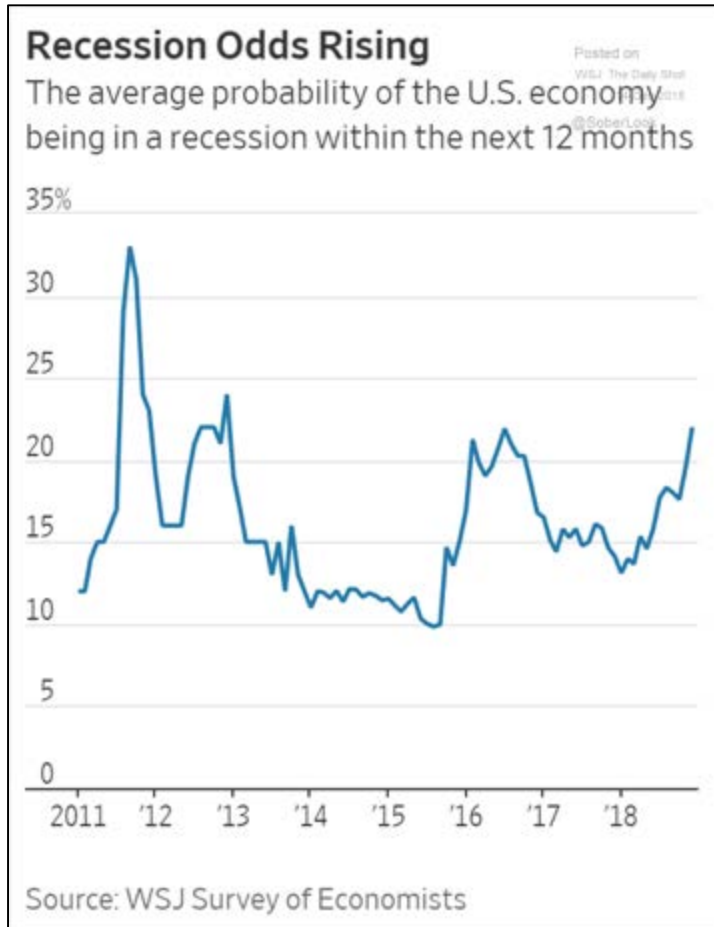


# Economic Outlook 2019

Timothy Duy  
Medford, OR  
31 January 2019

# Recession Worries On The Rise

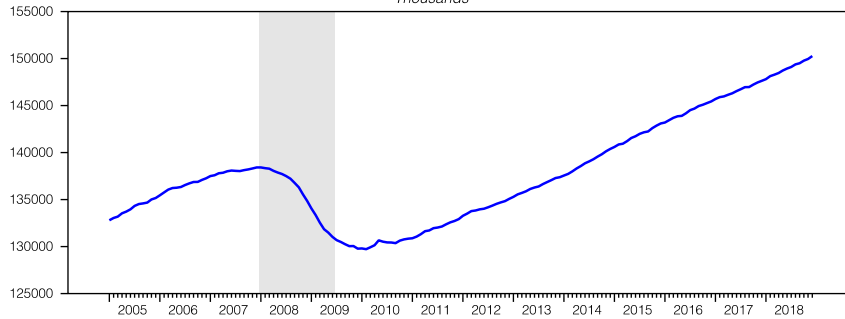


# But Clearly No Recession Underway

## Recession Indicators

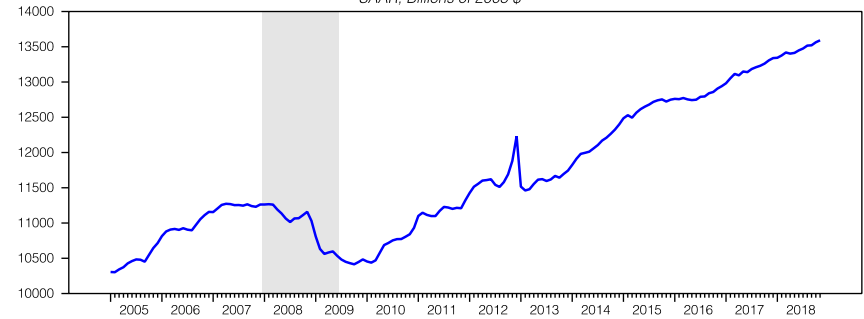
**Nonfarm Payrolls**

*Thousands*



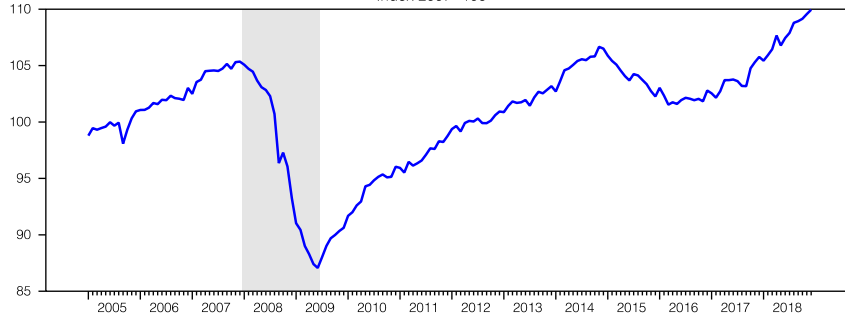
**Real Personal Income Excluding Current Transfer Receipts**

*SAAR, Billions of 2005 \$*



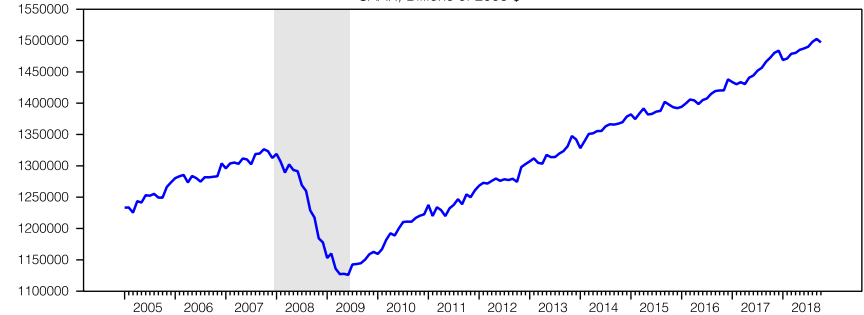
**Industrial Production**

*Index 2007=100*



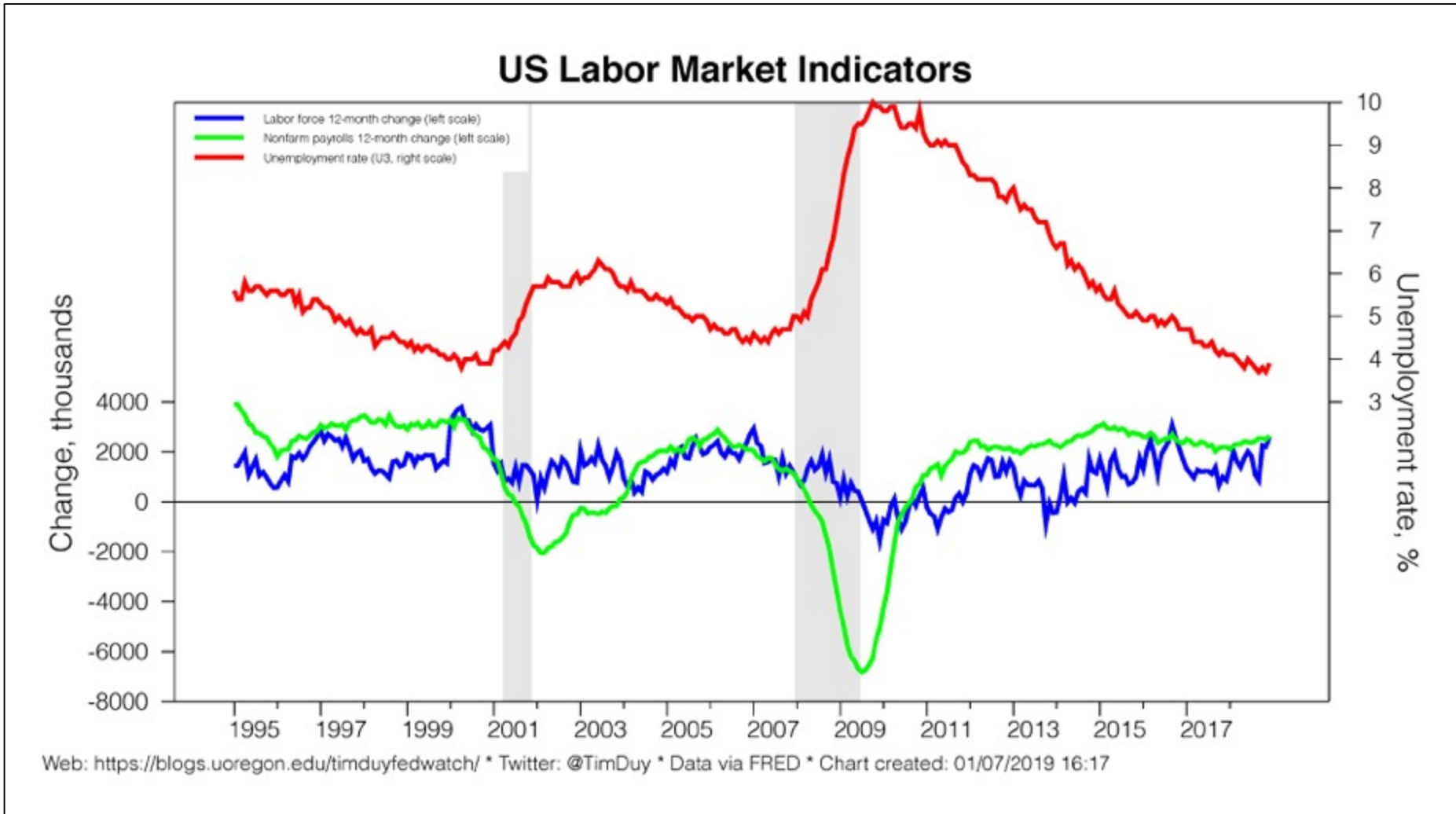
**Real Manufacturing and Trade Sales**

*SAAR, Billions of 2005 \$*



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/28/2019 18:30

# But Clearly No Recession Underway

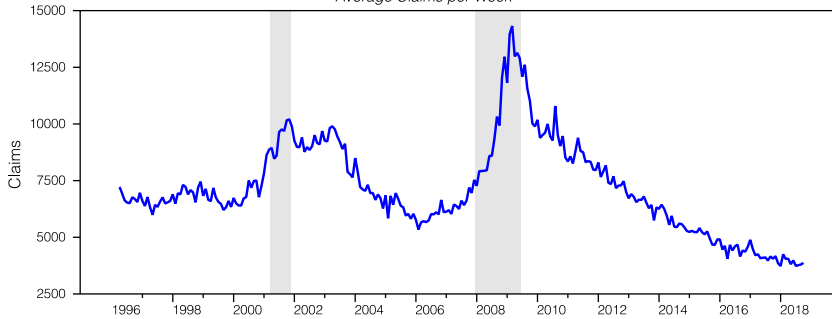


# No Recession In Oregon Either

## Oregon Indicators

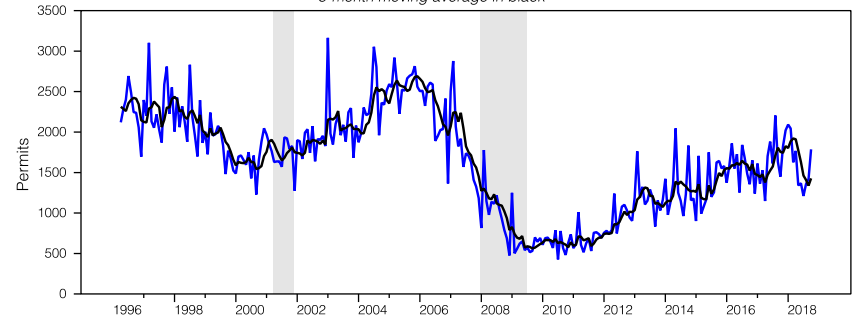
**Oregon Initial Jobless Claims**

*Average Claims per Week*



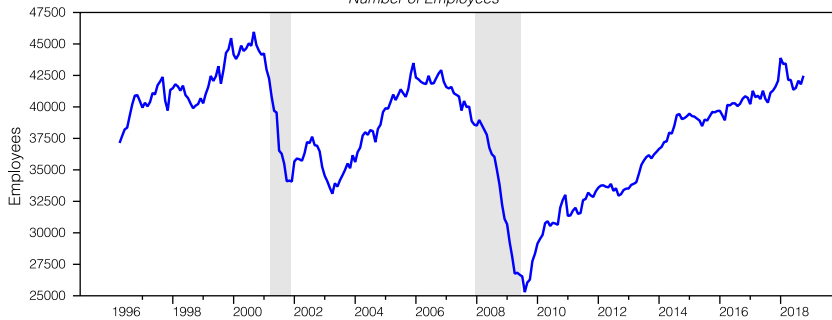
**Oregon Residential Permits**

*5-month moving average in black*



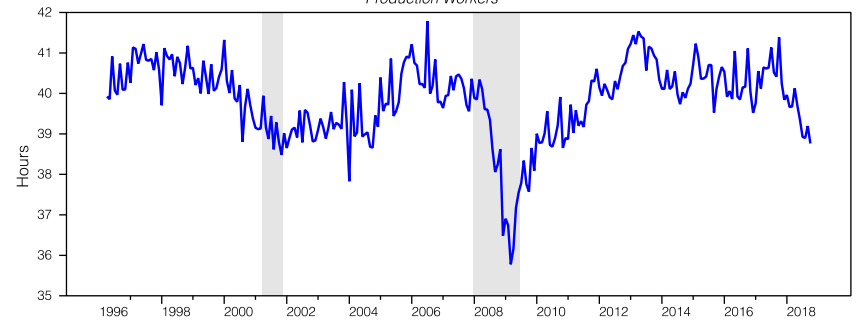
**Employment Services Payrolls**

*Number of Employees*



**Weekly Hours Worked, Manufacturing**

*Production Workers*

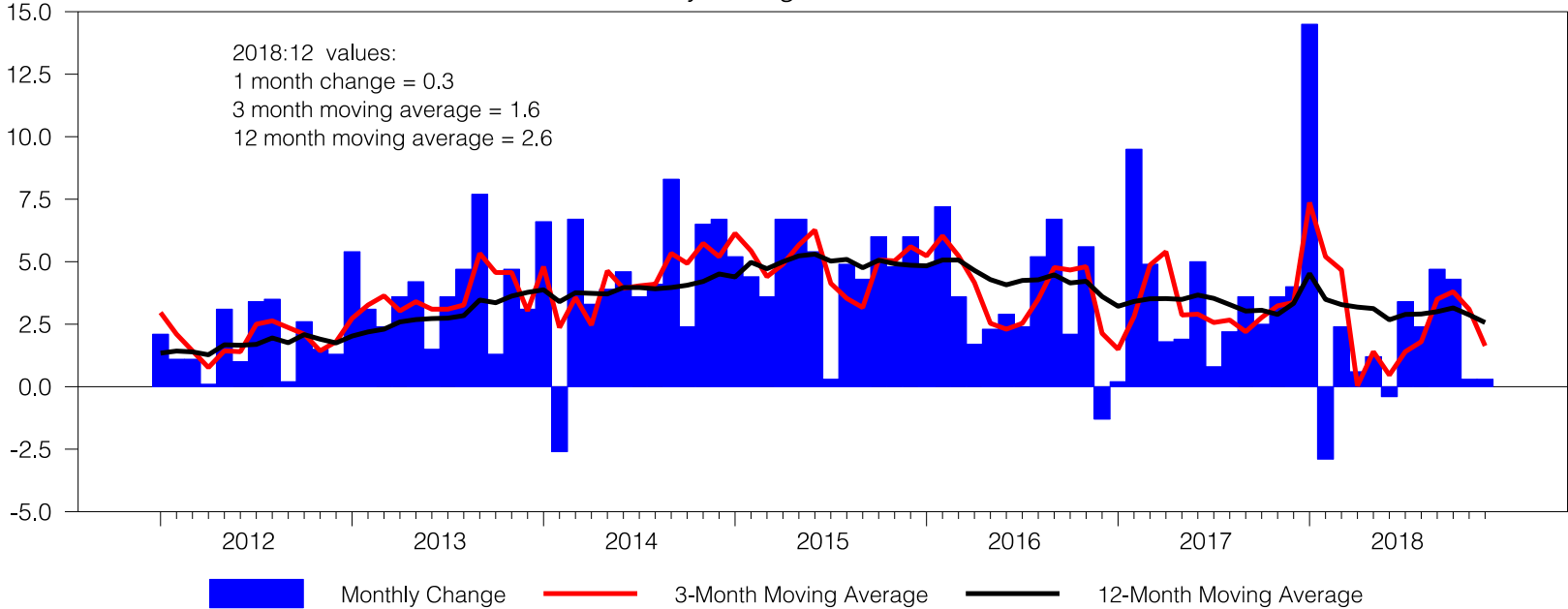


Web: [economistsview.typepad.com/timduy/](http://economistsview.typepad.com/timduy/) \* Twitter: @TimDuy \* Chart created: 12/03/2018 11:35

# No Recession In Oregon Either

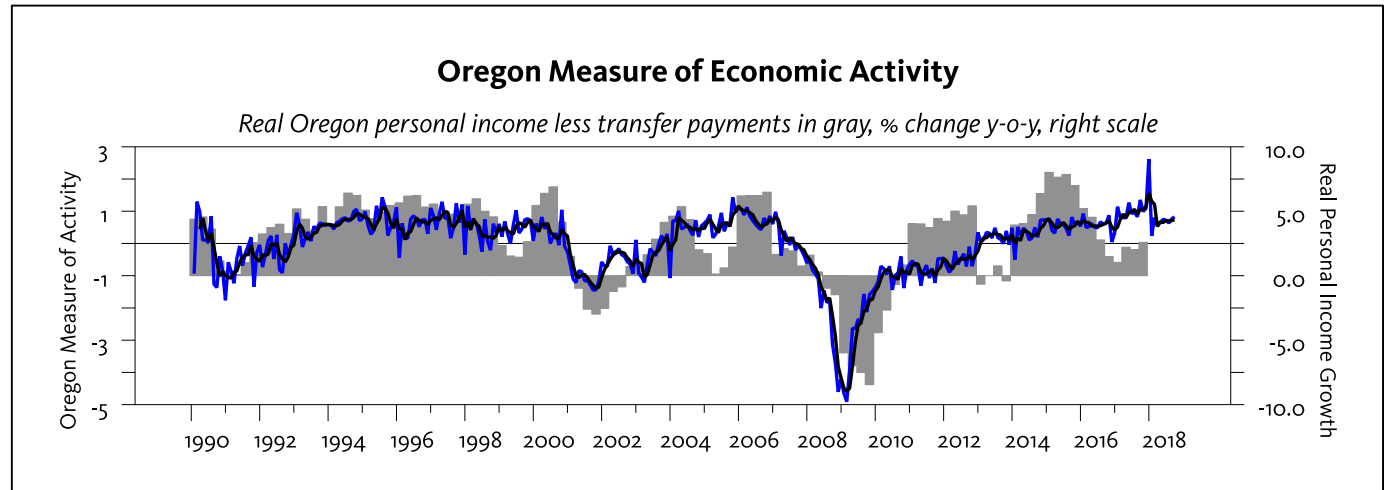
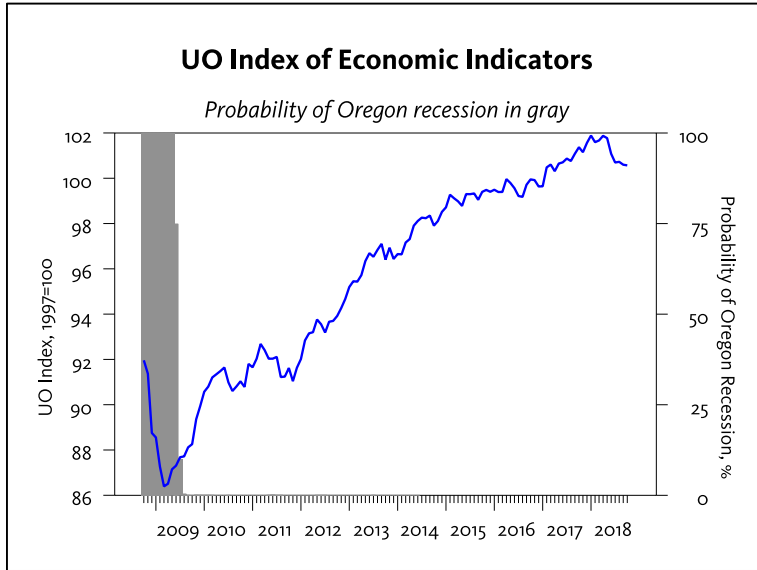
## Oregon Nonfarm Payrolls

Monthly Change, Thousands



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/29/2019 14:34

# No Recession In Oregon Either

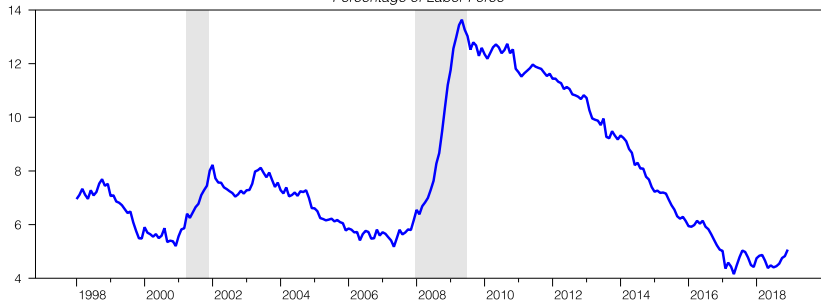


# No Recession In Medford Either

## Medford MSA Economic Indicators

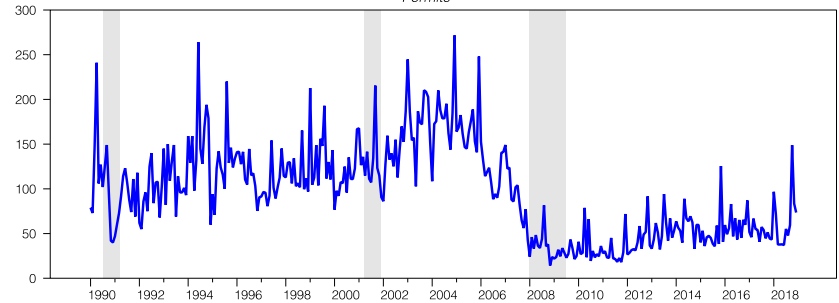
**Unemployment Rate**

*Percentage of Labor Force*



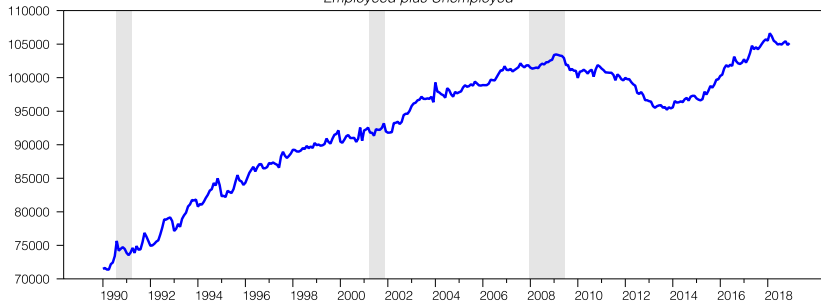
**Residential Housing Permits, 1 Unit Structures**

*Permits*



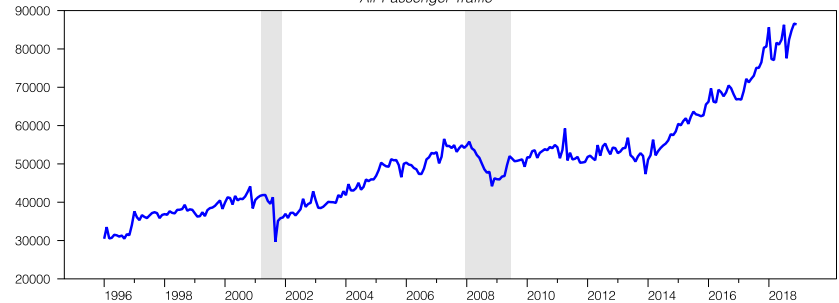
**Civilian Labor Force**

*Employed plus Unemployed*



**Enplanements and Deplanements**

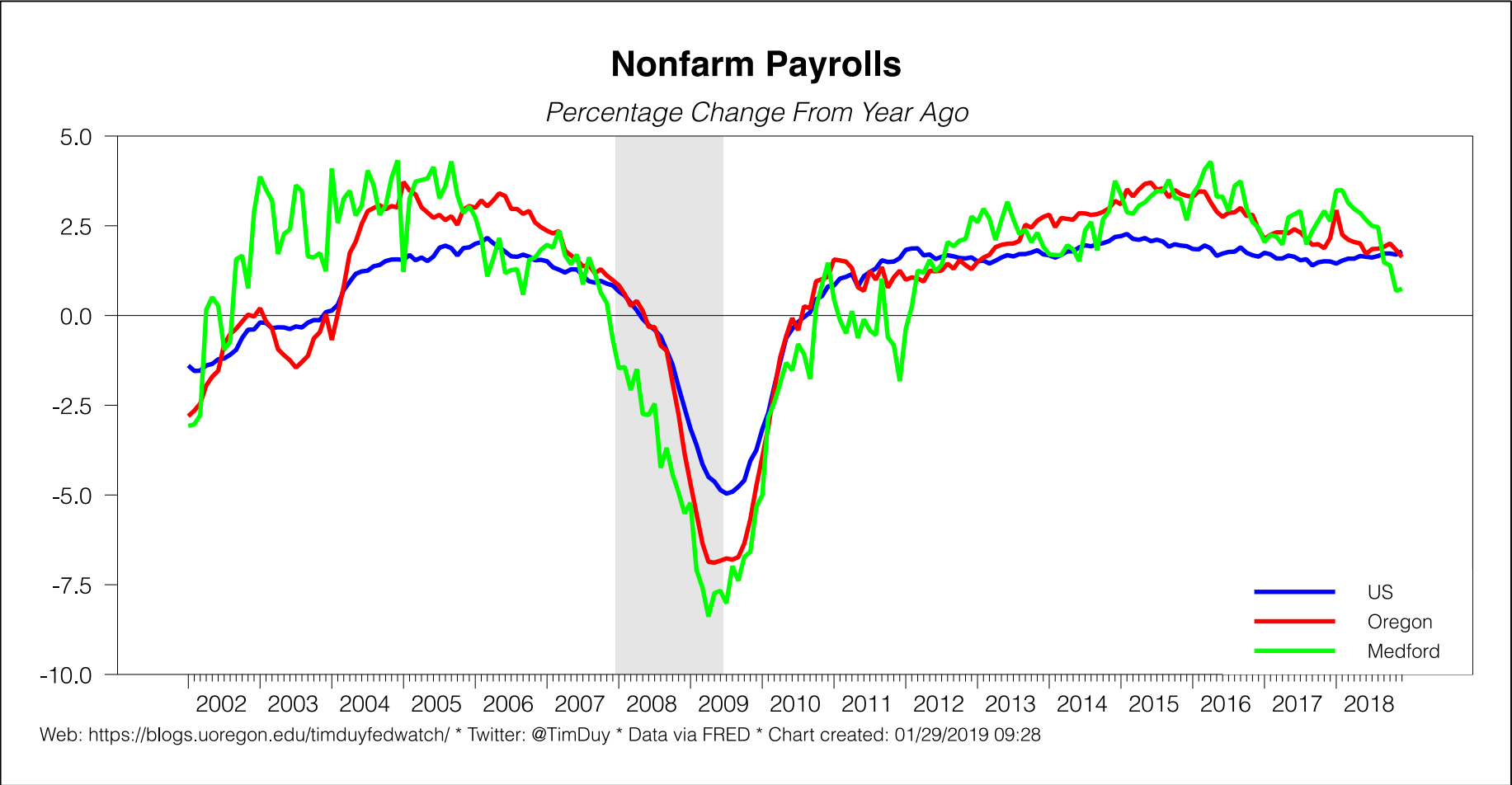
*Air Passenger Traffic*



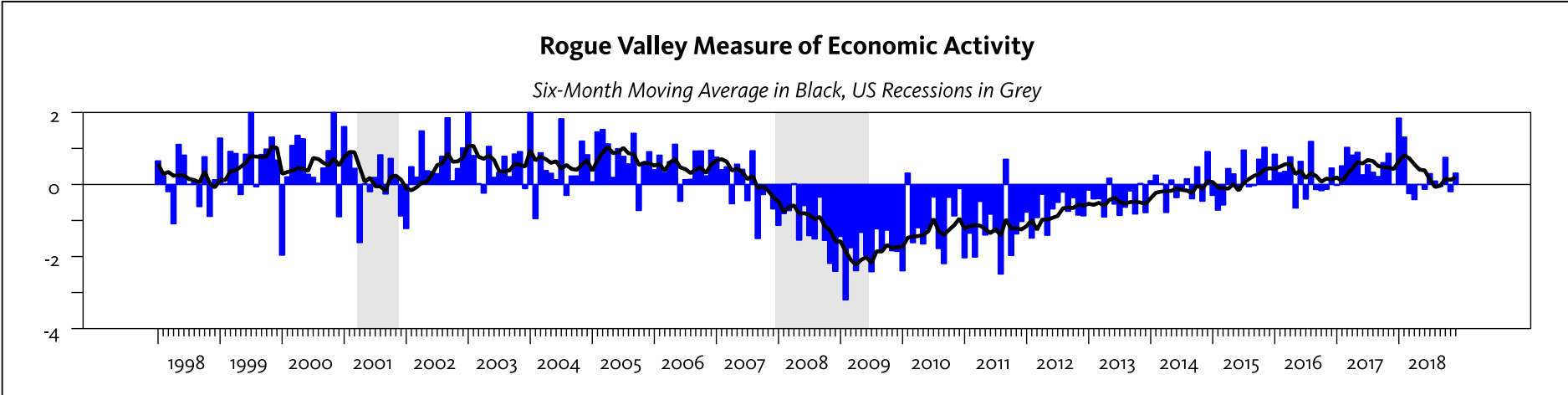
Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/29/2019 11:00



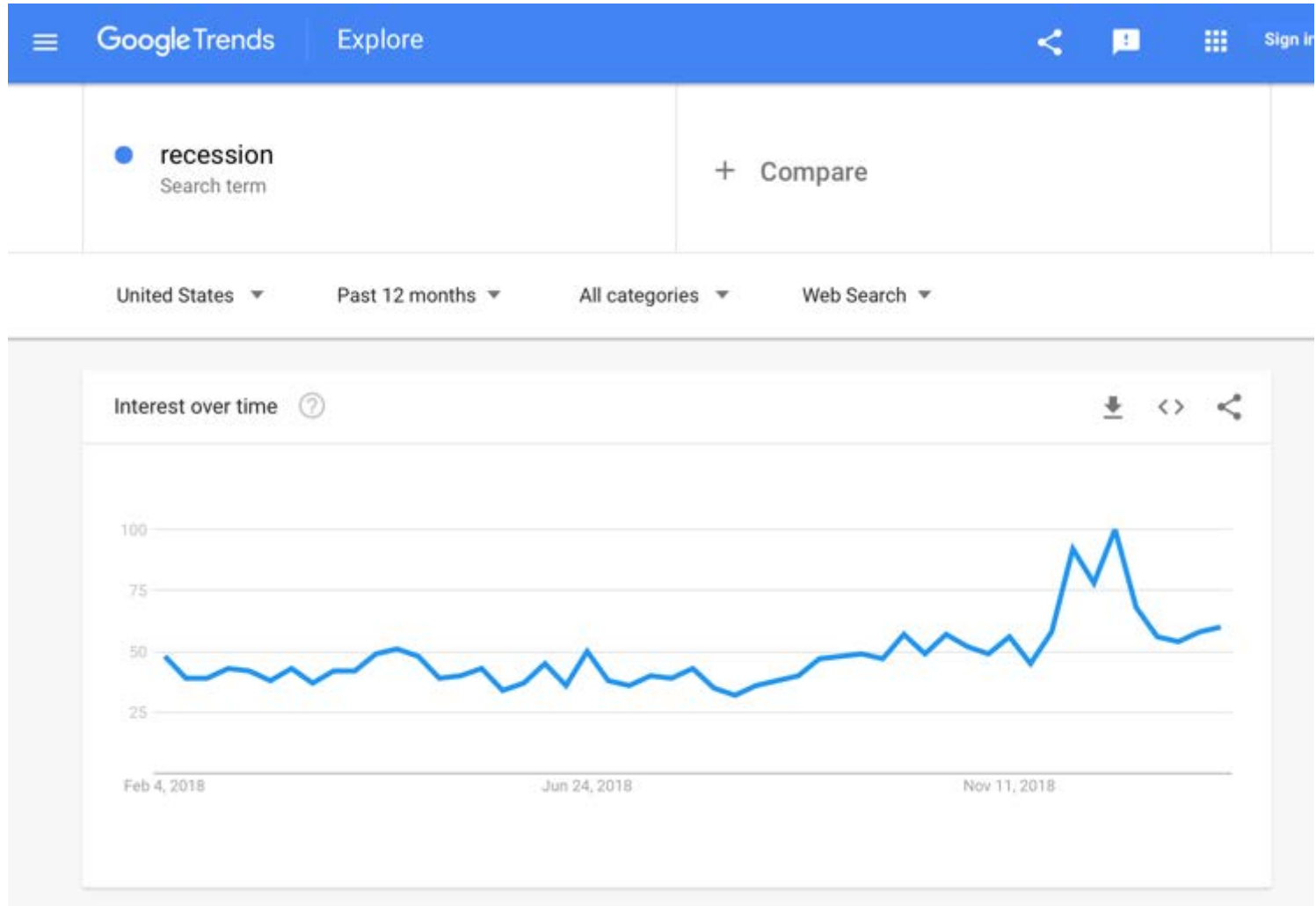
# No Recession In Medford Either



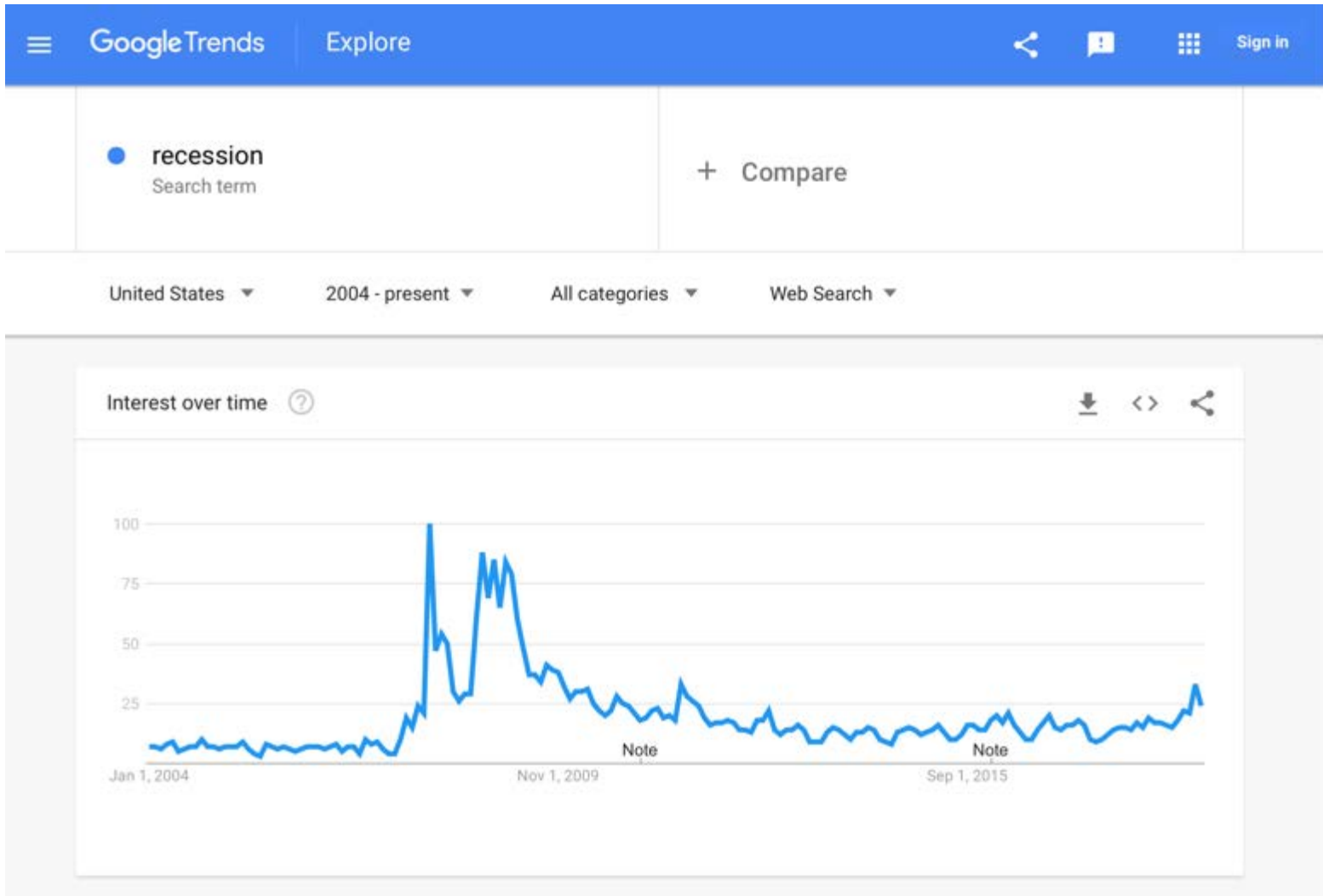
# No Recession In Medford Either



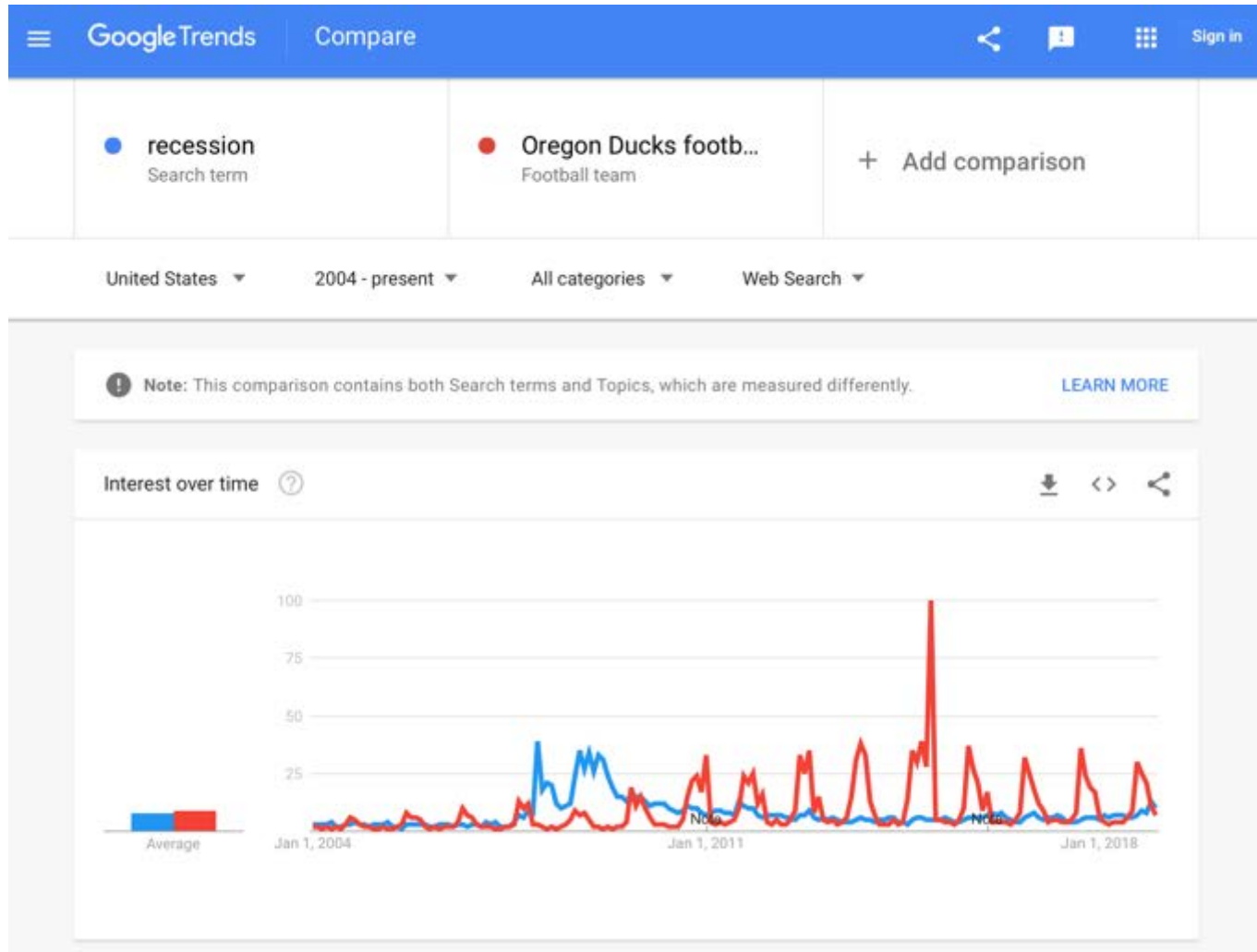
# People More Interested In Recessions



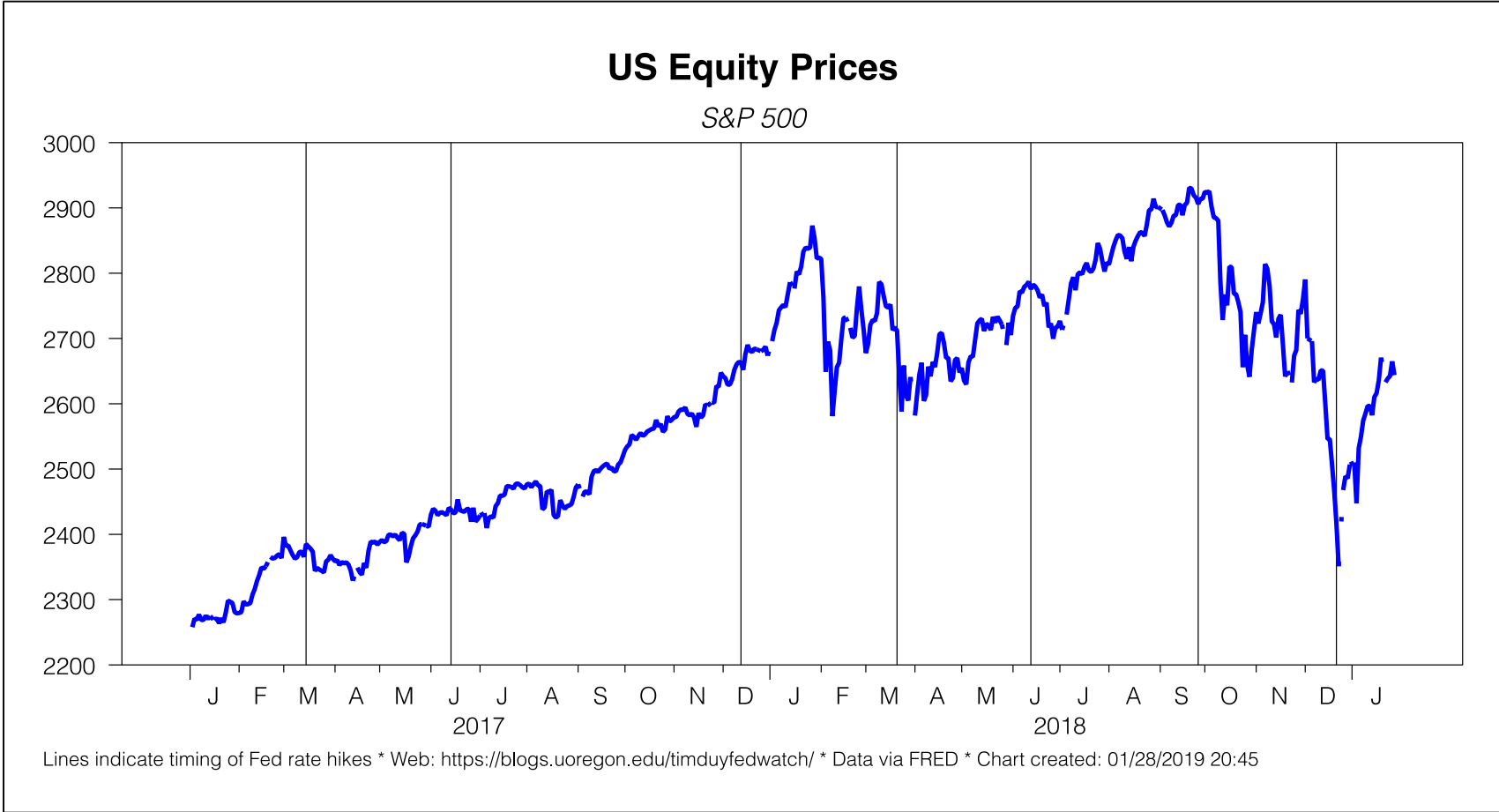
# But Less So Than in 2007



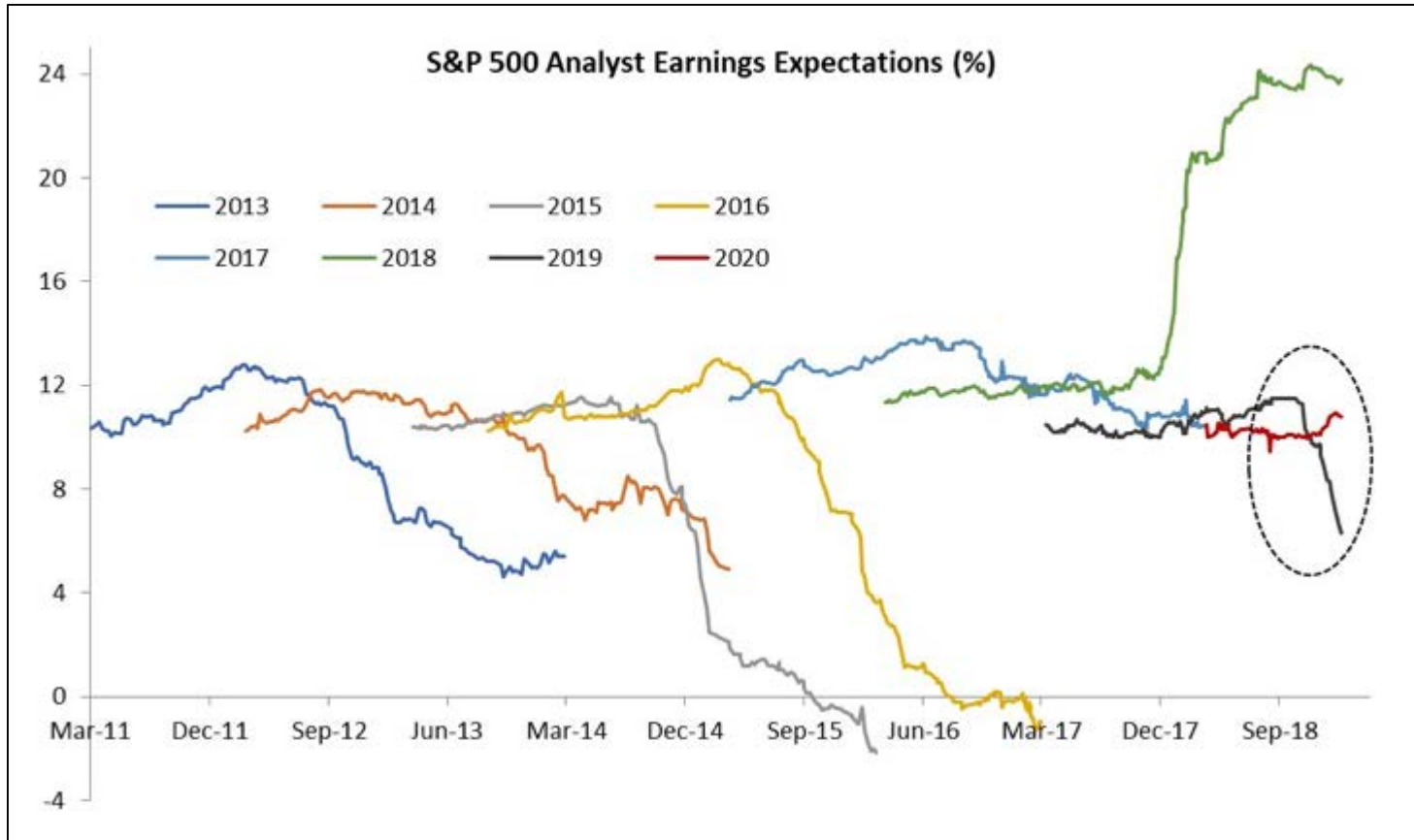
# And Less So About Other Topics



# Stock Market Hit A Wall



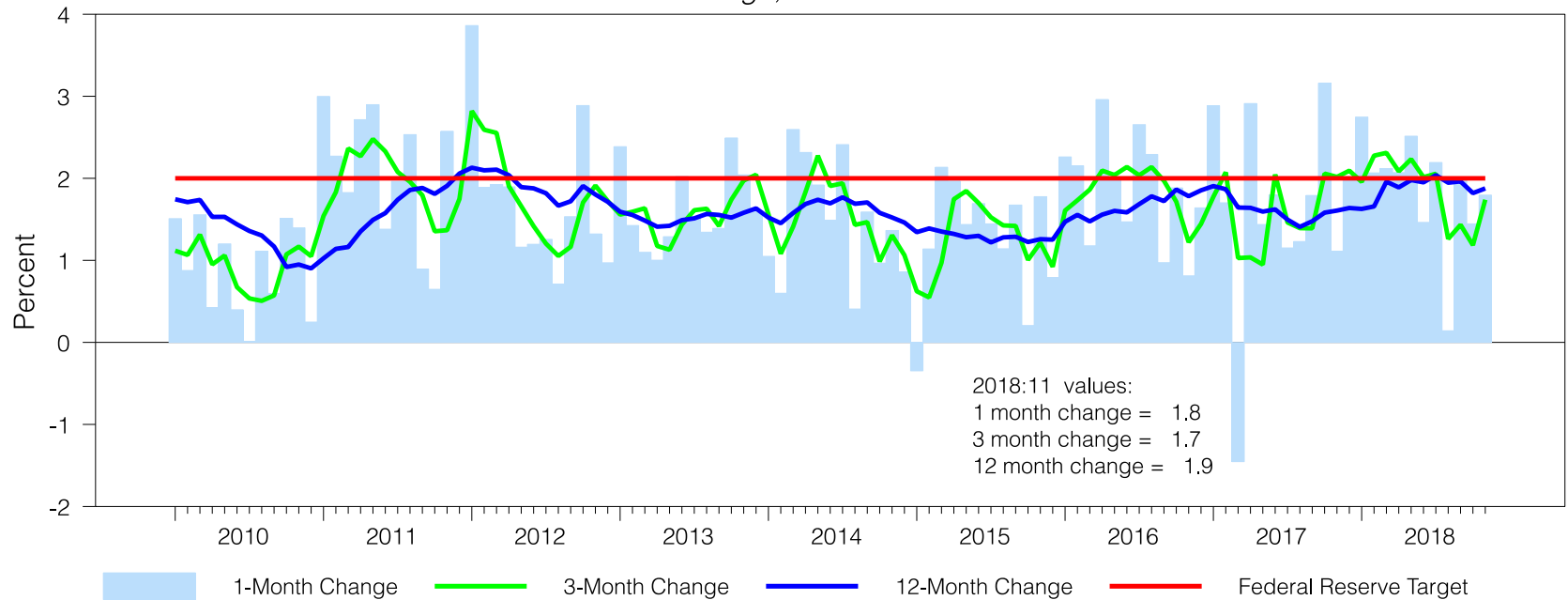
# 2018 Was A Clear Outlier For Earnings



# Firms Challenged To Raise Prices

## Core PCE Price Index, 1-, 3-, and 12-Month Change

*% Change, Annualized*



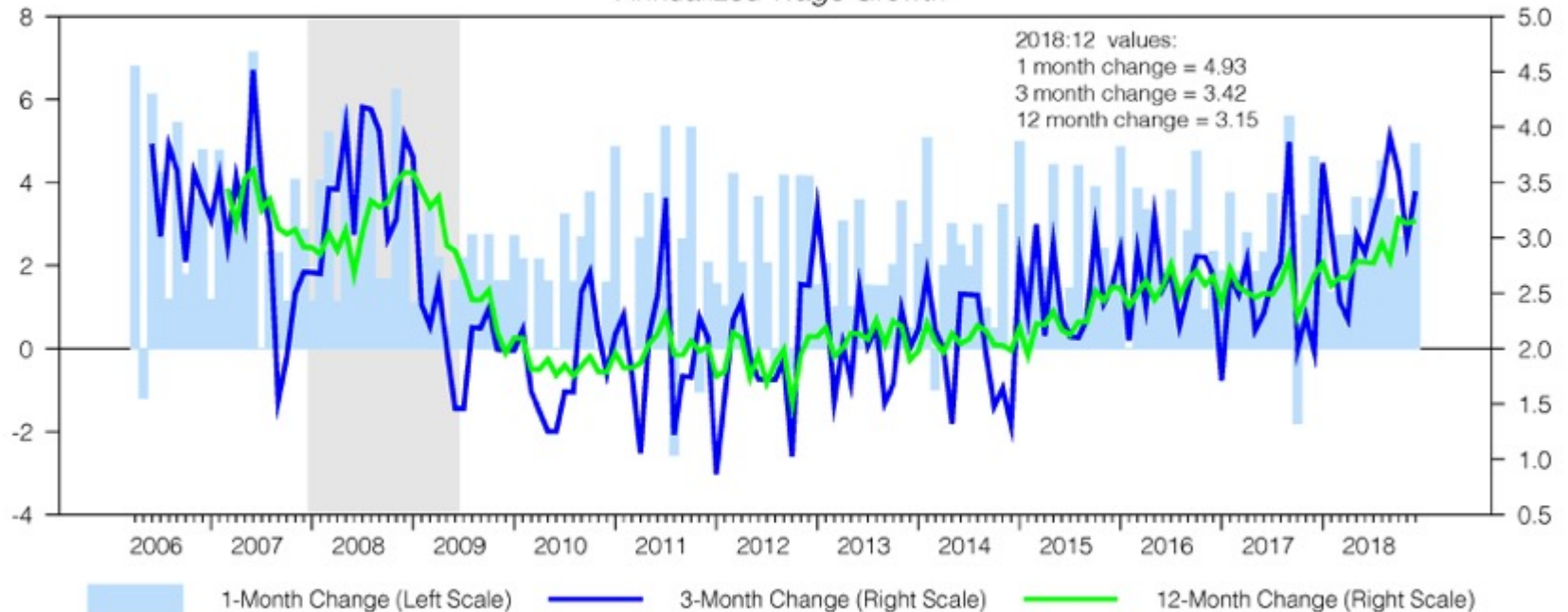
Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/29/2019 13:31



# Yet Costs Keep Rising

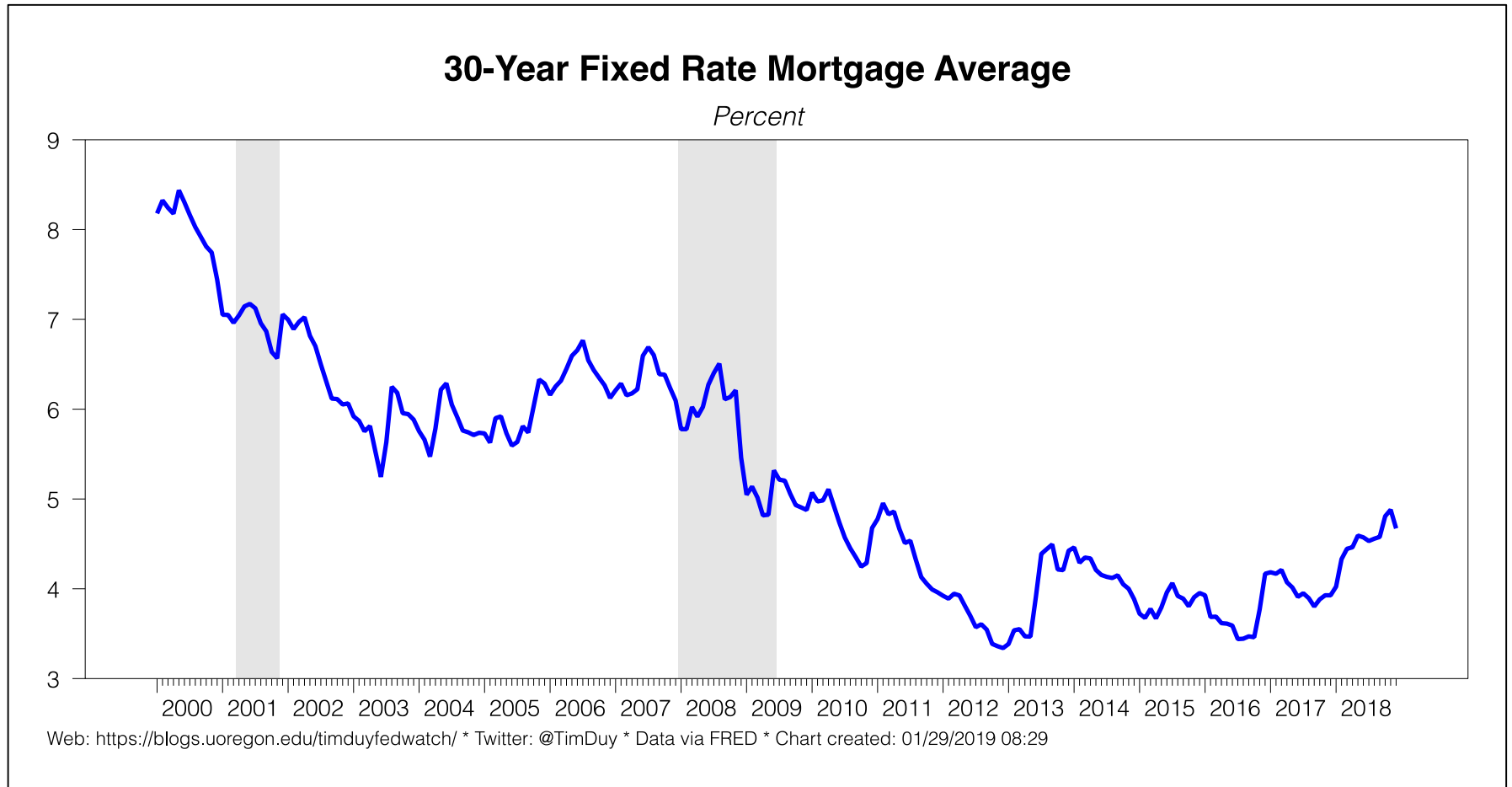
## All Employees Average Wages

*Annualized Wage Growth*



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/07/2019 12:39

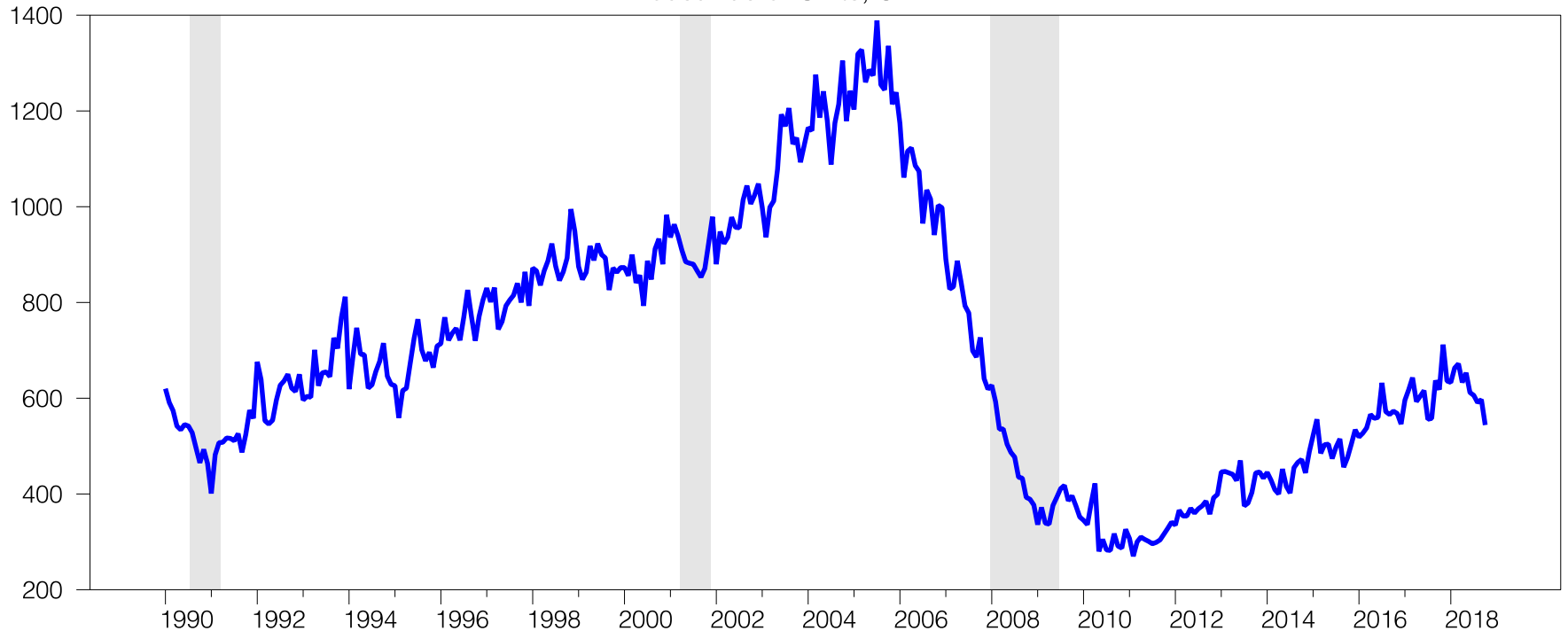
# Interest Rates Are A Touch Higher



# And Maybe Weighing On Housing

## New Single Family Homes Sold

*Thousands of Units, SAAR*



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/29/2019 08:29

# Plenty of Other Concerns

Lagged impact of higher interest rates

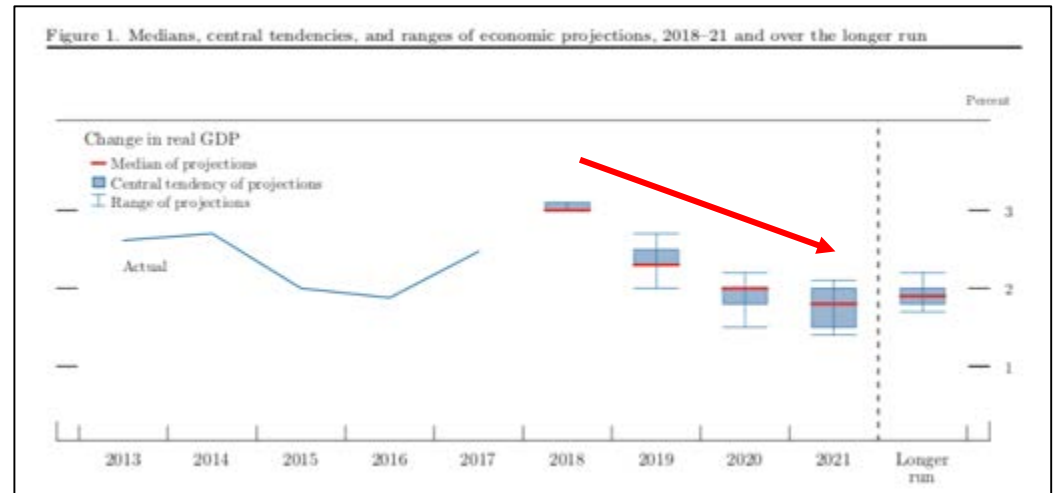
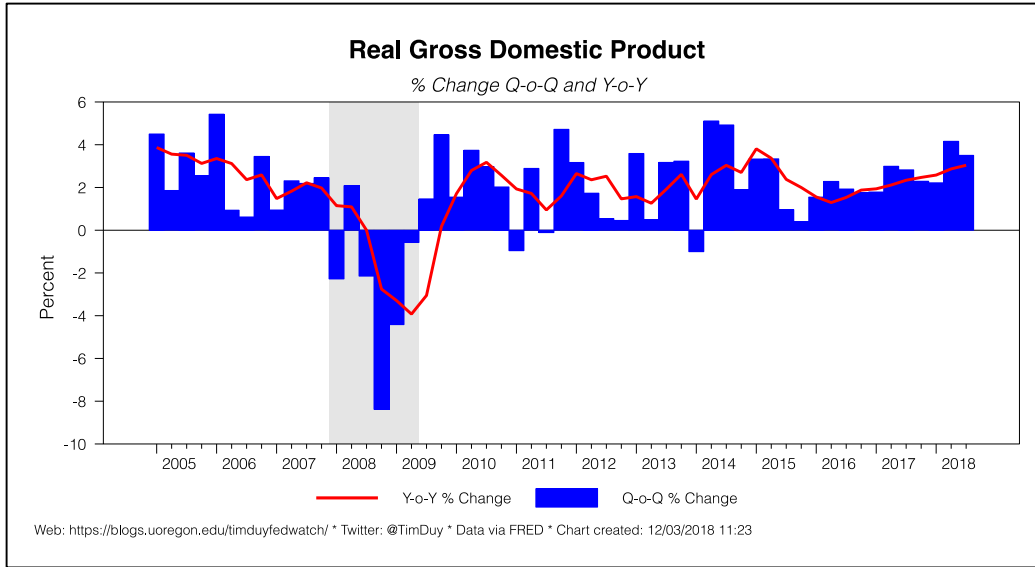
Fading fiscal stimulus

Slower global growth, particularly China and Brexit

US policy uncertainty

Trade policy

# Reasonable To Think Growth Peaked In 2018



# Which Leaves The Obvious Question...

*Is recession around the corner? Will the good times soon come to an end?*

# Why Are Recessions Hard To Predict?

Recessions are rare events!

Since 1960, economy in recession about 13% of the time.

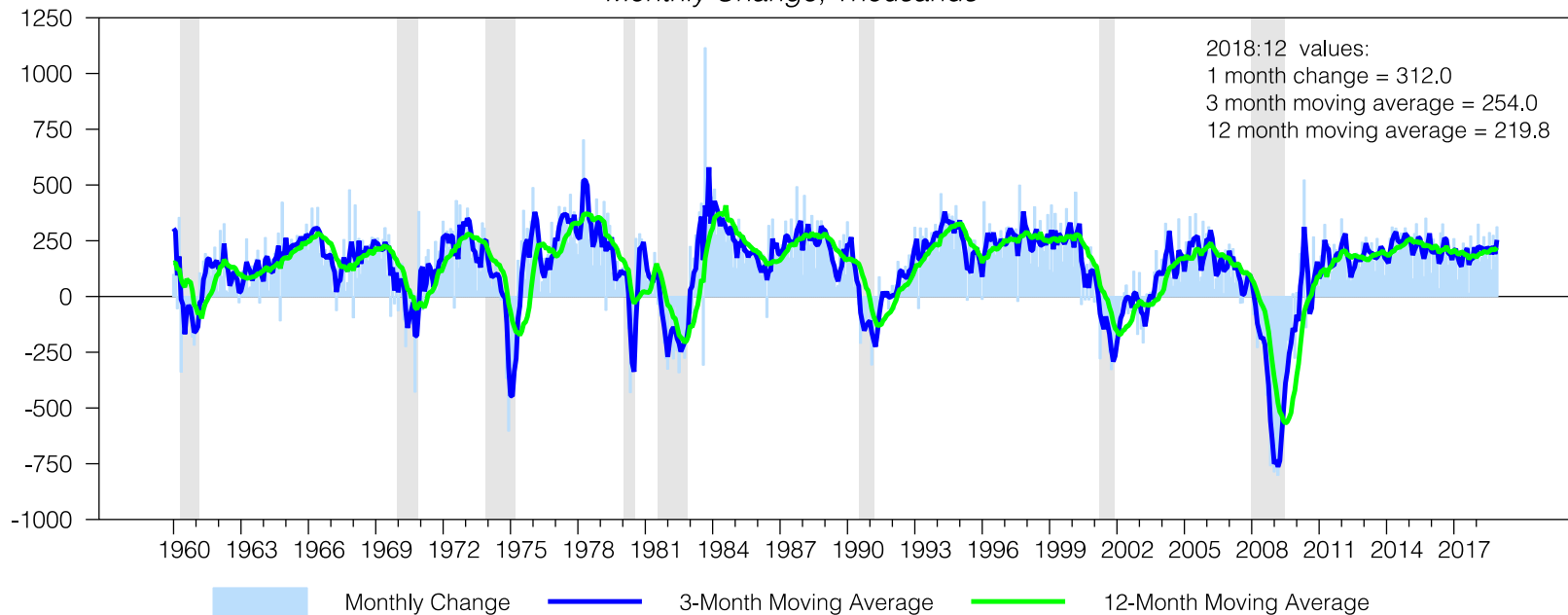
Since 1984, economy in recession only 8.3% of the time.

But even that might overstate the odds of being in a recession in any given month! Recessionary months are grouped together in time not spread out.

# Why Are Recessions Hard To Predict?

## US Nonfarm Payrolls

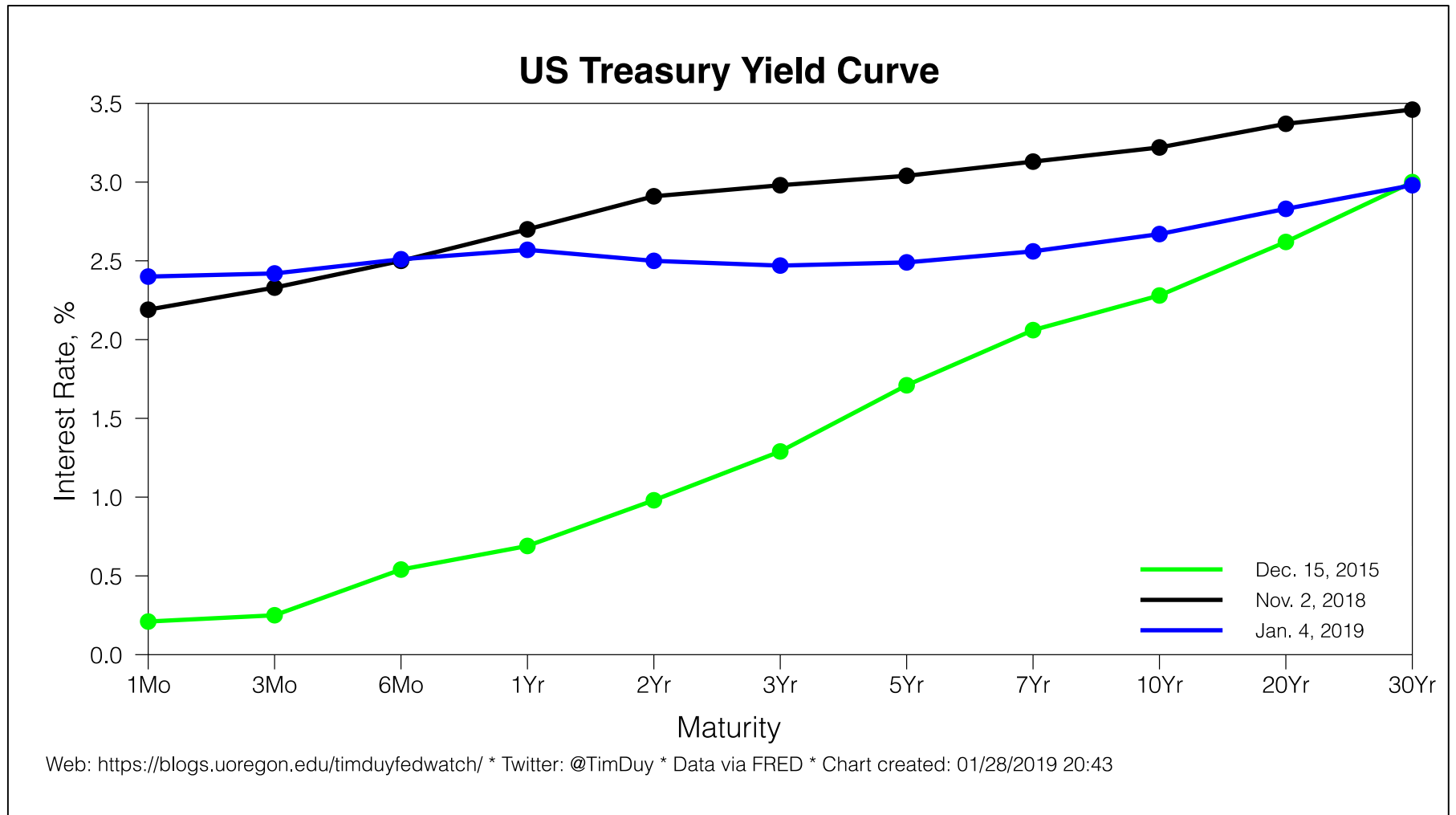
*Monthly Change, Thousands*



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/28/2019 20:36



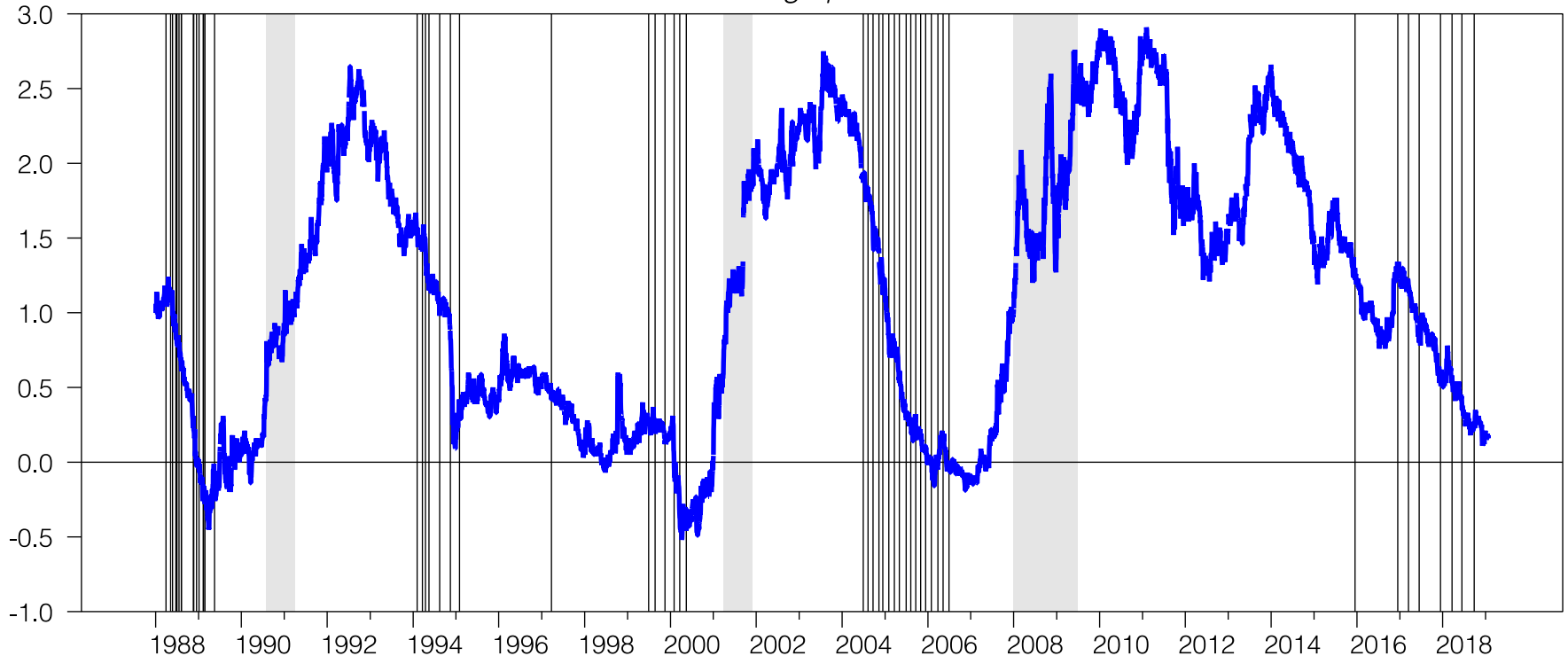
# What Is The Best Recessionary Indicator?



# What Is The Best Recessionary Indicator?

## Spread Between 10 Year and 2 Year Treasury Bond Rates

*Percentage points*

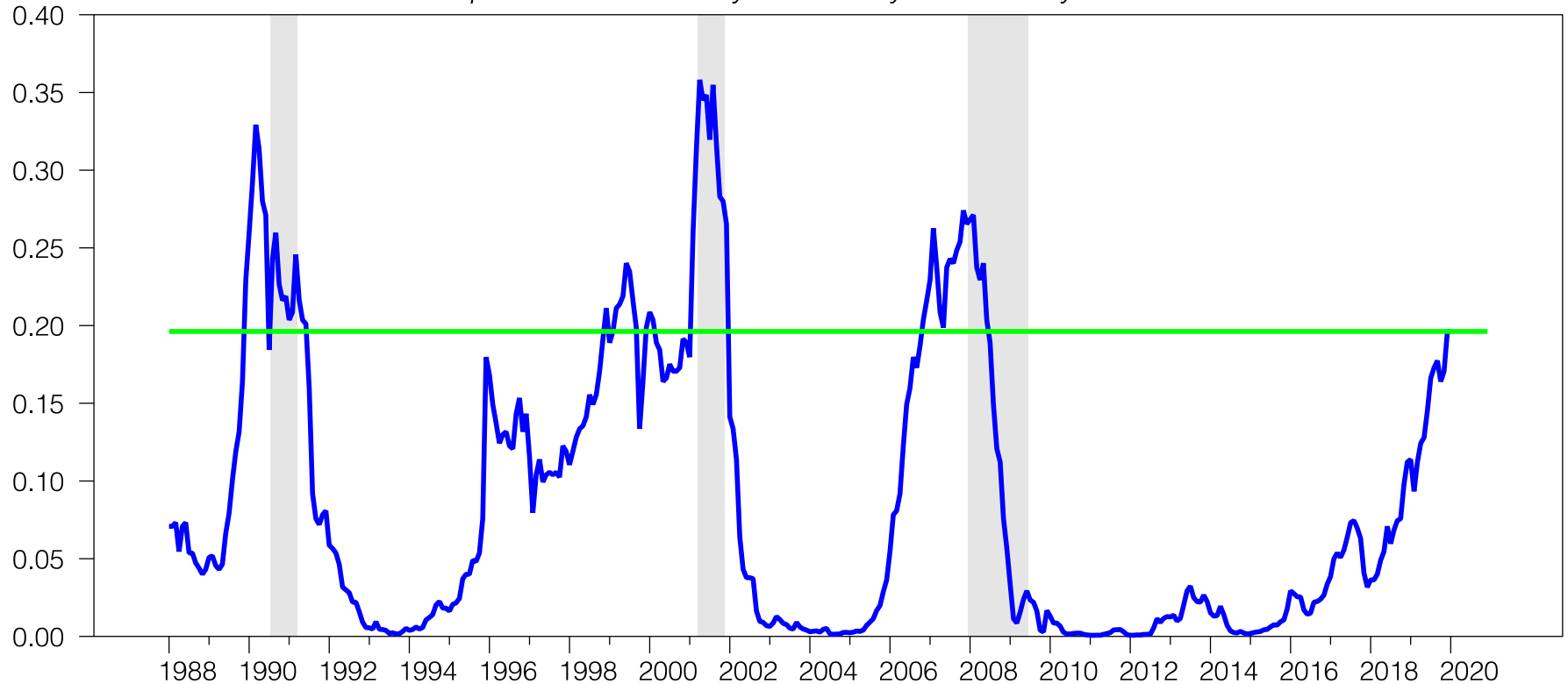


Lines indicate timing of Fed rate hikes \* Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Data via FRED \* Chart created: 01/28/2019 20:42

# Worrisome?

## Probability of Recession in Twelve Months

*Based on spread between 10-year and 2-year Treasury interest rates*

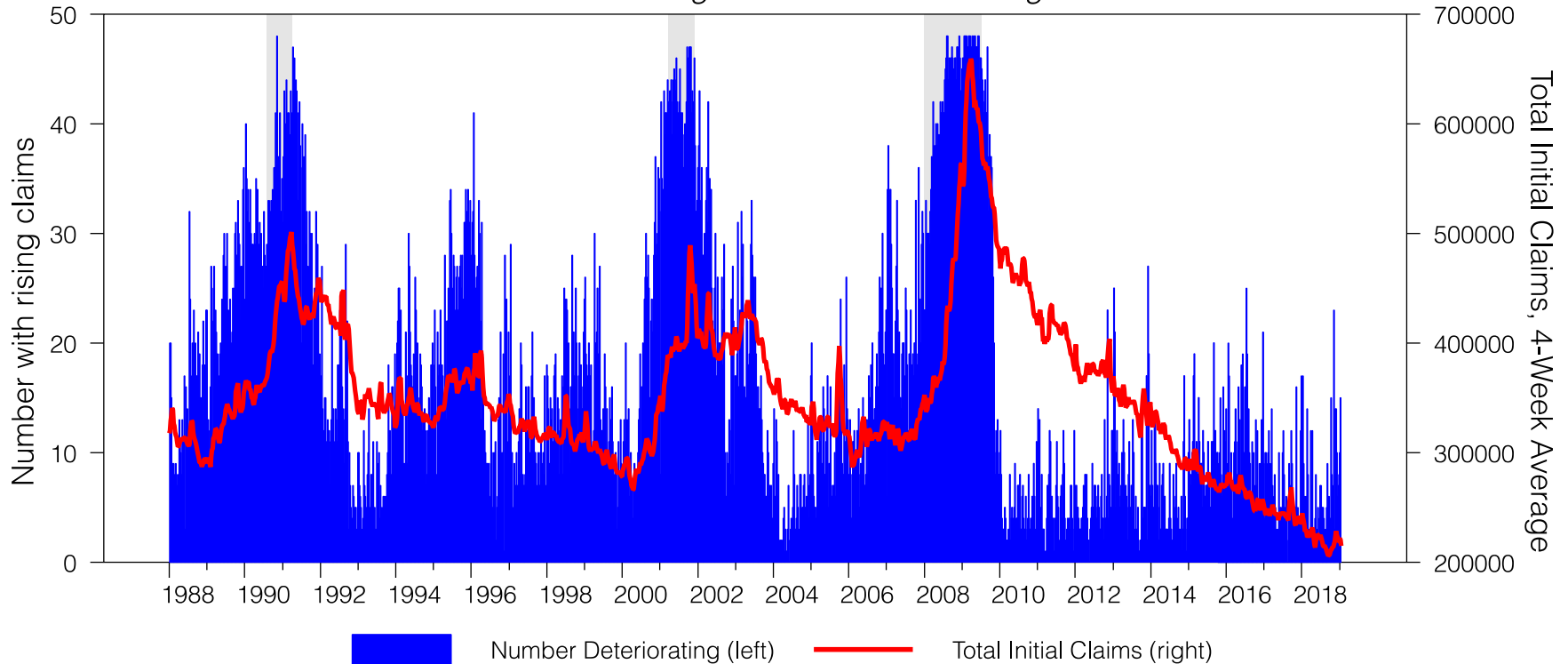


Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/28/2019 18:30

# What About Other Indicators?

## Dispersion of Initial Claims Deterioration Across US

*Number of states with 5% or greater 52-week % change in initial claims*

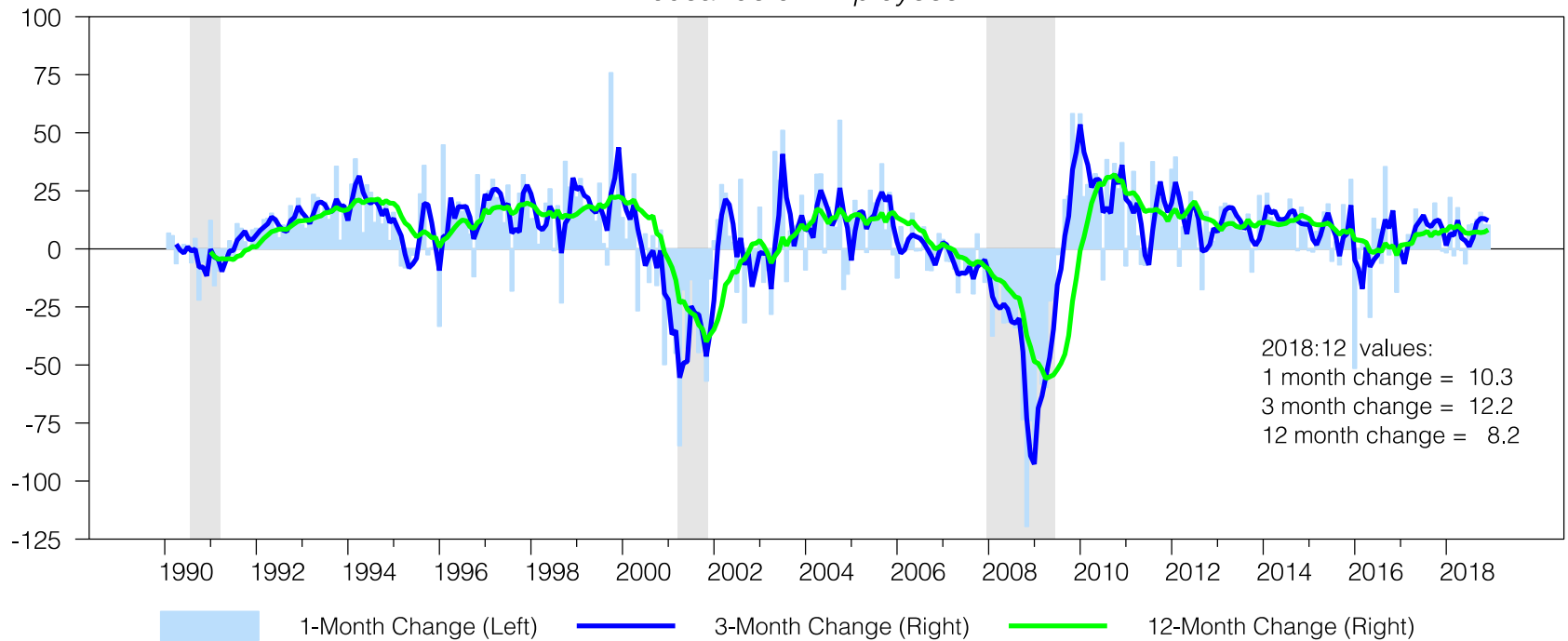


Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/28/2019 20:39

# And Even More Indicators?

## Temporary Help Services Payrolls

*Thousands of Employees*

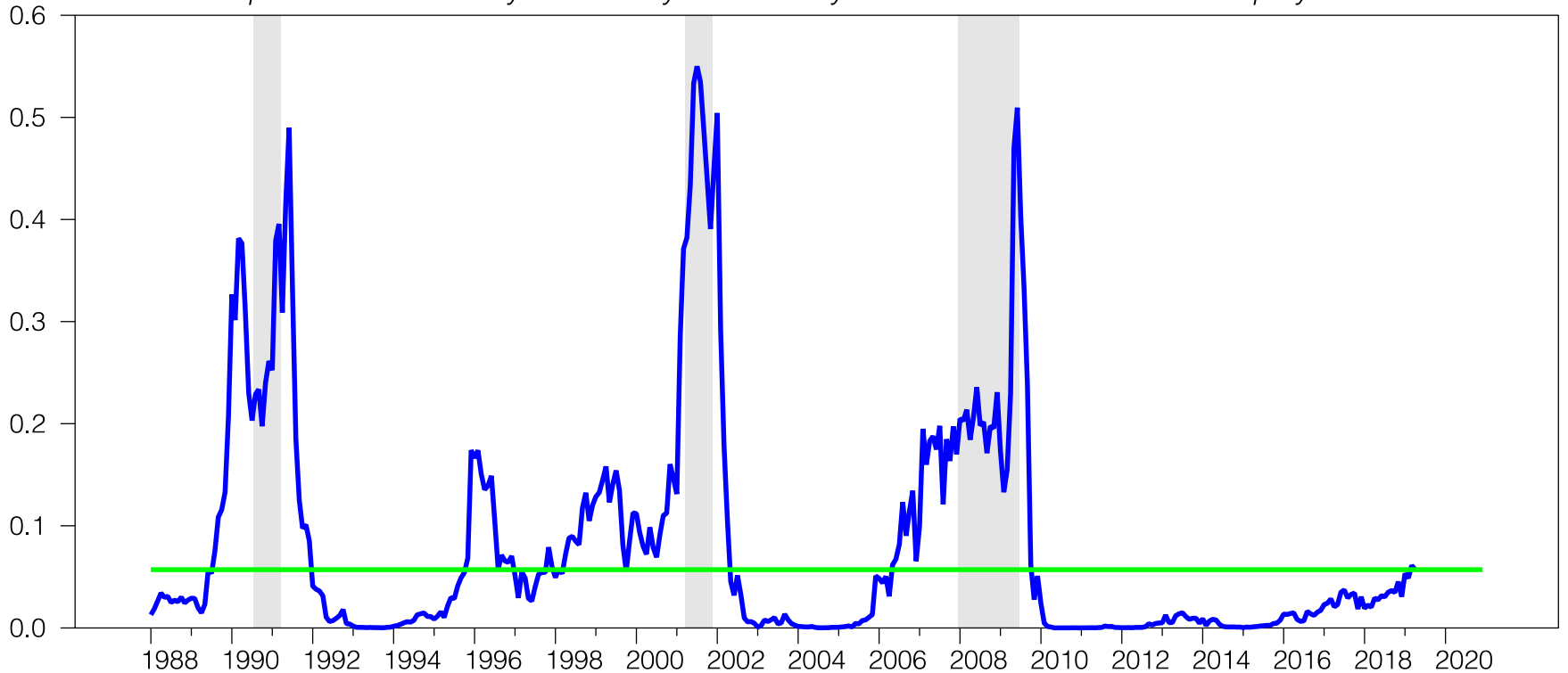


Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/28/2019 20:36

# Near Term Looks A Lot Less Scary

## Probability of Recession in Three Months

*Based on spread between 10-year and 2-year Treasury interest rates and initial unemployment claims*



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/28/2019 18:30

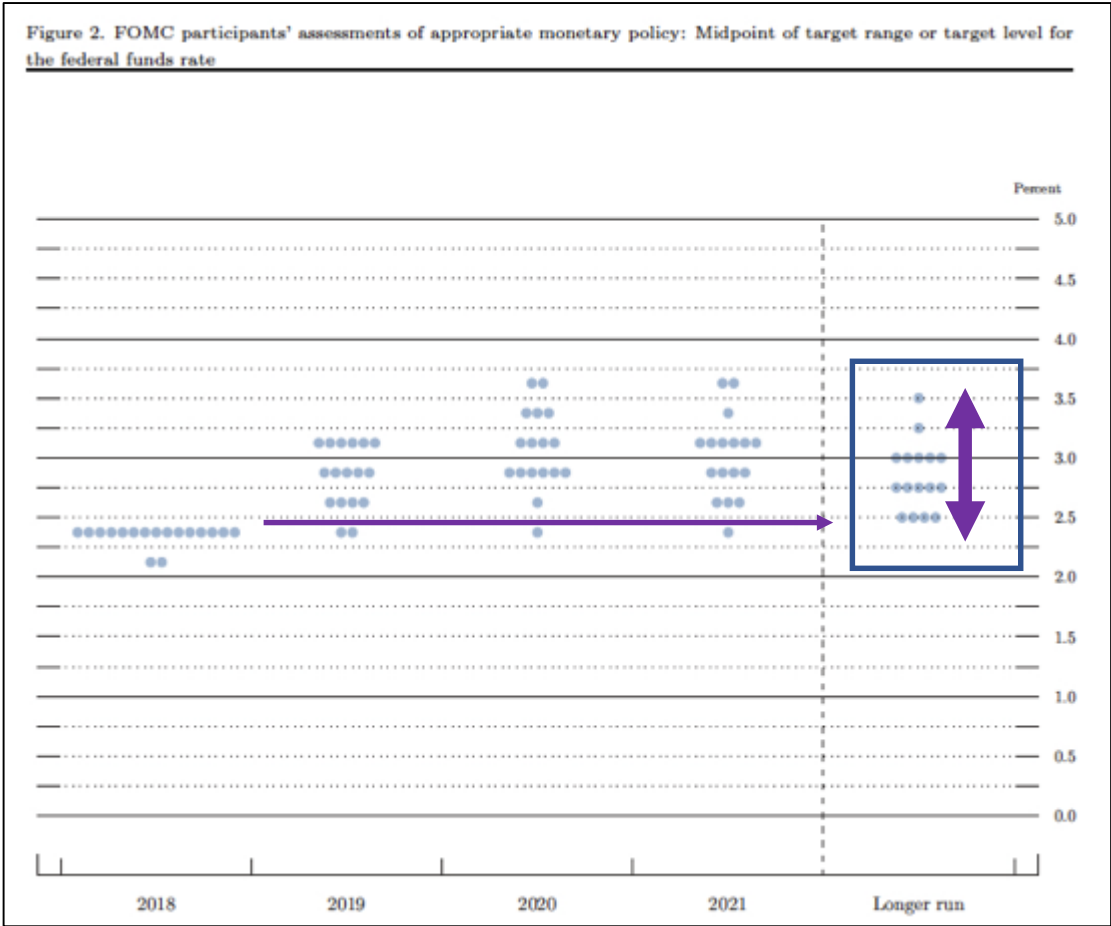
# My Rules Of Thumb

When the yield curve inverts with 2 year interest rates higher than 10 year interest rates, move to recession warning.

If the Federal Reserve keeps hiking after an inversion, move to recession watch.

On recession watch, be looking for leading indicators rolling over: For example, initial unemployment claims, temporary help payrolls, capital spending, manufacturing hours worked.

# Saving Grace – A Flexible Federal Reserve

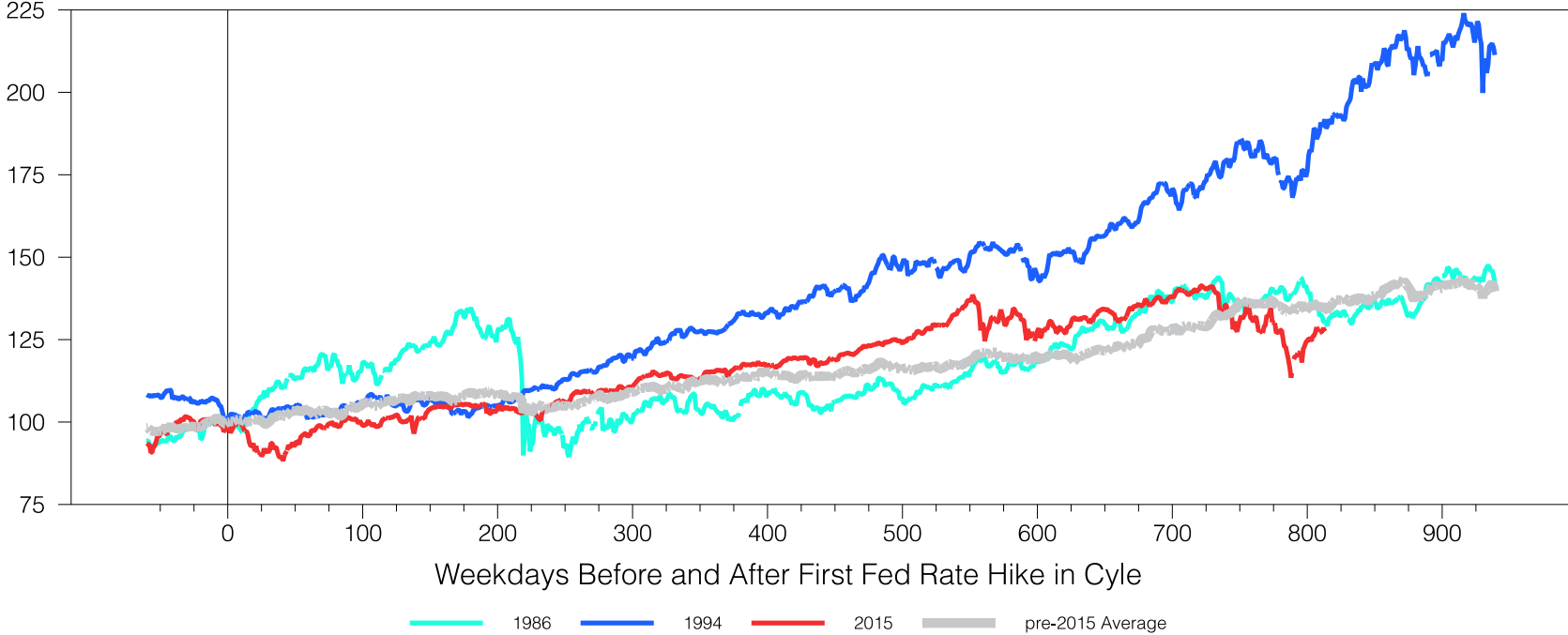




# How Deep of a Recession?

## SP500 Stock Index

*Indexed to equal 100 on day of first Fed rate hike in cycle*



Web: <https://blogs.uoregon.edu/timduyfedwatch/> \* Twitter: @TimDuy \* Data via FRED \* Chart created: 01/29/2019 14:55