

# **ECONOMICS 20/20: GROWING BUT SLOWING!**

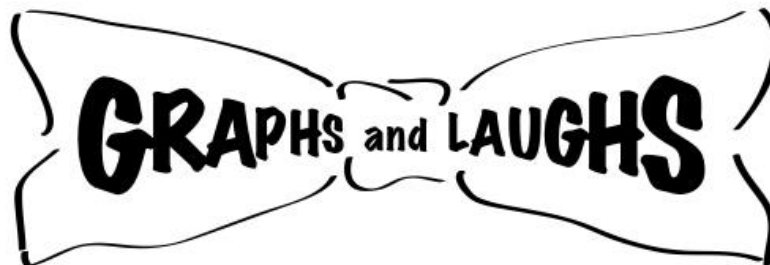
Presented by:

Elliot F. Eisenberg, Ph.D.

President: GraphsandLaughs, LLC

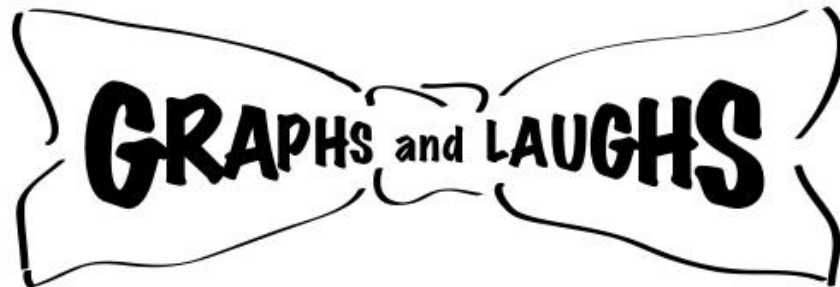
November 12, 2019

Phoenixville, PA



# The Economy is Slowing!

$$\text{GDP} = C + I + G + (X - M)$$



# The Stock Market Is Doing Relatively Well

Despite numerous stressors



*Shaded areas indicate U.S. recessions*

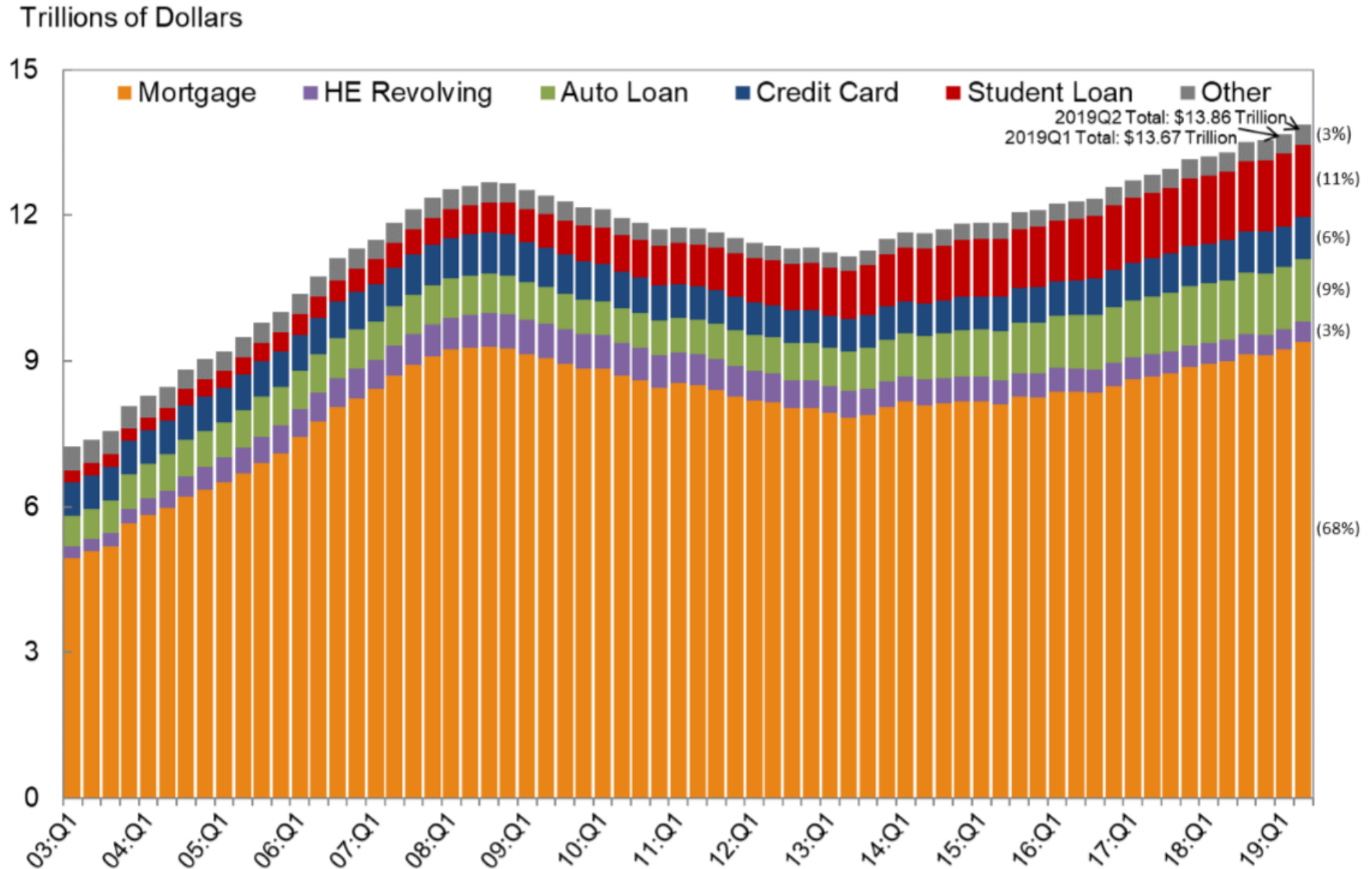
Source: S&P Dow Jones Indices LLC

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# Households Are Re-Leveraging

Mortgage debt remains slightly below the 2008 peak. Total debt is 6.9% higher

## Total Debt Balance and its Composition

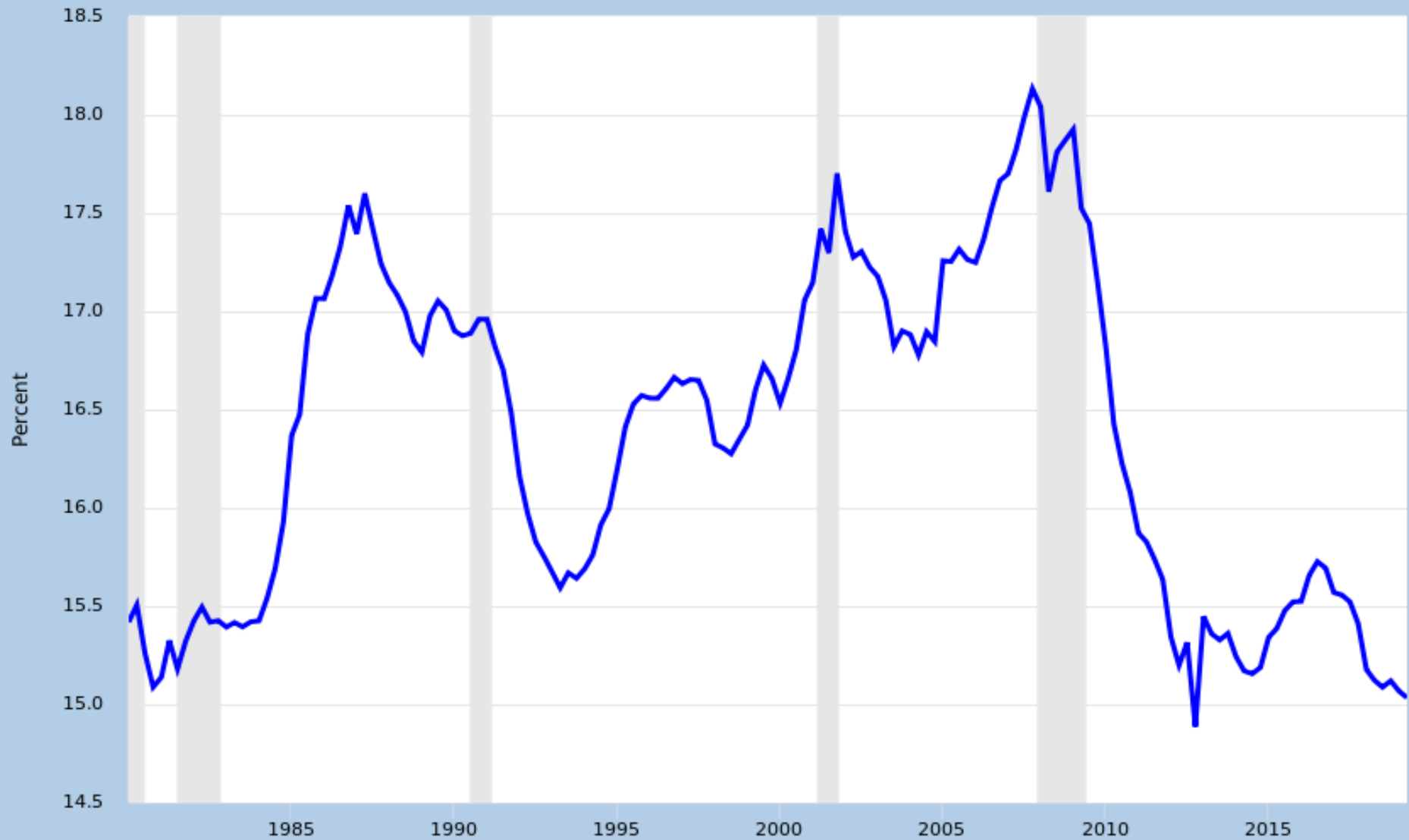


Source: New York Fed Consumer Credit Panel/Equifax

# Households Balance Sheets Look Pretty Good

Less high interest revolving debt

**FRED**  — Household Financial Obligations as a percent of Disposable Personal Income



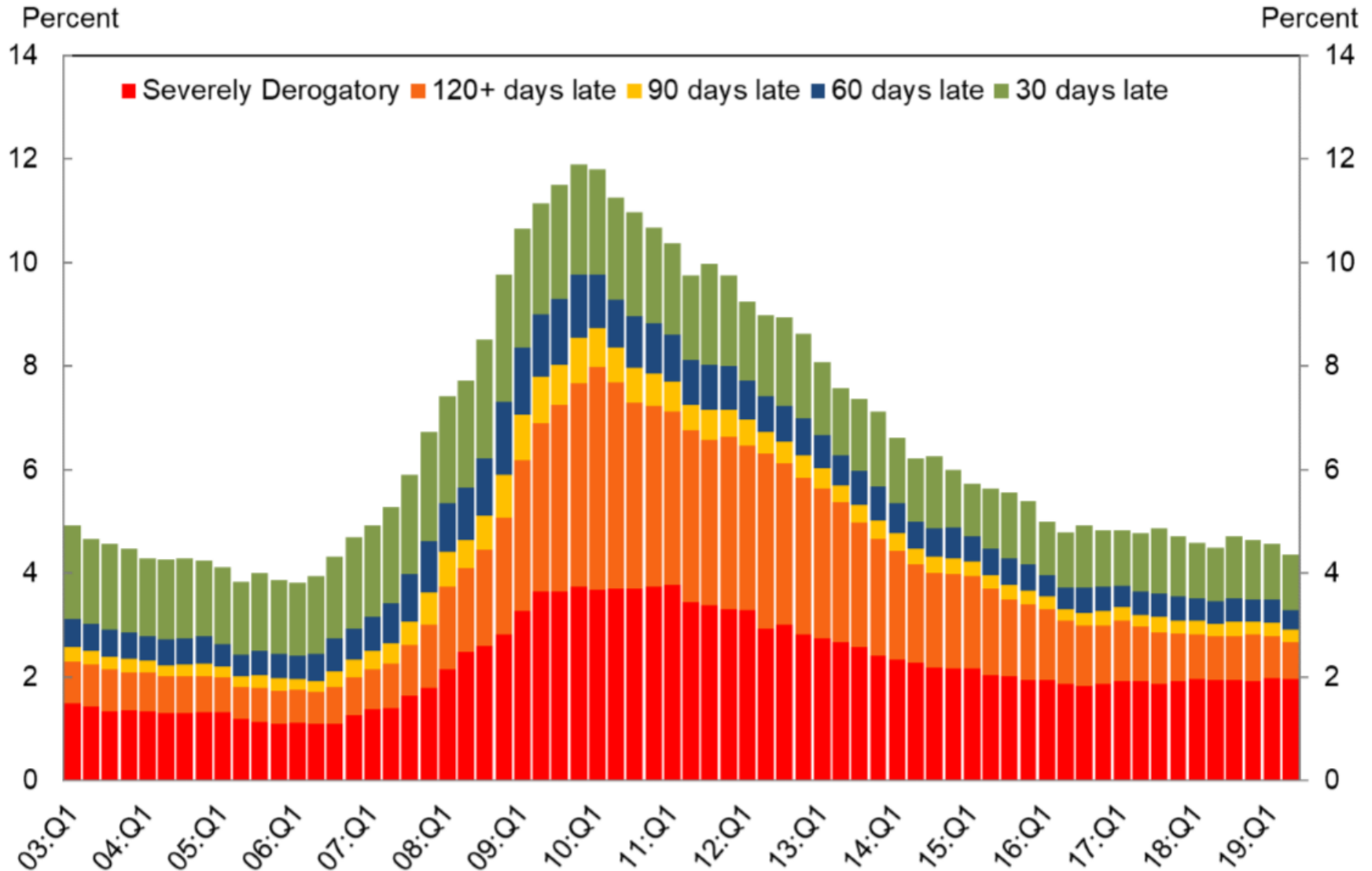
Shaded areas indicate U.S. recessions. Source: Board of Governors of the Federal Reserve System (US)

[myf.red/g/p2yo](https://myf.red/g/p2yo)

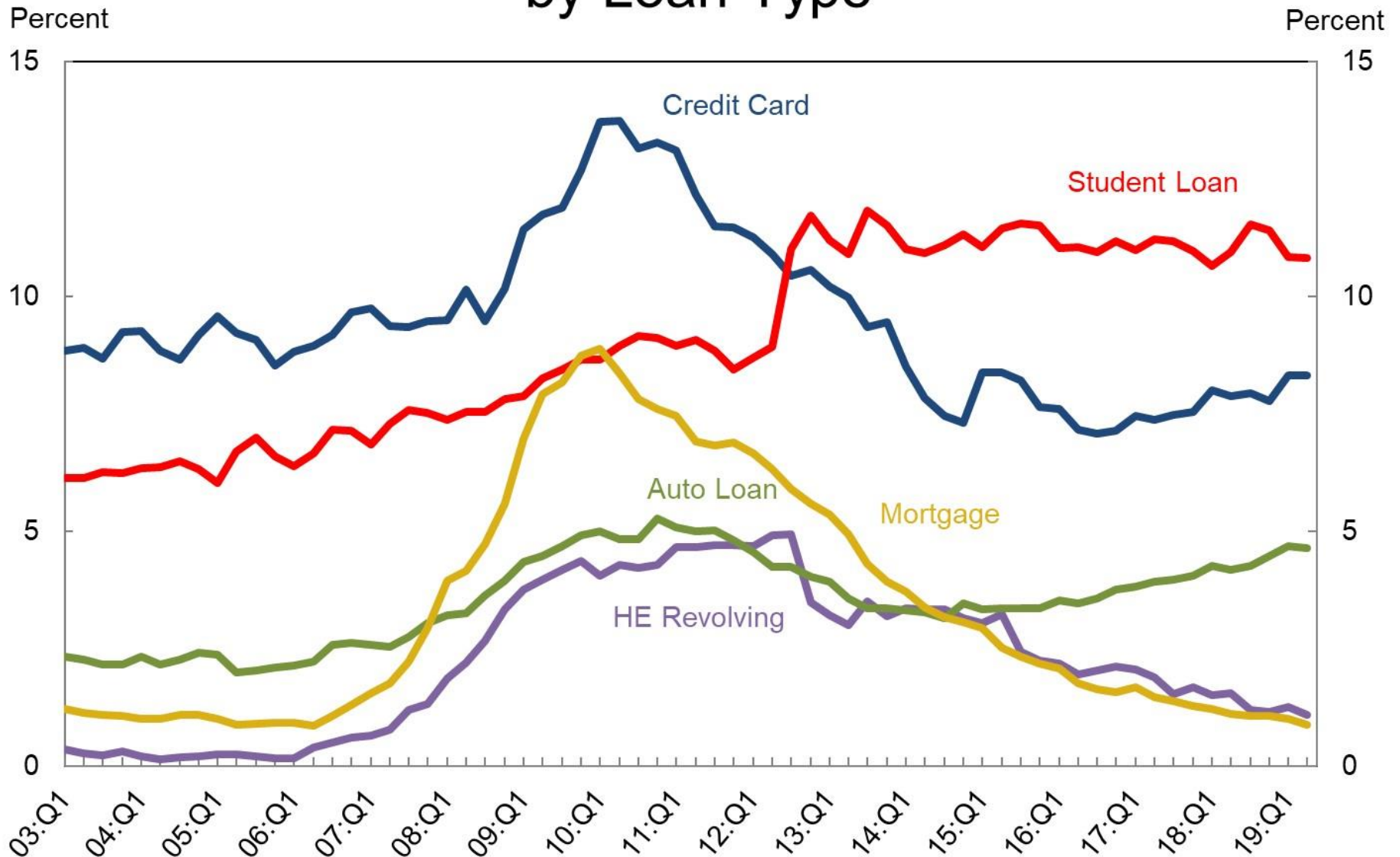
# Total Delinquencies Rates Decline Slowly

Rise in credit cards and student loans delinquencies prevents the overall rate from falling

## Total Balance by Delinquency Status



# Percent of Balance 90+ Days Delinquent by Loan Type



Source: New York Fed Consumer Credit Panel/Equifax

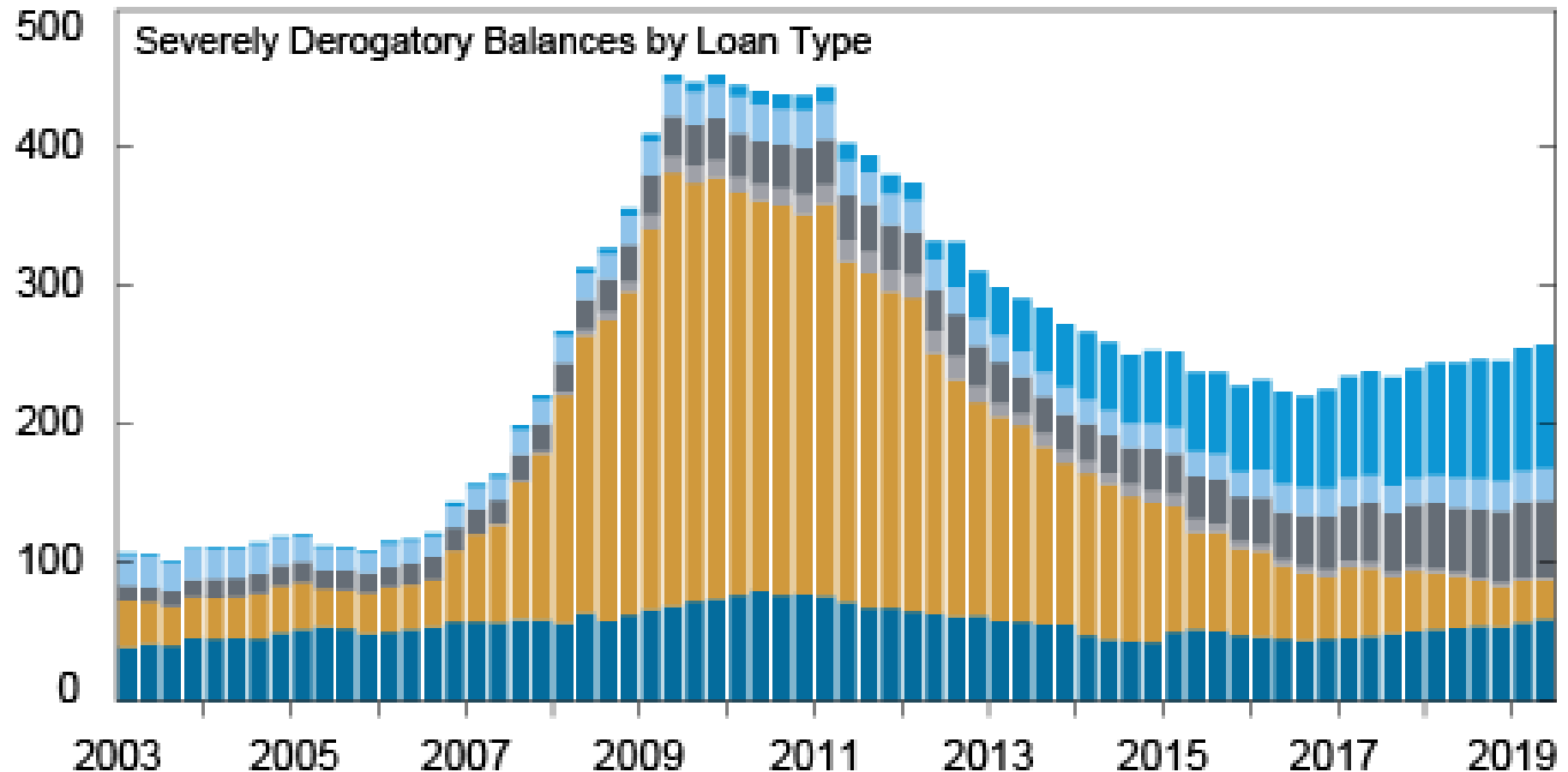
# Past Due Student Loans!

The amount is mushrooming

## Student Loans Overtake Mortgage Debt in Severe Derogatories

■ Credit card ■ Mortgage ■ HELOC ■ Auto ■ Other ■ Student

Billions of Dollars



Source: New York Fed Consumer Credit Panel/Equifax.



# Consumer Confidence Has Recovered

Near the best level since December 2000!

29-Oct-19

Conference Board Consumer Confidence

Survey: 128.0

Actual: 125.9



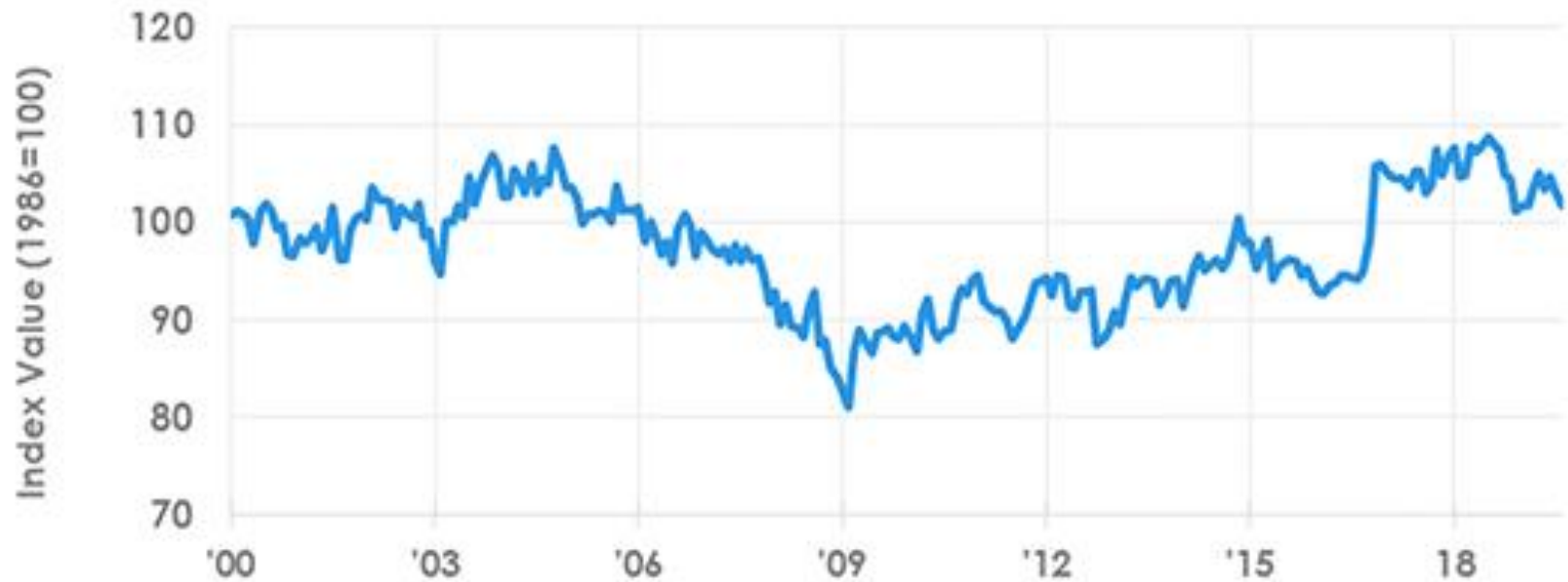
The Daily Shot\*

# Small Business Confidence Remains Strong

Decline is reversing and it remains above long-term average of 98

## Small Business Optimism Index at 101.8

Based on 10 survey indicators, seasonally adjusted, Jan. '00 – Sep. '19

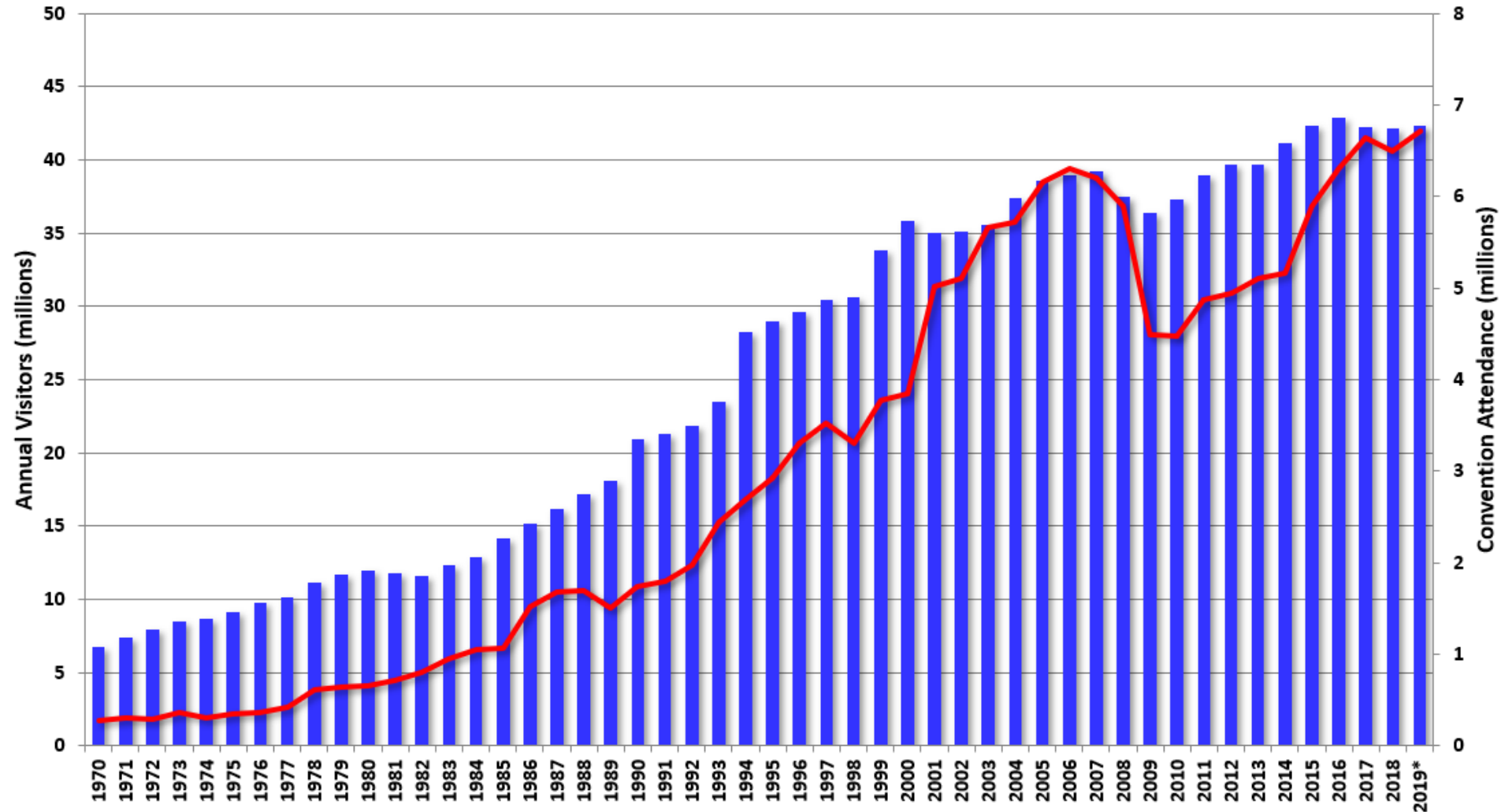


# Las Vegas Attendance Is Flat

The gamblers and conventioners are coming but not in record numbers

Las Vegas Visitors

Visitors Convention Attendance



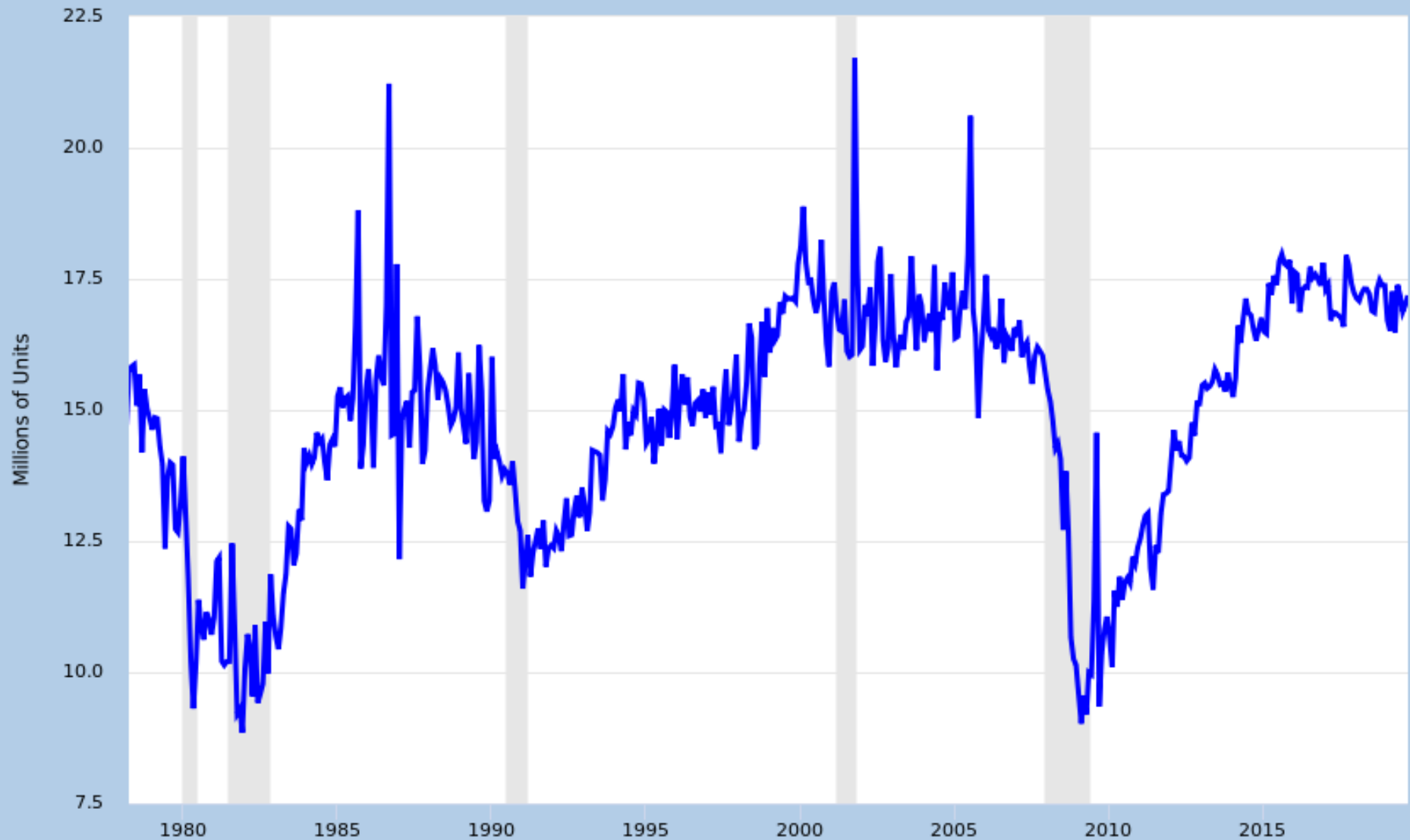
\*2019 Annualized

<http://www.calculatedriskblog.com/>

# US Light Vehicle Sales Slow Slightly

First year since 2014 that 17 million units may not be sold

**FRED**  — Light Weight Vehicle Sales: Autos and Light Trucks



*Shaded areas indicate U.S. recessions*

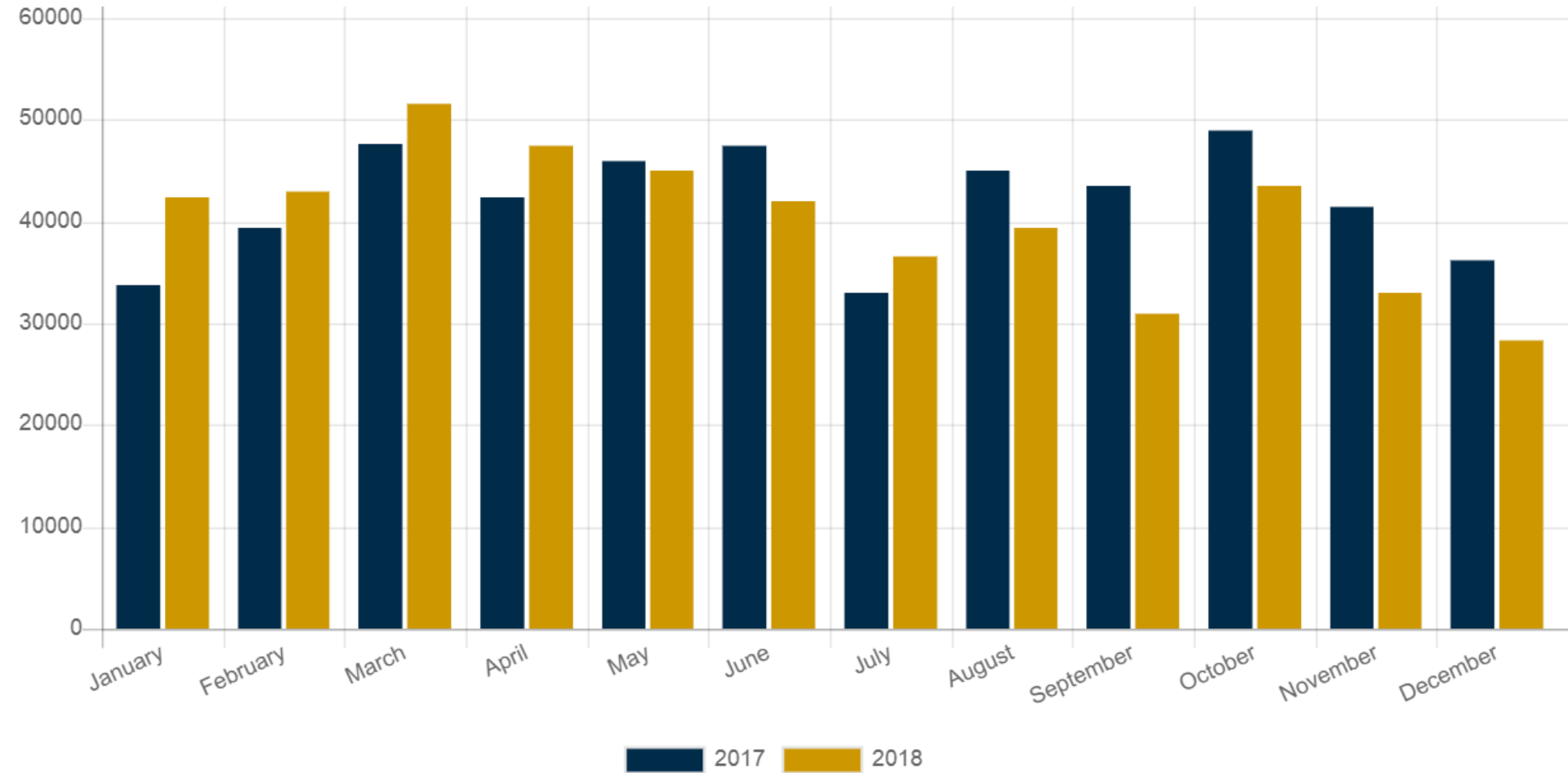
Source: U.S. Bureau of Economic Analysis

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# Let's Buy an RV!

Sales are now higher than ever

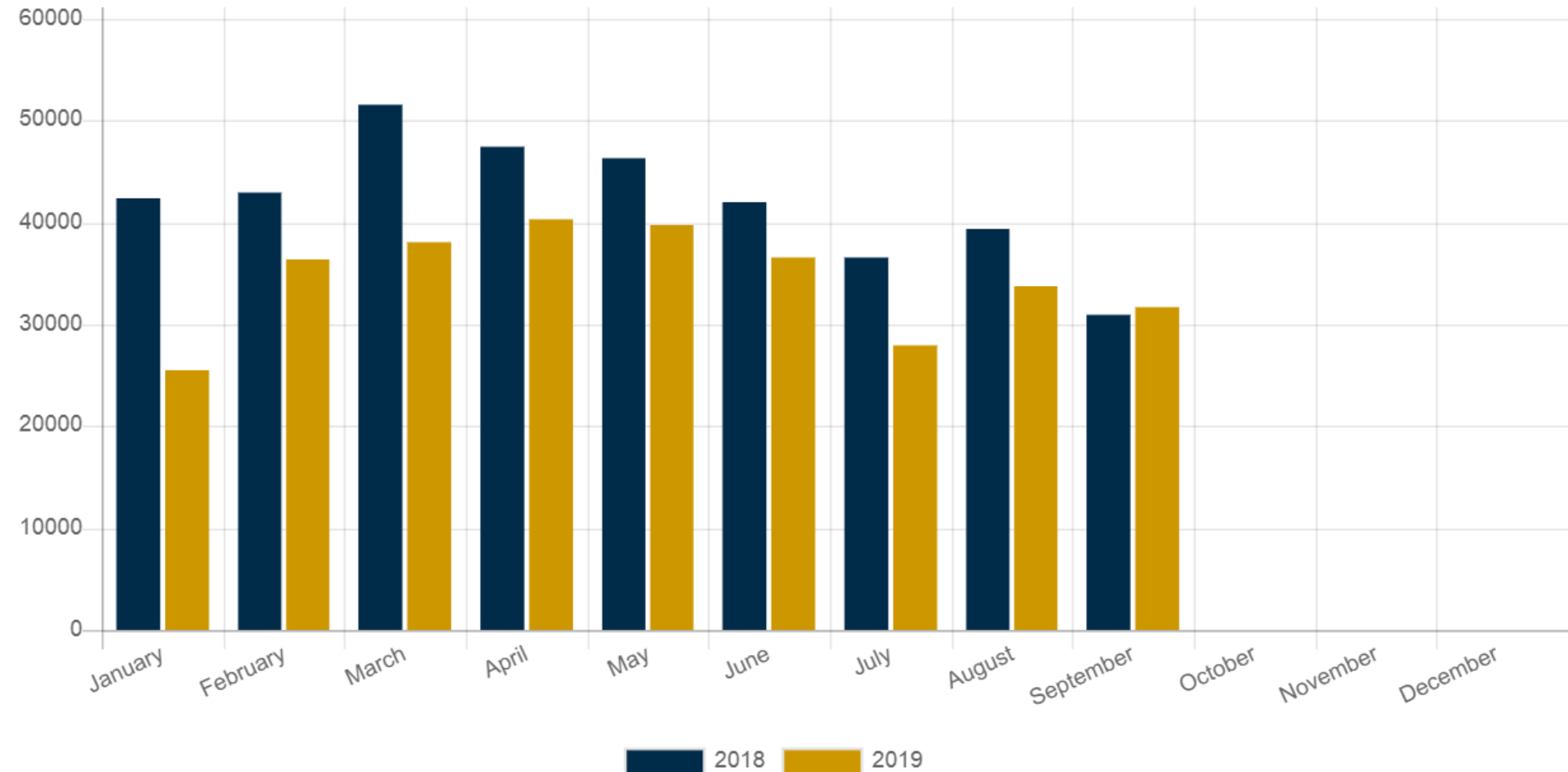
## Total Shipments Monthly vs. Last Year



# Let's Buy an RV, OK Maybe Not!

Sales keep slipping

## Total Shipments Monthly vs. Last Year



# US Heavy Truck Sales Collapse

**Gross Vehicle Weight > 7 tons. Down due to huge purchases last year**

Orders are falling for new trucks amid a weaker freight industry.

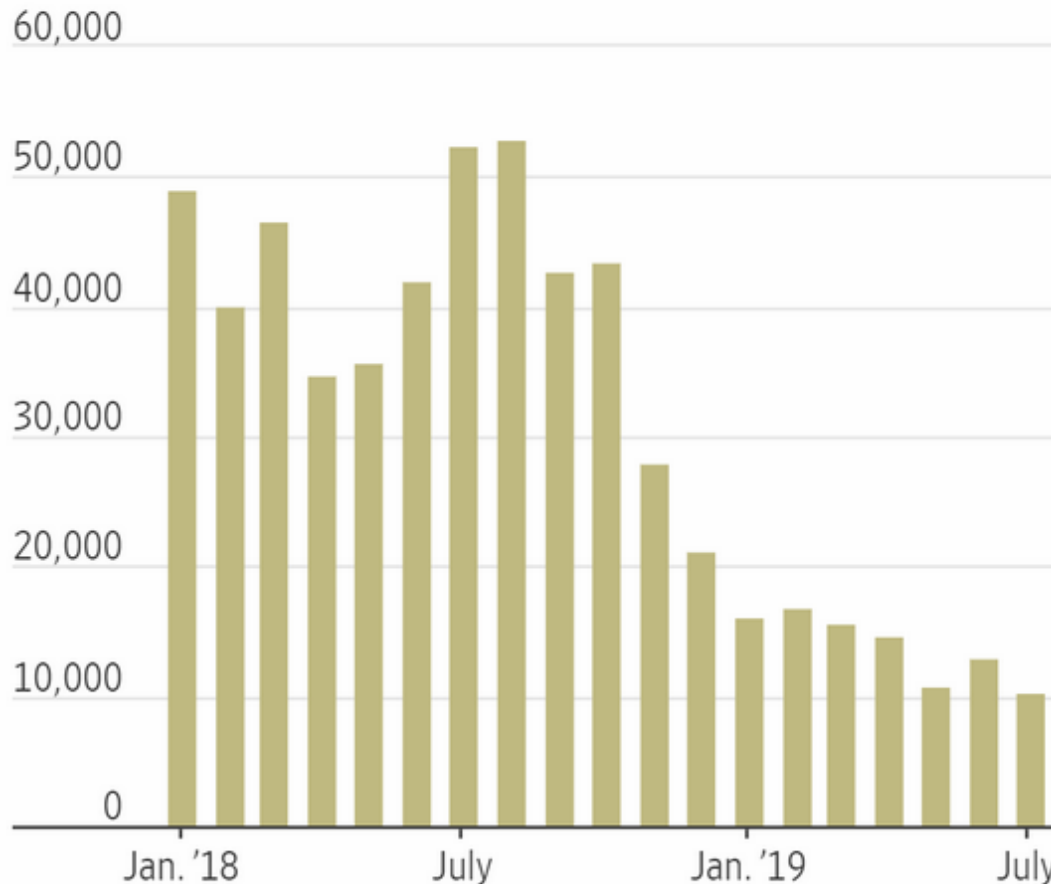
Posted on

WSJ: The Daily Shot

03-Sep-2019

@SoberLook

## Net orders of heavy-duty trucks

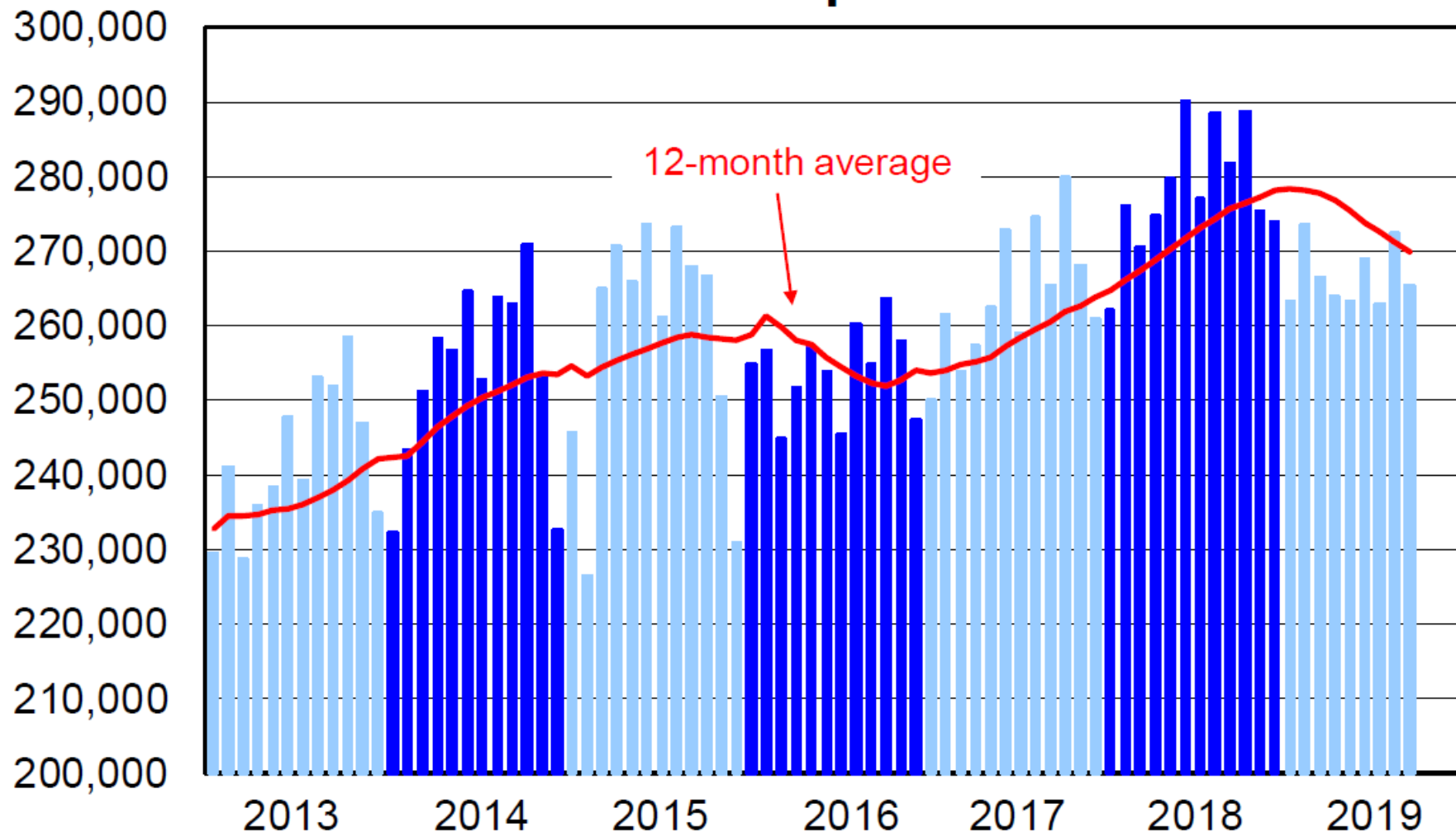


Source: ACT Research

# Container Traffic Slows Slightly

2018 was the best year ever. 2019 looks weaker due to less exports, flooding, trade disputes

## Average Weekly U.S. Rail Intermodal Units: Jan. 2013 - Sept. 2019



Data are average weekly originated containers and trailers for each month and do not include the U.S. operations of CN, CP, and GMXT. Source: AAR *Rail Time Indicators*

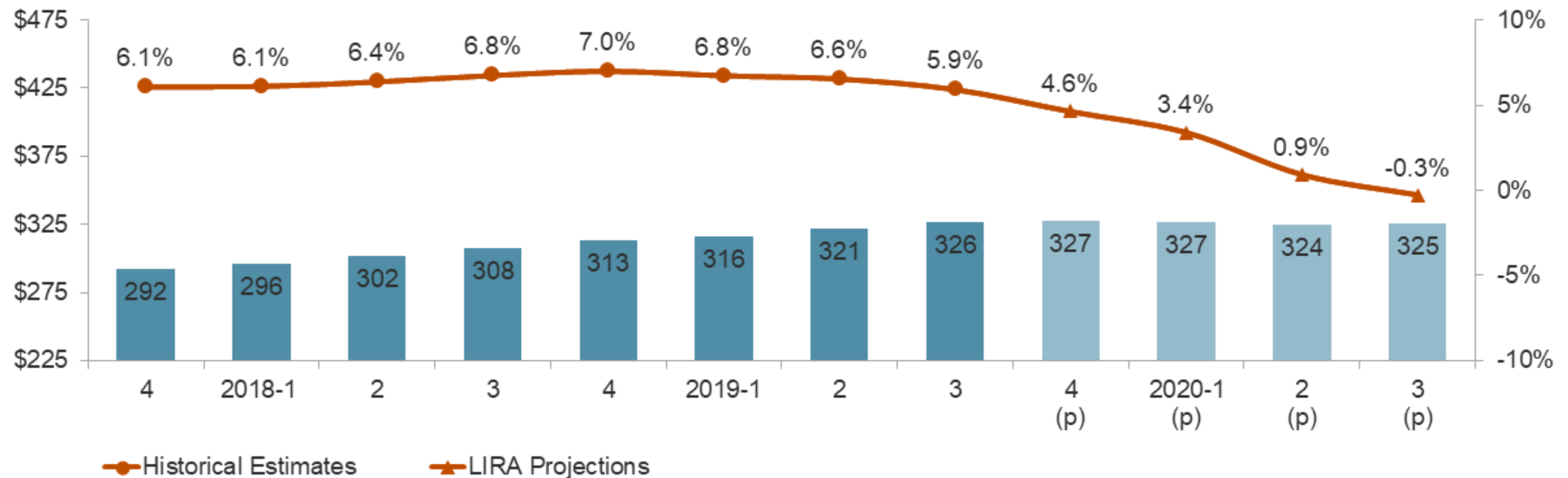


# Housing Improvements & Repairs Rise Very Slowly

Homes are aging, rates are higher, home equity growth slows

## Leading Indicator of Remodeling Activity – Third Quarter 2019

Homeowner Improvements & Repairs  
Four-Quarter Moving Totals  
Billions

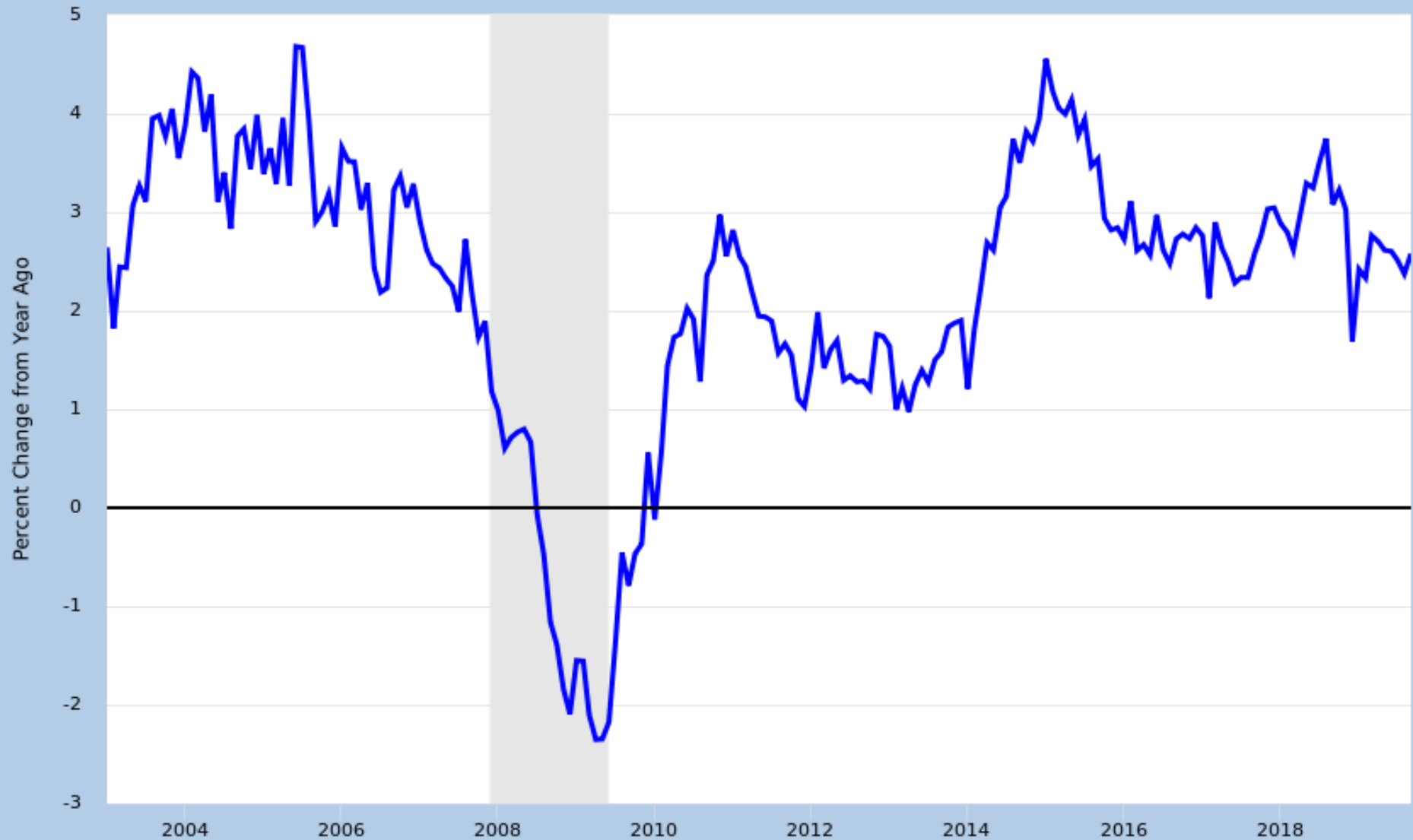


Note: Historical estimates since 2017 are produced using the LIRA model until American Housing Survey benchmark data become available.

# Annual Y-o-Y Percent Change in PCE

A very solid growth rate of about 2.5%, but down from the amazing 2018

**FRED**  — Real Personal Consumption Expenditures



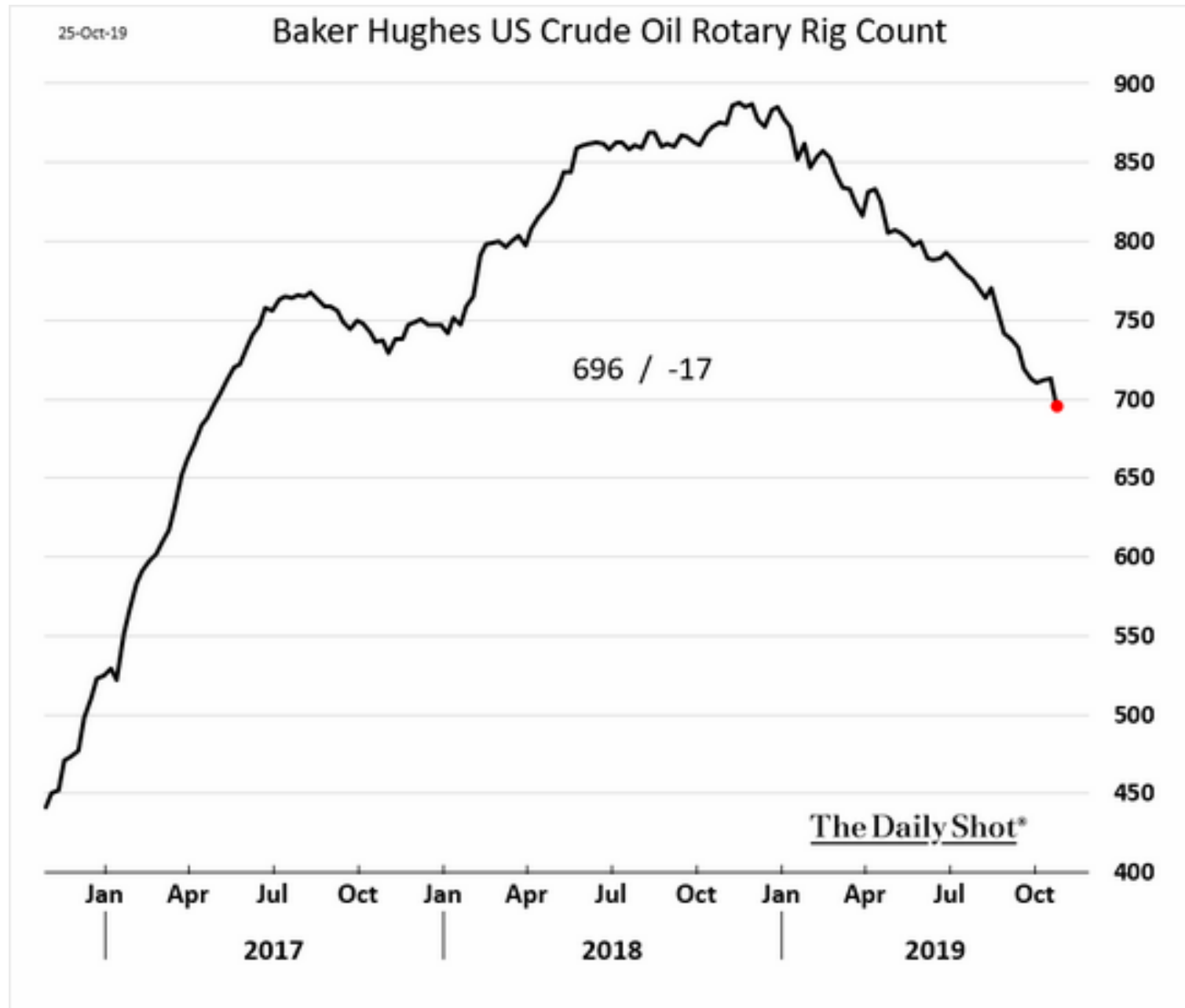
*Shaded areas indicate U.S. recessions*

Source: U.S. Bureau of Economic Analysis

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# Rig Counts Decline Accelerates

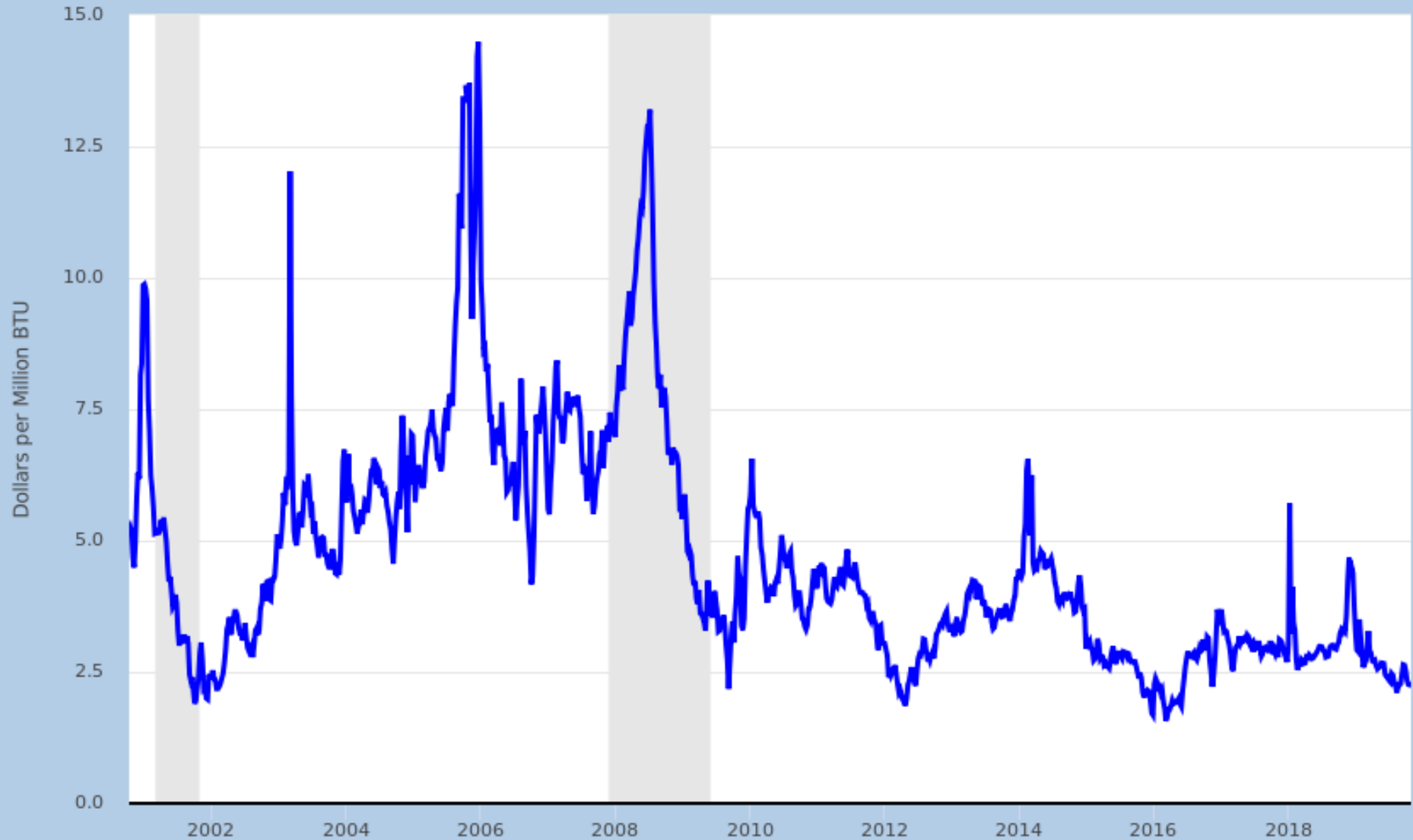
Lower prices are key, no investors



# Natural Gas Prices are Very Low

One CF is (roughly) equal to 1,020 BTU's

**FRED**  — Henry Hub Natural Gas Spot Price



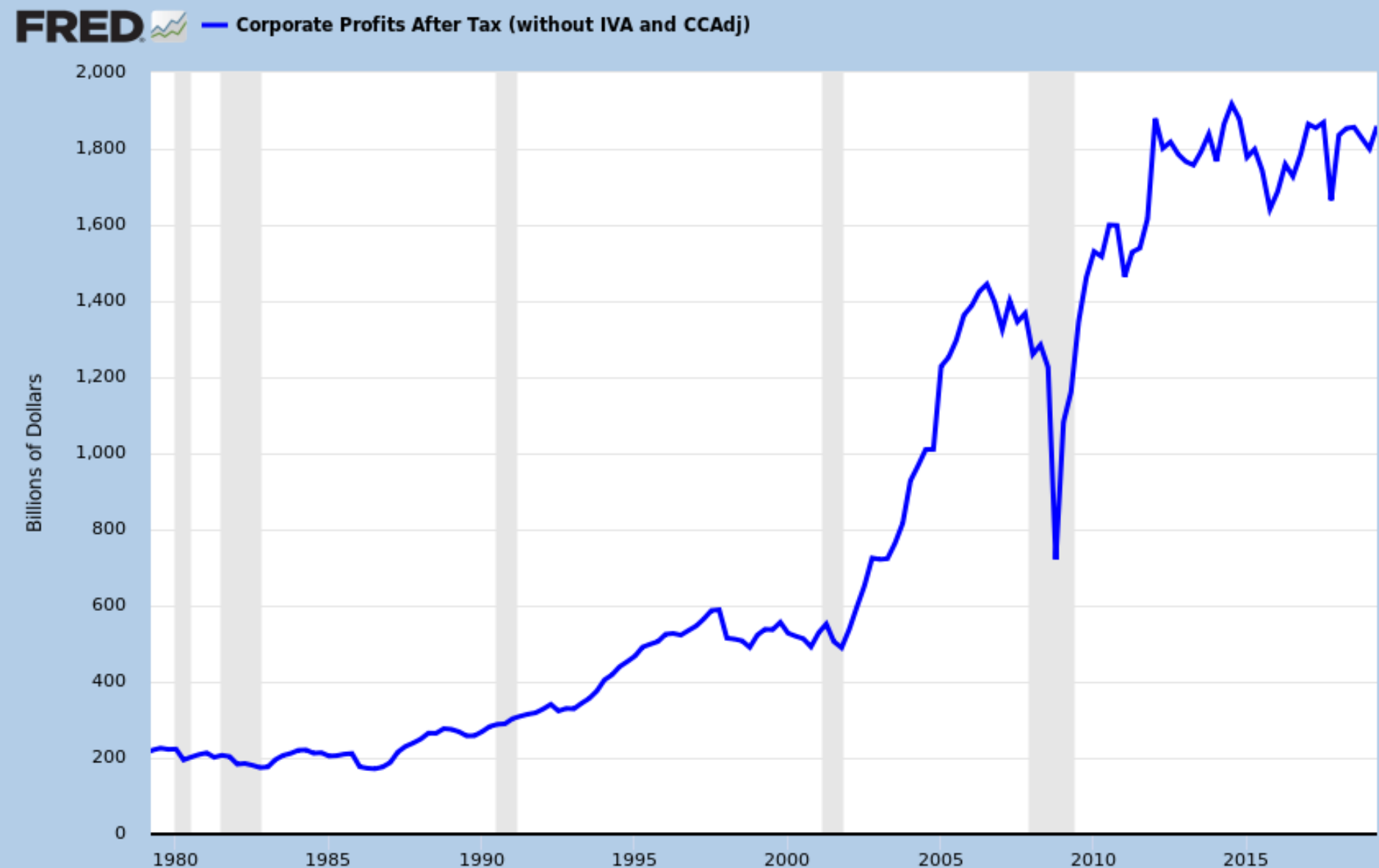
*Shaded areas indicate U.S. recessions*

Source: U.S. Energy Information Administration

[myf.red/g/ppfq](https://myf.red/g/ppfq)

# Corporate Profits Flatten

Corporate profit growth in 2019 is very weak



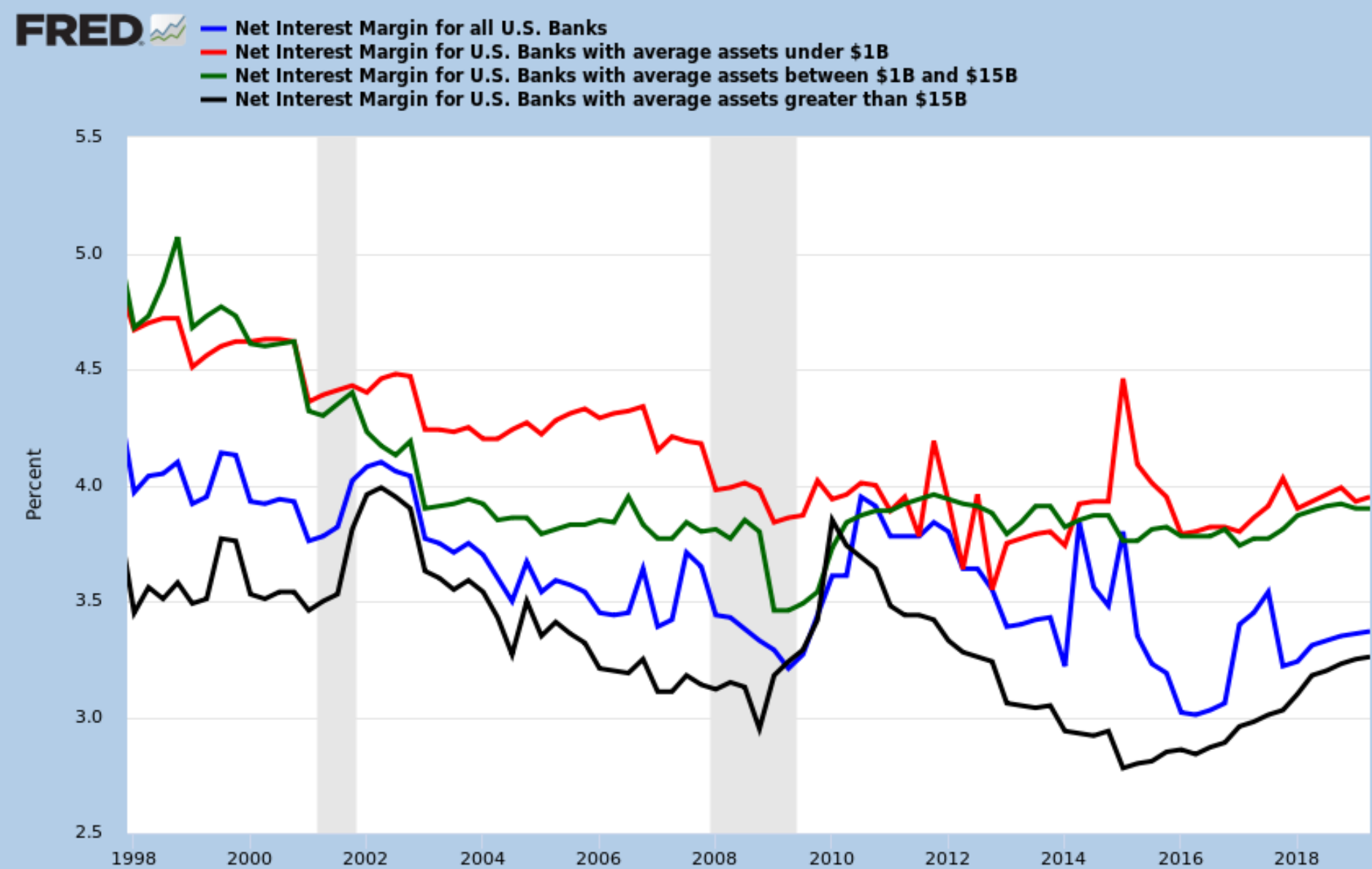
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

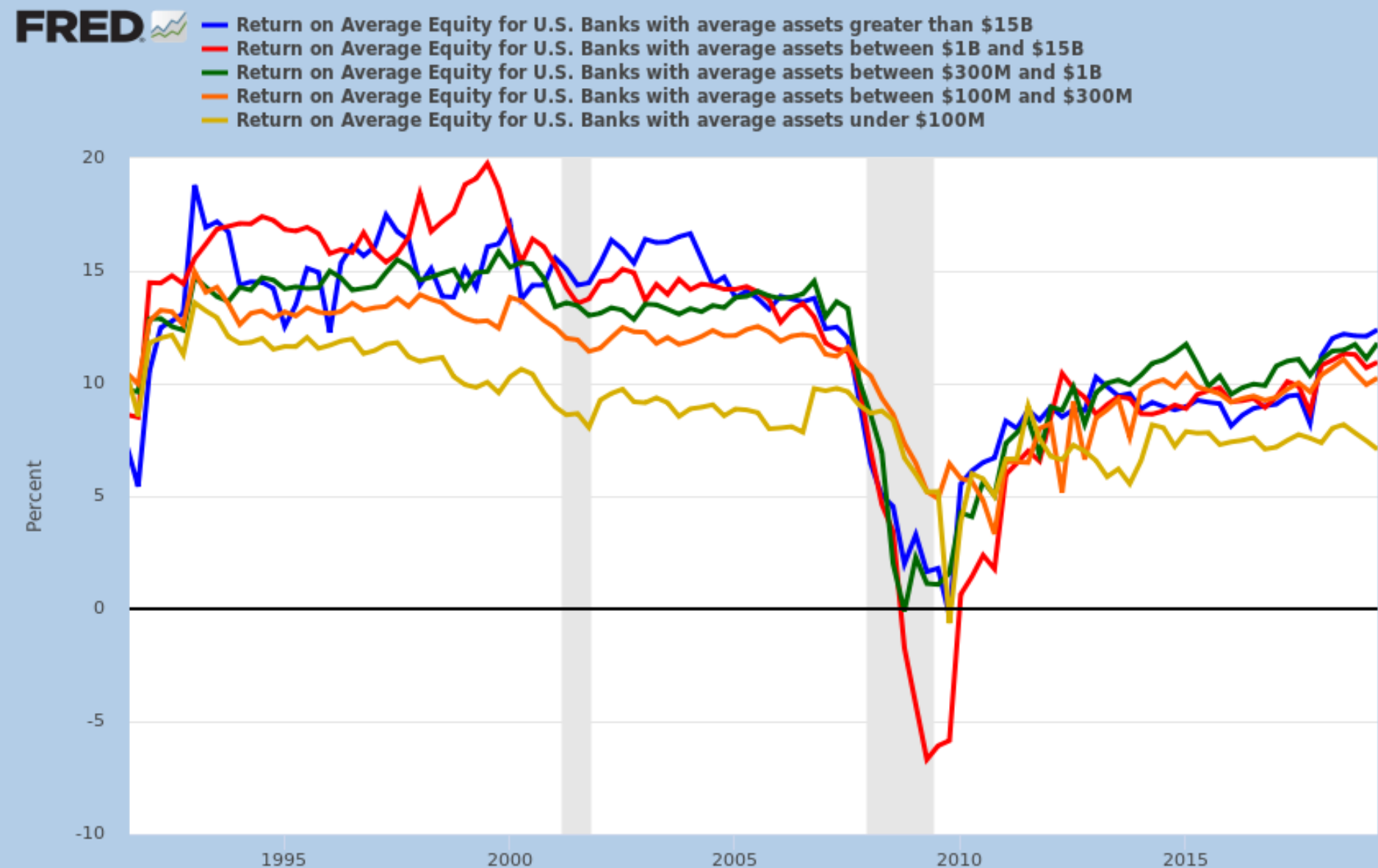
[myf.red/g/oZM8](https://myf.red/g/oZM8)

# Bank Net Interest Margins Are Flattening

Rising interest rates helped

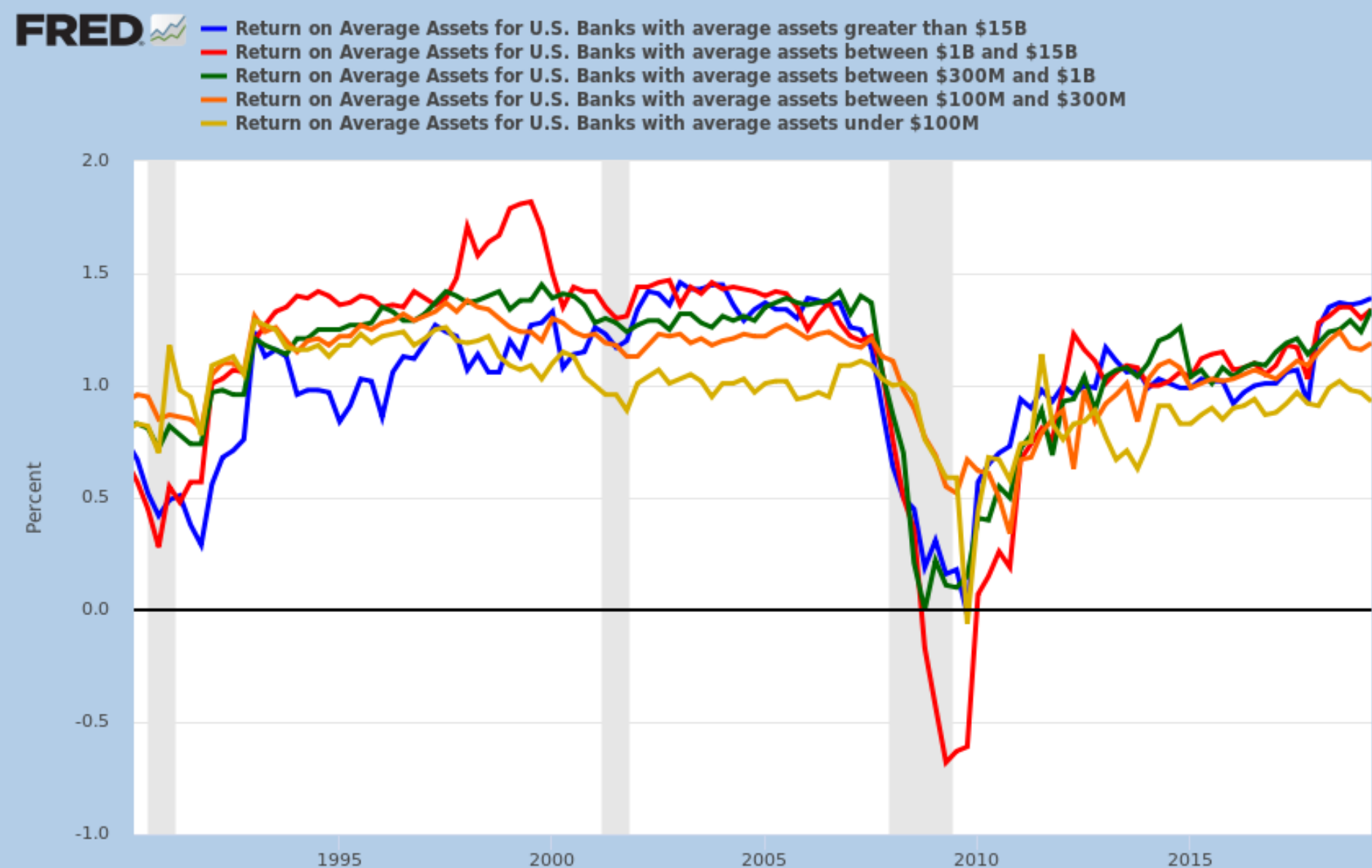


# ROE for Banks Had Been Slowly Improving



# ROA for Banks Had Been Slowly Improving

A flatter yield curve is a big concern

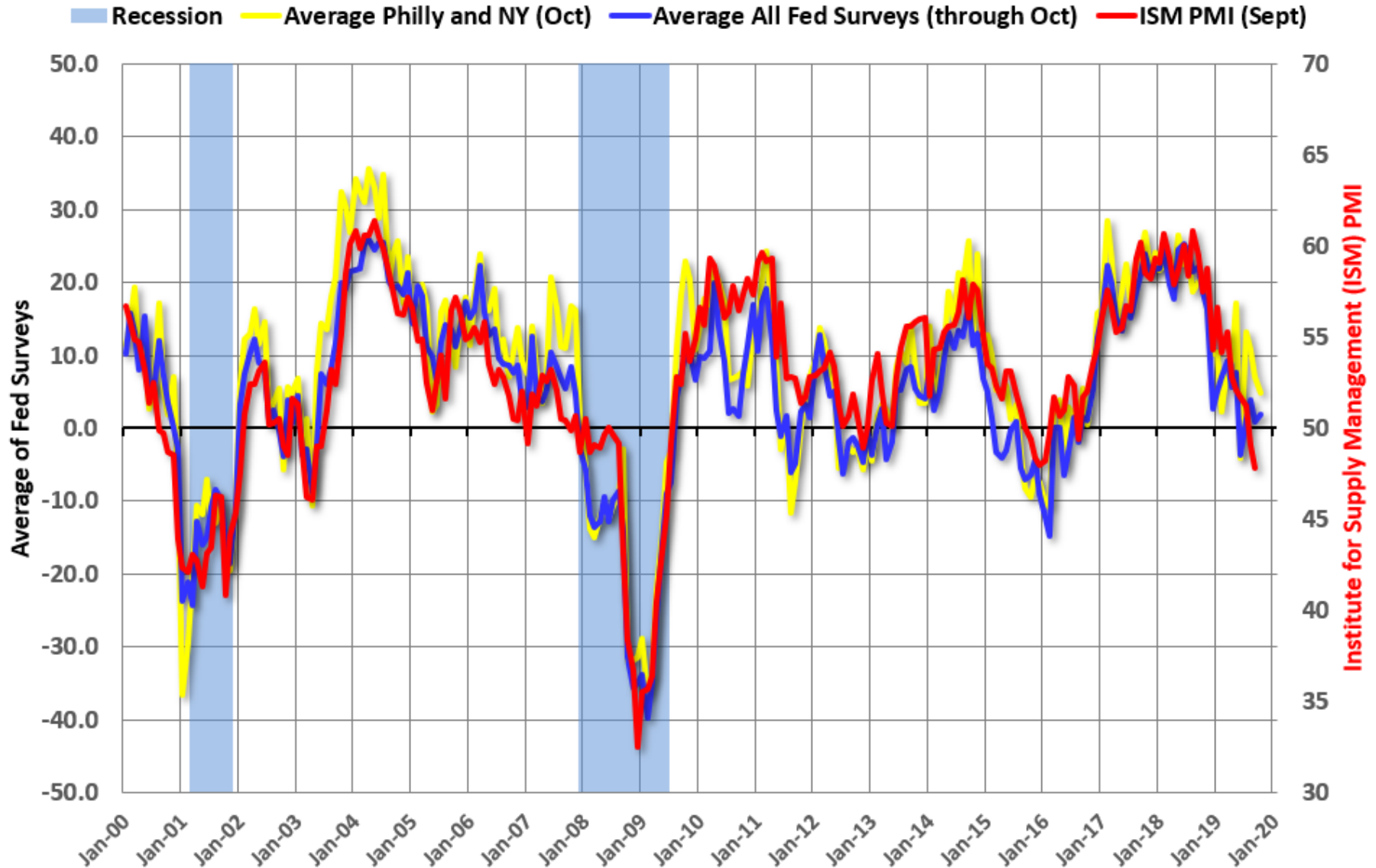




# ISM Manufacturing Numbers Are Weak

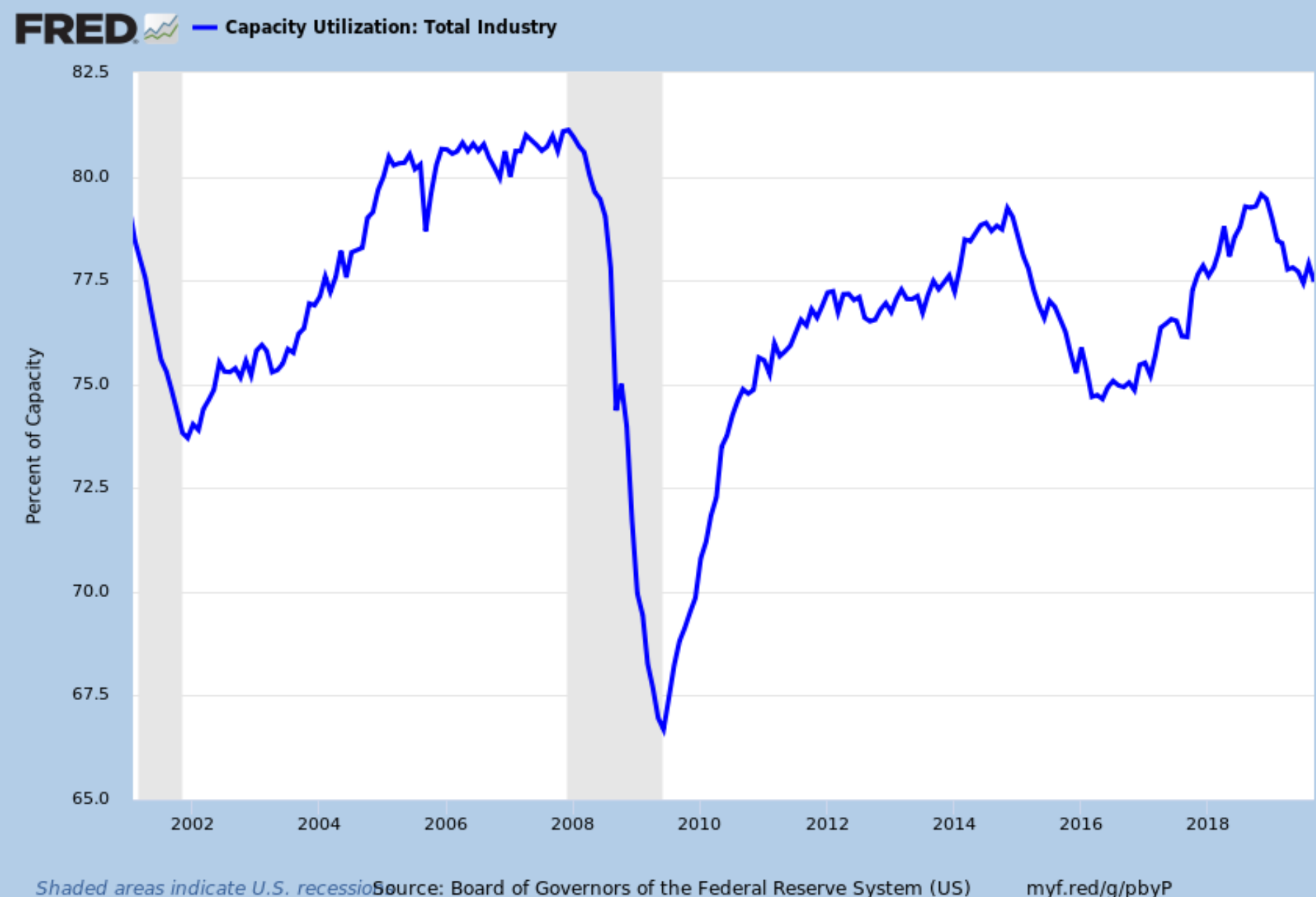
Manufacturing is less important than in decades past

ISM Purchasing Managers' Index (PMI) and Fed Manufacturing Surveys



# Factory Utilization Rates are Declining

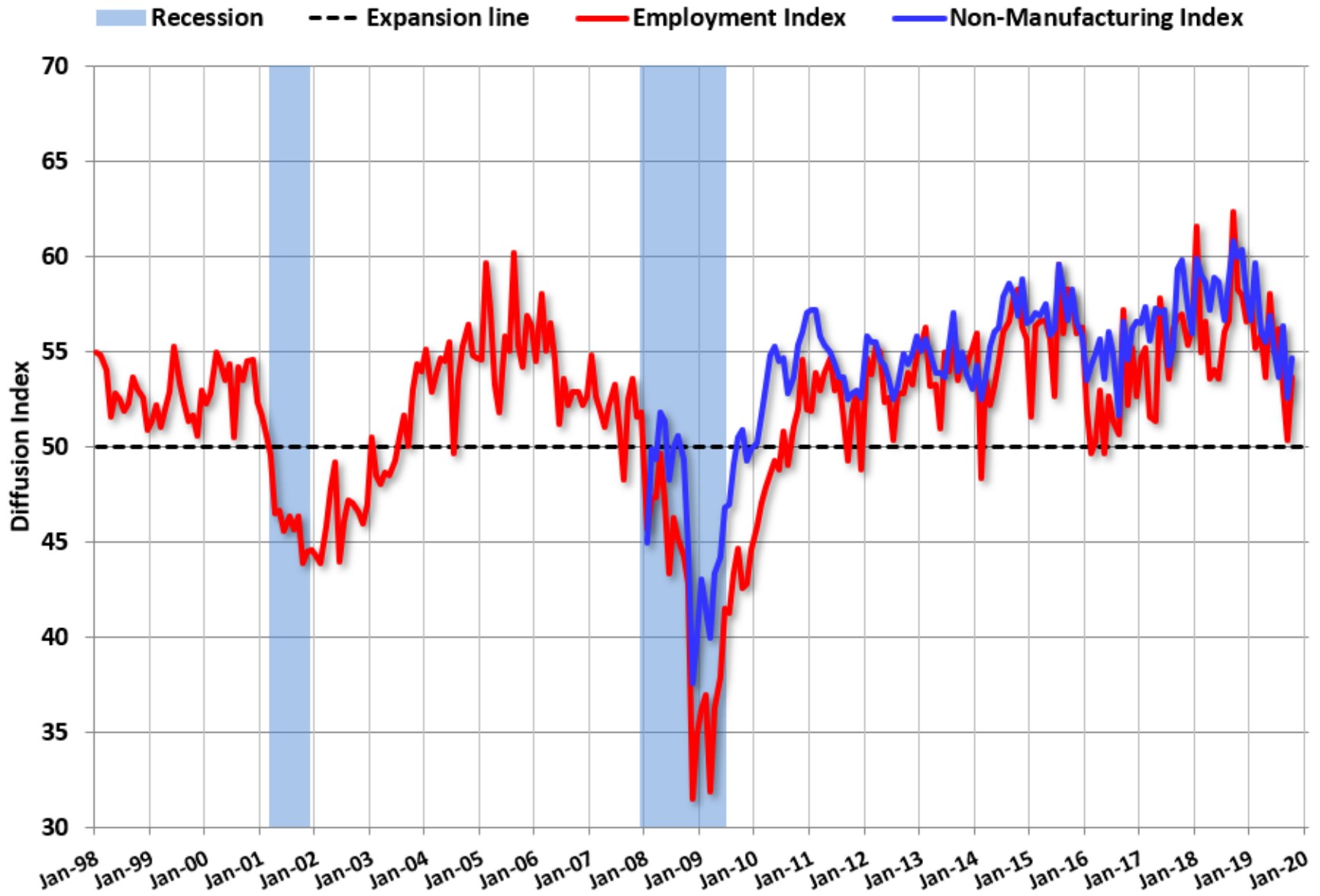
Combination of slowing global growth, trade wars, weak oil prices and a strong dollar



# ISM Non-Manufacturing Numbers are OK

Service sector weakens

ISM Non-Manufacturing and Employment Diffusion Indexes

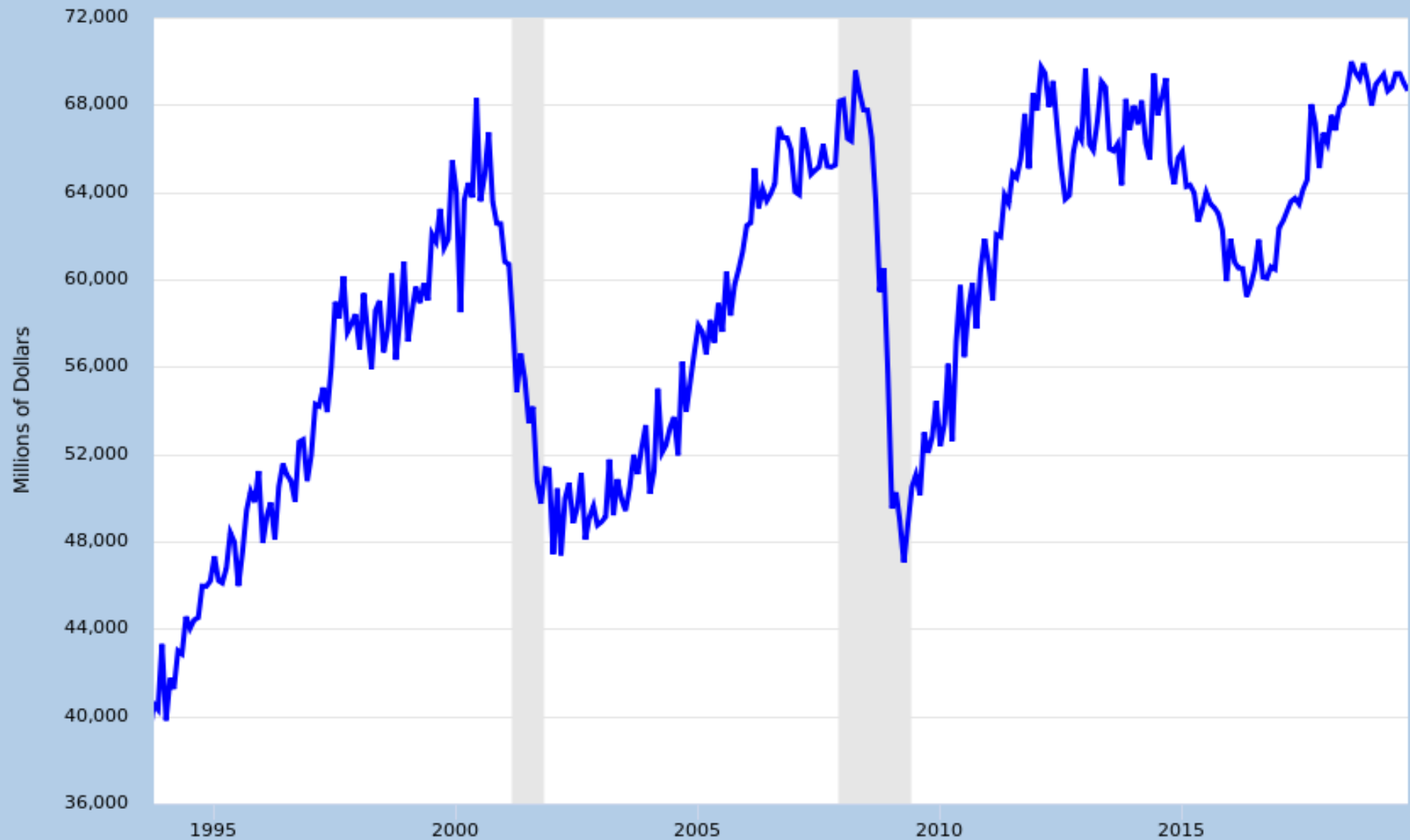


# Capital Goods Orders are Flat

Slowing global growth, trade concerns, falling oil prices and more...

**FRED** 

— Manufacturers' New Orders: Nondefense Capital Goods Excluding Aircraft



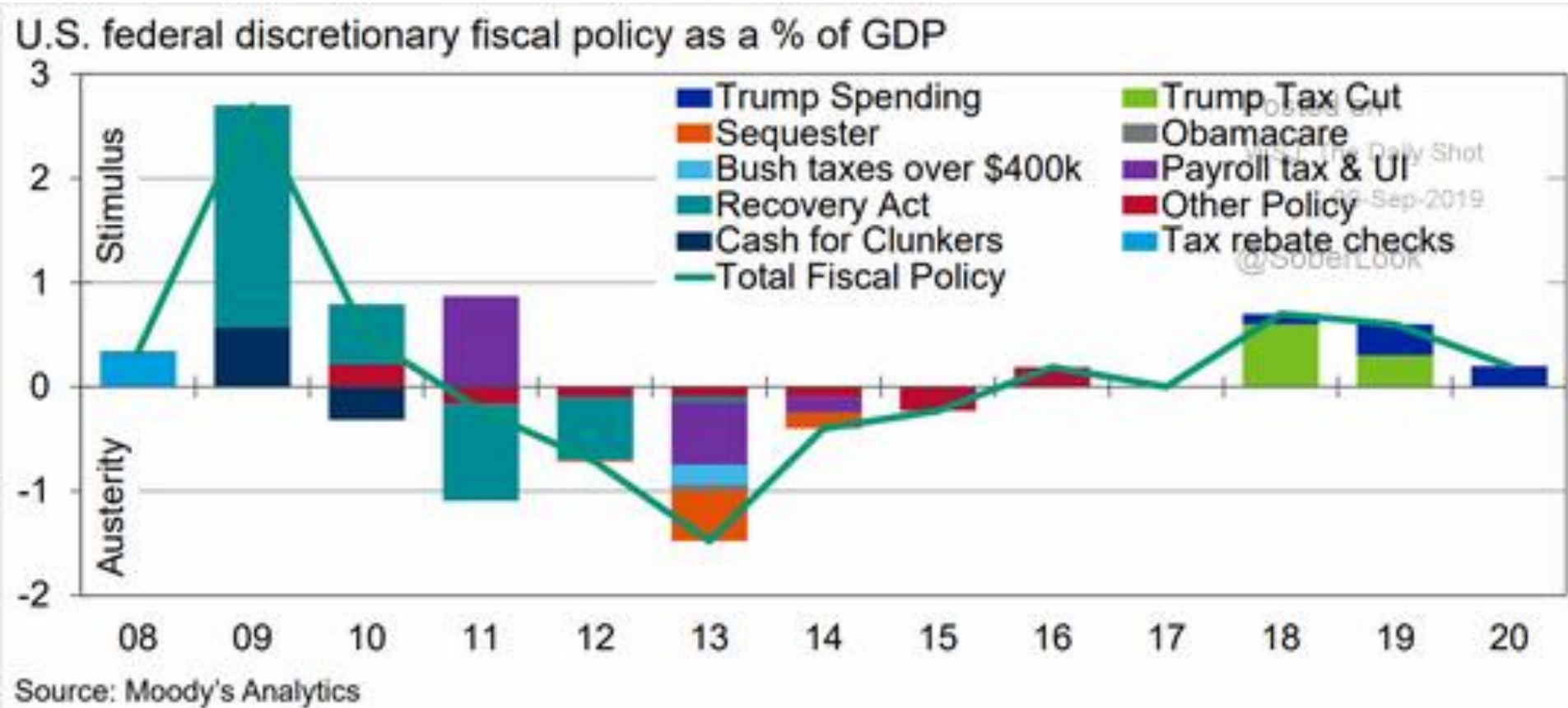
*Shaded areas indicate U.S. recessions*

Source: U.S. Census Bureau

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# Tax Cuts Are Waning

By 2020, policy is contractionary

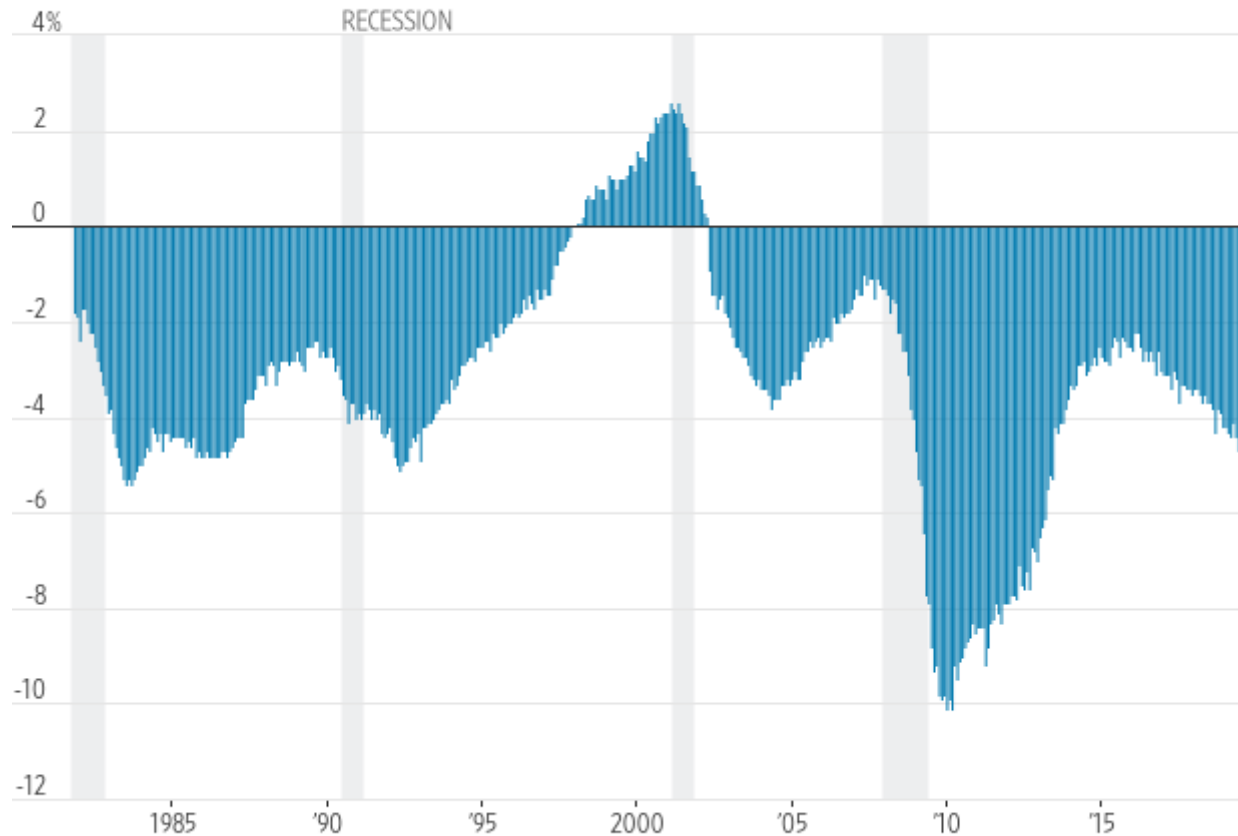


# Budget Deficit Projections Get Much Worse

Tax cuts boost debt by \$1.9 trillion over a decade

## Deficit Snapshot

U.S. budget deficit or surplus over 12-month period as a share of gross domestic product



Source: Treasury Department

# Many Nations are Loosening Monetary Policy

Global growth is slowing, and central banks are easing

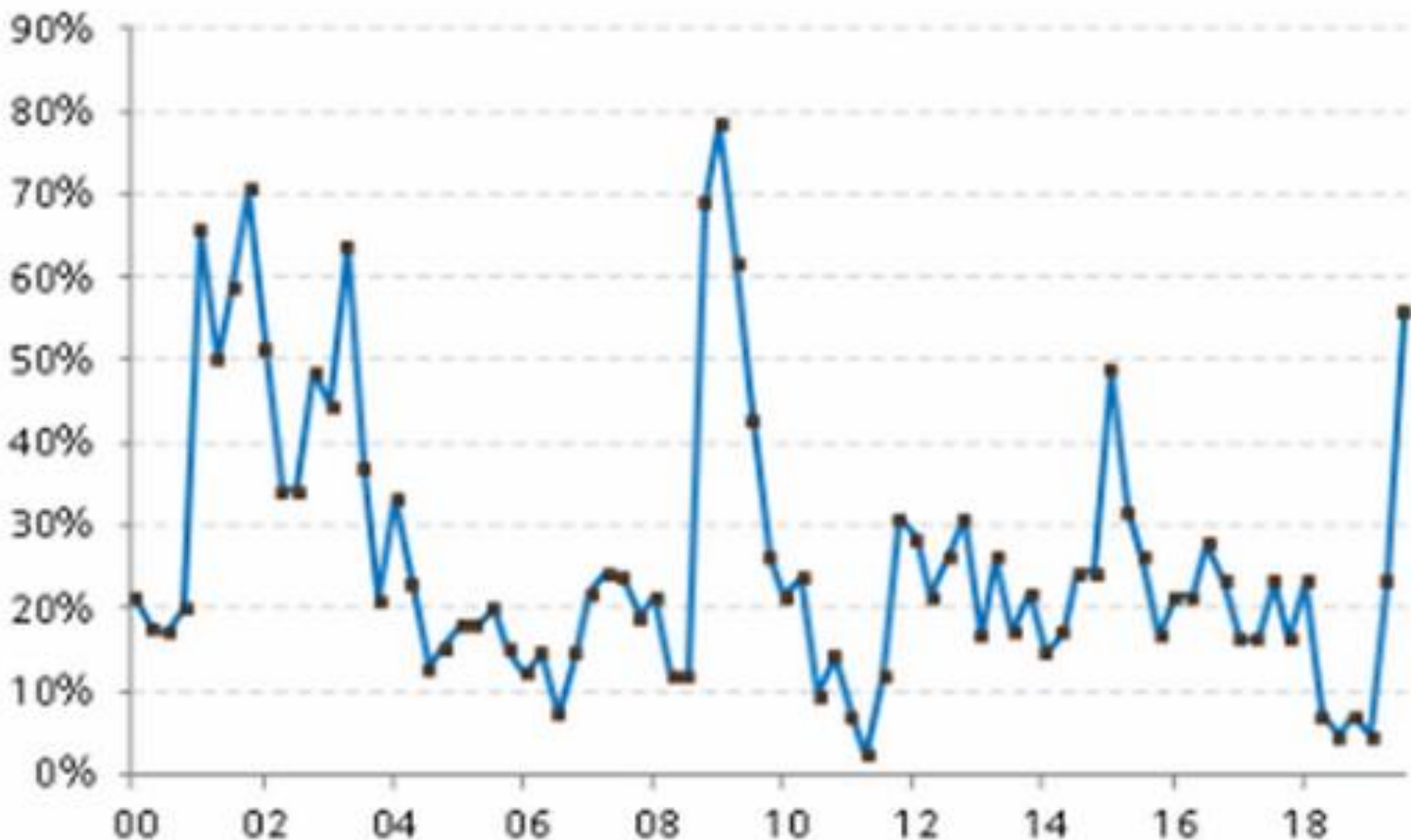
Figure 26: Central banks have responded strongly to the uncertainty—highest percentage of easing since GFC

Forster,  
WSJ, The Daily Shot

30-Sep-2019

**% of central banks easing globally**

@SoberLook

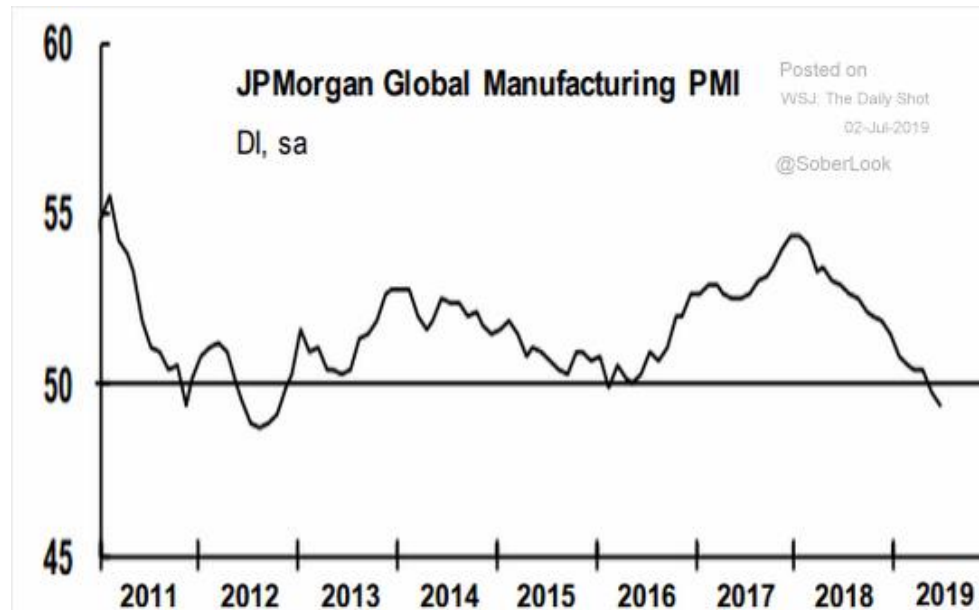


Source: UBS, Haver [Note: chart is quarterly]



# Global Manufacturing Growth Steadily Weakens

Now down 14 straight months. At lowest level since 2012 and in recession mode.



## Global Manufacturing PMI™ Summary

50 = no change on prior month.

Index	May	Jun.	+/-	Summary
Global PMI	49.8	49.4	–	Falling, faster rate
Output	50.1	49.5	–	Falling, from rising
New Orders	49.5	49.0	–	Falling, faster rate
New Exports	49.0	48.8	–	Falling, faster rate
Employment	49.9	49.8	–	Falling, faster rate
Input Prices	52.6	52.0	–	Rising, slower rate
Output Prices	51.1	50.9	–	Rising, slower rate
Future Output	58.1	57.7	–	Positive, lesser extent



# \$550 Billion Trade War Hurts US GDP

The impact peak at 0.6% of GDP and then wane

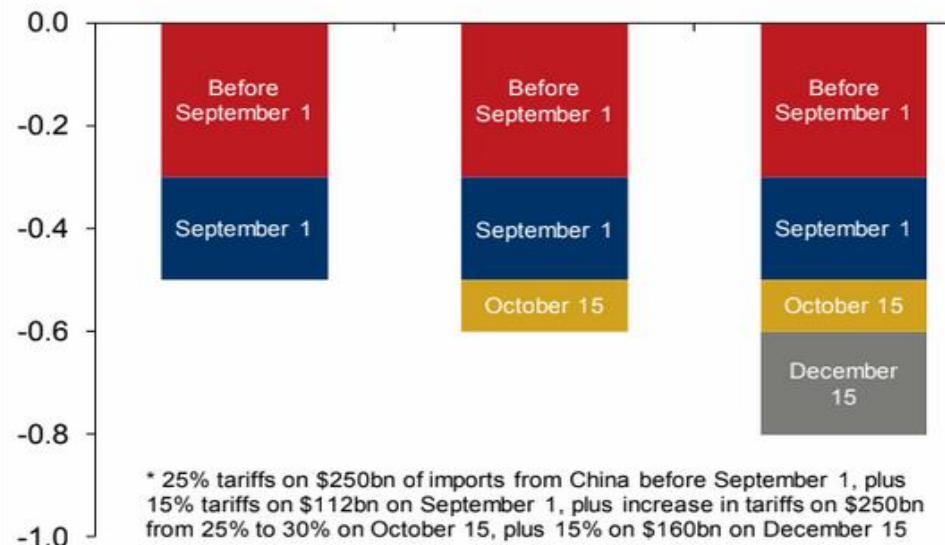
While any de-escalation in the ongoing trade war with China is welcome, today's mini deal would only regain 0.1% of the previously anticipated 0.6% GDP loss.

Given the 0.5% drag from measures enacted so far, this mini-deal doesn't make the outlook rosier – simply less bad.

Posted on :  
WSJ: The Daily Shot  
14-Oct-2019  
@SoberLook

## US: Real GDP drag from China tariffs\*

% GDP in 2020 relative to no tariffs baseline



Source : Oxford Economics

**Contact:** Gregory Daco | [gregorydaco@oxfordeconomics.com](mailto:gregorydaco@oxfordeconomics.com)

# The Dollar Is Surprisingly Strong

Nearly at highest level since in January 2003. This is a big surprise!

**FRED**



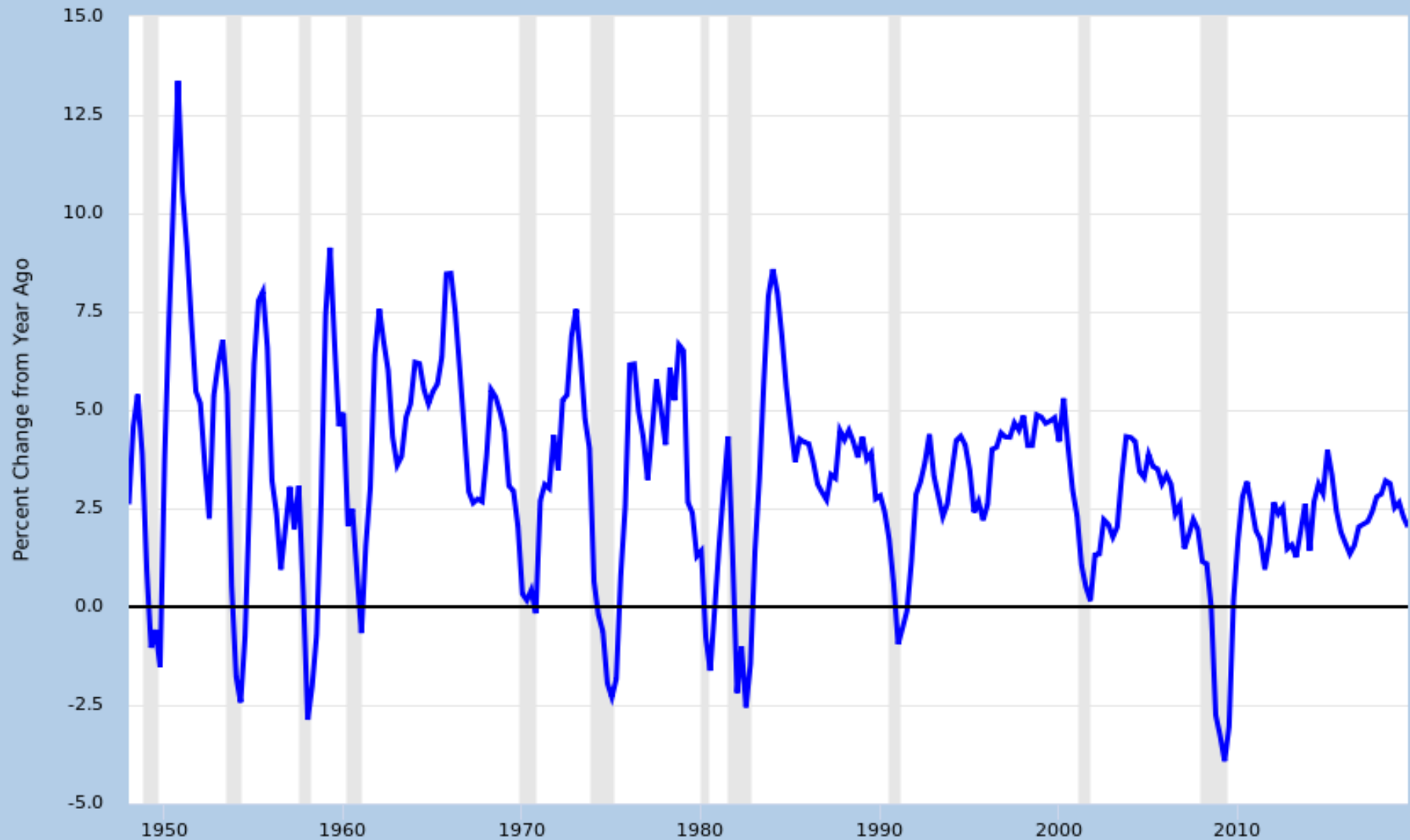
— Real Trade Weighted U.S. Dollar Index: Broad, Goods



# GDP Growth Is Slowing

Impact of the 2017 tax cuts and 2018 spending increases have fully dissipated

**FRED**  — Real Gross Domestic Product



*Shaded areas indicate U.S. recessions*

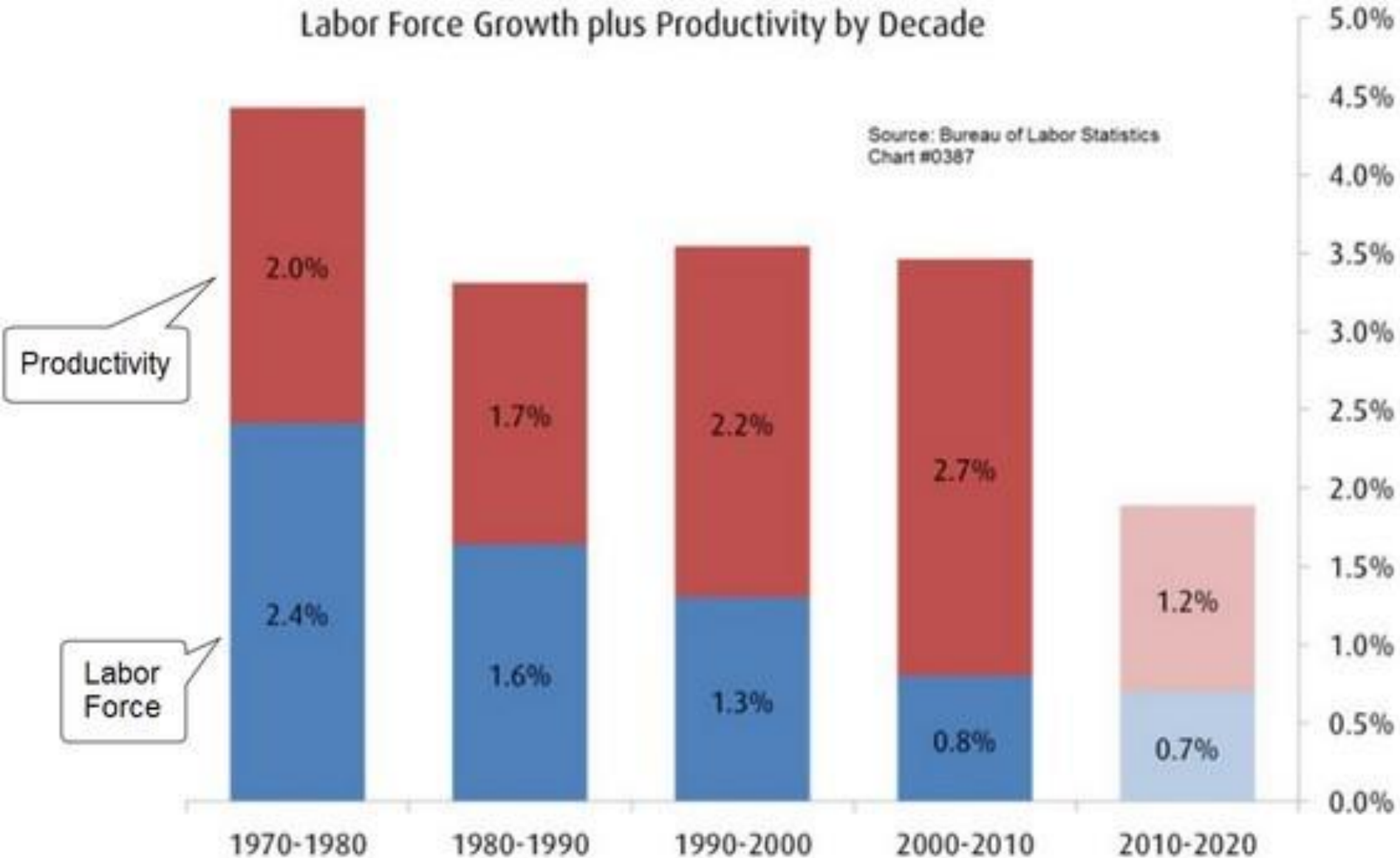
Source: U.S. Bureau of Economic Analysis

[myf.red/g/pmXF](https://myf.red/g/pmXF)

# GDP Can't Grow Fast!

Very weak population growth and labor productivity growth

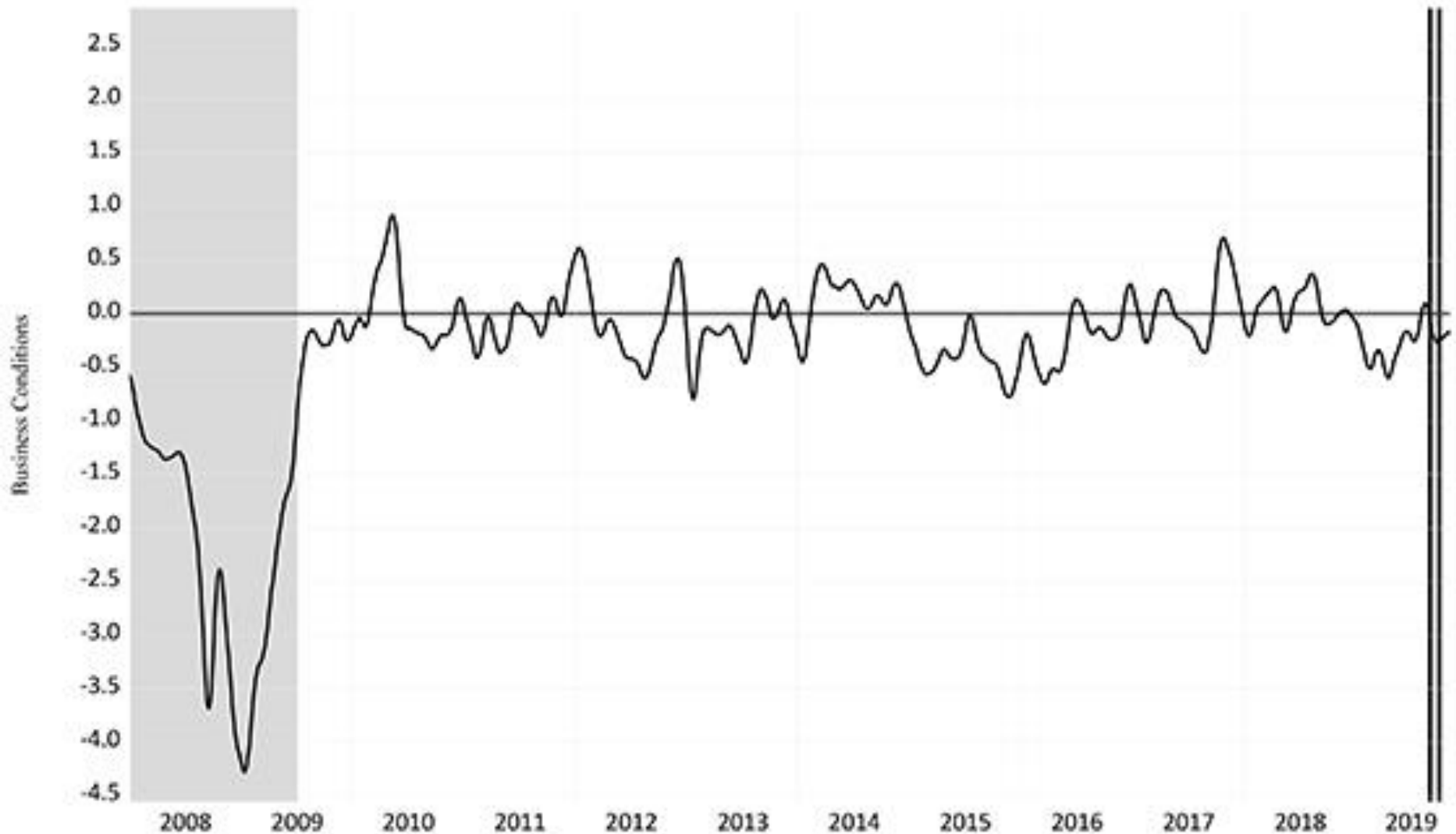
Labor Force Growth plus Productivity by Decade



# Best of All, No Recession Now!

Designed to track real macroeconomic activity in real time

Aruoba-Diebold-Scotti Business Conditions Index (12/31/2007- 11/02/2019)



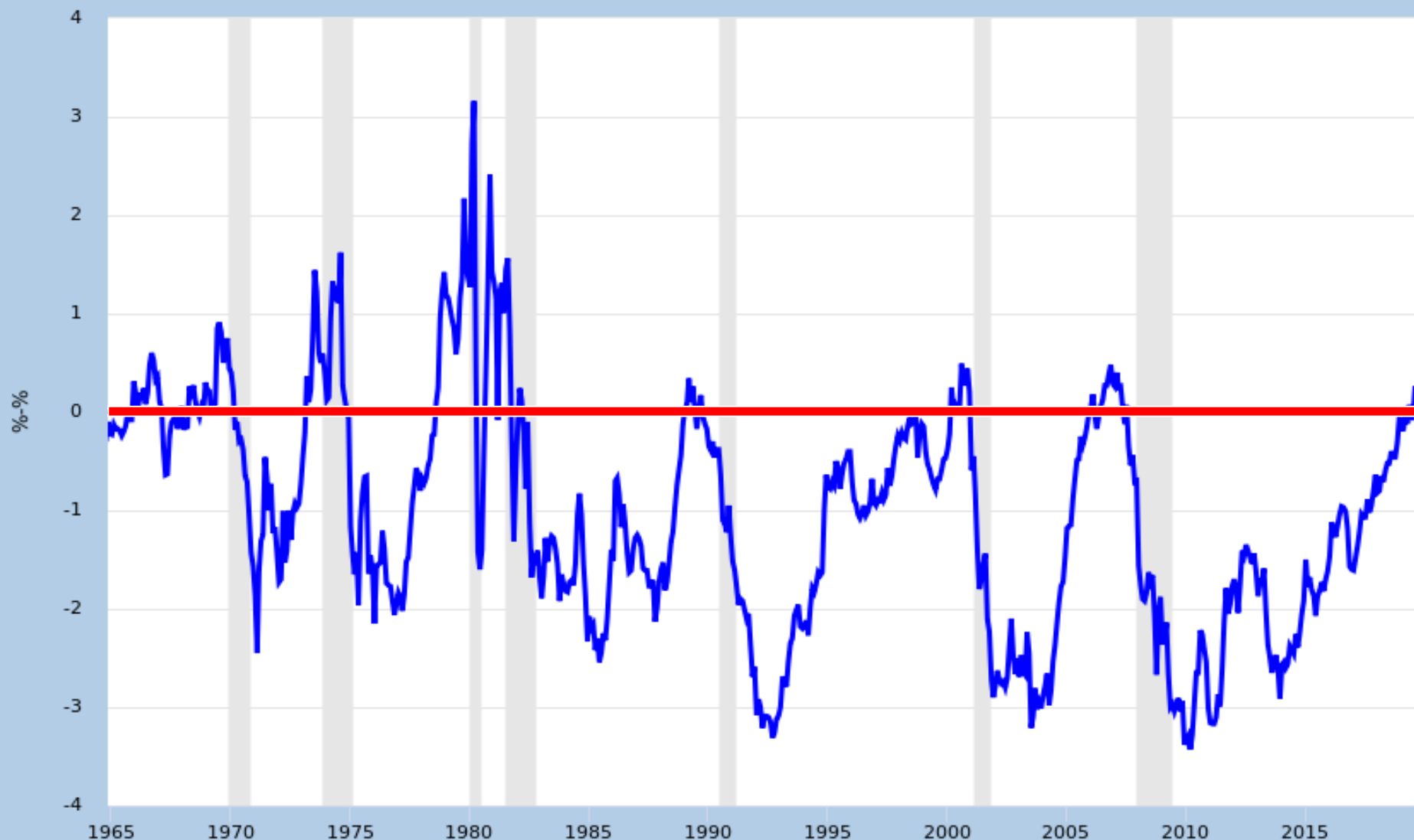
# Best of All, No Recession...Yet!

Yield Curve Inversion Test: 1-Year Treasury Yield – 10-Year Treasury Yield

**FRED**



— 1-Year Treasury Constant Maturity Rate-10-Year Treasury Constant Maturity Rate



Shaded areas indicate U.S. recessions

Source: Board of Governors of the Federal Reserve System (US)

[myf.red/g/ppfY](https://myf.red/g/ppfY)

# Term Premium is So Low

It keep falling. This suggests very strong demand due to safety concerns

12-Aug-19

Adrian Crump & Moench 10 Year Treasury Term Premium

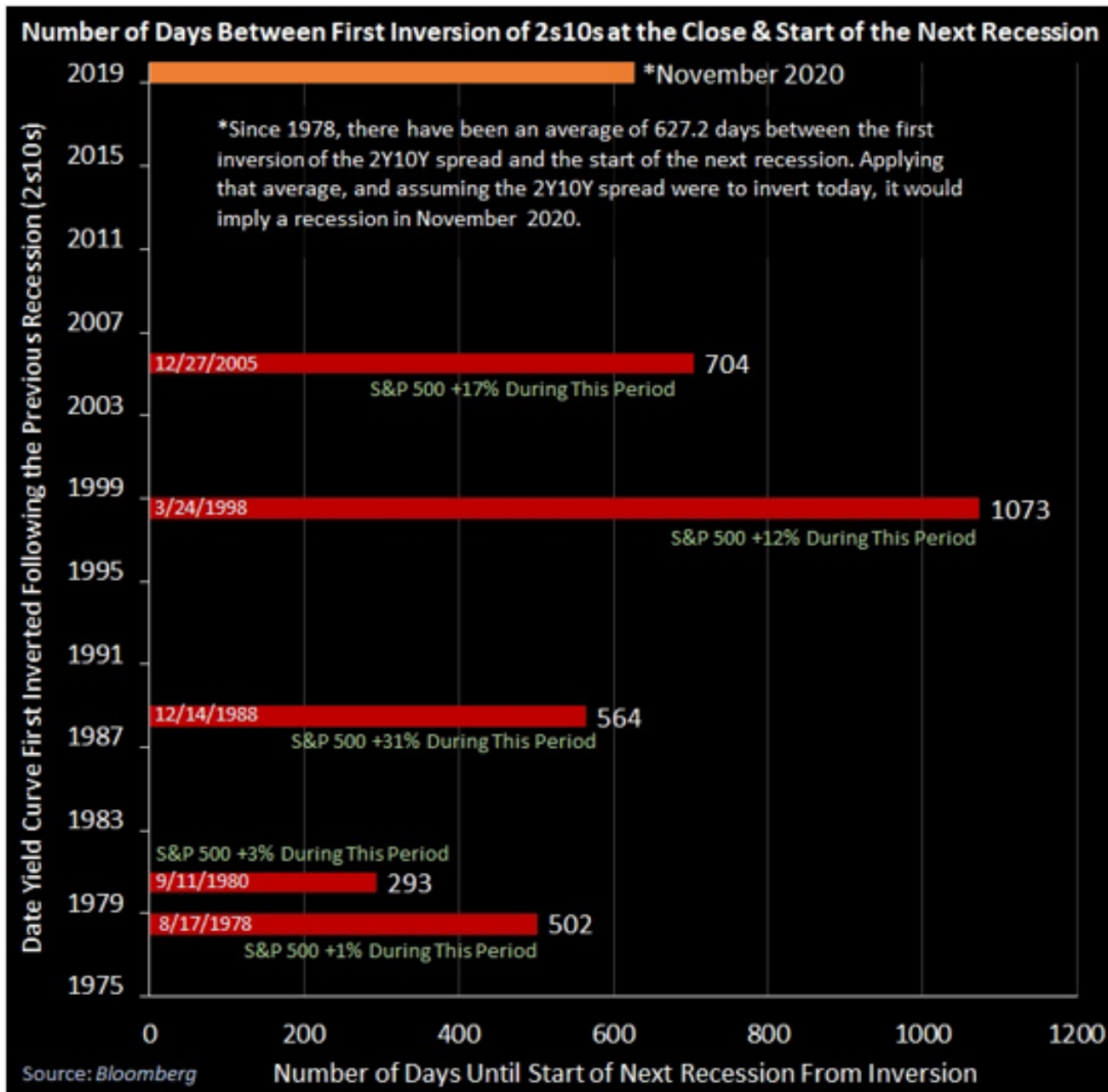
-1.22% / -8.9 bps



The Daily Shot\*

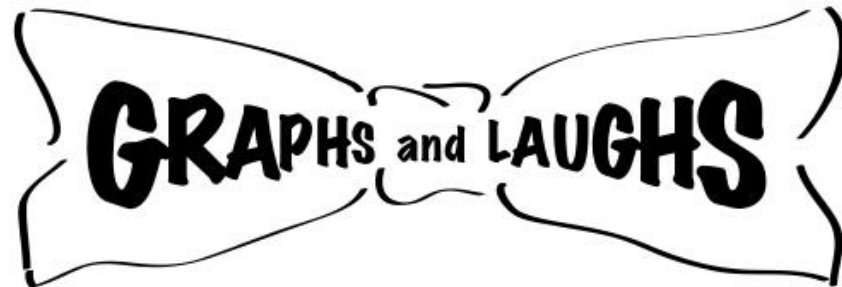
# Inversions Do Not Immediately Lead to Recessions

It takes a long time for the onset of the recession



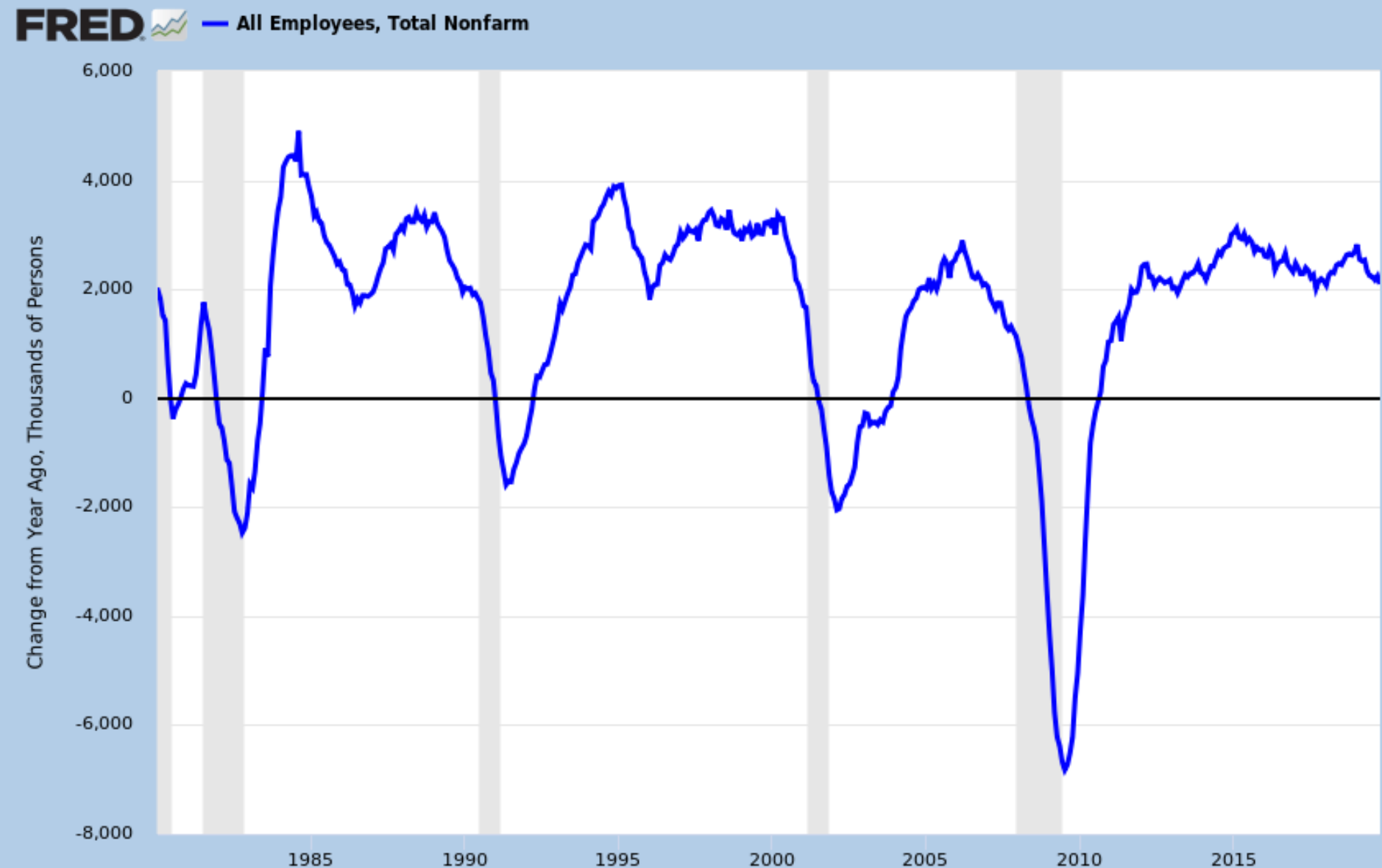


# Labor Markets: They're Tight, Very Tight



# Historical Job Growth

Y-o-Y Total employment growth has been spectacular. We are now running out of workers



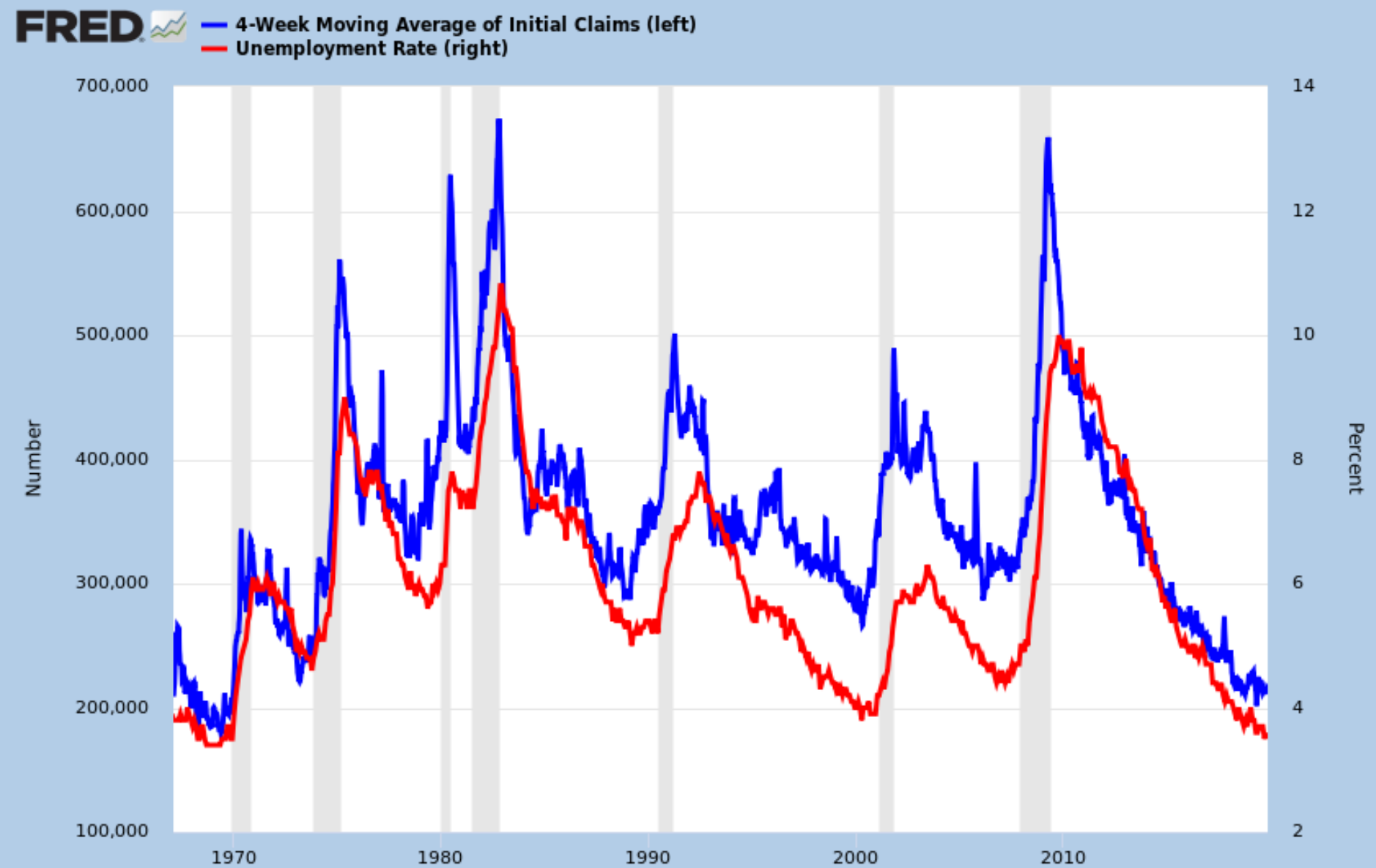
*Shaded areas indicate U.S. recessions*

Source: U.S. Bureau of Labor Statistics

[myf.red/g/pp8R](https://myf.red/g/pp8R)

# STEADY Labor Market Improvement: Involuntary Separation

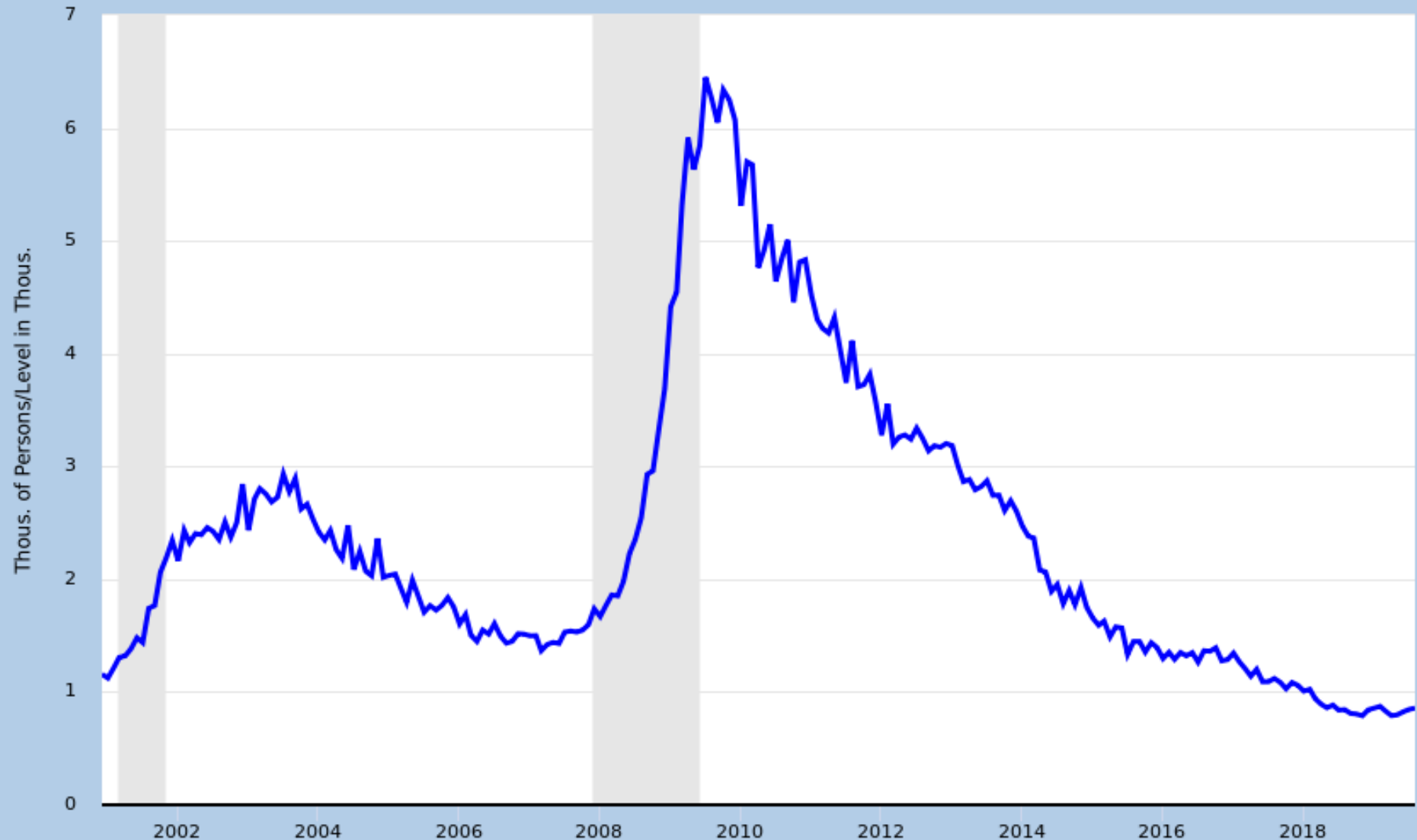
Long Term Trends: 1967-2017 Initial claims below 300K for **239** straight weeks!



# Labor Market is Clearly Tight

There are 1.19 jobs/unemployed person!!!!!!

**FRED**  — Unemployment Level/Job Openings: Total Nonfarm

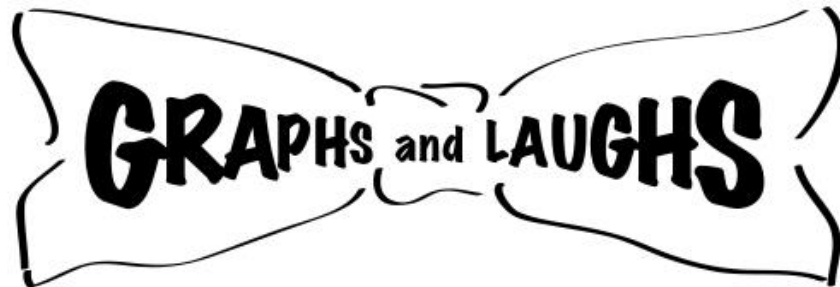


Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics


[myf.red/g/p7ZM](https://myf.red/g/p7ZM)

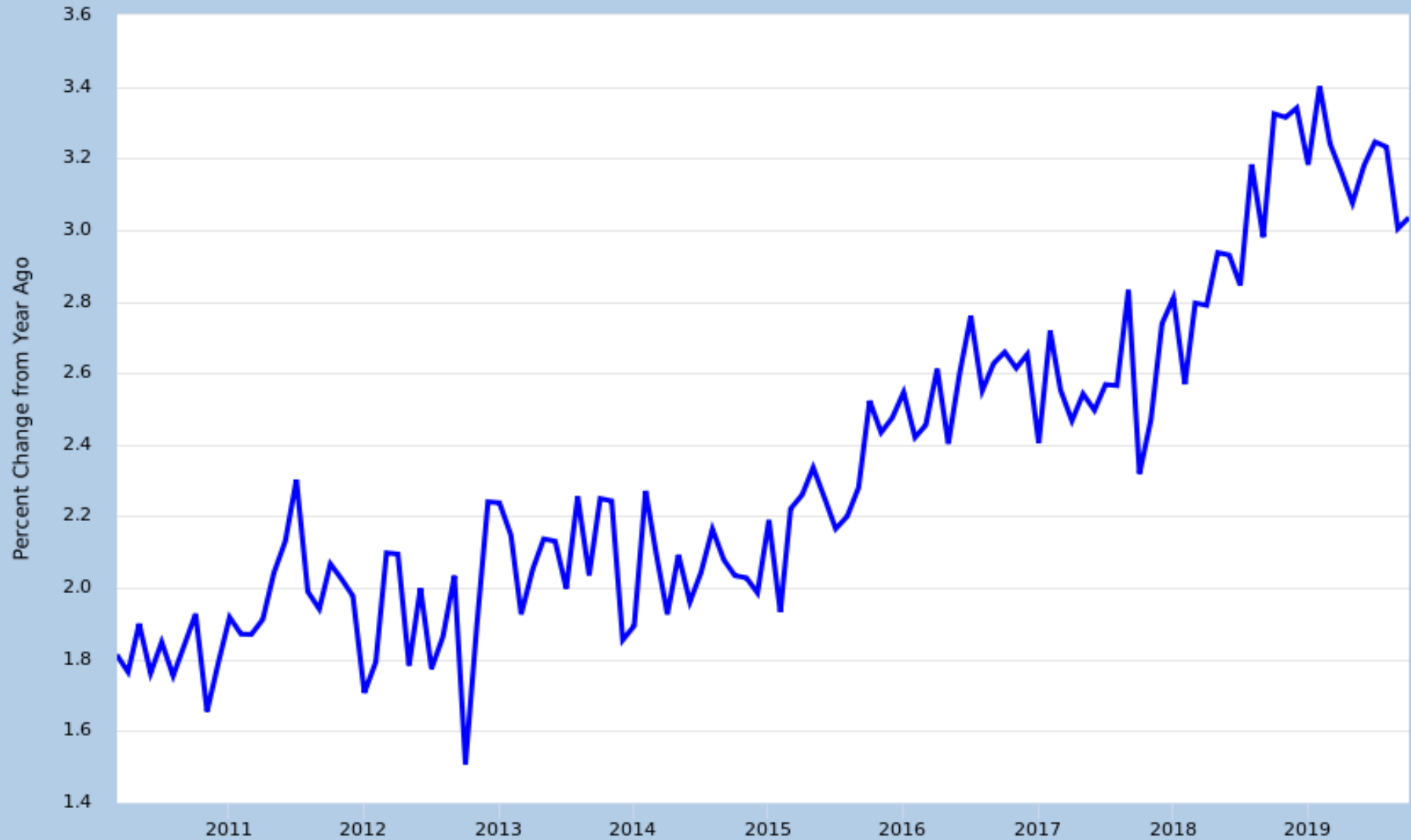
# Wage Growth is Weak, But...



# Y-o-Y Percent Change in Hourly Earnings

Despite very low unemployment, wage growth is weak

**FRED**  — Average Hourly Earnings of All Employees: Total Private



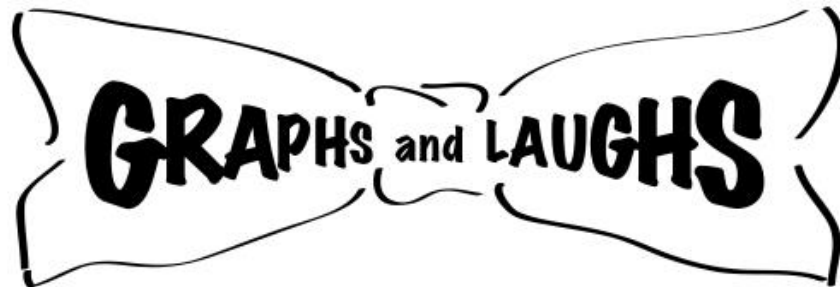
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

[myf.red/g/pp9D](https://myf.red/g/pp9D)

# Inflation?

## It's MIA!

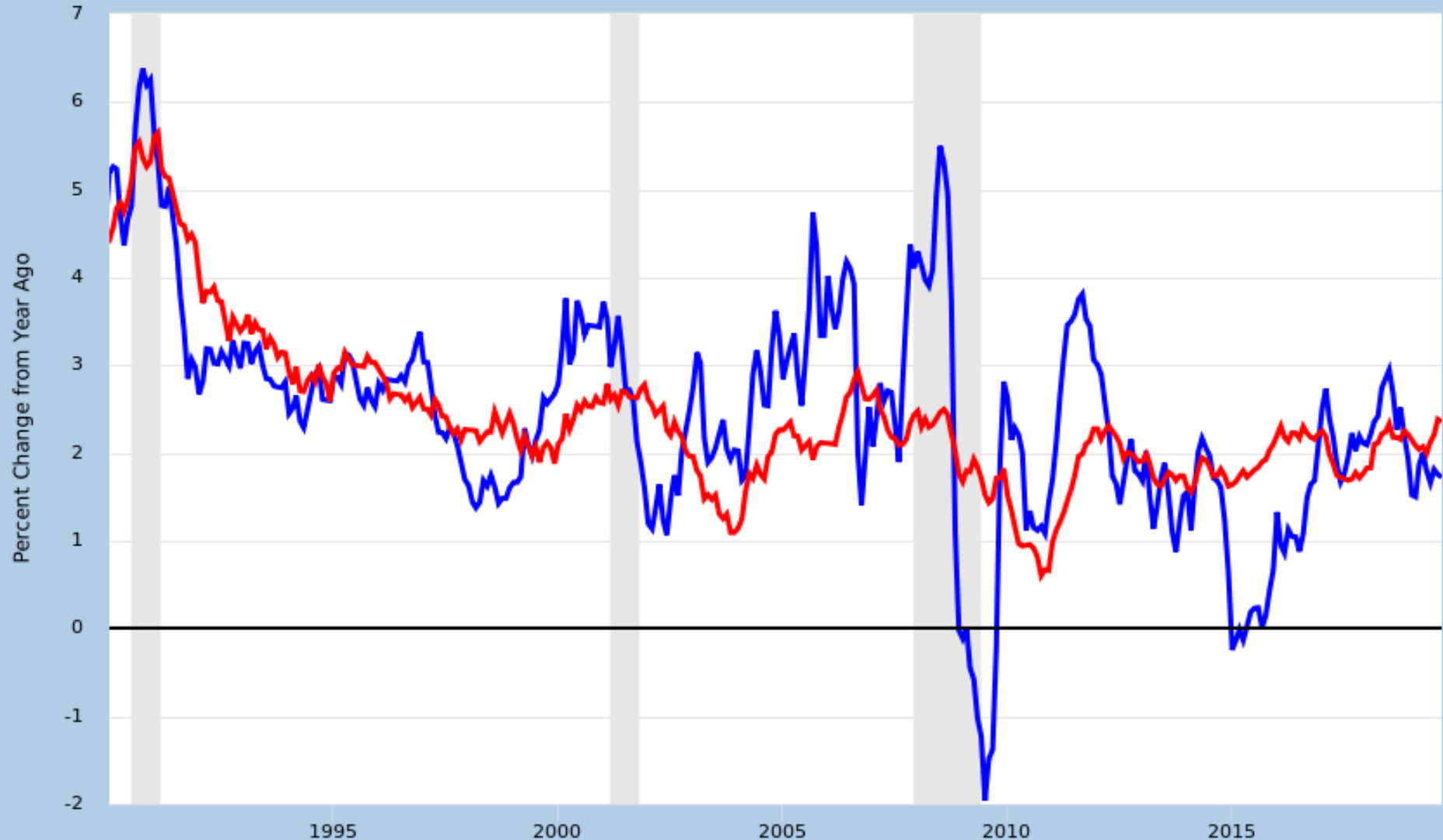


# CPI: Inflationary Pressures are Rising

There appears to be no inflationary pressures. Growth is at best flat

**FRED**

— Consumer Price Index: All Items in U.S. City Average, All Urban Consumers  
— Consumer Price Index: All Items Less Food and Energy in U.S. City Average, All Urban Consumers



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

[myf.red/g/p8qG](https://myf.red/g/p8qG)



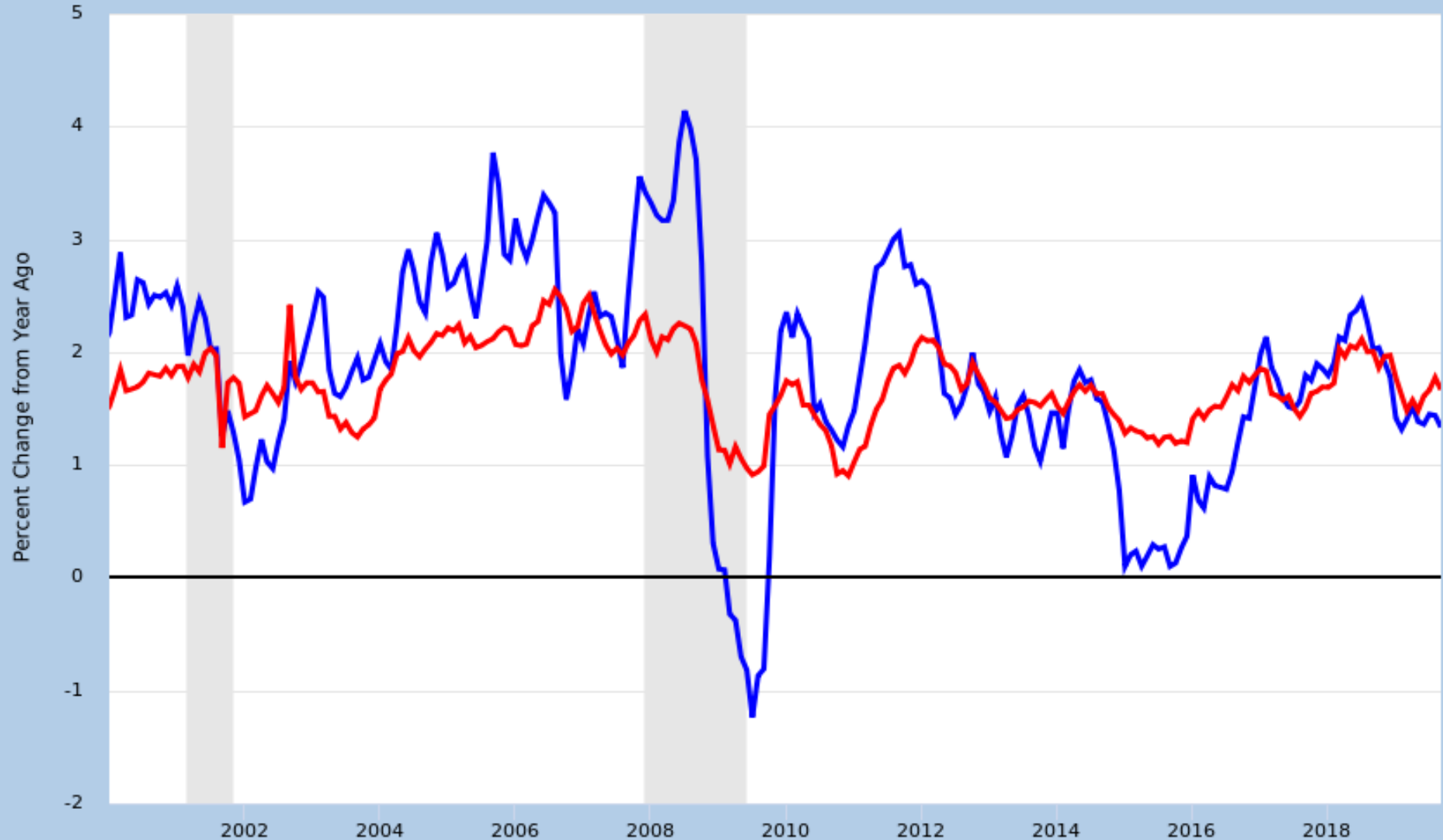
# Core PCE Price Index

Inflation may be slowly rising after being held back by many of factors

**FRED**



- Personal Consumption Expenditures: Chain-type Price Index
- Personal Consumption Expenditures Excluding Food and Energy (Chain-Type Price Index)



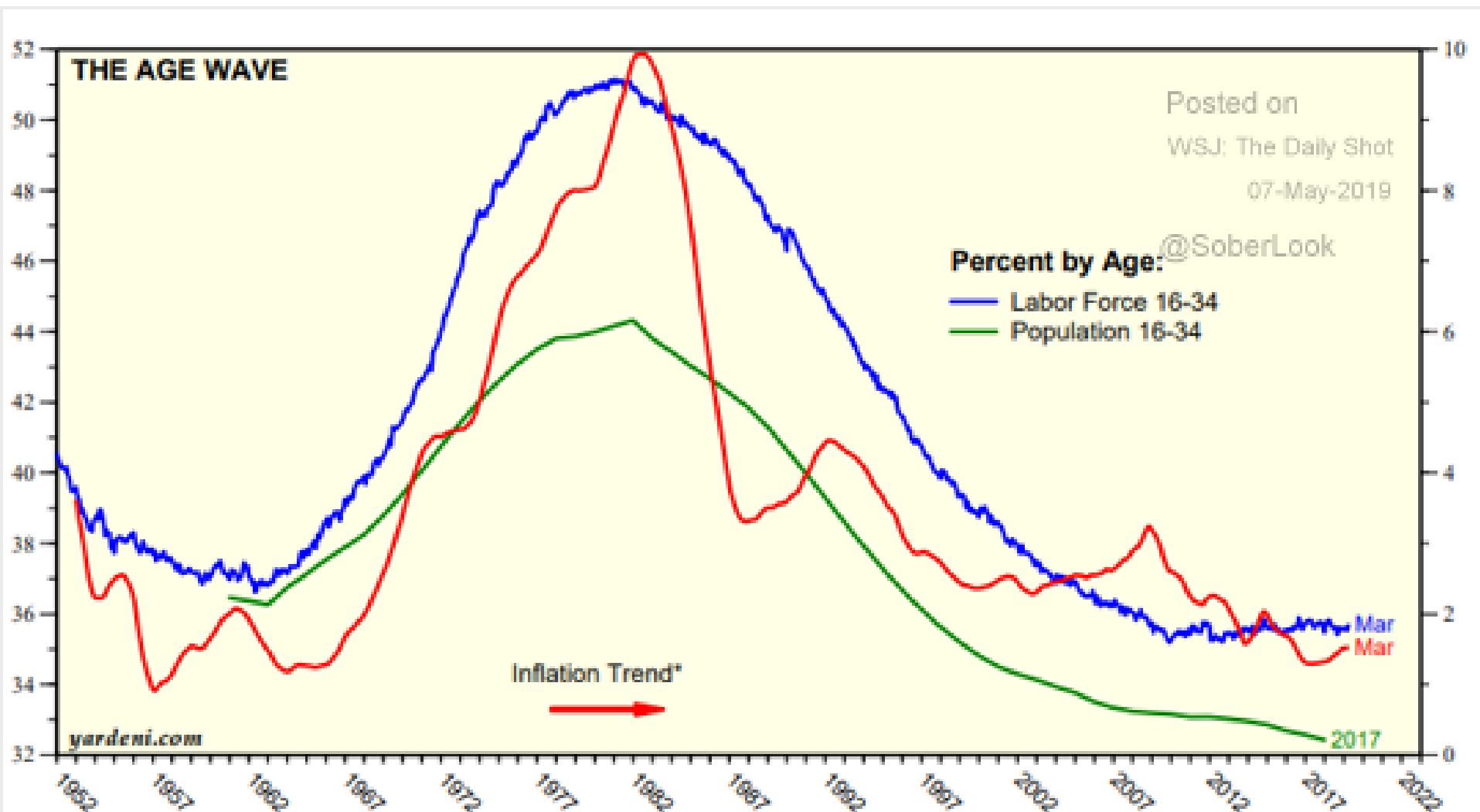
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

myf.red/g/poYM

# Inflation and Population Growth

They seem highly correlated



\* Five-year moving average of yearly percent change in CPI.  
Note: Oldest and youngest Baby Boomers turned 16 in 1962 and 1980, respectively.  
Source: Bureau of Labor Statistics.

Yardeni Research, Inc.  
www.yardeni.com

# Federal Reserve Behavior

**Will Rates Rise?**

**Nope!**

# Taller Fed Chair, Higher Rates?

**BOTH THE HEIGHT OF THE FED CHAIR AND RATES HAVE FALLEN OVER TIME, COULD A TALLER FED CHAIR MEAN RATES RISE?**



Source: LPL Research, Bloomberg 10/22/17

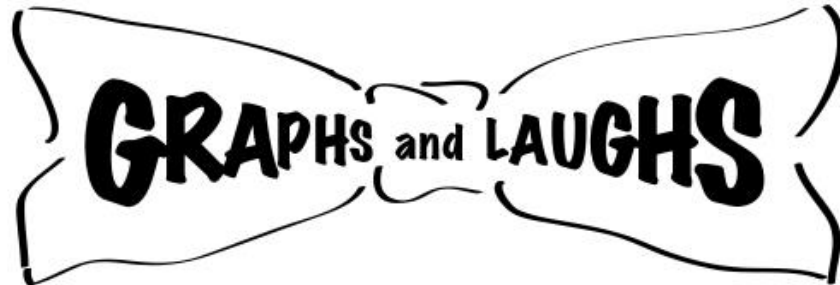
We don't actually believe that interest rates are determined by the height of the Fed chair, but it has been an interesting coincidence.

# Federal Reserve Behavior

## Best Case Scenario

- Fed funds is currently 1.625%
- 12/31/19: 1.625% 10-yr Treasury @ 1.70%
- 12/31/20: 1.375% 10-yr Treasury @ 1.90%
- 12/31/21: 1.375% 10-yr Treasury @ 2.05%

# Now For Politics!



# Trump Tweets Move Markets

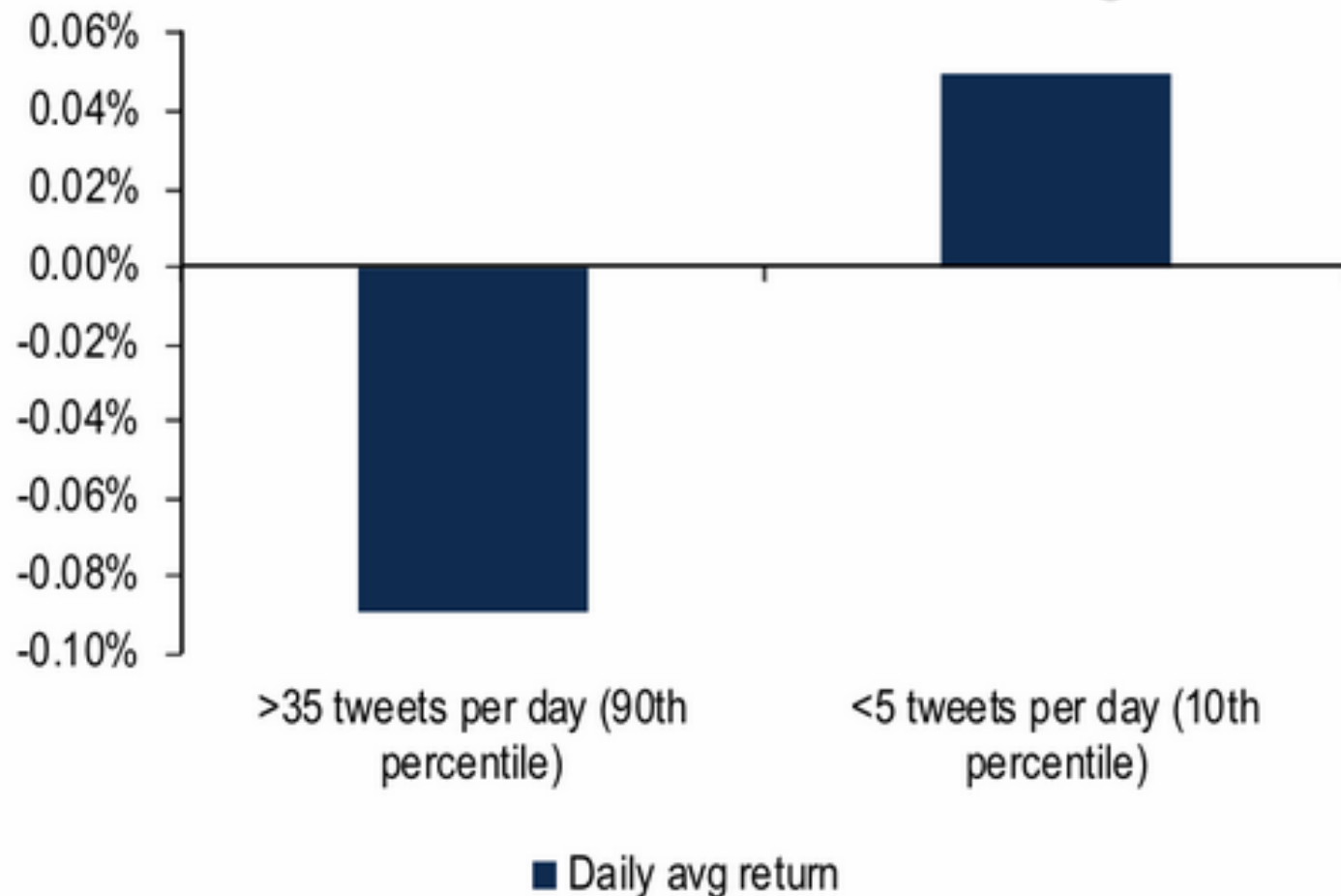
Less tweeting is more powerful tweeting

**Chart 5: The market tends to fall, on average by 9bp, on days Trumps is more active on Twitter**

Average daily returns when Trump writes more than 35 Tweets a day (90<sup>th</sup> percentile) versus less than five Tweets a day (10<sup>th</sup> percentile), since 2016

Posted on

10-Sep-2019  
@SoberLook



Source: BofA Merrill Lynch US Equity & Quant Strategy, Twitter, S&P

# Impeachment Impact on Markets?

Economic fundamentals rule

## Not All Impeachments Are The Same

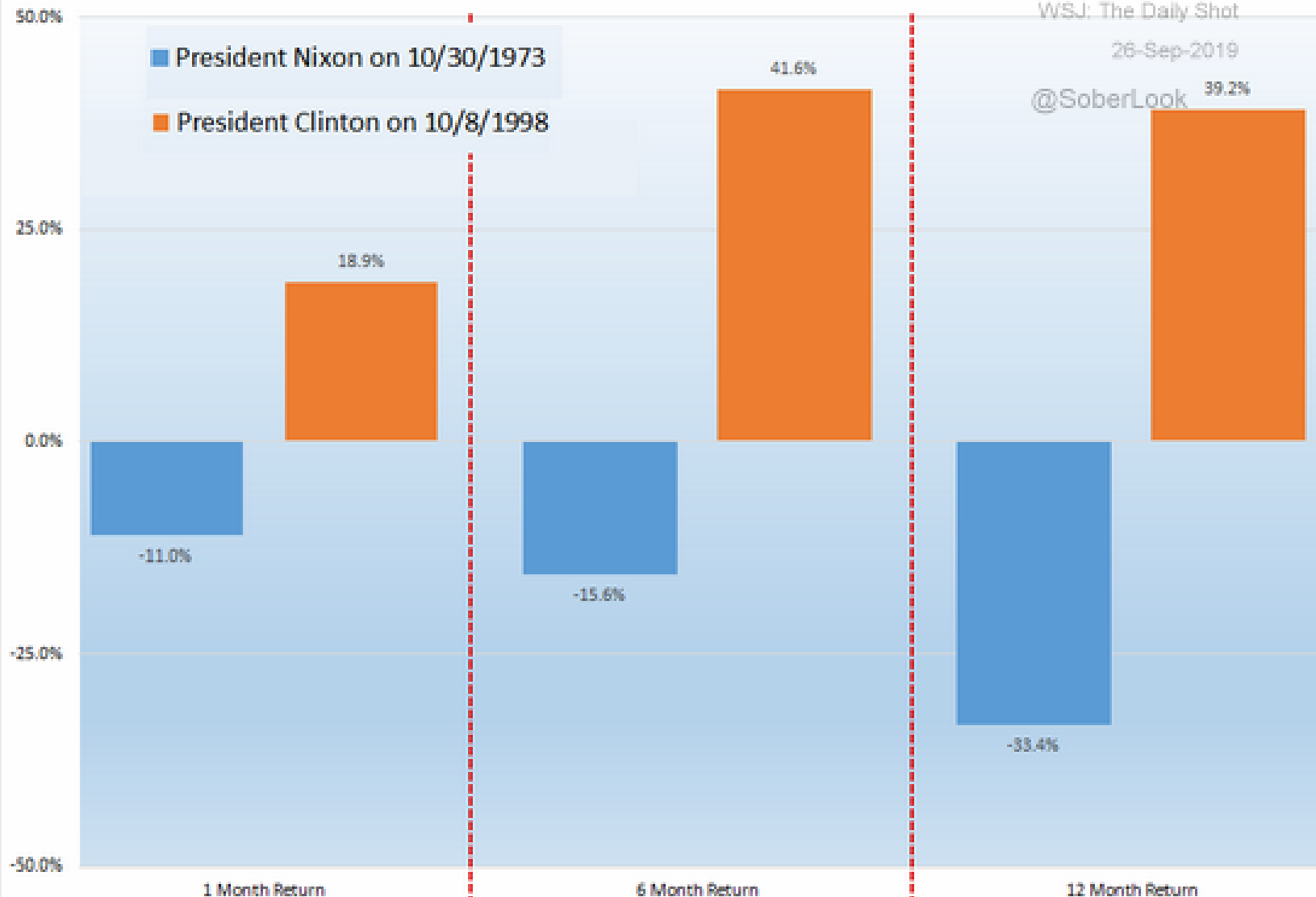
S&P 500 Returns After Initial Impeachment Inquiries

Posted on

WSJ: The Daily Shot

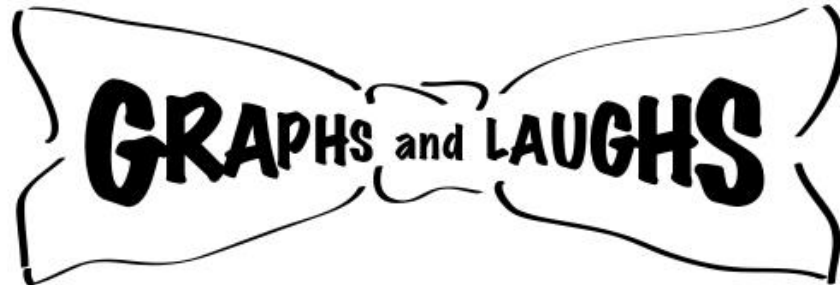
26-Sep-2019

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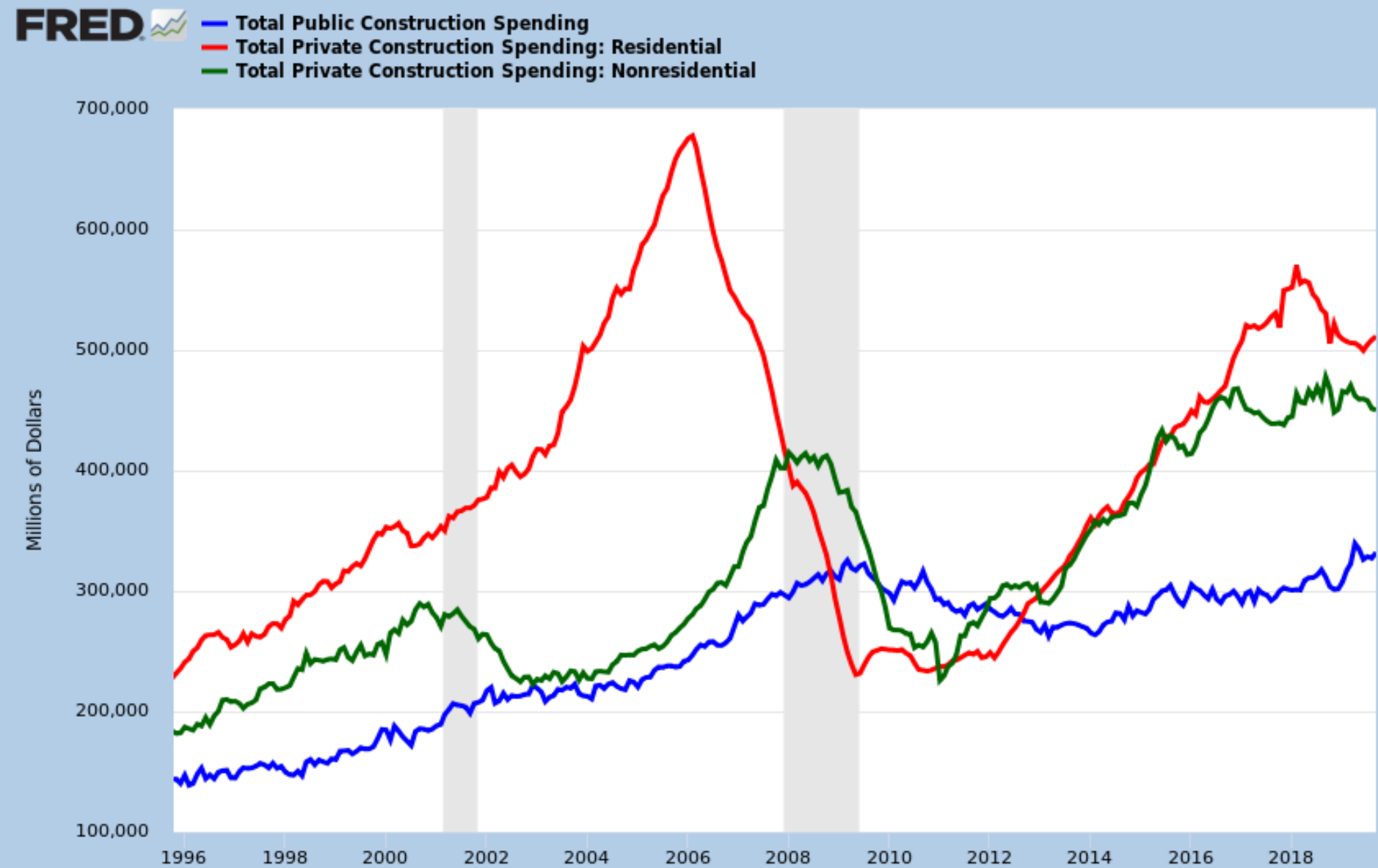


**New Housing?**  
**Not enough is being**  
**built!**



# Residential Fixed Investment Shrinks

Non-residential is up 9%, public is up 2%, and residential is down 25% from peak



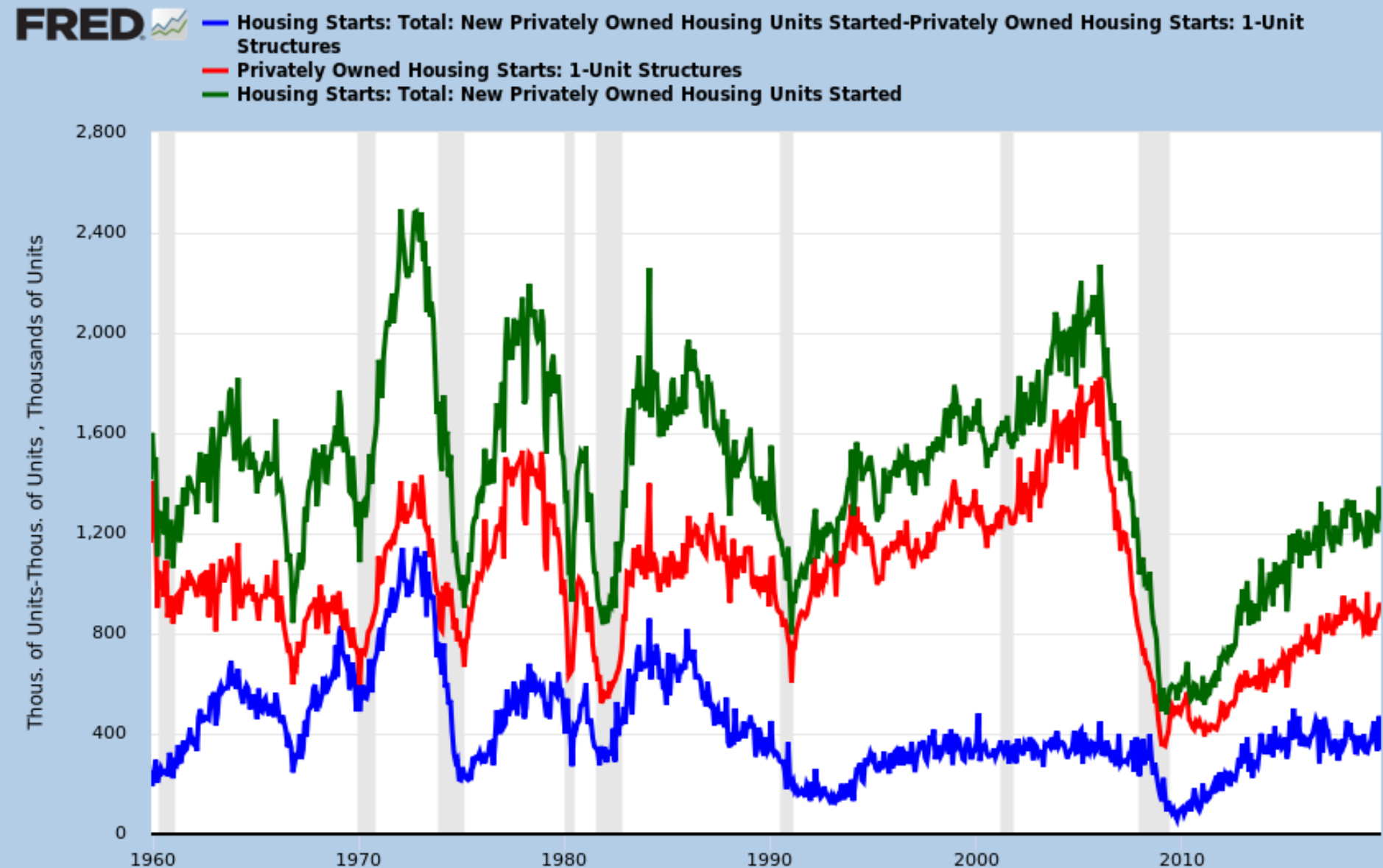
Shaded areas indicate U.S. recessions

Source: U.S. Census Bureau

[myf.red/g/pp1i](https://myf.red/g/pp1i)

# Single-Family and Multifamily Starts – A Slow Recovery

Lack of lots, rising rates, high prices, SF remains near recessionary lows



*Shaded areas indicate U.S. recessions*

Source: U.S. Census Bureau

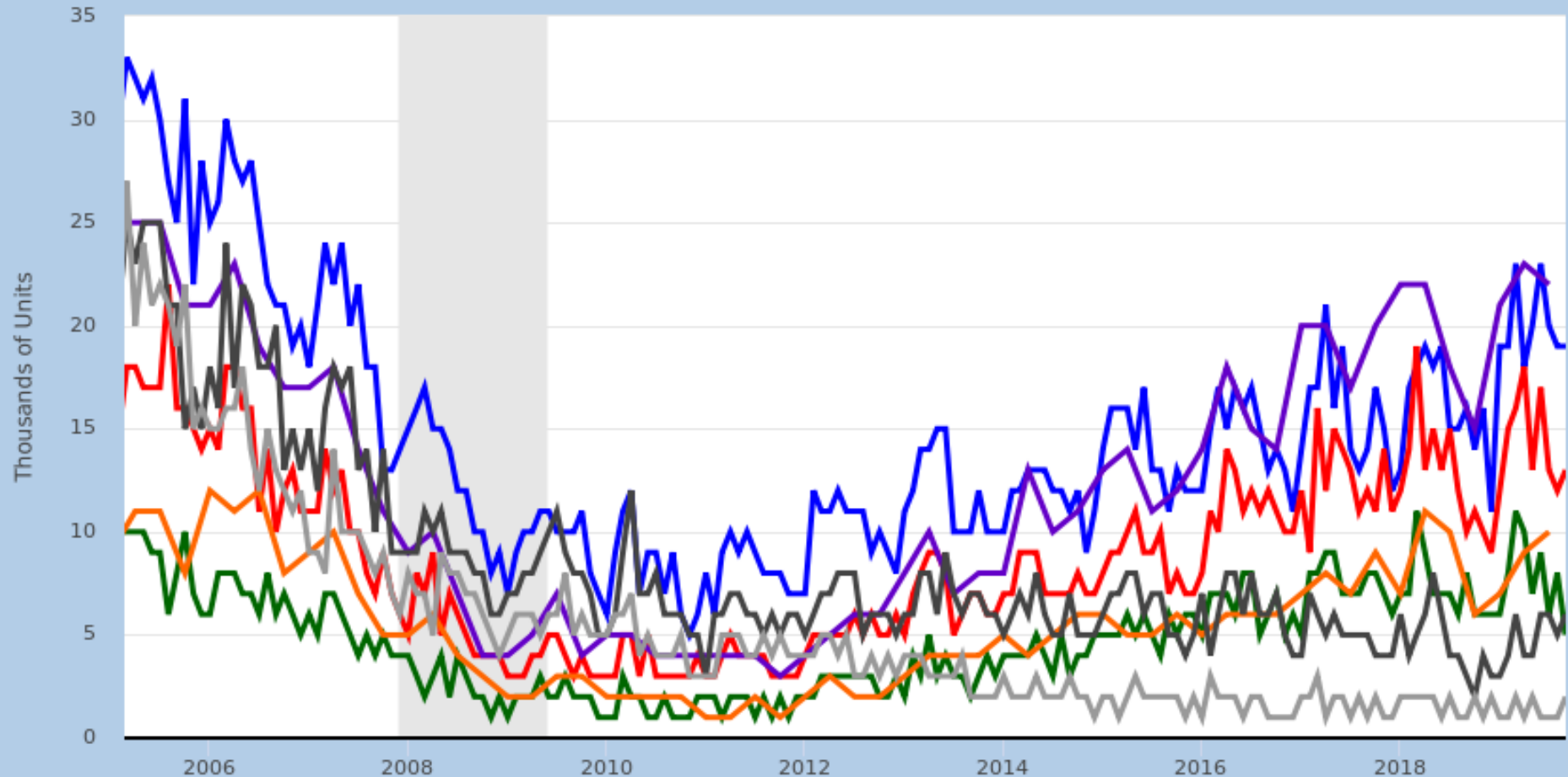
[myf.red/g/pbze](https://myf.red/g/pbze)

# New Home Sales by Price

Houses under 200K are an insignificant percentage

**FRED** 

- New Houses Sold by Sales Price in the United States, Between \$200,000 and \$299,999
- New Houses Sold by Sales Price in the United States, Between \$300,000 and \$399,999
- New Houses Sold by Sales Price in the United States, Between \$400,000 and \$499,999
- New Houses Sold by Sales Price in the United States, Between \$500,000 and \$749,999
- New Houses Sold by Sales Price in the United States, Between \$750,000 and Over
- New Houses Sold by Sales Price in the United States, Between \$150,000 and \$199,999
- New Houses Sold by Sales Price in the United States, Under \$150,000



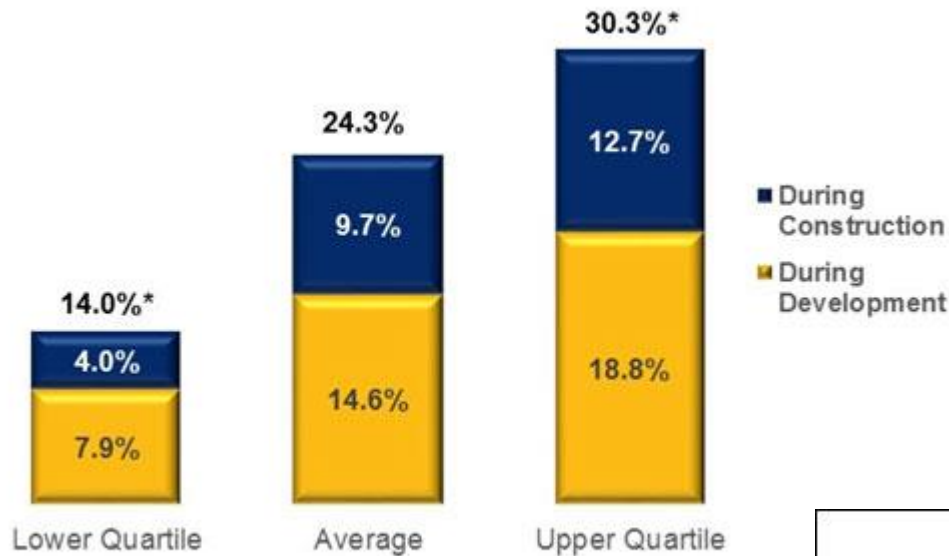
Shaded areas indicate U.S. recessions

Source: U.S. Census Bureau

[myf.red/g/ppgF](https://myf.red/g/ppgF)

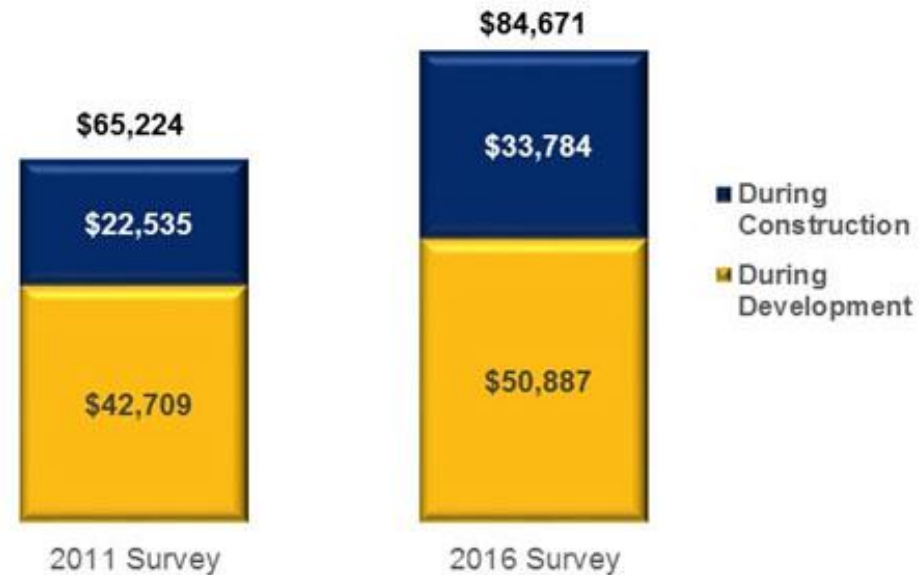
# New Home Prices Are Too High Due to Regulation

Figure 1. Regulatory Costs as a Share of Home Price



\* For quartiles, construction and development costs do not sum to the total.  
Source: NAHB/Wells Fargo HMI survey, assumptions described in the Appendix.

Figure 2. Average Cost of Regulation in the Price of a New Home



Based on average new home price one month before the NAHB/Wells Fargo HMI surveys  
Source for average new home prices: New Residential Sales, U.S. Census Bureau.

# Construction Workers are in Serious Short Supply

Average wage growth/year for construction workers is 5.1%, much higher than the average

## Construction Contractor Hourly Wages by Trade

Hourly wages for construction contractors increased 5% YOY, with notable dispersion between trades. Siding wages gained 24%, while wages for flooring stayed flat.

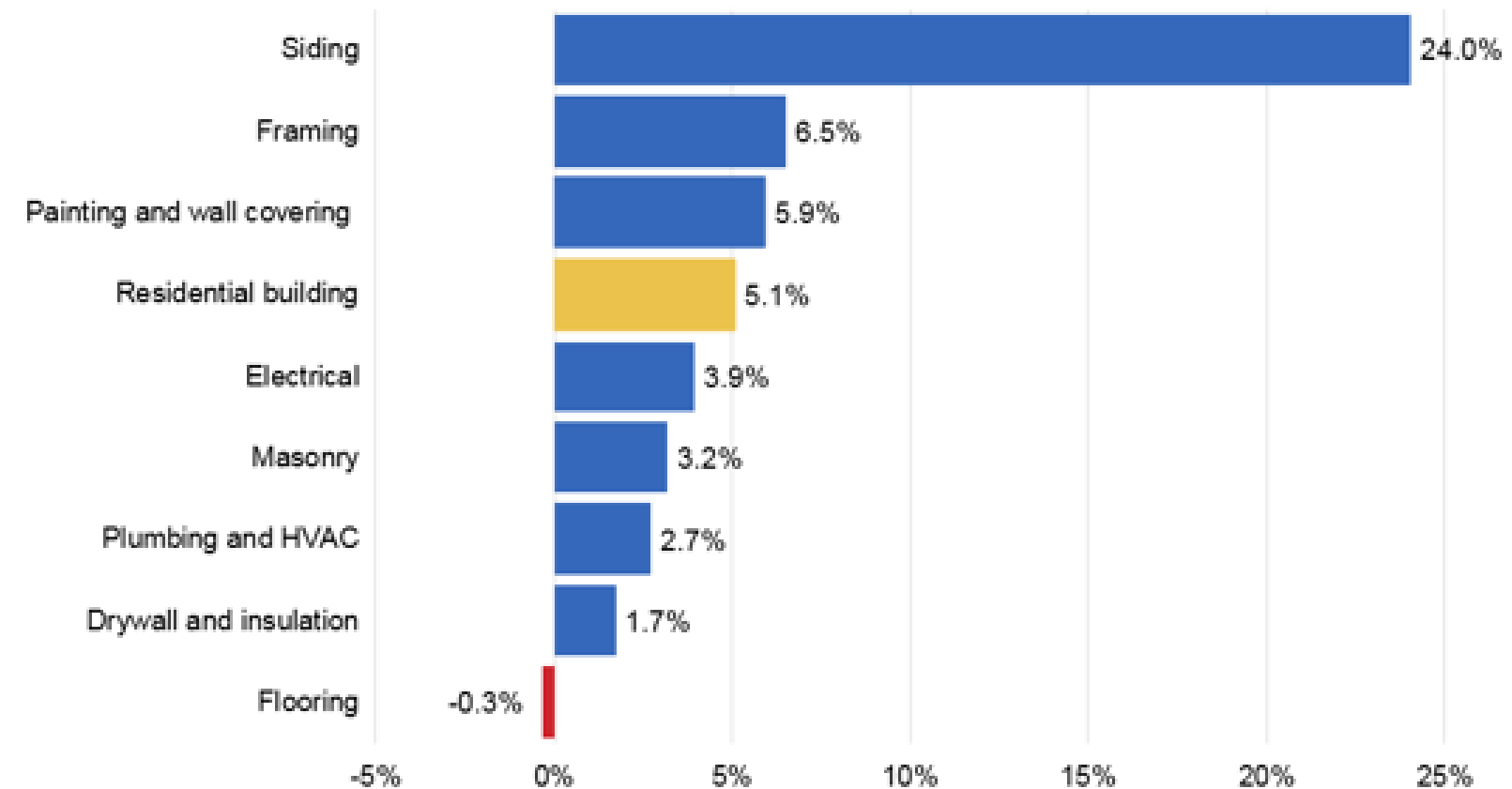
WSJ: The Daily Shot

22-Apr-2019

### Construction Contractor Hourly Wages

YOY % change\*

@SoberLook



Source: BLS (Data: Jan-19, Pub: Mar-19)

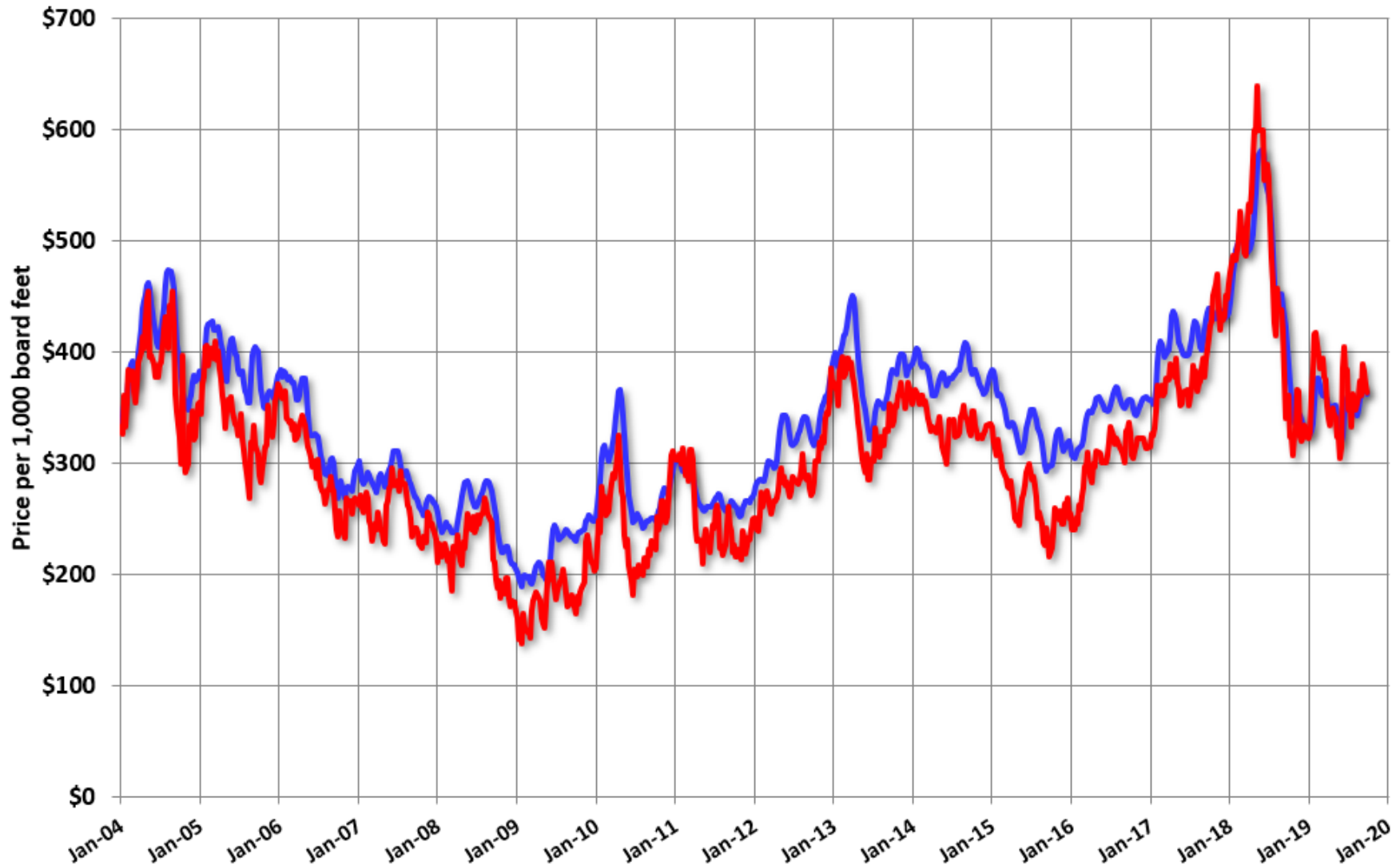
\*We take a 3-month average to remove unnecessary volatility

# Lumber Costs Decline and Flatline

Prices are down 7% or up 1% Y-o-Y. Exports to China are down due to tariffs

Framing Lumber Prices per 1,000 board feet

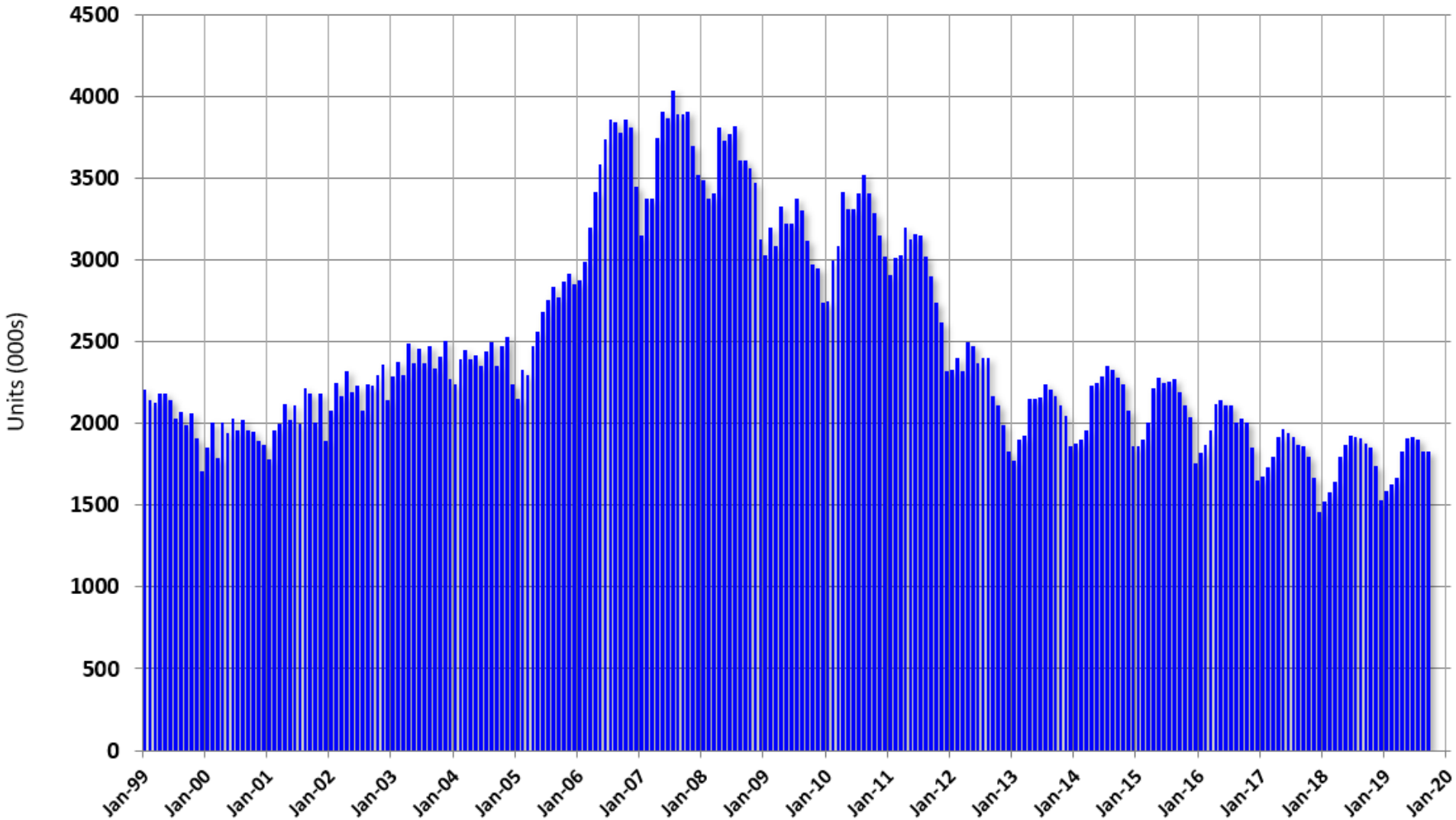
— Random Lengths Composite Price — CME Futures Price



# Inventory Is Low and Keeps Shrinking

Inventory's flat Y-o-Y ! Had risen for 10 straight months, but now is shrinking again!

Existing Home Inventory

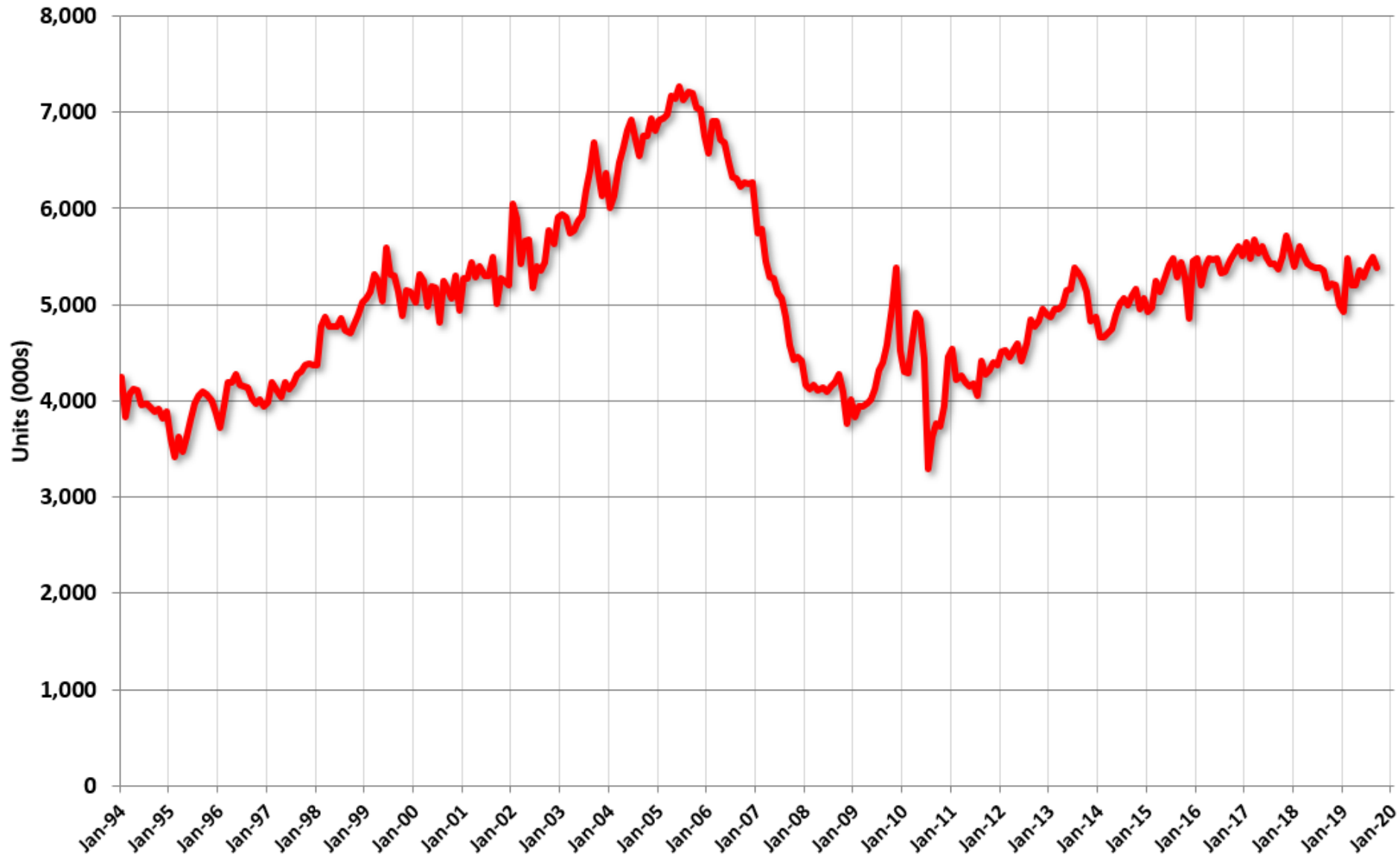




# Existing Home Sales are Steadying

Regrettably, this is occurring while the economy rocks!

Existing Home Sales (SAAR)



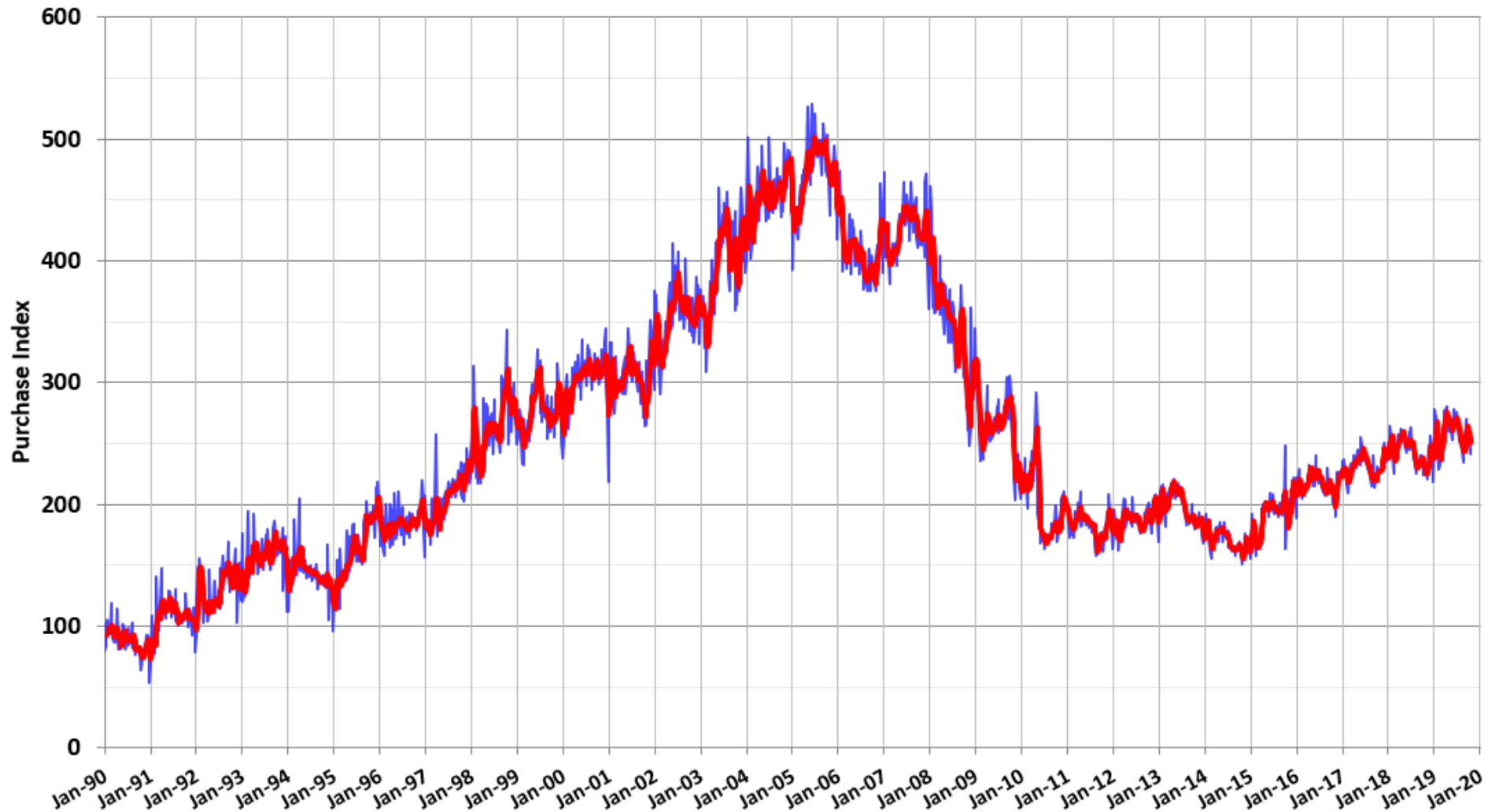
# Mortgage Purchase Applications Flatten

1<sup>st</sup> time applications are up 10% Y-o-Y, at level of the late 1990s!

2020 purchase volume should be about \$1.25 trillion, unchanged from 2019

## MBA Purchase Applications Index

Purchase Index 4 Week Moving Average

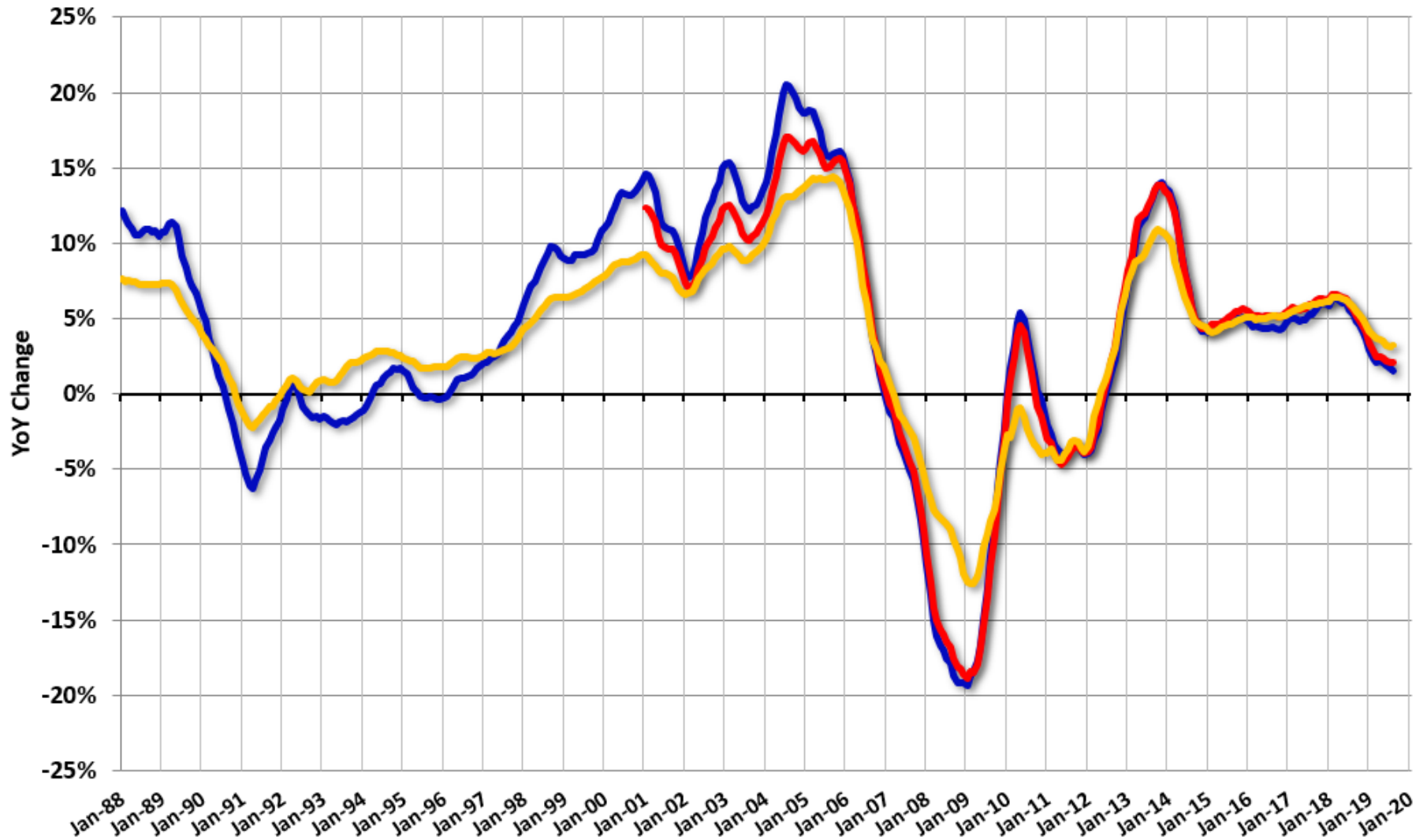


# Price Growth is Slowing

Prices rise faster than wages! Y-o-Y prices up 1.6%, 2.1% or 3.2% depending on the measure

Case-Shiller National and Composite Indices SA, Year-over-year Change

Composite 10 Composite 20 National Index

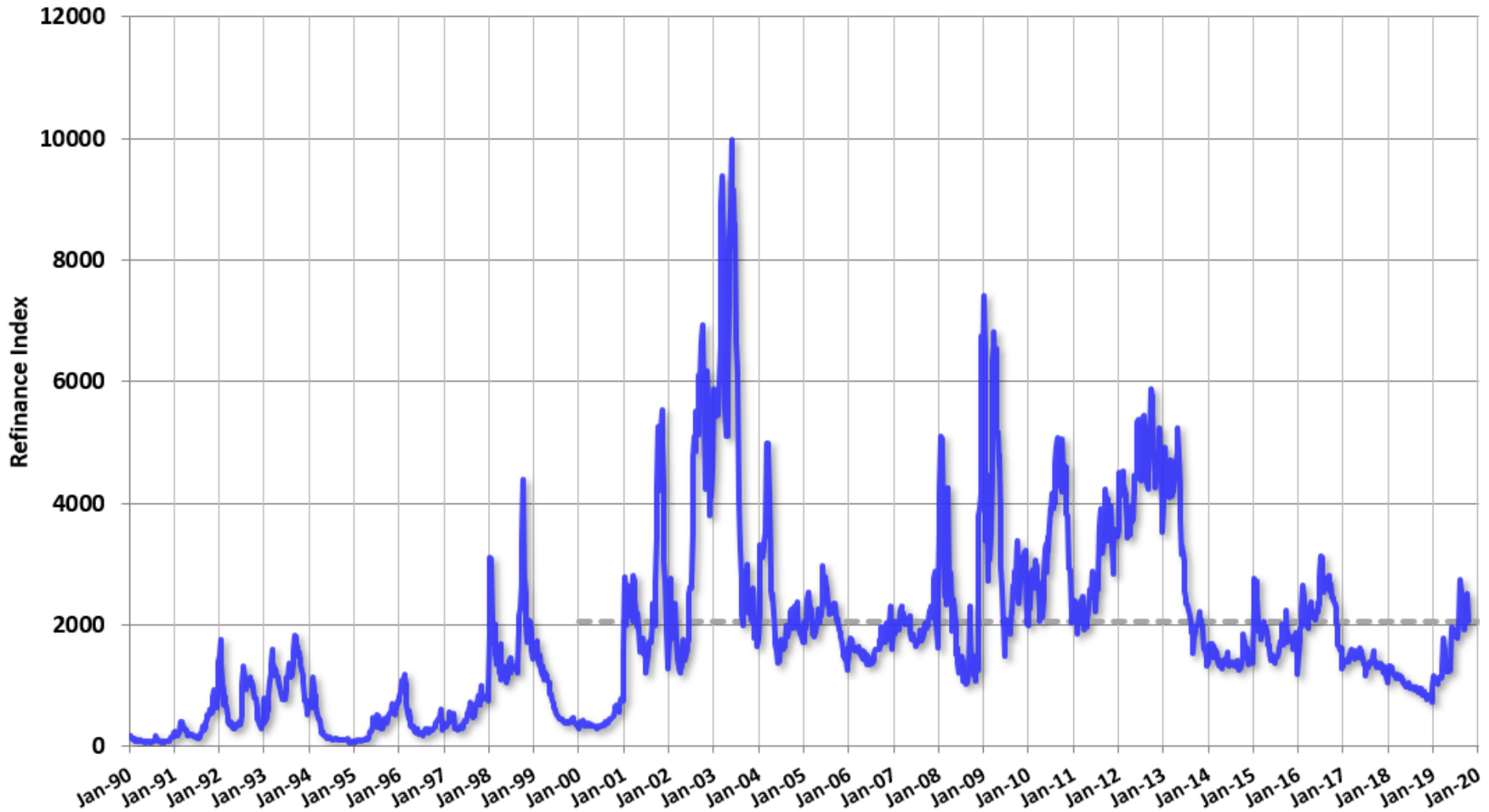


# Refinance Activity Improves!

2020 refi activity probably falls to \$500 billion, from \$650 in 2019

MBA Refinance Applications Index

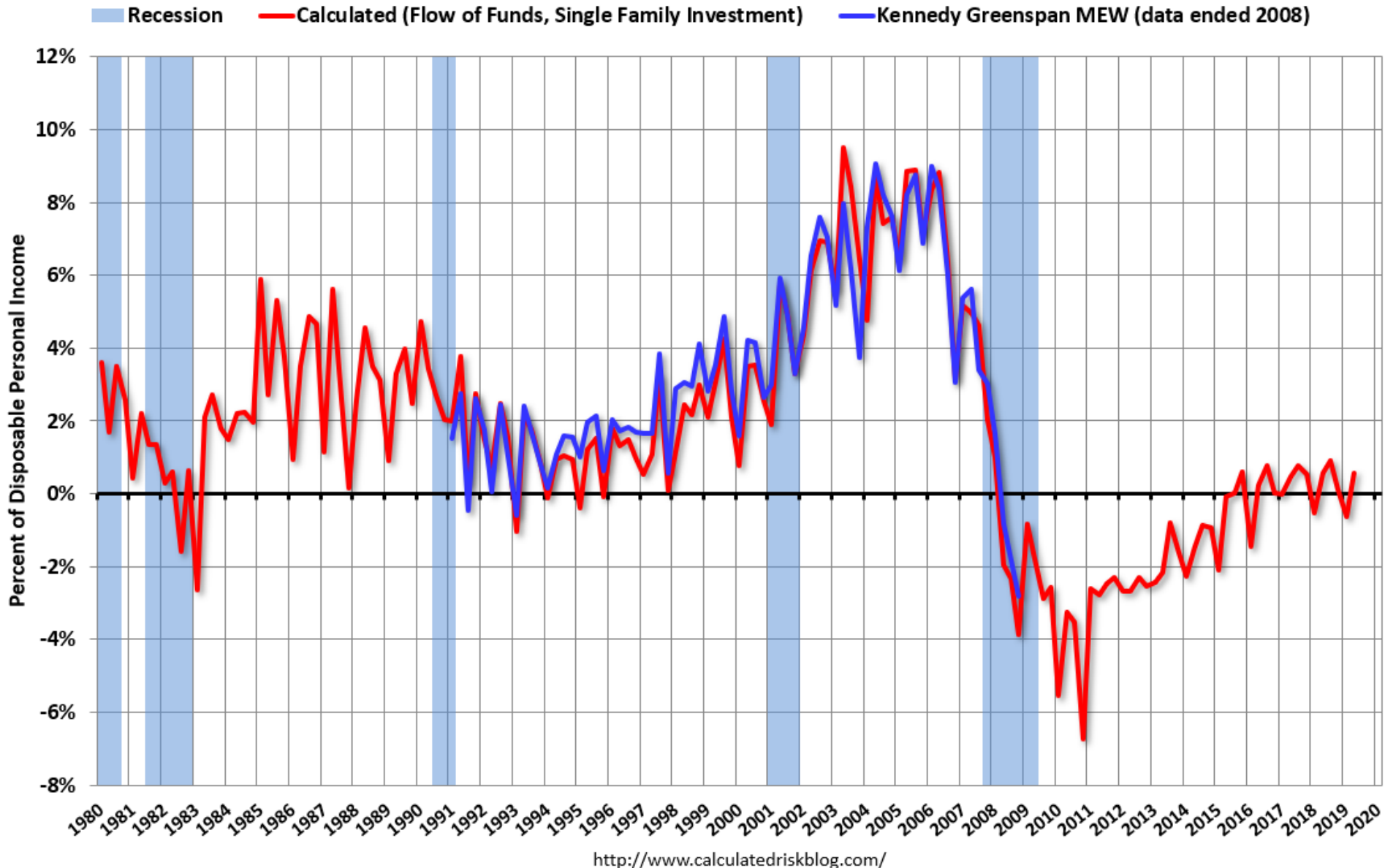
-- Current    — Refinance Index



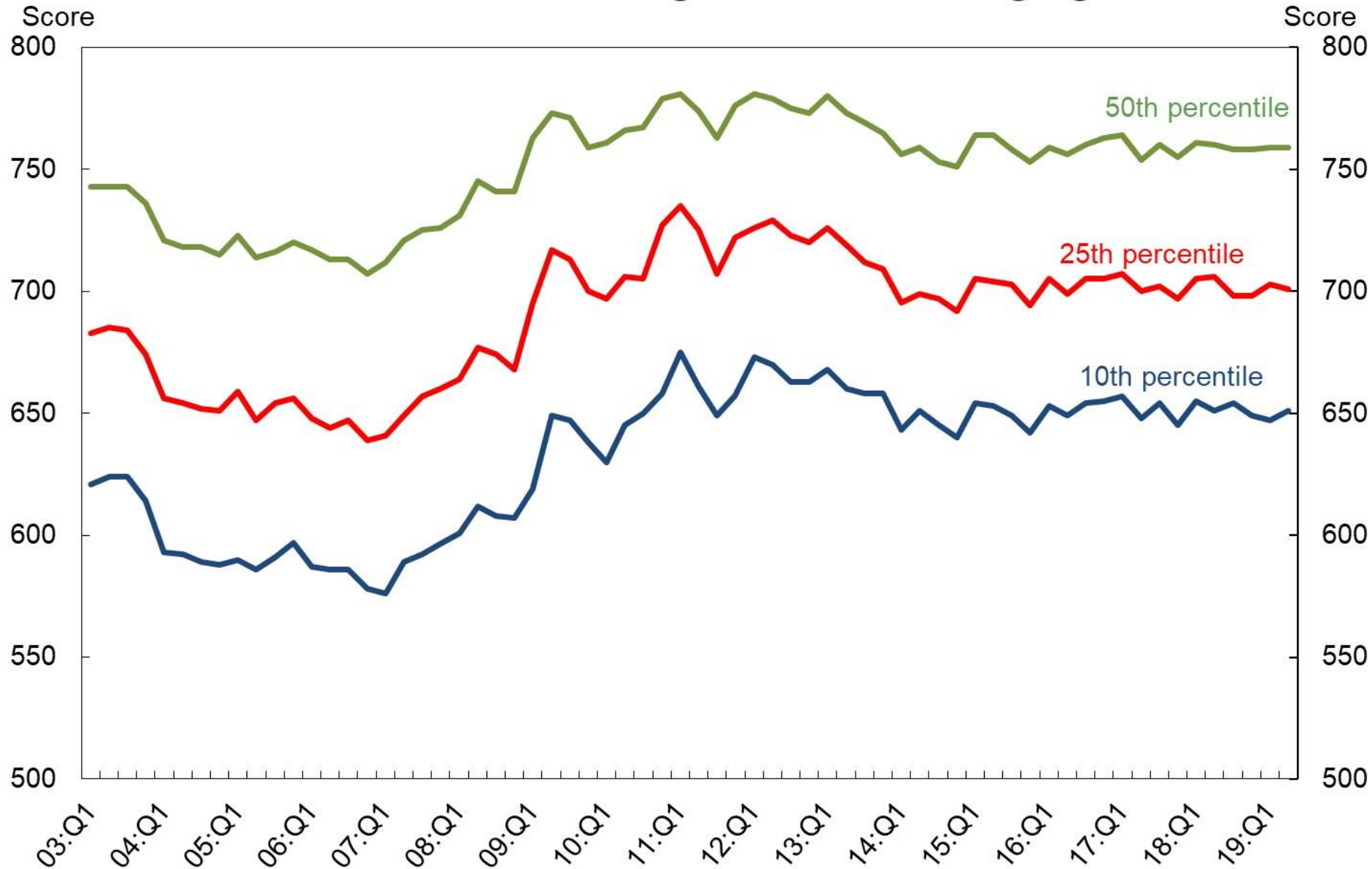
# Households are Repairing their Balance Sheets

Limited Mortgage Equity Withdrawal (MEW). But, it's now rising after including foreclosures

Mortgage Equity Withdrawal as a Percent of Disposable Personal Income (NSA)



# Credit Score at Origination: Mortgages\*



Source: New York Fed Consumer Credit Panel/Equifax

\* Credit Score is Equifax Riskscore 3.0; mortgages include first-liens only.

# DTI Ratios Creep Up

Few risk loans are being made

Share of mortgages in Fannie and Freddie securities that have debt-to-income ratios above 43%, annually

Posted on

WSJ: The Daily Shot

10-Sep-2019

@SoberLook

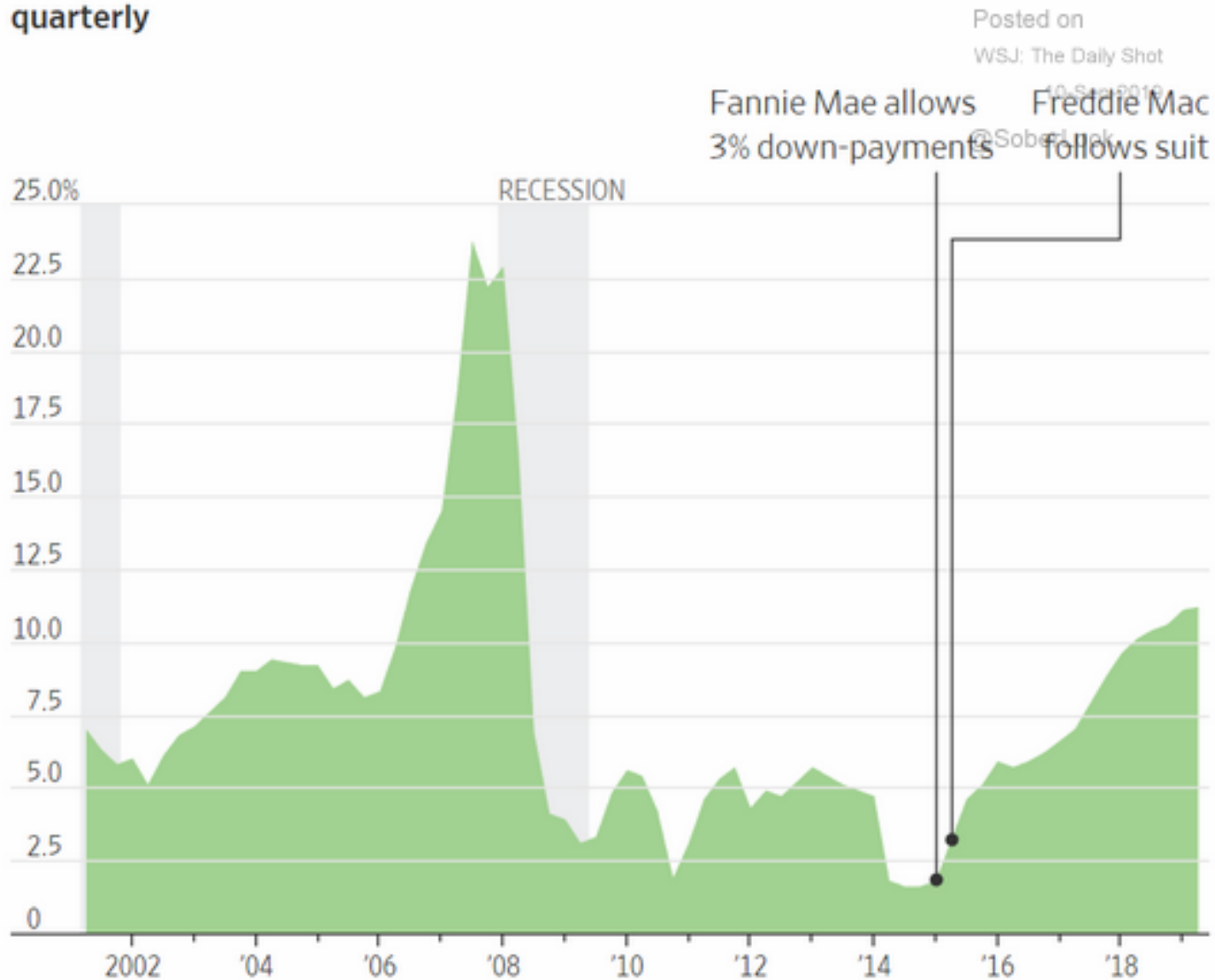


Source: Inside Mortgage Finance

# Low Down Payment Borrowers

The percentage is rising!

Share of Fannie- and Freddie-eligible loans with less than 5% down payments, quarterly



Source: CoreLogic

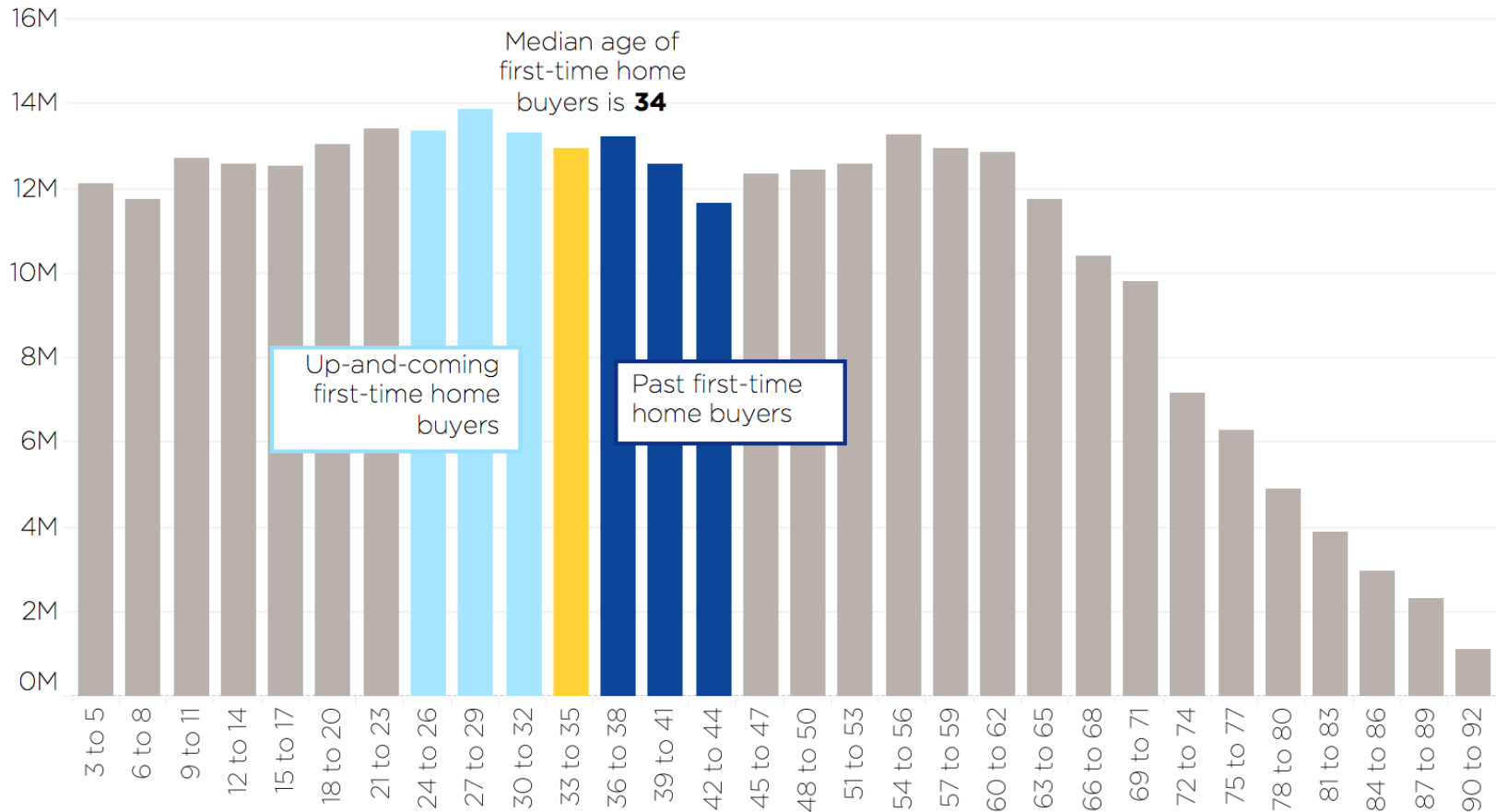


# Millennials Will Keep This Issue Front and Center

## Beginning to approach Peak Millennial

### Coming soon: An even bigger wave of potential buyers

Age distribution of the United States

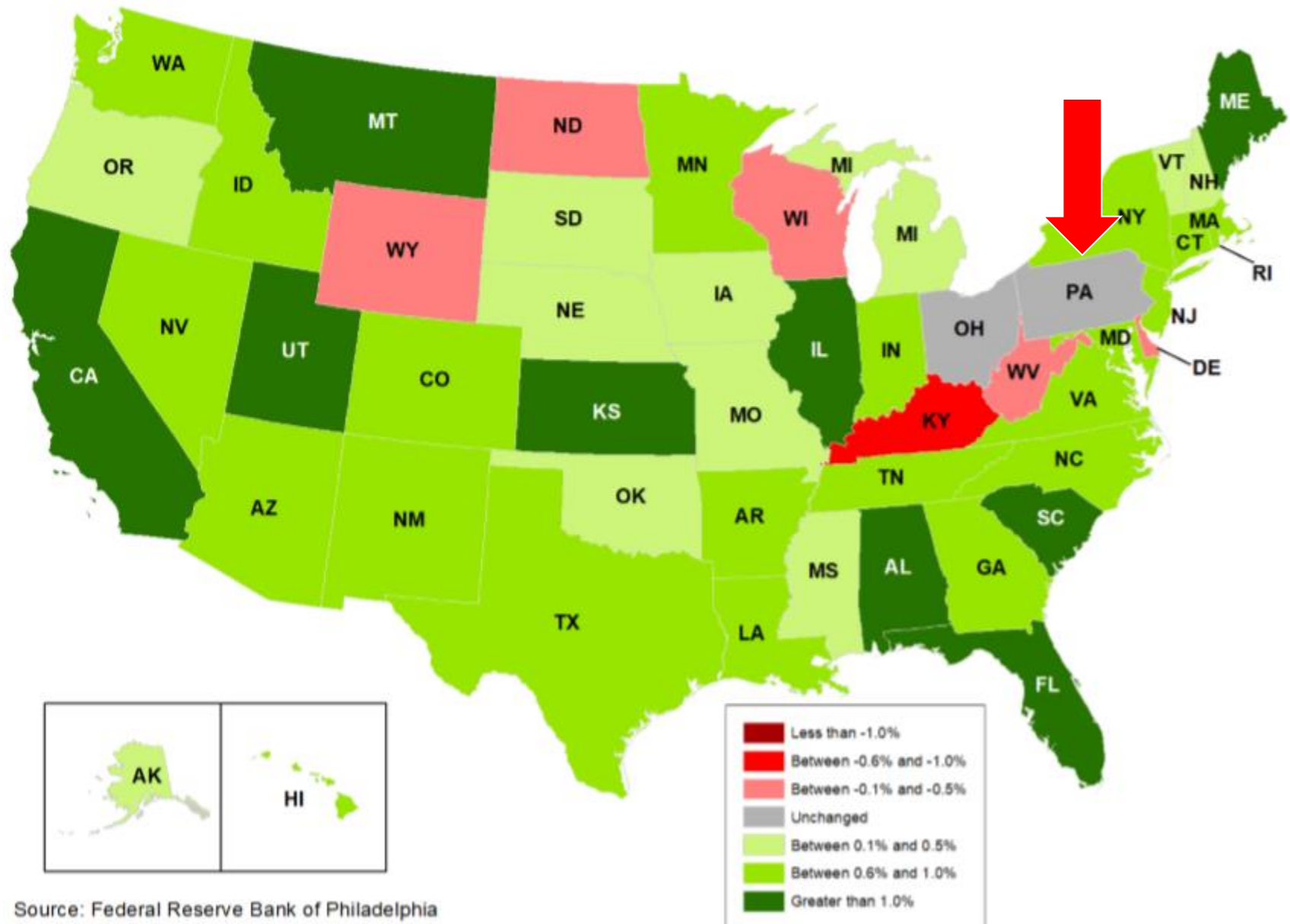


**Zillow Economic Research** | Source: Population counts by age and metro was pulled from one-year 2017-ACS data made available by IPUMS - USA. Ages of individuals were bumped up one year to coincide with our source for median age of first time buyer, the 2018 Zillow Group housing trends report. That survey was boosted in five metro areas, allowing for metro level median first-time home buyer ages in Phoenix (34.5 years), San Francisco (37 years), Atlanta (37 years), Chicago (34 years) and Washington, D.C. (34 years).

**What About  
Things Here?**

# Things Are Good Now

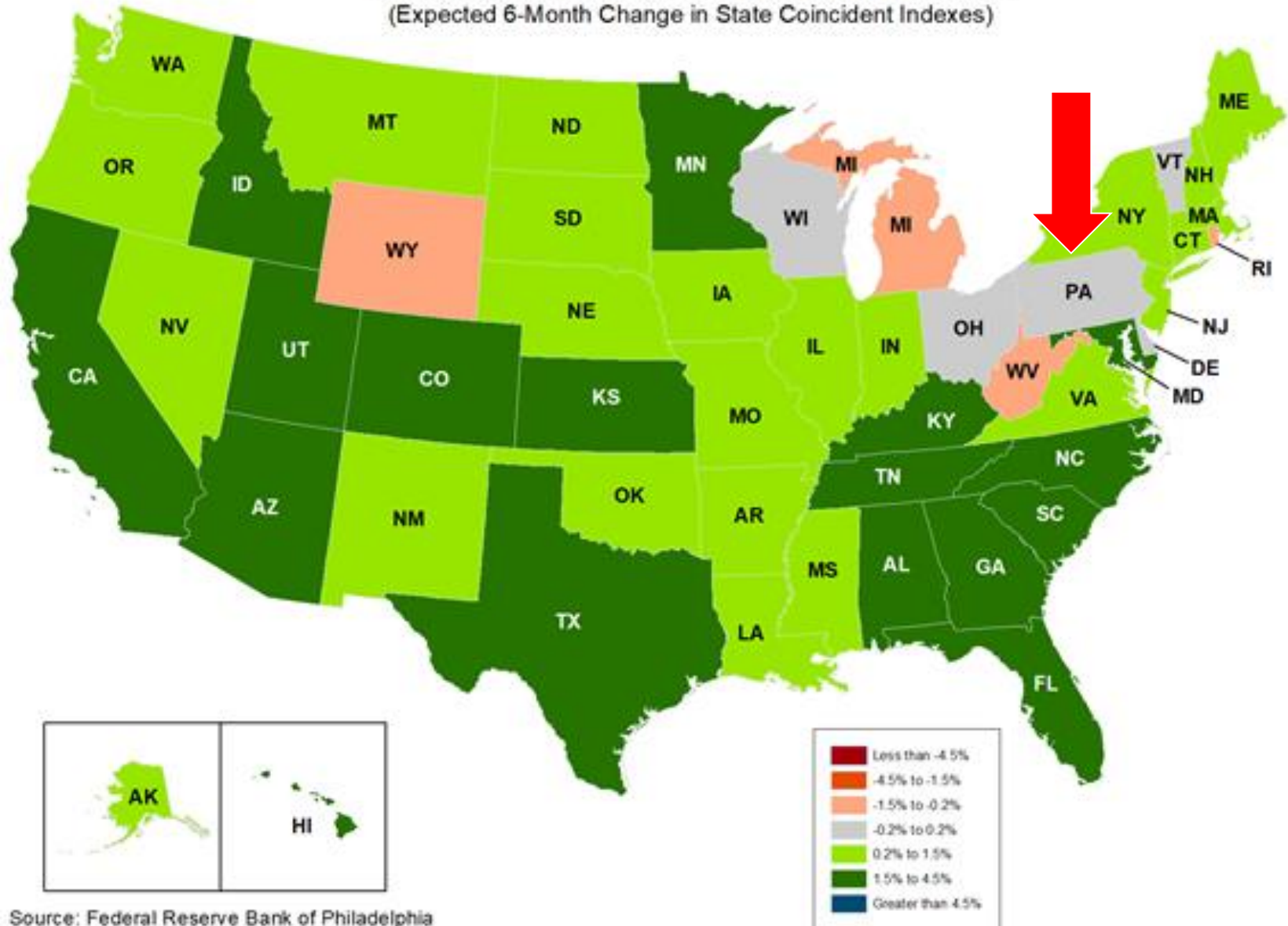
September 2019 State Coincident Indexes: Three-Month Change



## The Future Looks Good Too!

## September 2019 State Leading Indexes

(Expected 6-Month Change in State Coincident Indexes)



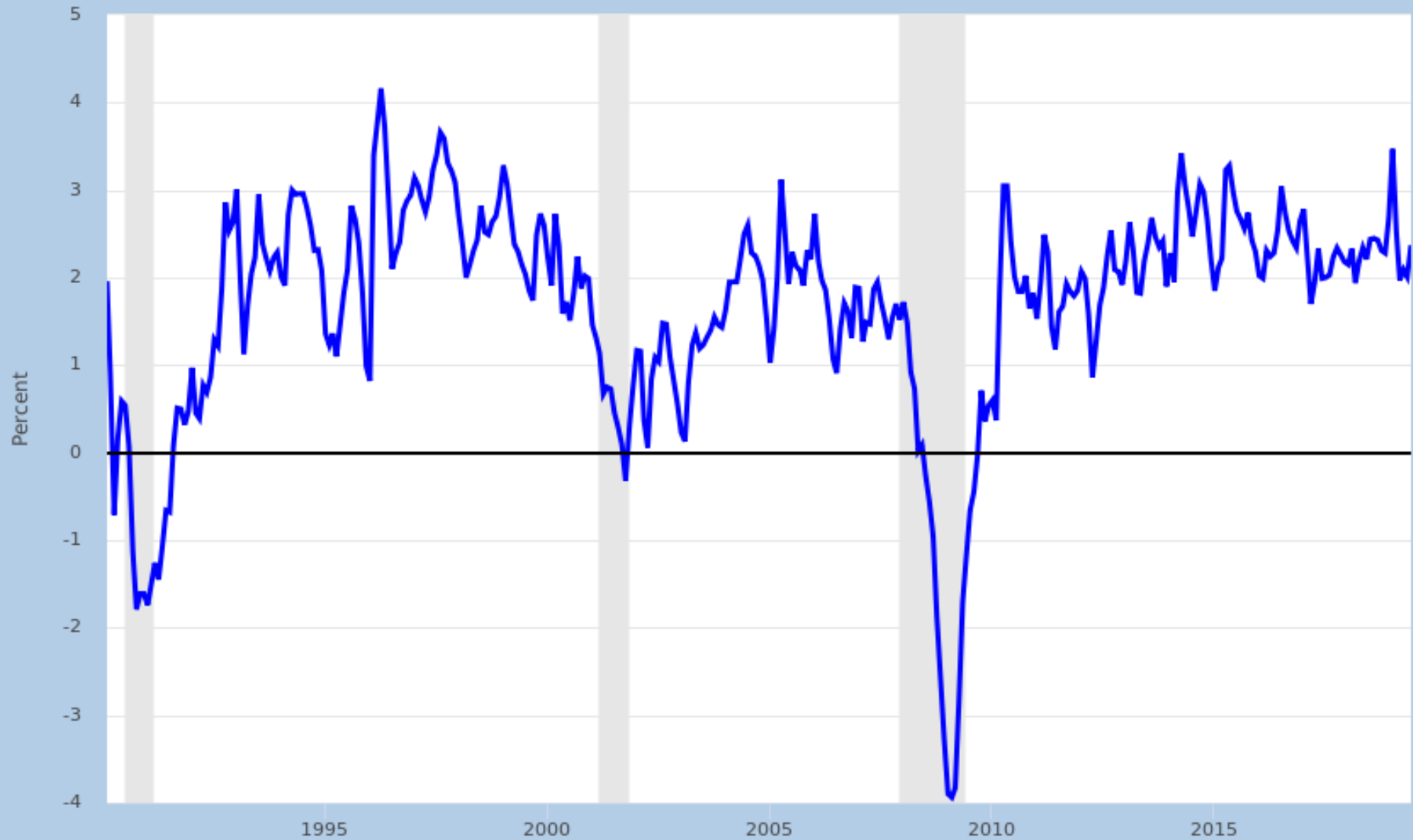
Source: Federal Reserve Bank of Philadelphia

# Economic Conditions

They are solid

**FRED** 

— Economic Conditions Index for Philadelphia-Camden-Wilmington, PA-NJ-DE-MD (MSA)



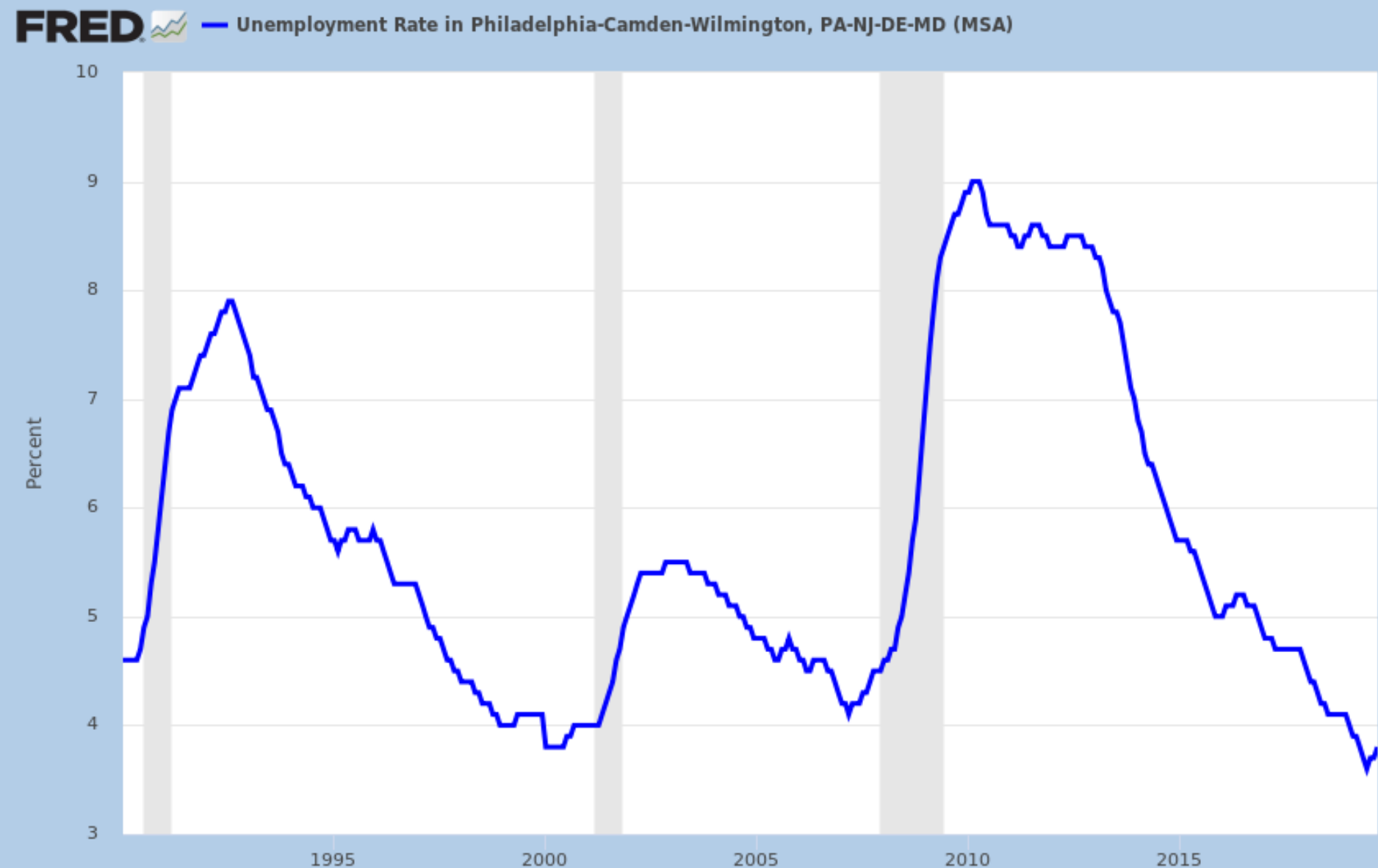
*Shaded areas indicate U.S. recessions*

Source: Federal Reserve Bank of St. Louis

[myf.red/g/ptqs](https://myf.red/g/ptqs)

# The Unemployment Rates in Philadelphia

The rate very much follows the national average



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

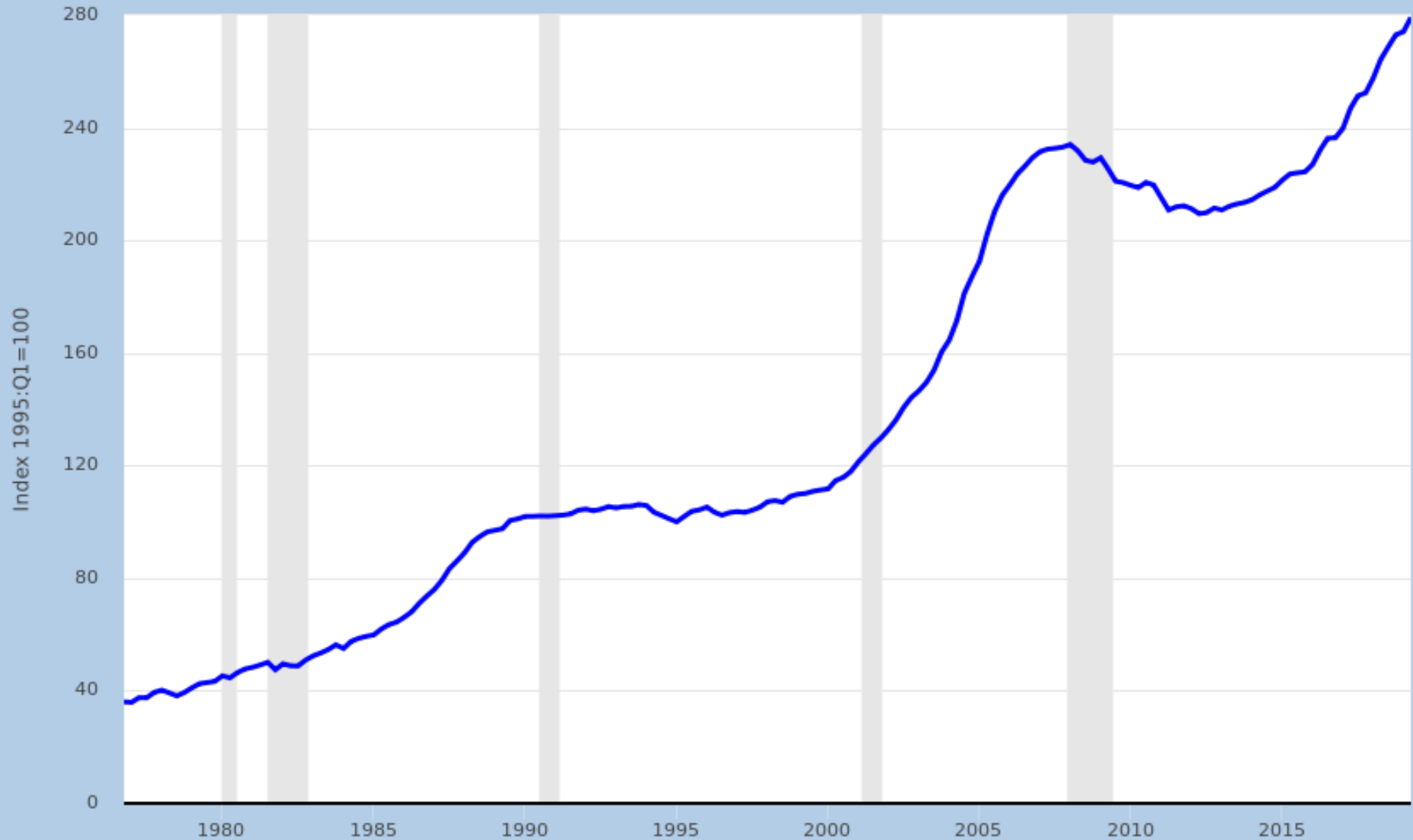
[myf.red/g/ptsb](https://myf.red/g/ptsb)

# Housing Prices Improve

Housing prices barely declined and are now rising nicely

**FRED** 

— All-Transactions House Price Index for Philadelphia, PA (MSAD)



Shaded areas indicate U.S. recessions

Source: U.S. Federal Housing Finance Agency

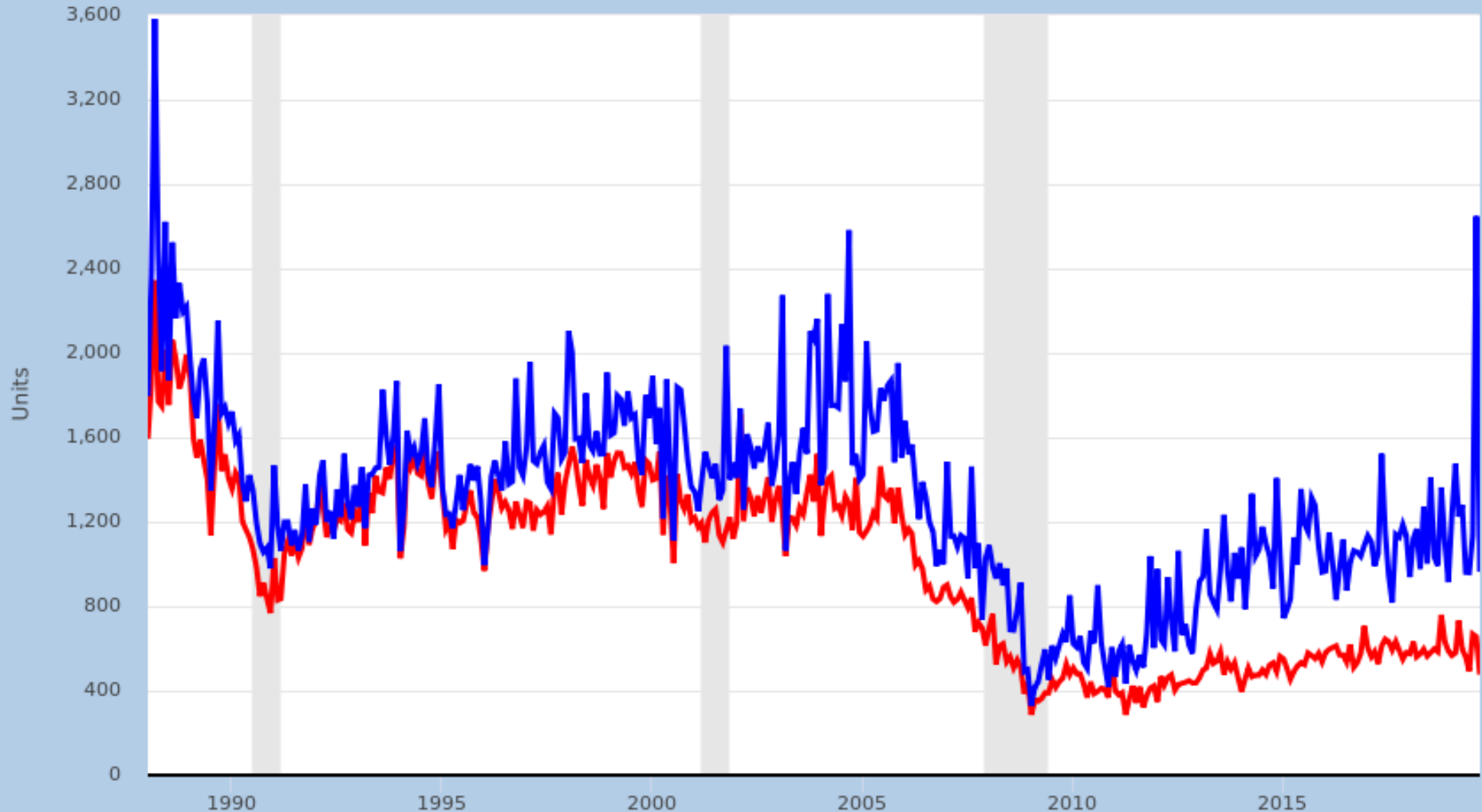
[myf.red/g/ptqX](https://myf.red/g/ptqX)

# Housing Starts in Philadelphia

Single family struggles while multifamily is strong and getting stronger



- New Private Housing Units Authorized by Building Permits: 1-Unit Structures for Philadelphia-Camden-Wilmington, PA-NJ-DE-MD (MSA)
- New Private Housing Units Authorized by Building Permits for Philadelphia-Camden-Wilmington, PA-NJ-DE-MD (MSA)



Shaded areas indicate U.S. recessions

Source: U.S. Census Bureau

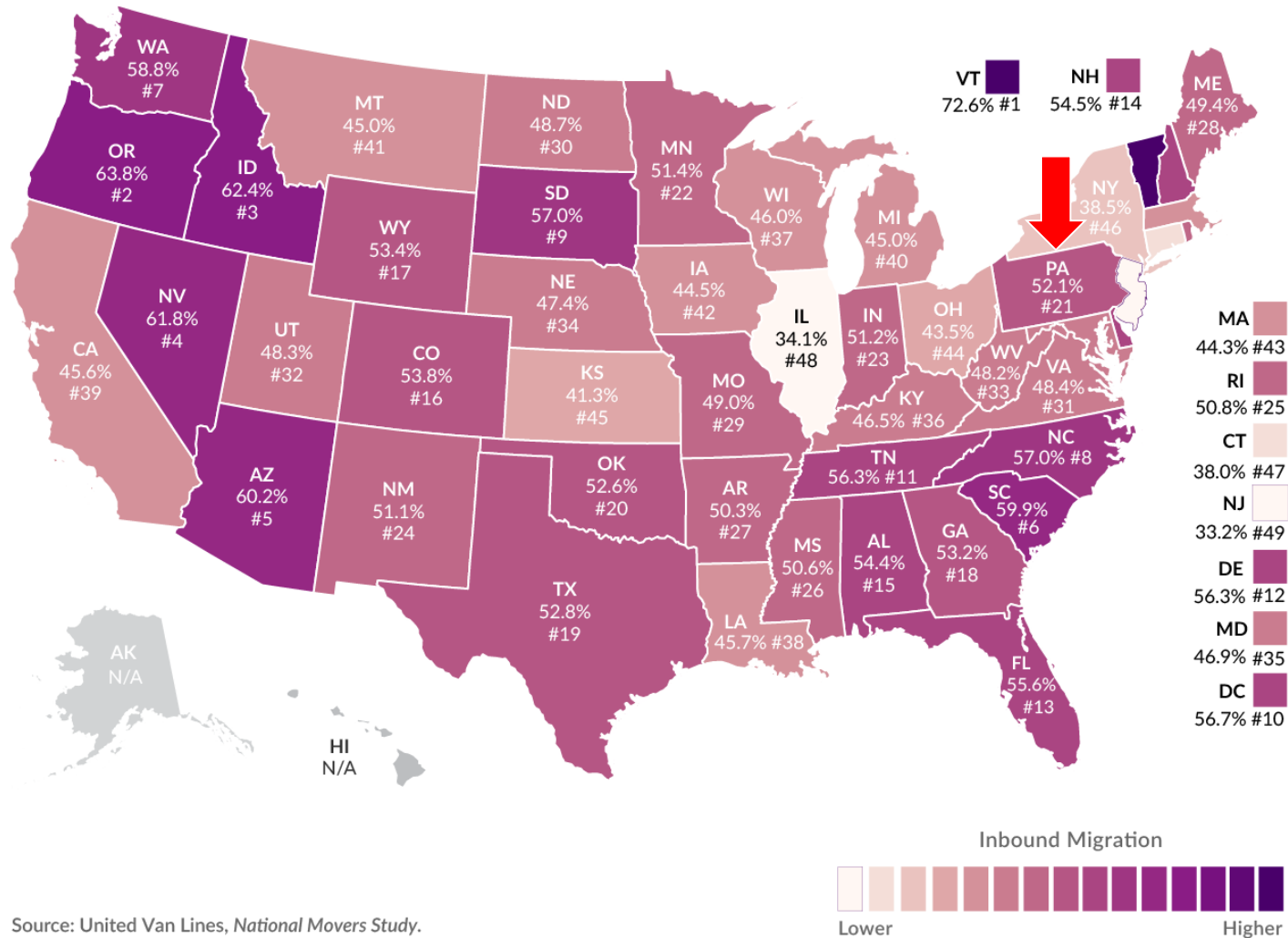
[myf.red/g/pts9](https://myf.red/g/pts9)



# Interstate Migration Patterns 2018

## Where Did Americans Move in 2018?

*Inbound Migration as a Percent of Total Moves, 2018*



Source: United Van Lines, *National Movers Study*.

# ANY QUESTIONS?

Elliot F. Eisenberg, Ph.D.

**Cell:** 202.306.2731

[elliott@graphsandlaughs.net](mailto:elliott@graphsandlaughs.net)

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