

THE ECONOMY IN 2019: TERRIFIC, TURBULENT OR TEPID?

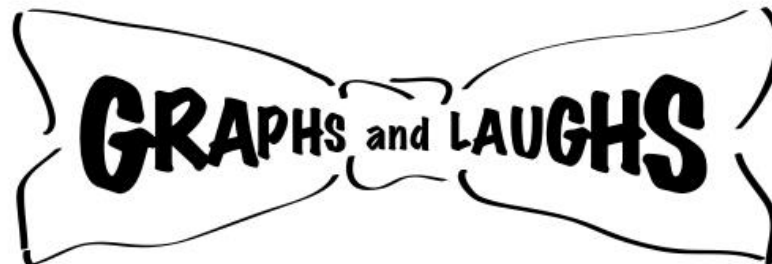
Presented by:

Elliot F. Eisenberg, Ph.D.

President: GraphsandLaughs, LLC

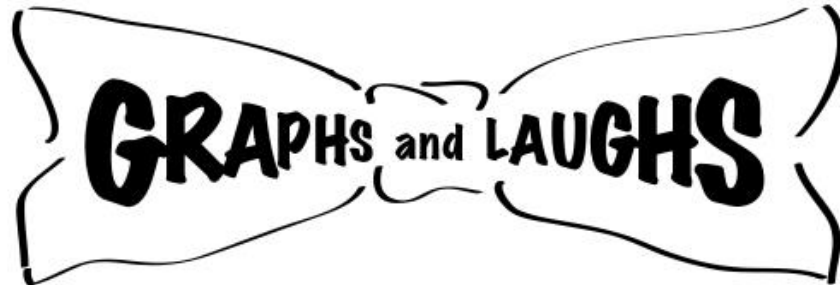
January 30, 2019

Houston, TX



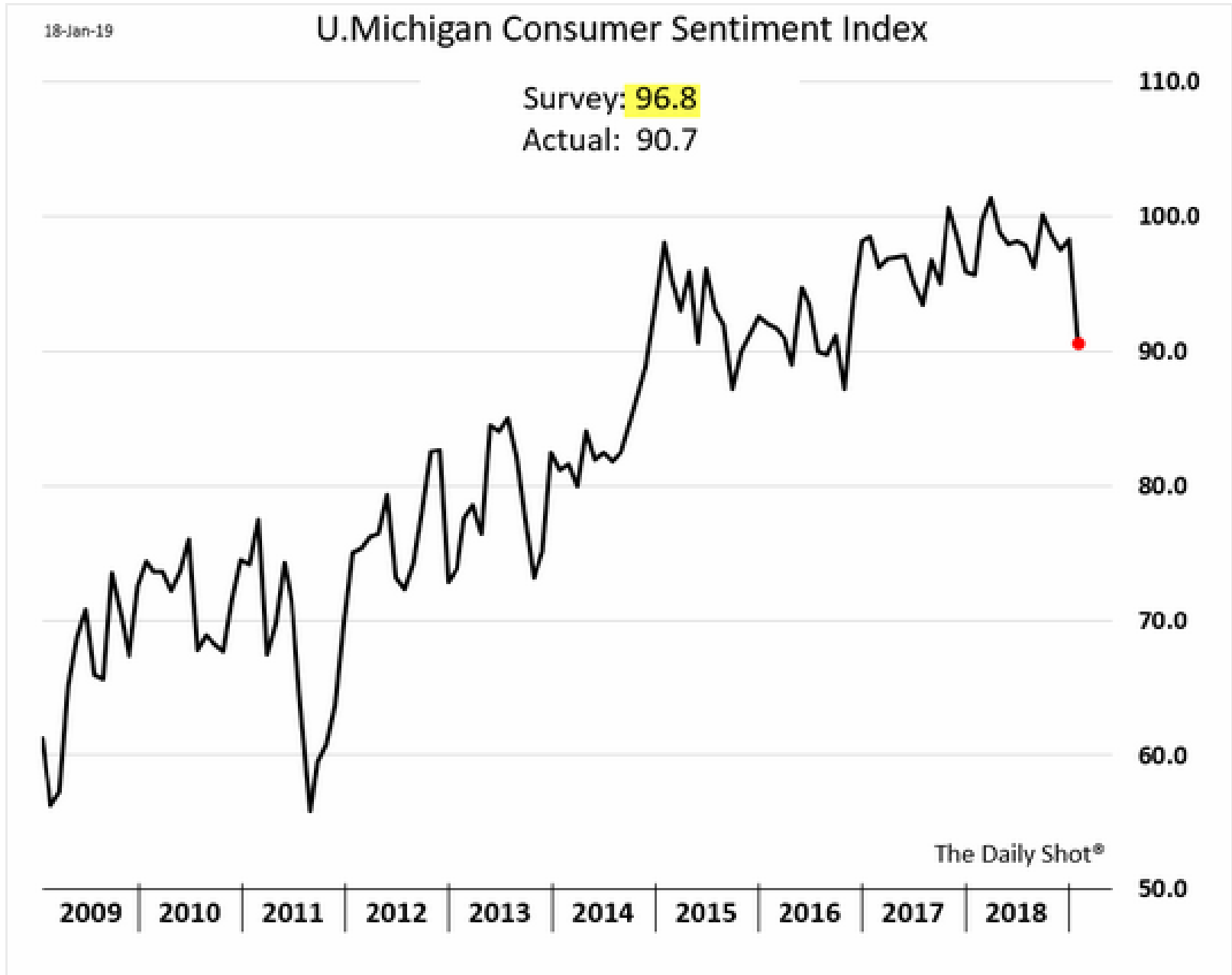
The Economy is OK

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



University of MI Consumer Confidence is Down

Reading is still OK

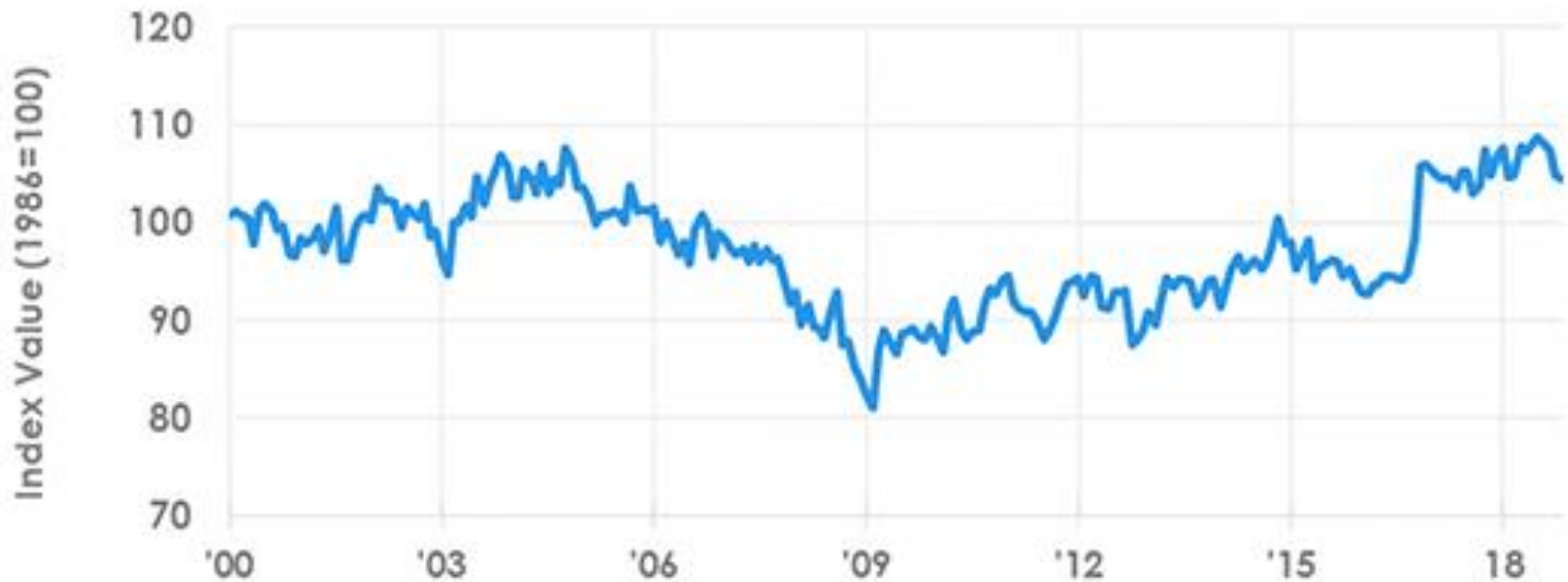


Small Business Confidence Remains Strong

Spectacular rise since election. But, declines of late

Small Business Optimism Index Remains High at 104.4

Based on 10 survey indicators, seasonally adjusted, Jan. '00 – Dec. '18

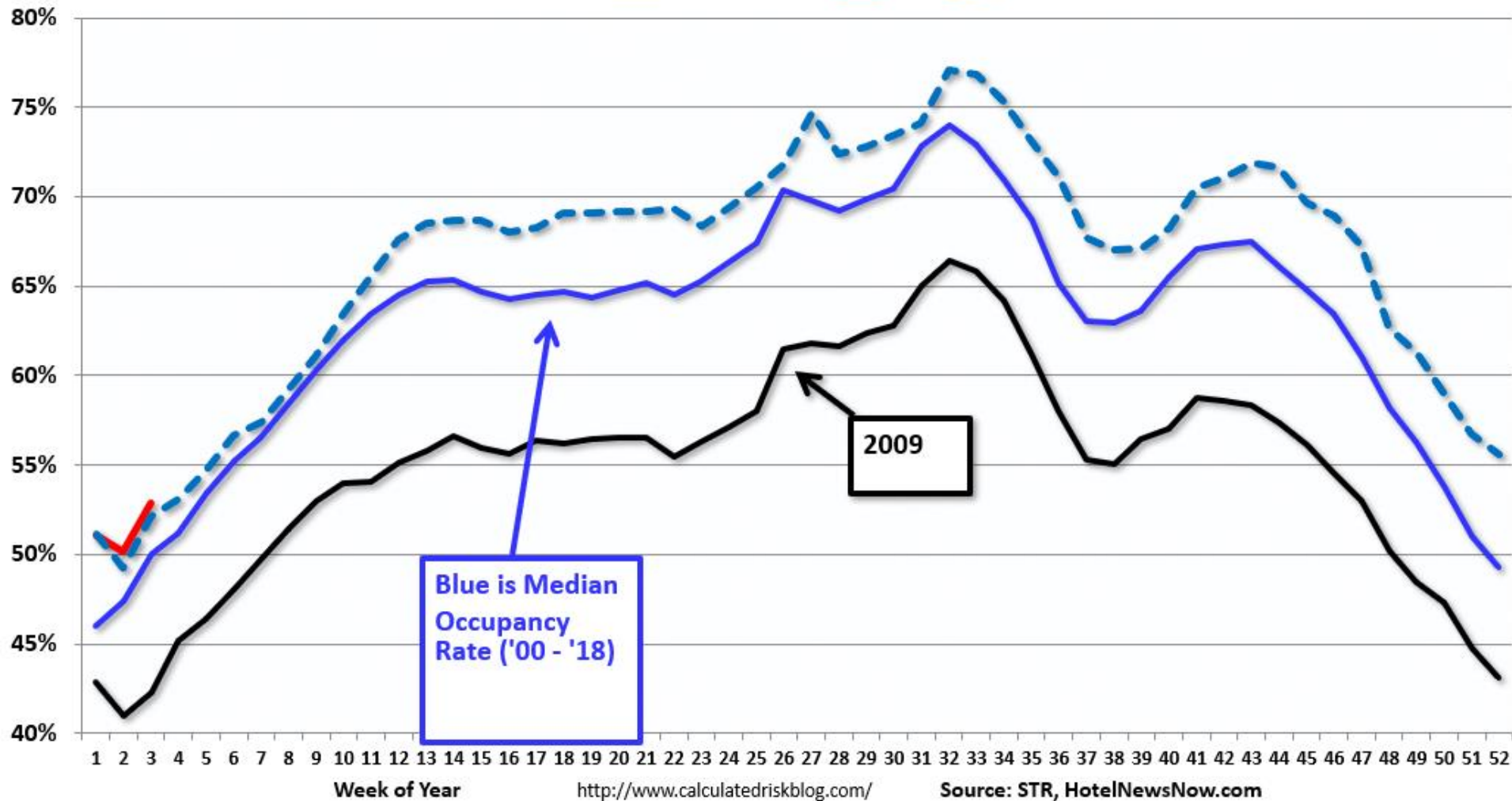


Hotel Occupancy Rates are Excellent!

Occupancy is superb as are ADR and RevPAR

Hotel Occupancy Rate by Week of Year (4 week moving average)

— 2009 — Median (2000-2018) — 2019 — 2018



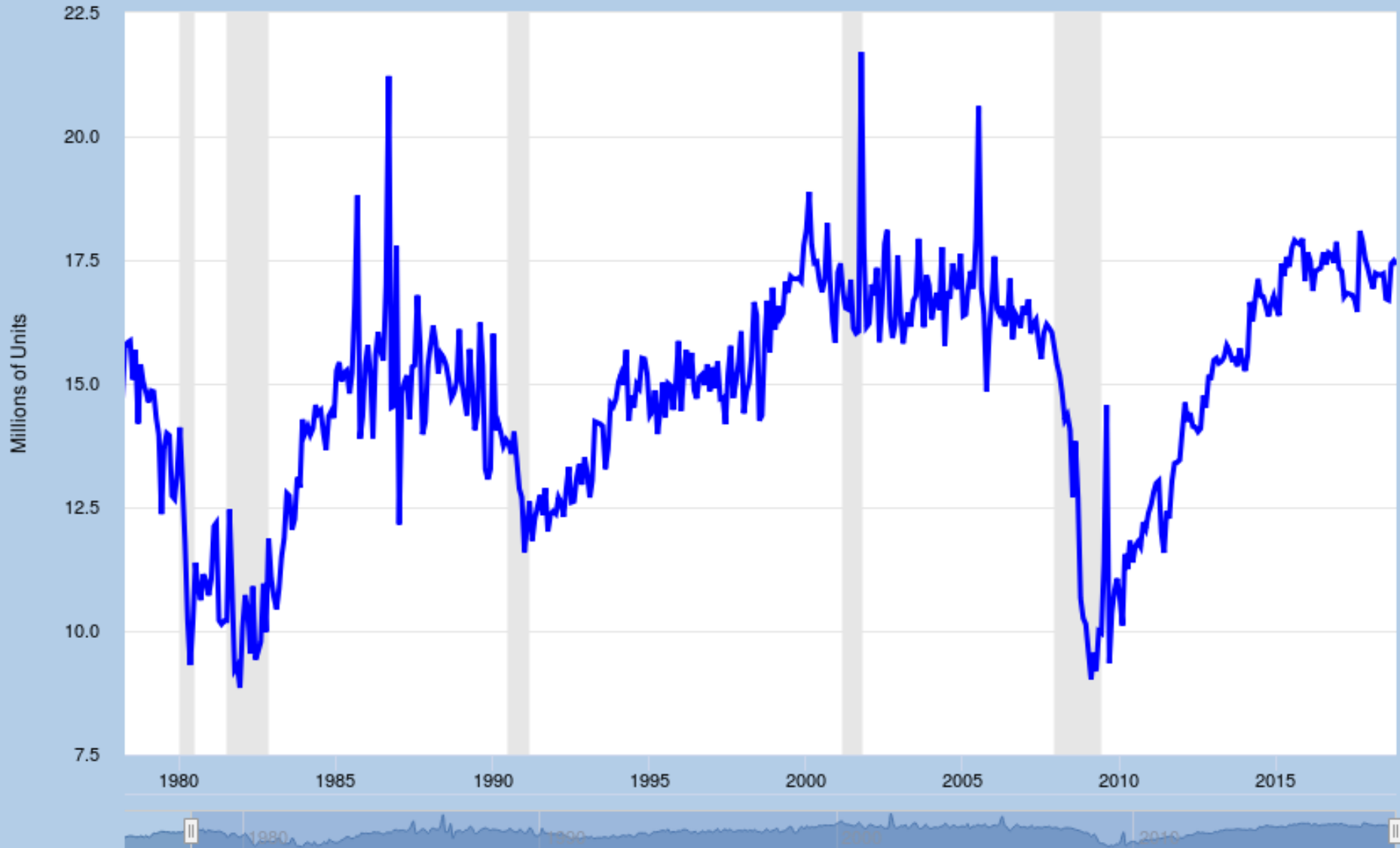
Blue is Median
Occupancy
Rate ('00 - '18)

2009

US Light Vehicle Sales Slow Slightly

No records will be set

FRED  — Light Weight Vehicle Sales: Autos and Light Trucks



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

myf.red/g/mozp

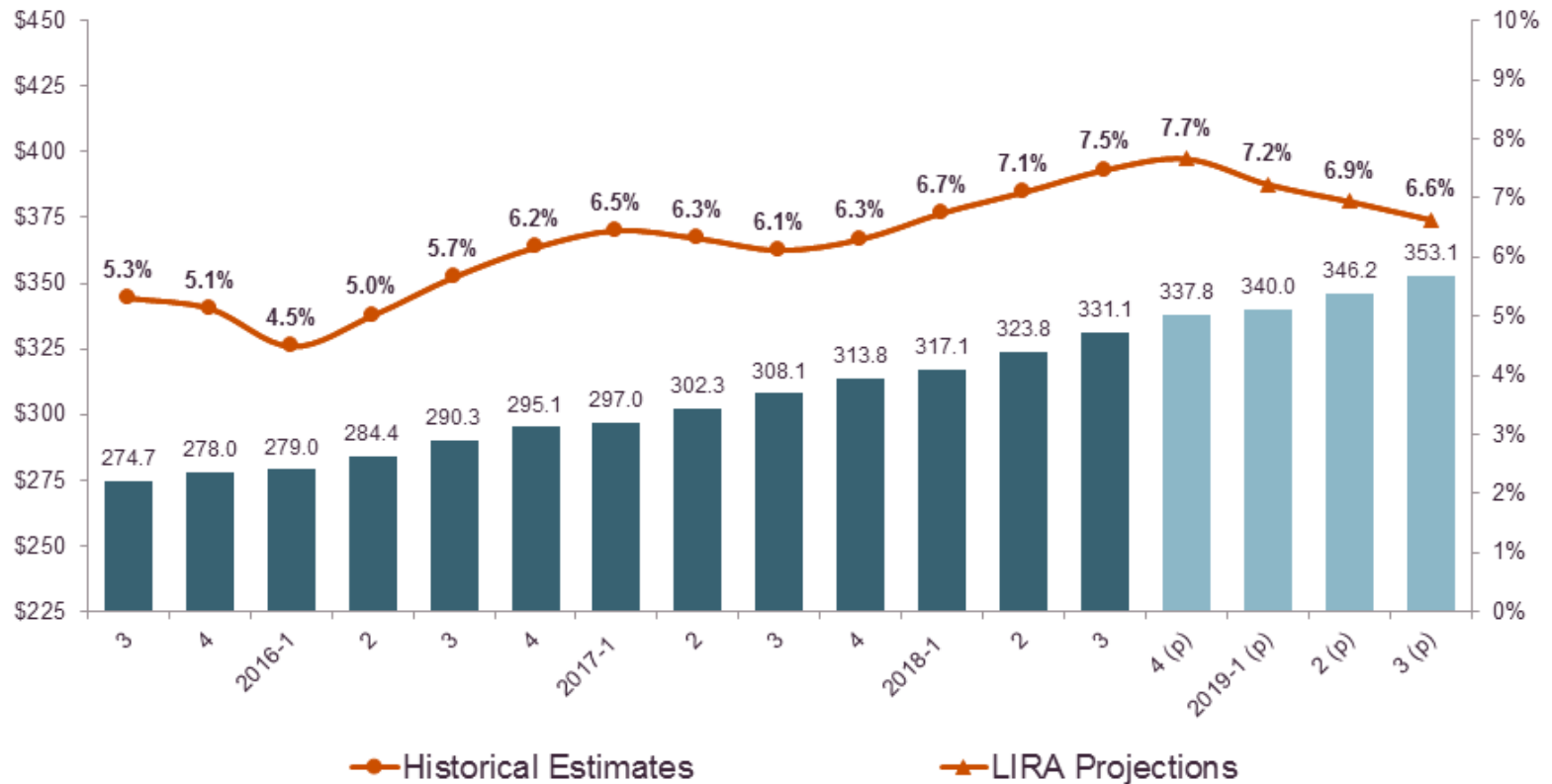
Housing Improvements & Repairs Keep Rising

Homes are aging, rates are low, home equity is good, and a lack of inventory

Leading Indicator of Remodeling Activity – Third Quarter 2018

Homeowner Improvements & Repairs
Four-Quarter Moving Totals
Billions

Four-Quarter Moving
Rate of Change

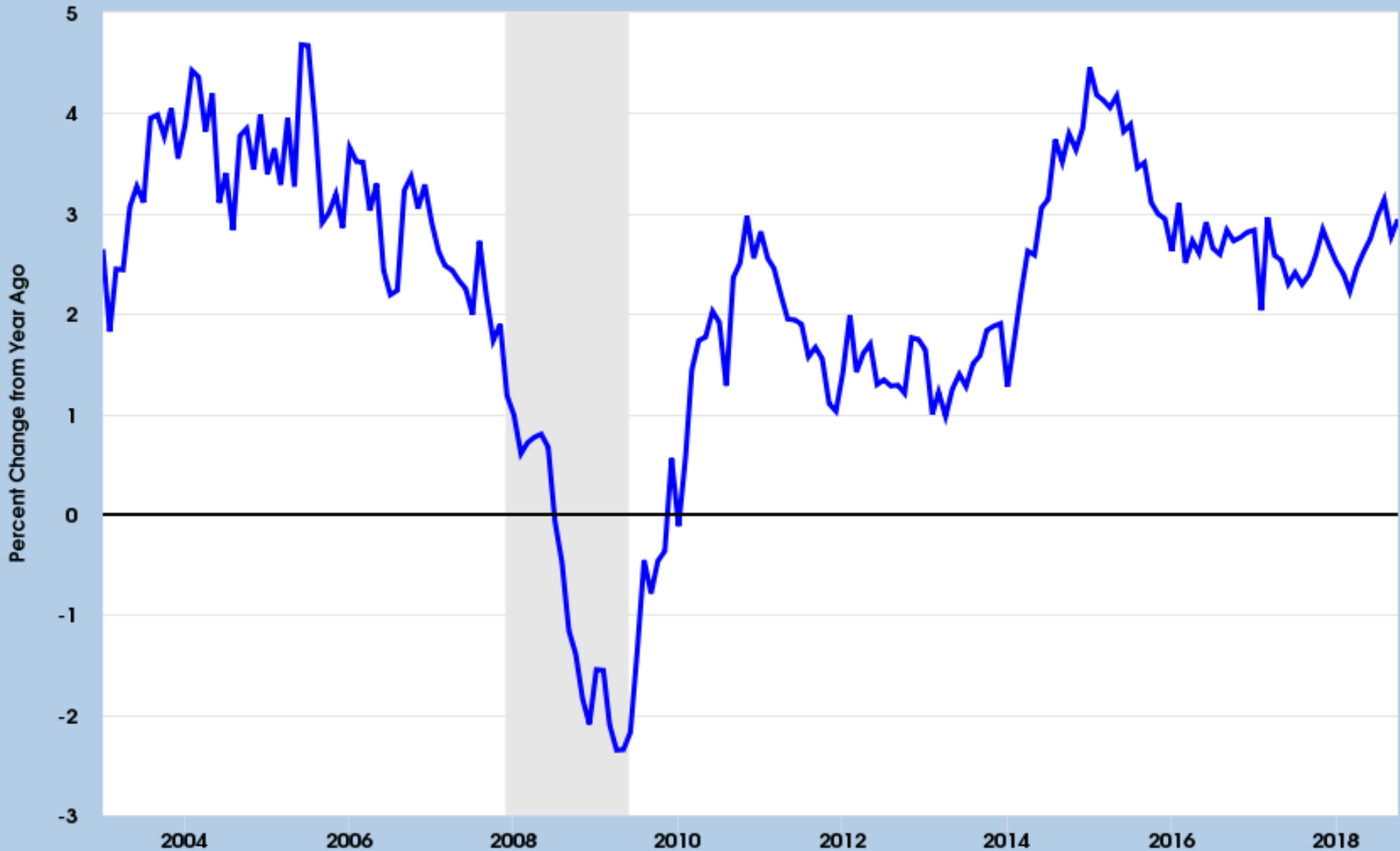


Note: Historical estimates since 2015 are produced using the LIRA model until American Housing Survey data become available.
Source: Joint Center for Housing Studies.

Annual Y-o-Y Percent Change in PCE

A very solid growth rate of 2.85%

FRED  — Real Personal Consumption Expenditures



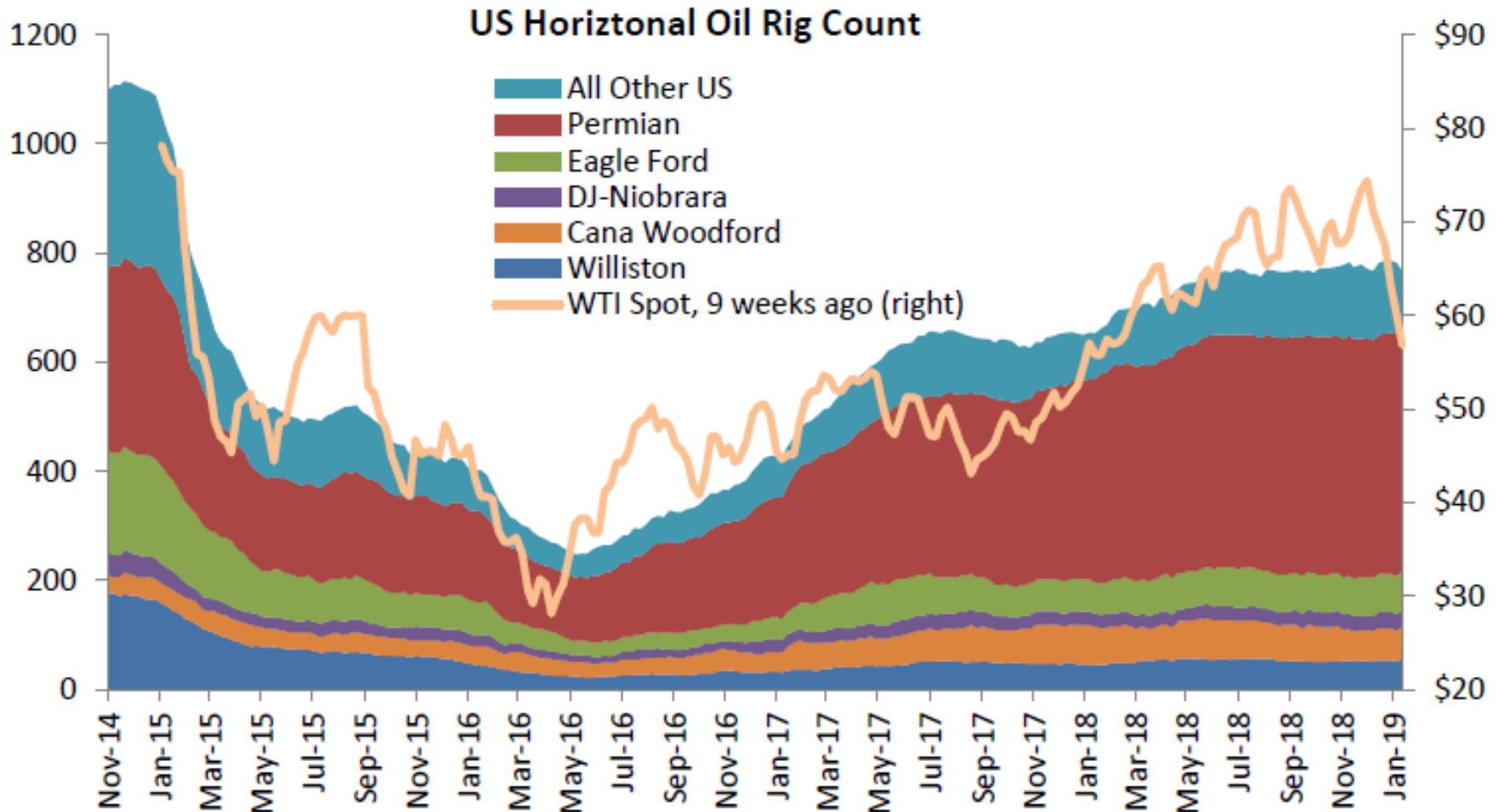
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

myf.red/g/mfdF

Drilling Activity is Falling

Falling prices hurt as does a pipeline problem



• Horizontal oil rigs: -17 to 765

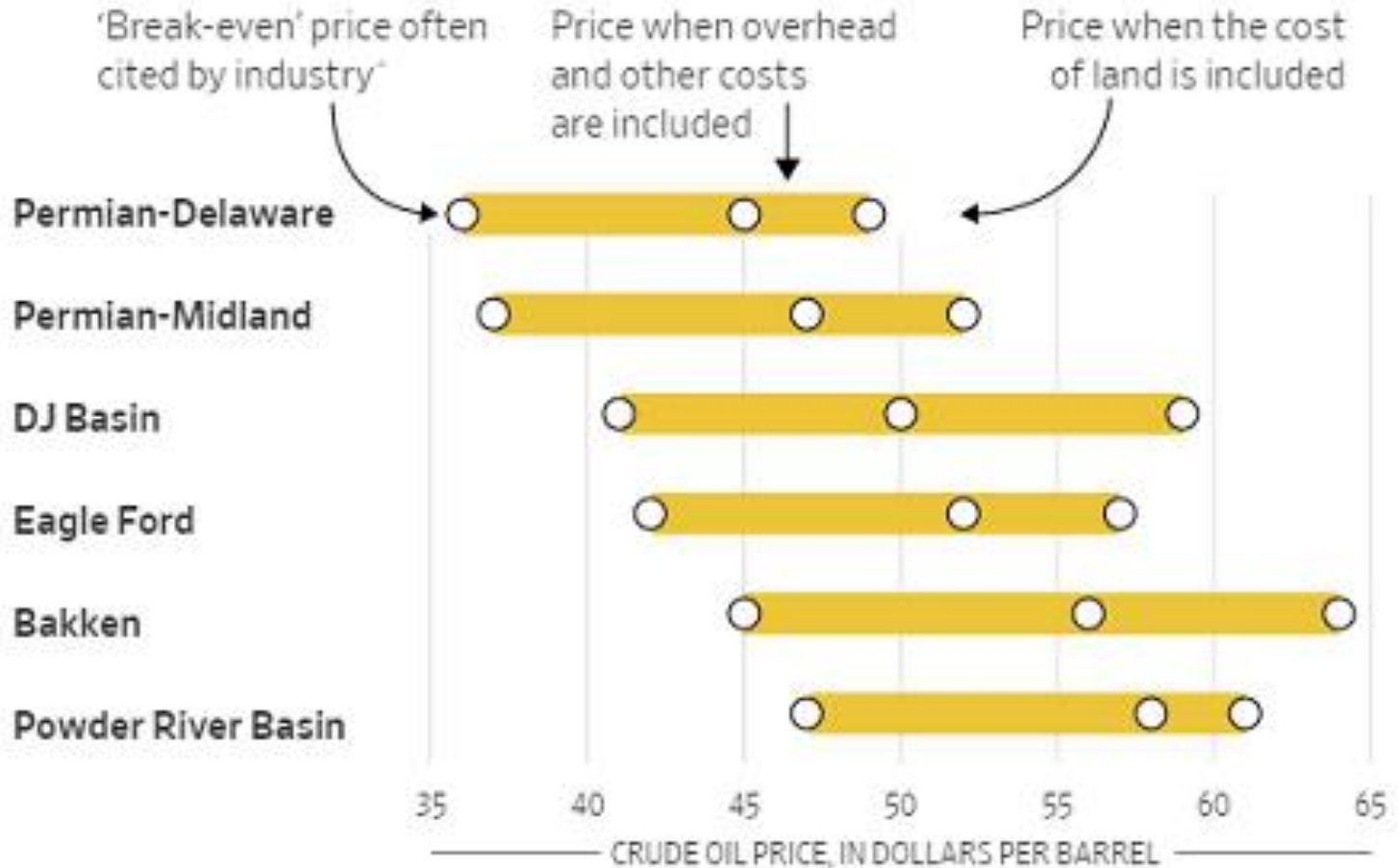
Shale Breakeven Rates Vary

Marginal costs are low but what does the price mean?

What Does 'Break-Even' Mean?

Most fracking operations need an oil price above \$50 a barrel for robust profit.

Break-even price at selected oil basins

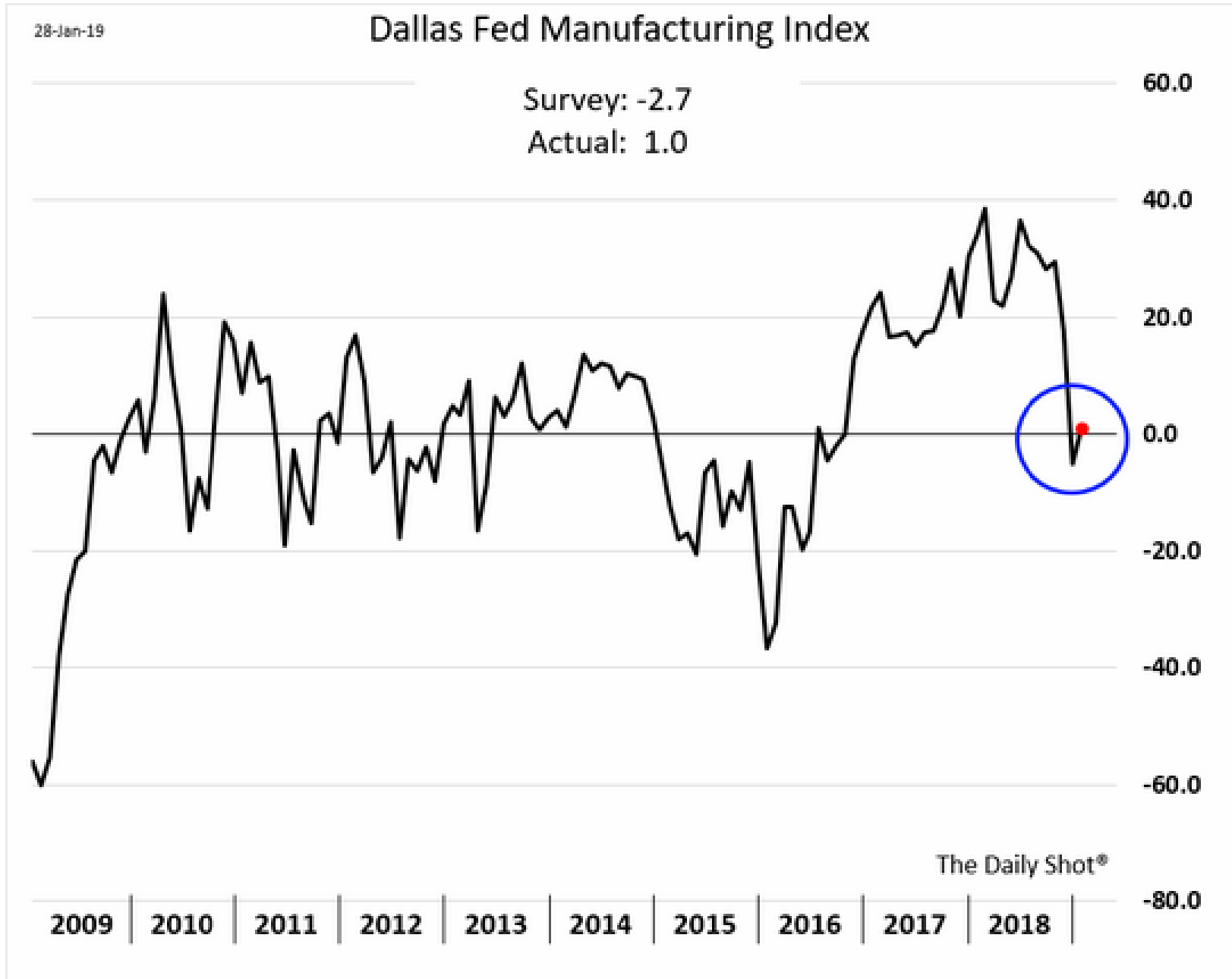


*Price cited for an individual shale well to have a 10% profit margin

Source: R.S. Energy Group

Dallas Manufacturing Numbers Are Weakening

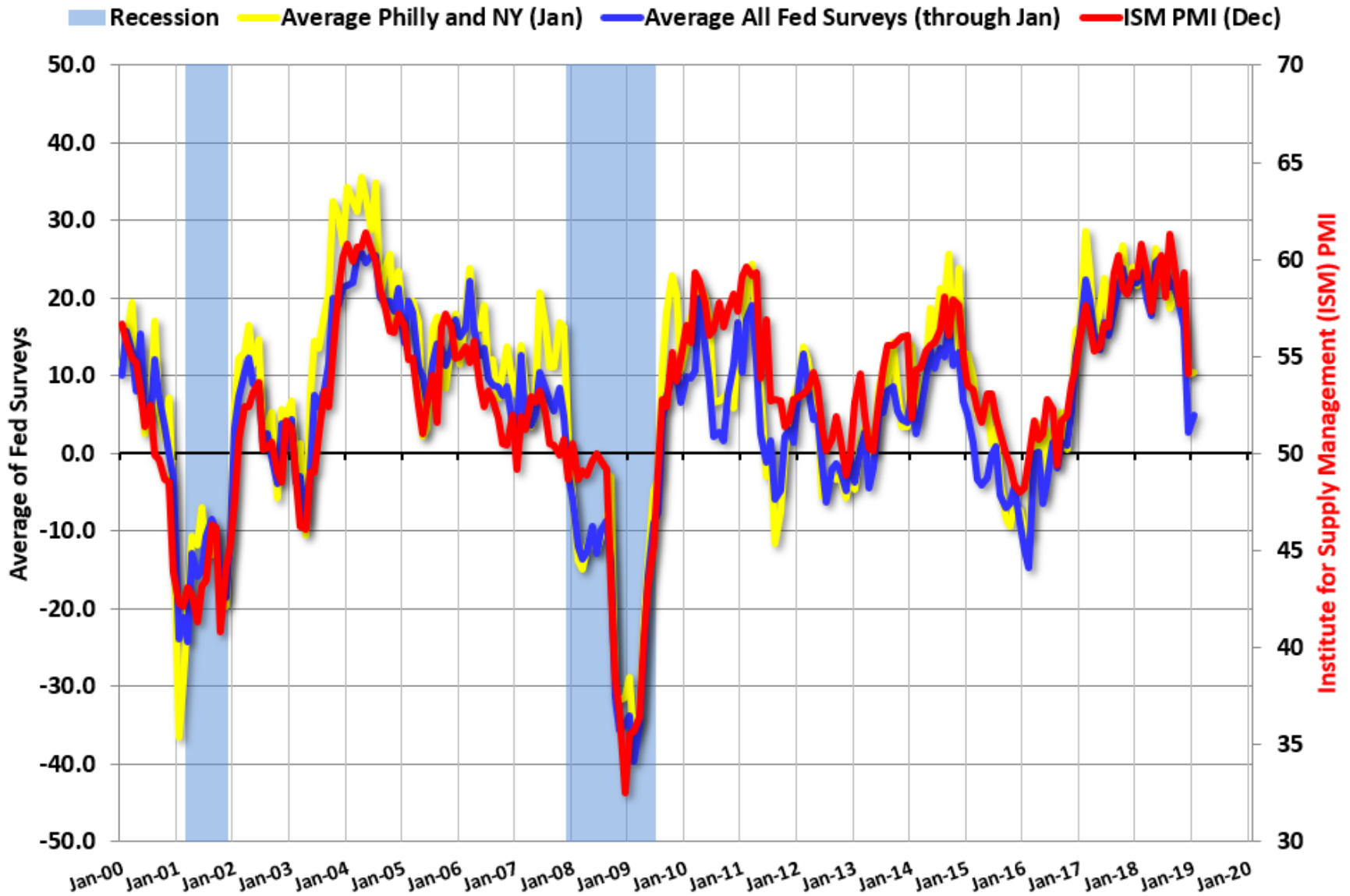
Well off their best levels in a decade



ISM Manufacturing Numbers Decline!

Manufacturing is less important than in decades past. Has it peaked?

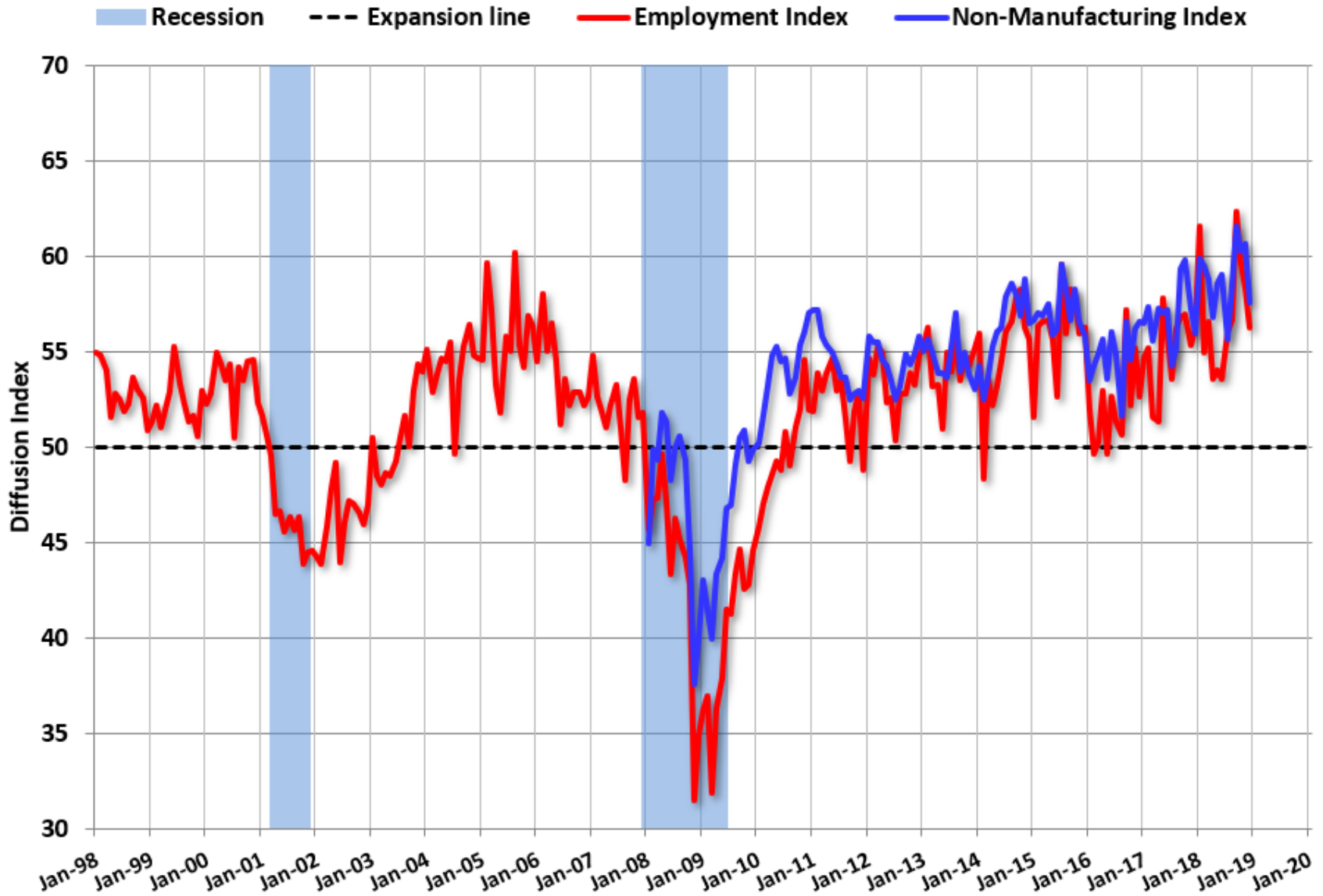
ISM Purchasing Managers' Index (PMI) and Fed Manufacturing Surveys



ISM Non-Manufacturing Numbers are Good

Service sector is hold up

ISM Non-Manufacturing and Employment Diffusion Indexes



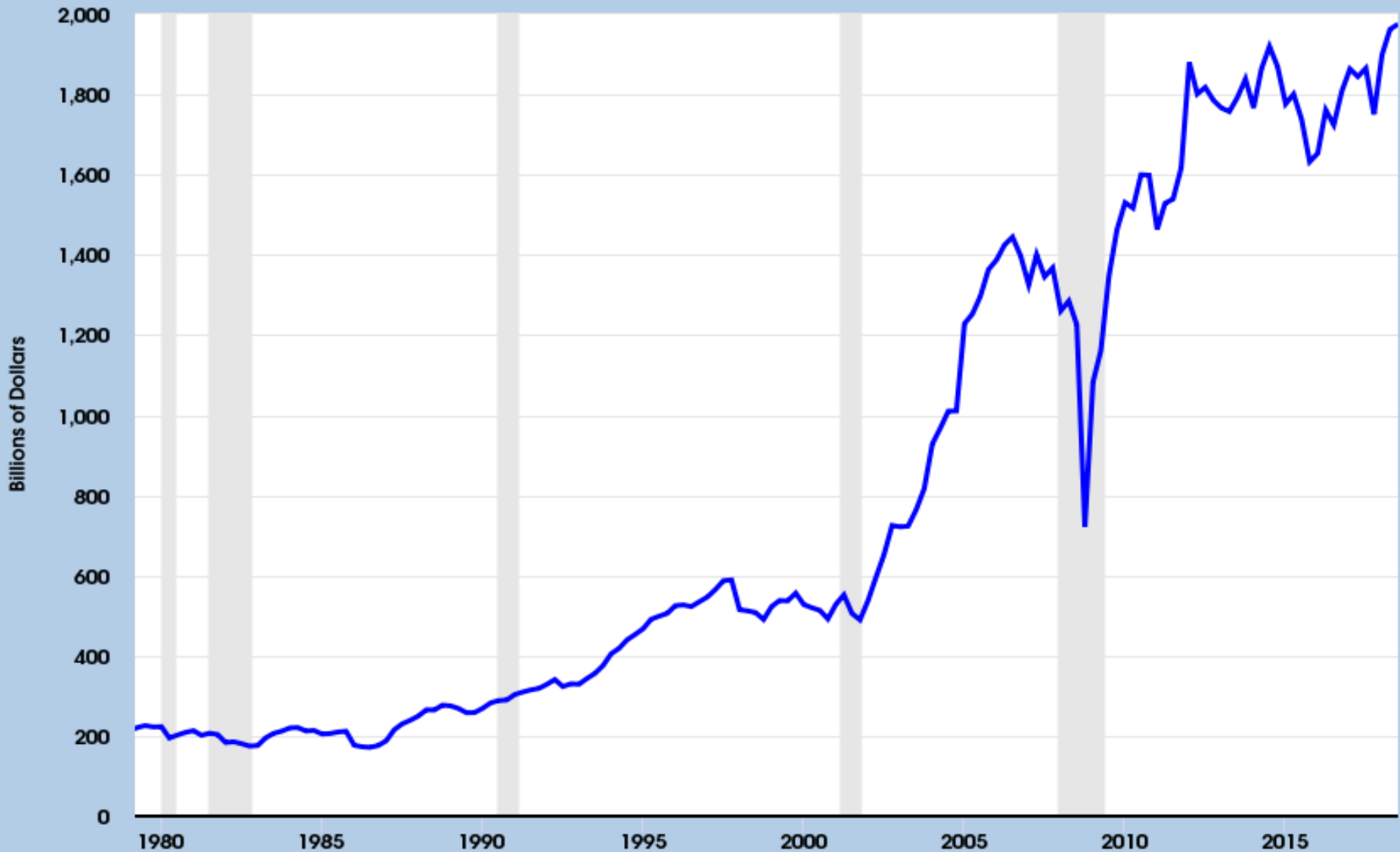
Corporate Profits are at a Record High

Corporate profit growth in 2019 will be much weaker

FRED



— Corporate Profits After Tax (without IVA and CCAdj)



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

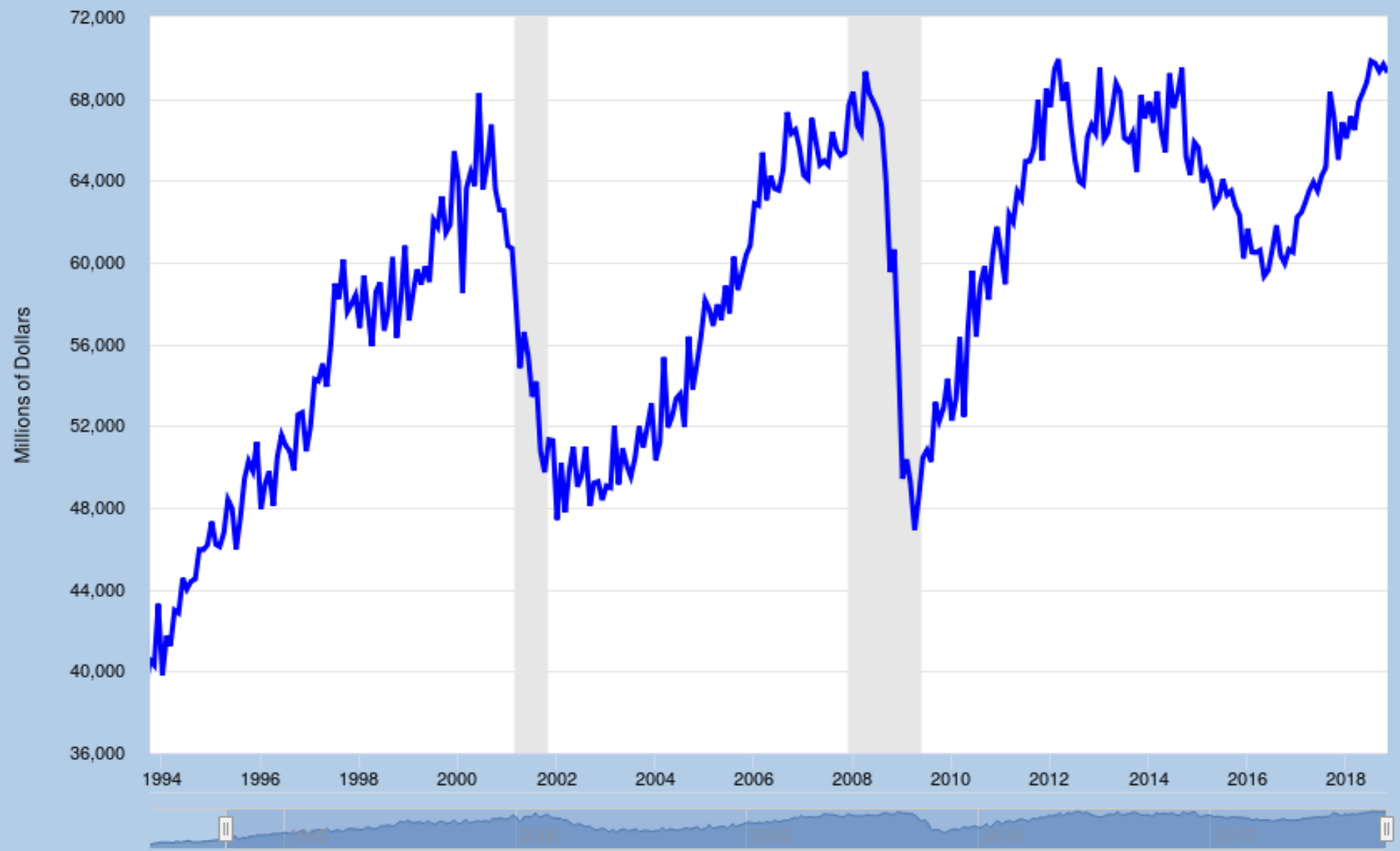
myf.red/g/merE

Look at Capital Goods Orders. They are OK

Slowing global growth, trade concerns and falling oil prices are why



— Manufacturers' New Orders: Nondefense Capital Goods Excluding Aircraft



Shaded areas indicate U.S. recessions

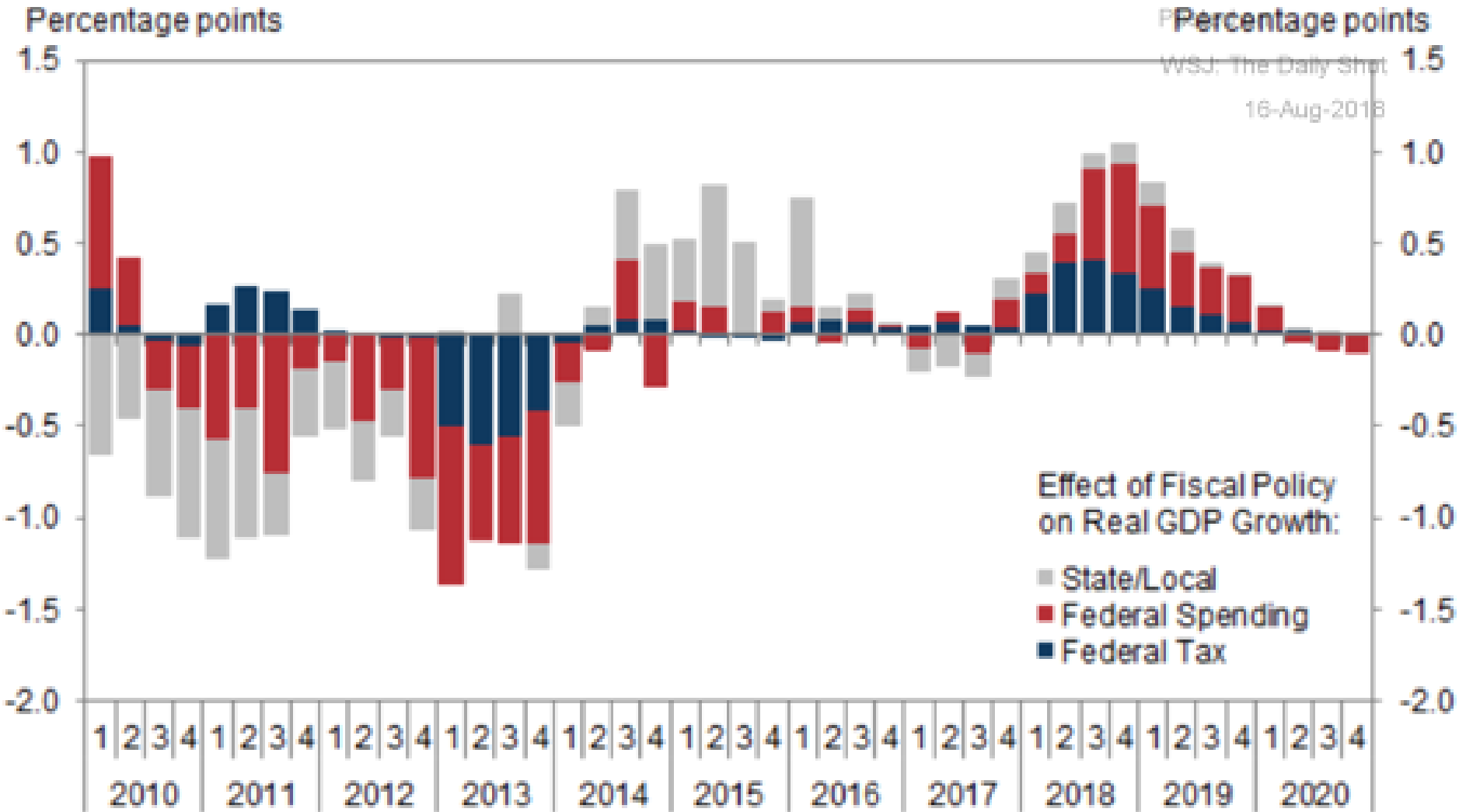
Source: U.S. Bureau of the Census

myf.red/g/mudT

Tax Cuts Are Supercharging the Economy

But, only in the short run

Exhibit 3: Fiscal Boost to Growth Likely to Fade Gradually in 2019



Source: US Department of Commerce, Treasury, Goldman Sachs Global Investment Research

\$250 Billion Trade War Hurts GDP

The impact will rise over time, and is now quite small

Rising US-China trade tensions will weigh on growth

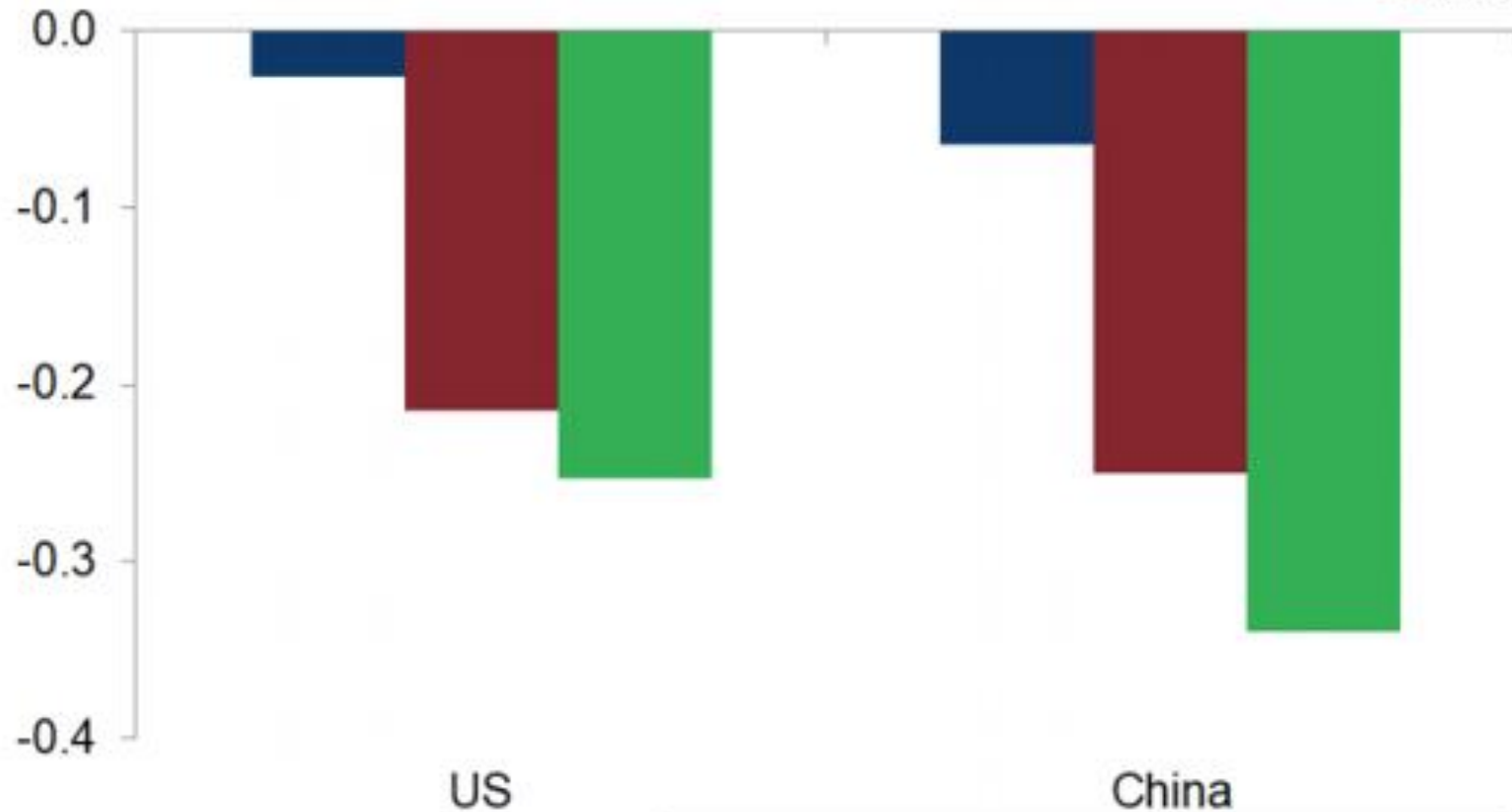
Posted on **2018**

WSJ: The Daily **2019**

08-Jul-2018

2020

GDP level, cumulative % from baseline



Source : Oxford Economics

US imposes 25% tariffs on \$50 billion of imports & then an additional 10% on \$200 billion of imports from China, and China retaliates in kind.

Global Growth Slows

Growth slows in the top three areas

Losing Some Steam

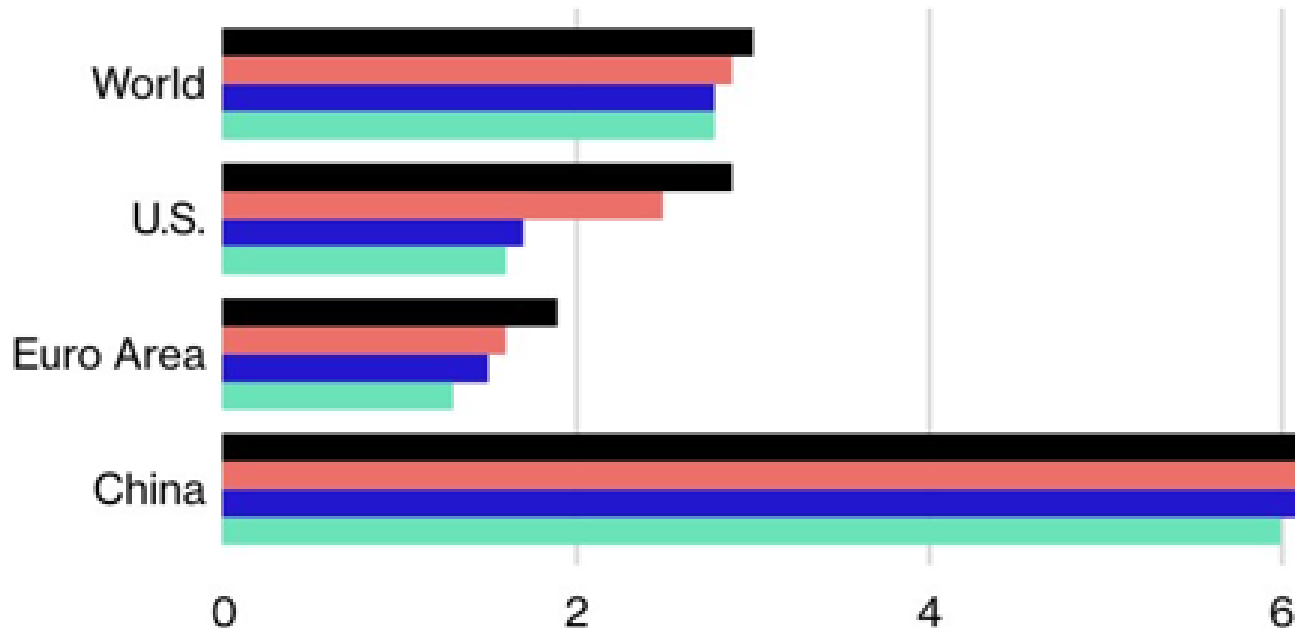
The World Bank expects GDP growth to ease globally and in major economies

Posted on

WSJ: The Daily Shot

@SoberLook

■ 2018 ■ 2019 ■ 2020 ■ 2021



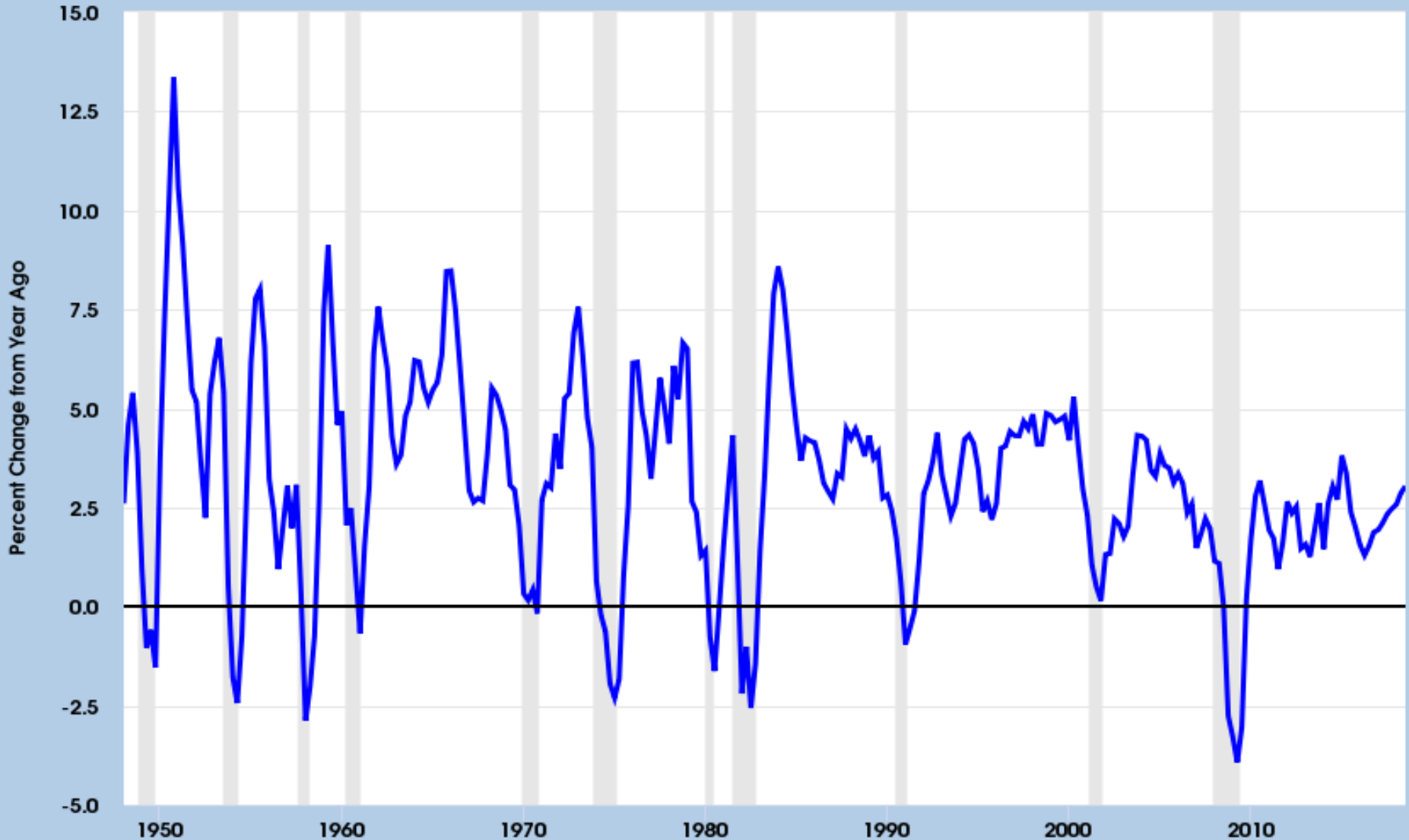
Source: World Bank's January 2019 report

Note: Data for 2018 are estimates. Data for 2019-2021 are forecasts.

GDP Growth Will Slow

Impact of the recent tax cuts and spending increases will fade through 2019

FRED  — Real Gross Domestic Product



Shaded areas indicate U.S. recessions

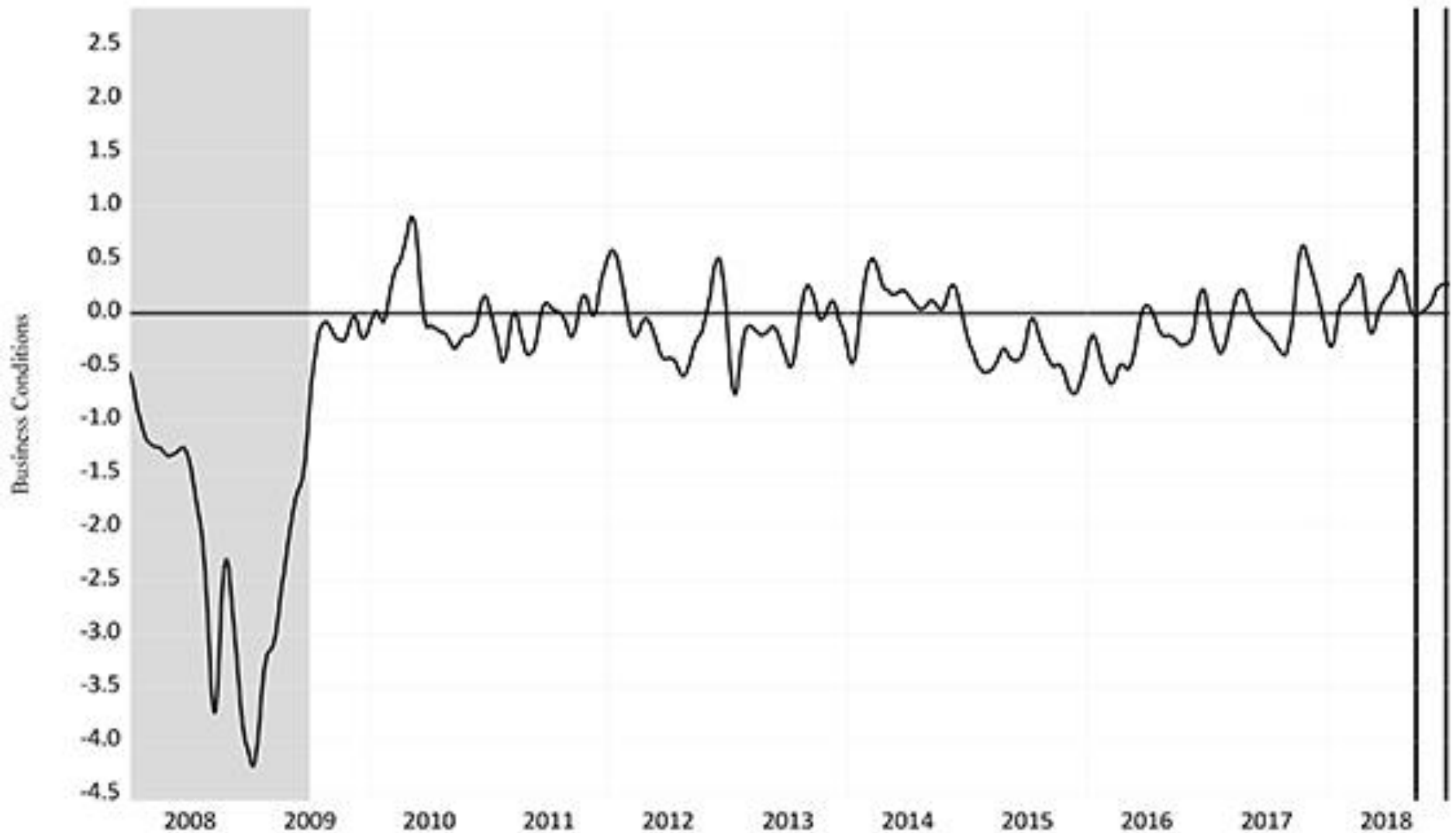
Source: U.S. Bureau of Economic Analysis

myf.red/g/ILb3

Best of All, No Recession Now!

Designed to track real macroeconomic activity in real time

Aruoba-Diebold-Scotti Business Conditions Index (12/31/2007- 01/12/2019)

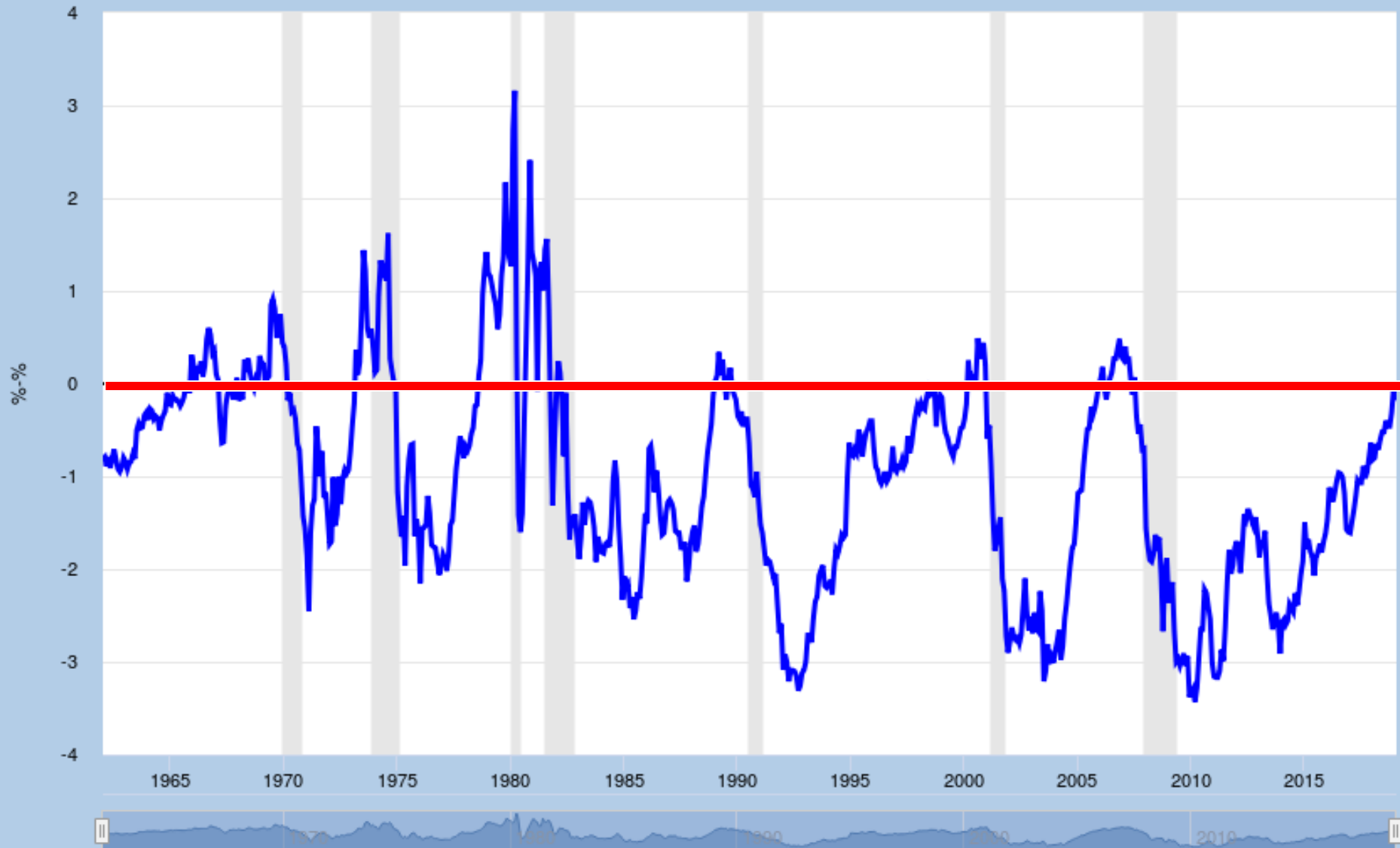


Best of All, No Recession Soon

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

FRED 

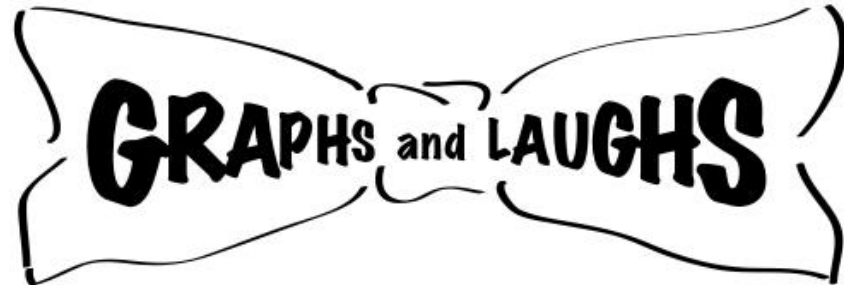
— 1-Year Treasury Constant Maturity Rate-10-Year Treasury Constant Maturity Rate



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

myf.red/g/mJuY

Labor Markets: They're Tight, Very Tight

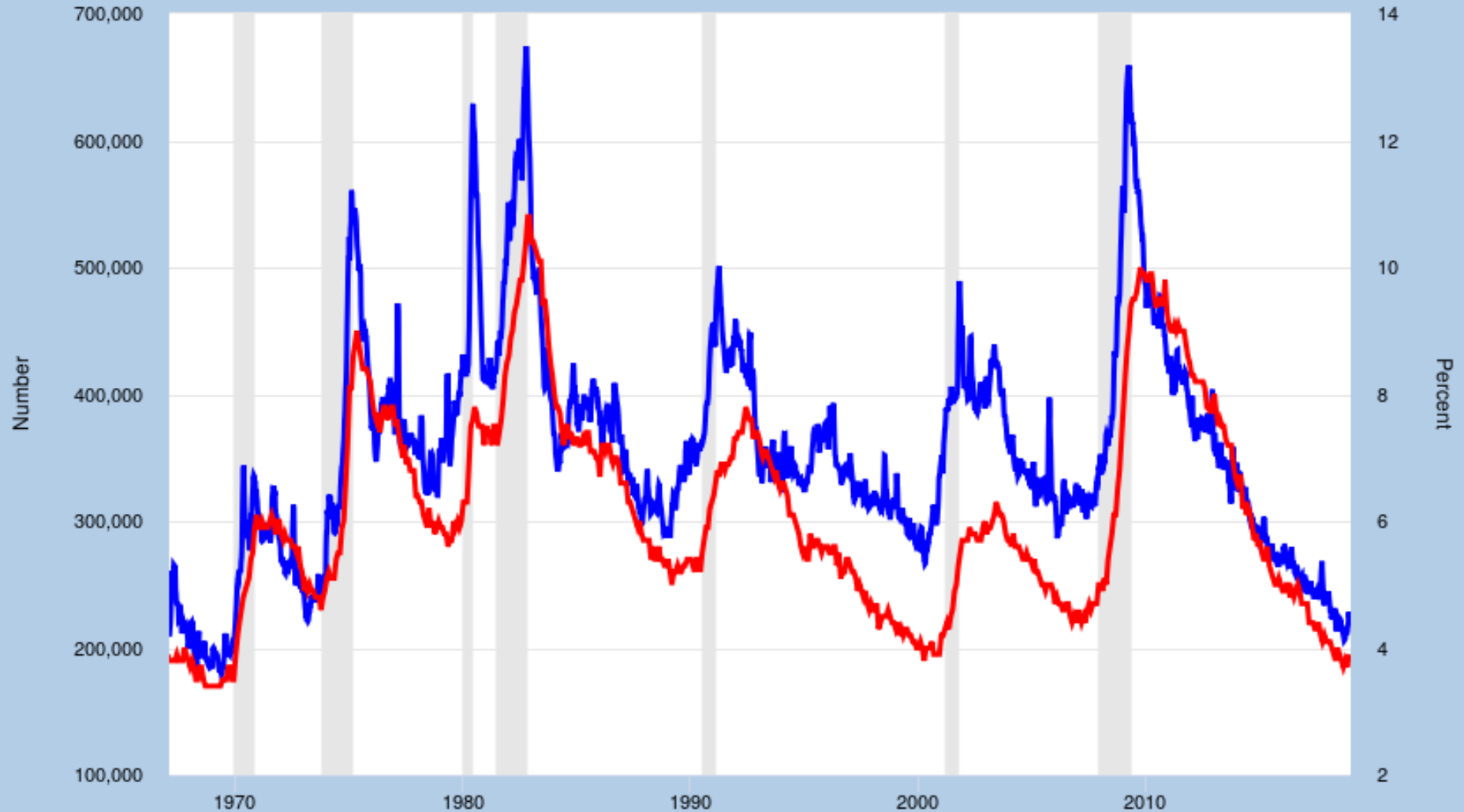


STEADY Labor Market Improvement: Involuntary Separation

Long Term Trends: 1967-2017 Initial claims below 300K for **200** straight weeks!

FRED

— 4-Week Moving Average of Initial Claims (left)
— Civilian Unemployment Rate (right)



Shaded areas indicate U.S. recessions

Sources: BLS, U.S. Employment and Training Administration

myf.red/g/mzhf

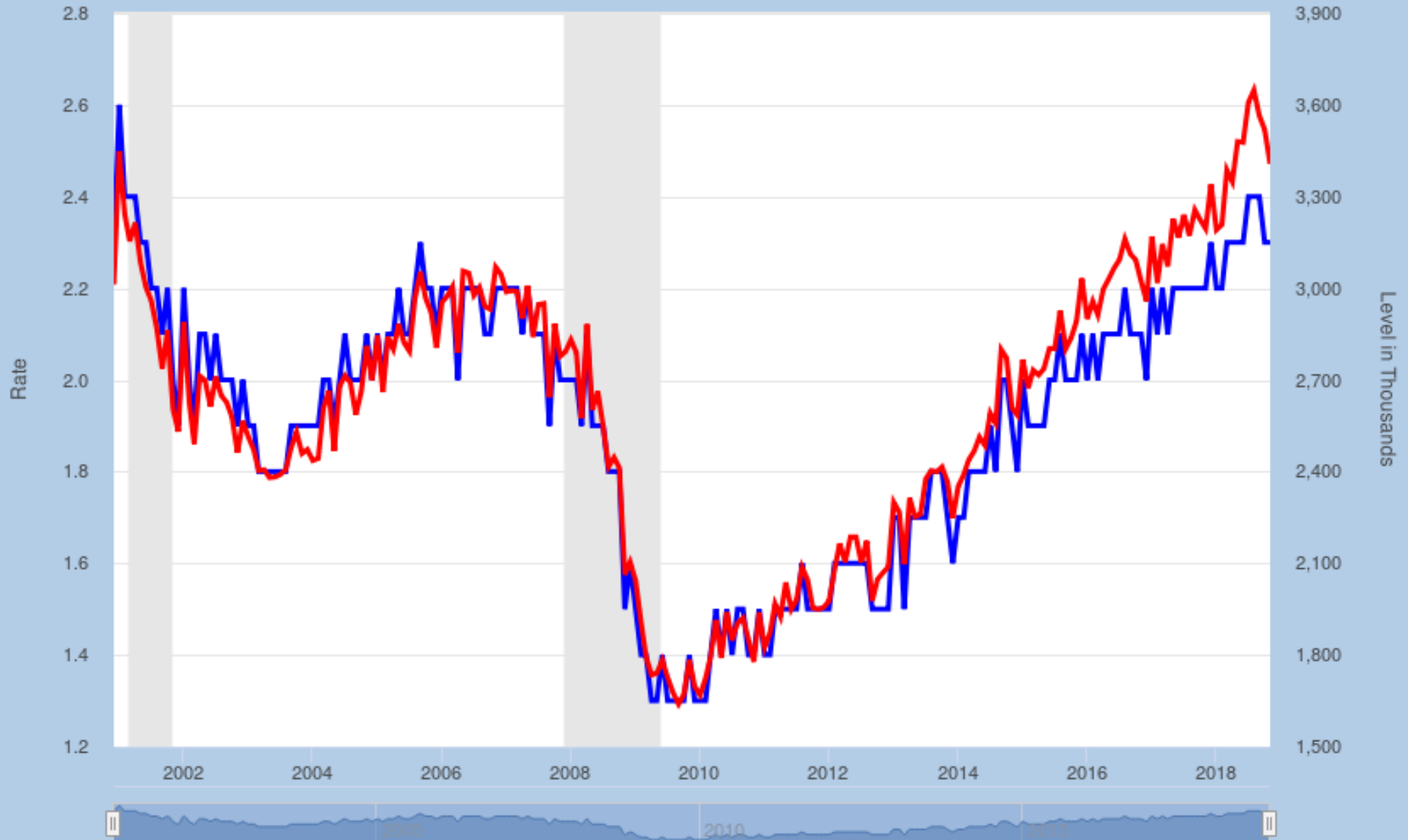
Quits, No matter How Measured Are Superb

Are above their pre-recession level. At 2.3% (in blue) or 3.45 million (in red)

FRED



— Quits: Total Nonfarm (left)
— Quits: Total Nonfarm (right)



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

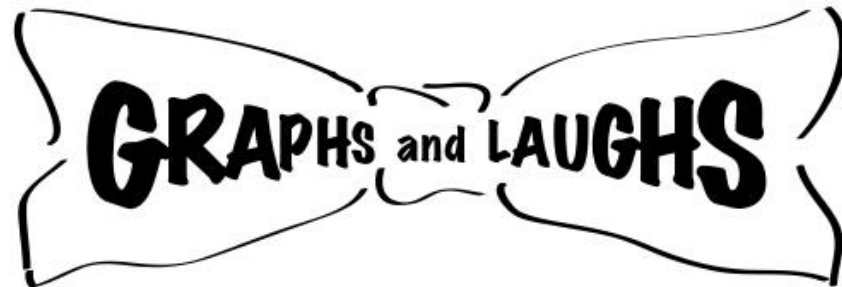
myf.red/g/mBKB

Job Openings are Hard to Fill

Increasingly hard to fill




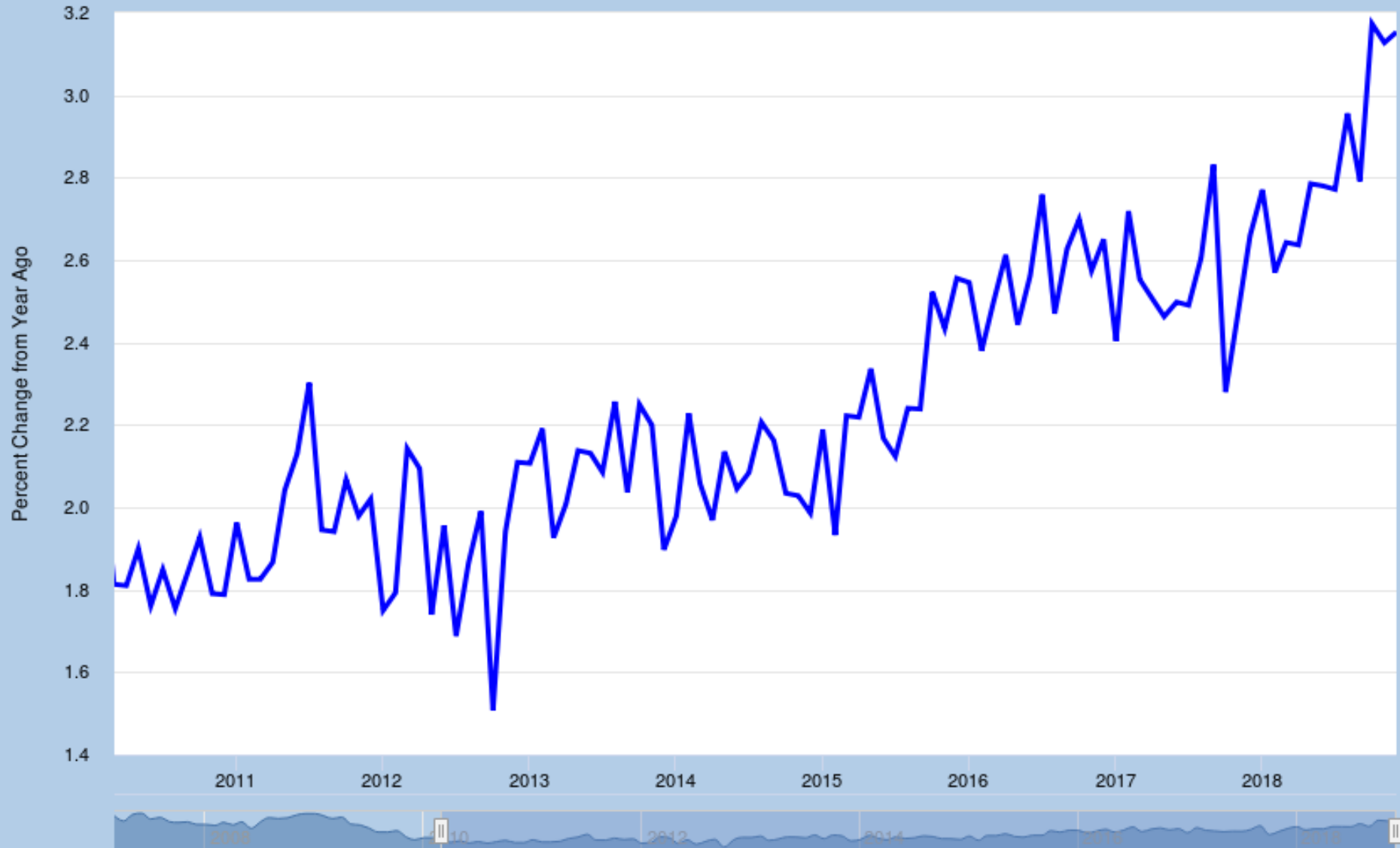
Wage Growth is Slowly Rising



Y-o-Y Percent Change in Hourly Earnings

Despite a very low unemployment rate, wages growth is relatively weak

FRED  — Average Hourly Earnings of All Employees: Total Private



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

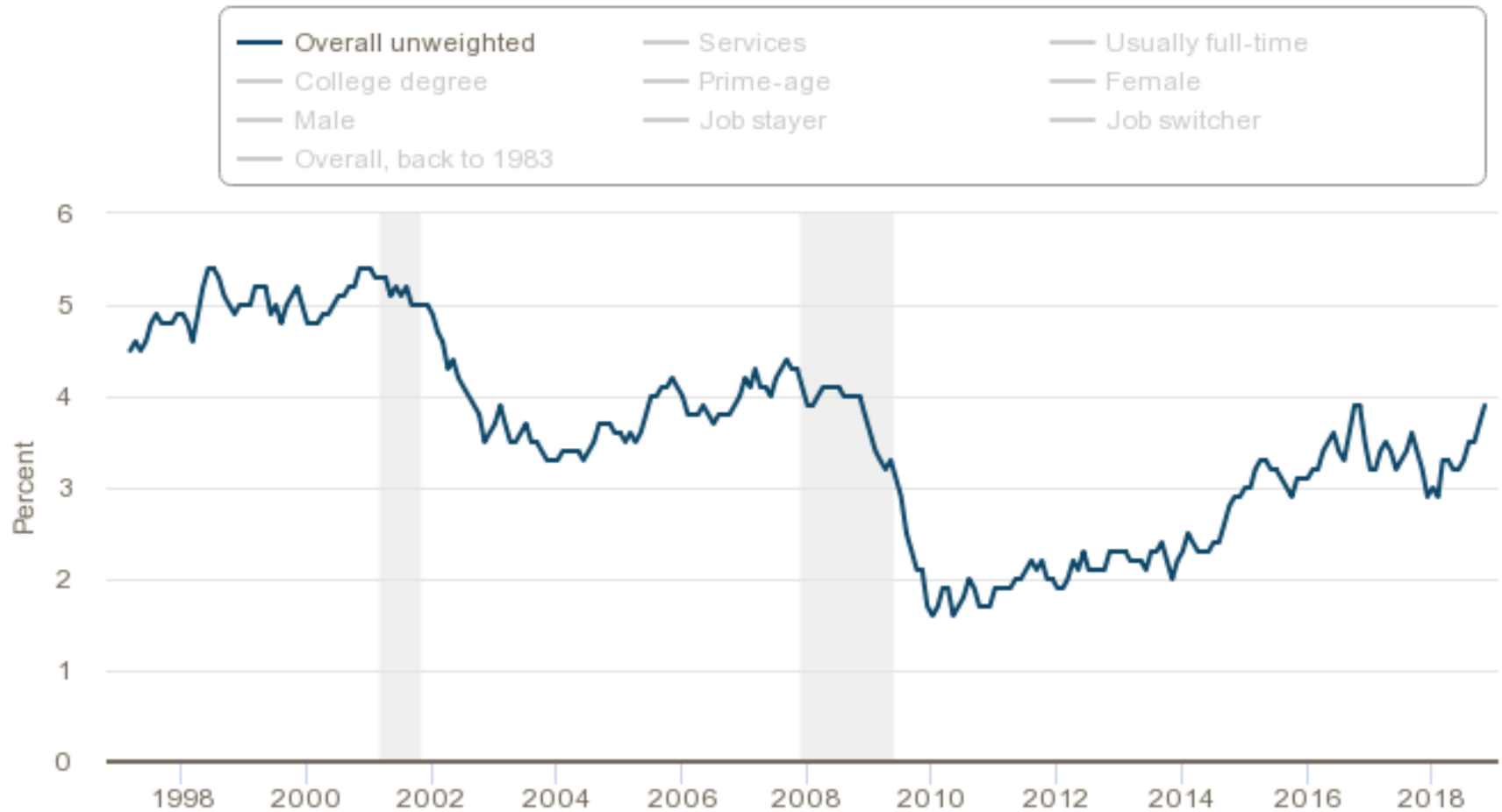
myf.red/g/mzjq

Median Wage Growth Looks OK!

Looks only at those continuously full-time employed

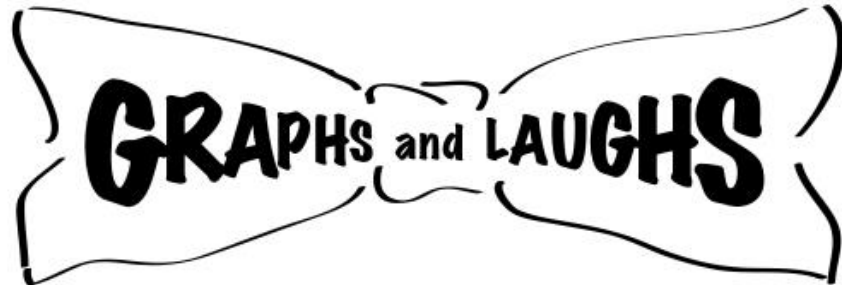
Wage Growth Tracker

three-month moving average of median wage growth



Sources: Current Population Survey, Bureau of Labor Statistics and author's calculations

Inflation?
It's Probably
Coming

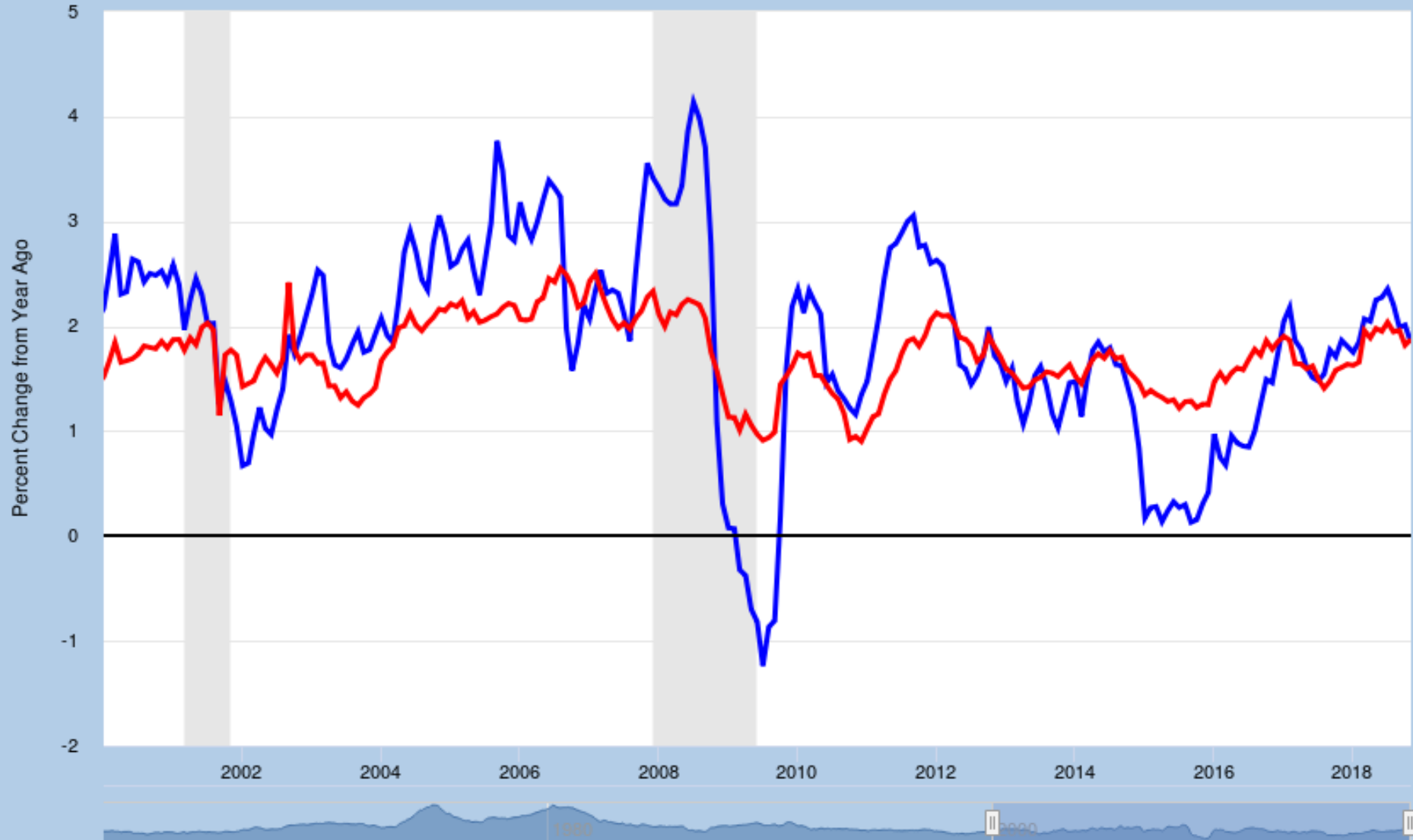


Core PCE Price Index

Inflation is fortunately being held back by a number 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/muzo

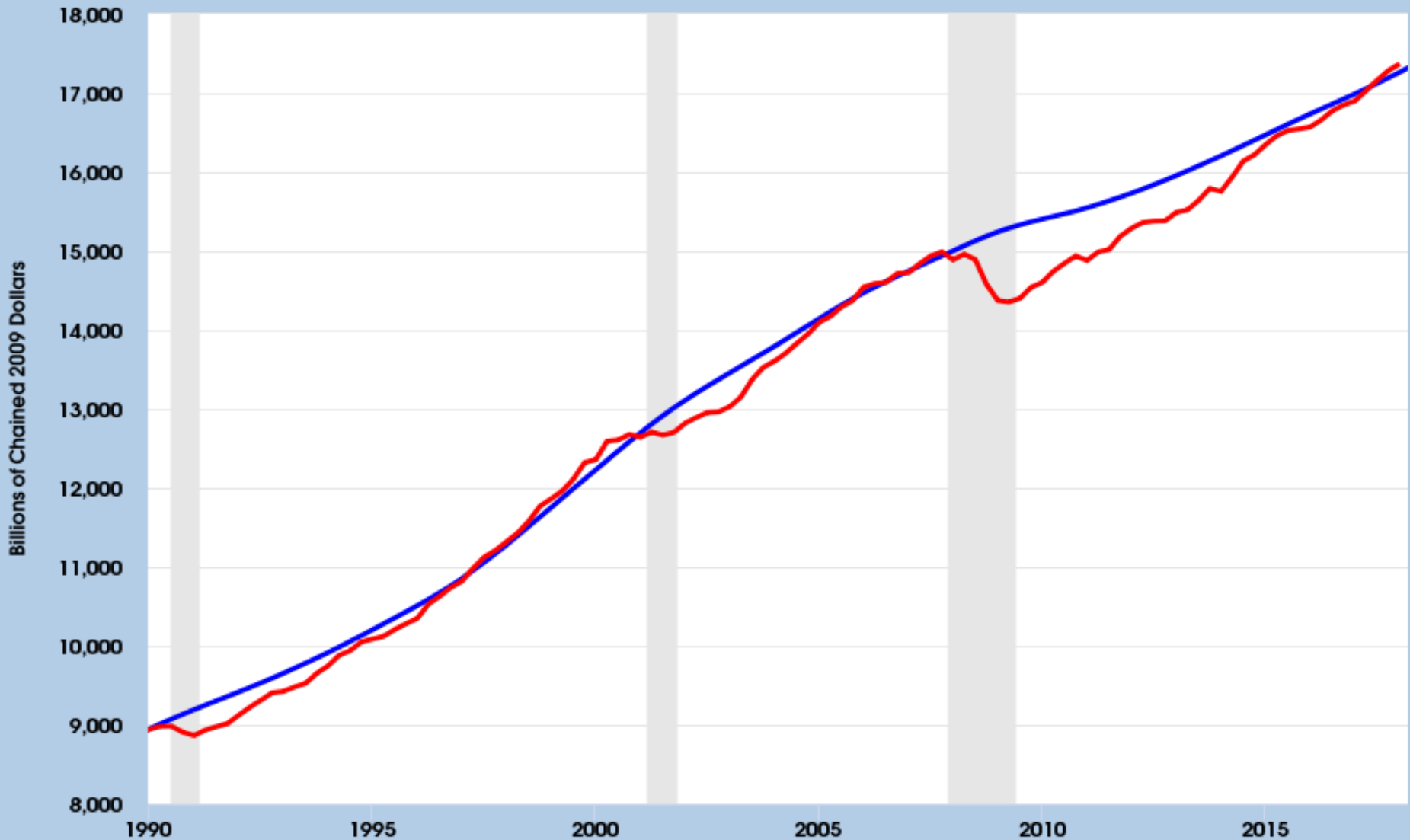
Gap Between Potential GDP and Real GDP is Gone!

Nice news, but note that the blue line fell! Now inflation may rise!

FRED



— Real Potential Gross Domestic Product
— Real Gross Domestic Product



Shaded areas indicate U.S. recessions

Sources: BEA, CBO

myf.red/g/kixx

Federal Reserve Behavior

Rates Will Rise.

But, How Fast?

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?

10-Year Yield (Left Scale)
Paul Volcker

Alan Greenspan
Ben Bernanke

Janet Yellen
Jay Powell?

Posted on
WSJ: The Daily Shot

28-Oct-2017



Source: LPL Research, Bloomberg 10/22/17

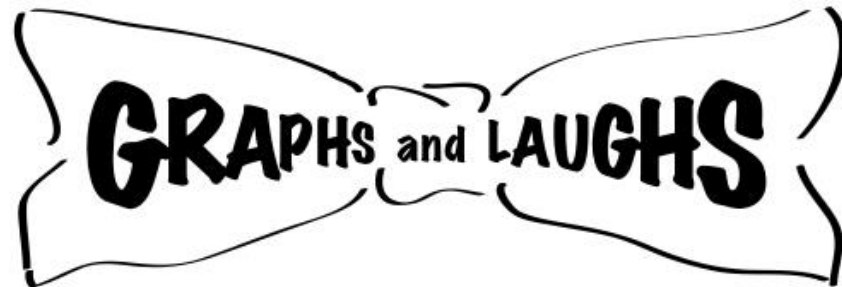
We don't actually believe that interest rates are determined by the height of the Fed chair, but it has been an interesting coincidence.

Federal Reserve Behavior

Most optimistic scenario

- Fed funds is currently 2.375%
- 12/31/19: 2.875% 10-yr Treasury @ 3.35%
- 12/31/20: 3.125% 10-yr Treasury @ 3.45%
- 12/31/21: 2.875% 10-yr Treasury @ 3.35%
- Balance sheet keeps shrinking.

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



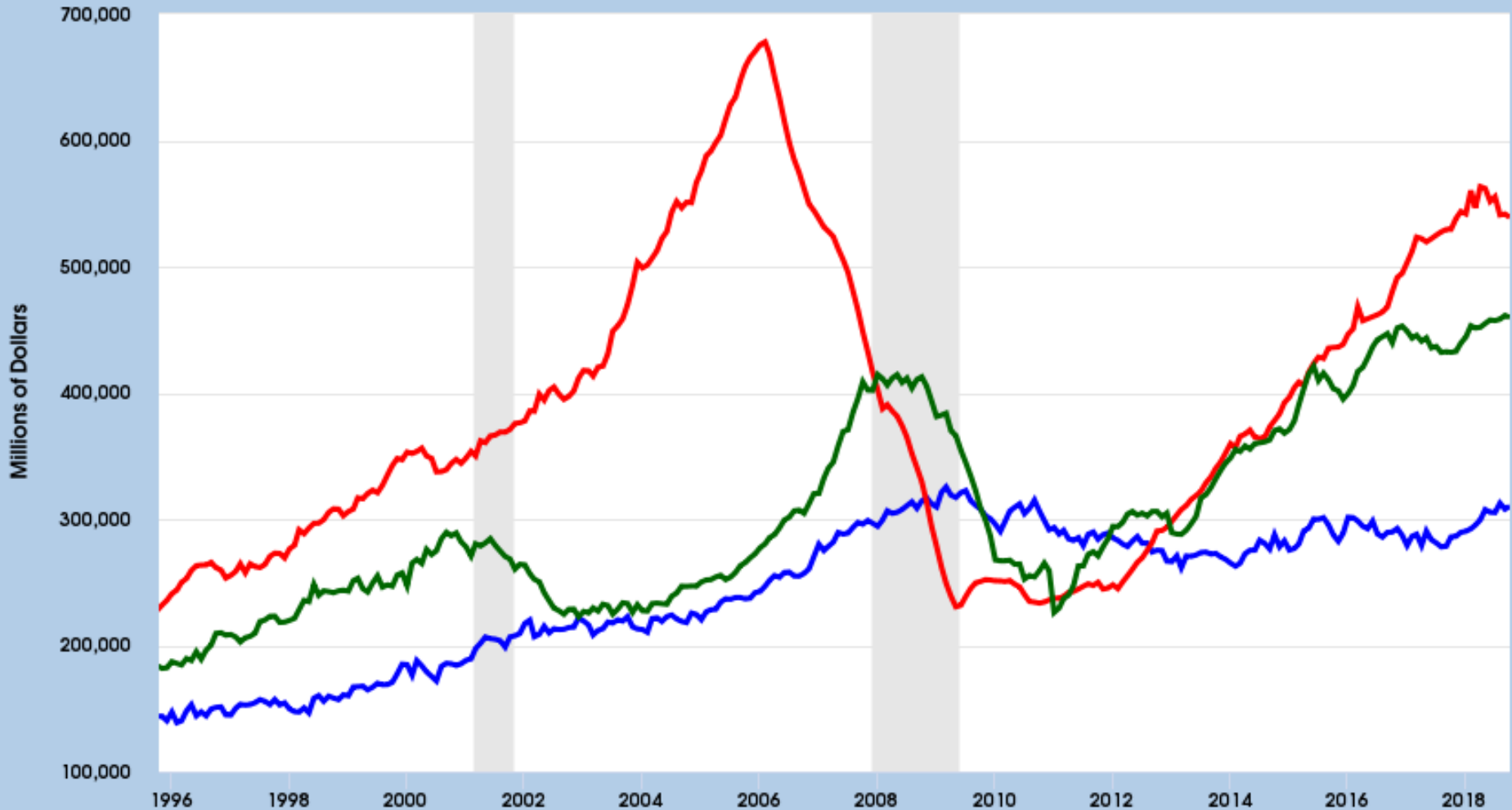
Residential Fixed Investment Stalls

Non-residential is up 11%, public is down 5% and residential is down 21% from peak

FRED



- Total Public Construction Spending
- Total Private Construction Spending: Residential
- Total Private Construction Spending: Nonresidential



Shaded areas indicate U.S. recessions

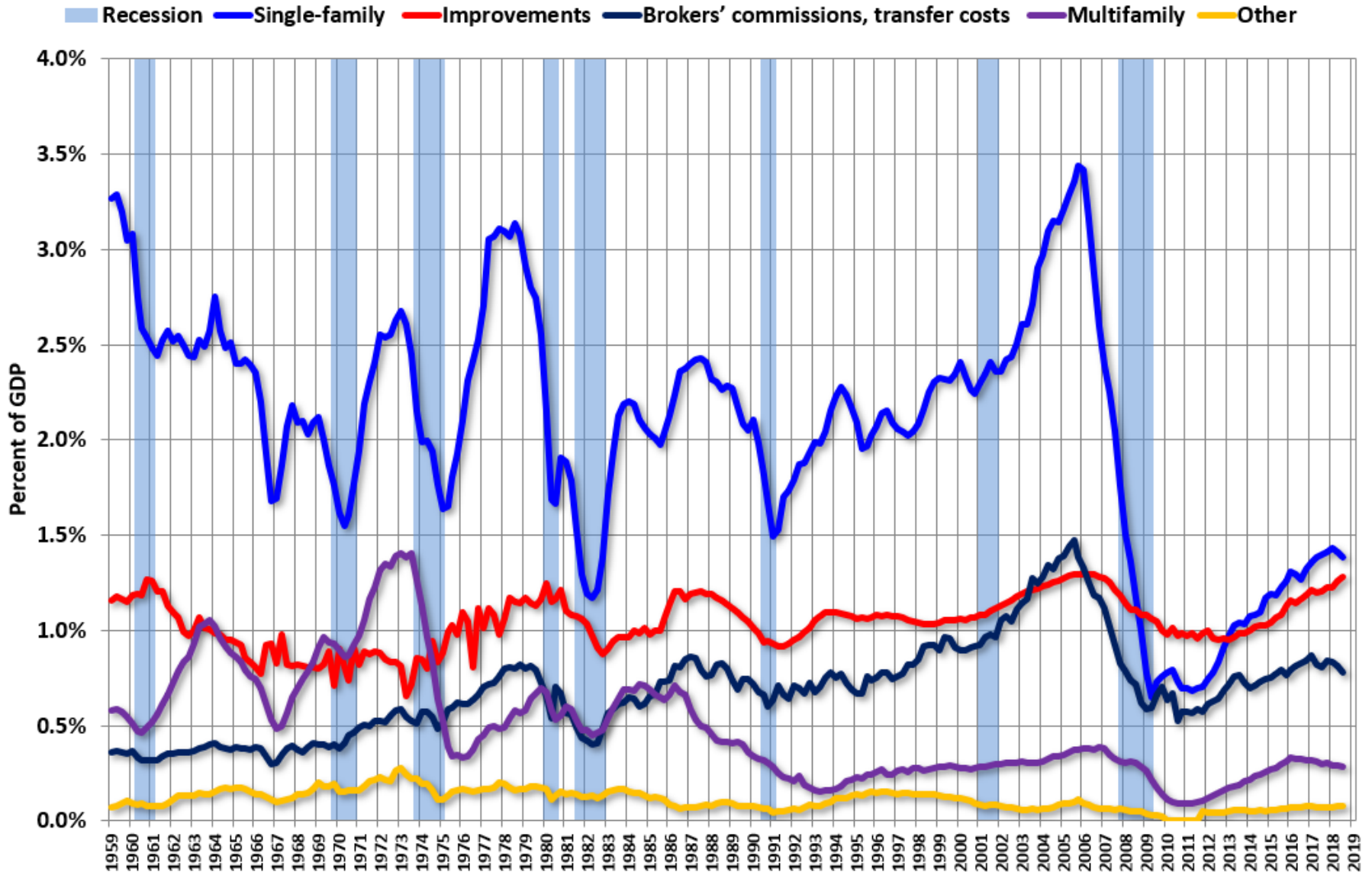
Source: U.S. Bureau of the Census

myf.red/g/mimc

Housing Recovery Is Clearly Stalling

Single family is what is really lagging. Other components have largely recovered.

Components of Residential Investment as Percent of GDP

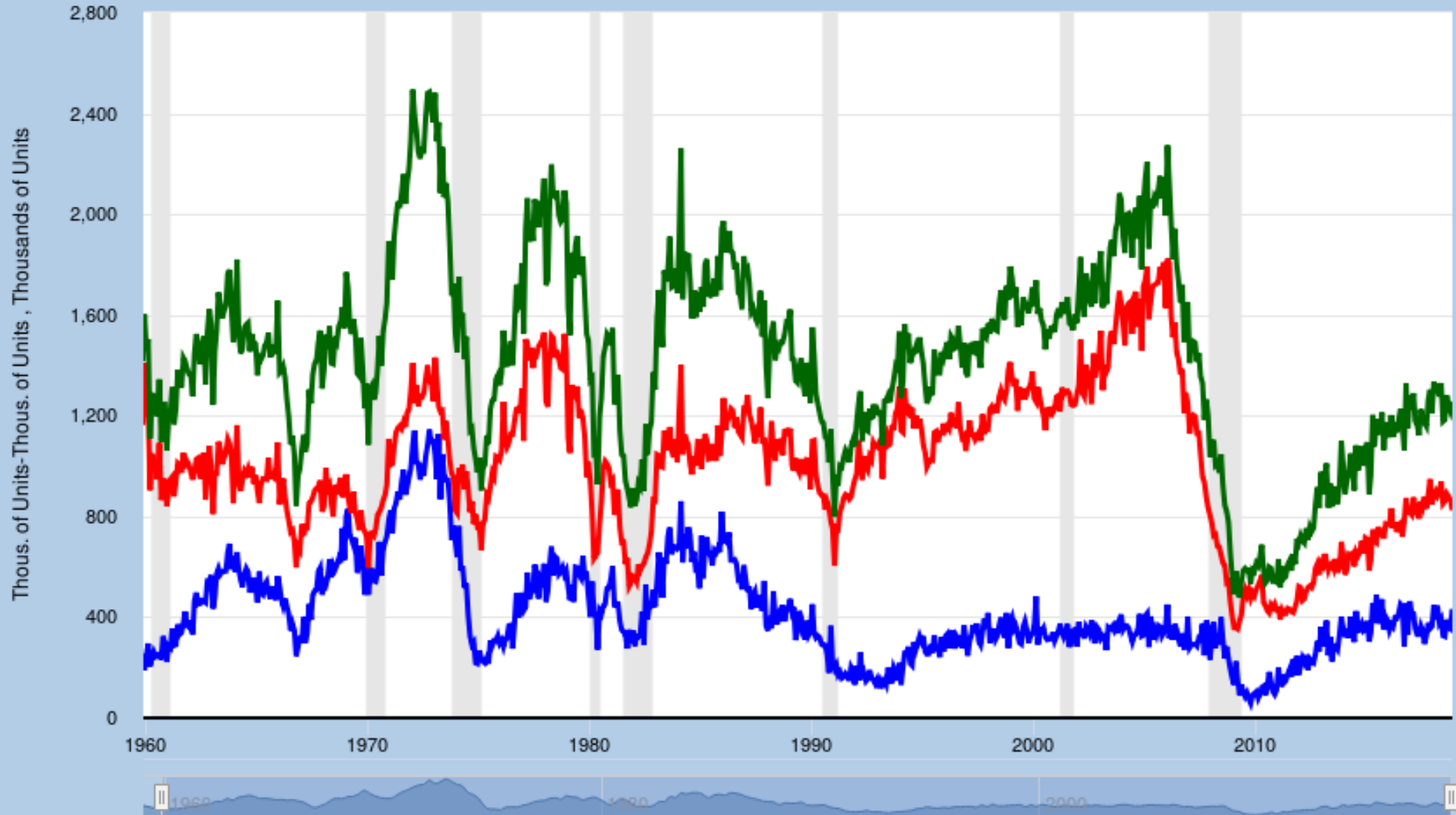


Single-Family and Multifamily Starts – A Slow Recovery

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



- Housing Starts: Total: New Privately Owned Housing Units Started-Privately Owned Housing Starts: 1-Unit Structures
- Privately Owned Housing Starts: 1-Unit Structures
- Housing Starts: Total: New Privately Owned Housing Units Started



Shaded areas indicate U.S. recessions

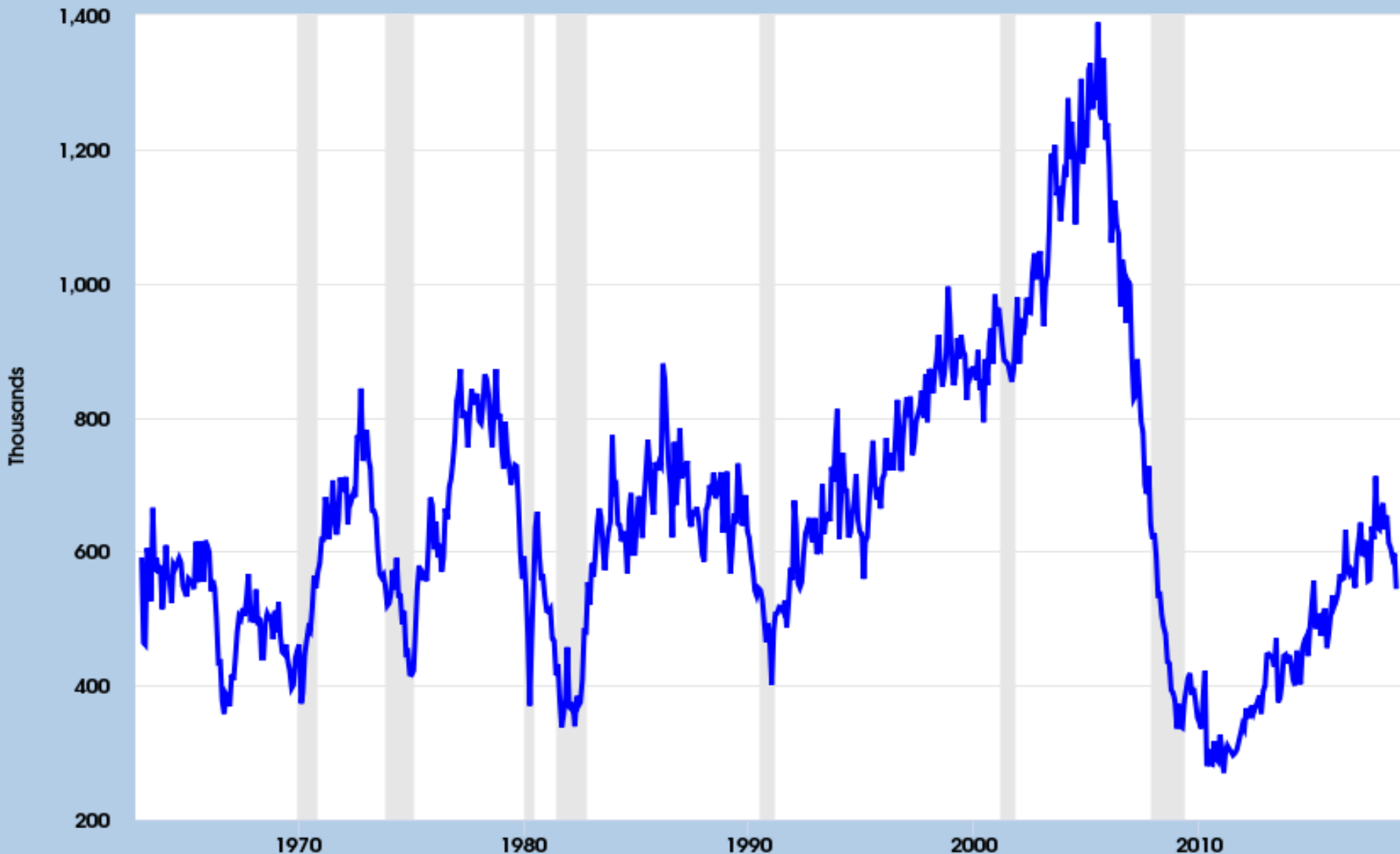
Source: U.S. Bureau of the Census

myf.red/g/msnS

New Home Sales Were Rising Till Recently

Now they are barely up year-over-year

FRED  — New One Family Houses Sold: United States



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of the Census

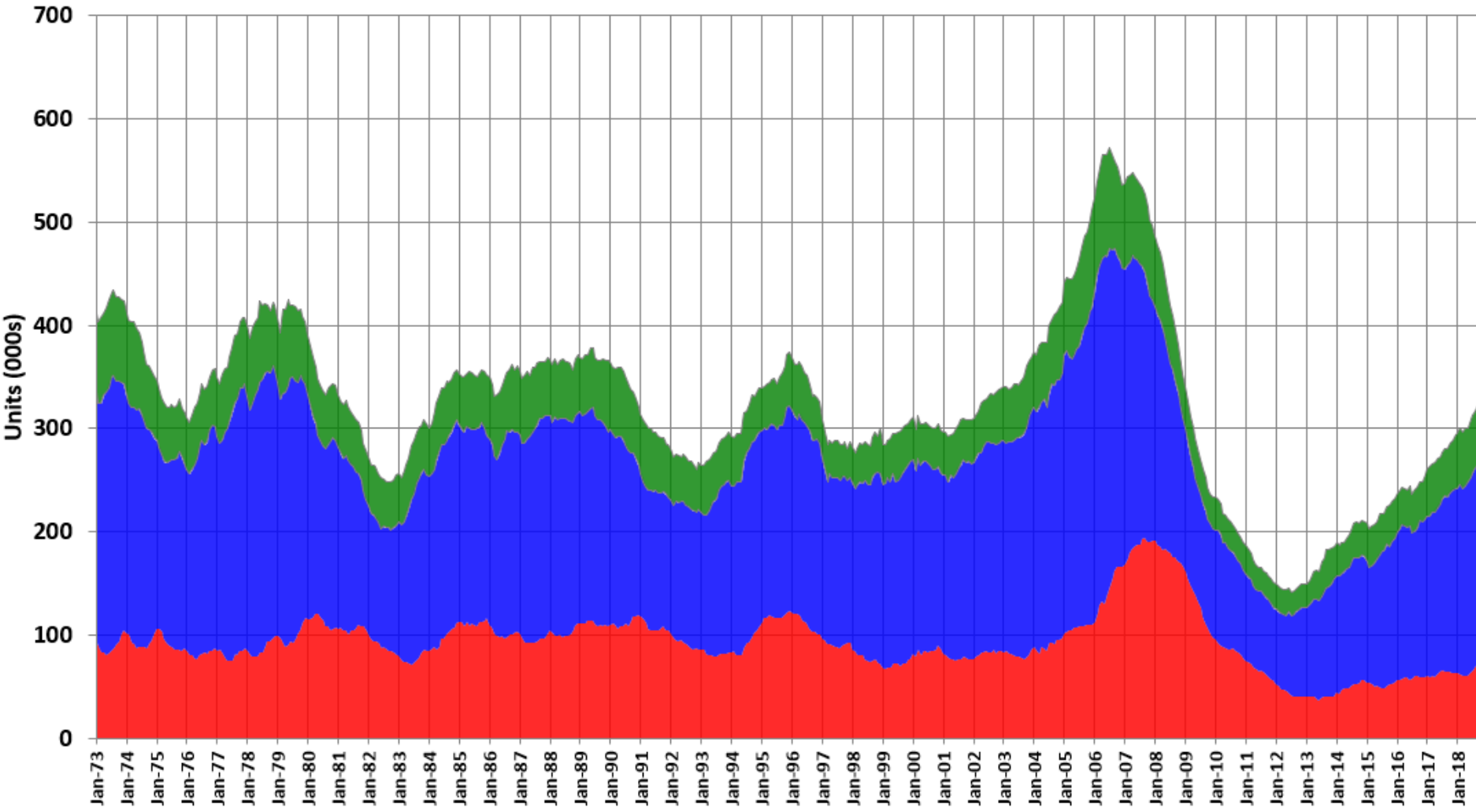
myf.red/g/mesj

New Home Inventories Fell Fast, Now Back to Normal

They have fully recovered

New Home Inventory

Completed Under Construction Not Started

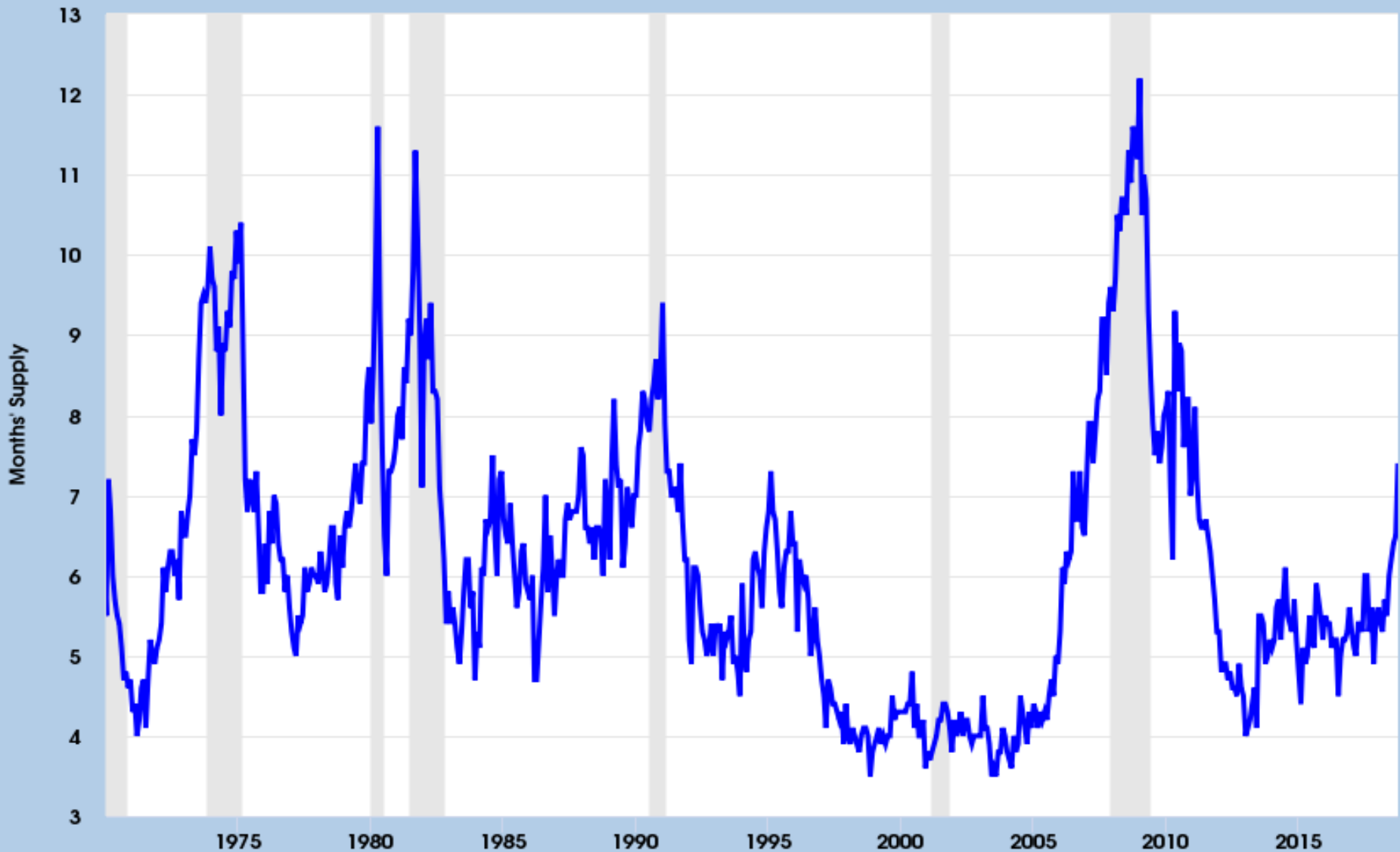


<http://www.calculatedriskblog.com/>

Yikes! New Home Inventory is Skyrocketing

Six months supply is healthy. It's now above seven months

FRED  Monthly Supply of Houses in the United States



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of the Census

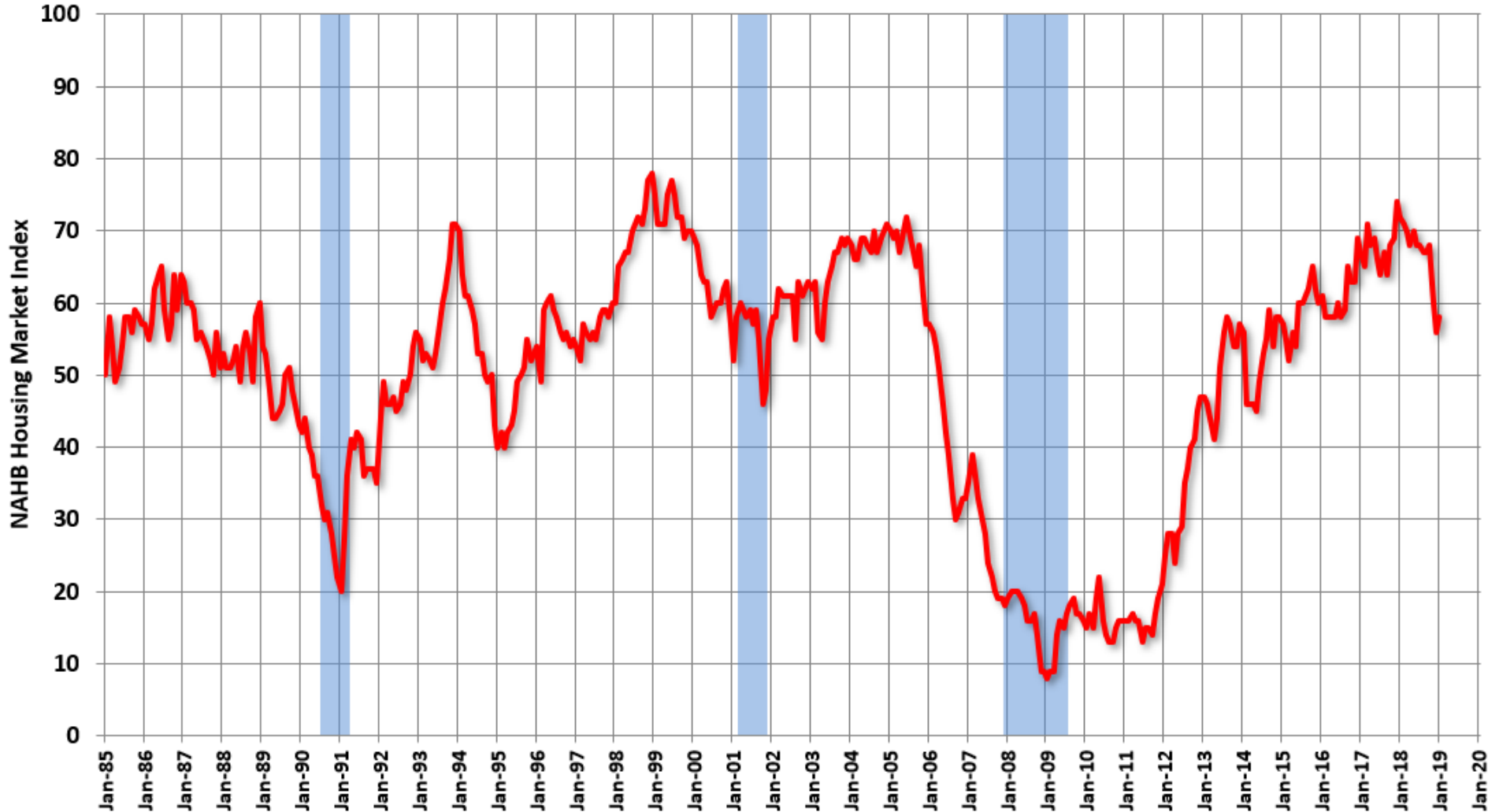
myf.red/g/merY

Builders Are Getting Nervous

Builder happiness is rapidly declining

NAHB Housing Market Index

Recession HMI



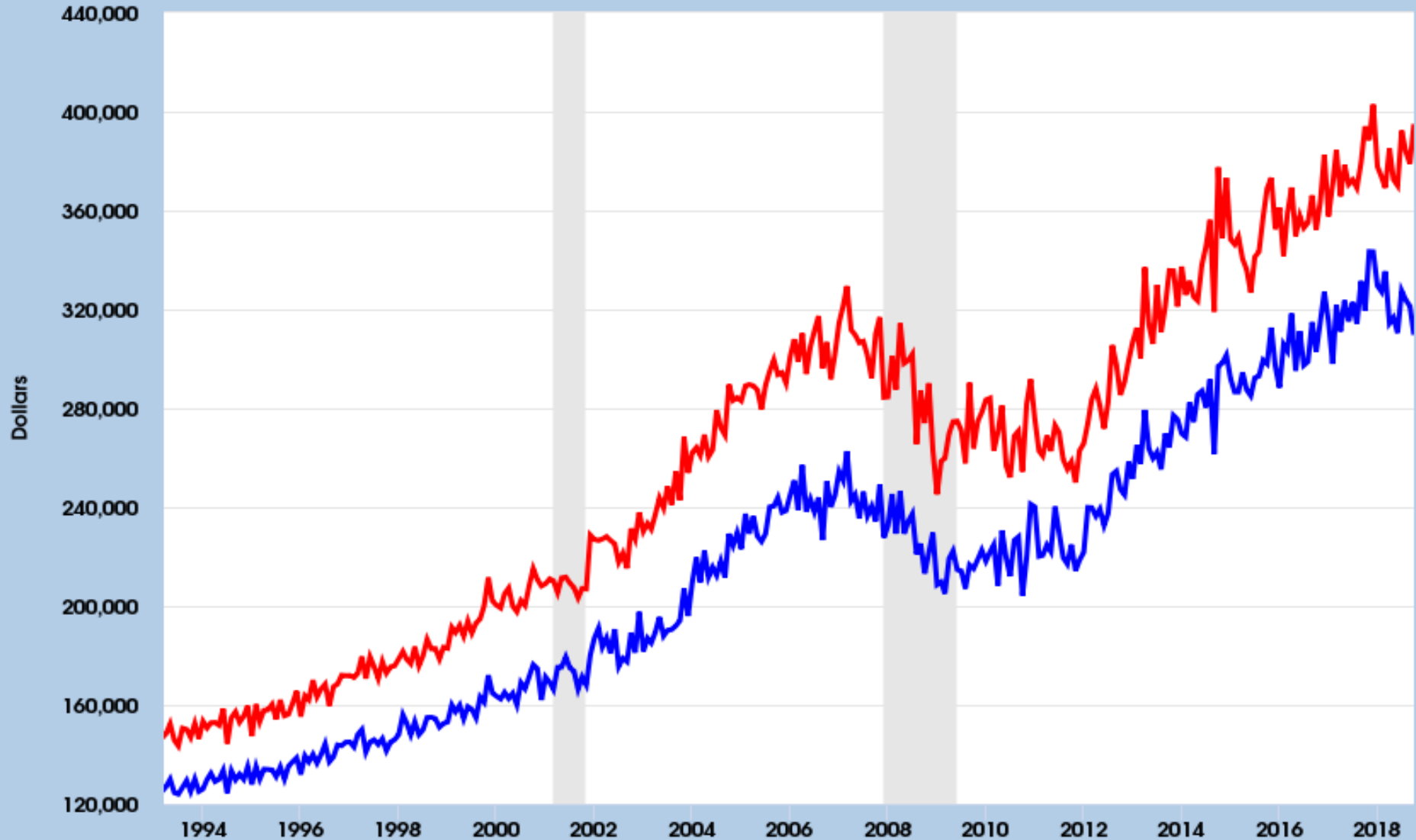
New Home Prices Are Too High, But Slowing Growth

Way above the nominal pre-recession high

FRED



- Median Sales Price for New Houses Sold in the United States
- Average Sales Price for New Houses Sold in the United States



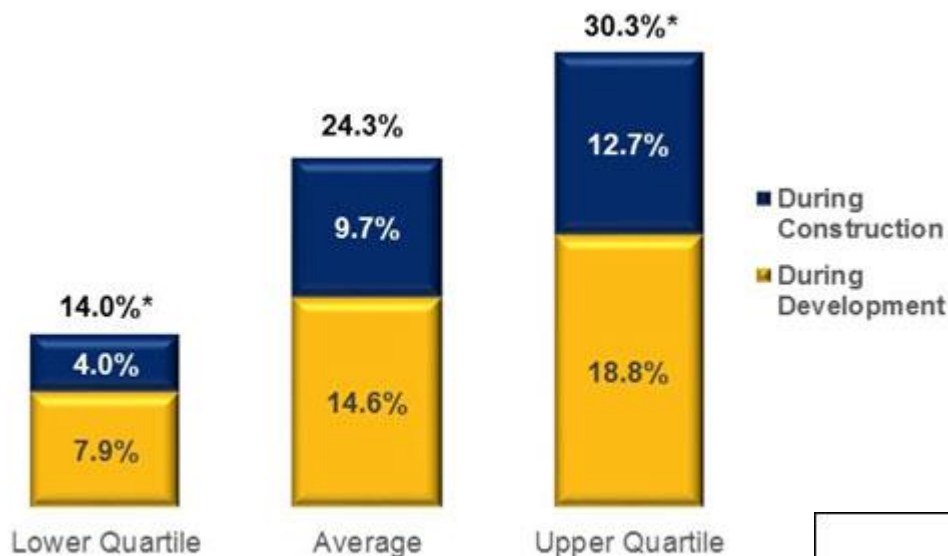
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of the Census

myf.red/g/mesV

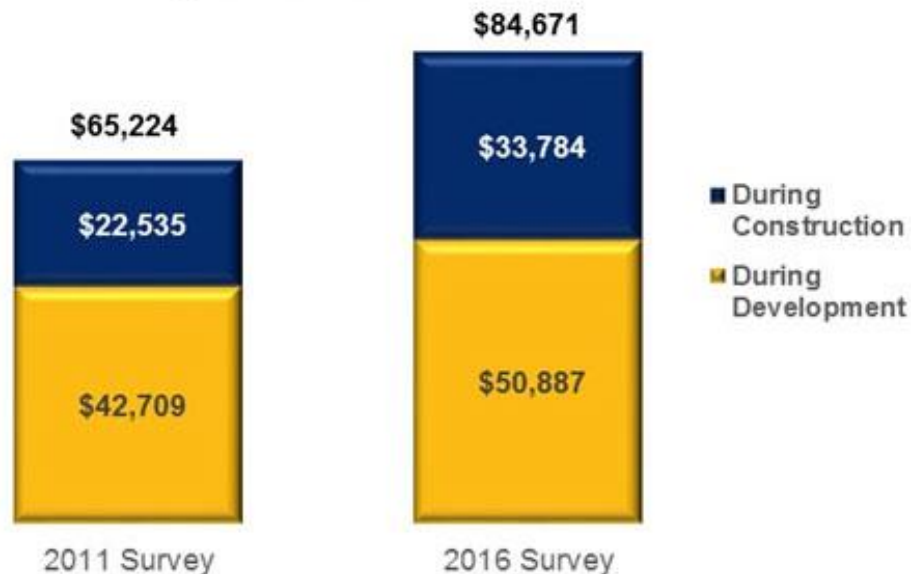
New Home Prices Are Too High Due to Regulation

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 5.7%, much higher than the average

Construction Contractor Hourly Wages by Trade

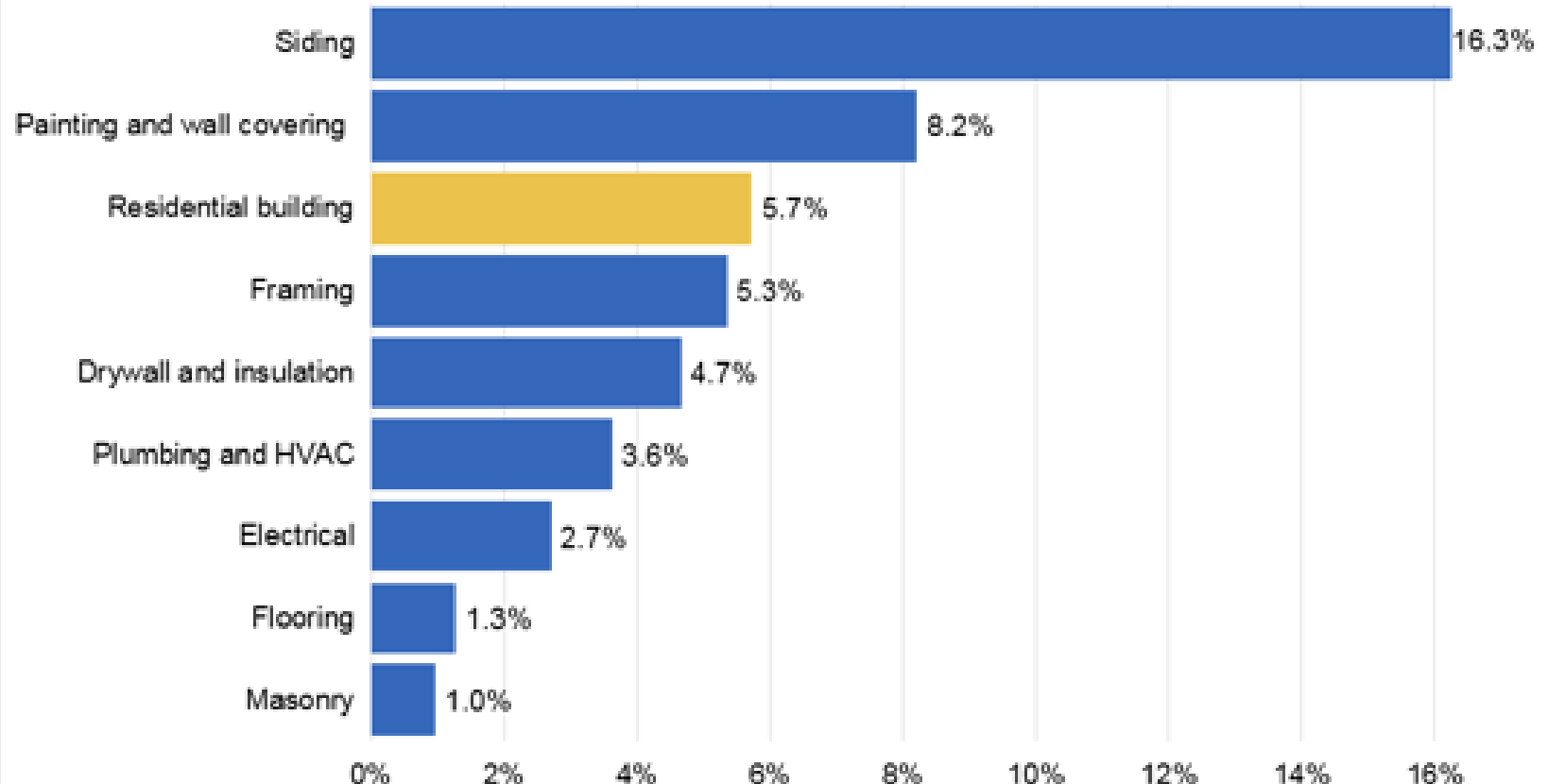
Hourly wages for construction contractors increased 6% YOY, with notable dispersion between trades. Siding wages gained 16%, while wages for masonry only gained 1%.

Posted on
WSJ: The Daily Shot
07-Jan-2019

@SoberLook

Construction Contractor Hourly Wages

YOY % change*



Source: BLS (Data: Sep-18, updated quarterly)

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

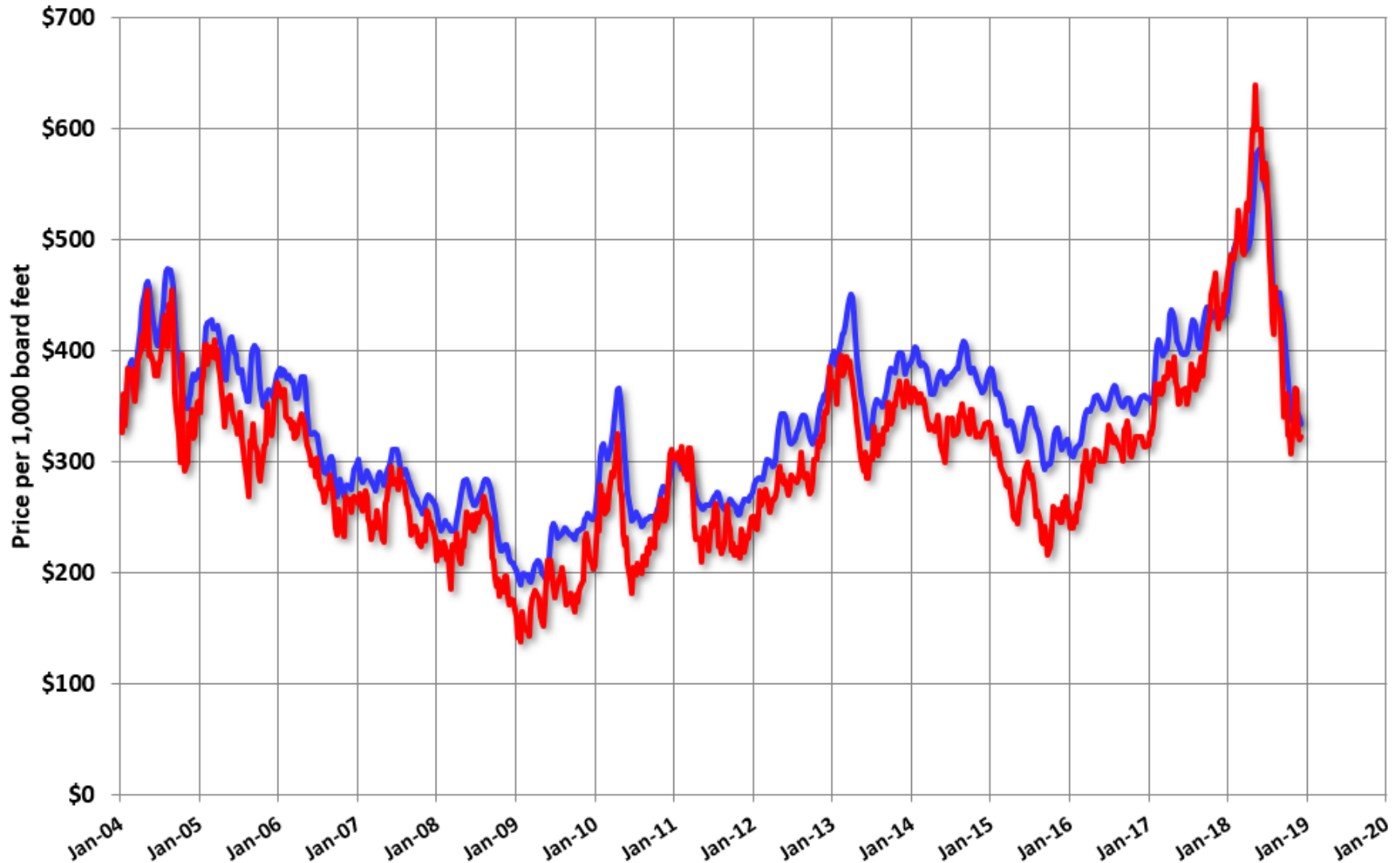
Pub: Dec-18

Input Costs Were Way Up due to Policy and China

Prices are down 22% to 25% Y-o-Y. Tariffs, wildfires, who cares!

Framing Lumber Prices per 1,000 board feet

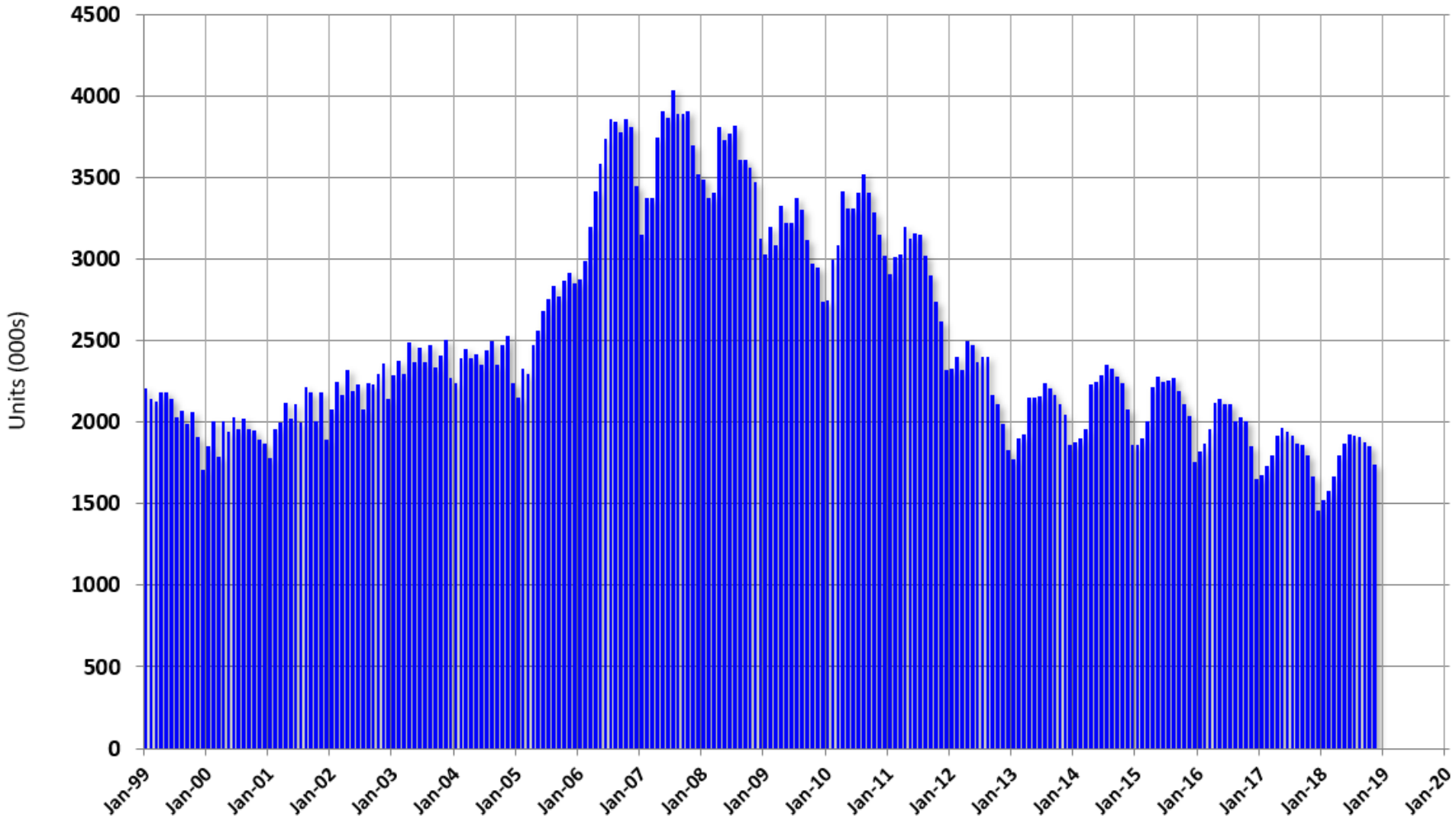
— Random Lengths Composite Price — CME Futures Price



Has Existing Inventory Bottomed?

Inventory's up 4.2% Y-o-Y ! 4th consecutive month of growth and biggest rise since late 2014
Rental conversions especially at lower price points, aging in place & mortgage lock-in hurt

Existing Home Inventory

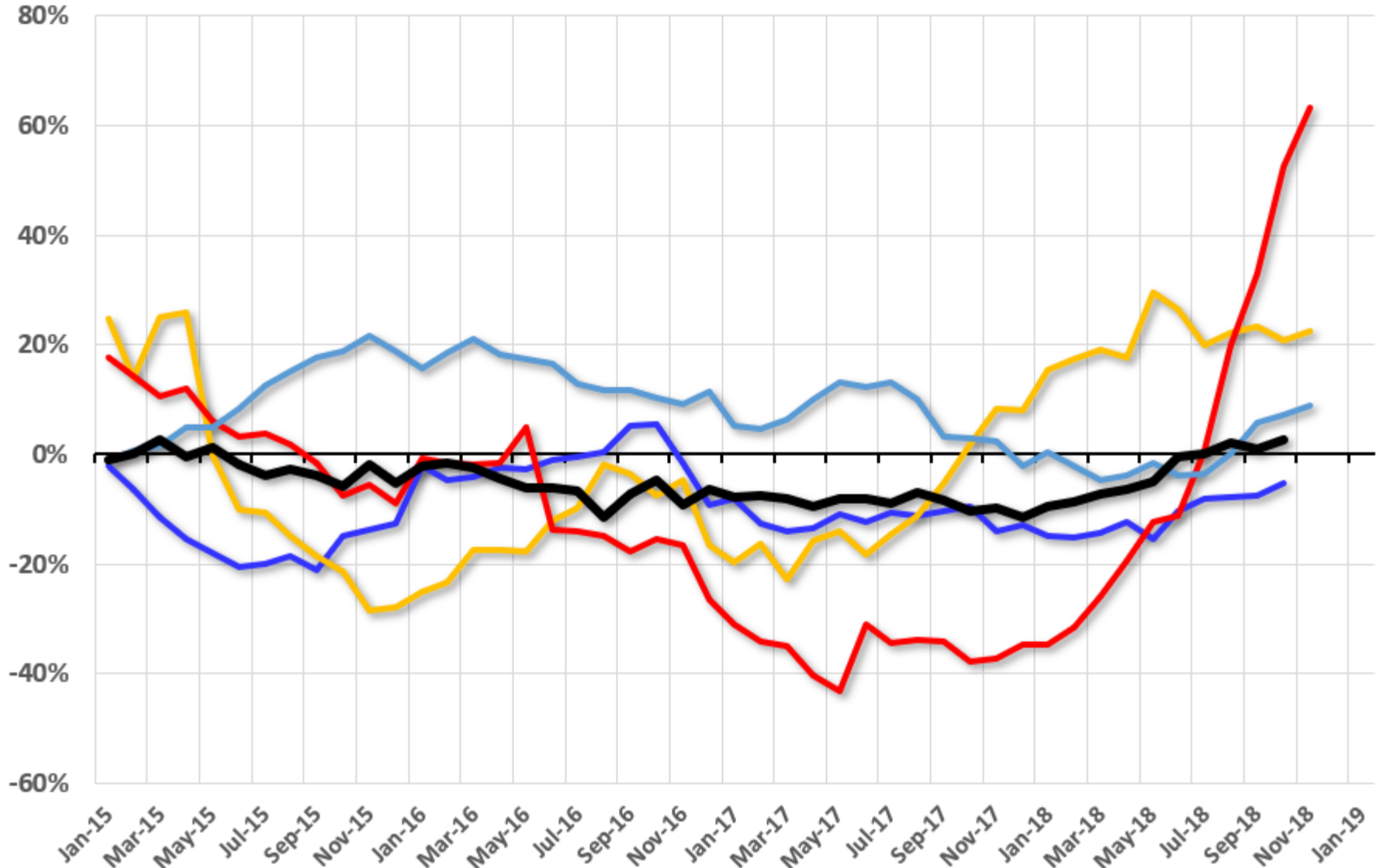


Has Inventory Bottomed?

It looks like it did in mid 2018

Year-over-year Inventory, National and Four Local Markets

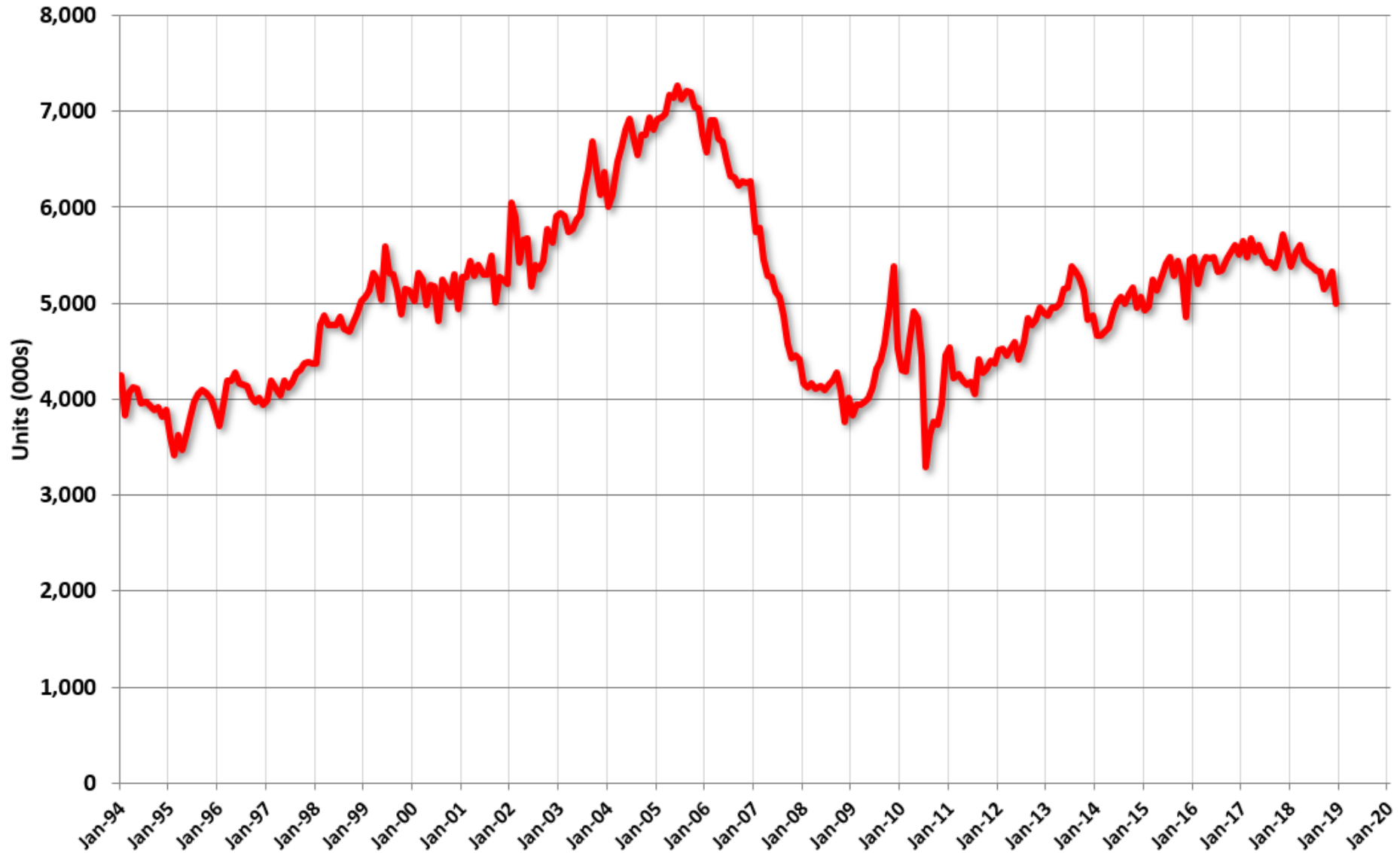
Phoenix Sacramento Las Vegas Houston NAR (National)



Existing Home Sales Have Plateaued

Regrettably this is occurring while the economy rocks!

Existing Home Sales (SAAR)

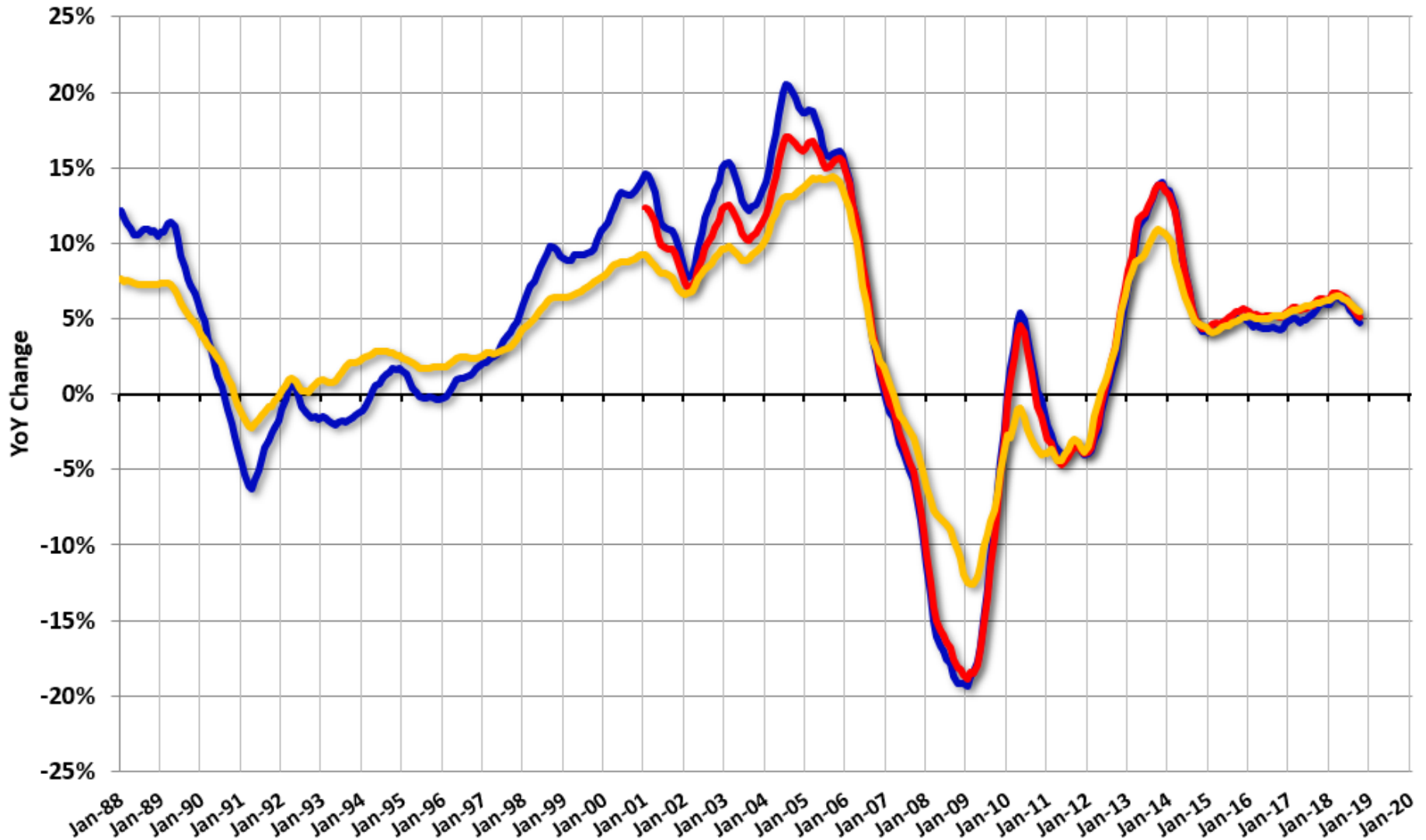


Price Growth Appears to be Topping

Prices rise faster than wages! Y-o-Y prices up 4.7%, 5.1% or 5.5% depending on the measure

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

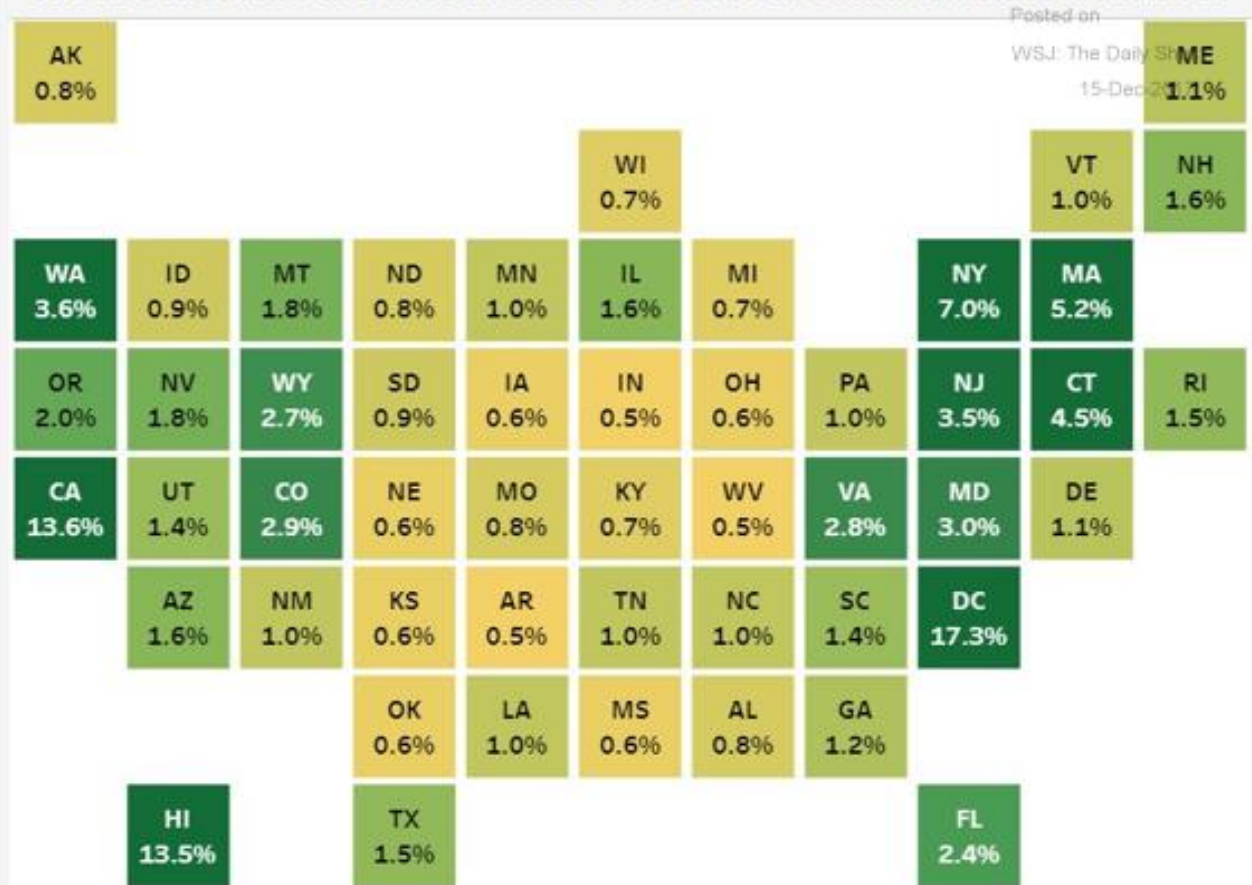
— Composite 10 — Composite 20 — National Index



House Prices by Geography

DC, CA and HI are the most expensive. NY, MA and CT follow

What state has the most homes worth more than a million dollars?

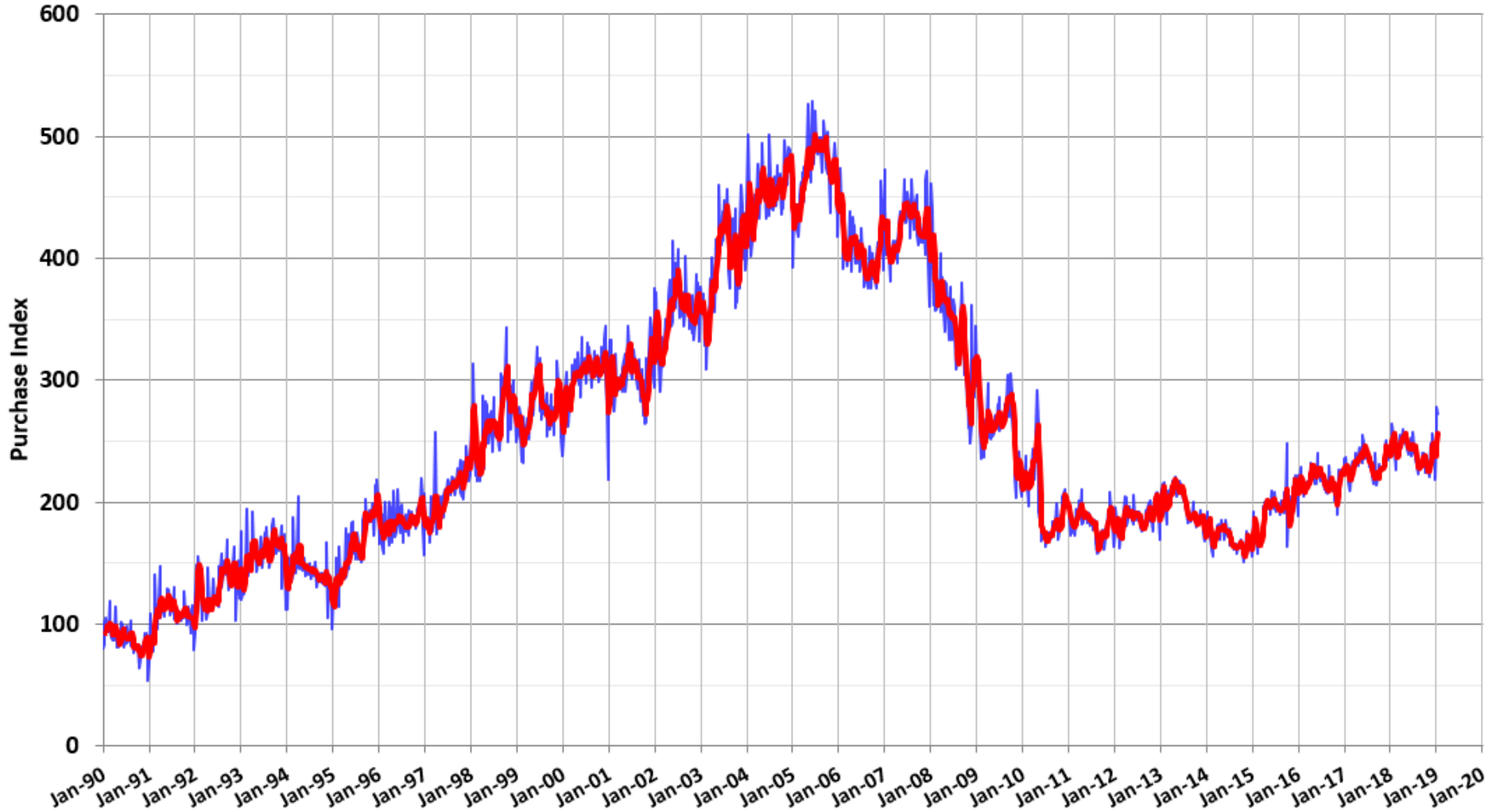


Mortgage Purchase Applications Flatten

1st time applications are down 2% Y-o-Y, at level of the late 1990s!
2019 purchase volume looks to be \$1.2 trillion, unchanged from 2018

MBA Purchase Applications Index

— Purchase Index — 4 Week Moving Average

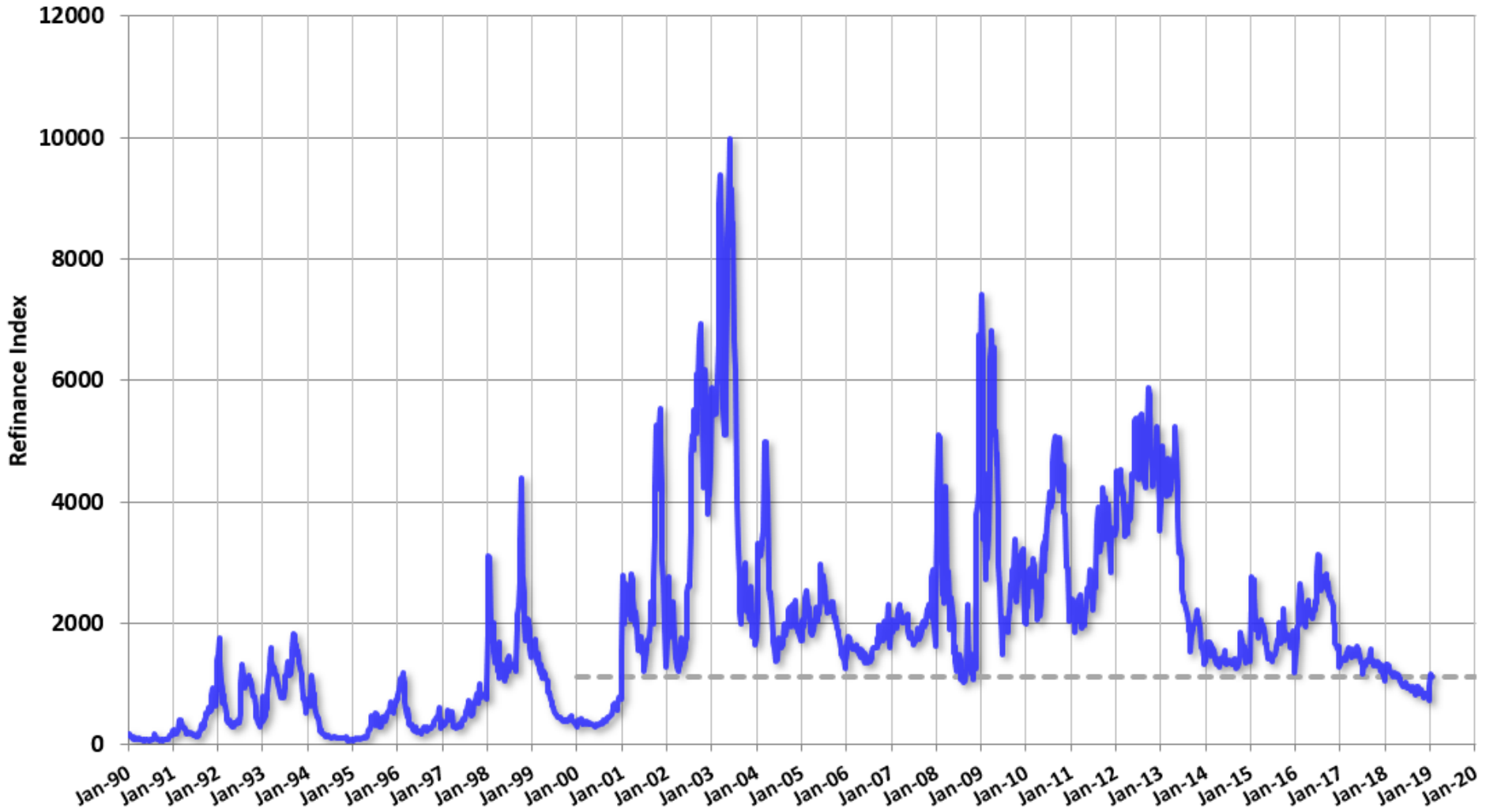


Refinance Activity Keeps Declining!

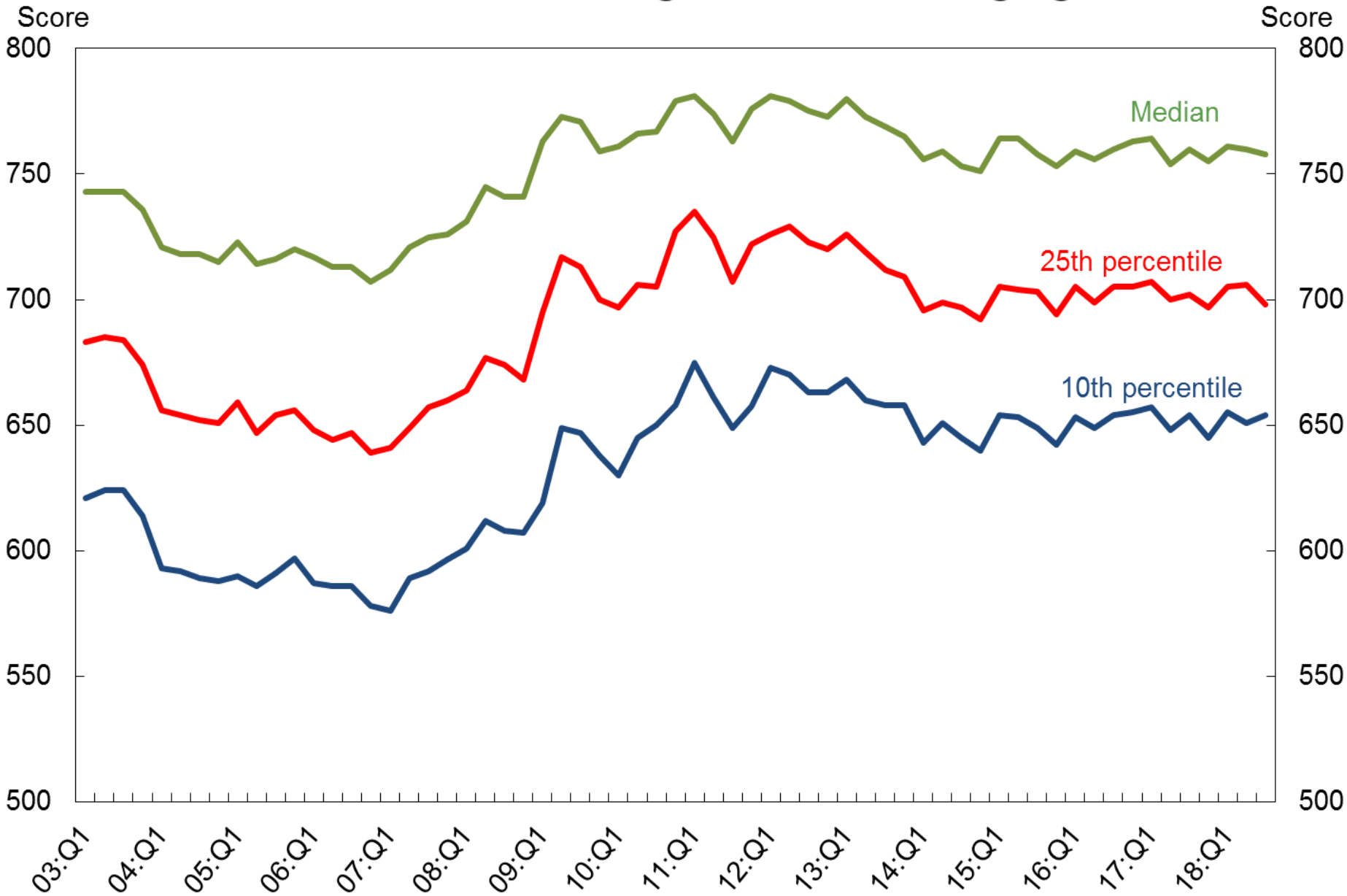
2019 refi activity falls to \$400 billion from \$460 in 2018 and \$600 in 2017. Ouch

MBA Refinance Applications Index

--- Current — Refinance Index



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.

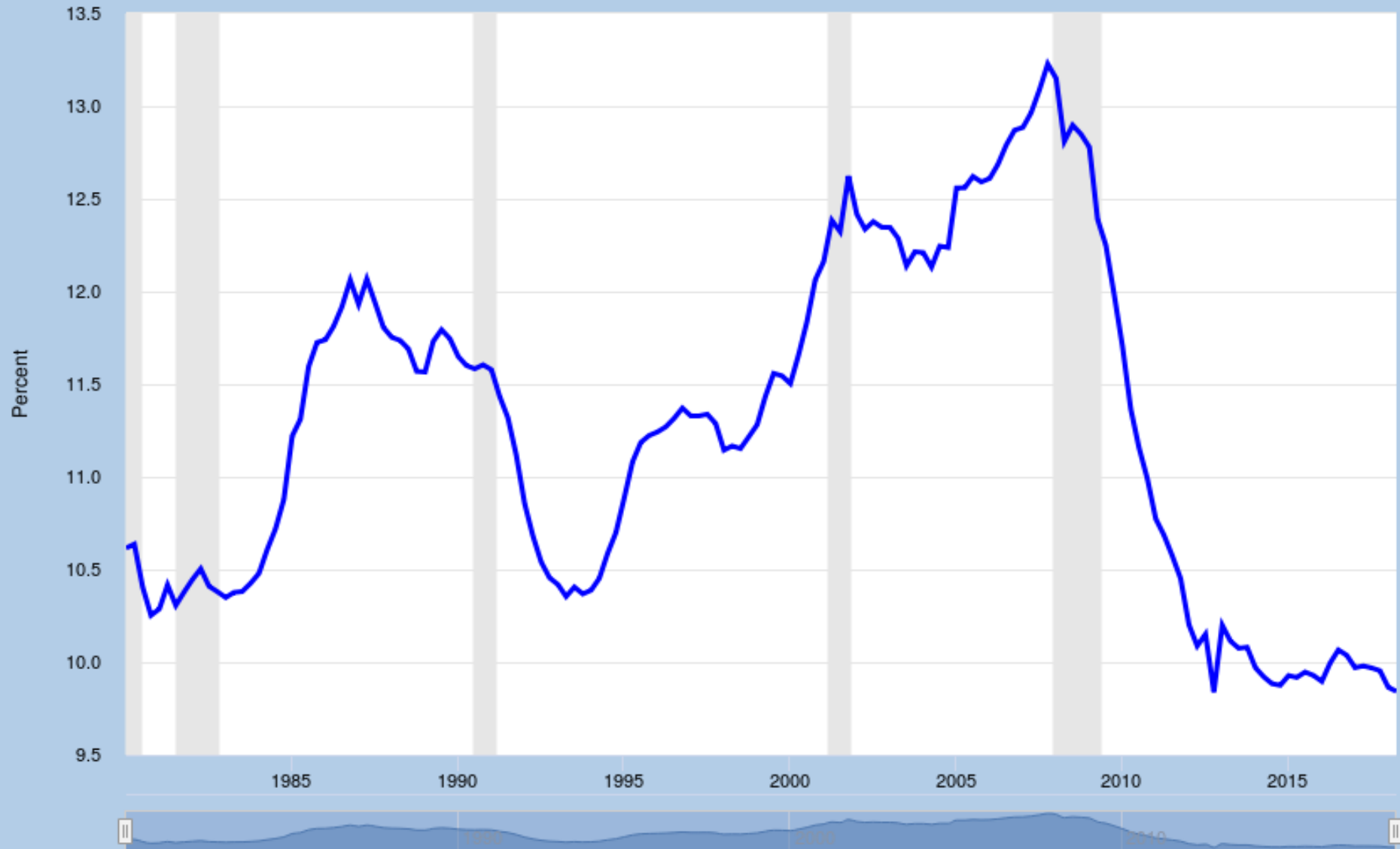
Debt Service to DPI Ratio is OK

More income to spend elsewhere

FRED



— Household Debt Service Payments as a Percent of Disposable Personal Income



Shaded areas indicate U.S. recessions

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

[myf.fred/g/mytk](https://myf.fred.stlouisfed.org/mytk)

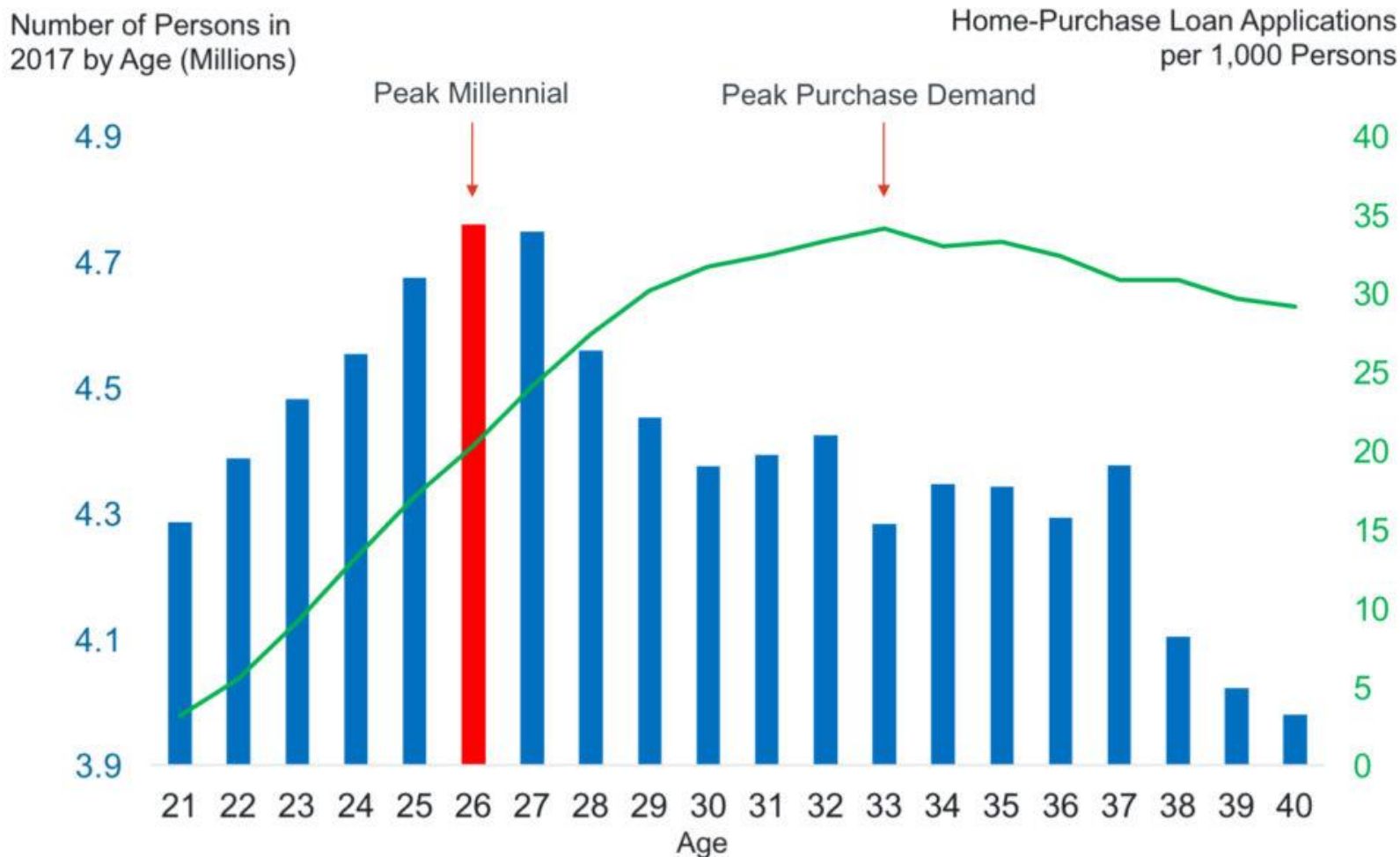
Millennials Will Keep This Issue Front and Center

Beginning to approach the Peak. Chase Millennials, move-up buyers and Boomers

Exhibit 4:



Millennials Will Propel First-time Buyer Demand

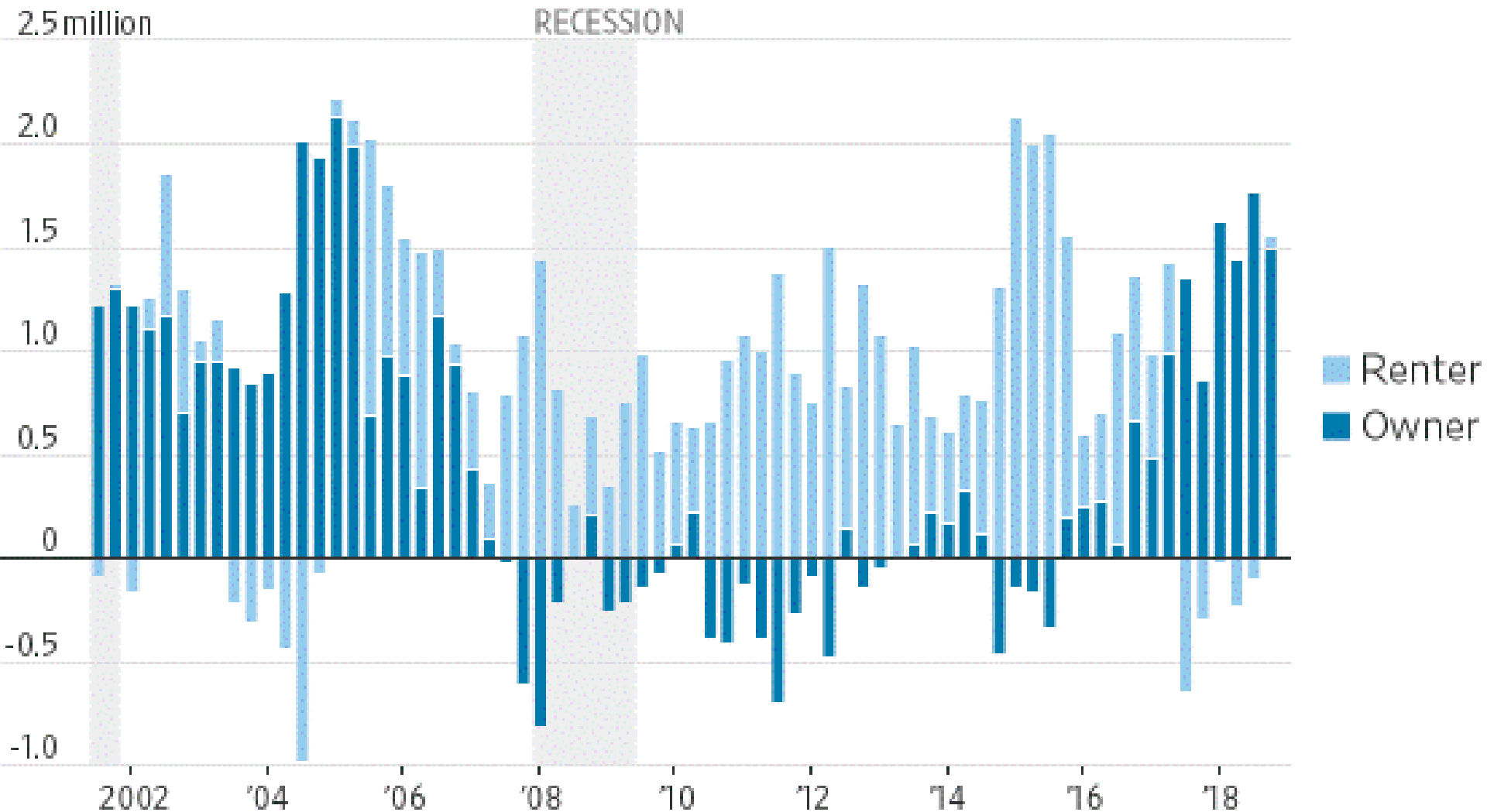


Source: CoreLogic and Census Bureau (population as of July 1)

Household Formation is Much Improved

Most newly formed households are owners

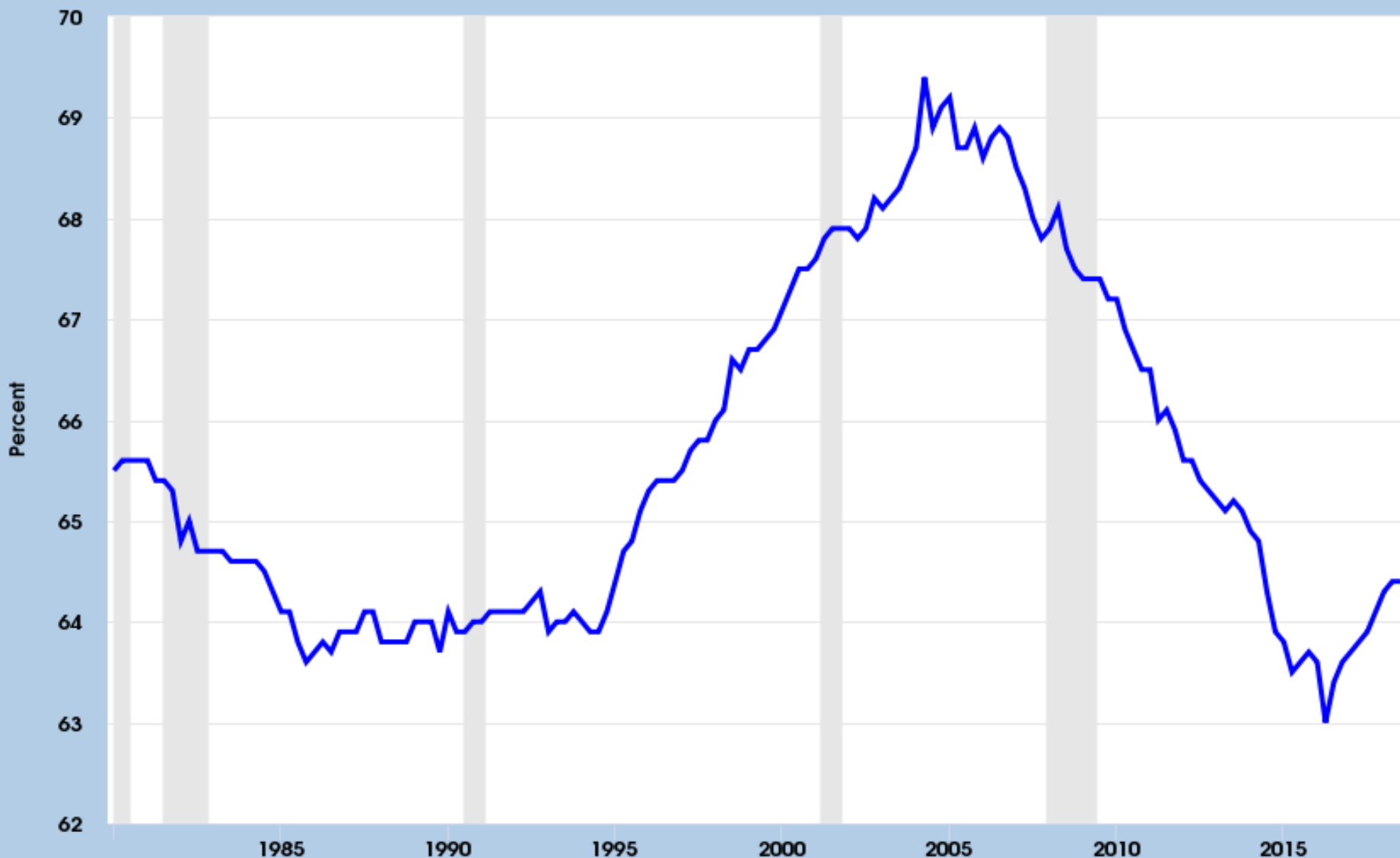
One-year change in the number of housing units occupied by a...



The U.S. Home Ownership Rate is Rising

Demographic changes are pushing it up, but slowly

FRED  Homeownership Rate for the United States



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of the Census

myf.red/g/IONA

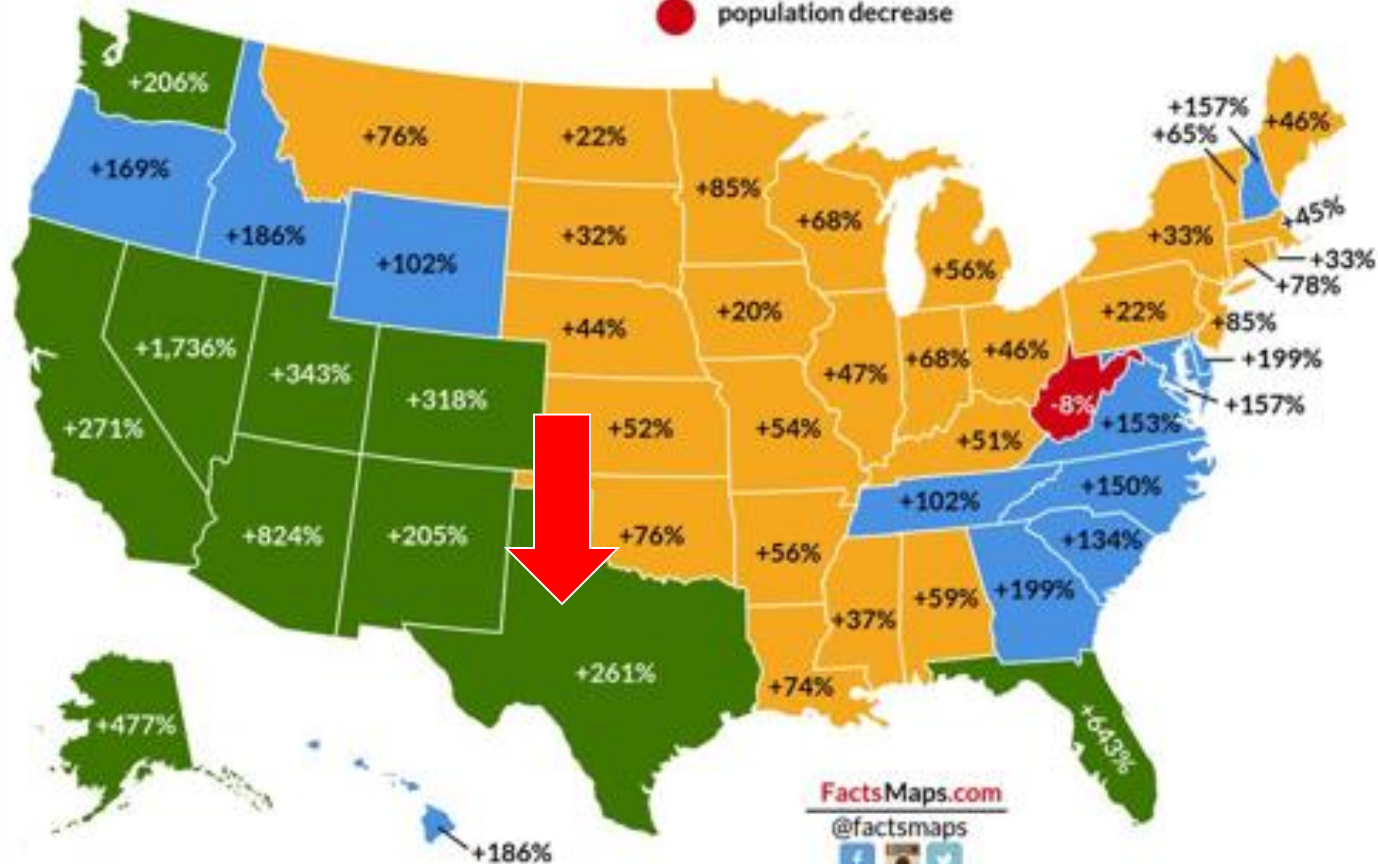
**What About
Things Here?**

Population Growth by State 1950 to Present

The west and south grows fastest!

U.S. states by population growth rate 1950-2016

- population growth above 200%
- population growth between 100% and 199%
- population growth between 1% and 99%
- population decrease



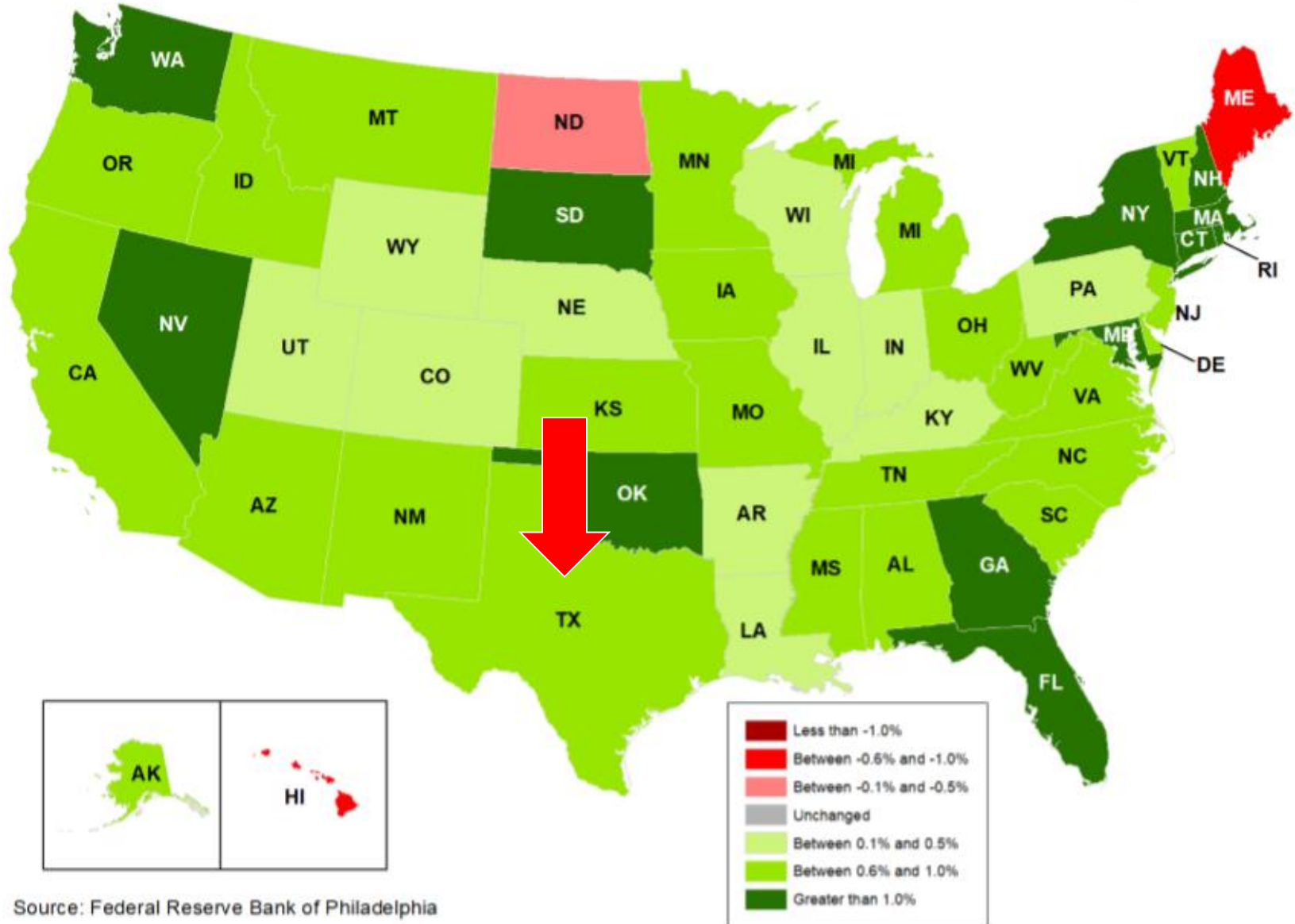
- Posted on
- WSJ: The
- Nevada +1,736%
 - Arizona +824
 - Florida +643
 - Alaska +477
 - Idaho +343
 - Colorado +318
 - California +271
 - Texas +261
 - Washington +206
 - New Mexico +205
 - Delaware +199
 - Georgia +199
 - Hawaii +186
 - Idaho +186
 - Oregon +169
 - Maryland +157
 - Virginia +153
 - New Hampshire +150
 - North Carolina +150
 - South Carolina +134
 - Tennessee +102
 - Wyoming +102
 - Minnesota +85
 - New Jersey +85
 - Connecticut +78
 - Montana +76
 - Oklahoma +76
 - Louisiana +74
 - Indiana +68
 - Wisconsin +68
 - Vermont +65
 - Alabama +59
 - Arkansas +56
 - Michigan +56
 - Missouri +54
 - Kansas +52
 - Kentucky +51
 - Illinois +47
 - Maine +46
 - Ohio +46
 - Massachusetts +45
 - Nebraska +44
 - Mississippi +37
 - New York +33
 - Rhode Island +33
 - South Dakota +32
 - North Dakota +22
 - Pennsylvania +22
 - Iowa +20
 - West Virginia -8

Source: United States Census Bureau

FactsMaps.com
@factsmaps

Things Are Good Now

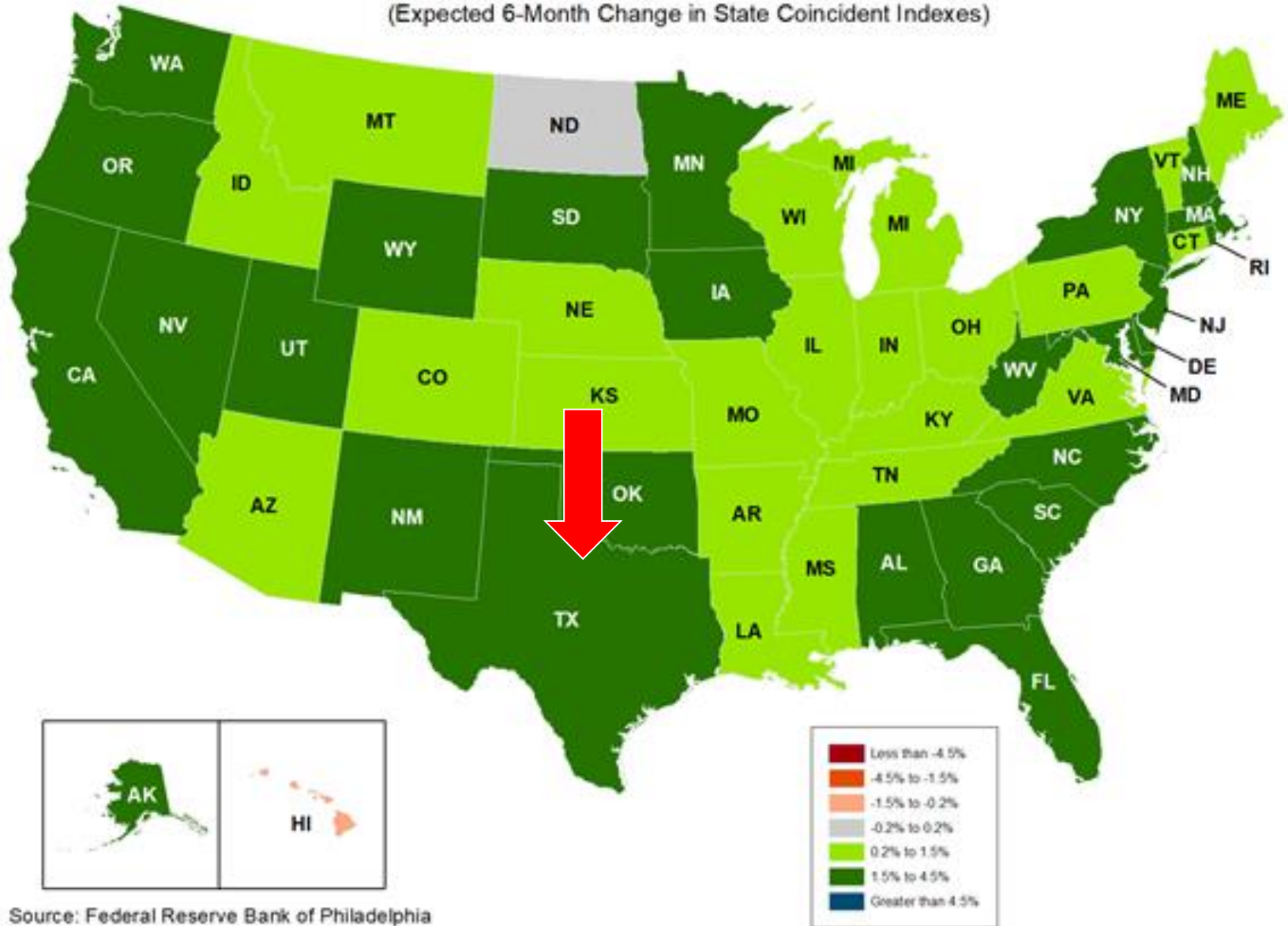
November 2018 State Coincident Indexes: Three-Month Change



Source: Federal Reserve Bank of Philadelphia

The Future Looks Good Too!

October 2018 State Leading Indexes
(Expected 6-Month Change in State Coincident Indexes)



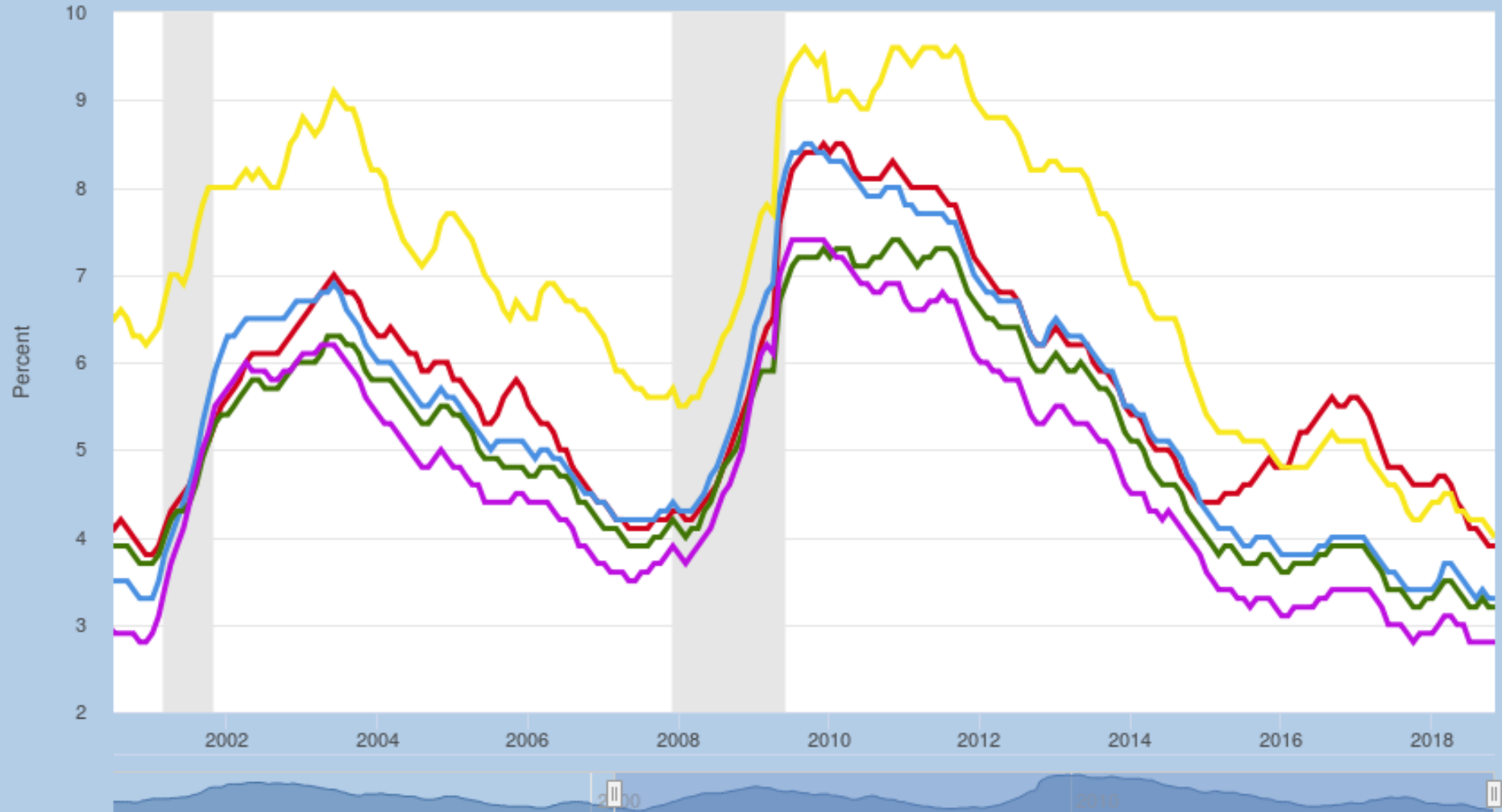
Source: Federal Reserve Bank of Philadelphia

Unemployment Rates In The Biggest Texas Cities

El Paso is traditionally weak, Austin is consistently strong, Houston recovers.

FRED

- Unemployment Rate in Houston-The Woodlands-Sugar Land, TX (MSA)
- Unemployment Rate in Dallas-Fort Worth-Arlington, TX (MSA)
- Unemployment Rate in San Antonio-New Braunfels, TX (MSA)
- Unemployment Rate in Austin-Round Rock, TX (MSA)
- Unemployment Rate in El Paso, TX (MSA)



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

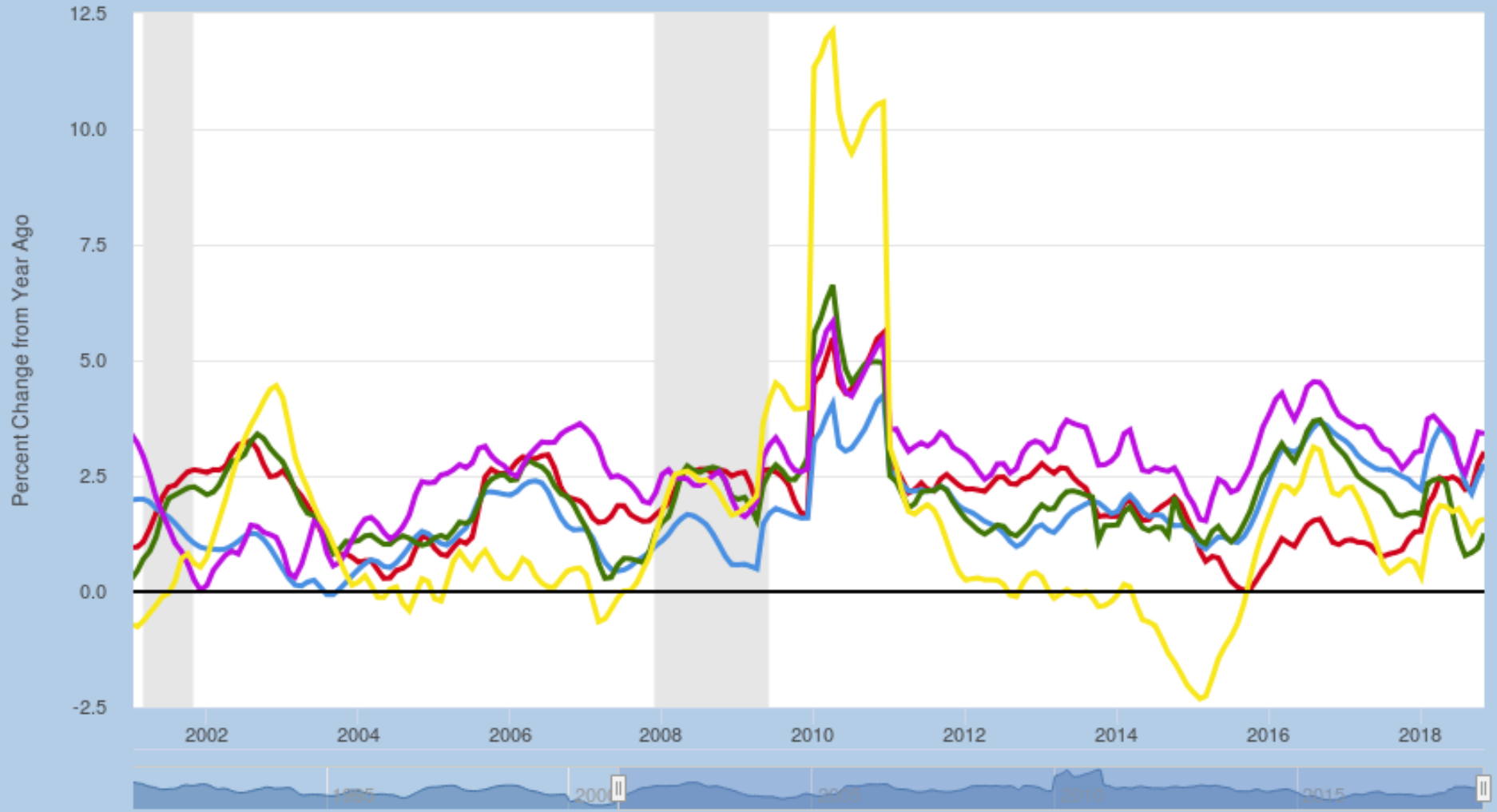
myf.red/g/mNJR

Labor Force Growth in the 5 Biggest Cities

Austin rocks, El Paso suffers, Houston recovers. Dallas and San Antonio are good



- Civilian Labor Force in Houston-The Woodlands-Sugar Land, TX (MSA)
- Civilian Labor Force in Dallas-Fort Worth-Arlington, TX (MSA)
- Civilian Labor Force in San Antonio-New Braunfels, TX (MSA)
- Civilian Labor Force in Austin-Round Rock, TX (MSA)
- Civilian Labor Force in El Paso, TX (MSA)



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

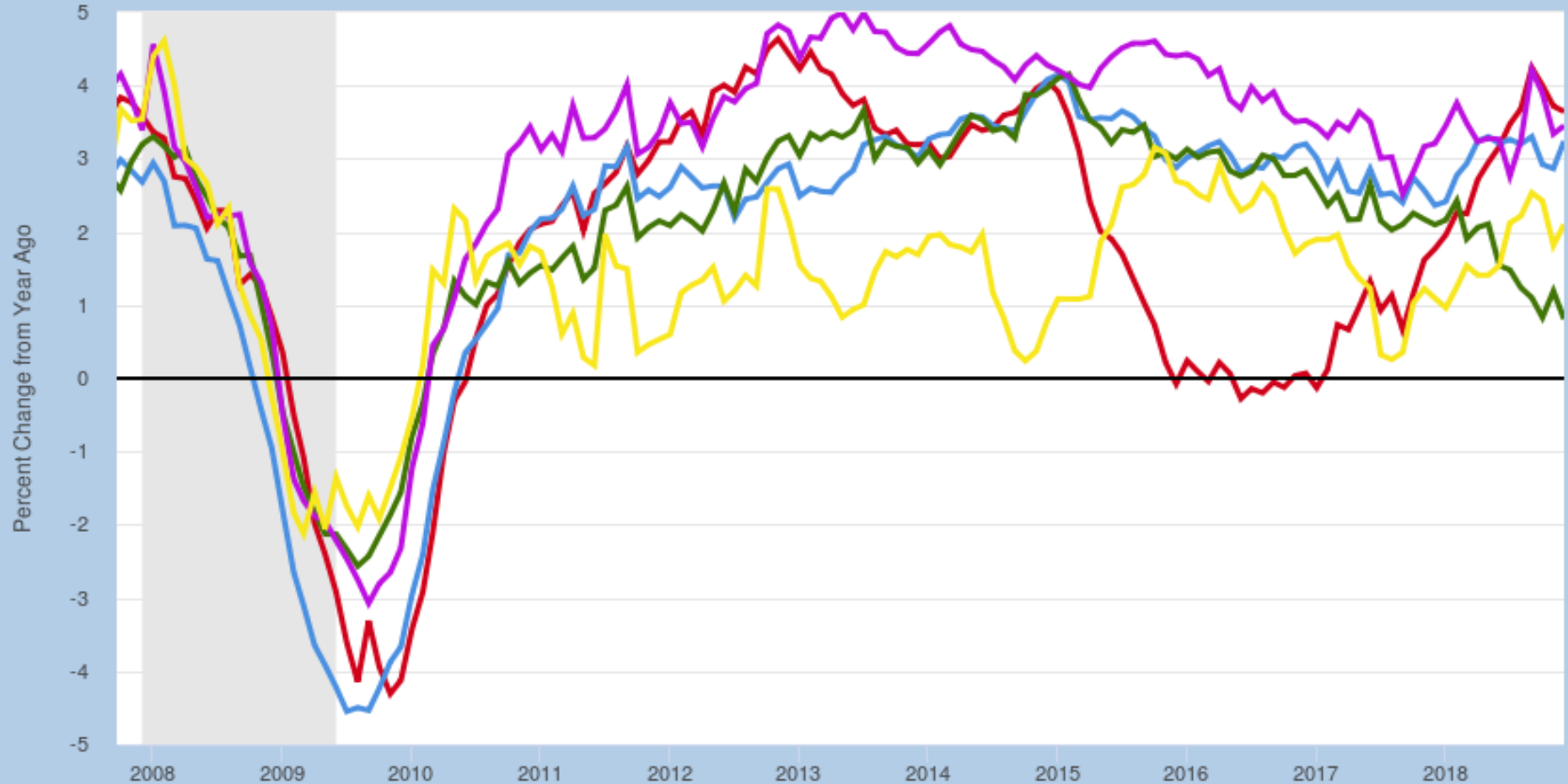
myf.red/g/mNki

Non-Farm Payroll Growth in the 5 Biggest Cities

All but San Antonio are strengthening with growth averaging about 3%

FRED 

- All Employees: Total Nonfarm in Houston-The Woodlands-Sugar Land, TX (MSA)
- All Employees: Total Nonfarm in Dallas-Fort Worth-Arlington, TX (MSA)
- All Employees: Total Nonfarm in San Antonio-New Braunfels, TX (MSA)
- All Employees: Total Nonfarm in Austin-Round Rock, TX (MSA)
- All Employees: Total Nonfarm in El Paso, TX (MSA)



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Labor Statistics

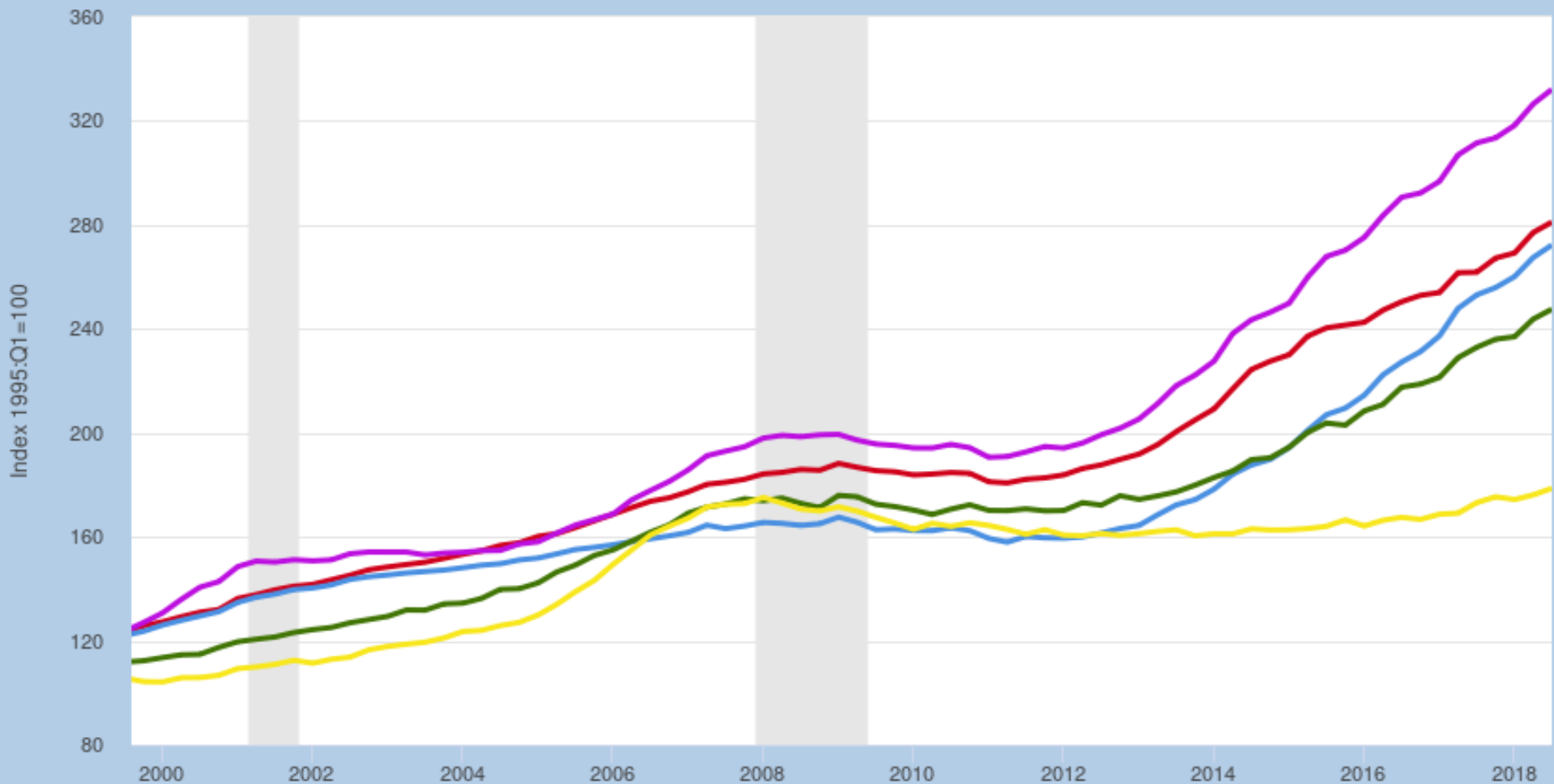
myf.red/g/mNkQ

House Price Appreciation Around Texas

Appreciation is ubiquitous except for El Paso. Austin rocks, Houston, Dallas and SA are good

FRED 

- All-Transactions House Price Index for Houston-The Woodlands-Sugar Land, TX (MSA)
- All-Transactions House Price Index for Dallas-Plano-Irving, TX (MSAD)
- All-Transactions House Price Index for San Antonio-New Braunfels, TX (MSA)
- All-Transactions House Price Index for Austin-Round Rock-San Marcos, TX (MSA)
- All-Transactions House Price Index for El Paso, TX (MSA)



Shaded areas indicate U.S. recessions

Source: U.S. Federal Housing Finance Agency

myf.red/g/mNIh

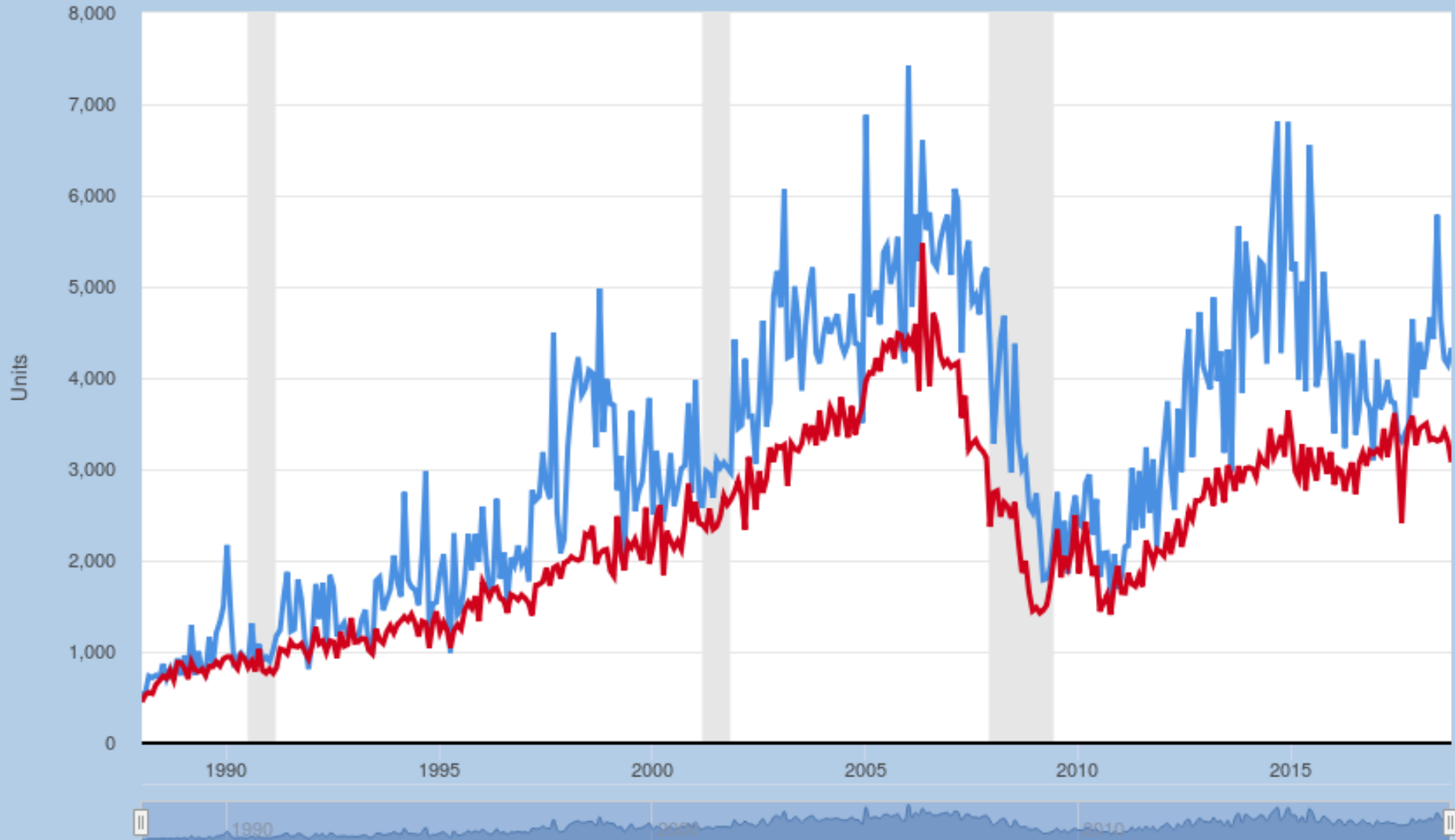
Housing Starts in Houston

Single-family activity is flat. Multifamily gets whipsawed but recovers

FRED



— New Private Housing Units Authorized by Building Permits for Houston-Sugar Land-Baytown, TX (MSA)
— New Private Housing Units Authorized by Building Permits: 1-Unit Structures for Houston-Sugar Land-Baytown, TX (MSA)



Shaded areas indicate U.S. recessions


Source: U.S. Bureau of the Census

myf.red/g/mNI2

States With Fastest Pop Growth 7/1/17-6/30/18

	Rank	Name	2010	2017	2018	Numeric growth
	1	Texas	25,146,114	28,322,717	28,701,845	379,128
	2	Florida	18,804,580	20,976,812	21,299,325	322,513
	3	California	37,254,523	39,399,349	39,557,045	157,696
	4	Arizona	6,392,288	7,048,876	7,171,646	122,770
	5	North Carolina	9,535,736	10,270,800	10,383,620	112,820
	6	Washington	6,724,540	7,425,432	7,535,591	110,159
	7	Georgia	9,688,709	10,413,055	10,519,475	106,420
	8	Colorado	5,029,316	5,615,902	5,695,564	79,662
	9	South Carolina	4,625,381	5,021,219	5,084,127	62,908
	10	Nevada	2,700,679	2,972,405	3,034,392	61,987

States With Fastest % Growth 7/1/17-6/30/18

Rank	Name	2010	2017	2018	Percent growth
1	Nevada	2,700,679	2,972,405	3,034,392	2.1
2	Idaho	1,567,657	1,718,904	1,754,208	2.1
3	Utah	2,763,891	3,103,118	3,161,105	1.9
4	Arizona	6,392,288	7,048,876	7,171,646	1.7
5	Florida	18,804,580	20,976,812	21,299,325	1.5
6	Washington	6,724,540	7,425,432	7,535,591	1.5
7	Colorado	5,029,316	5,615,902	5,695,564	1.4
	8 Texas	25,146,114	28,322,717	28,701,845	1.3
9	South Carolina	4,625,381	5,021,219	5,084,127	1.3
10	North Carolina	9,535,736	10,270,800	10,383,620	1.1

ANY QUESTIONS?

Elliot F. Eisenberg, Ph.D.

Cell: 202.306.2731

elliott@graphsandlaughs.net

www.econ70.com

Do you want to get my daily 70 word economics email?
Please give me your business card or text "bowtie" to 22828

Thank YOU all very very much!

@ECON70

