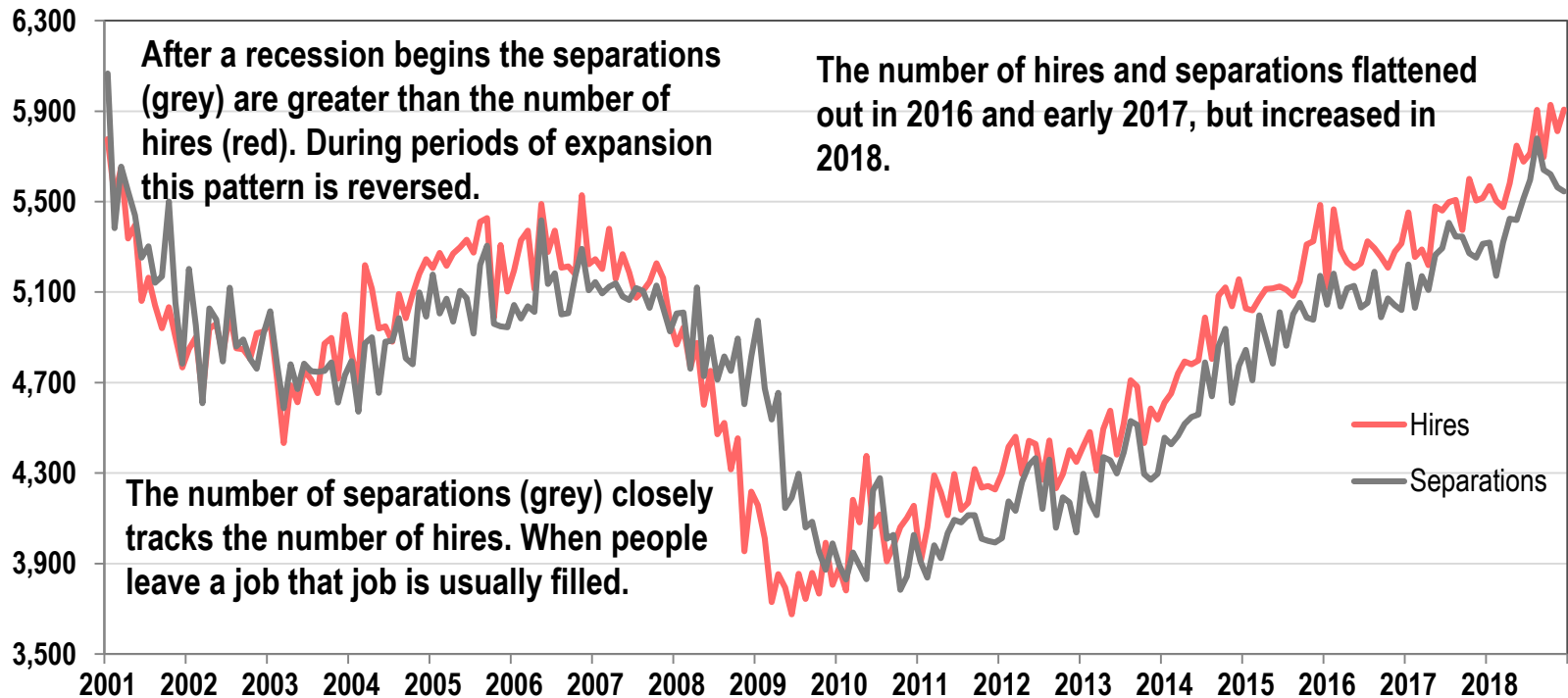


Source: FRED, BLS, NSA, cber.co.

U.S. Hires and Separations

Hires and Separations

Thousands

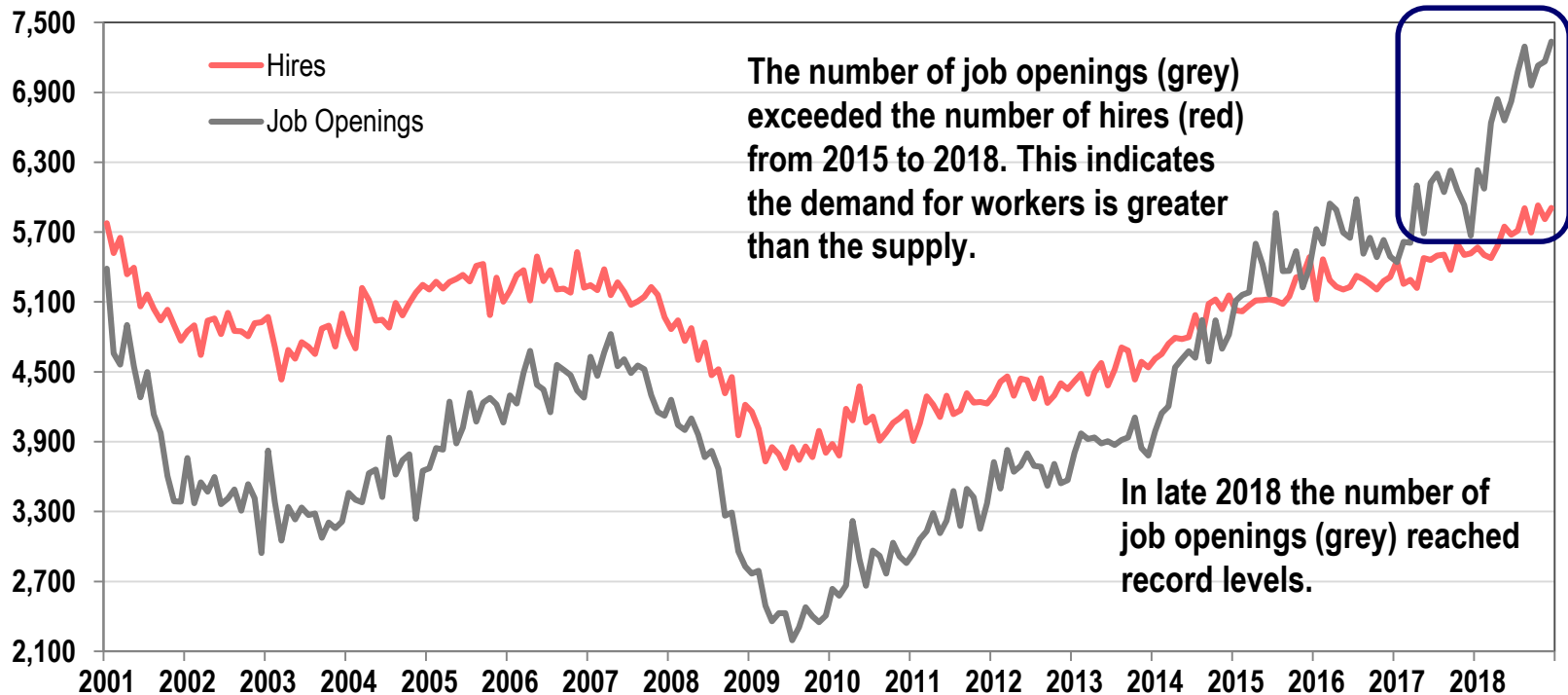


Source: Bureau of Labor Statistics, SA; cber.co.

U.S. Job Openings and Hires

Job Openings and Hires

Thousands



Source: Bureau of Labor Statistics, SA, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

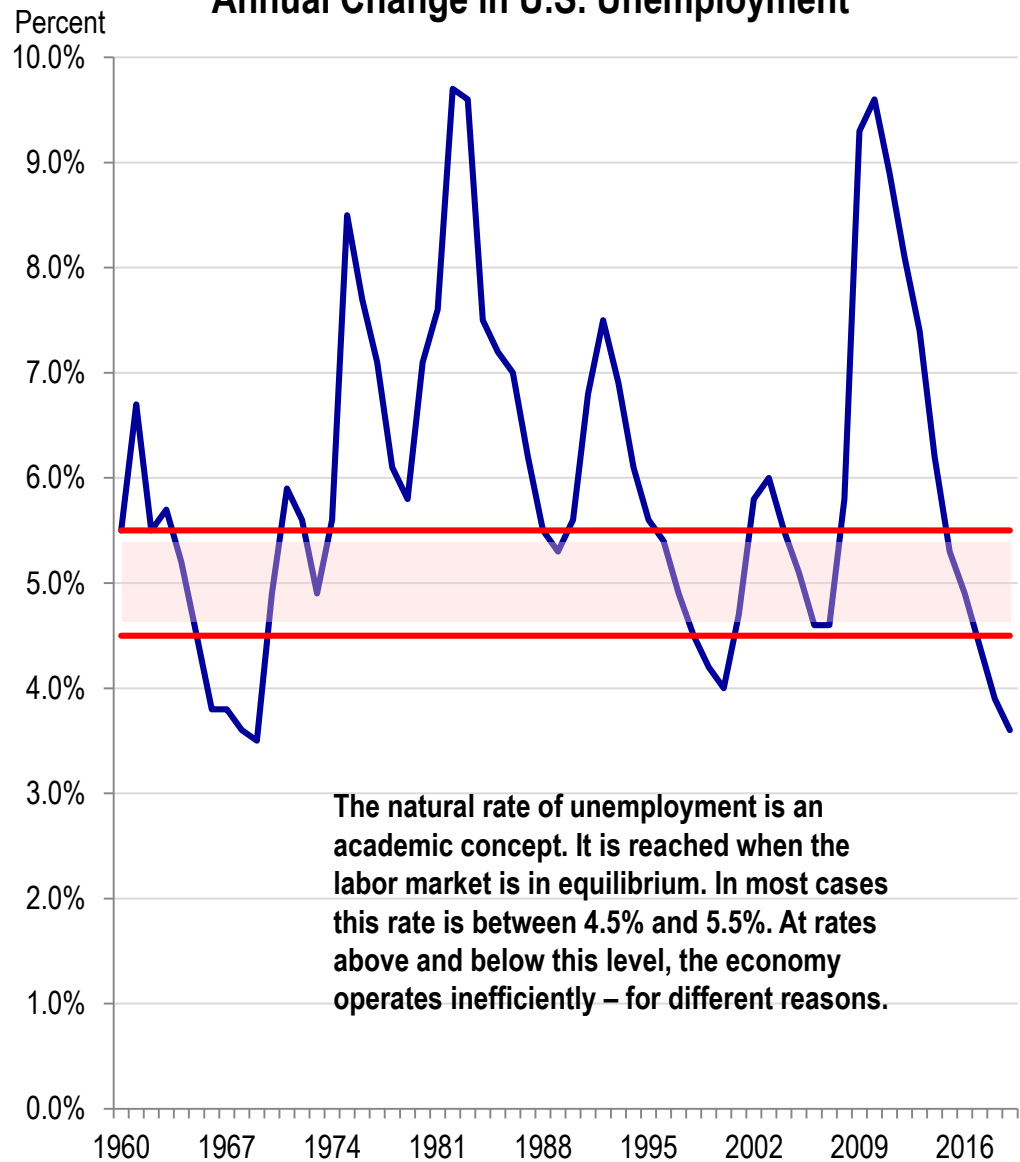
Annual Change in U.S. Unemployment

The annual unemployment rate for the U.S. will decline in 2019 to 3.6%. In the past 50 years only 1969 was lower at 3.5%.

The U.S. unemployment rate has declined since 2010 when it was 9.6%. The unemployment rate will be lower in 2019 as the labor participation rate continues to increase.

At present, the U.S. economy is “technically” not operating efficiently because of challenges caused by its low rate of unemployment and the lack of qualified workers.

Annual Change in U.S. Unemployment



Source: Bureau of Labor Statistics, NSA; cber.co.

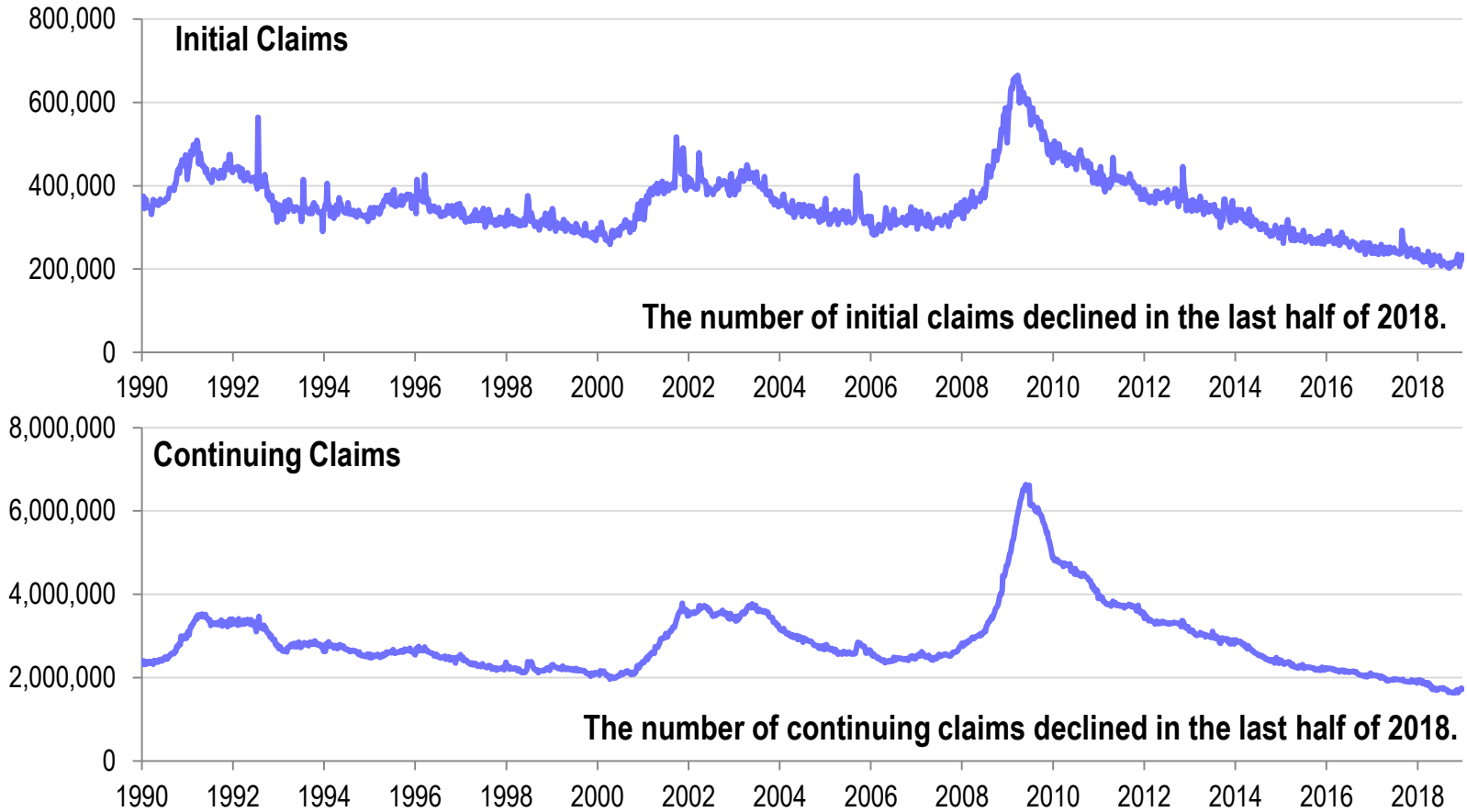
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Initial and Continuing Unemployment Claims



1990 to 2018

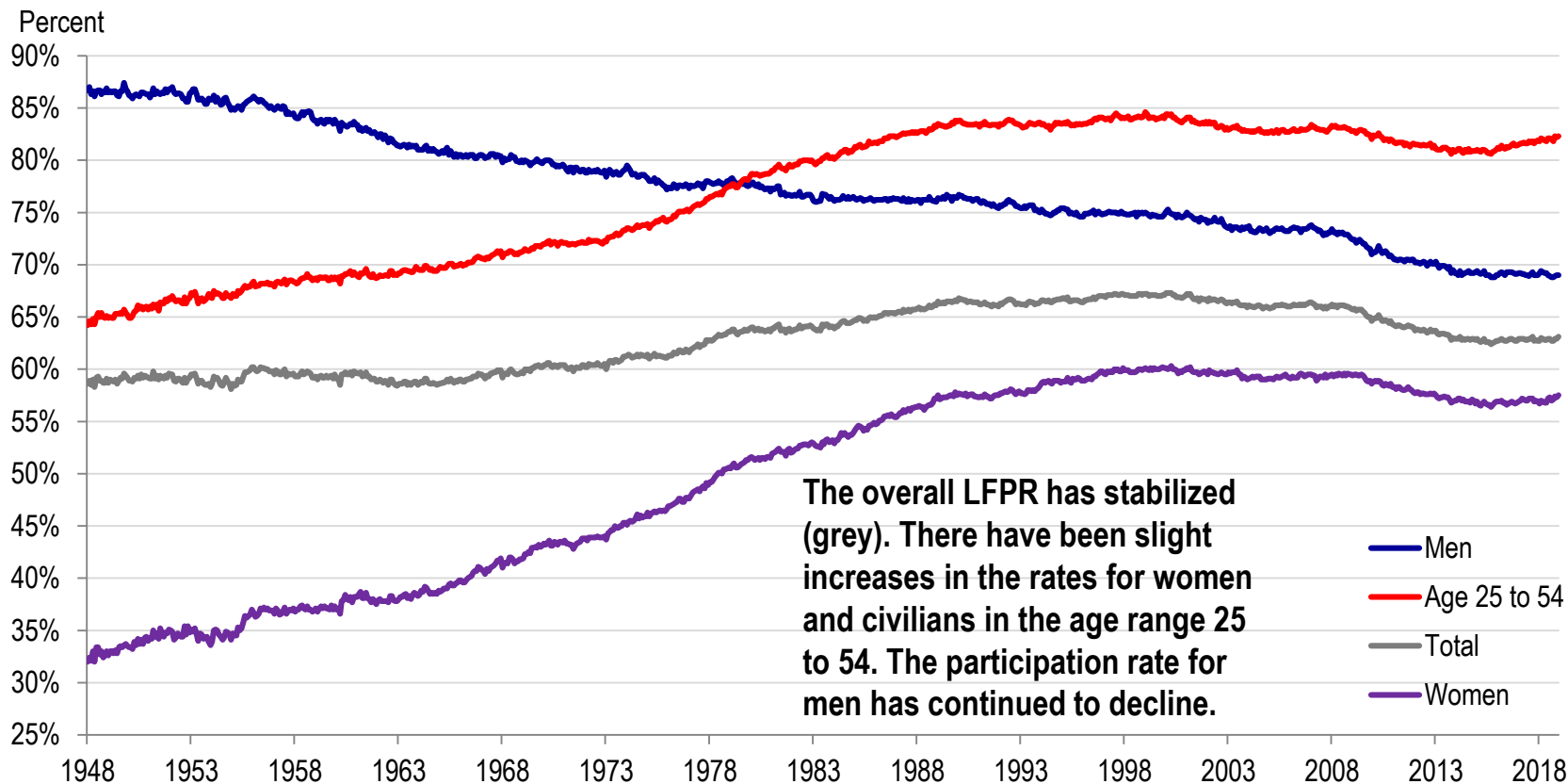


Source: FRED, Department of Labor, cber.co.

Labor Force Participation Rate

Total, Men, Women, Age 25 to 54

Labor Force Participation Rate



Source: FRED, BLS, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Take-Aways from the Employment Data

Key Points:

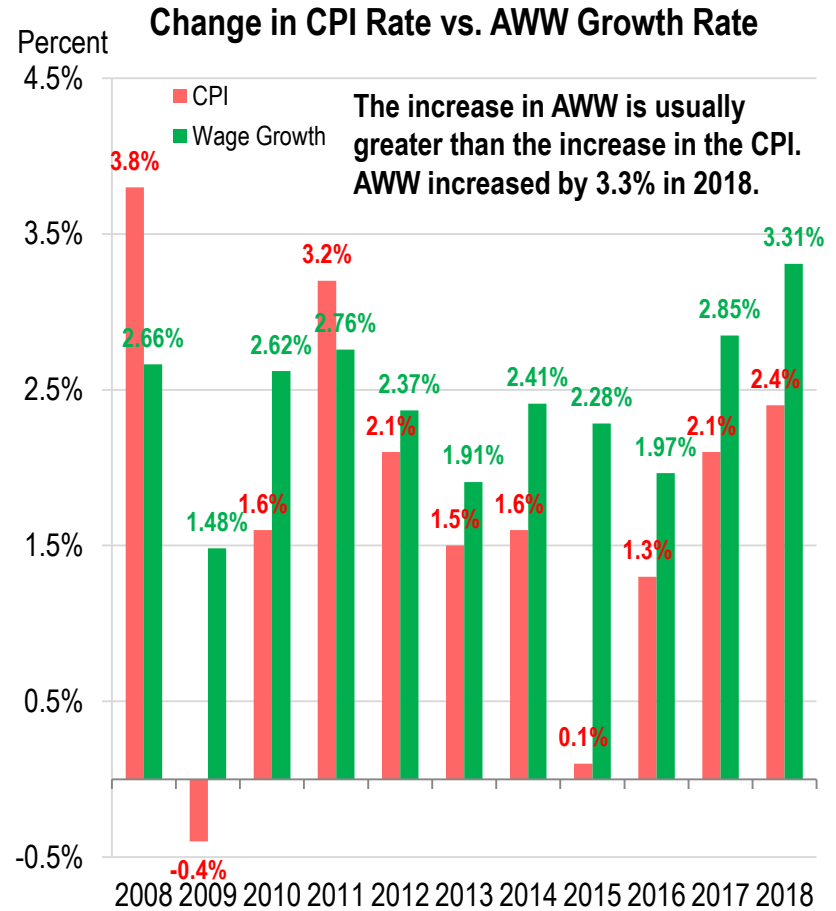
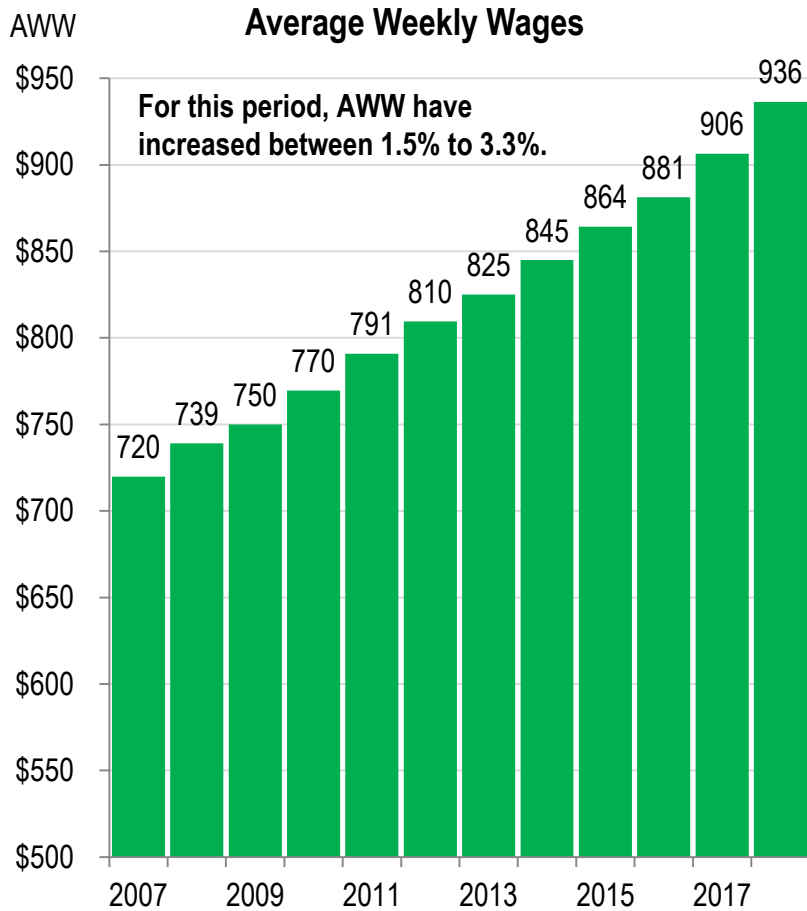
- Jobs are being added at a solid, but slower, rate than 2018.
- Unemployment is too low and the economy is operating inefficiently.
- The initial and continuing unemployment claims are continuing to decline. There is demand for workers.
- There are more job openings than there are hires. Again, there are not enough qualified workers.
- More people have multiple jobs. They may need a second job to make ends meet or they may see a second job as an opportunity to get ahead.
- The labor force participation rate for men is continuing to decline, while the rate for women and people between the ages of 25 and 54 is increasing slightly.



The U.S. Economy

Average Weekly Wages, Hours Worked, Inflation, and Real Median Household Income

U.S. Average Weekly Wage Growth

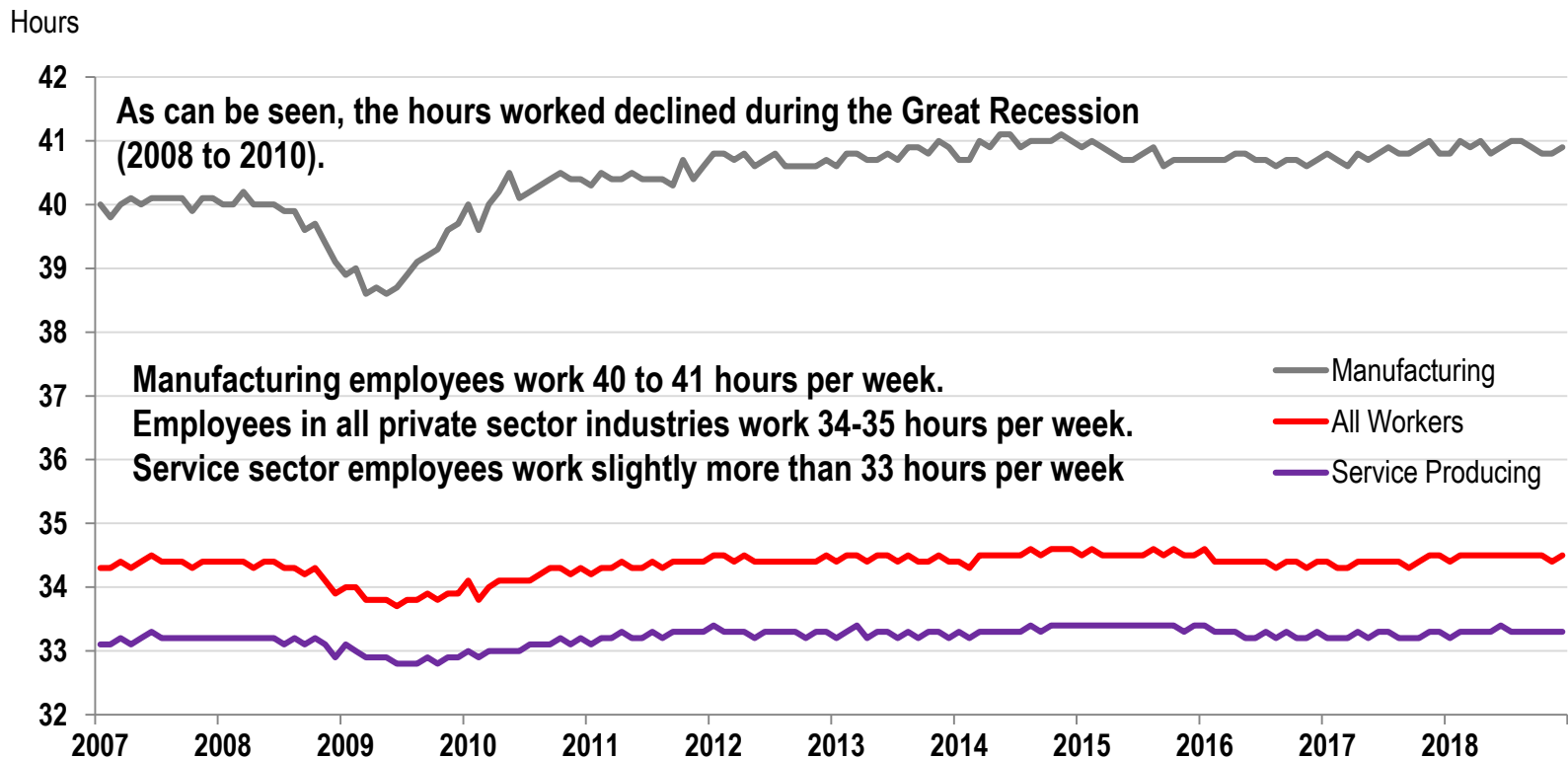


Source: Bureau of Labor Statistics, SA, cber.co. Note: Wages do not include benefits.

Average Weekly Hours Worked – Private

Total Workers, Service Producing Manufacturing

Average Weekly Hours Worked

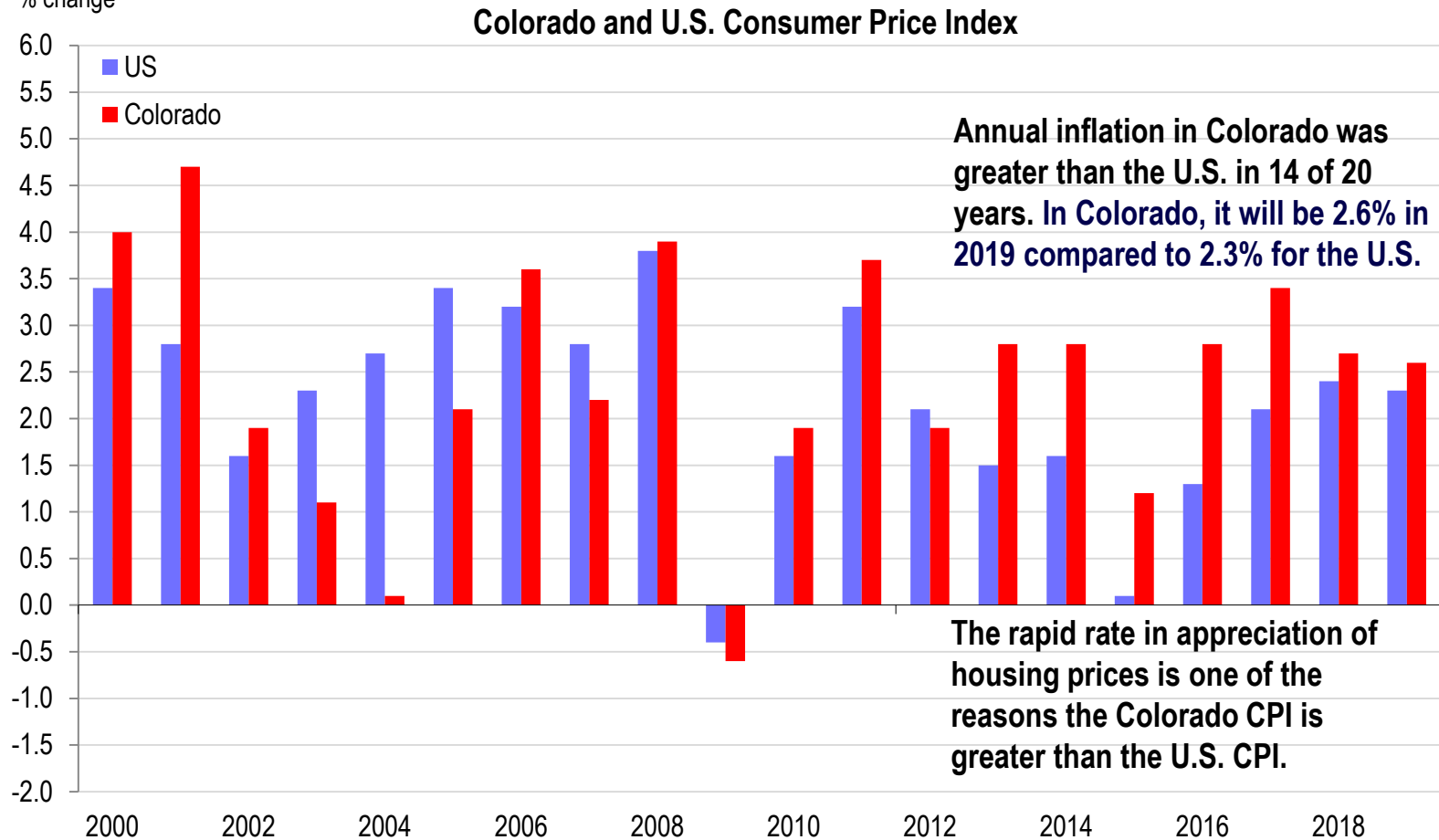


Source: Bureau of Labor Statistics, SA, cber.co.

Consumer Price Index (CPI)

Colorado vs. U.S.

1982-84=100,
% change



Source: Bureau of Labor Statistics, SA, cber.co.

Consumer Price Index (CPI) and PCE Deflator

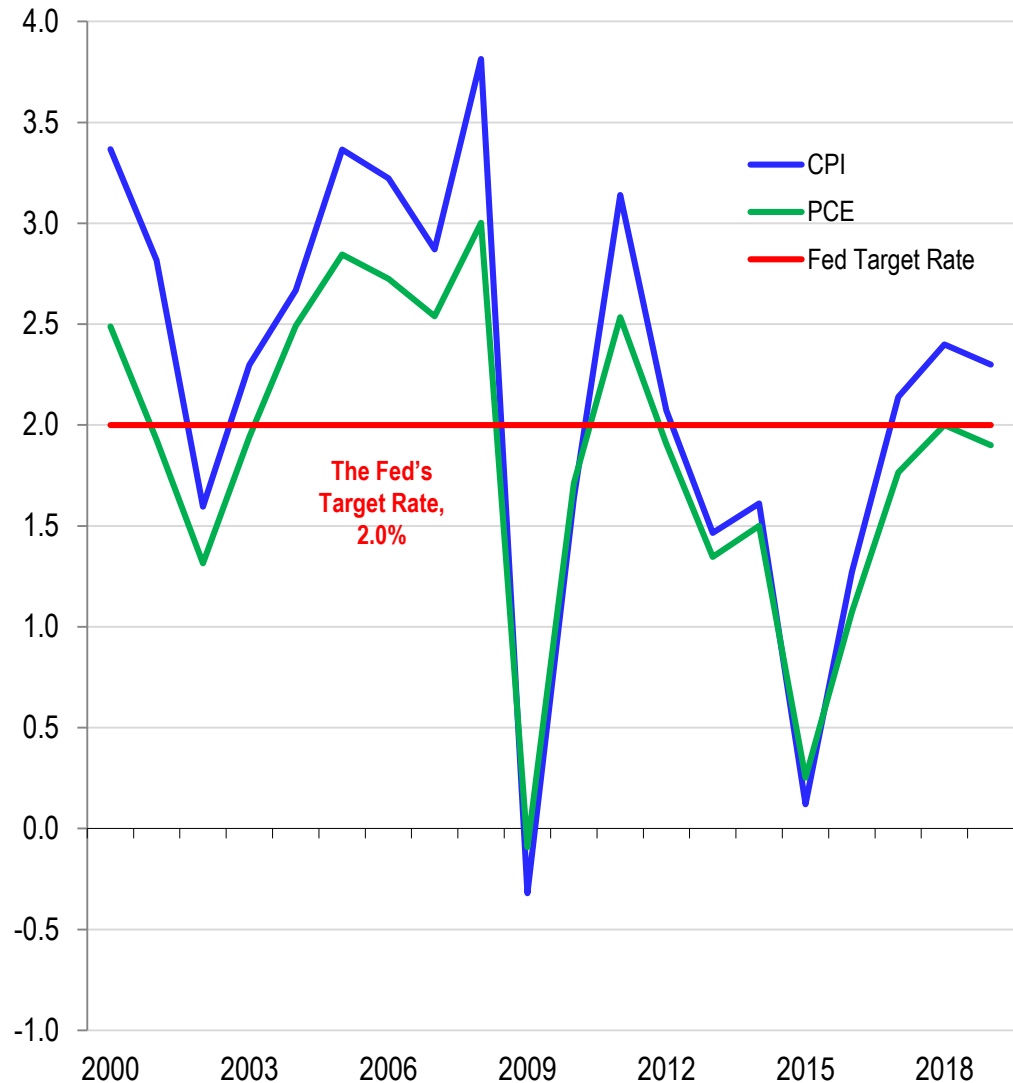
Between 2000 and 2018, the CPI has usually been greater than the PCE. The CPI is projected to increase by 2.3% in 2019, while the PCE deflator will rise by 1.8%.

Both indices reflect a lower rate of growth in 2019, because housing prices are expected to increase at a slower rate. Rising input prices, caused by higher interest rates and wage increases, will put upward pressure on the indices in 2019.

The Fed's target rate of 2.0% is tied to the PCE deflator.

1982-84=100,
% change

U.S. Consumer Price Index and PCE Deflator



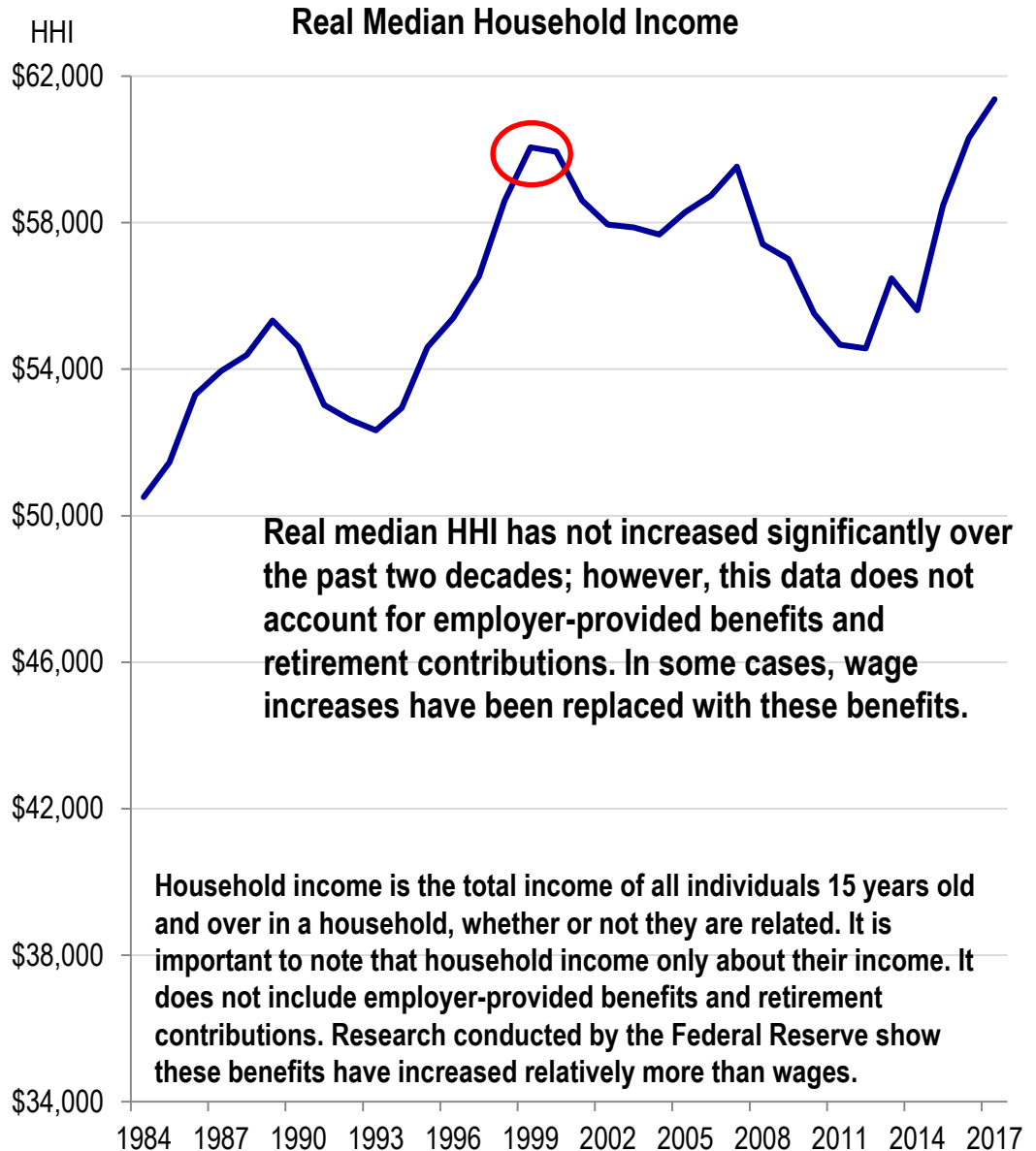
Real Median Household

Income (CPI-U-RS Adjusted Dollars, Not Seasonally Adjusted)

The most current household income data shows that in 1999 (red circle) U.S. real median household income was \$1,310 less than 2017 (\$60,062 vs. \$61,372).

Between 1984 and 2017 the real median HHI increased 18 times and decreased 15 times.

In the 33 years between 1984 and 2017, real median household income increased at an annualized rate of 0.59%. Between 2010 and 2017 real median HHI increased at an annualized rate of 1.4%.



Source: Federal Reserve, FRED, cber.co

Colorado-based Business and Economic Research <http://cber.co>

What are the Take-Aways from the Labor and Employment Data?

Key Points:

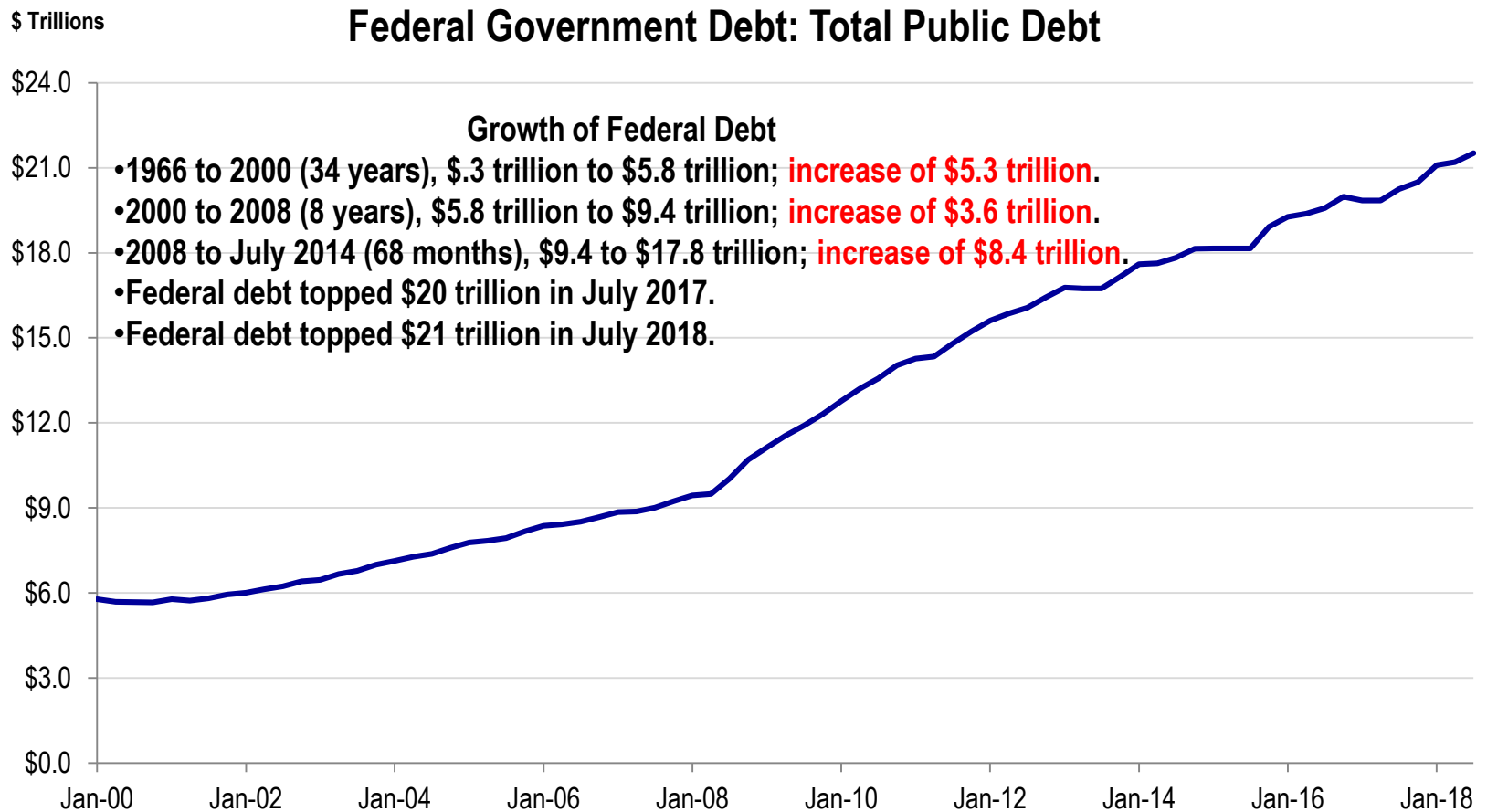
- At last, wages are increasing.
- That is a mixed blessing. If wages increase too much over a short period, they may cause inflation. On the other hand, increased wages often result in increased consumption.
- A strong work week is an indication there is demand for goods and services and workers.
- Increased wages contribute to greater median HHI. In turn, this results in greater consumption and savings.
- Caution must be used in evaluating wage data to make sure there is an apples-to-apples comparison. For example, data that includes benefits can tell a different story than data that does not include benefits.



The U.S. Economy

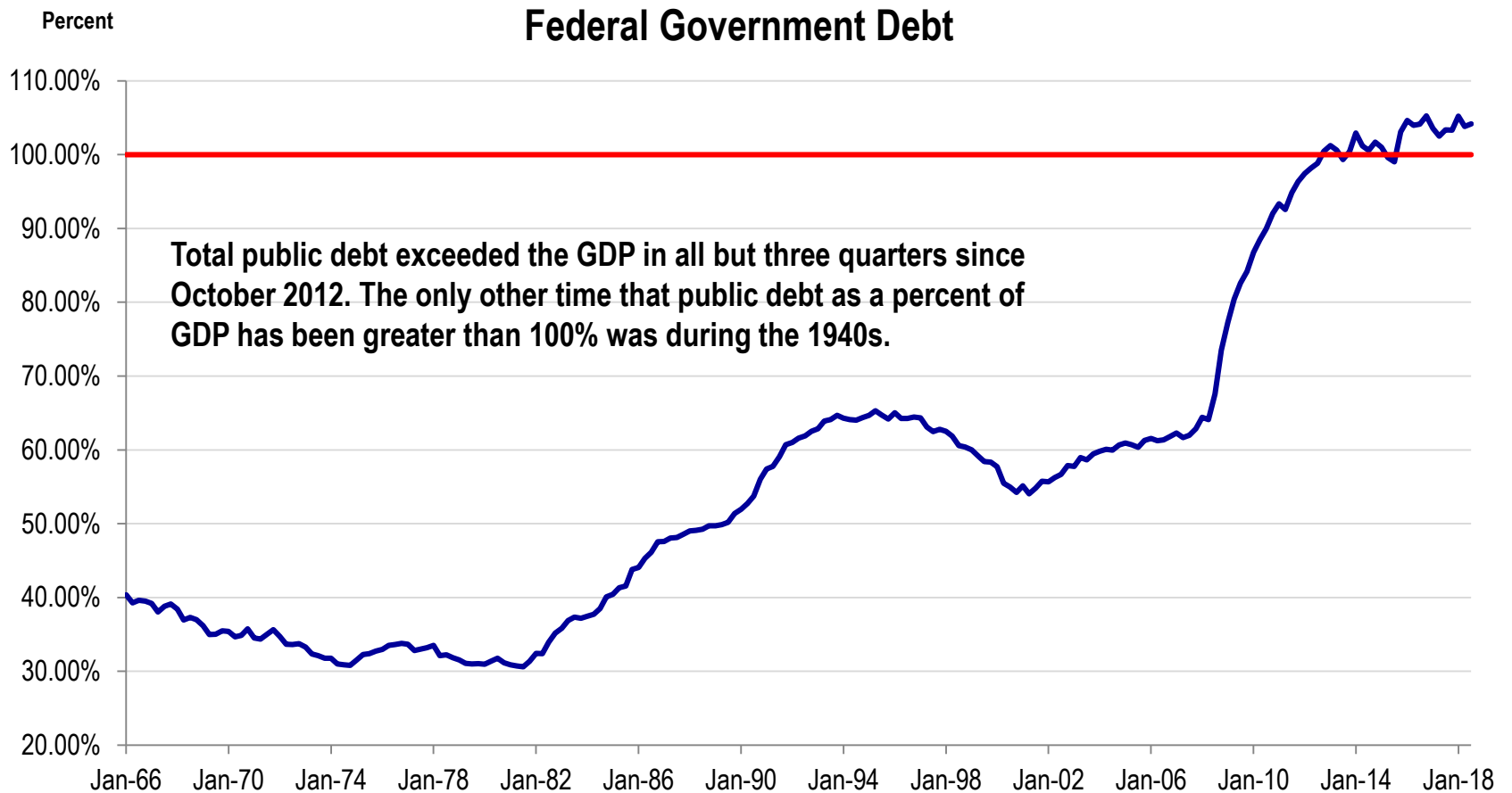
Debt and Savings

U.S. Federal Government Debt



Source: FRED, cber.co.

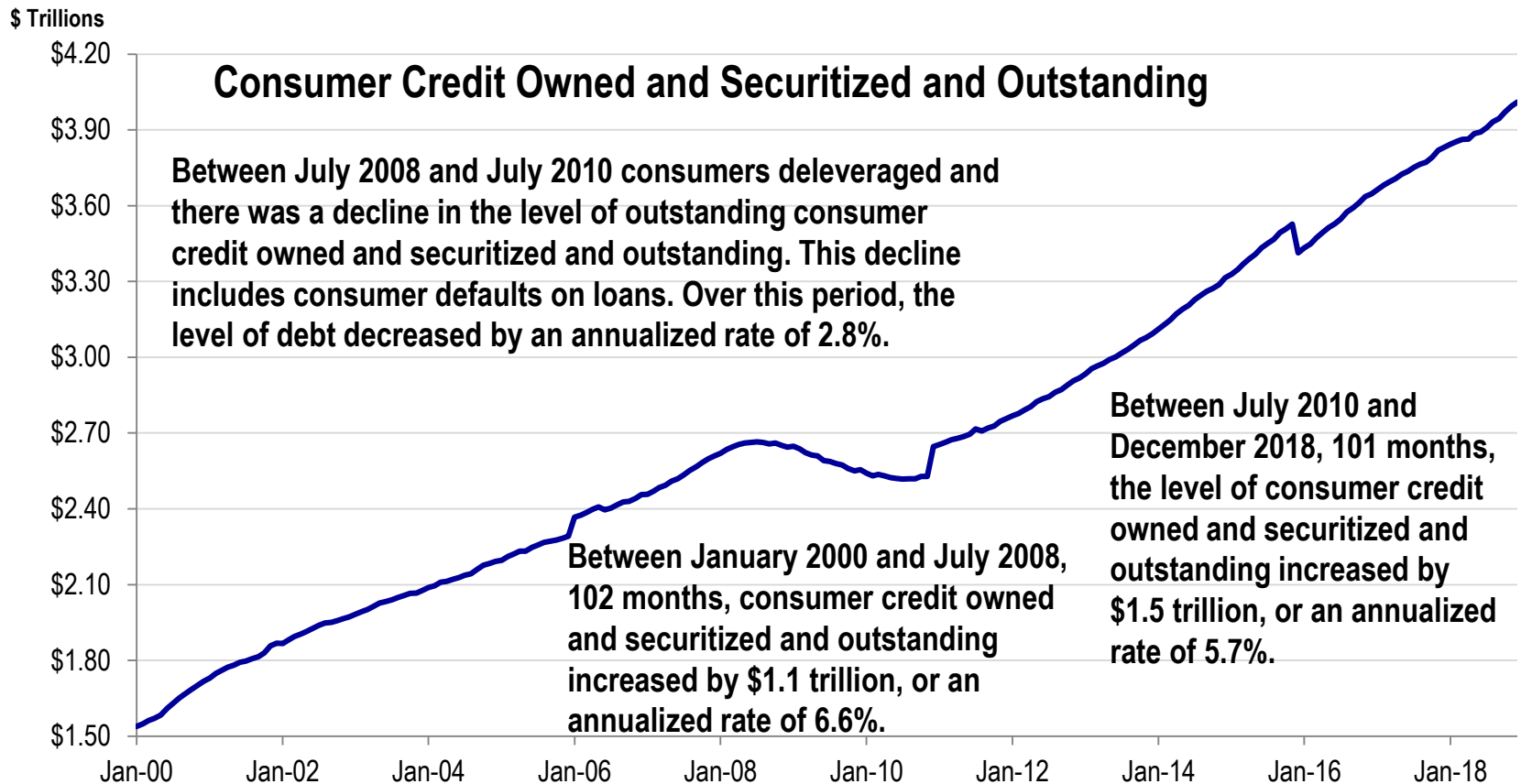
U.S. Public Debt as a Percent of GDP



Source: FRED, cber.co.

U.S. Consumer Credit

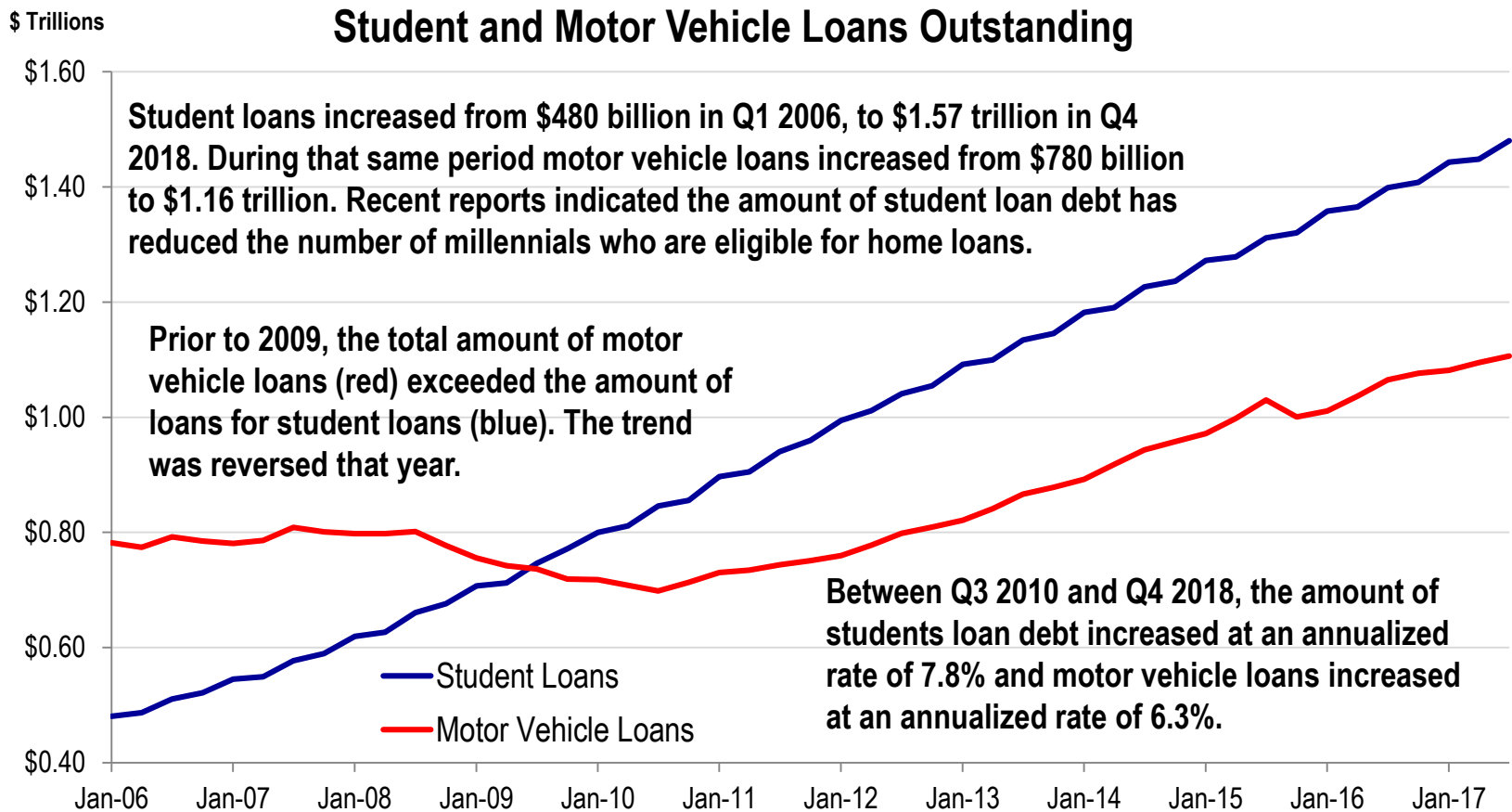
Owned and Securitized and Outstanding



Source: FRED, Federal Reserve, G.19, SA.

U.S. Loans Outstanding

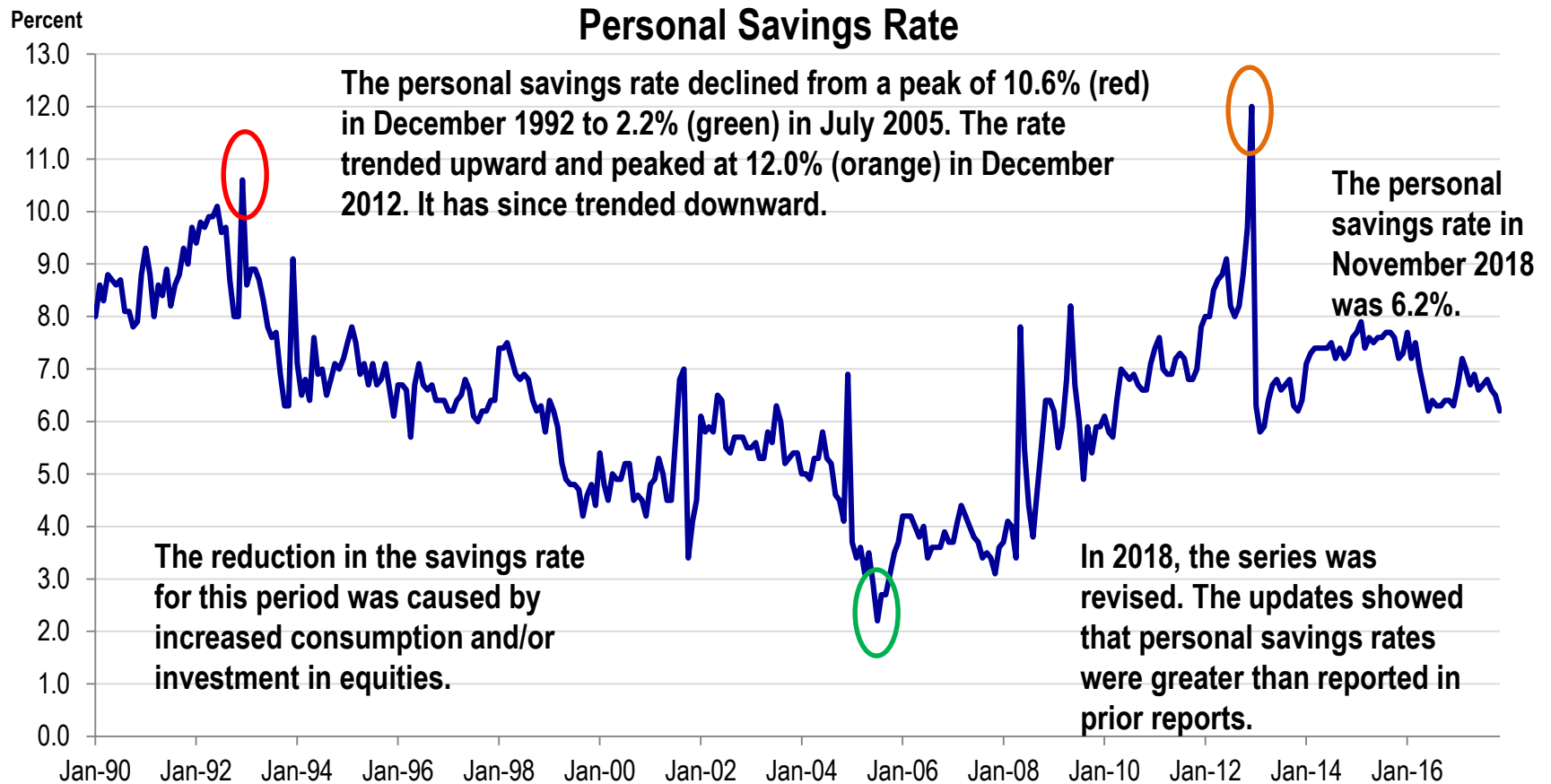
Student Loans vs. Motor Vehicle Loans



Source: FRED, cber.co.

U.S. Personal Savings Rate

Percentage of Disposable Personal Income



Source: FRED, SA.

Is Debt Good or Bad?

Key Points:

- A recent revision of the savings data shows that consumers have been saving at a higher rate than previously anticipated.
- Debt is often justified if it is responsibly used to make purchases that stimulate consumption and growth.
- Debt is often criticized if debt service obligations prevent consumption and growth.
- Whether or not you believe debt is good for the economy, one thing is for sure – consumer and government debt has increased!

“A national debt, if it is not excessive, will be to us a national blessing.”

-Alexander Hamilton



The U.S. Economy

Political Polarization and the Economy

Largest Gaps in Presidential Approval

Republican vs. Democratic

It is not easy being the President of the United States, particularly given the divide in the country that began during Bill Clinton's presidency. The split in the country continued with Bush, Obama, and now Trump. Over time, this polarization has had a negative impact on society, business and political decision making, and the performance of the economy.

Largest Gaps in Republican vs. Democratic Approval of the President, Gallup Polls, 1945-2019

	Year in office (dates)	% Approve, Republicans	% Approve, Democrats	Gap (pct. pts.)
Trump	2 (Jan '18-Jan '19)	87	8	79
Obama	8 (Jan '16-Jan '17)	12	89	77
Obama	4 (Jan '12-Jan '13)	10	86	76
G.W. Bush	4 (Jan '04-Jan '05)	91	15	76
Trump	1 (Jan '17-Jan '18)	83	8	75
Obama	7 (Jan '15-Jan '16)	10	83	73
G.W. Bush	5 (Jan '05-Jan '06)	86	14	72
Obama	5 (Jan '13-Jan '14)	11	82	71
Obama	6 (Jan '14-Jan '15)	9	79	70
G.W. Bush	6 (Jan '06-Jan '07)	79	9	70
Obama	2 (Jan '10-Jan '11)	13	81	68
Obama	3 (Jan '11-Jan '12)	12	80	68
G.W. Bush	7 (Jan '07-Jan '08)	73	7	66
Obama	1 (Jan '09-Jan '10)	23	88	65
Clinton	4 (Jan '96-Jan '97)	24	85	61

Source: Gallup, January 2019.



Politics Matters!

Key Points:

- The divide of Americans along ideological lines and political parties is deeper and more wide spread than any point since the late-1990s.
- The polarization trends affect all aspects of our life, ranging from dysfunction in society to the performance of the economy.

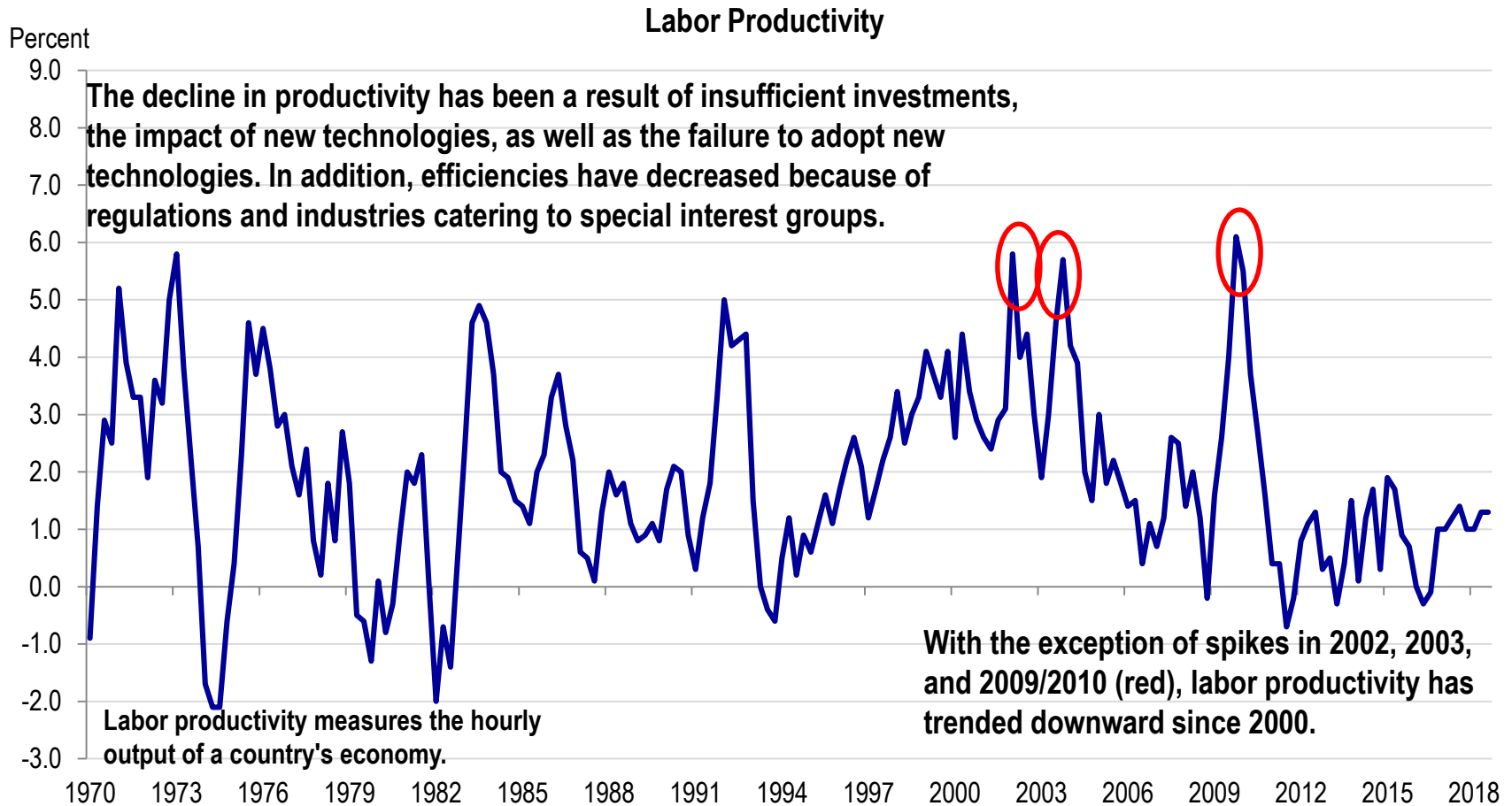


The U.S. Economy

Industry Performance – Productivity, Capacity Utilization, Industrial Production, Inventory to Sales Ratio, Household Debt as a Percentage of Disposable Income, Corporate Profits, Durable Goods Ordered

U.S. Labor Productivity (Output per Hour)

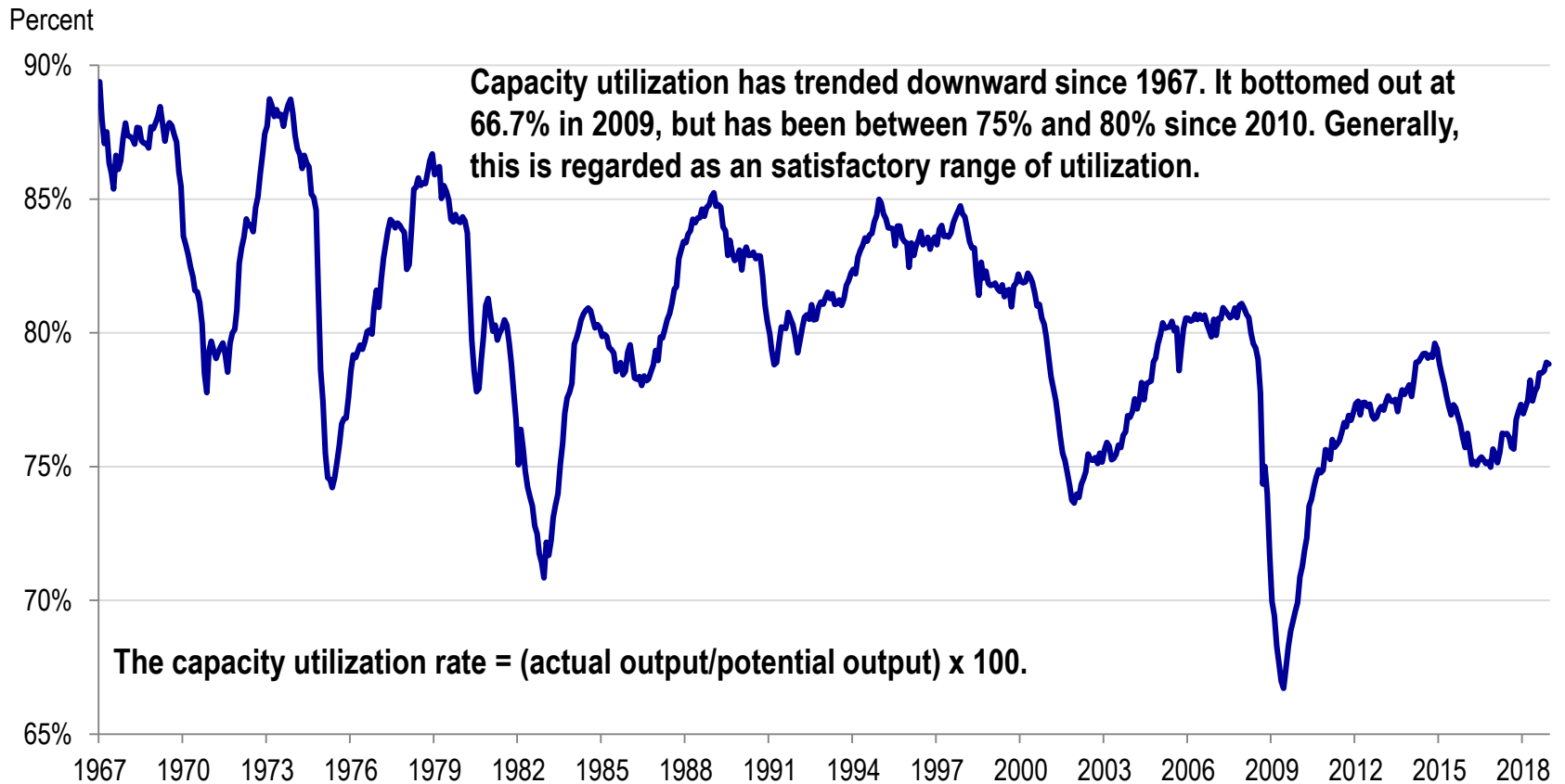
Percent Change Same Quarter Prior Year Nonfarm Business



Source: Bureau of Labor Statistics, Major Sector Productivity (NonFarm Business) NSA, cber.co.

Capacity Utilization

Capacity Utilization



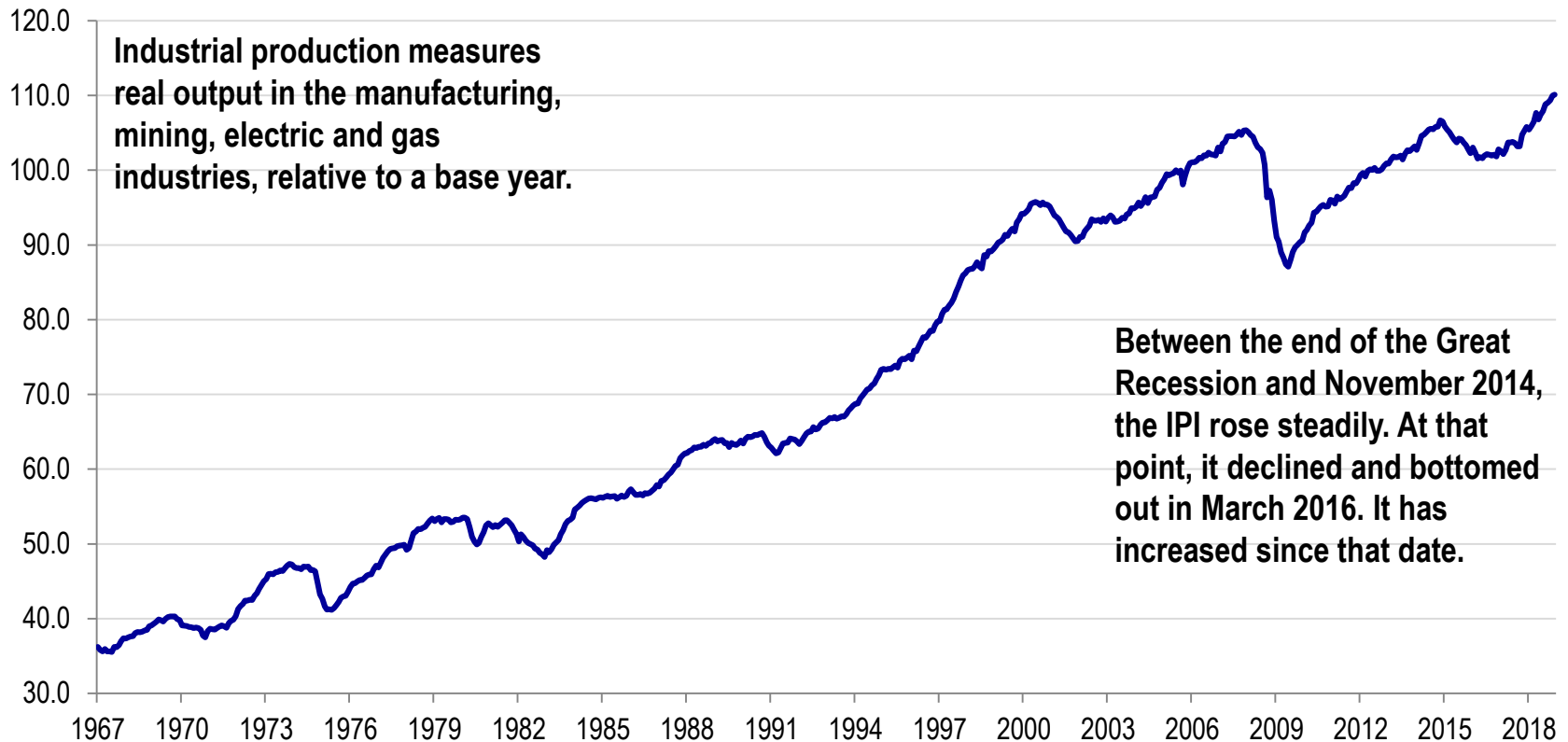
Source: FRED, Federal Reserve, cber.co.

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Industrial Production Index

Industrial Production, All Industries

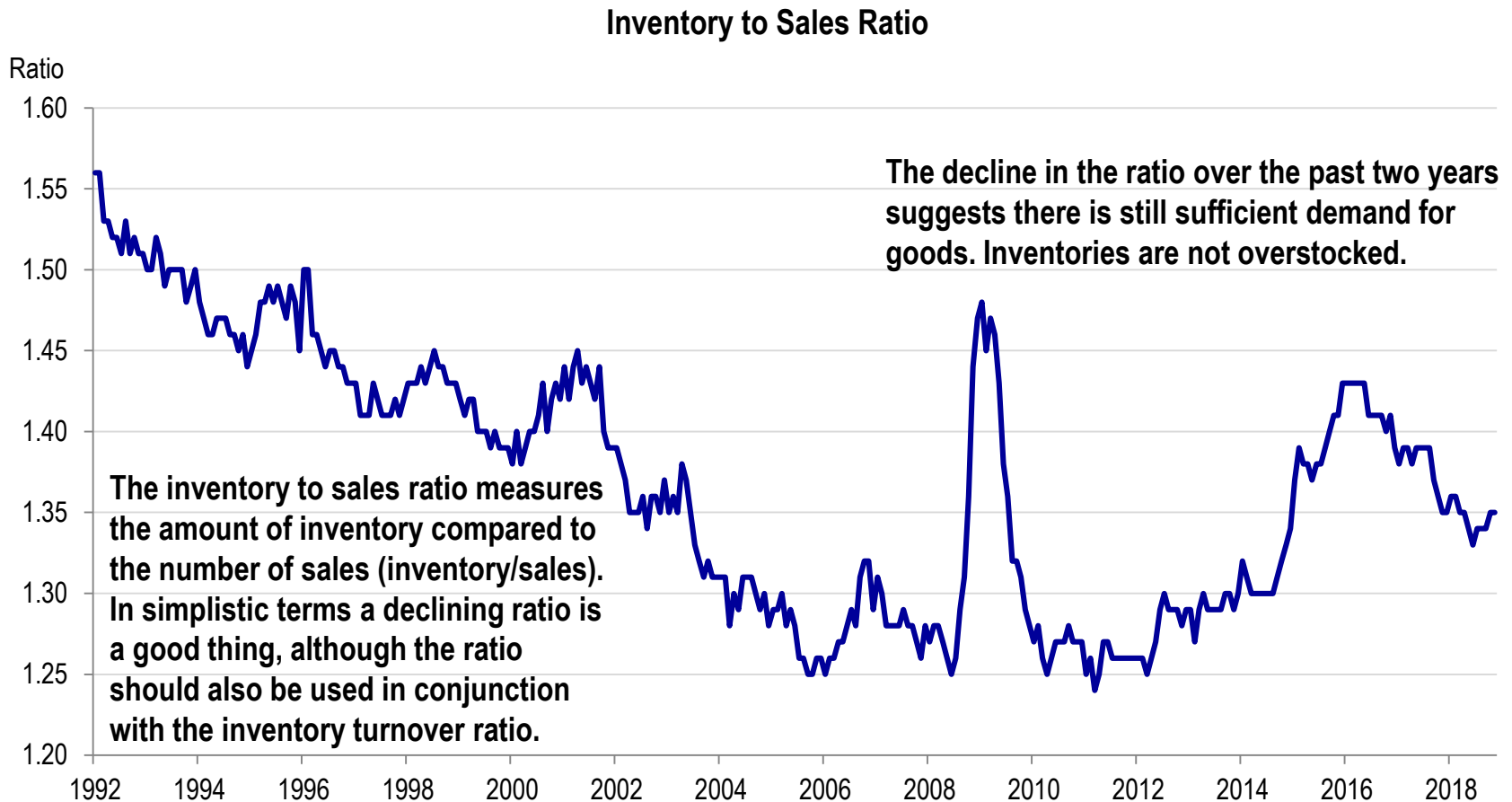
Index, 2012 = 100.



Source: FRED, Federal Reserve, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Inventory to Sales Ratio



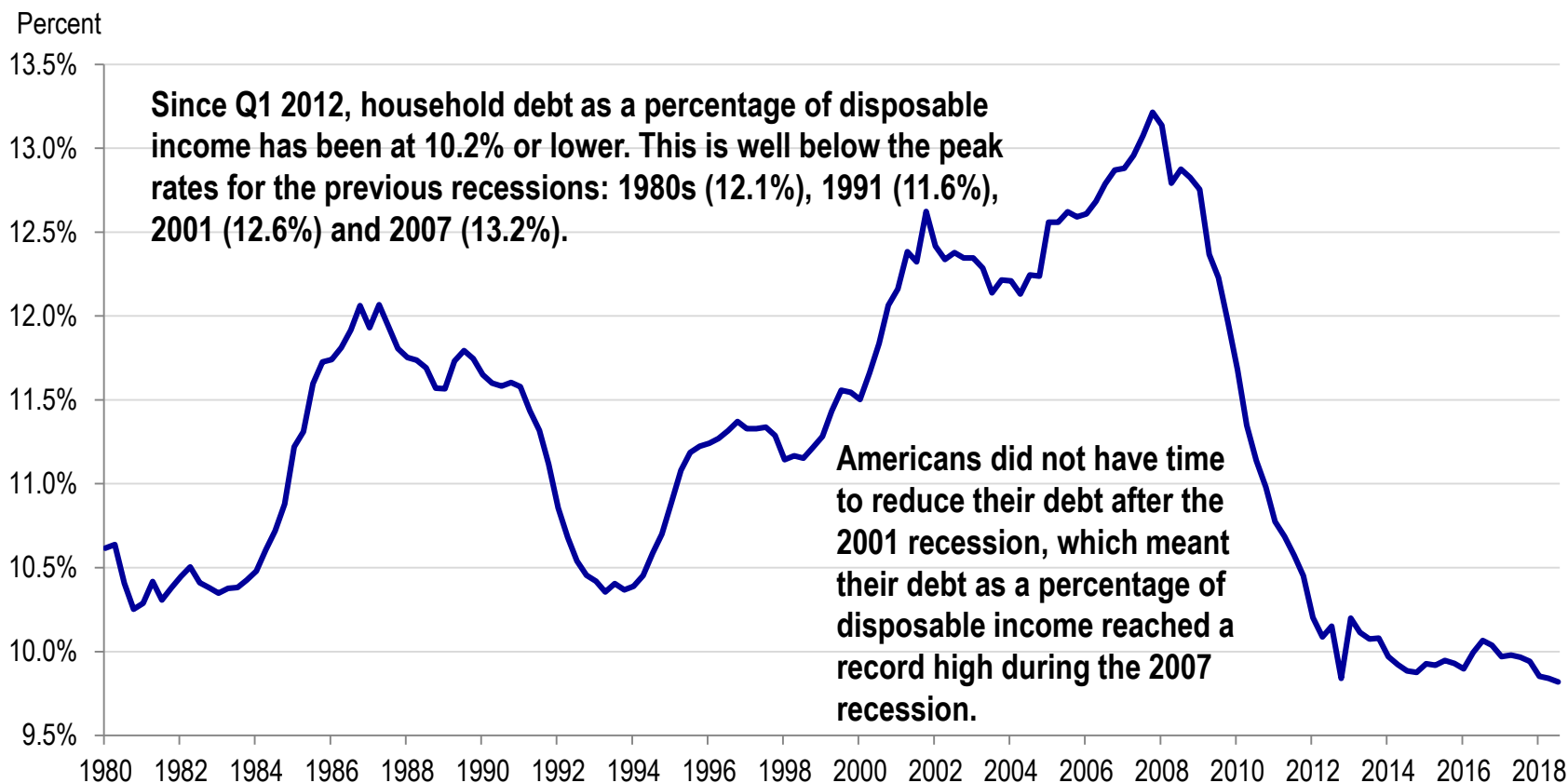
Source: FRED, Census Bureau, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Household Debt

as a Percent of Disposable Income

Household Debt as a Percent of Disposable Income



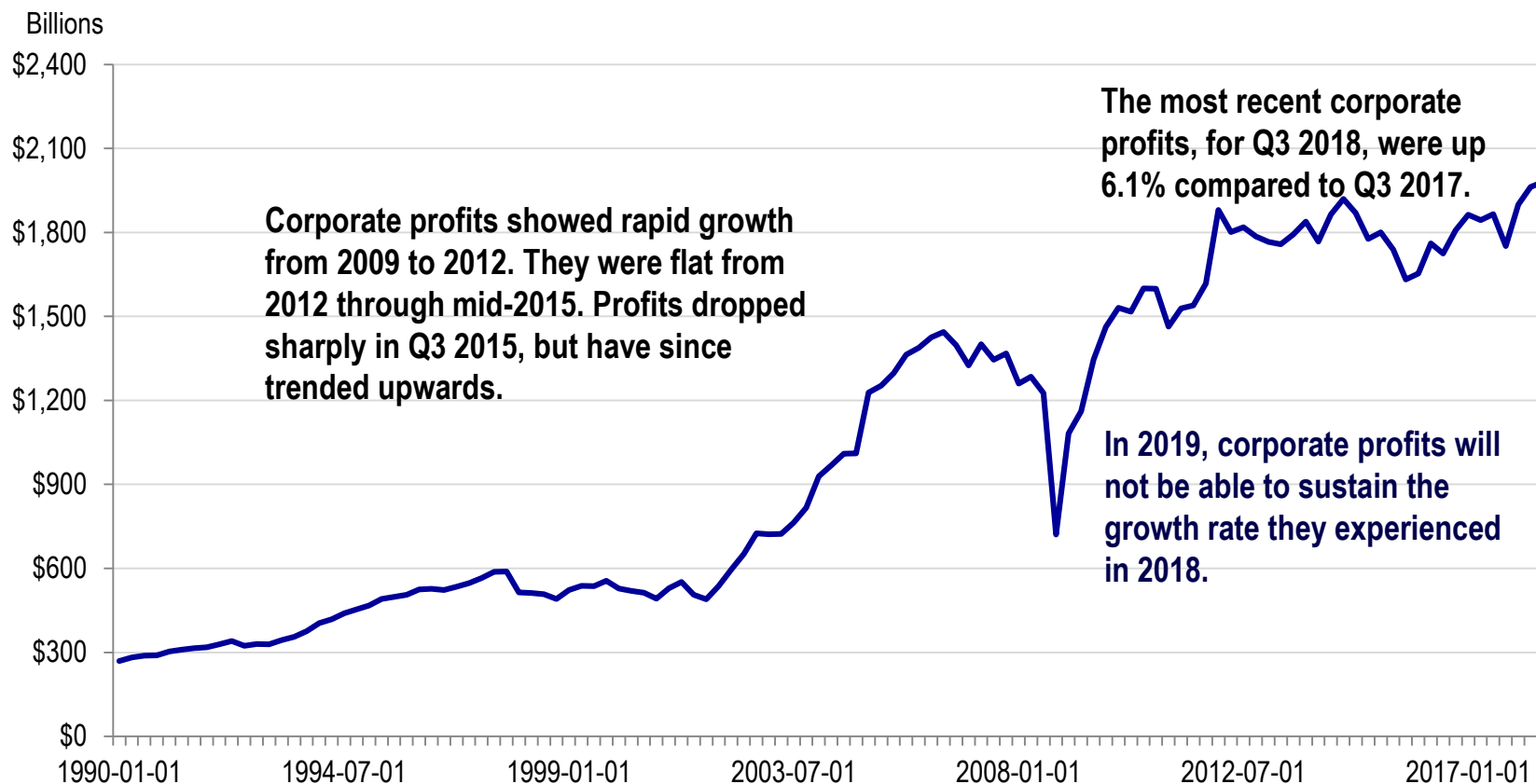
Source: FRED, Census Bureau, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Corporate Profits

After Tax (without IVA and CCAdj)

Corporate Profits After Tax

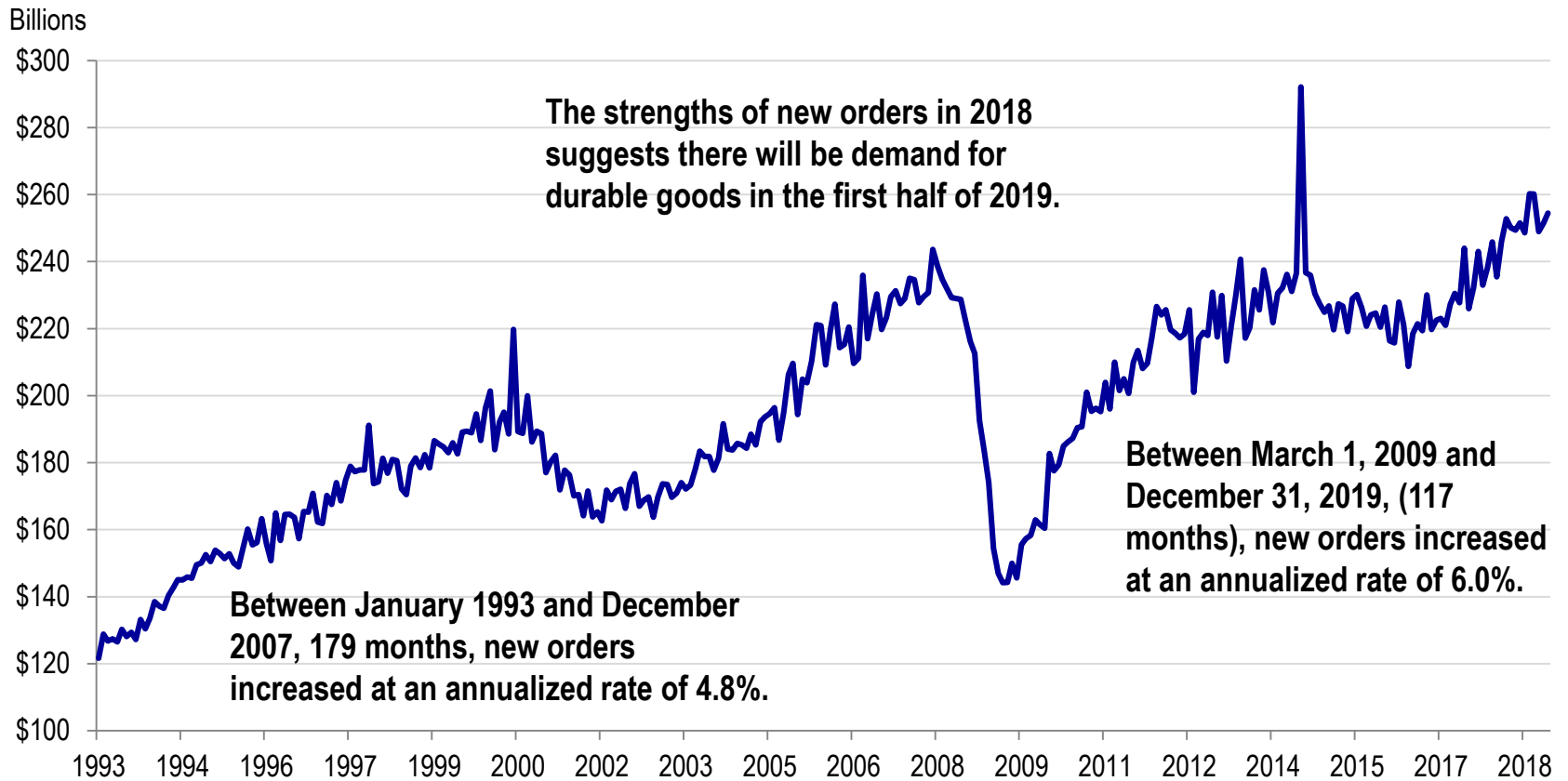


Source: FRED, BEA, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Durable Goods Ordered

Durable Goods Ordered



Source: FRED, BEA, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

● Why are the Industry Performance Metrics Important?



Key Points:

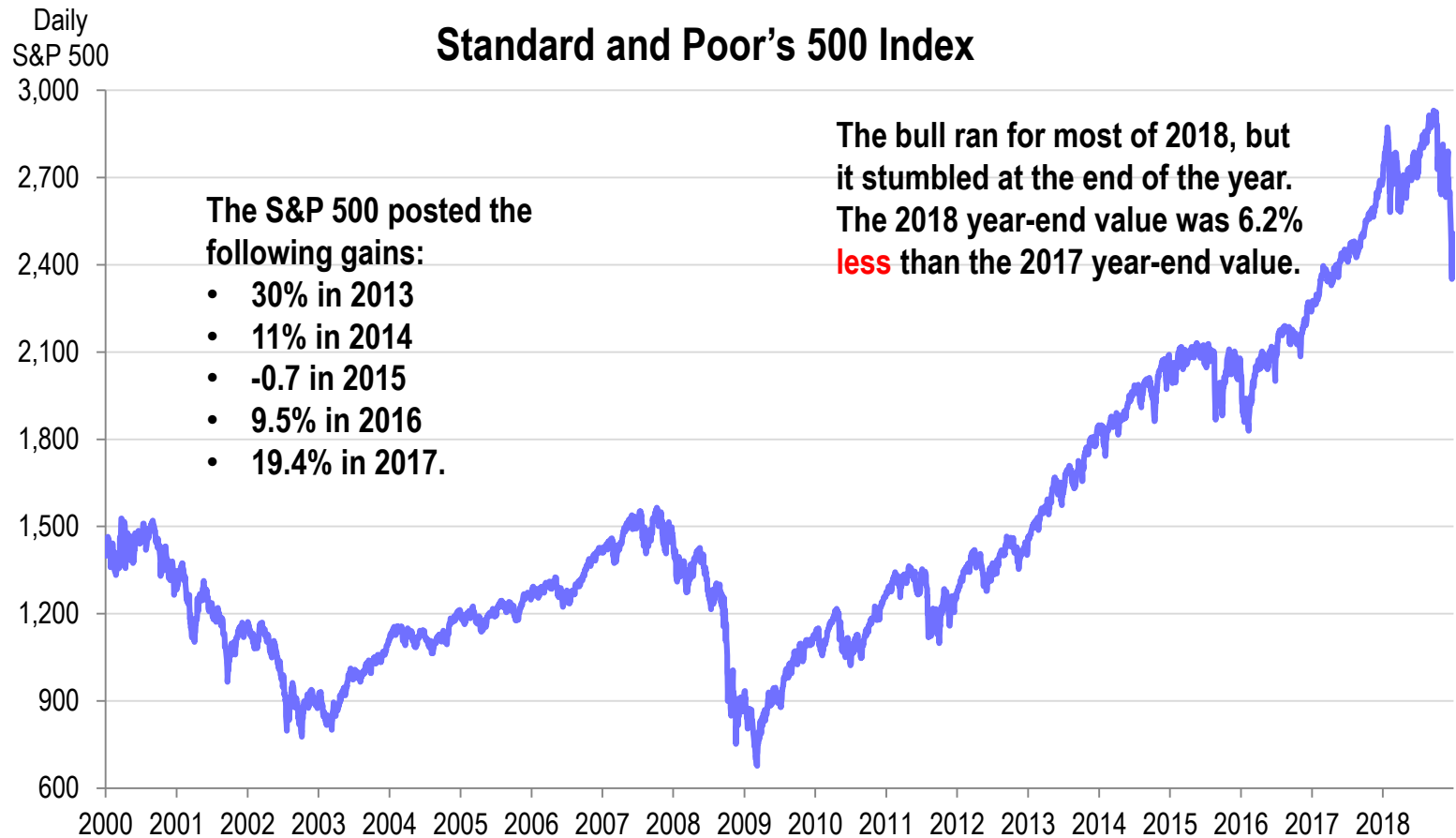
- Most of the industry performance measures point to solid economic growth going into 2019.
- Productivity levels are disappointing.
- Capacity utilization and industrial production were solid in 2018.
- The inventory to sales ratio showed that businesses are not overstocked with goods.
- Corporate profits continue to be solid.
- The level of durable goods ordered in 2018 should create momentum that will carry into 2019.



United States Economy

S&P Performance and Volatility

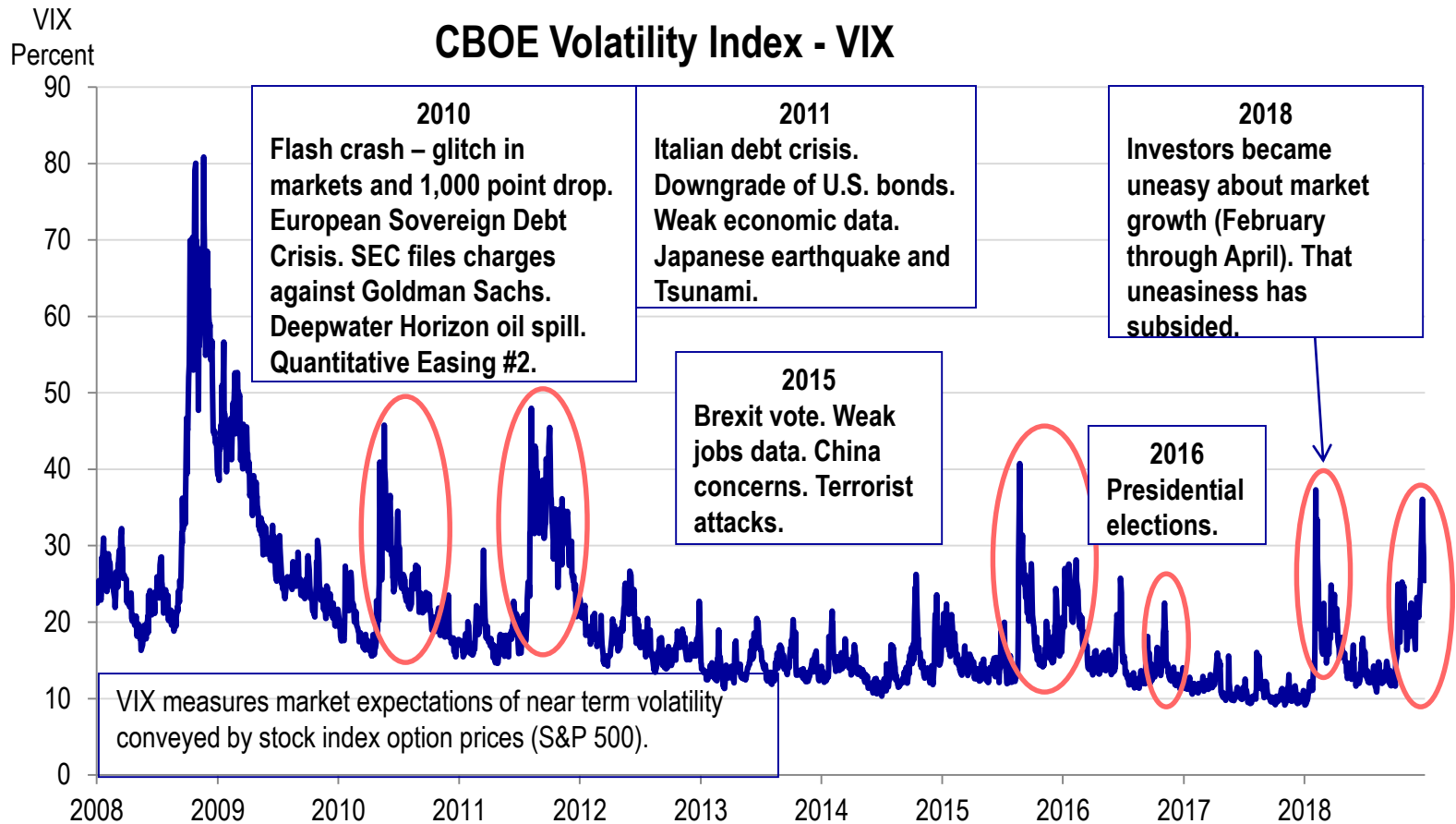
Standard and Poor's 500 Index



Source: FRED, S&P 500, cber.co.

CBOE Volatility Index

VIX (VIXCLS)



Source: FRED, Chicago Board Options Exchange, cber.co.

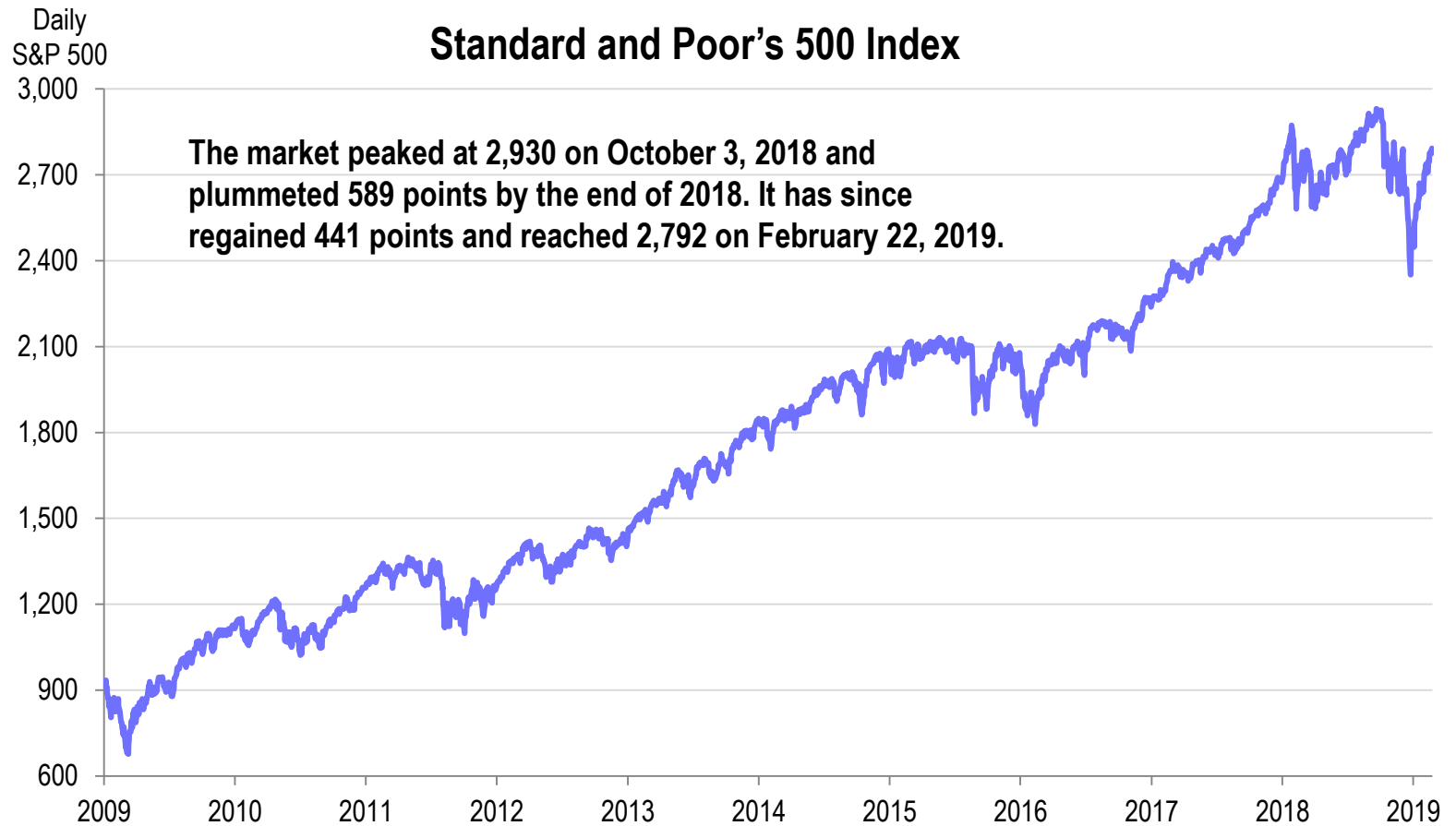


S&P Performance and Volatility

2019

After an increase in volatility in Q4 2018, including a sharp decline in prices in December 2018, the market reversed in January and February, 2019. For that reason, this analysis looks at data for the S&P 500 and VIX through February 22nd.

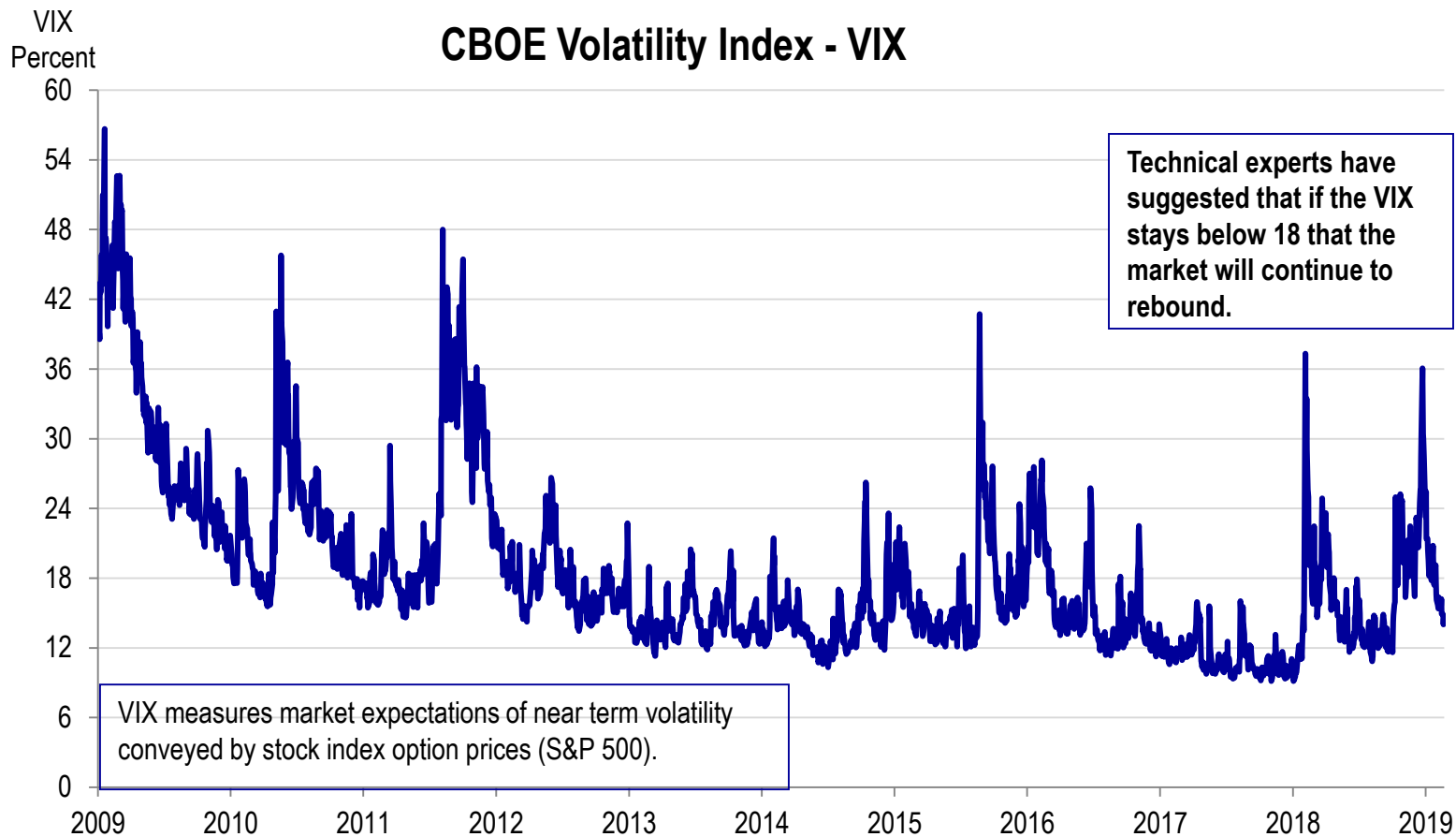
● Standard and Poor's 500 Index



Source: FRED, S&P 500, cber.co.

CBOE Volatility Index

VIX (VIXCLS)



Source: FRED, Chicago Board Options Exchange, cber.co.

Why the Equity Markets are Important

Key Points:

- The equity markets are an important source of wealth, including retirement funds, and consumer confidence.
- December 2018 was one of the worst months for equity performance – some thought the sky was falling. The Federal Reserve was “blamed” for causing the volatility in the markets by lowering interest rates.
- In early 2019, the Fed indicated they will be more cautious with their rate hikes in 2019. Shortly afterwards, the equity markets rebounded.

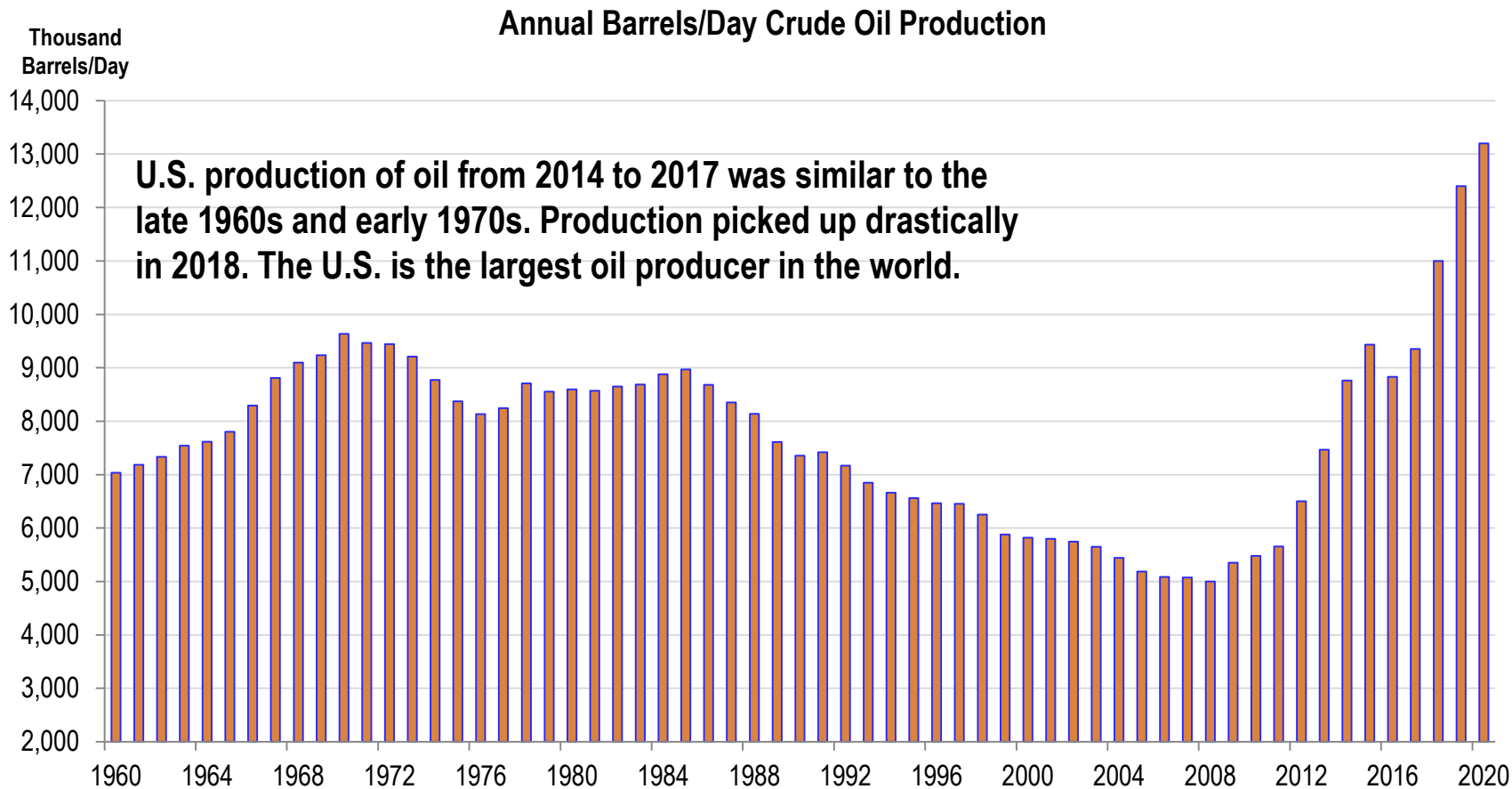


United States Economy

Energy

Annual U.S. Crude Oil Production

Thousand Barrels/Day

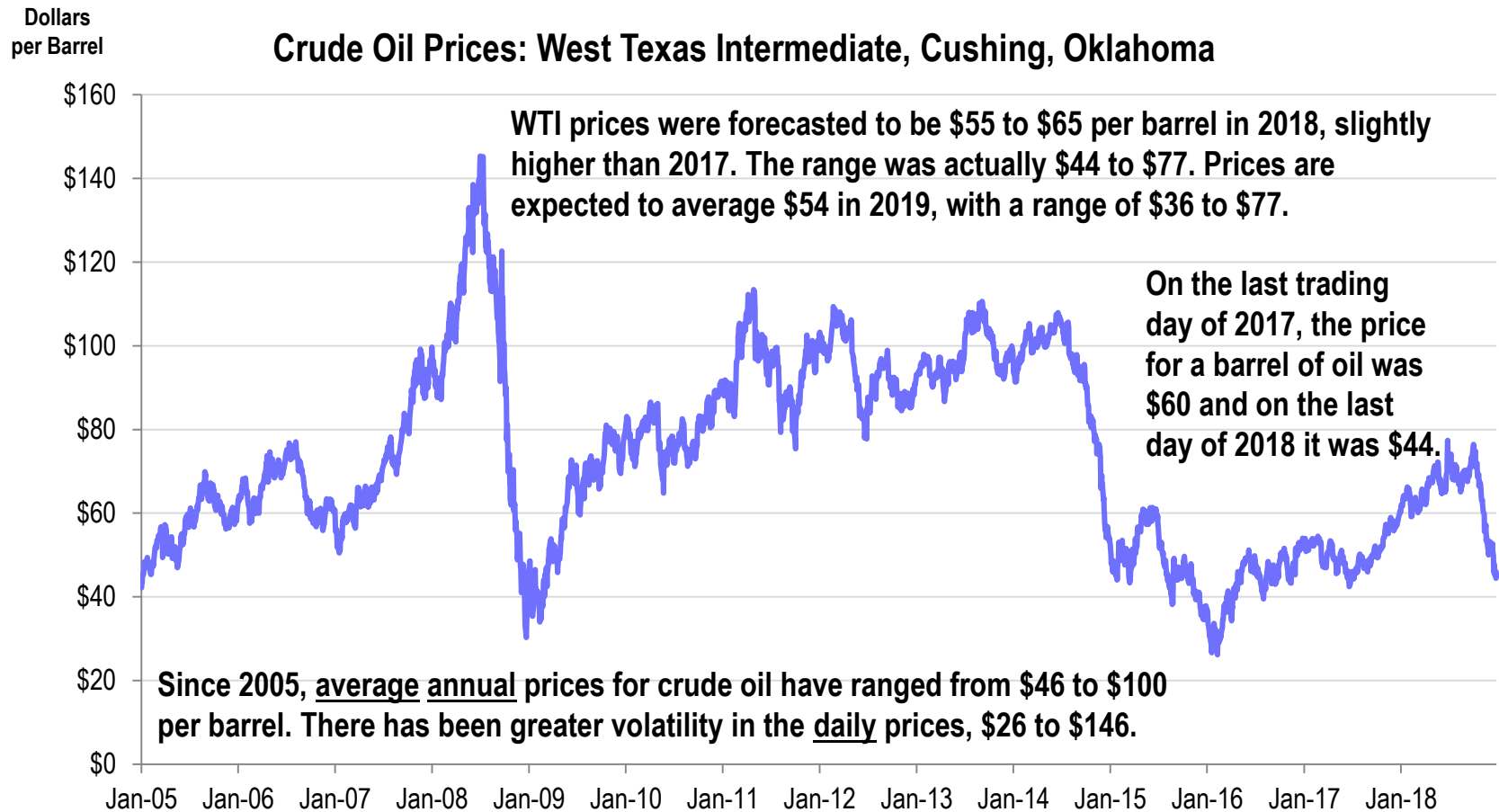


Source: EIA, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Crude Oil Prices

West Texas Intermediate

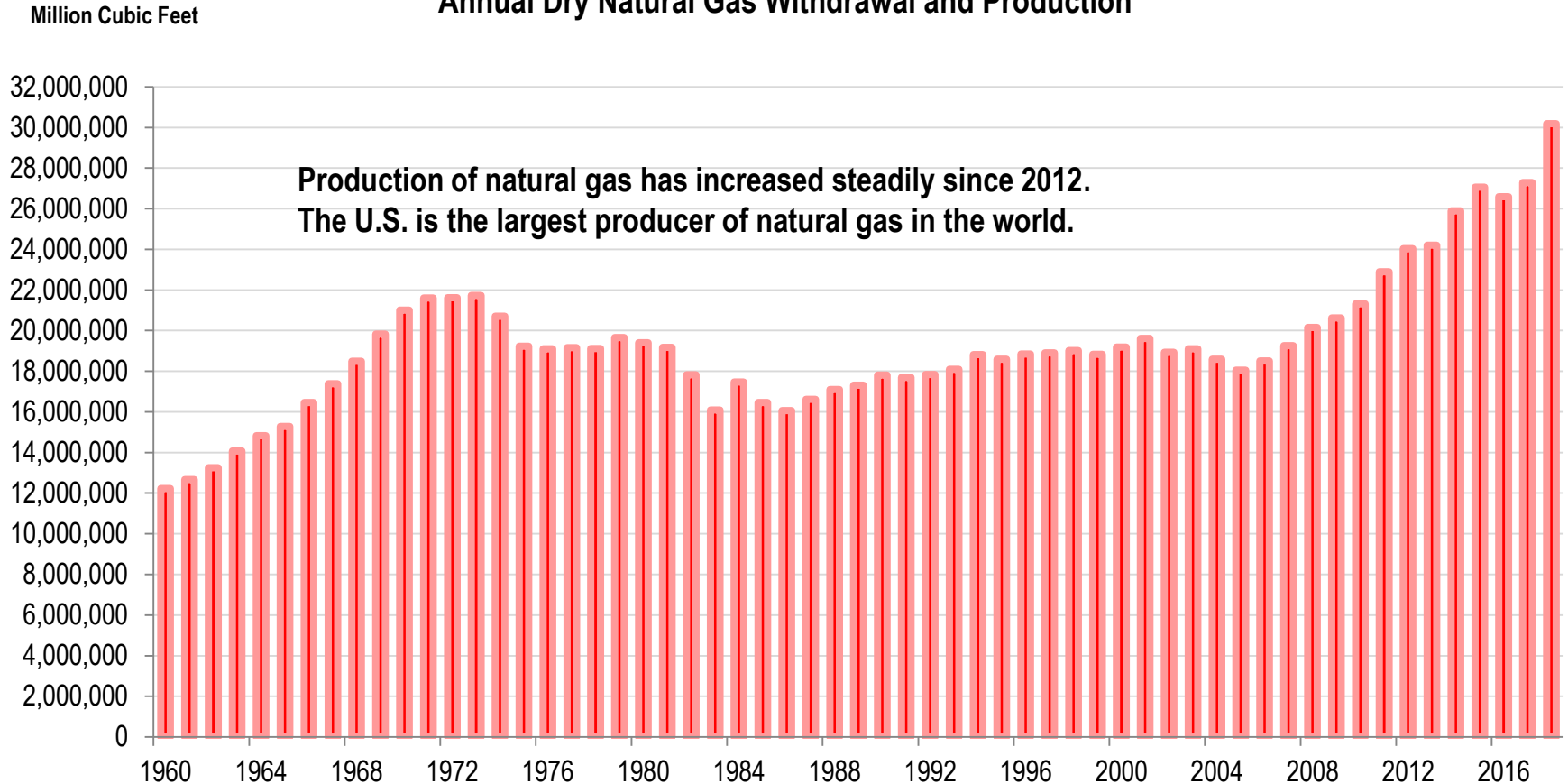


Source: FRED, EIA, cber.co.

Annual U.S. Dry Natural Gas Withdrawal and Production

Million Cubic Feet

Annual Dry Natural Gas Withdrawal and Production

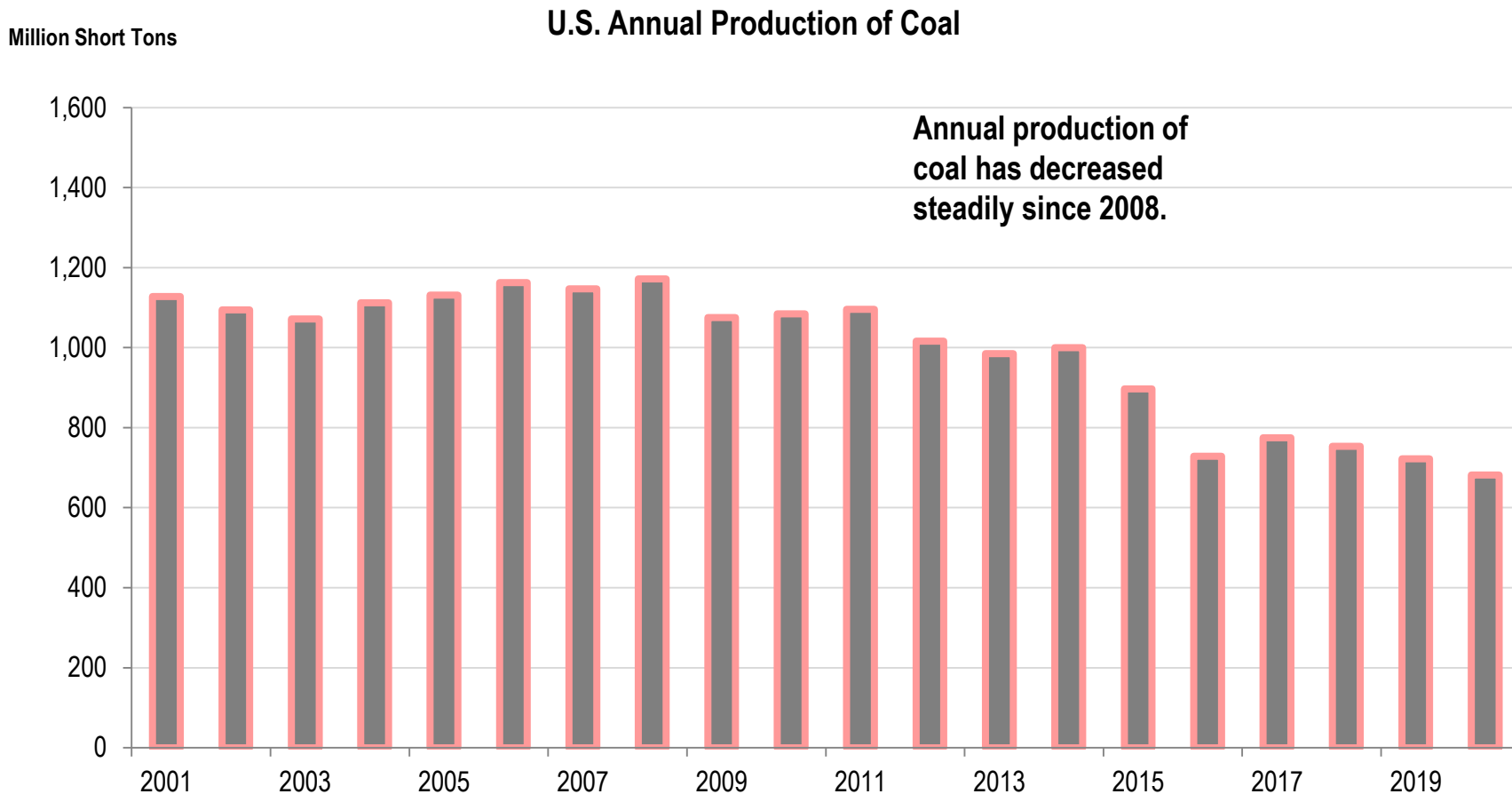


Source: EIA, cber.co.

Colorado-based Business and Economic Research <http://cber.co>

Annual U.S. Production of Coal

Million Short Tons



Source: EIA, cber.co.

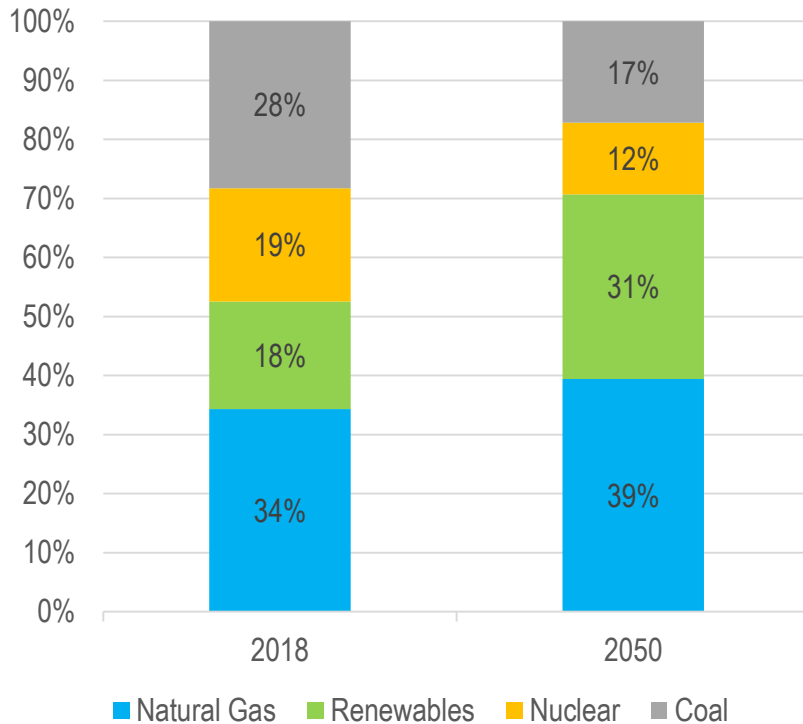
Colorado-based Business and Economic Research <http://cber.co>

U.S. Electricity Generation Projections

U.S. Electricity Generation from Selected Fuels

4.1 trillion KWH in 2018 and 5.2 trillion in 2050

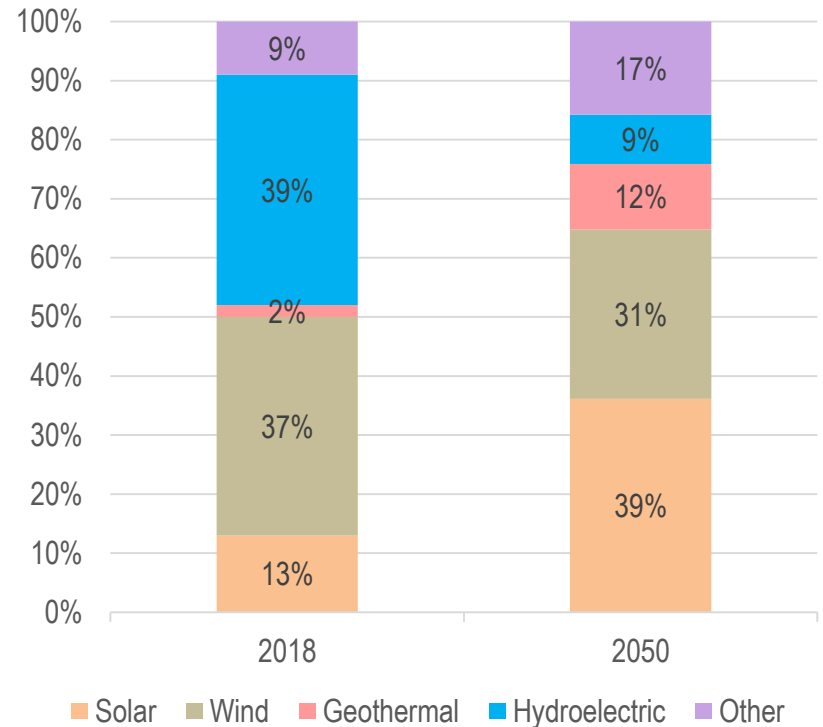
U.S. Fuels for Electricity Generation



Renewable Electricity Generation, Including End Use

750 billion KWH in 2018 and 1.7 trillion in 2050

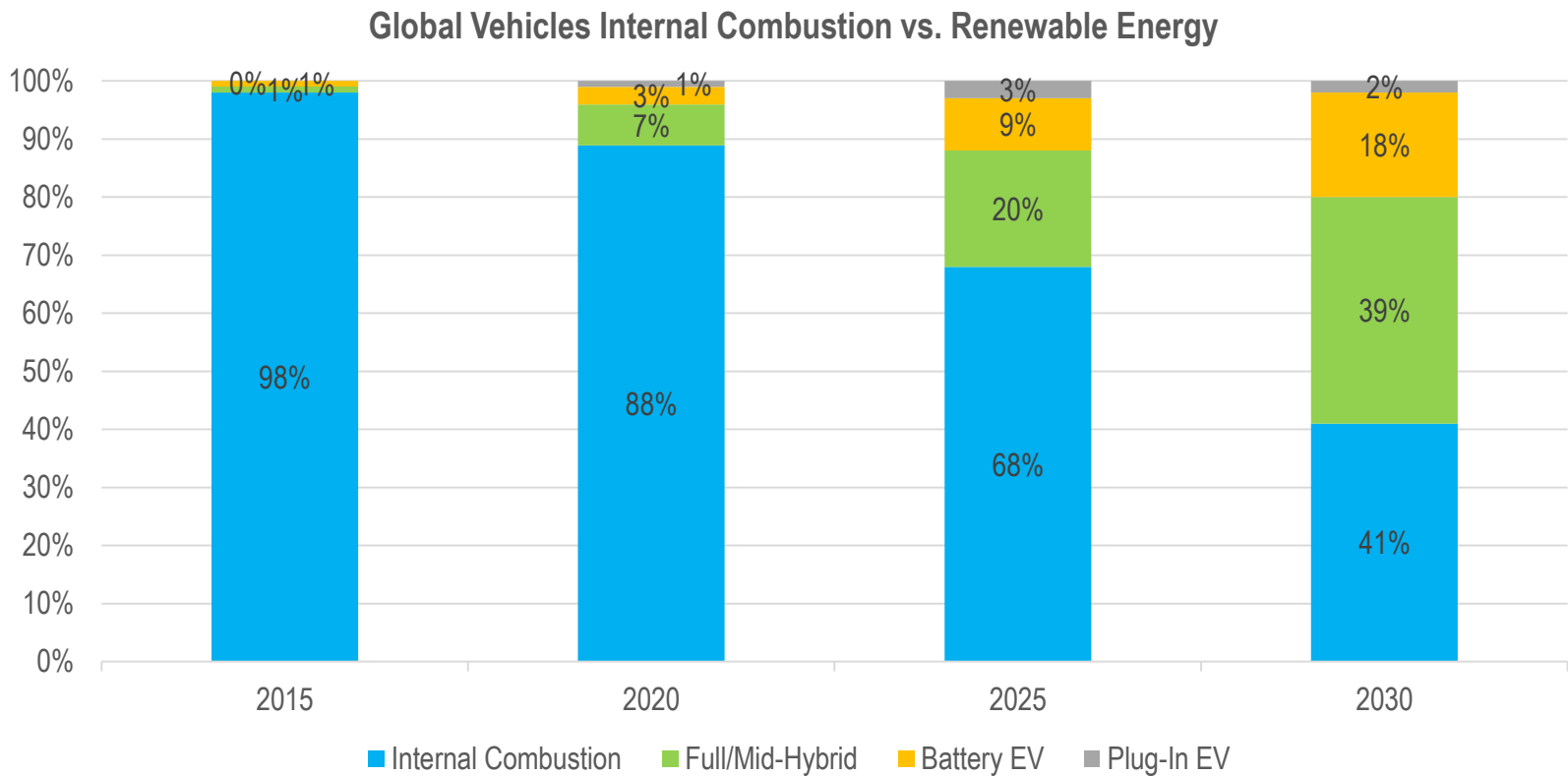
U.S. Fuels for Electricity Generation



Source: J.P. Morgan (October 2018), cber.co.

Global Vehicles

Internal Combustion vs. Renewable Energy



Source: J.P. Morgan (October 2018) cber.co.

Why are the Energy Markets Important?

Key Points:

- EIA projects the U.S. will produce 12.4 million barrels of crude oil per day in 2019 and 13.2 million barrels per day in 2020. Production will occur primarily in the Permian Basin (Texas and New Mexico). The WTI price for a barrel of oil is estimated to be in the range of \$55 to \$60 in 2019 and 2020.
- The success of renewable energy will be driven by government policy.
- The adoption of electric vehicles will be driven by advancements in technology and it will require the use of rare and/or precious metals such as lithium, nickel, and cobalt.
- The adoption of renewables will be extremely disruptive. Unfortunately, it is not as simple as flipping on a light switch.



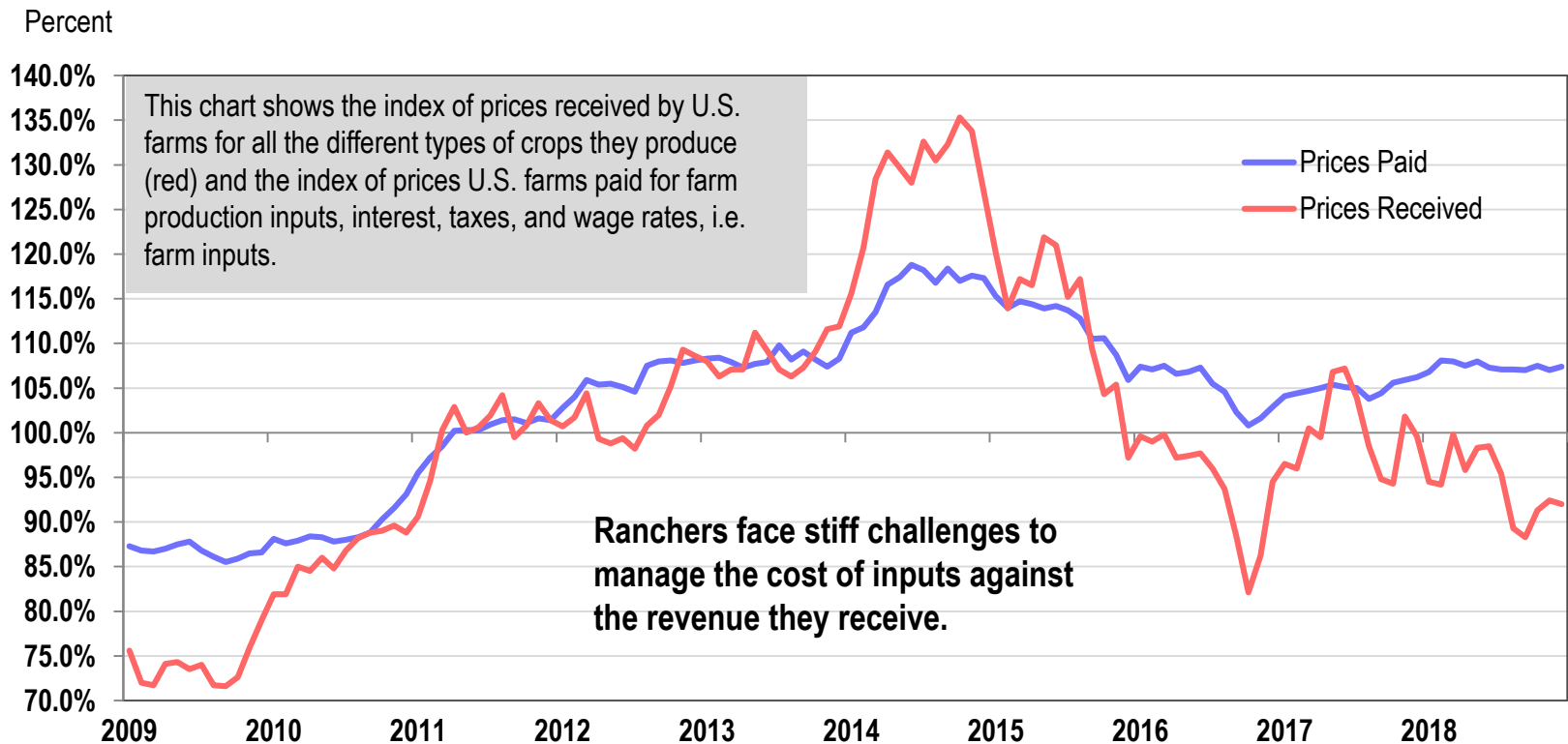
The U.S. Economy

Agriculture – Crops and Livestock Index and Exports

Farm Received and Paid Indexes

Livestock

Livestock Farm Received and Paid Indexes



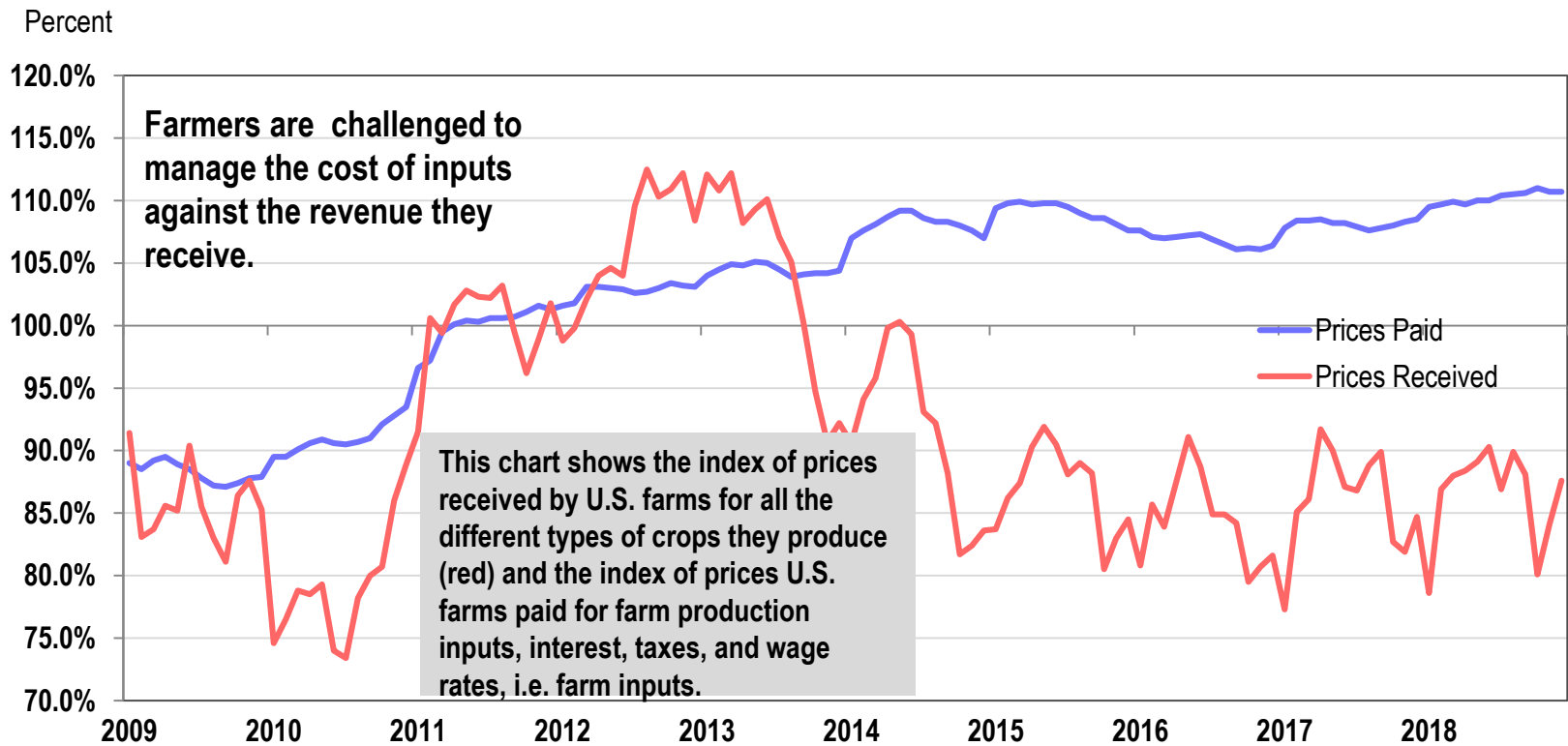
Source: NASS, cber.co, https://www.nass.usda.gov/Charts_and_Maps/Agricultural_Prices/lvskfarm.php.

Farm Received and Paid Indexes

Crops

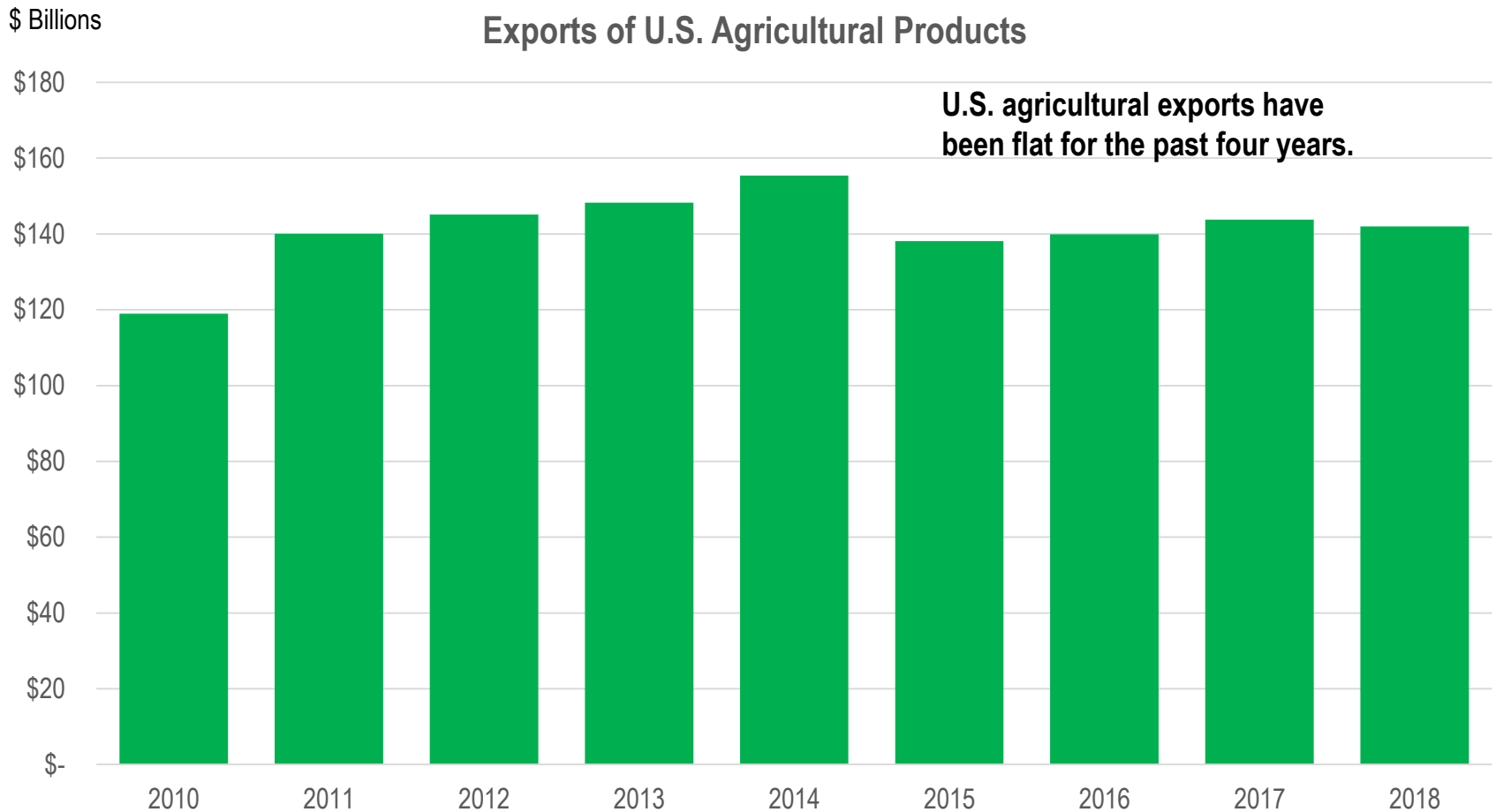


Crops Farm Received and Paid Indexes



Source: NASS, cber.co, https://www.nass.usda.gov/Charts_and_Maps/Agricultural_Prices/cropfarm.php.

Exports of U.S. Agricultural Products



Source: FRED, USDA FAS, cber.co.

Why are the Agriculture Markets Important?

Key Points:

- The number of farmers and ranchers and their direct output is small compared to the importance of their profession. Everyone eats!
- The people who produce the food need to be paid fairly for the business risks they take and for their hard work – that is a challenge!

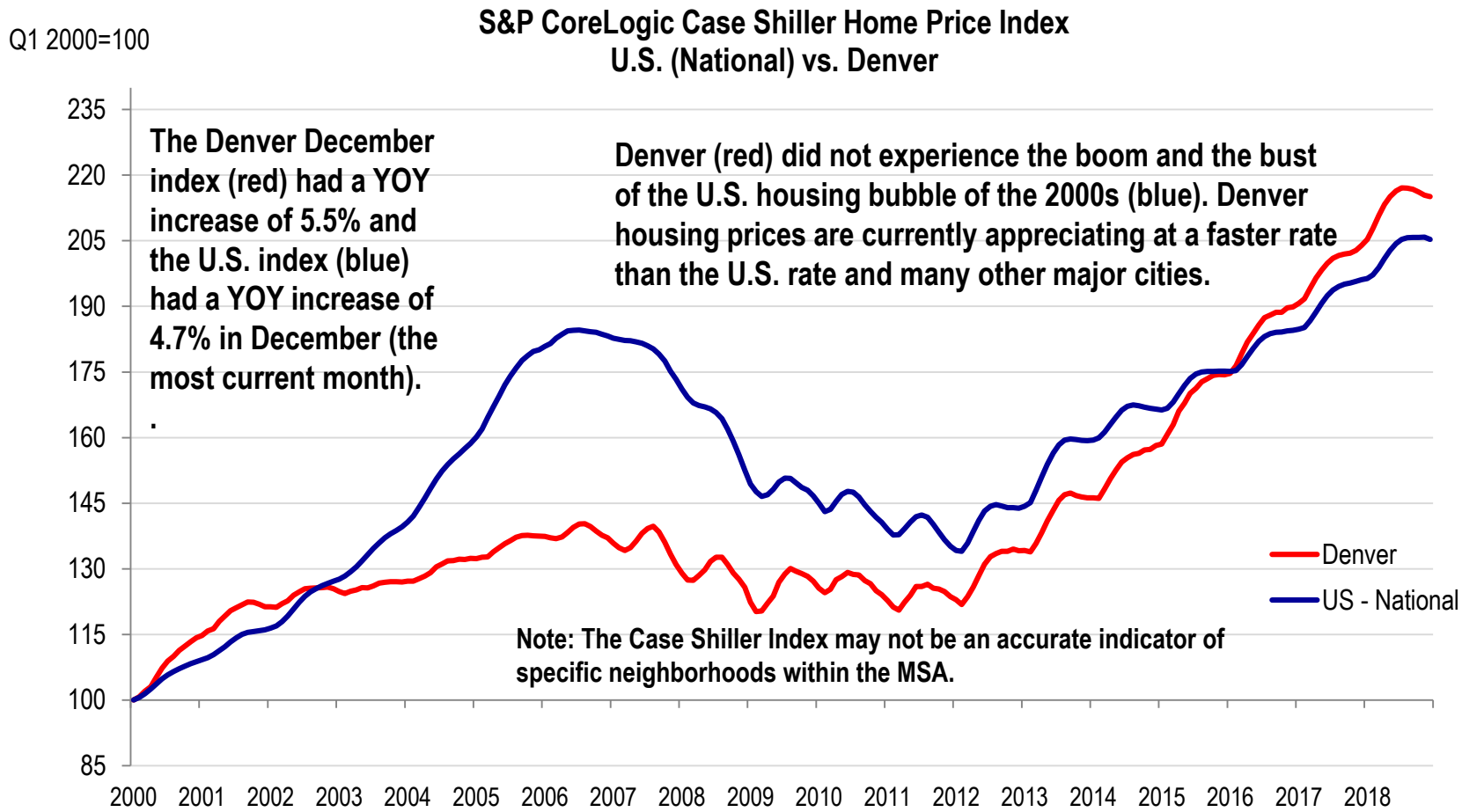


The U.S. Economy

Housing Prices, Mortgage Rates, and Construction Outlook

Case Shiller Home Price Index

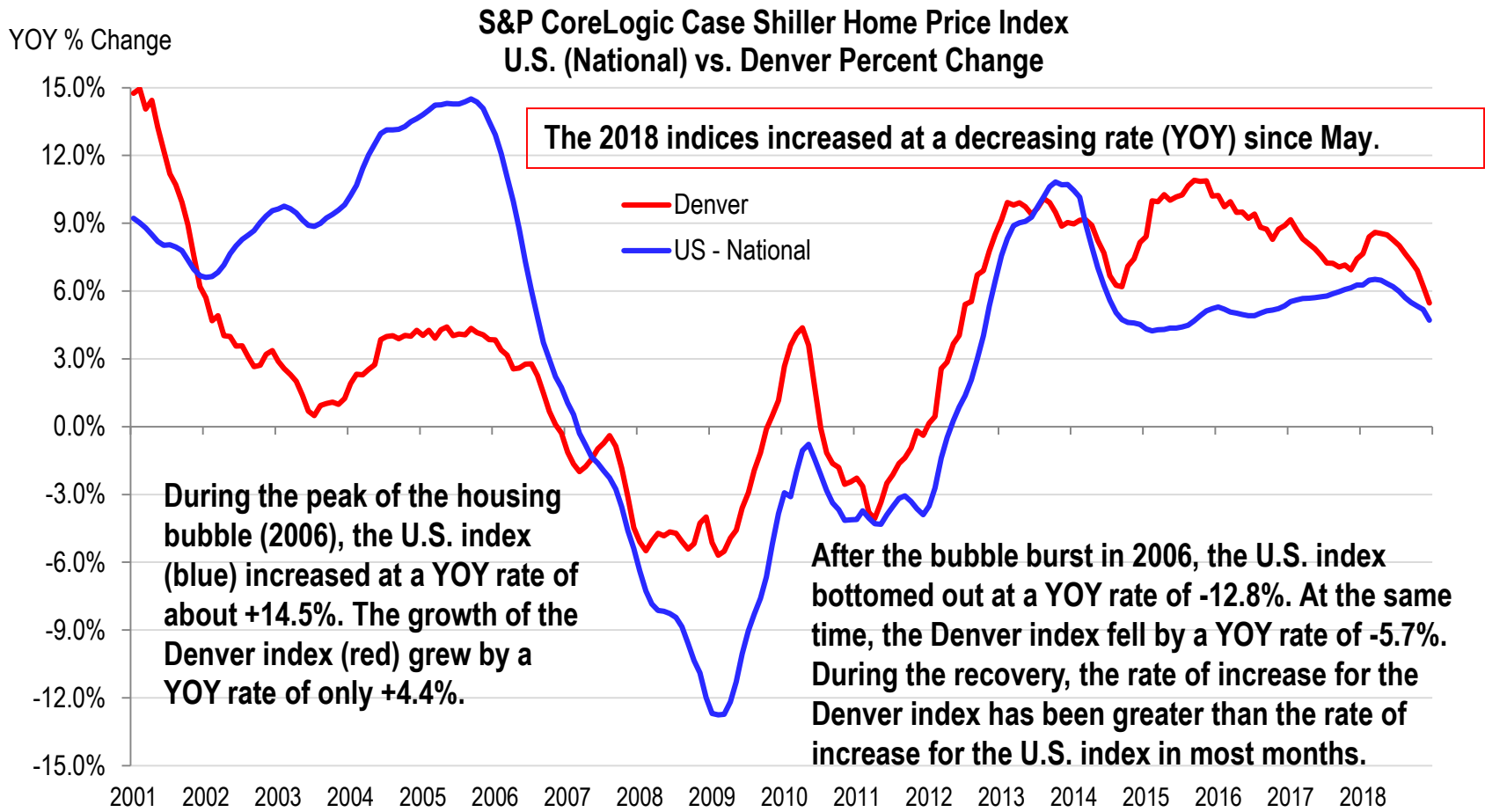
National vs. Denver Index Value



Source: S&P Core-Logic Case-Shiller, cber.co.

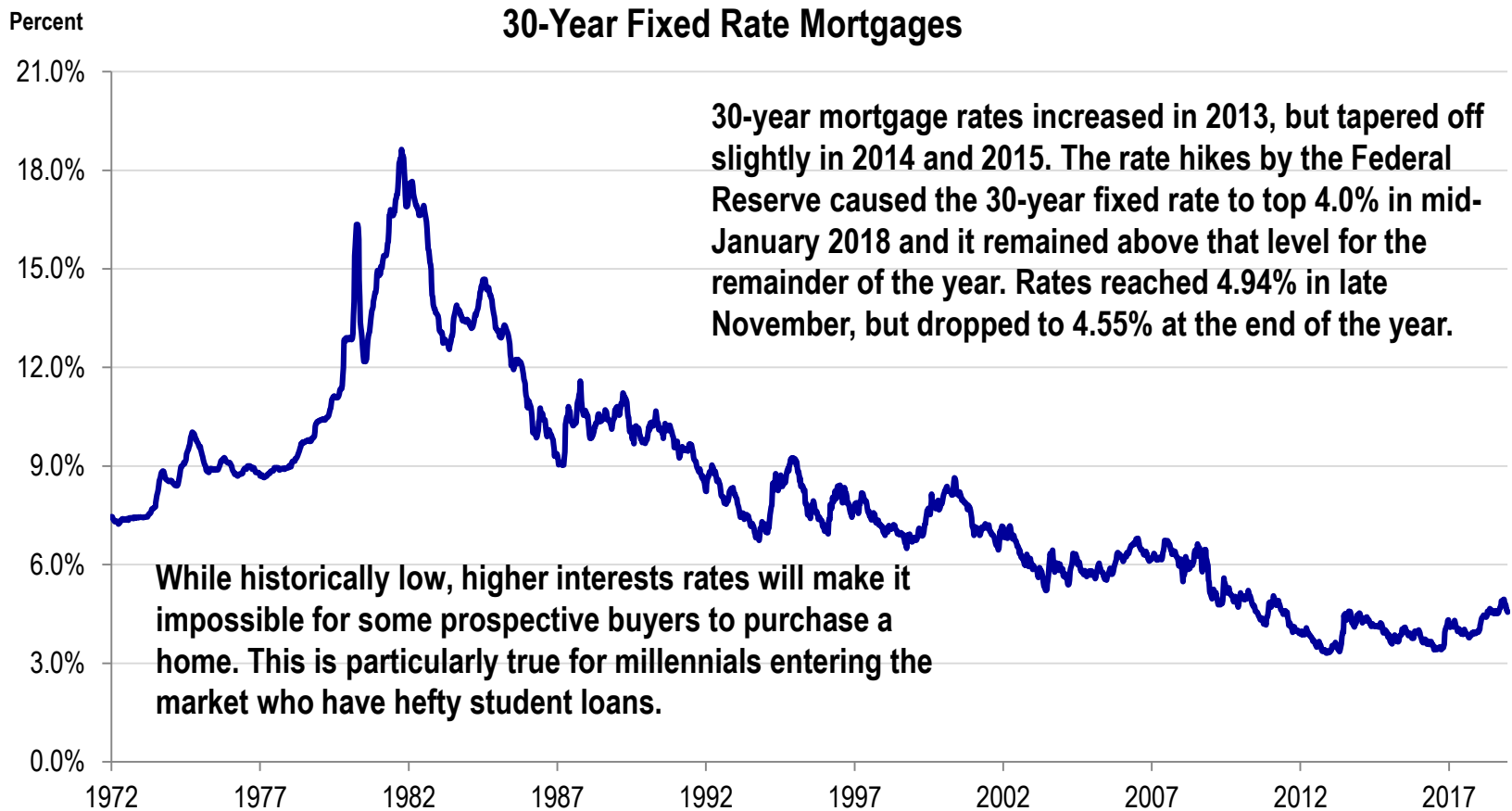
Case Shiller Home Price Index

National vs. Denver Rate of Change



Source: S&P Core-Logic Case-Shiller, cber.co.

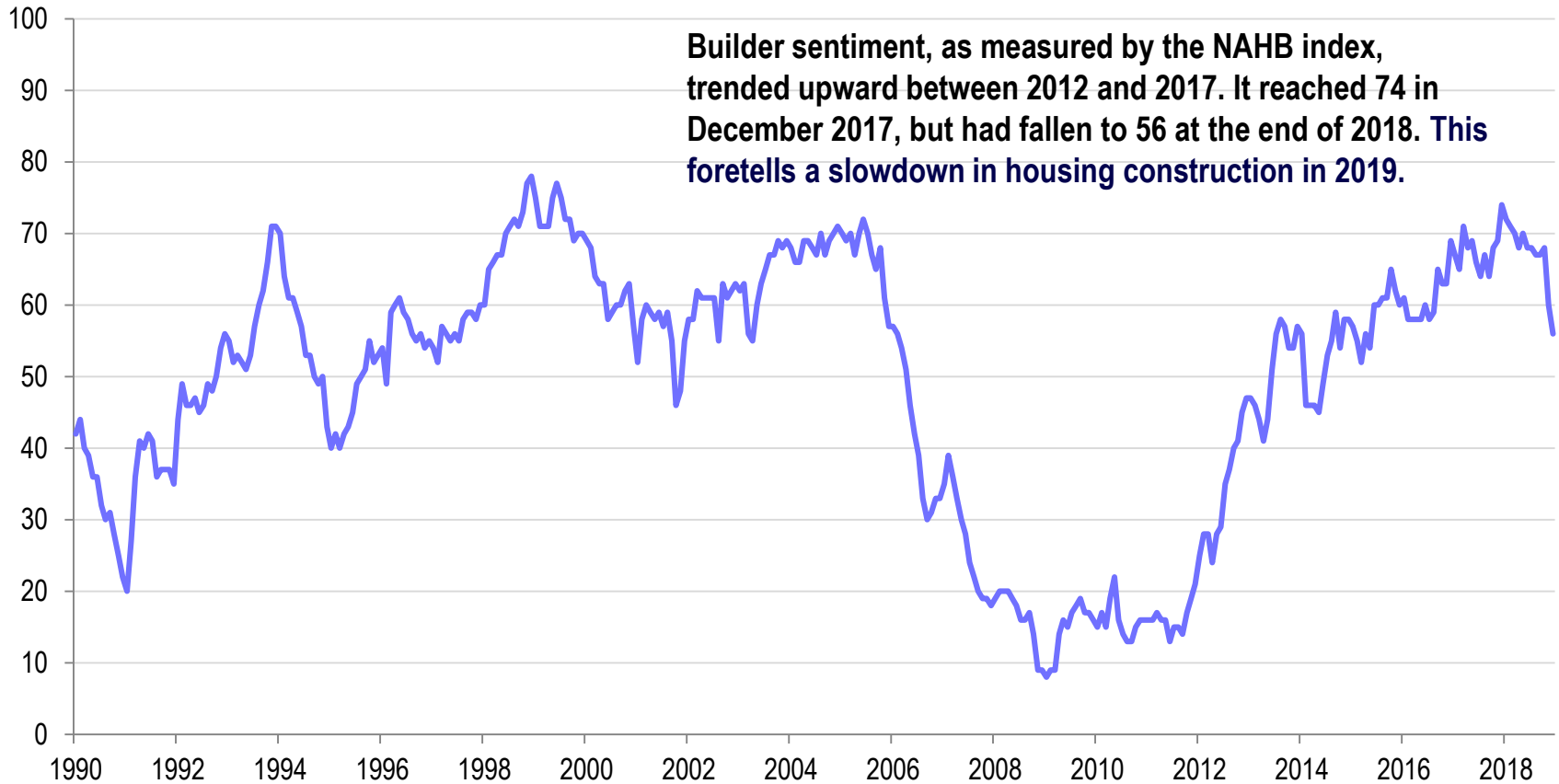
30-Year Fixed Rate Mortgages



Source: FRED, Freddie MAC, cber.co.

Wells Fargo NAHB Market Index

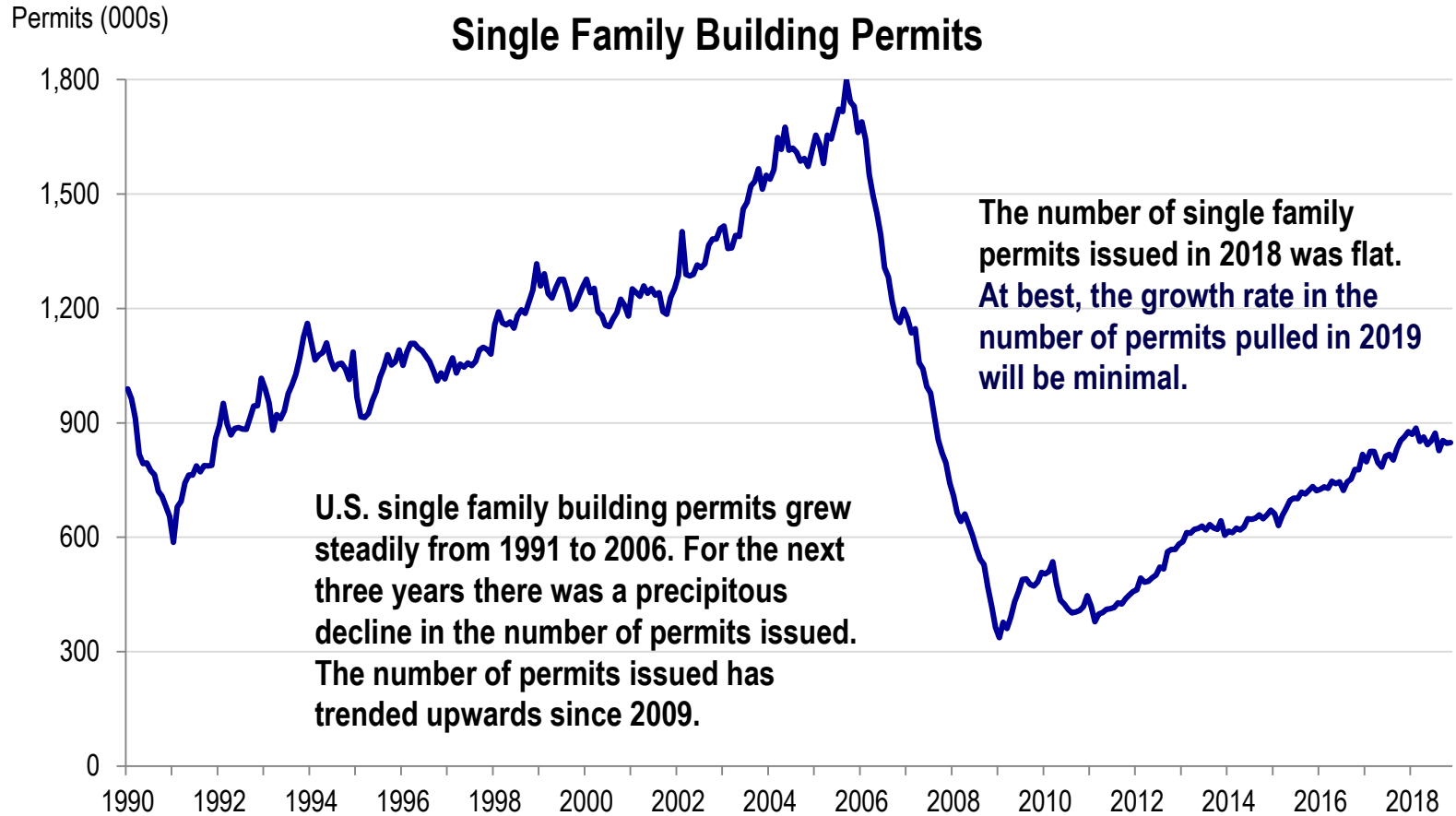
Wells Fargo NAHB Market Index



Source: NAHB, cber.co.

New Single Family Building Permits

United States

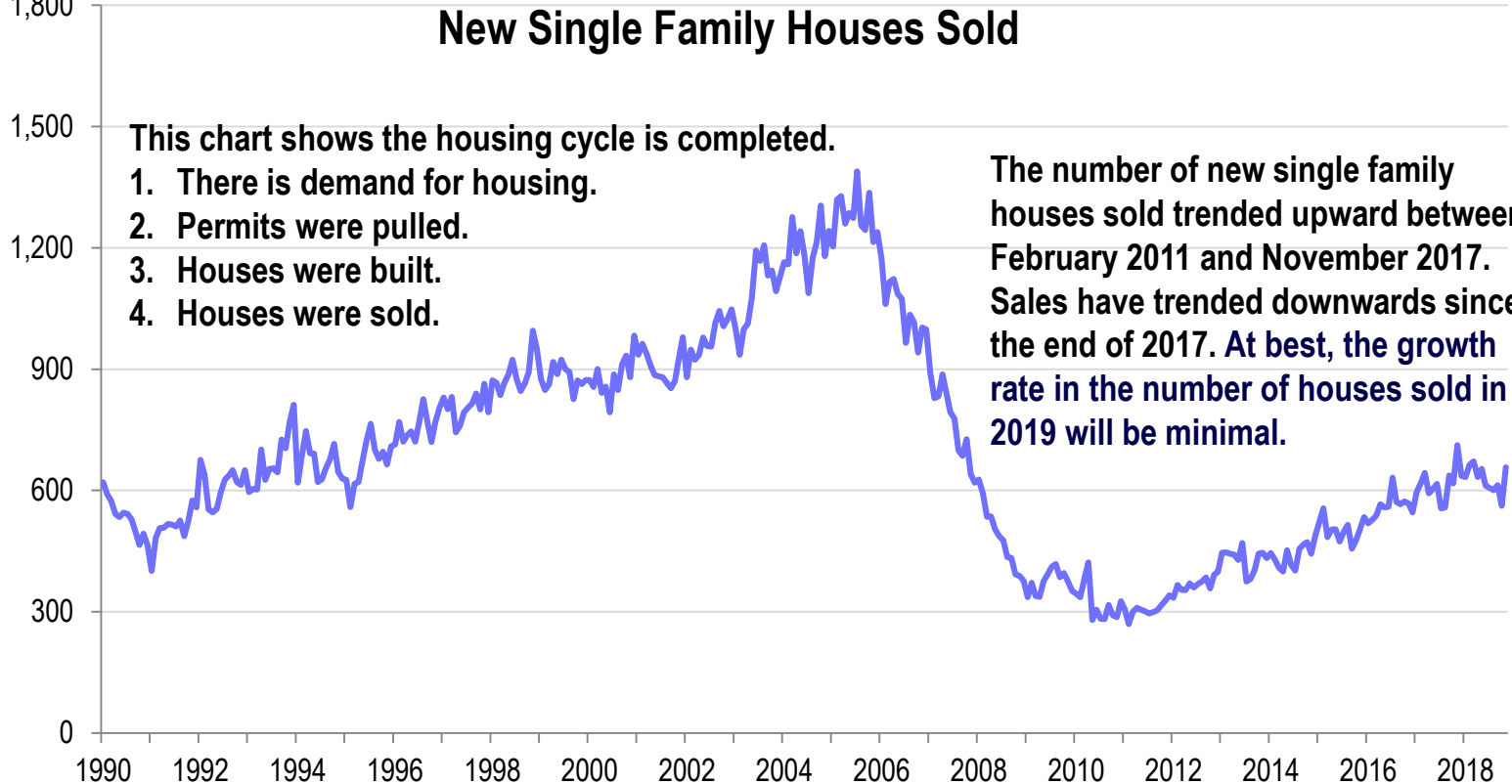


Source: FRED, U.S. Census Bureau, cber.co.

New Single Family Houses Sold

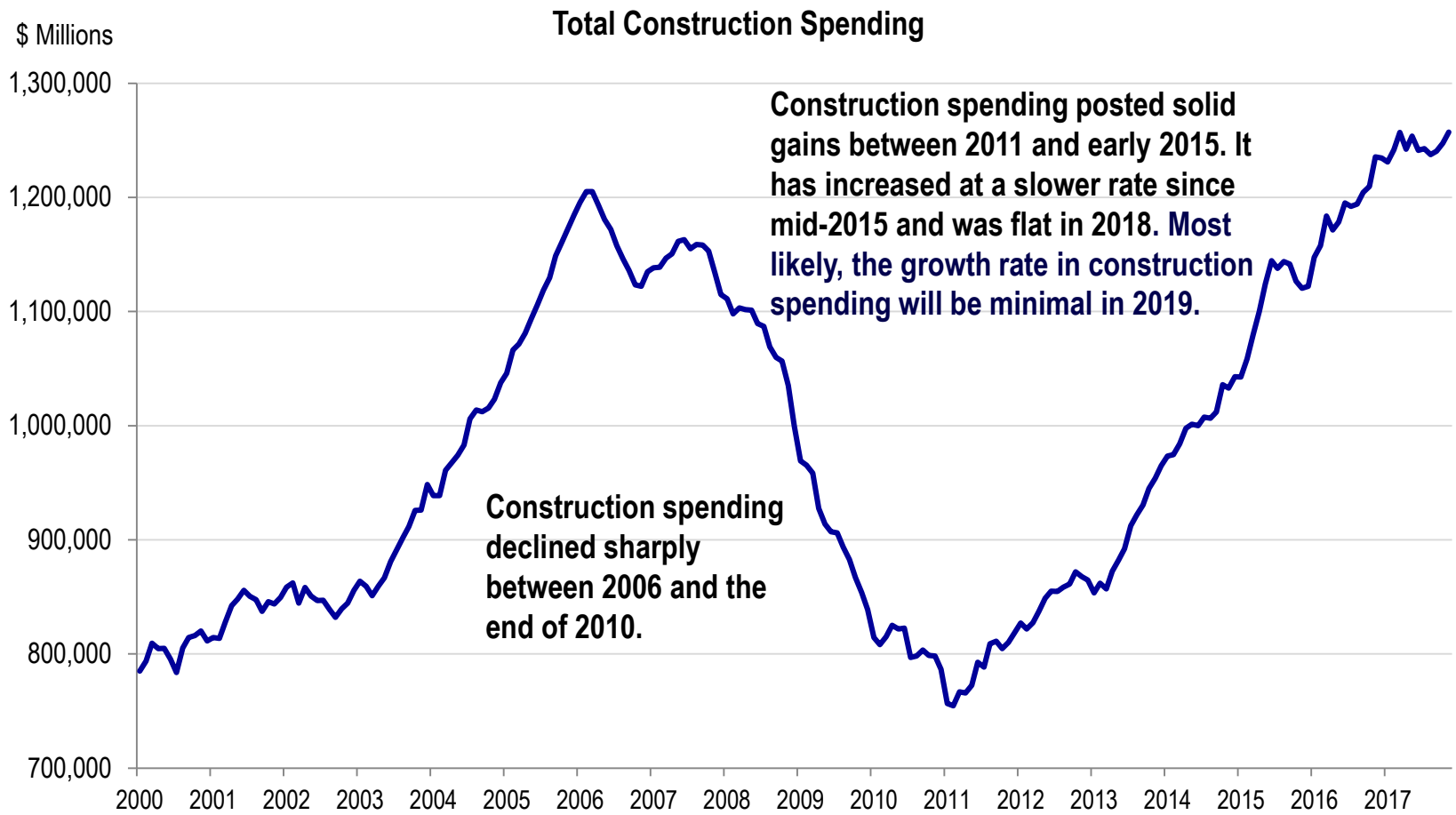
United States

Number Sold
(000s)
1,800



Source: FRED, U.S. Census Bureau, cber.co.

Total U.S. Construction Spending



Source: FRED, Census Bureau, not adjusted for inflation, cber.co.

What are the Take-Aways from the Housing and Construction Markets?

Key Points:

- Energy, food (agriculture) and shelter (construction and housing) are listed as basic survival or physiological needs in Maslow's hierarchy of needs. As a result, there will always be demand for the goods and services in each of these three sectors.
- The rate of housing prices, as measured by the change in the Case-Shiller index, will continue to increase at a decreasing rate.
- The price of housing and the interest rates for housing loans will determine whether housing is affordable and attainable.
- In turn, this affects in-migration and construction spending and the building of new homes and new businesses.
- At best, the housing market is expected to see minimal growth in 2019.

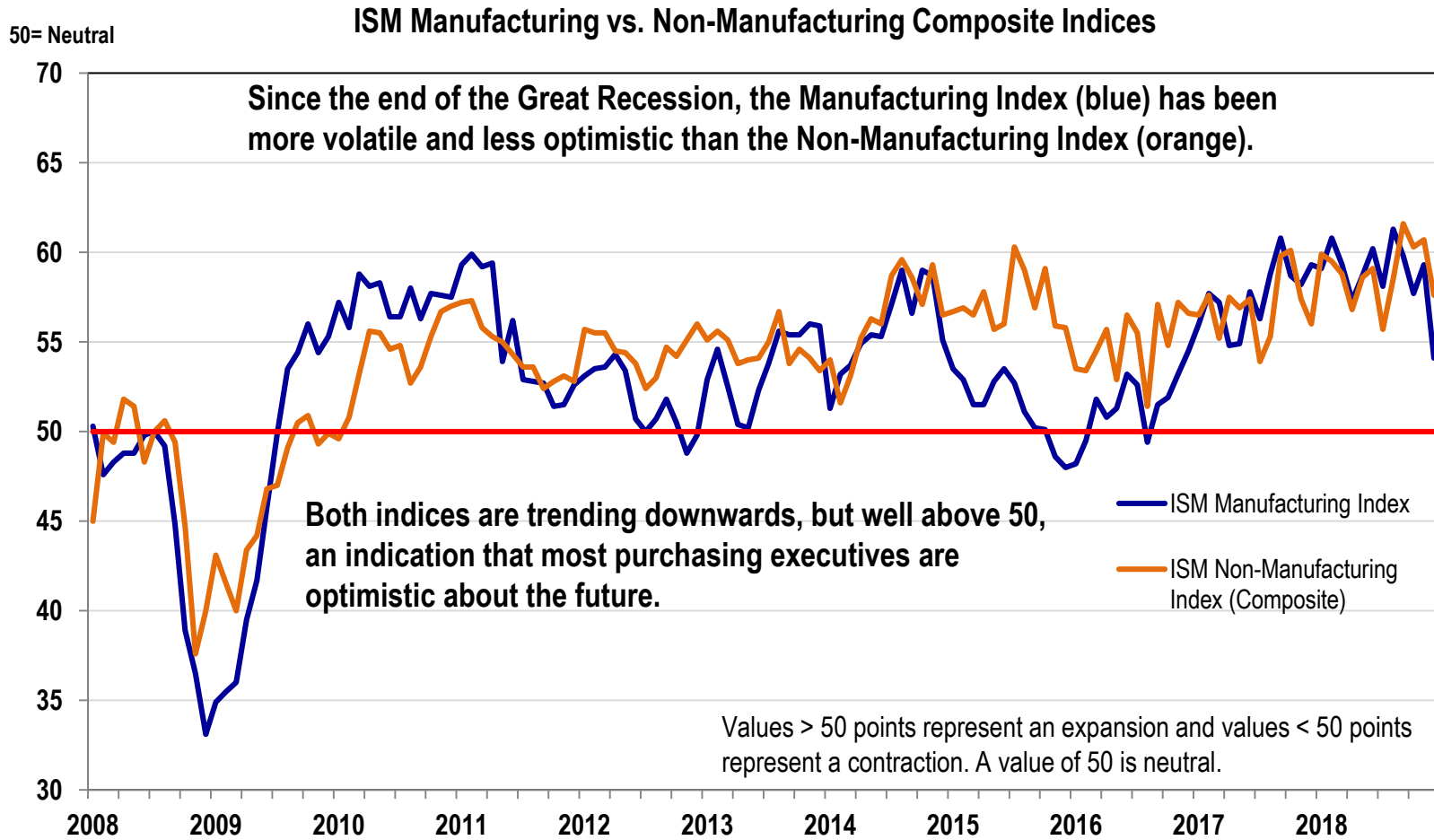


The U.S. Economy

Manufacturing/Non-manufacturing Indices, Auto Sales, Retail Sales, Manufacturing Shipments, Exports, and the Trade Weighted Dollar

ISM PMI Composite Indices

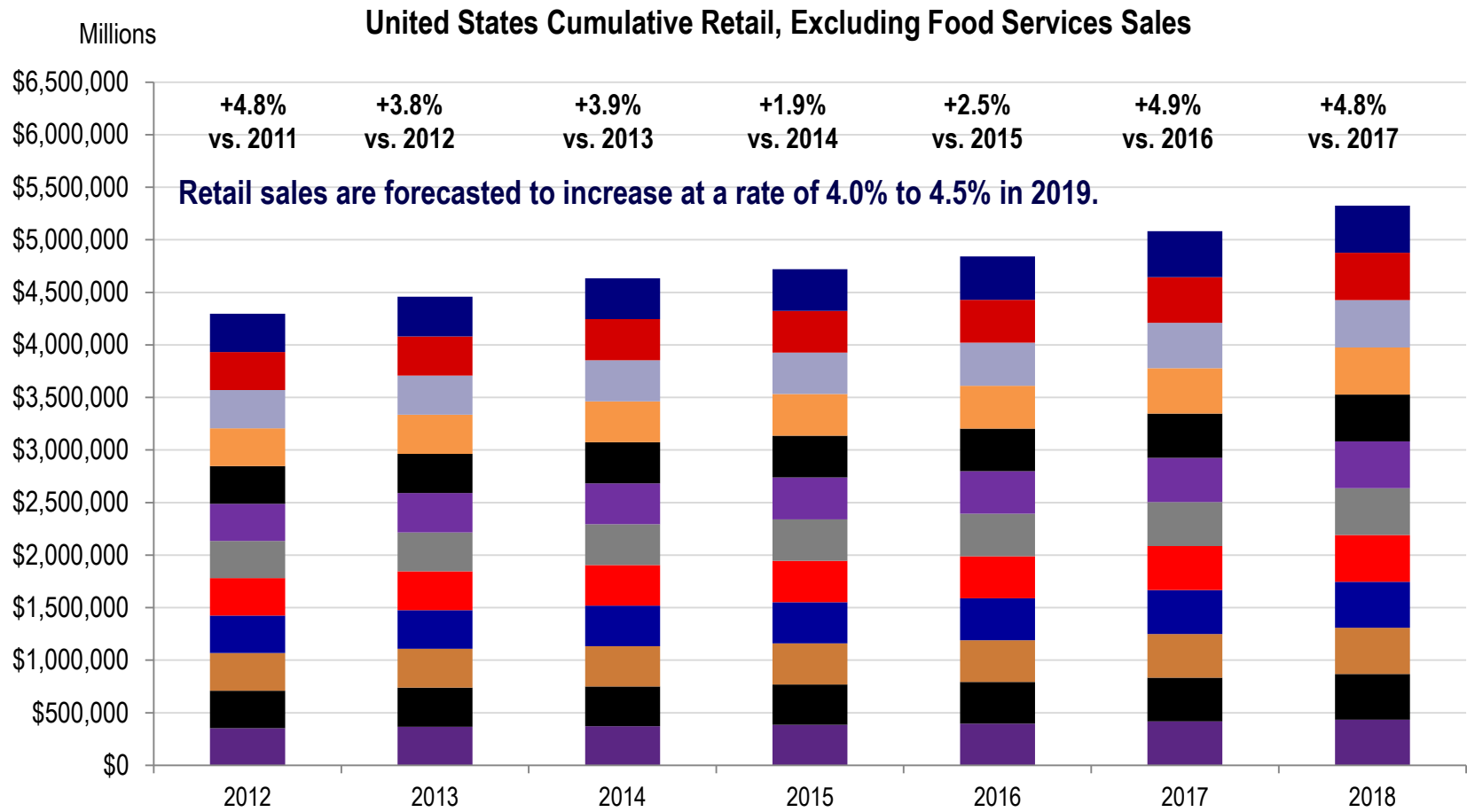
Manufacturing vs. Non-manufacturing



Sources: Institute for Supply Management (ISM), FRED, cber.co.

Cumulative Retail, Excluding Food Services Sales

Monthly

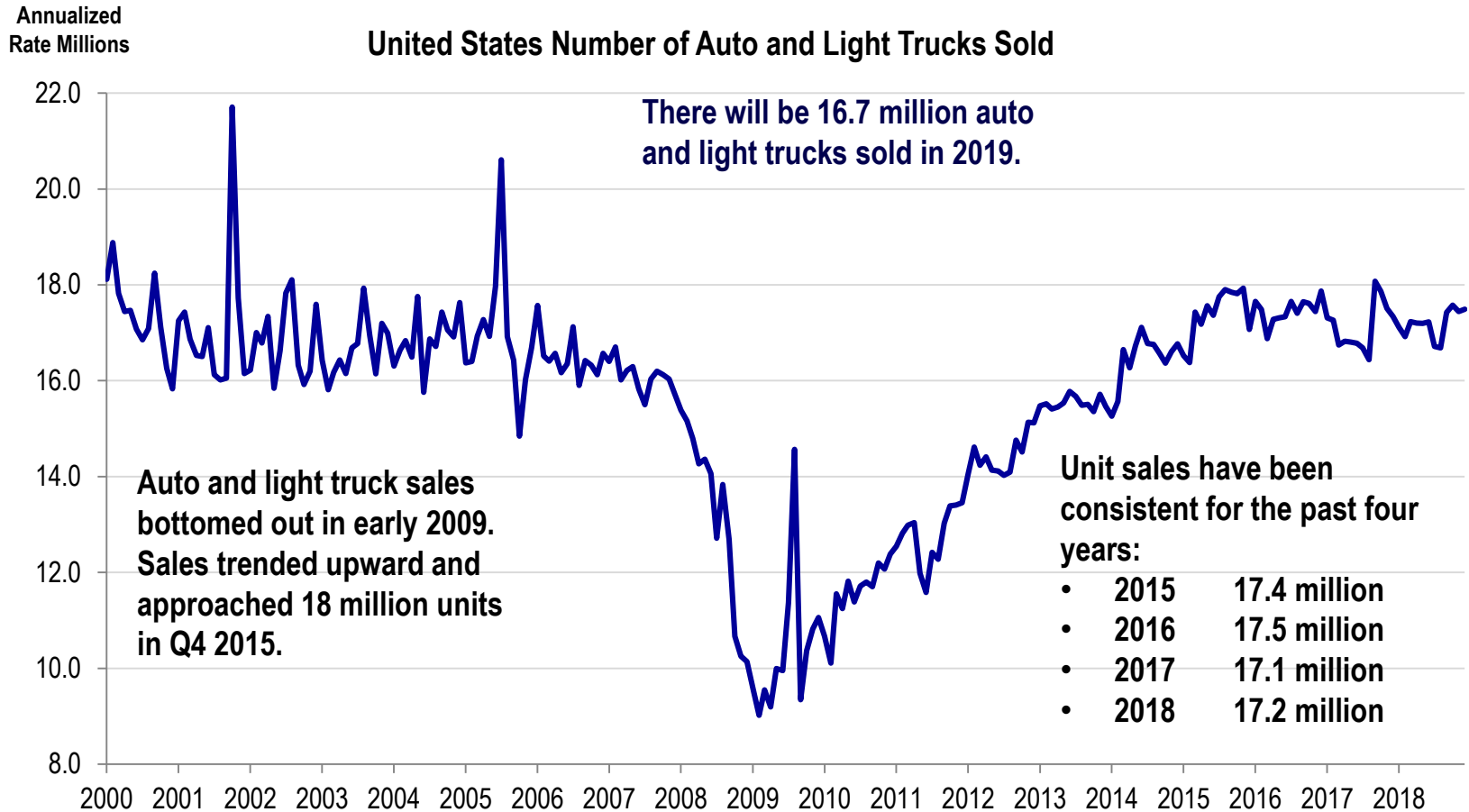


Source: U.S. Census Bureau, FRED, cber.co.

Note: Data is in descending order with December at the top and January at the bottom, not adjusted for inflation.

U.S. Weekly Auto and Light Truck Sales

Monthly (Annualized Rate Millions)



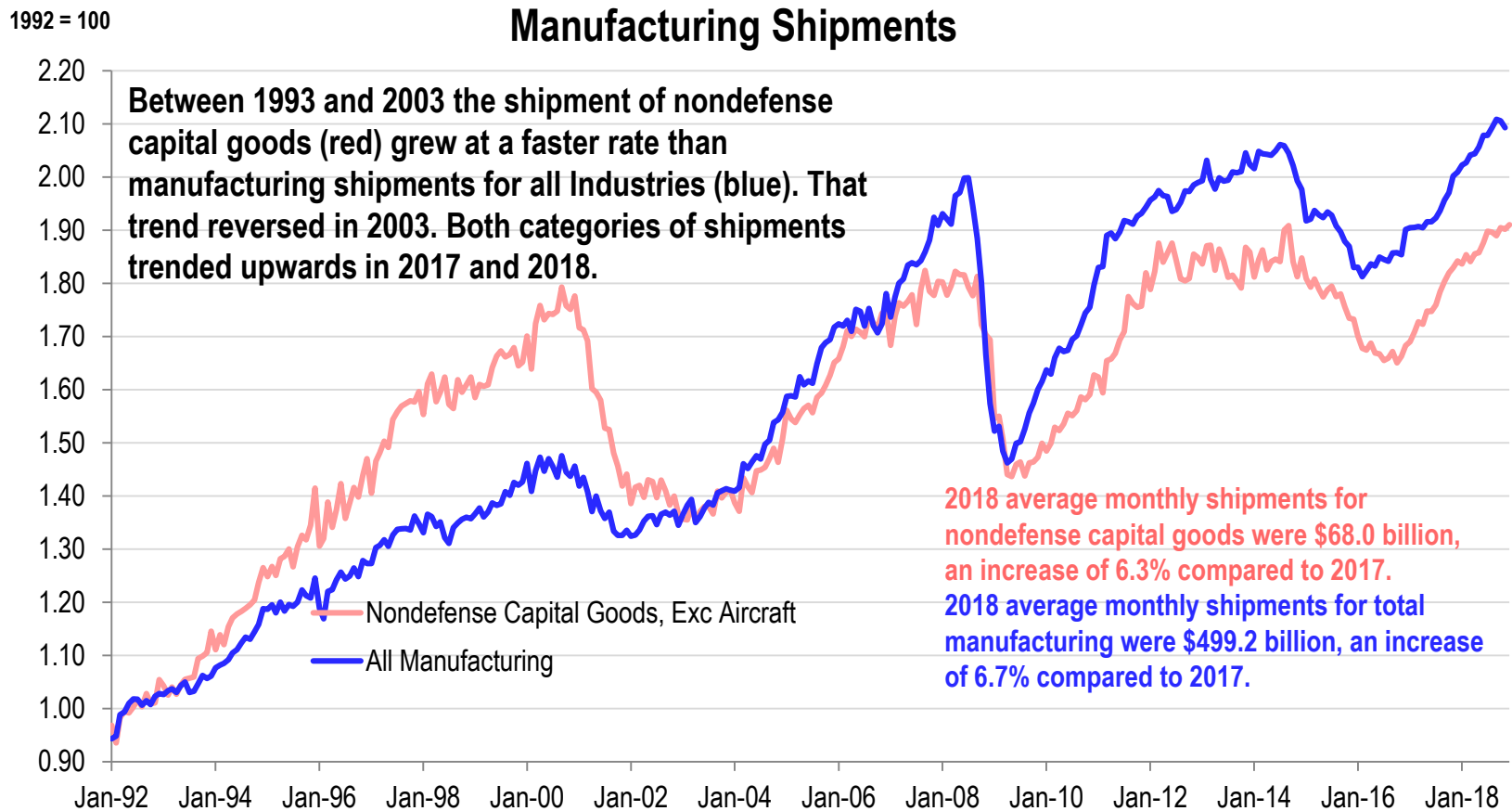
Source: FRED, BEA, cber.co.

Note: Seasonally Adjusted Annualized Rate.

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United States Manufacturing Shipments

All Industries vs. Nondefense Capital, Excluding Aircraft

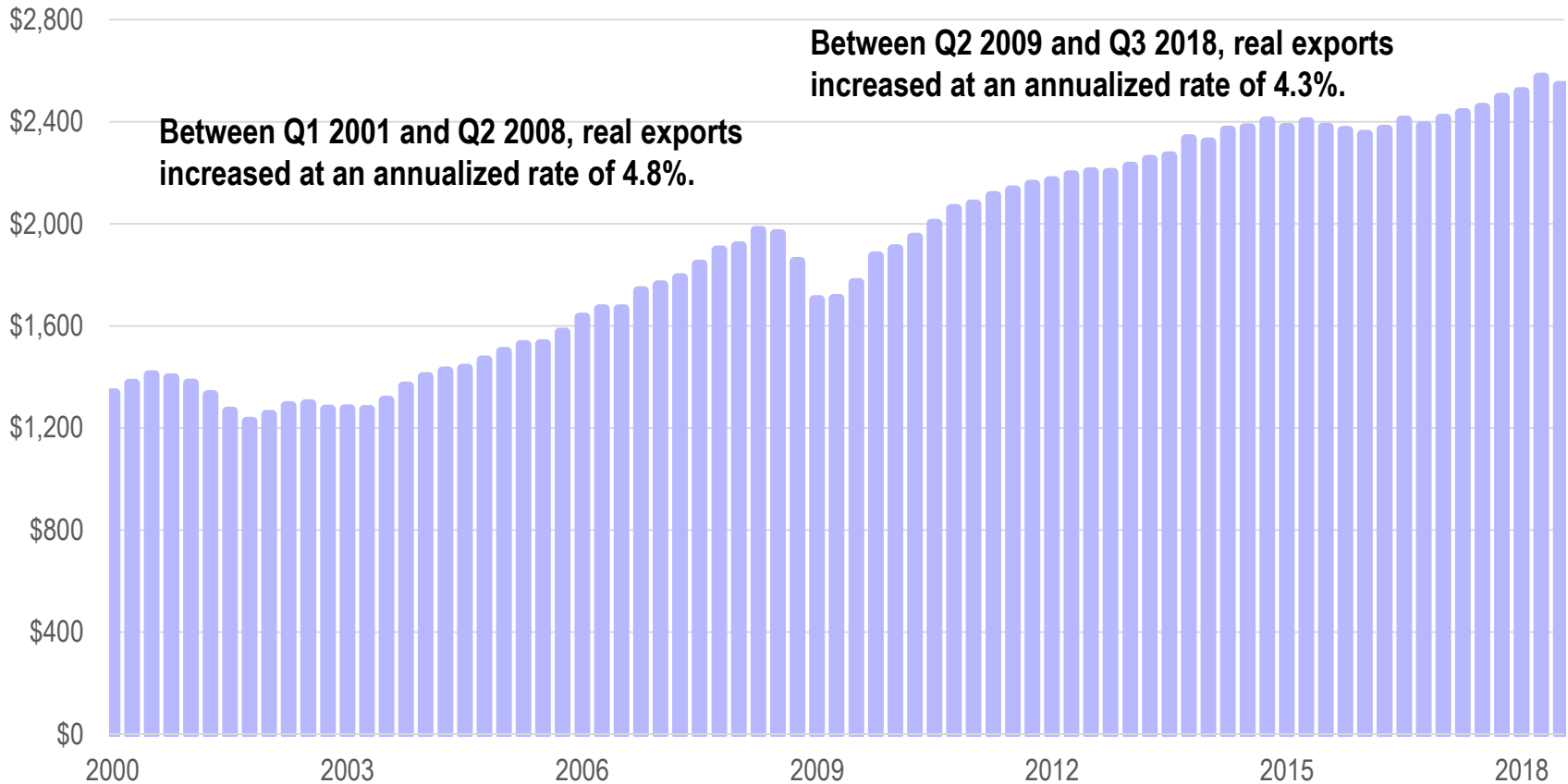


Source: FRED, SA. U.S. Bureau of the Census, cber.co. Note: Not adjusted for inflation.

Real Exports of U.S. Goods and Services

U.S. Real Exports of Goods and Services

1992 = 100



Source: FRED, BEA, SAAR, cber.co

Trade Weighted U.S. Dollar Index: Broad



Trade Weighted U.S. Dollar Index: Broad



Source: FRED, The Federal Reserve, cber.co.

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What are the Take-Aways from a Look at Other Industries?

Key Points:

- Many manufacturing jobs are primary jobs – they bring in money from the outside for the creation of goods and services that are exported outside the region. As a result, they create indirect jobs (supply chain) and induced jobs (spending by employees for retail goods and services).
- The outlook for manufacturing and non-manufacturing jobs is positive.
- Manufacturing shipments continue to increase as Americans purchase manufactured goods.
- Exports of goods and services continue to increase.
- The value of the dollar is rising, which may dampen export sales.




The U.S. Economy

Summary

U.S. Economy

Summary of 2019 Expectations.

1. There will be solid, but slower global and U.S. real GDP growth in 2019.
2. Unfortunately, global tensions are inevitable. Within the U.S. the current political polarization is not healthy for society or the economy.
3. In the U.S., there will be solid consumer and government spending in 2019 accompanied with modest business investment and slower construction activity. The economy may be slower in the second half of 2019, but there will not be a recession.
4. The rate of employment and wage growth will be solid, but less than 2018. The unemployment rate will decline slightly in 2019.
5. Inflation will remain near the Fed's target rate in 2019.
6. Debt can hinder or encourage economic growth; however, a strong case can be made there is too much public and consumer debt. Debt will increase in 2019.
7. The inventory to sales ratio, IPI, capacity utilization, durable goods orders point to solid growth. Manufacturing and retail sales are poised for modest growth in 2019.
8. The Federal Reserve has been challenged to unwind the quantitative easing at the proper speed. The number of interest rate hikes in 2018 were cited as the cause of the collapse in the equity markets in December. There are likely to be fewer rate increases in 2019.
9. Housing prices are accelerating at a decreasing rate. Residential construction will slow in 2019.
10. Technology will continue to disrupt the energy industry in 2019. There will be winners and losers.



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Final Review of 2018 and Outlook for 2019 United States Economy

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For additional information contact cber.co at cber@cber.co or gary@garyhorvath.com.

ABOUT THE AUTHOR

Gary Horvath has produced annual employment forecasts of the state economy for over 25 years. They have been supplemented by monthly economic updates and indices that track economic performance over the short term. In addition, he has directed three statewide analyses that included reviews of all 64 county economies.

Horvath was the principal investigator for a state and federally funded project to prepare a nanotechnology roadmap for Colorado. As well, he was a co-founder of the Colorado Photonics Industry Association, a trade group for Colorado’s Photonics cluster. Horvath has been an active board member of the group since its inception.

Horvath has also served on the Board of Directors for the Economic Development Council of Colorado, Northwest Denver Business Partnership, Adams County Economic Development, and Broomfield Economic Development Corporation. Horvath has also been the lead for the photonics/electronics cluster in OEDIT’s early stage and proof of concept grant program.