

Financial Risk Management

MSBA IN FINANCIAL RISK MANAGEMENT



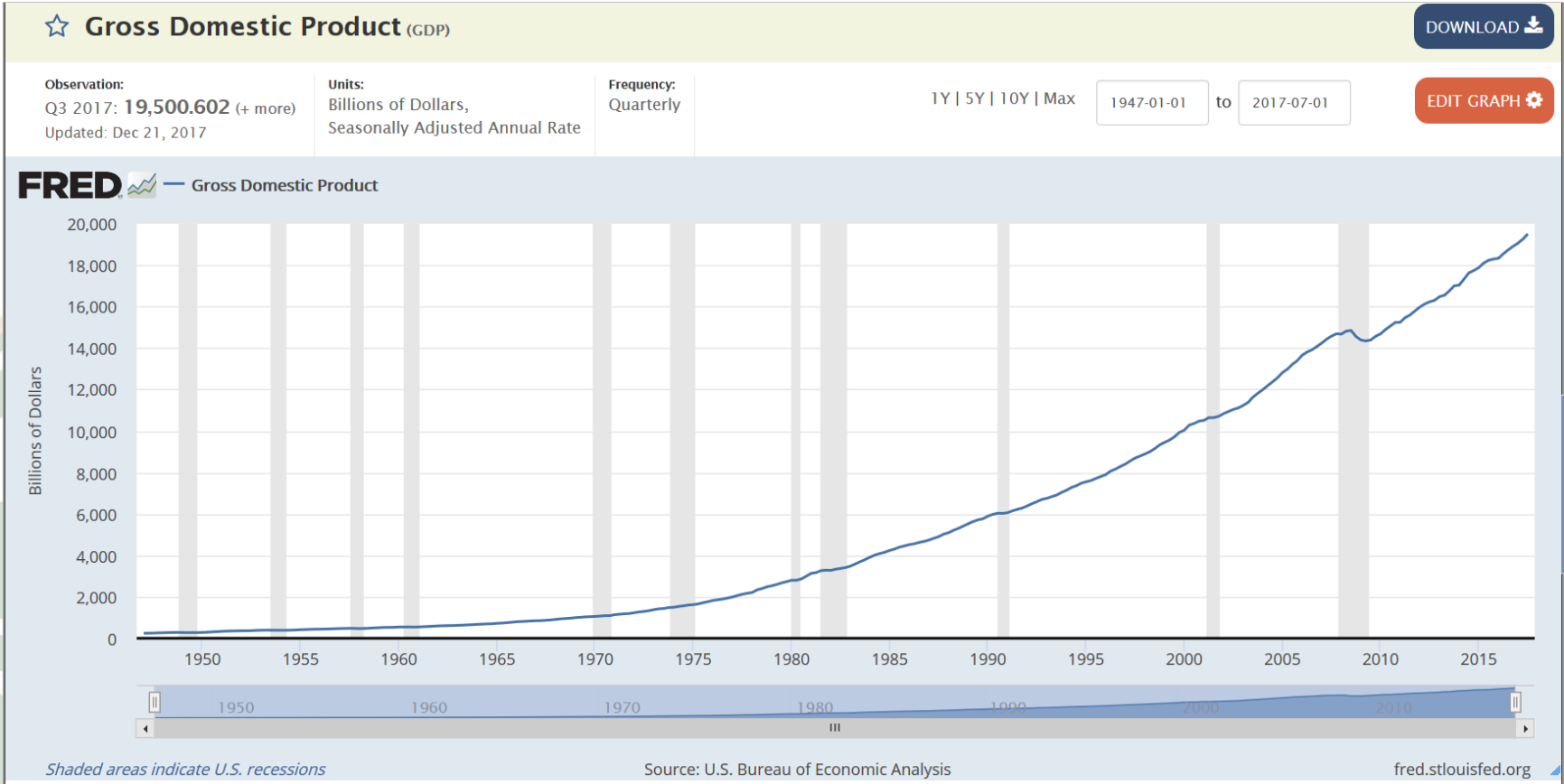
Fed Economic Data



The screenshot displays the FRED Economic Data website interface. At the top left, the FRED logo is accompanied by the text 'ECONOMIC DATA | ST. LOUIS FED'. To its right, 'ECONOMIC RESEARCH' is written in a large font, with 'FEDERAL RESERVE BANK OF ST. LOUIS' underneath. On the far right of this header, there are links for 'REGISTER' and 'SIGN IN'. Below the header is a dark blue navigation bar containing links for 'FRED Economic Data', 'Information Services', 'Publications', 'Working Papers', 'Economists', and 'About', along with a 'St. Louis Fed Home' link on the right. The main content area features a light blue background with the text 'Download, graph, and track 507,000 US and international time series from 87 sources.' Below this is a search bar with the placeholder text 'Search FRED data e.g., gdp, inflation, unemployment' and a magnifying glass icon. At the bottom of the main content area, there is a link to 'Browse data by Tag, Category, Release, Source, Release Calendar or Get Help'.

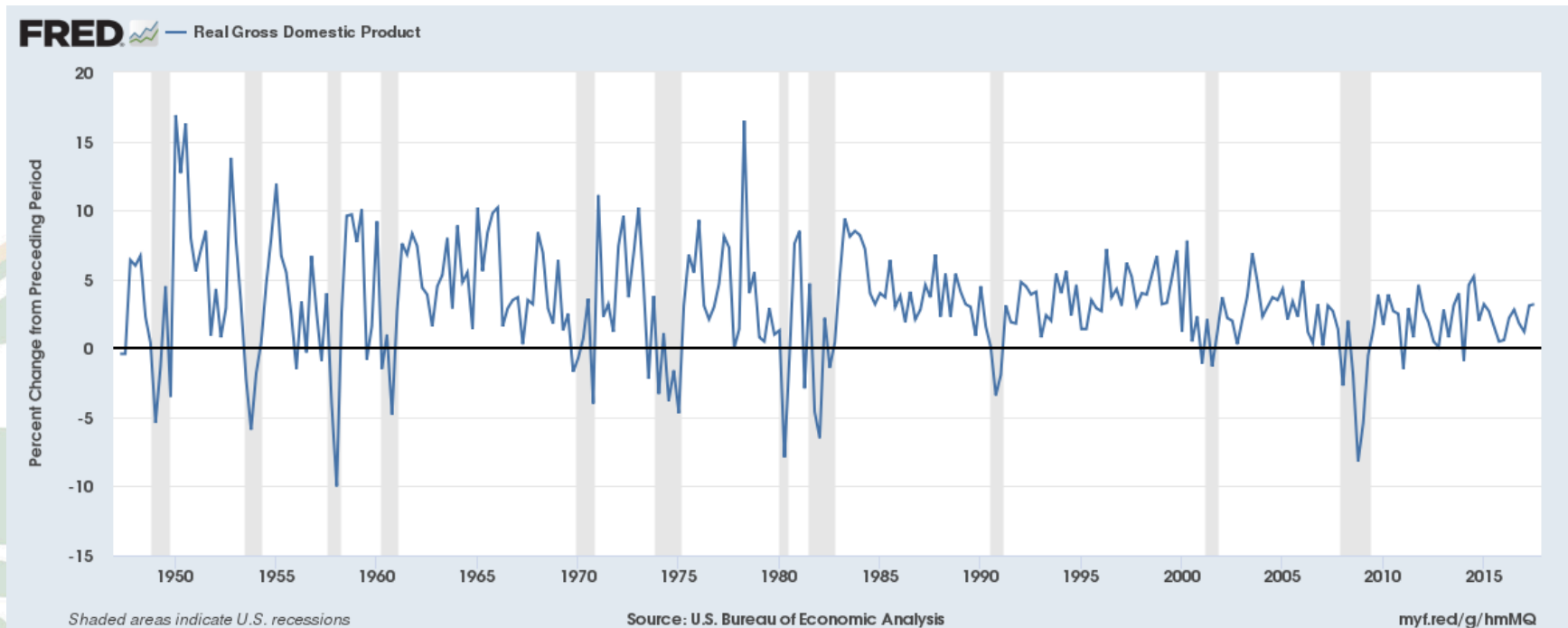
<https://fred.stlouisfed.org/>

Real GDP



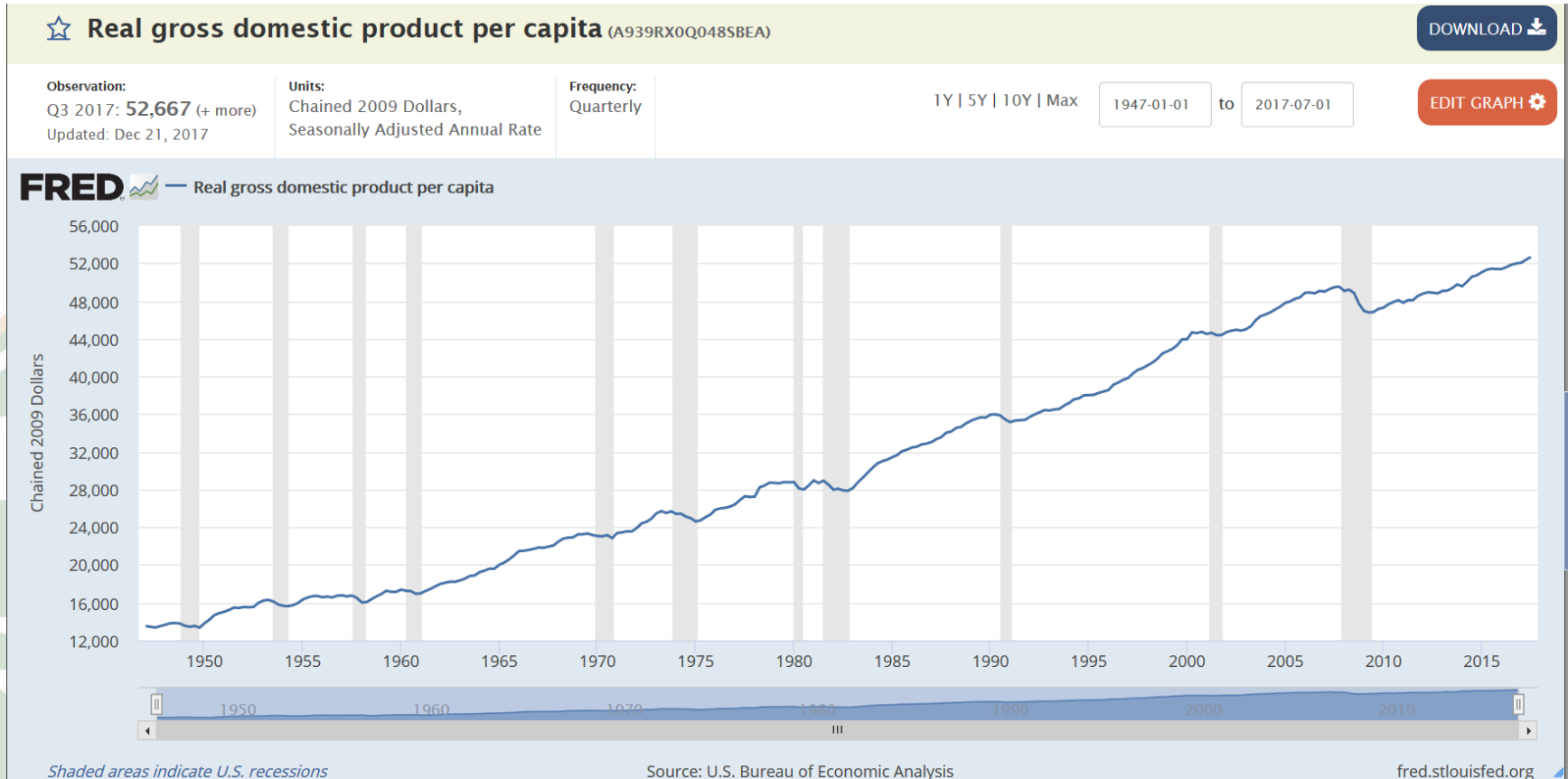
<https://fred.stlouisfed.org/series/GDP>

Real GDP Growth



<https://fred.stlouisfed.org/series/A191RL1Q225SBEA>

Real GDP Per Capita



<https://fred.stlouisfed.org/series/A939RX0Q048SBEA>

The Employment Situation Report



U.S. BUREAU OF LABOR STATISTICS

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Economic News Release <https://www.bls.gov/news.release/empsit.nr0.htm>

Employment Situation Summary

Transmission of material in this news release is embargoed until
8:30 a.m. (EST) Friday, December 6, 2019

USDL-19-2105

Technical information:

Household data: (202) 691-6378 * cpsinfo@bls.gov * www.bls.gov/cps
Establishment data: (202) 691-6555 * cesinfo@bls.gov * www.bls.gov/ces

Media contact: (202) 691-5902 * PressOffice@bls.gov

THE EMPLOYMENT SITUATION -- NOVEMBER 2019

Total nonfarm payroll employment rose by 266,000 in November, and the unemployment rate was little changed at 3.5 percent, the U.S. Bureau of Labor Statistics reported today. Notable job gains occurred in health care and in professional and technical services. Employment rose in manufacturing, reflecting the return of workers from a strike.

This news release presents statistics from two monthly surveys. The household survey measures labor force status, including unemployment, by demographic characteristics. The establishment survey measures nonfarm employment, hours, and earnings by industry. For more information about the concepts and statistical methodology used in these two surveys, see the Technical Note.

Initial Jobless Claims



fred.stlouisfed.org/graph/fredgraph.png?g=hBdf

Releases > Personal Income and Outlays > Release Tables

Release Tables:
Table 2.6. Personal Income and Its Disposition, Monthly

 **Jan 1959** **Aug 2019** **Sep 2019** **Oct 2019** **Nov 2019**

<input type="checkbox"/>	Line	Name	Nov 2019	Oct 2019	Nov 2018	Units
<input type="checkbox"/>	1	▼ Personal income	18,911.2	18,809.5	18,036.0	Bil. of \$
<input type="checkbox"/>	2	▼ Compensation of employees	11,617.3	11,573.1	11,047.7	Bil. of \$
<input type="checkbox"/>	3	▼ Wages and salaries	9,461.0	9,423.8	8,981.0	Bil. of \$
<input type="checkbox"/>	4	Private industries	7,988.9	7,956.1	7,557.7	Bil. of \$
<input type="checkbox"/>	5	Government	1,472.0	1,467.8	1,423.3	Bil. of \$
<input type="checkbox"/>	6	▼ Supplements to wages and salaries	2,156.3	2,149.3	2,066.8	Bil. of \$
<input type="checkbox"/>	7	Employer contributions for employee pension and insurance funds	1,496.3	1,491.5	1,439.4	Bil. of \$
<input type="checkbox"/>	8	Employer contributions for government social insurance	660.0	657.8	627.4	Bil. of \$

<https://fred.stlouisfed.org/release/tables?rid=54&eid=155443>

Household Income

☆ Real Median Household Income in the United States (MEHOINUSA672N)

DOWNLOAD

Observation:
2016: 59,039 (+ more)
Updated: Sep 13, 2017

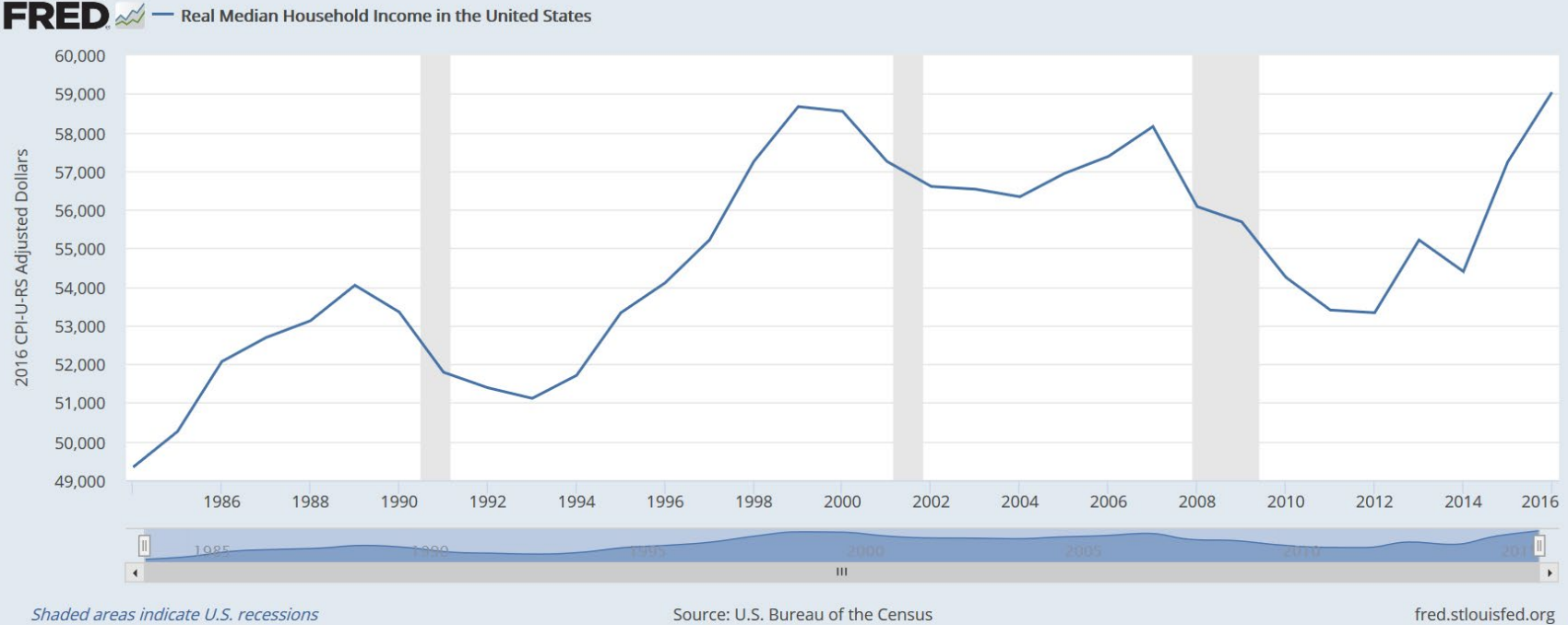
Units:
2016 CPI-U-RS Adjusted Dollars,
Not Seasonally Adjusted

Frequency:
Annual

1Y | 5Y | 10Y | Max

1984-01-01 to 2016-01-01

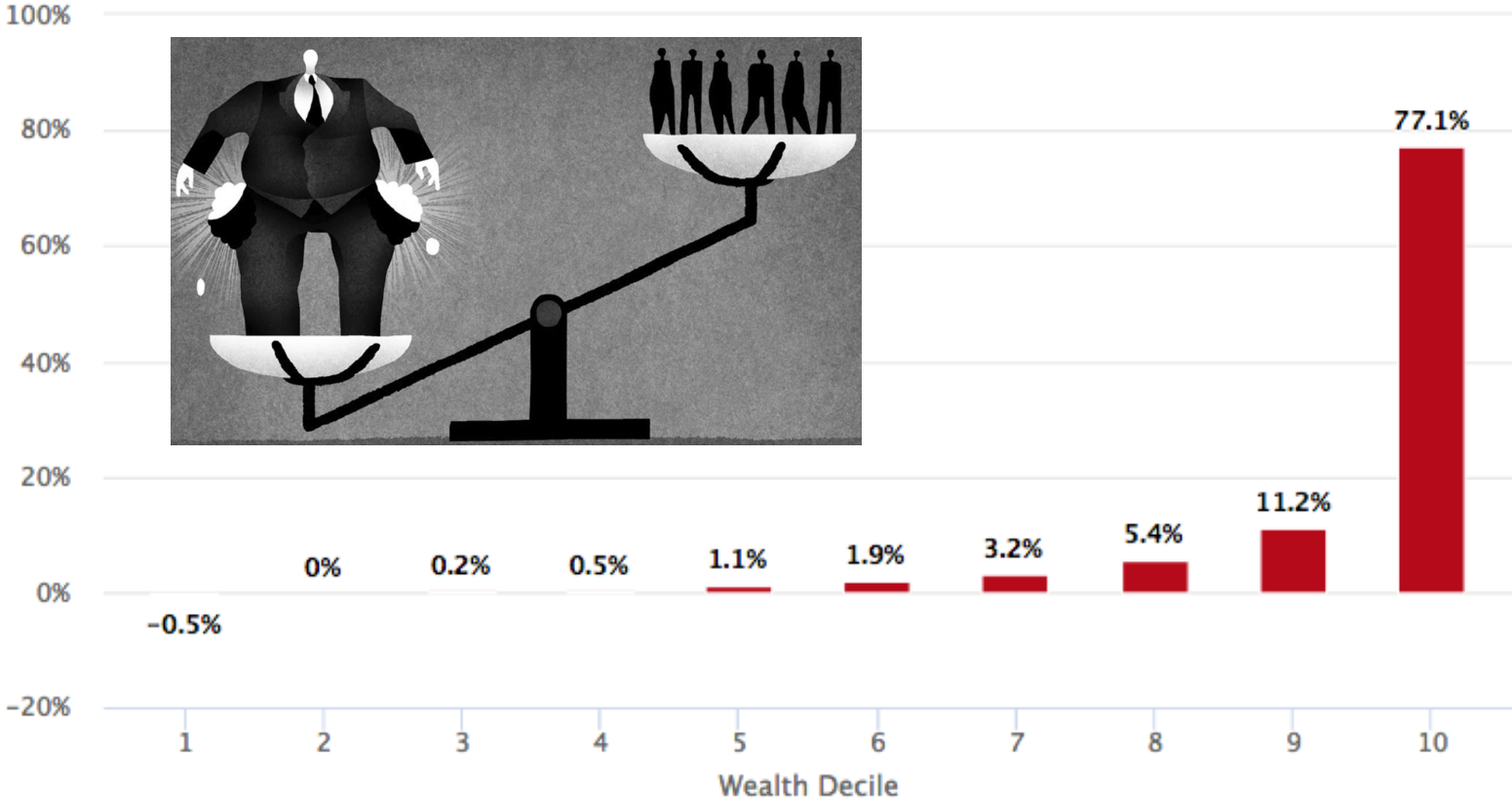
EDIT GRAPH



<https://fred.stlouisfed.org/series/MEHOINUSA672N>

United States Net Worth Brackets

Wealth Share By Wealth Decile (2016)



Source: Survey of Consumer Finances

Personal income per capita

☆ Personal income per capita (A792RC0A052NBEA)

DOWNLOAD 

Observation:
2016: **49,255** (+ more)
Updated: Jul 28, 2017

Units:
Dollars,
Not Seasonally Adjusted

Frequency:
Annual

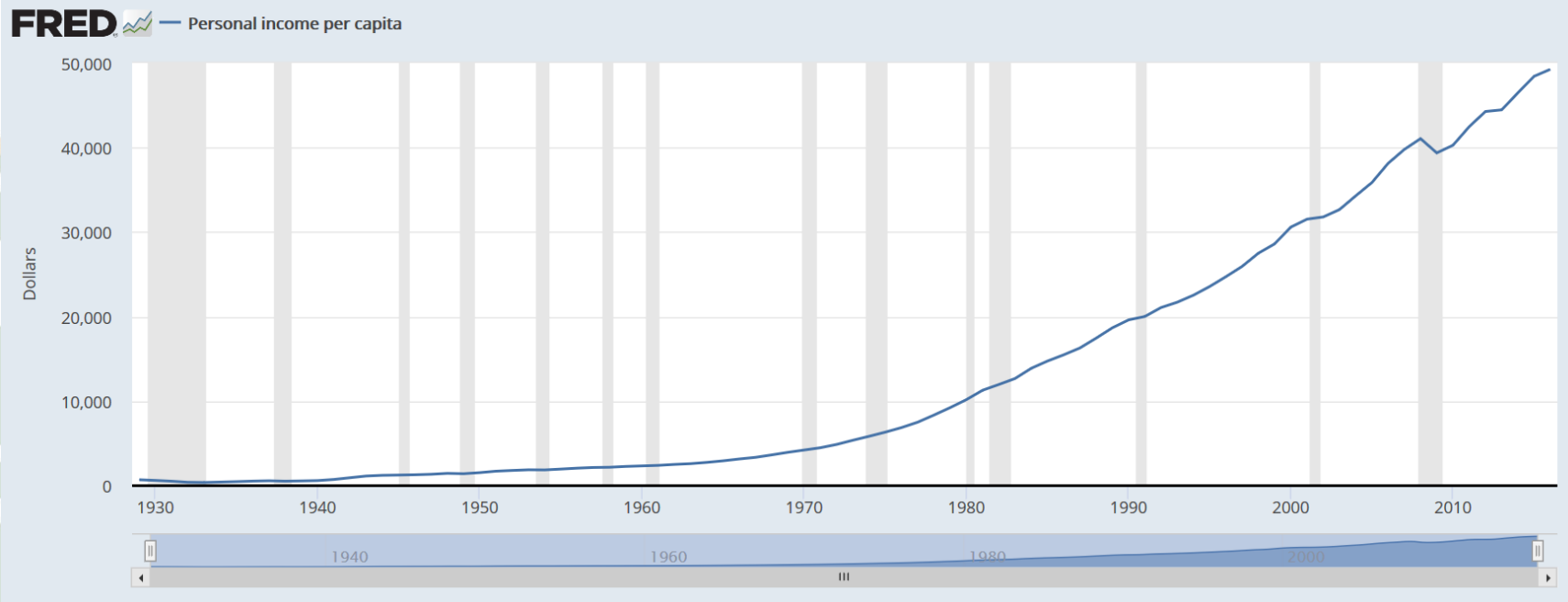
1Y | 5Y | 10Y | Max

1929-01-01

to

2016-01-01

EDIT GRAPH 



<https://fred.stlouisfed.org/series/A792RC0A052NBEA>

Real Disposable Personal Income: Per Capita

☆ Real Disposable Personal Income: Per Capita (A229RX0)

DOWNLOAD

Observation:
Nov 2017: **39,309** (+ more)
Updated: Dec 22, 2017

Units:
Chained 2009 Dollars,
Seasonally Adjusted Annual Rate

Frequency:
Monthly

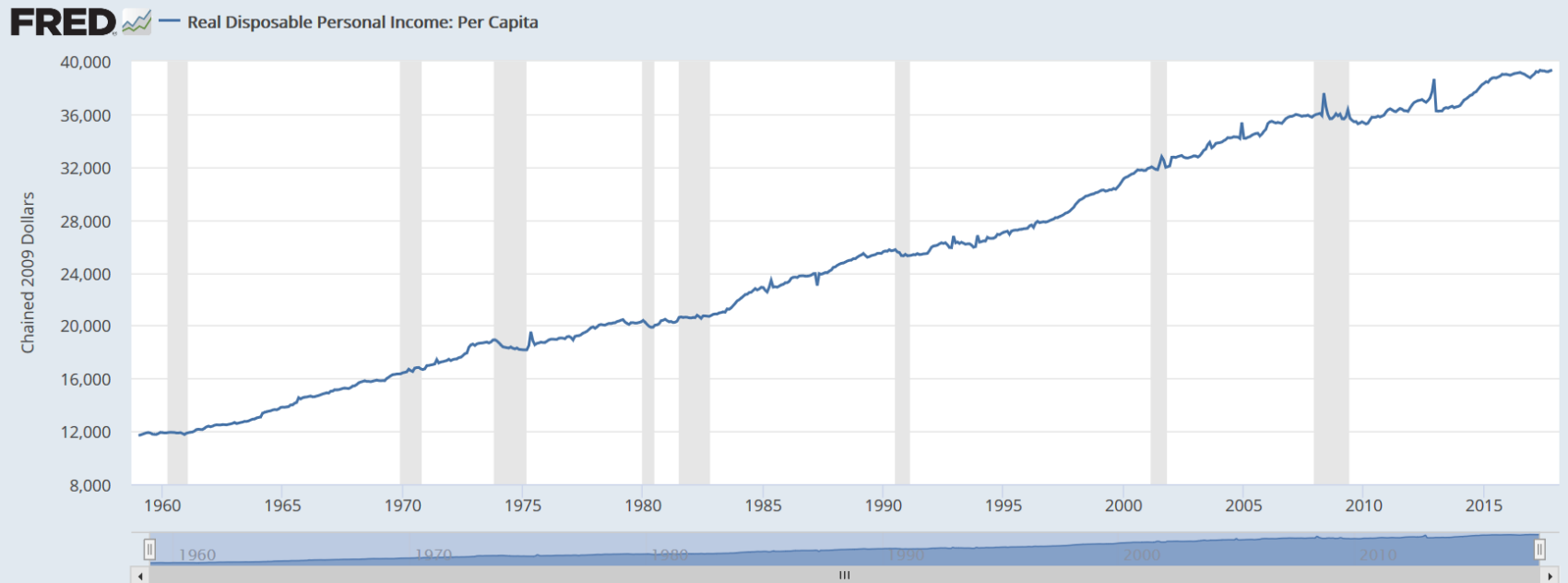
1Y | 5Y | 10Y | Max

1959-01-01

to

2017-11-01

EDIT GRAPH



Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

fred.stlouisfed.org

<https://fred.stlouisfed.org/series/A229RX0>

Personal saving as a percentage of disposable personal income

☆ Personal saving as a percentage of disposable personal income (A072RC1Q156SBEA)

DOWNLOAD

Observation:
Q3 2017: 3.3 (+ more)
Updated: Nov 29, 2017

Units:
Percent,
Seasonally Adjusted Annual Rate

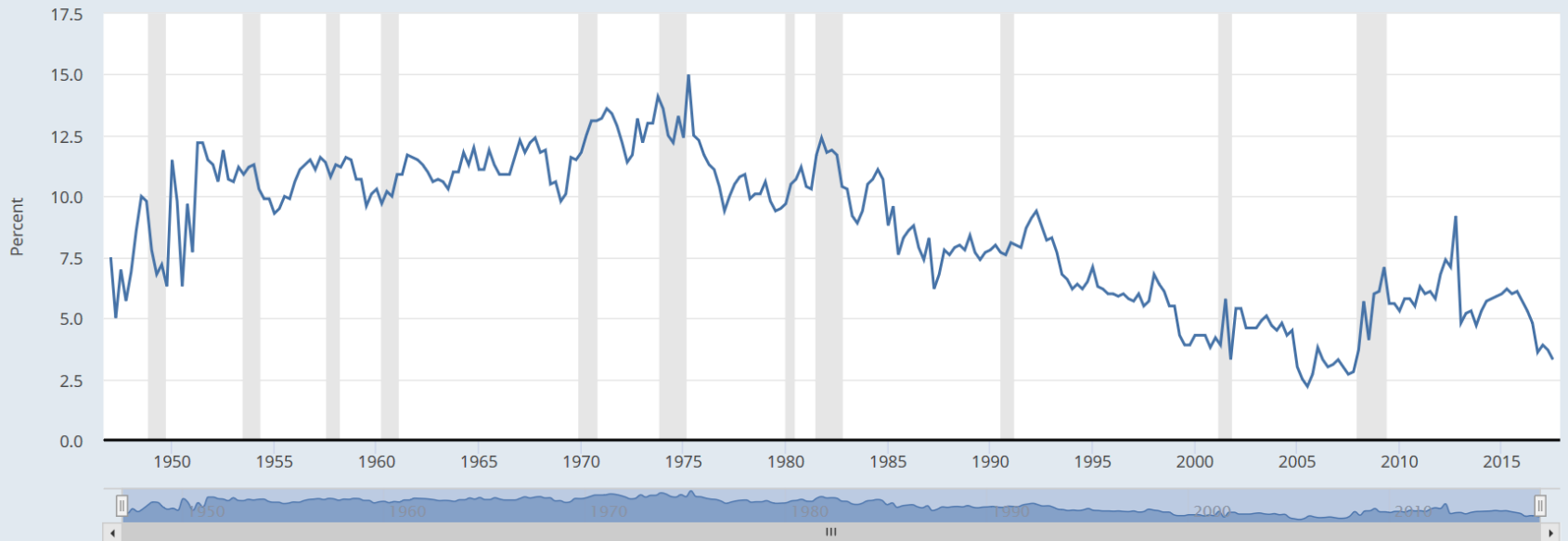
Frequency:
Quarterly

1Y | 5Y | 10Y | Max

1947-01-01 to 2017-07-01

EDIT GRAPH

FRED — Personal saving as a percentage of disposable personal income



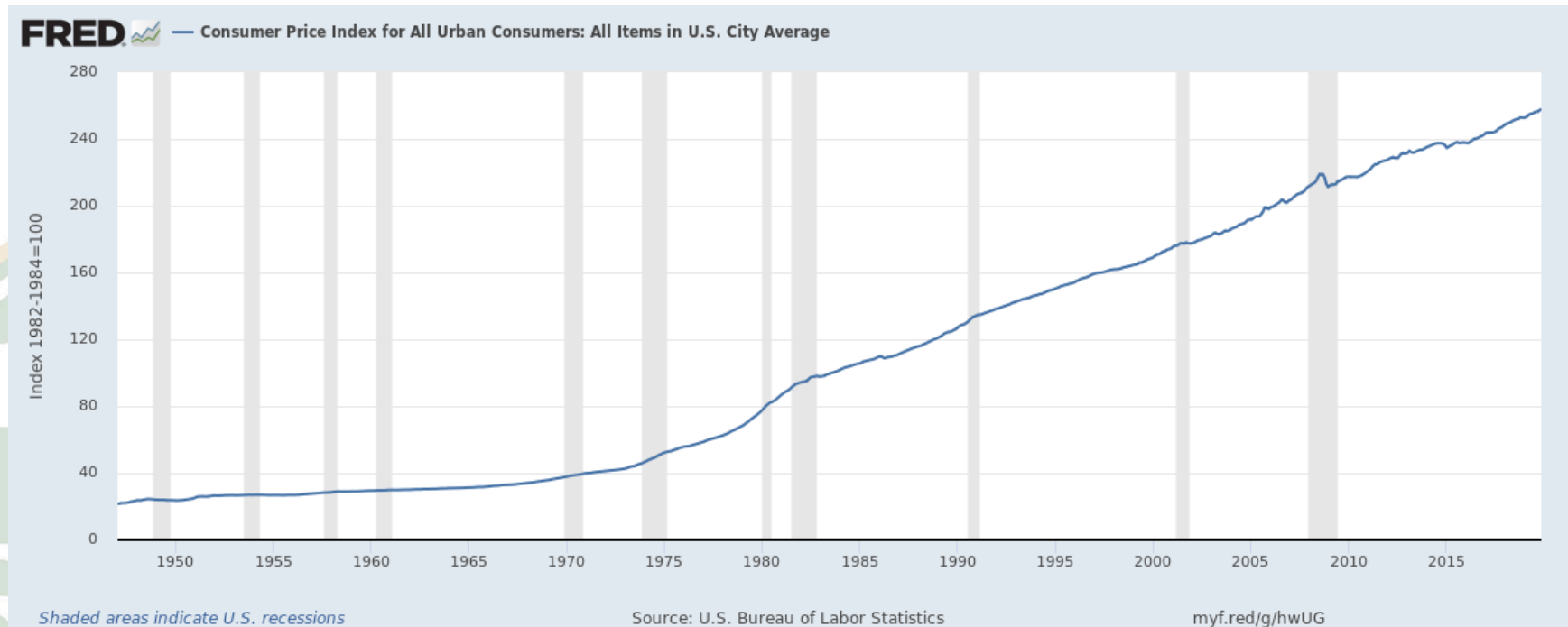
Shaded areas indicate U.S. recessions

Source: U.S. Bureau of Economic Analysis

fred.stlouisfed.org

<https://fred.stlouisfed.org/series/A072RC1Q156SBEA>

CPI



<https://fred.stlouisfed.org/graph/fredgraph.png?g=hwUG>

Core CPI

- The Fed measures inflation using the personal consumption expenditures deflator (PCED).
- The difference between CPI and PCE seemed relatively insignificant. However, a big issue is the difference between CPI and Core CPI.
- CPI is the consumer price index. A measure of the cost of living for the typical person.
- Core CPI is the CPI – energy and food prices.
- Energy and food prices are removed because they have tendency to be highly volatile.

Inflation/deflation effects on asset classes

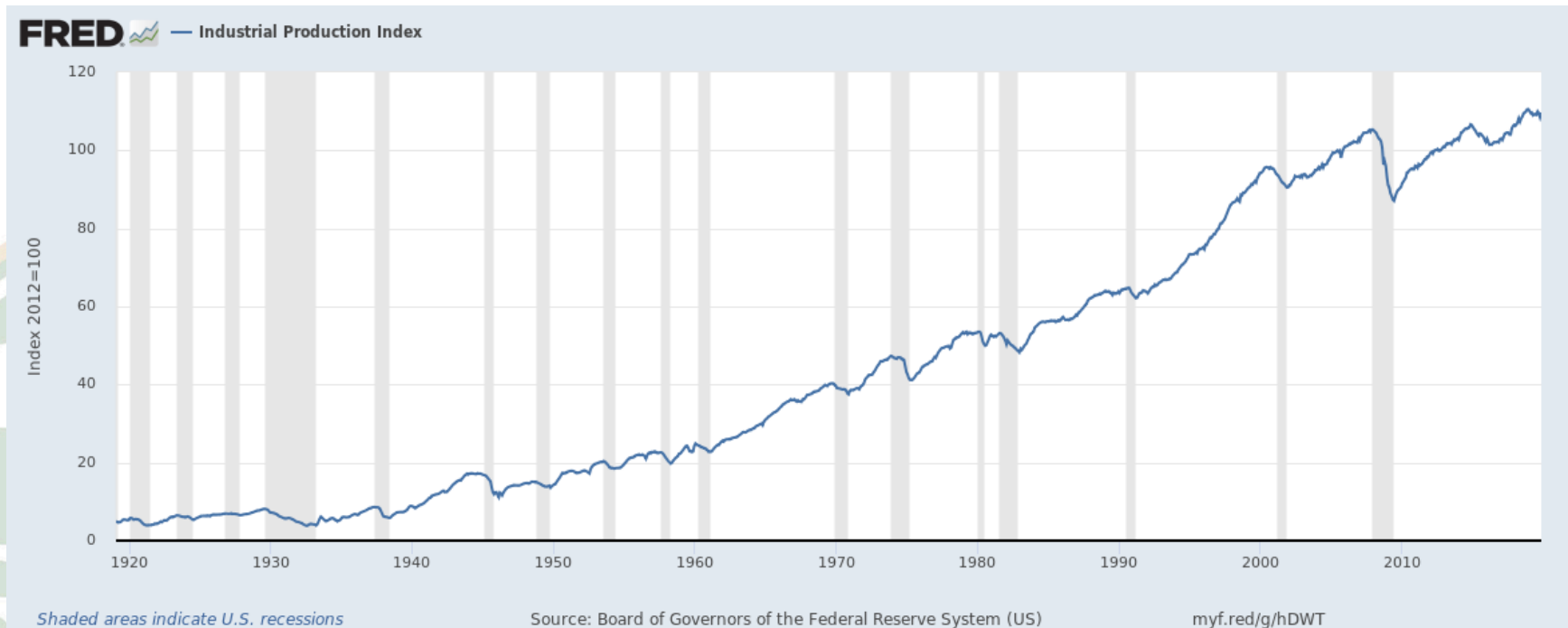
	Cash	Bonds	Equity	Real Estate/ Other Real Assets
Inflation at or below expectations	Neutral	Neutral	Positive	Neutral
Inflation above expectations	Positive	Negative	Negative	Positive
Deflation	Negative	Positive	Negative	Negative

Inflation Expectation



<https://fred.stlouisfed.org/series/MICH>

Industrial Production



<https://fred.stlouisfed.org/graph/fredgraph.png?g=hDWT>

Industrial Production and Capacity Utilization - G.17

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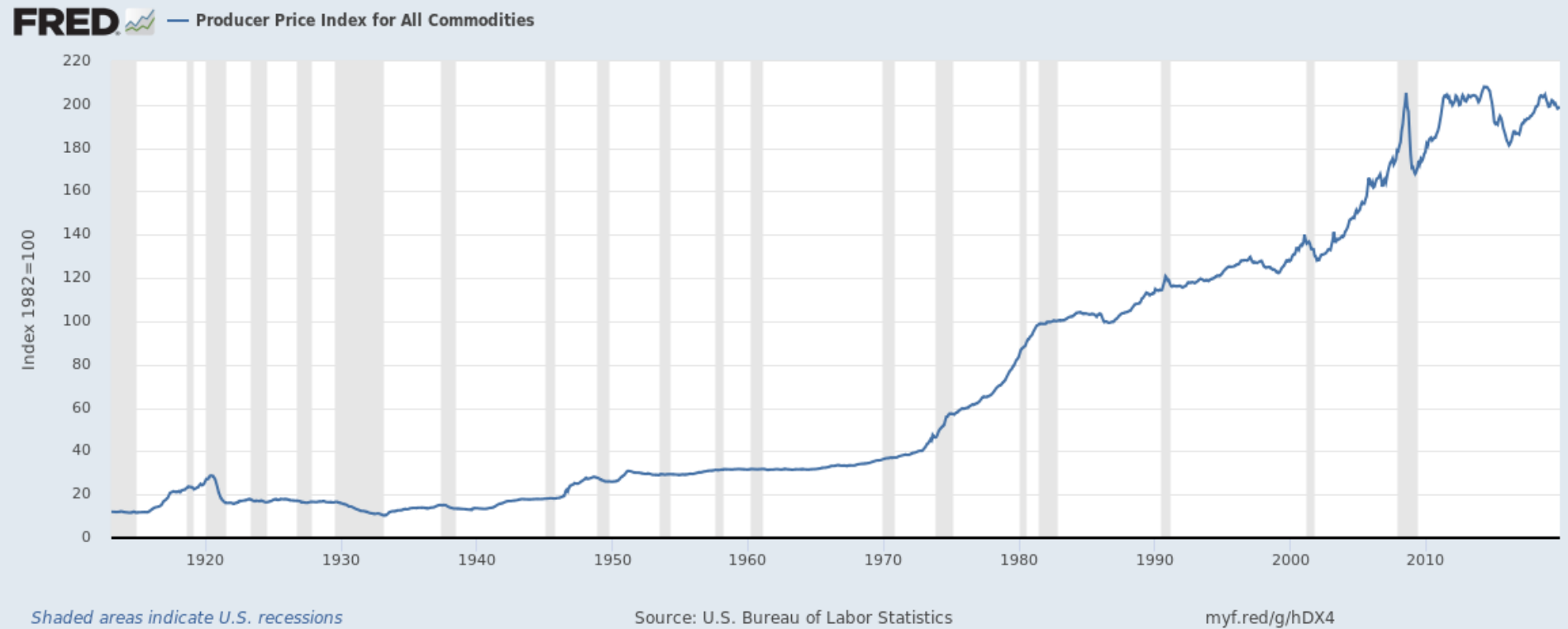
Release Date: December 17, 2019

Industrial production and manufacturing production both rebounded 1.1 percent in November after declining in October. These sharp November increases were largely due to a bounceback in the output of motor vehicles and parts following the end of a strike at a major manufacturer. Excluding motor vehicles and parts, the indexes for total industrial production and for manufacturing moved up 0.5 percent and 0.3 percent, respectively. Mining production edged down 0.2 percent, while the output of utilities increased 2.9 percent.

At 109.7 percent of its 2012 average, total industrial production was 0.8 percent lower in November than it was a year earlier. Capacity utilization for the industrial sector increased 0.7 percentage point in November to 77.3 percent, a rate that is 2.5 percentage points below its long-run (1972–2018) average.

<https://www.federalreserve.gov/releases/g17/current/>

PPI



<https://fred.stlouisfed.org/graph/fredgraph.png?g=hDX4>



Economic News Release

<https://www.bls.gov/news.release/ppi.nr0.htm>

Producer Price Index News Release summary

Transmission of material in this release is embargoed until
8:30 a.m. (EST), Thursday, December 12, 2019

USDL 19-2146

Technical information: (202) 691-7705 * ppi-info@bls.gov * www.bls.gov/ppi
Media contact: (202) 691-5902 * PressOffice@bls.gov

PRODUCER PRICE INDEXES - NOVEMBER 2019

The Producer Price Index for final demand was unchanged in November, seasonally adjusted, the U.S. Bureau of Labor Statistics reported today. Final demand prices increased 0.4 percent in October and fell 0.3 percent in September. (See table A.) On an unadjusted basis, the final demand index advanced 1.1 percent for the 12 months ended in November.

In November, a 0.3-percent rise in prices for final demand goods offset a 0.3-percent decrease in the index for final demand services.

The index for final demand less foods, energy, and trade services was unchanged in November after inching up 0.1 percent in October. For the 12 months ended in November, prices for final demand less foods, energy, and trade services moved up 1.3 percent, the smallest advance since climbing 1.2 percent in the 12 months ended September 2016.

November 2019 Manufacturing ISM[®] Report On Business[®]

Choose a Section ▾

PMI[®] at 48.1%

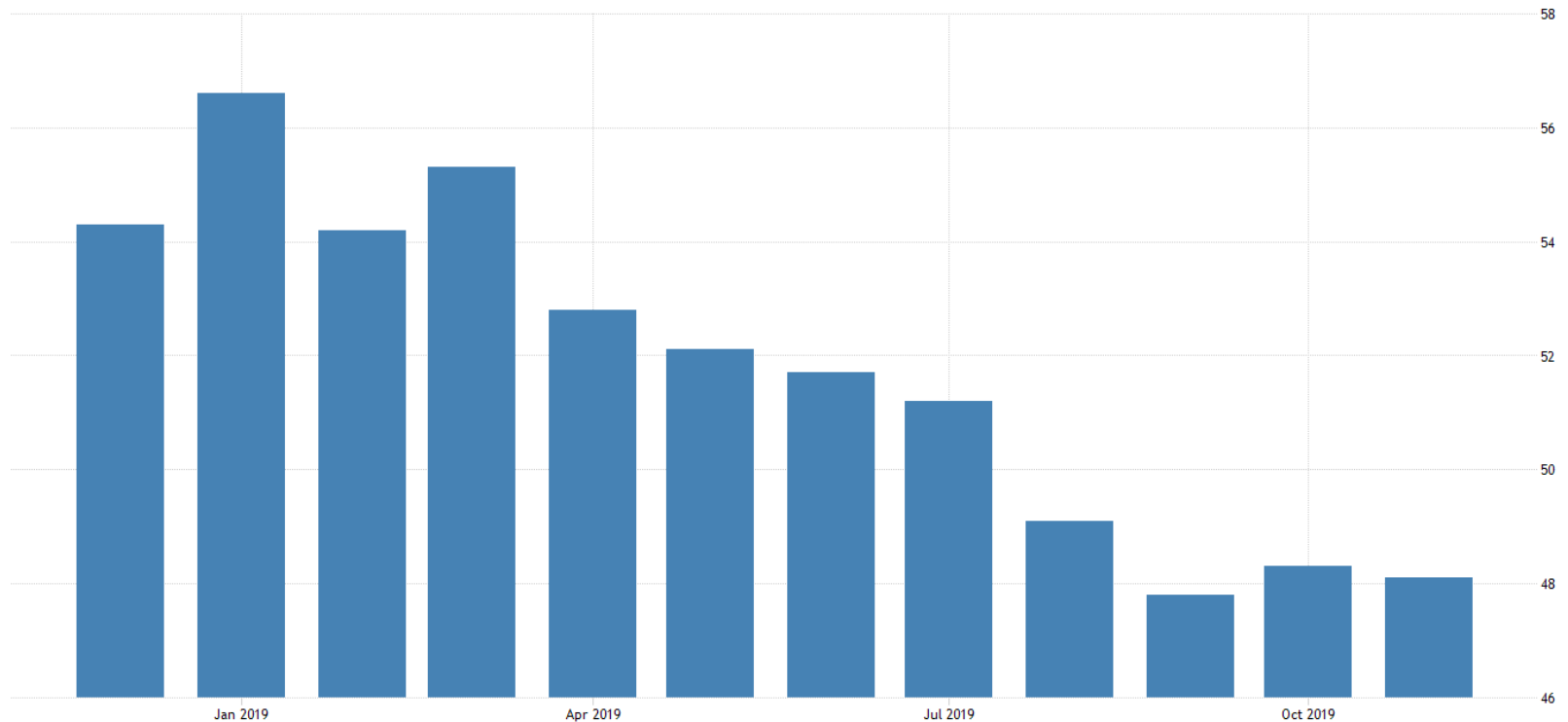
GDP Growing at 1.5%

New Orders, Production, and Employment Contracting
Supplier Deliveries Slowing from Faster; Backlog
Contracting

Raw Materials Inventories Contracting; Customers'
Inventories Too Low

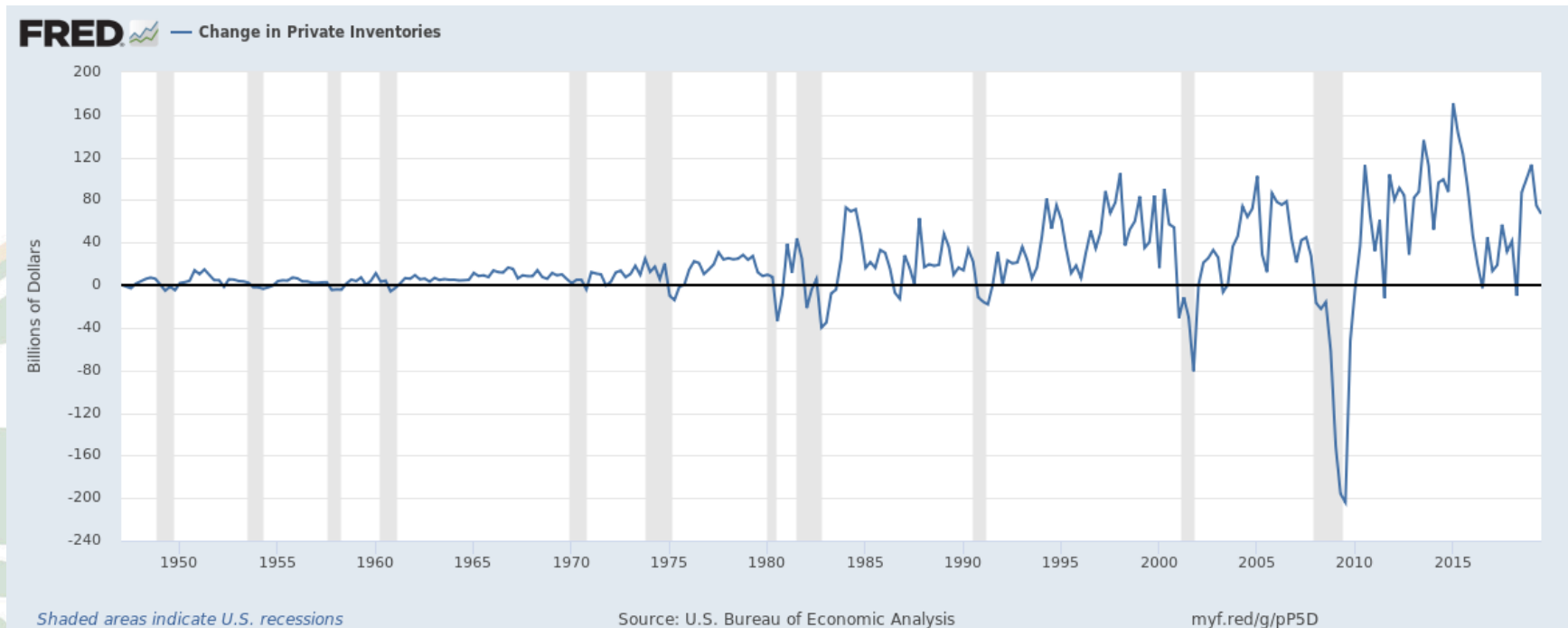
Prices Decreasing; Exports and Imports Contracting

Purchasing Managers Index (PMI)



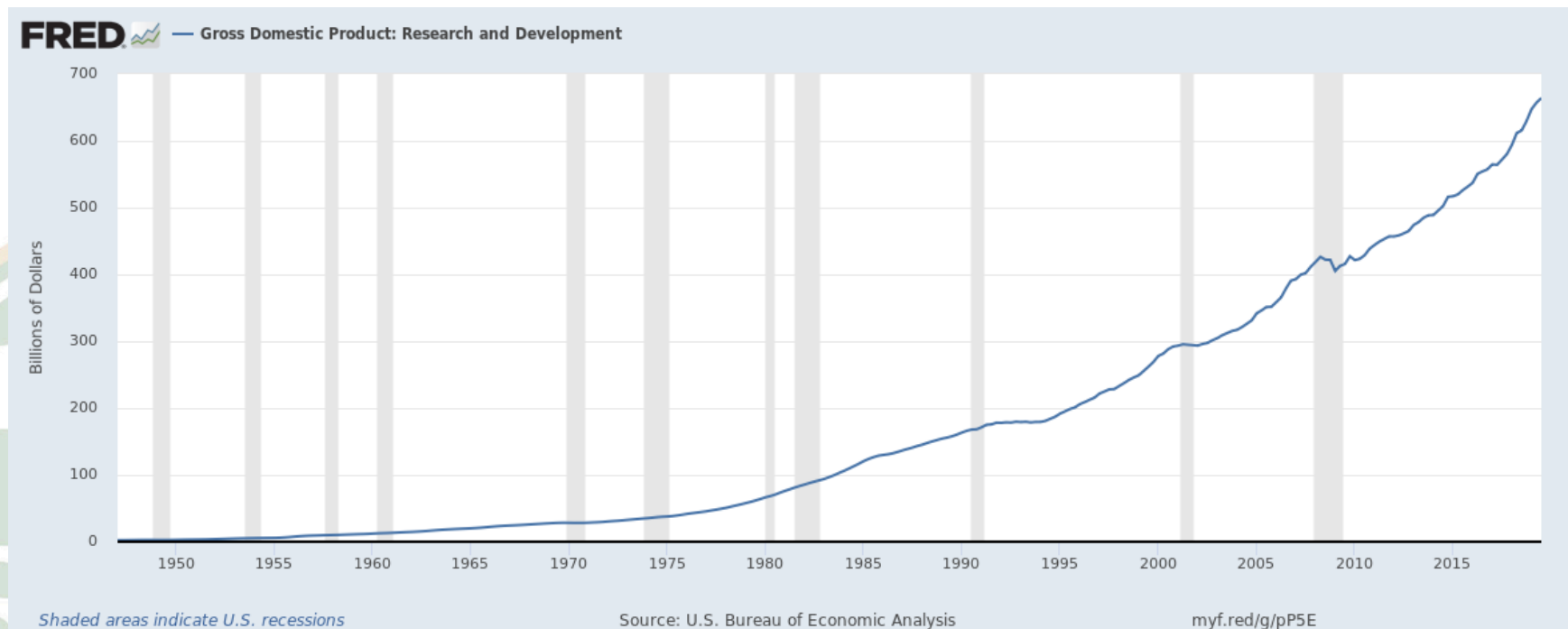
<https://tradingeconomics.com/united-states/business-confidence/forecast>

Change in Private Inventories (CBI)



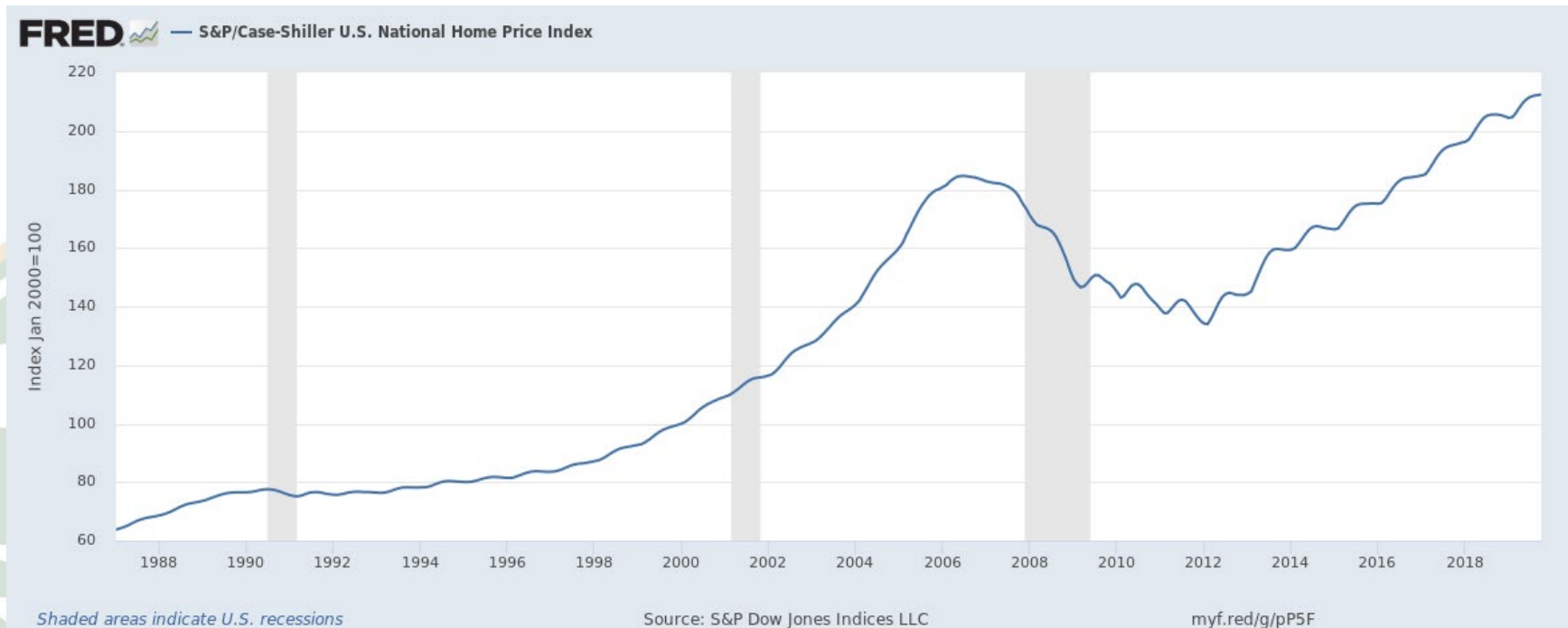
<https://fred.stlouisfed.org/graph/fredgraph.png?g=pP5D>

Research and Development



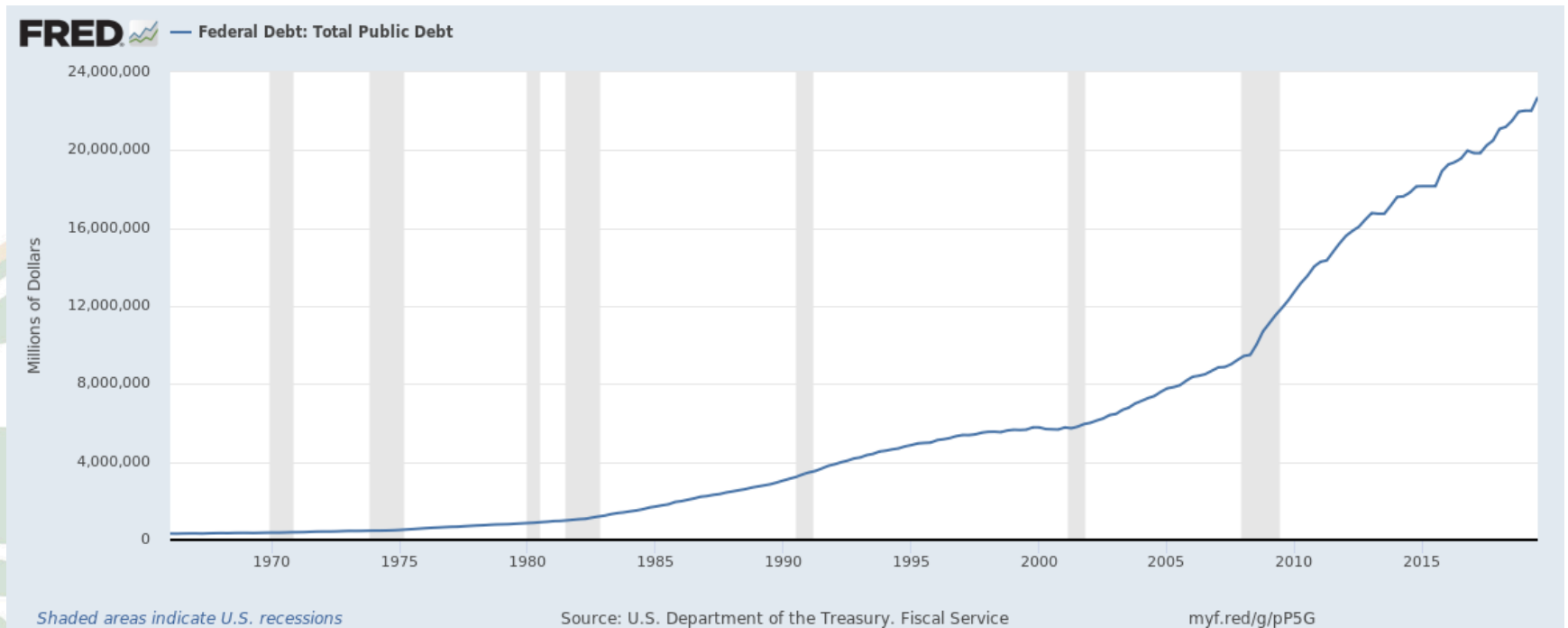
<https://fred.stlouisfed.org/graph/fredgraph.png?g=pP5E>

US National Home Price Index



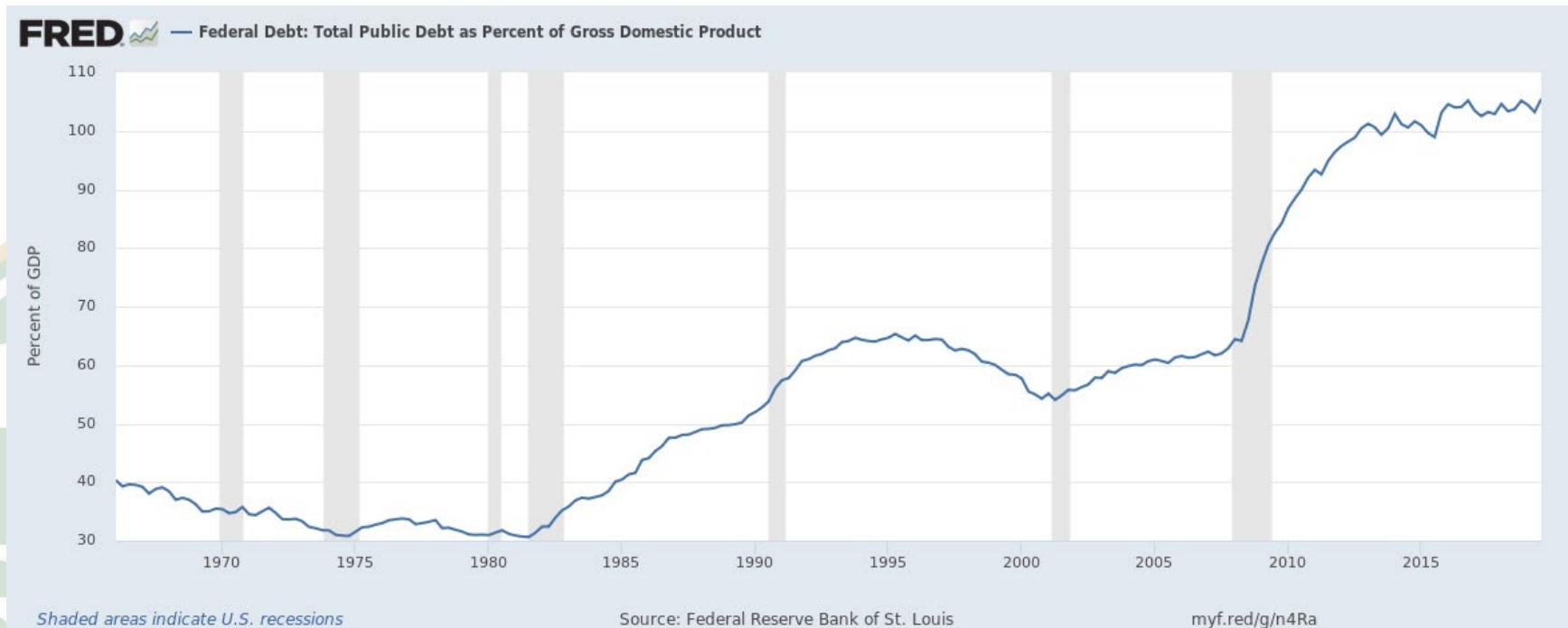
<https://fred.stlouisfed.org/series/CSUSHPINSA>

Federal Debt: Total Public Debt



<https://fred.stlouisfed.org/series/GFDEBTN>

Total Public Debt/Gross Domestic Product



<https://fred.stlouisfed.org/series/GFDEGDQ188S>


Housing Starts

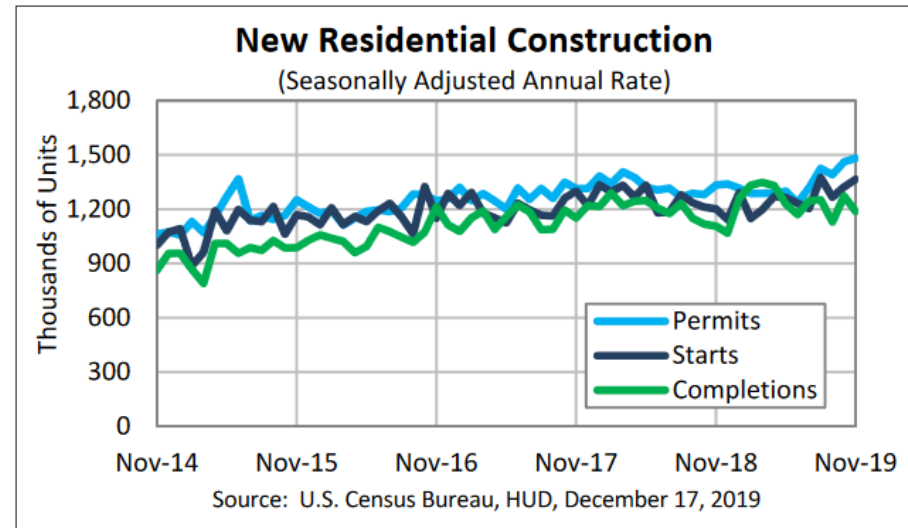
FOR RELEASE AT 8:30 AM EST, TUESDAY, DECEMBER 17, 2019

MONTHLY NEW RESIDENTIAL CONSTRUCTION, NOVEMBER 2019

Release Number: CB19-185

December 17, 2019 - The U.S. Census Bureau and the U.S. Department of Housing and Urban Development jointly announced the following new residential construction statistics for November 2019:

 NEW RESIDENTIAL CONSTRUCTION NOVEMBER 2019	
Building Permits:	1,482,000
Housing Starts:	1,365,000
Housing Completions:	1,188,000
Next Release: January 17, 2020	
Seasonally Adjusted Annual Rate	
Source: U.S. Census Bureau, HUD, December 17, 2019	




New Home Sales and Existing Home Sales

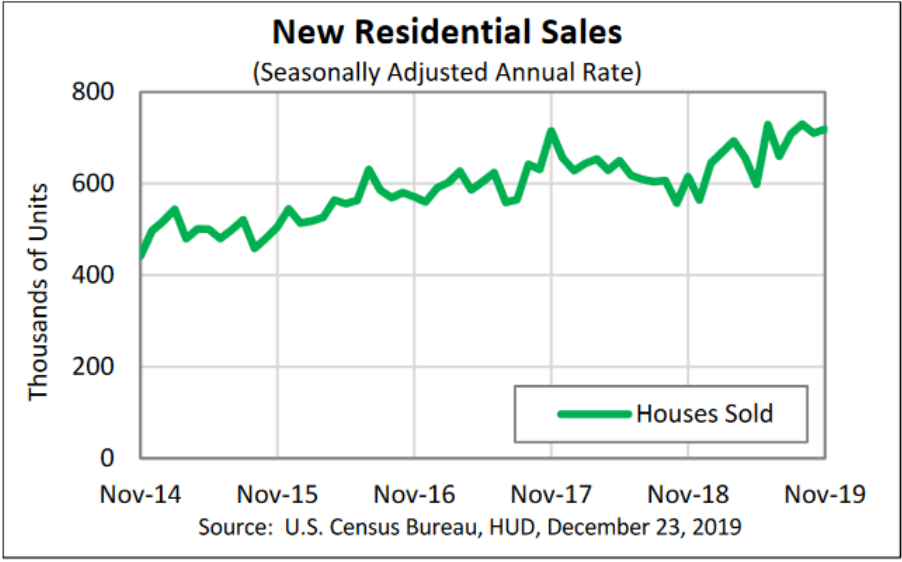
FOR RELEASE AT 10:00 AM EST, MONDAY, DECEMBER 23, 2019

MONTHLY NEW RESIDENTIAL SALES, NOVEMBER 2019

Release Number: CB19-186

December 23, 2019 - The U.S. Census Bureau and the U.S. Department of Housing and Urban Development jointly announced the following new residential sales statistics for November 2019:

 NEW RESIDENTIAL SALES NOVEMBER 2019	
New Houses Sold¹:	719,000
New Houses For Sale²:	323,000
Median Sales Price:	\$330,800
Next Release: January 27, 2020	
¹ Seasonally Adjusted Annual Rates ² Seasonally Adjusted	
Source: U.S. Census Bureau, HUD, December 23, 2019	



New Home Sales and Existing Home Sales

Home > About NAR > Newsroom

Existing-Home Sales Soar 5.6 Percent in November to Strongest Pace in Over a Decade

f t in +

Media Contact: Adam DeSanctis 202-383-1178

NAR Media Contacts

Statistical Release Schedule

Op-Eds & Letters to the Editor

NAR Fact Sheet



WASHINGTON (December 20, 2017) – Existing-home sales surged for the third straight month in November and reached their strongest pace in almost 11 years, according to the National Association of Realtors®. All major regions except for the West saw a significant hike in sales activity last month.

Total existing-home sales¹, <https://www.nar.realtor/existing-home-sales>, which are completed transactions that include single-family homes, townhomes, condominiums and co-ops, jumped 5.6 percent² to a seasonally adjusted annual rate of 5.81 million in November from an upwardly revised 5.50 million in October. After last month's increase, sales are 3.8 percent higher than a year ago and are at their strongest pace

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<https://www.nar.realtor/research-and-statistics/housing-statistics/existing-home-sales>

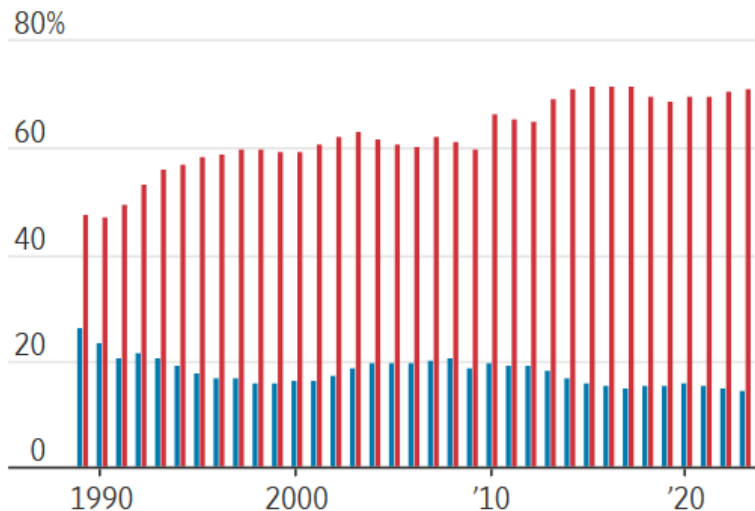
The Deficit Problem in a Chart

Entitlements vs. Defense

Payments for defense and to individuals as a percentage of federal outlays, 1989-2023

■ National defense

■ Payments for individuals



Note: 2018-2023 estimates

Source: Office of Management and Budget

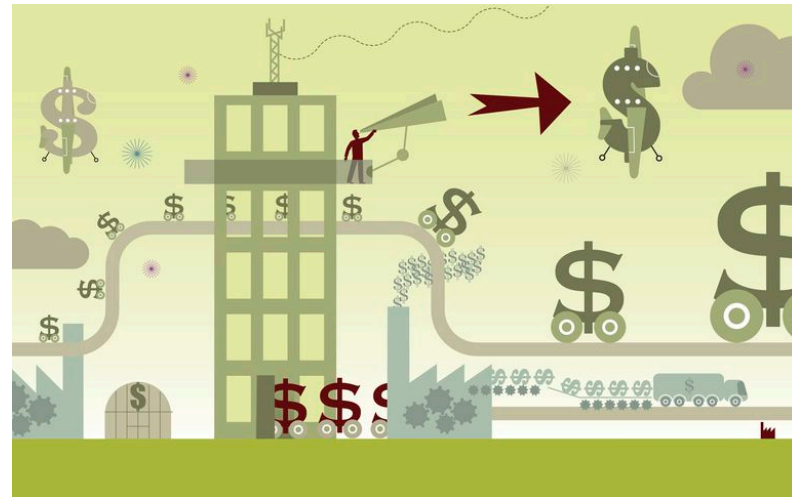
- “payments for individuals,” which encompass such income transfers as Medicare, Medicaid, Social Security and food stamps, among other things. This category was 47.7% of outlays in 1989 and has steadily climbed to reach an estimated 69.2% in 2019.

Money Supply



Money Supply

- The money supply measures the total amount of money in the economy at a particular time. It includes actual notes and coins and also any deposits which can be quickly converted into cash. There are different measures of the money supply

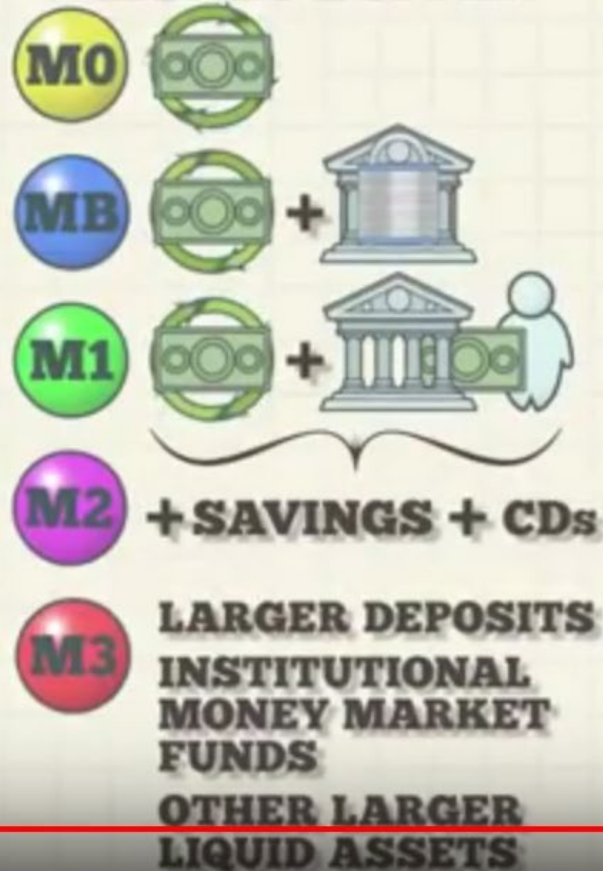


Money Supply

- According to the Monetarist theory of inflation, there is a direct link between the money supply (M) and the inflation rate.
- **MV=PY**
- Monetarists believe velocity of circulation (V) is fairly stable. and Y (real output determined by supply-side factors)
- Therefore, if we have a situation where the money supply rises faster than real output, it will cause inflation.

Money Supply

MEASURES OF MONEY SUPPLY:





Monetary Base and M0

- The monetary base is defined as the sum of currency in circulation and reserve balances (deposits held by banks and other depository institutions in their accounts at the Federal Reserve).
- Basically, $MB = C + R$.
- In the United States, C includes Federal Reserve notes (FRN) and coins issued by the U.S. Treasury.
- Reserves are of two types: those required or mandated by the central bank (RR), and any additional or excess reserves (ER) that banks wish to hold.

Narrow Measure

- M1 is a measure of the money supply that includes currency in circulation plus checkable deposits, traveler's checks, demand deposits at commercial banks (or other depository institutions) held by the public.
- It is often referred to as *narrow money*.



Near Money

- M2 is a measure of the money supply that includes M1 plus savings accounts, certificates of deposit, & shares in money market mutual funds.



Near, Near, Money

- M3 includes M2 plus longer-term time deposits and money market funds with more than 24-hour maturity.
- The exact definitions of the three measures depend on the country.

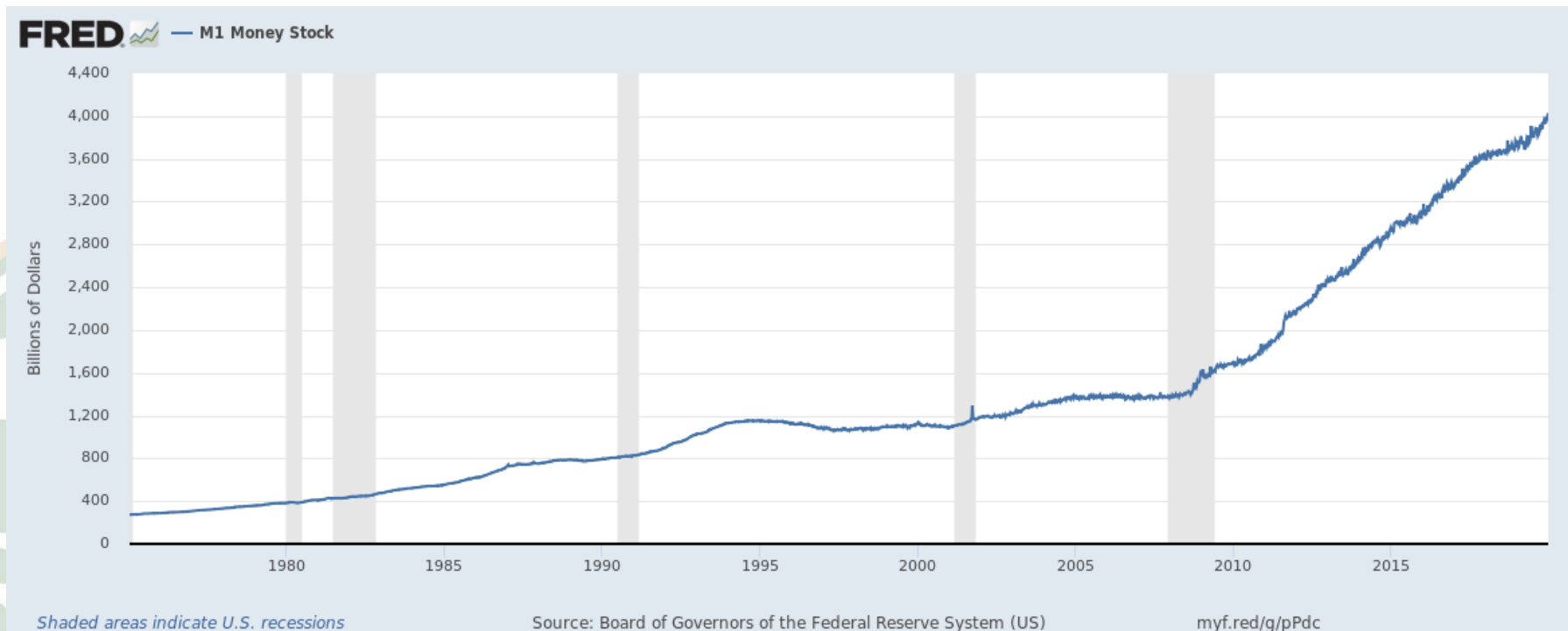


Broad Money

- M4 includes M3 plus other deposits. The term broad money is used to describe M2, M3 or M4, depending on the local practice.



M1 Money Stock



<https://fred.stlouisfed.org/series/M1>

M1 Money Stock (Not Seasonality Adjusted)

☆ M1 Money Stock (WM1NS)

DOWNLOAD 

Observation:
2017-12-25: **3,765.0** (+ more)
Updated: Jan 4, 2018

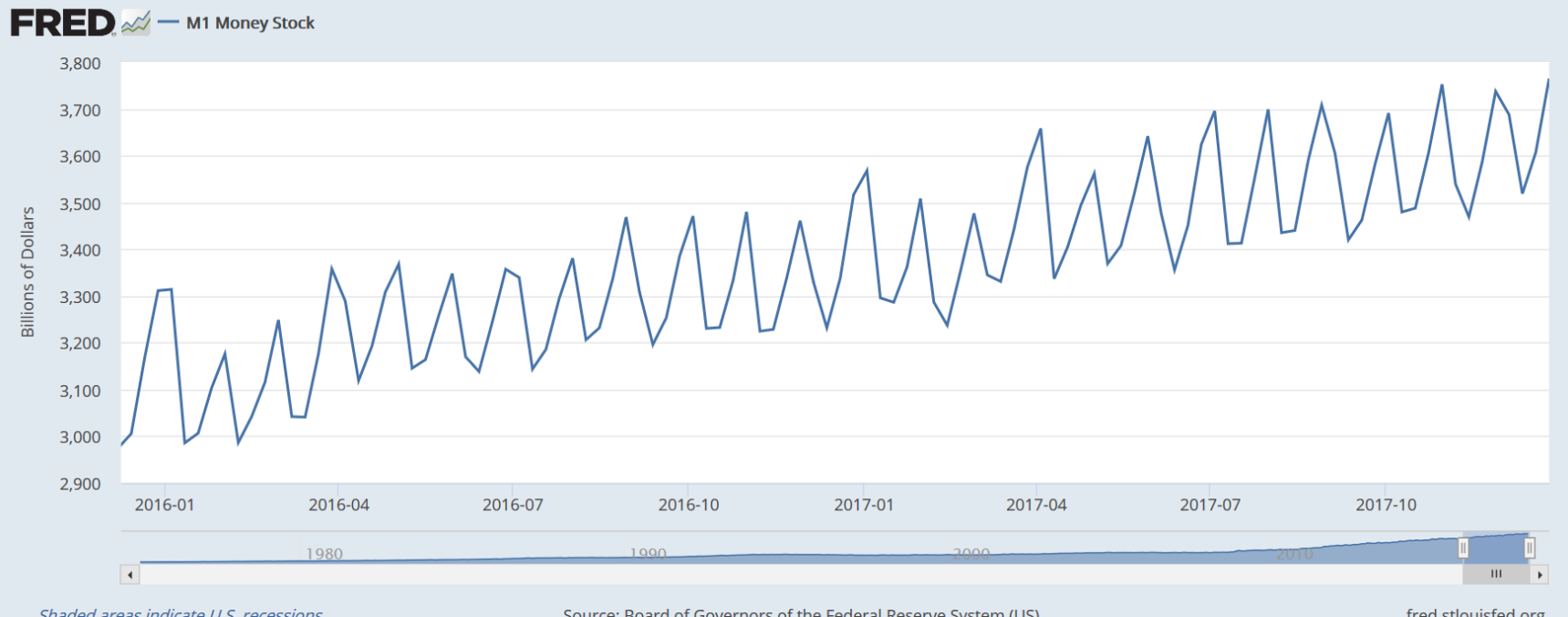
Units:
Billions of Dollars,
Not Seasonally Adjusted

Frequency:
Weekly,
Ending Monday

1Y | 5Y | 10Y | Max

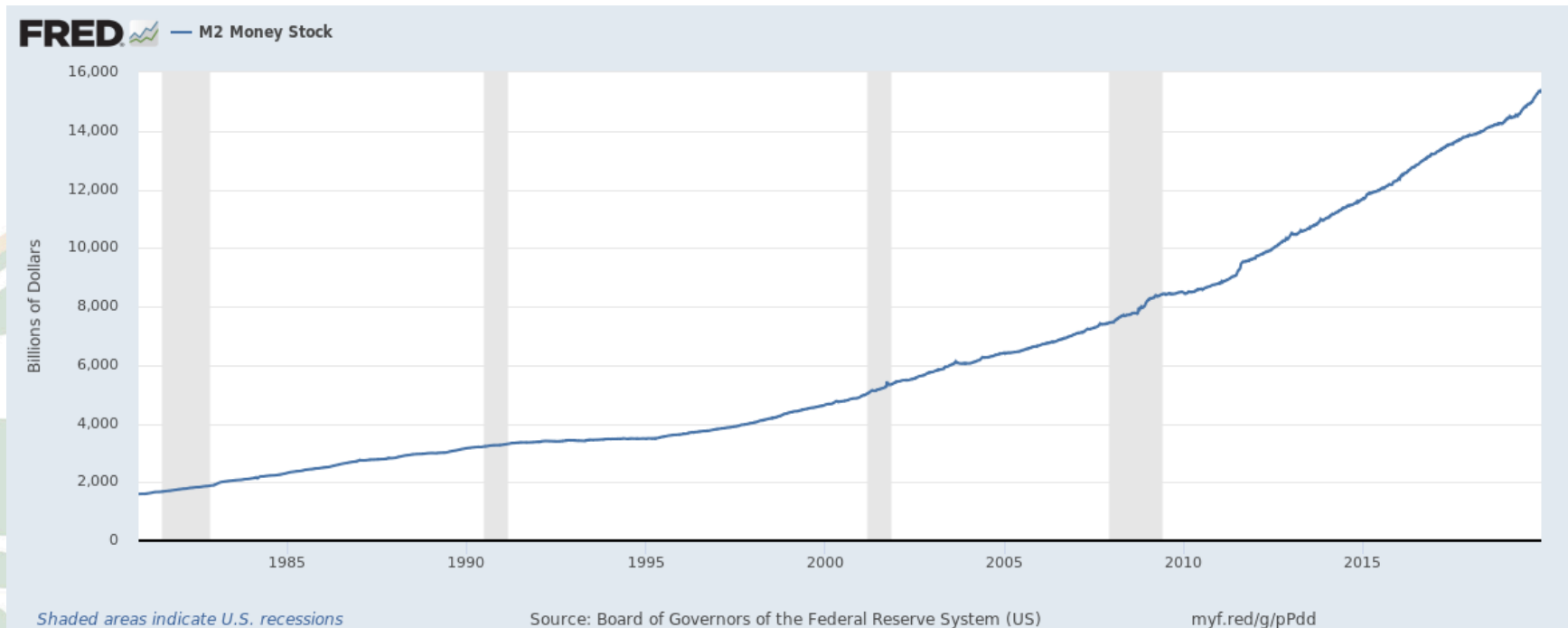
2015-12-08 to 2017-12-25

EDIT GRAPH 

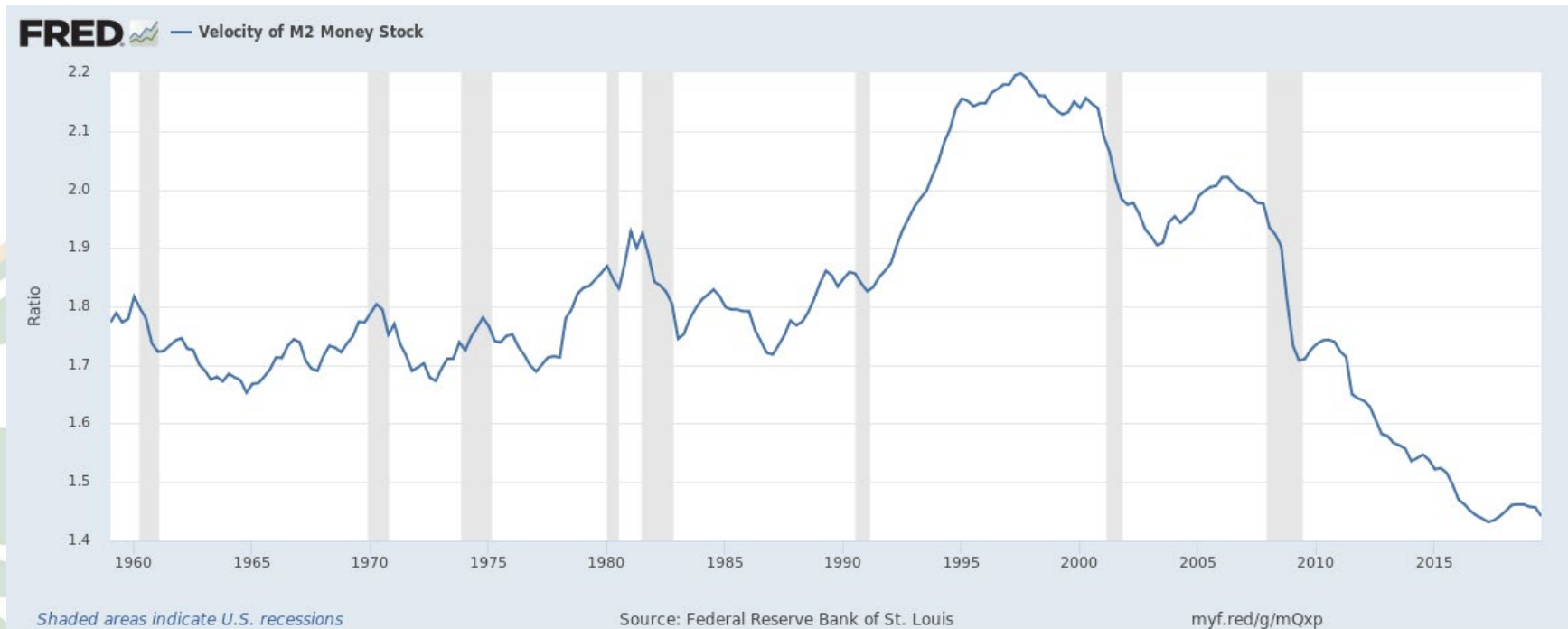


https://fred.stlouisfed.org/series/WM1NS?utm_source=series_page&utm_medium=related_content&utm_term=other_formats&utm_campaign=other_format

M2 Money Stock

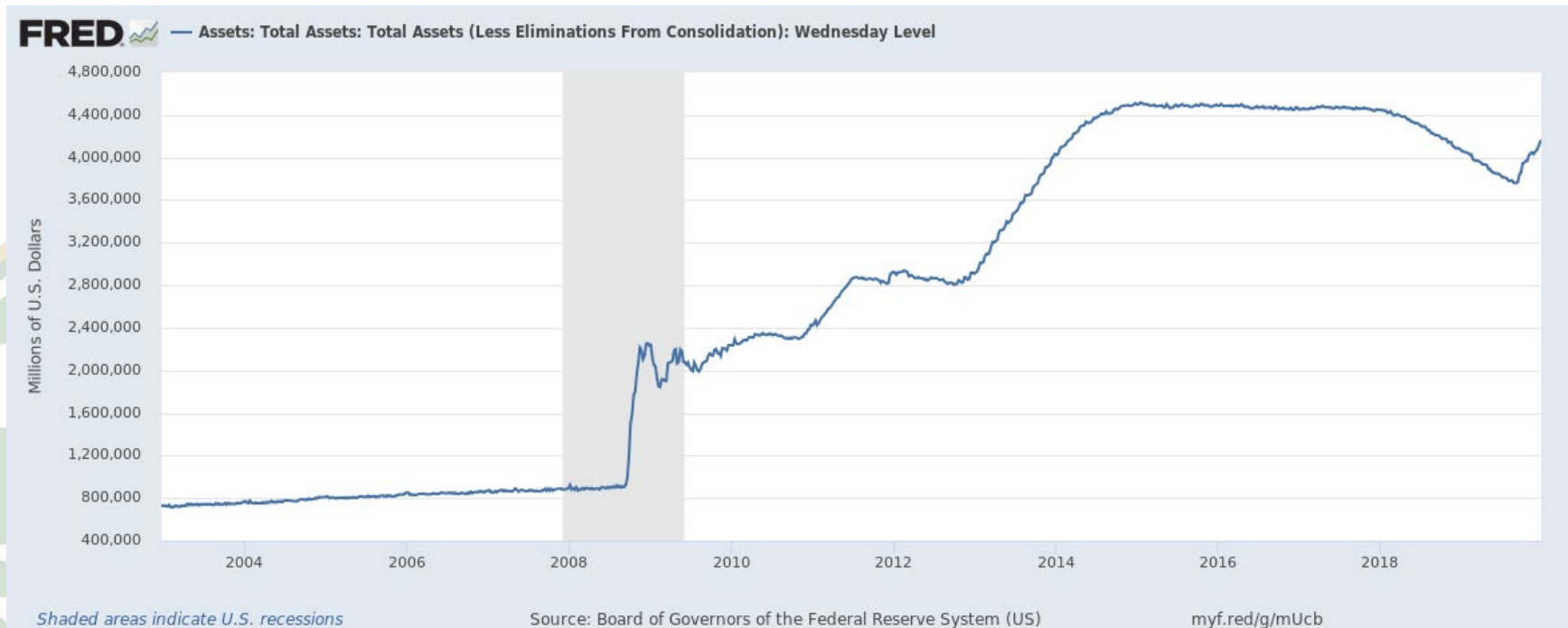


M2 Velocity



<https://fred.stlouisfed.org/series/M2V>

Balance Sheet of Fed



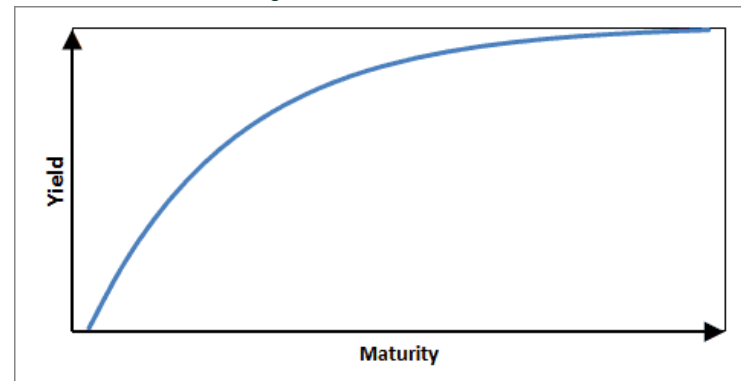
<https://fred.stlouisfed.org/series/WALCL>

Yield Curve



Yield Curve

- Also known as the **term structure** of interest rates, **yield curve** is a plot of yield to maturity as a function of time to maturity.



- When plotting a yield curve, the securities should be of similar, if not identical, credit quality.

The Yield Curve as Economic Indicator

- If fiscal and monetary policy are both tight (loose), economic growth is likely to slow (accelerate)
- When policies are at odds, results are more ambiguous
- Yield curve changes tend to reflect policy
 - Loose fiscal and monetary policy = steep yield curve
 - Loose monetary, tight fiscal = moderately steep yield curve
 - Tight monetary, loose fiscal = flat yield curve
 - Tight monetary and fiscal = inverted yield curve

Treasury Yield Curves

- The most frequently reported yield curve compares the three-month, two-year, five-year and 30-year U.S. Treasury debt.
- This yield curve is used as a benchmark for mortgage rates or bank lending rates, and it is also used to predict changes in economic output and growth.

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Interest Rate Statistics

Daily Treasury Yield Curve Rates

This curve, which relates the yield on a security to its time to maturity is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market. These market yields are calculated from composites of quotations obtained by the Federal Reserve Bank of New York. For information on how the Treasury's yield curve is derived, visit our [Treasury Yield Curve Methodology page](#).

PRESS CENTER

Press Releases

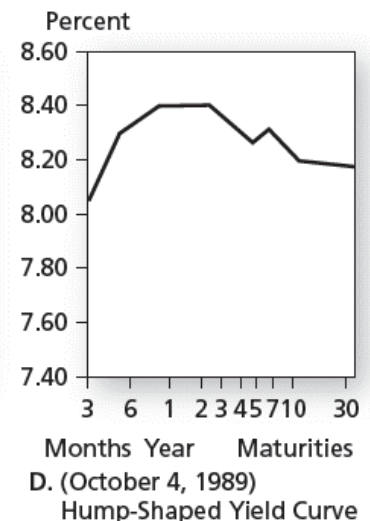
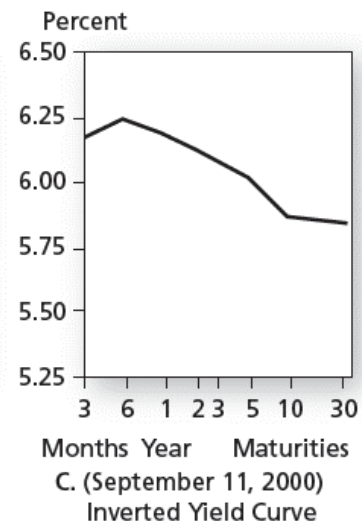
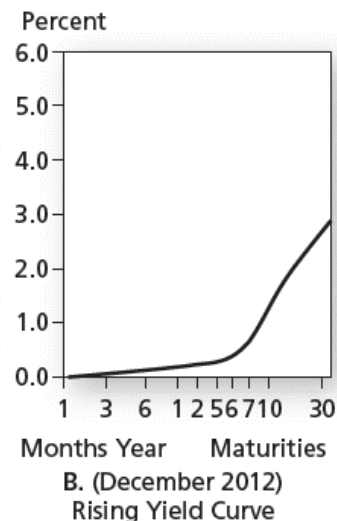
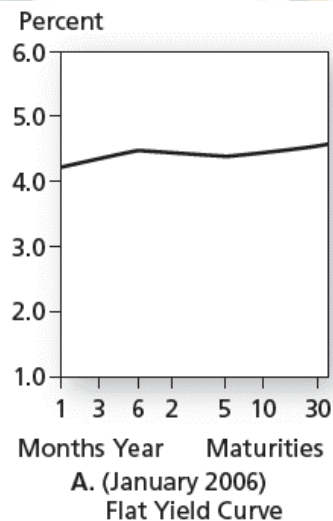
10/06/2017

Treasury Releases Second Report On The Administration's Core Principles Of Financial Regulation

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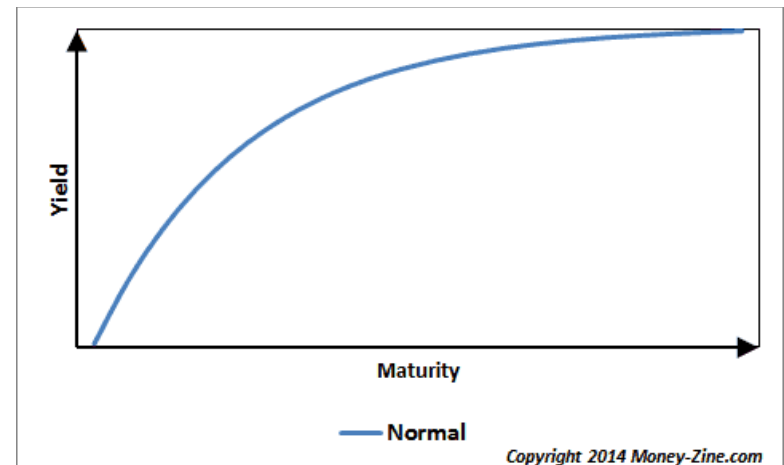
Shape of Yield Curve

- There are several types of yield curves, and the shape of the curve provides the analyst-investor with insights into the future expectations for interest rates, as well as possible increases or decreases in macroeconomic activity.



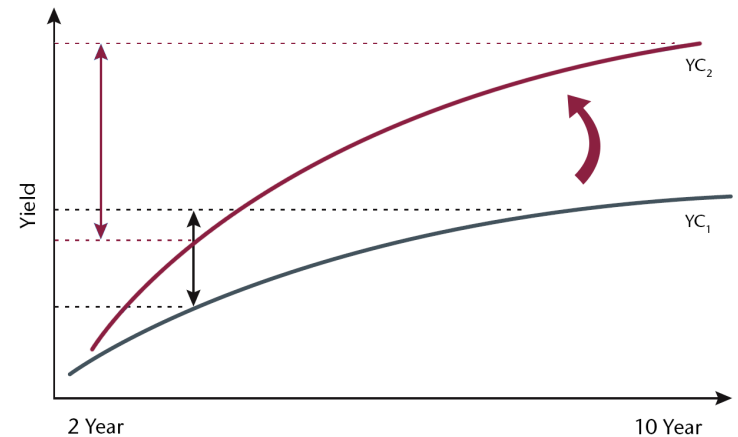
Normal Yield Curve

- A **normal** or **up-sloped yield curve** indicates yields on longer-term bonds may continue to rise,
- Investors require large liquidity premiums to hold long term bonds,
- Long term rates tend to rise in anticipation of economic expansion.



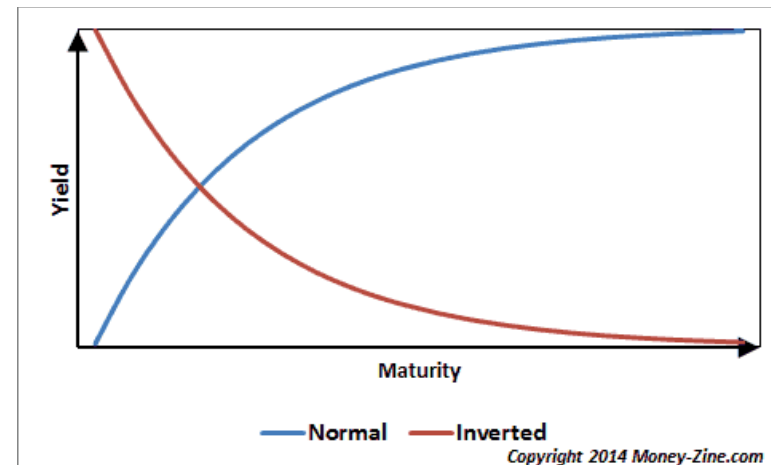
Steep Yield Curve

- In a rising interest rate environment, many would temporarily park their funds in shorter-term securities in hopes of purchasing longer-term bonds later for higher yields.
- The increasing temporary demand for shorter-term securities pushes their yields even lower, setting in motion a steeper up-sloped normal yield curve.



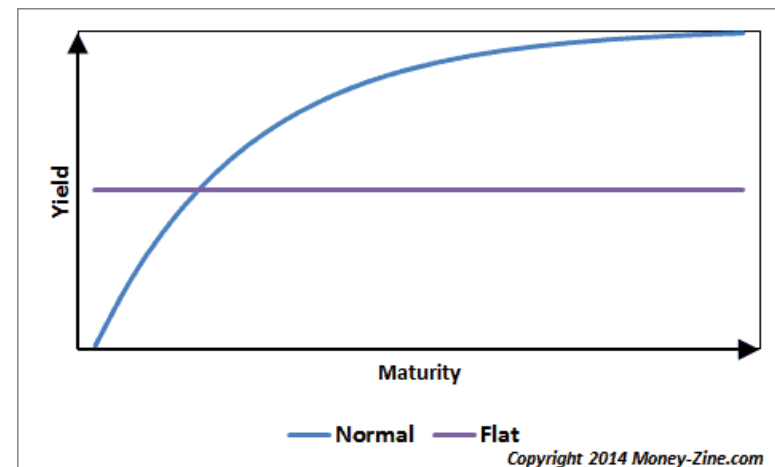
Inverted Yield Curve

- When investors expect longer-maturity bond yields to become even lower in the future, many would purchase longer-maturity bonds to lock in yields before they decrease further.
- Inverted yield curve may indicate that interest rates are expected to fall and signal a recession



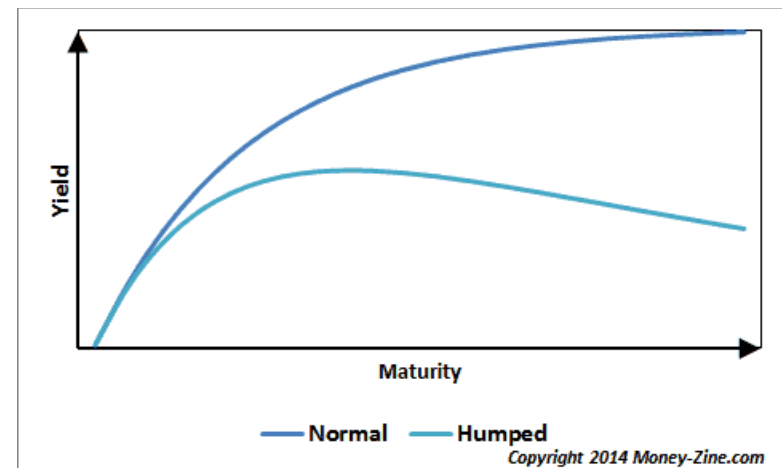
Flattened Yield Curve

- A flat yield curve may arise from normal or inverted yield curve, depending on changing economic conditions.
- E.g., when the economy is transitioning from expansion to slower development and even recession, yields on longer-maturity bonds tend to fall and yields on shorter-term securities likely rise, inverting a normal yield curve into a flat yield curve.

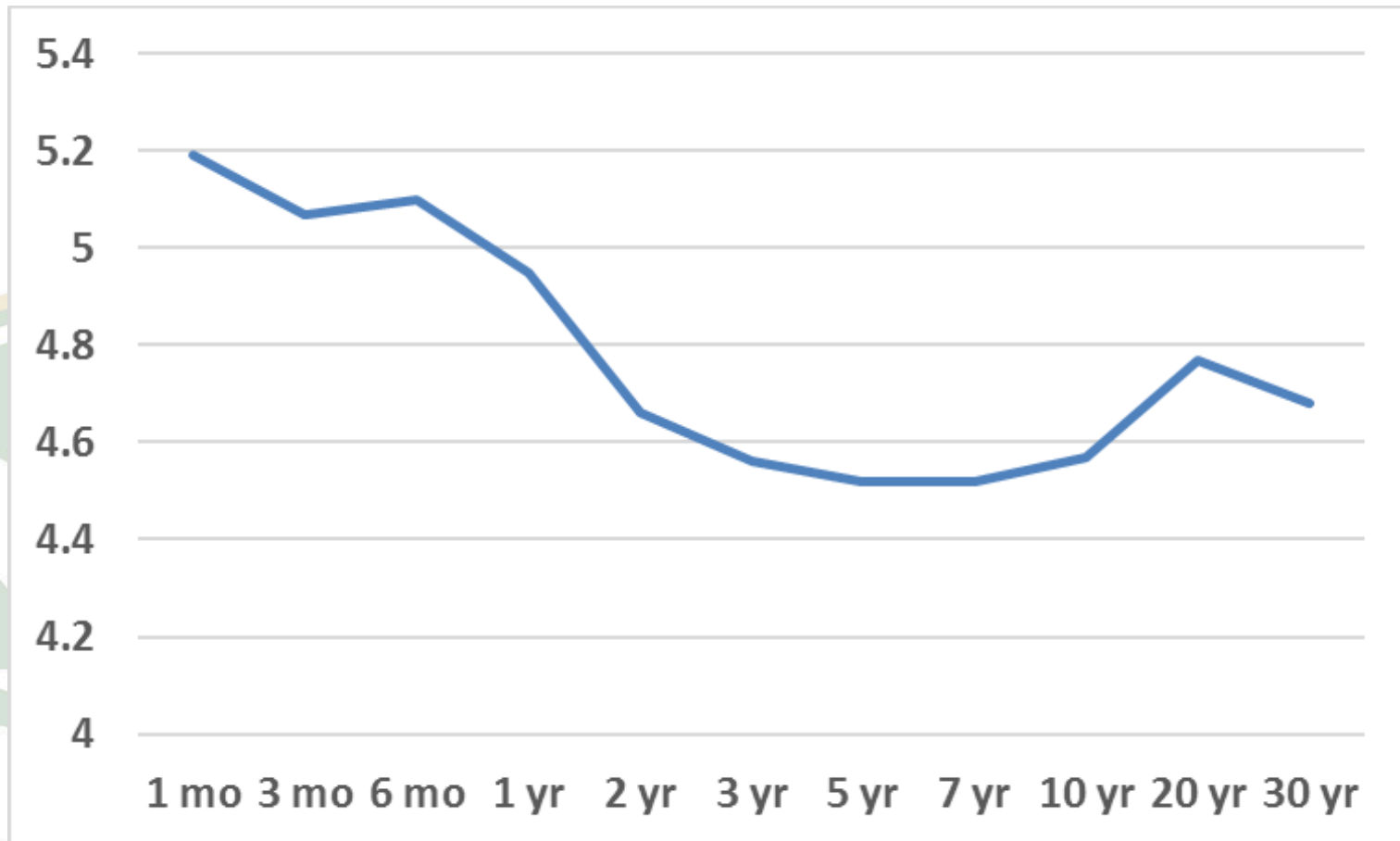


Humped Yield Curve

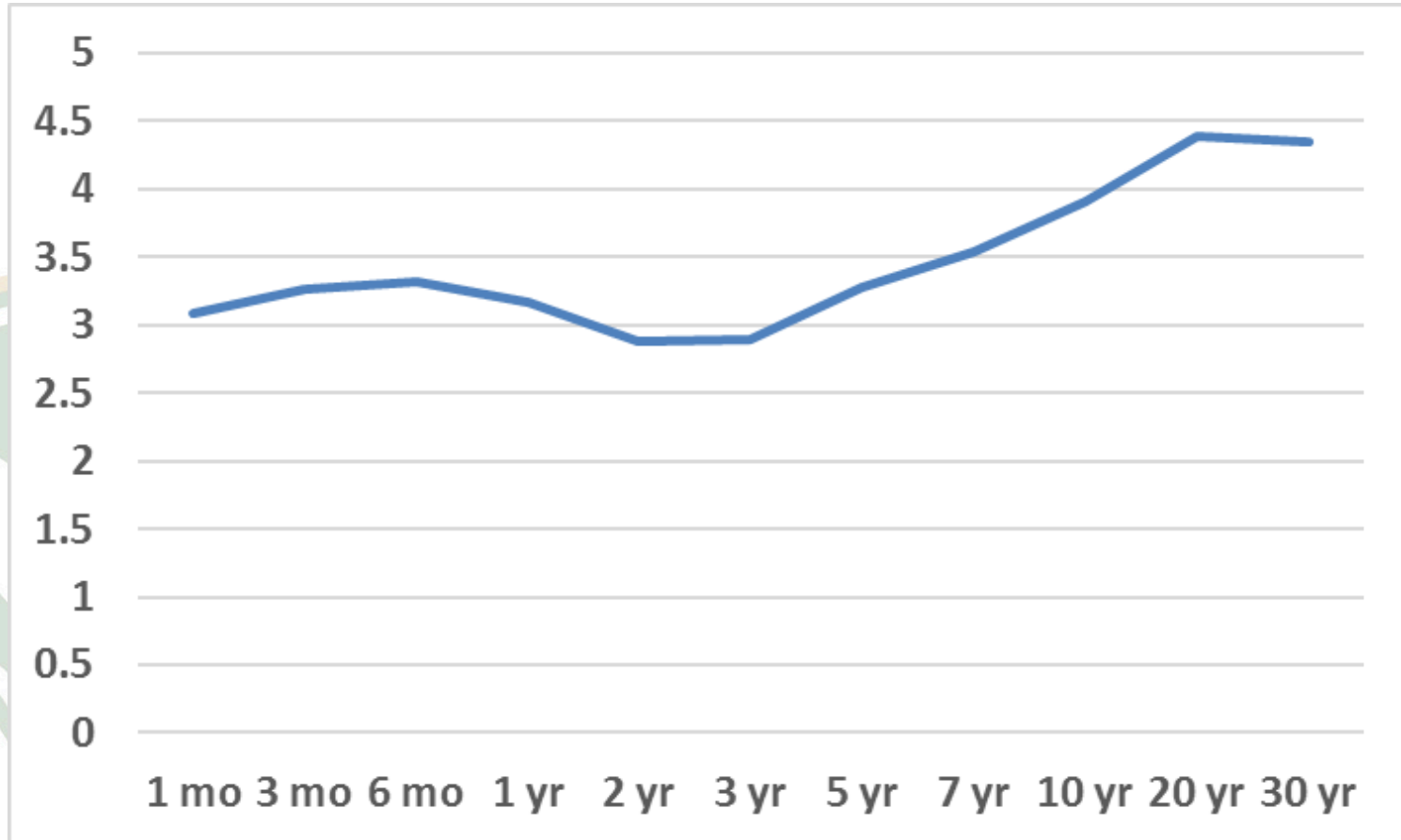
- Humped yield curves are also known as bell-shaped curves.
- As is the case with a flattened curve, a humped yield curve is a transitional state.
- Humped yield curves are rare, it's typically interpreted as a signal the economy is slowing down.



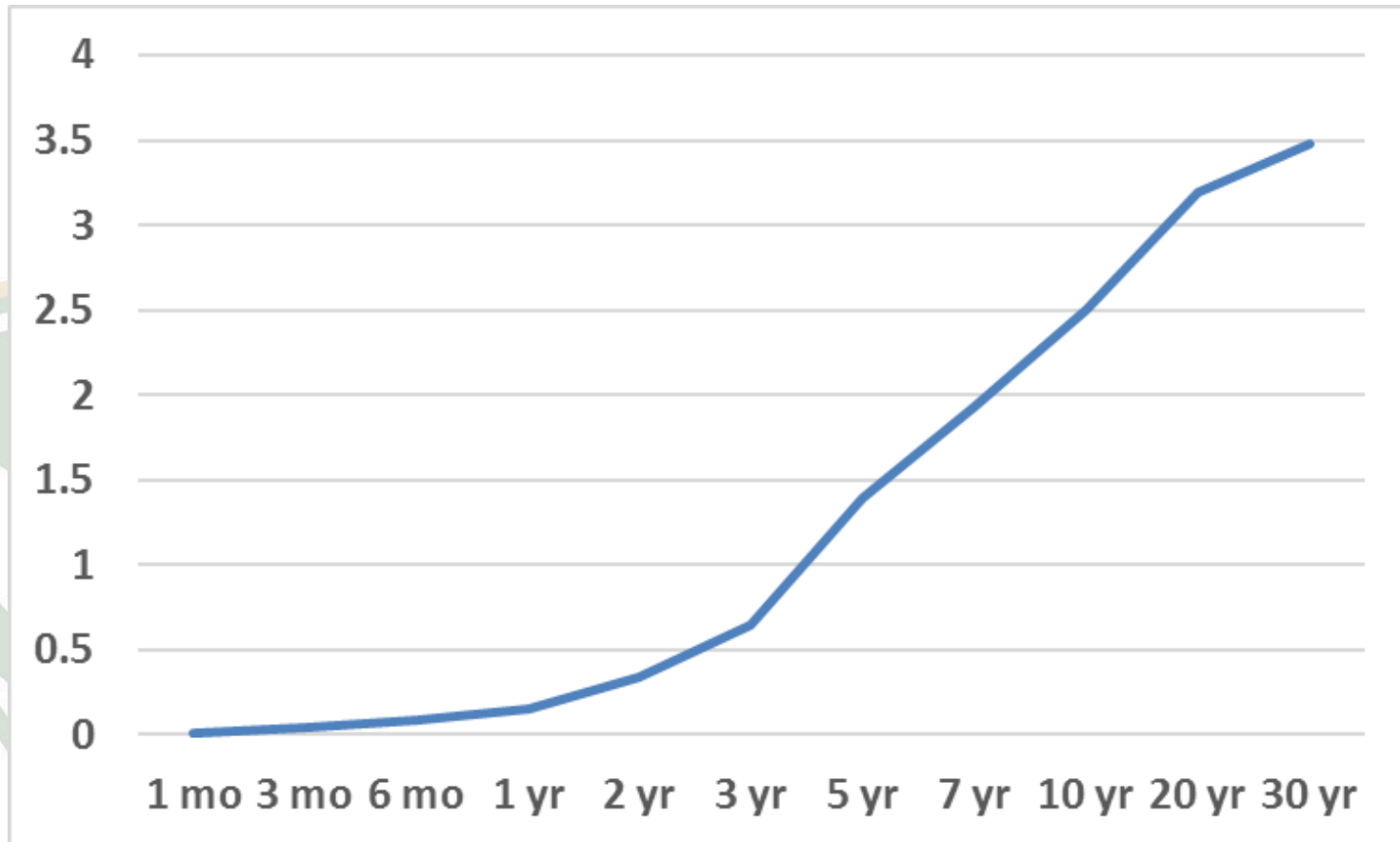
Treasury Yield Curves Nov 2006



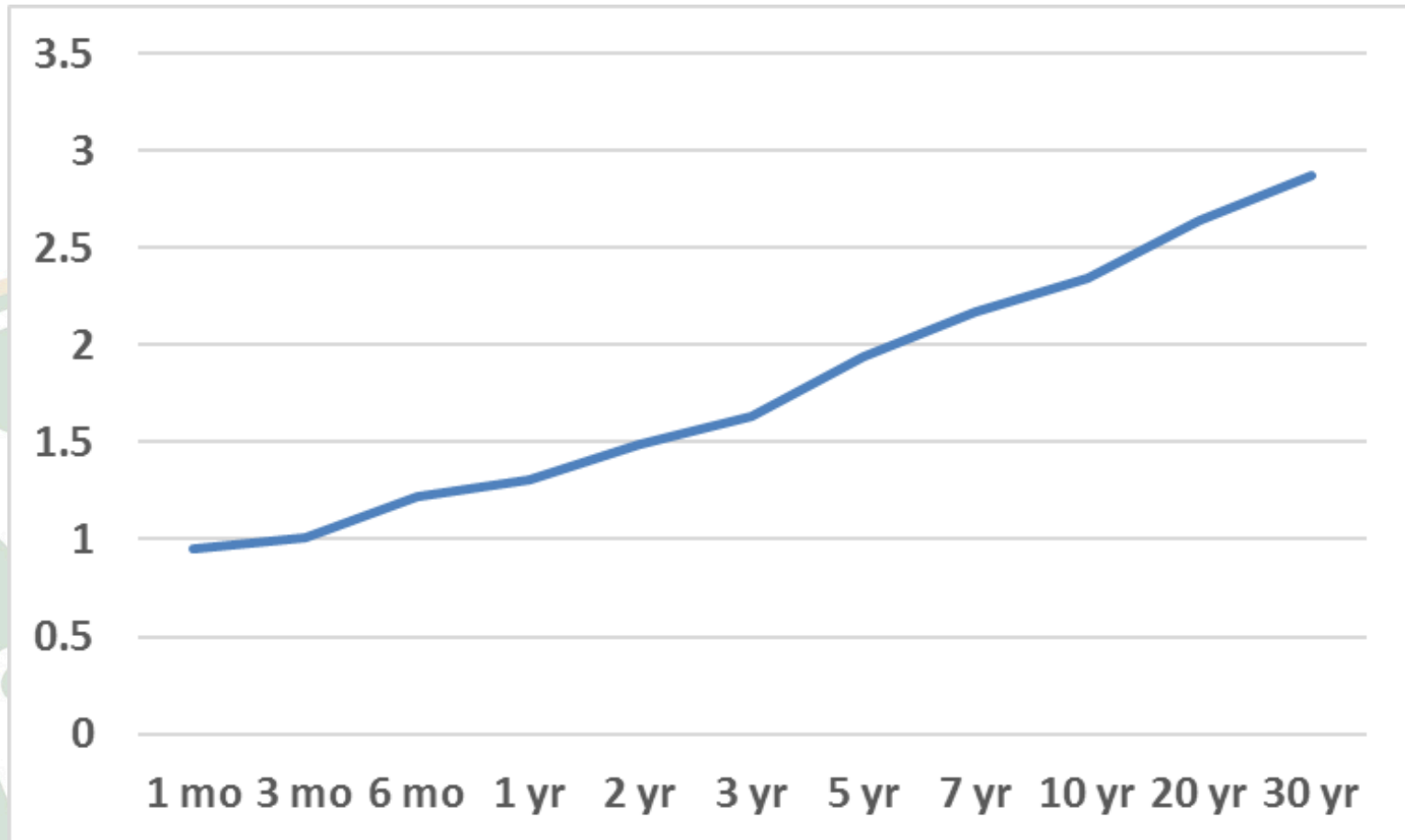
Treasury Yield Curves January 2008



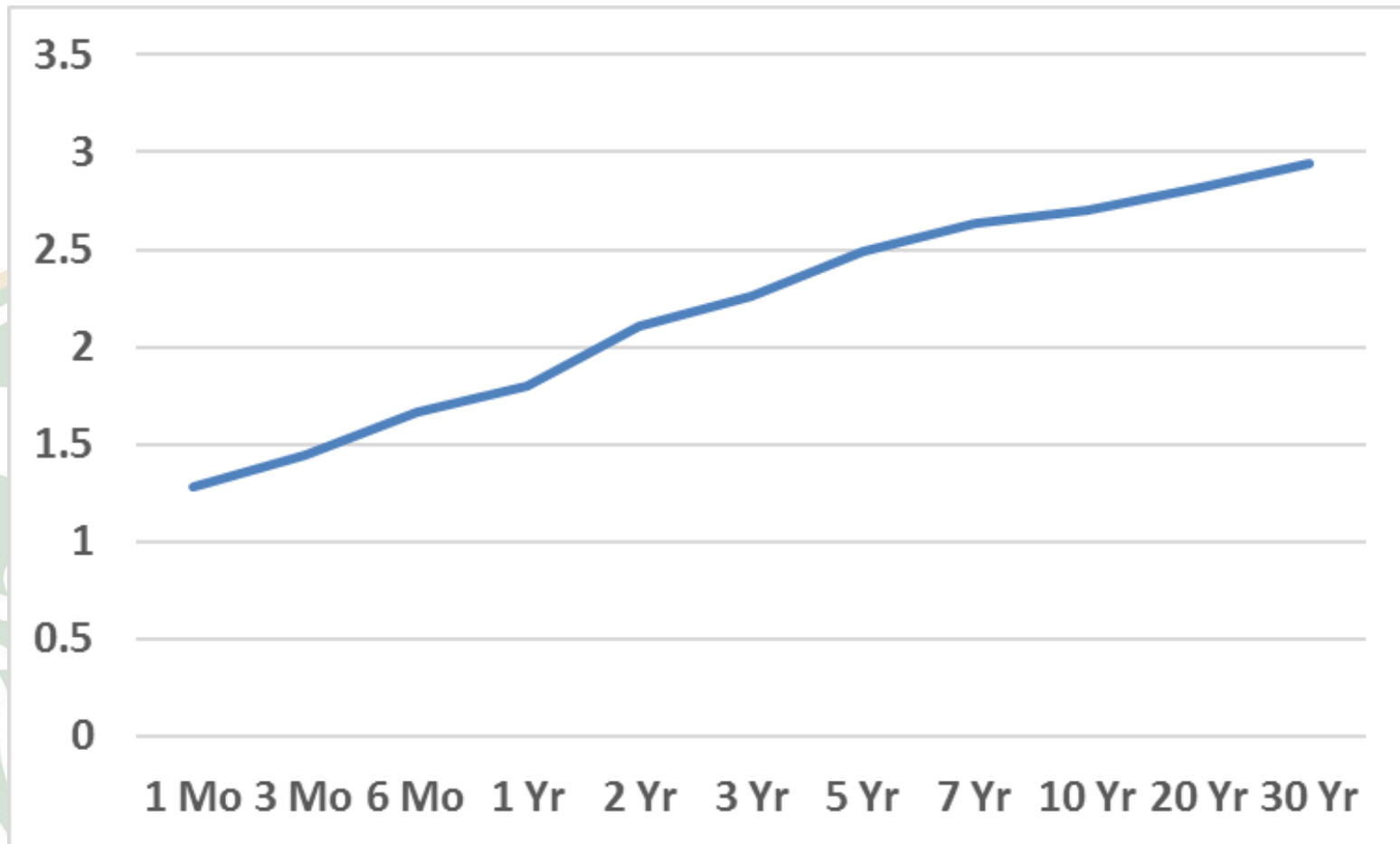
Treasury Yield Curves July 2013



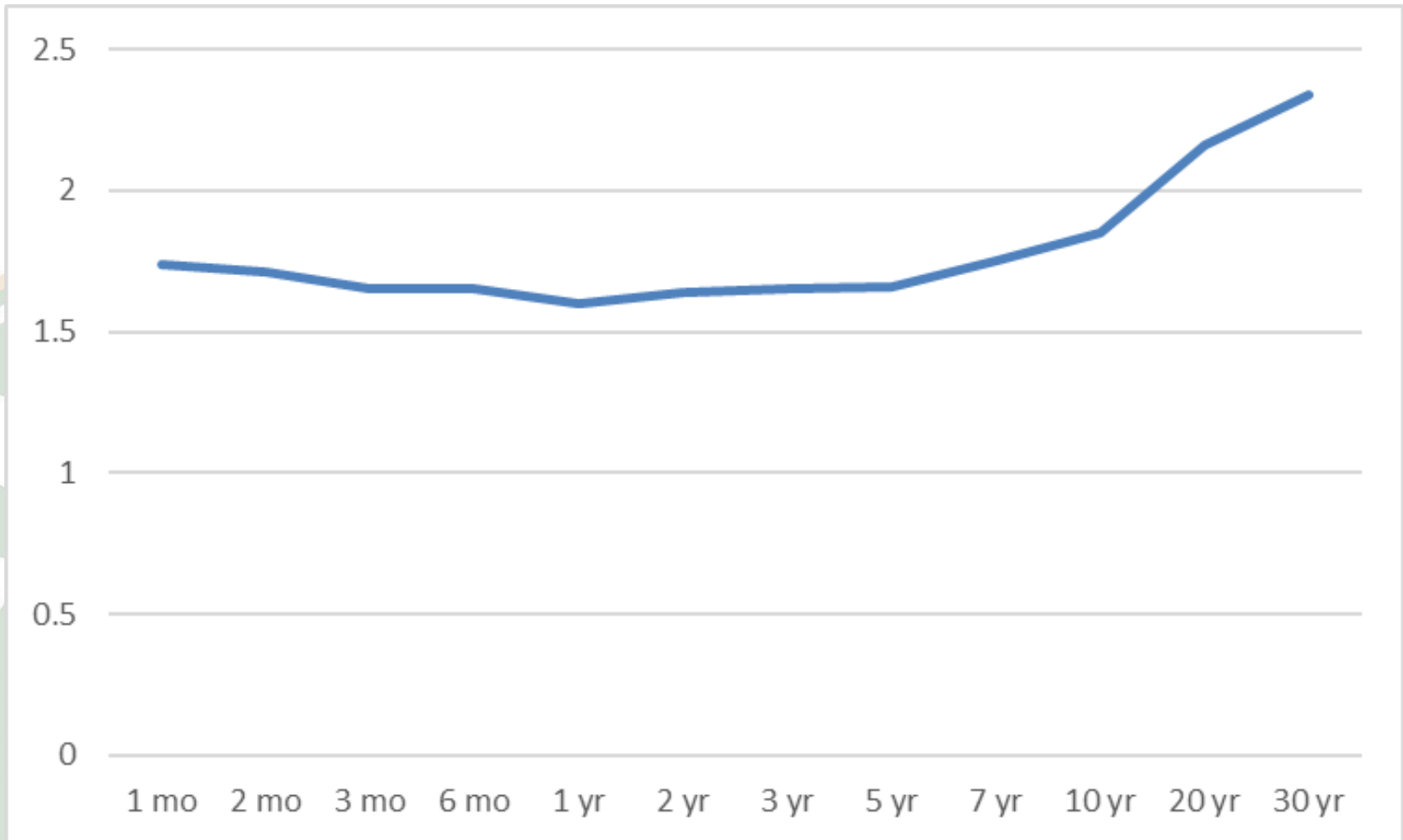
Treasury Yield Curves October 2017



Treasury Yield Curves January 2018



Treasury Yield Curves Oct 2019



Monetary & Fiscal Policy on Yield Curve

- In general, monetary policy affects the short end of the curve and fiscal policy affects the long end of the curve.
- Consider also that the short end of the curve is directly associated with short-term cash rates while the long end of the curve is indirectly associated with long-term inflation expectations.

		Fiscal Policy	
		Loose	Tight
Monetary Policy	Loose	Yield curve steep	Yield curve moderately steep
	Tight	Yield curve flat	Yield curve inverted

Monetary Policy and Fiscal Policy on Yield Curve

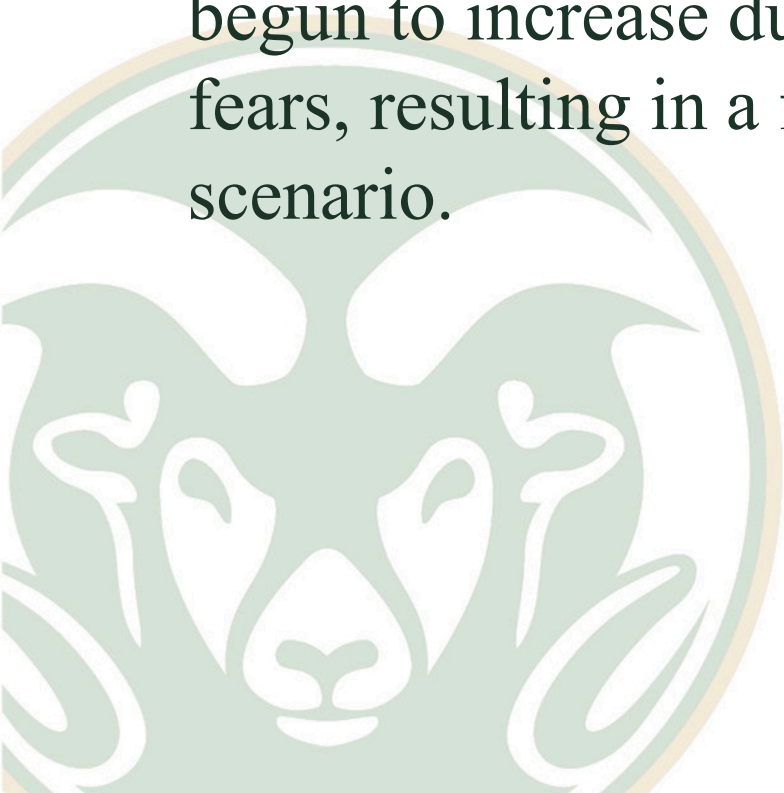
- Steep: When monetary and fiscal policy are both expansive, short-term rates are low due to monetary intervention and long-term rates are high due to increased inflation concerns, causing bond investors to demand higher yields over the long-term to offset lower long-term currency values.
- Normal: When monetary policy is still expansive but fiscal policy becomes restrictive, inflation expectations ease, causing long-term rates to fall relative to the “steep” scenario. Since monetary policy is still loose, short-term rates are still low and we still have an upward sloping yield curve - it’s just not as steep as in the “steep” scenario.

Monetary Policy and Fiscal Policy on Yield Curve

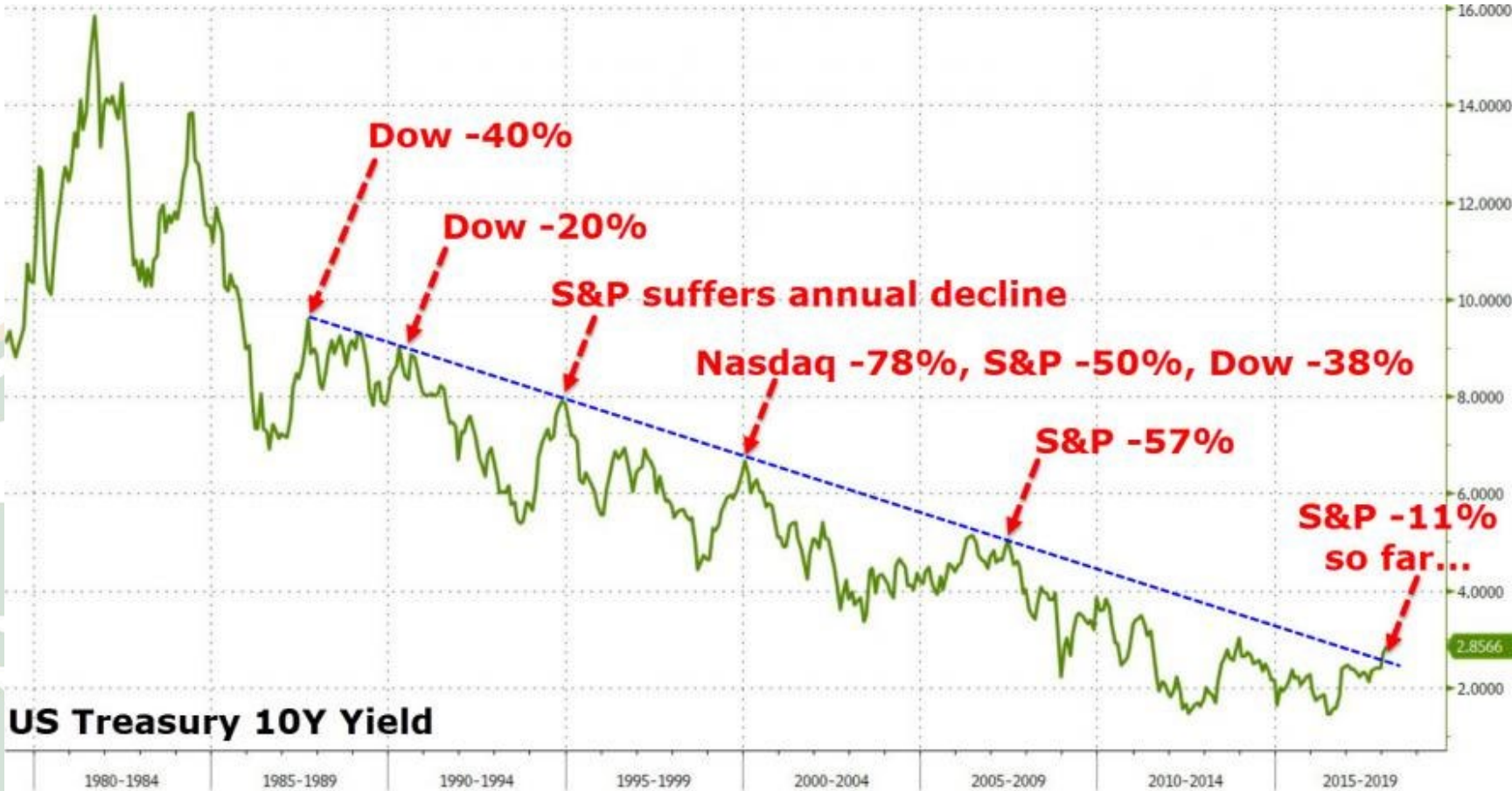
- **Inverted:** When monetary policy and fiscal policy are both restrictive, short-term rates rise due to monetary intervention and long-term rates decline since inflation expectations are now nearly non-existent. Since bond investors know short-term rates will eventually have to fall to stimulate the economy, they are fine “locking in” long-term rates even though they are currently lower than short-term rates because their bet is that long-term rates today are still higher than the combination of short-term rates they’d be able to realize in the future.

Monetary Policy and Fiscal Policy on Yield Curve

- Flat: When monetary policy is restrictive and fiscal policy is expansive, short-term rates are still relatively high but long-term rates have also now begun to increase due to renewed long-term inflation fears, resulting in a flat curve relative to the previous scenario.



US Treasury 10 Year Yield



US Treasury 10Y Yield

Federal Fund Rate

- In the United States, the federal funds rate is the interest rate at which depository institutions (banks and credit unions) lend reserve balances to other depository institutions overnight, on an uncollateralized basis. The federal funds rate is an important benchmark in financial markets.
- The interest rate that the borrowing bank pays to the lending bank to borrow the funds is negotiated between the two banks, and the weighted average of this rate across all such transactions is the federal funds effective rate.
- The federal funds target rate is determined by a meeting of the members of the Federal Open Market Committee which normally occurs eight times a year about seven weeks apart. The committee may also hold additional meetings and implement target rate changes outside of its normal schedule.
- The Federal Reserve uses open market operations to influence the supply of money in the U.S. economy to make the federal funds effective rate follow the federal funds target rate.

Discount Rate

- The federal funds target rate is set by the governors of the Federal Reserve, which they enforce by open market operations and adjustments in the interest rate on reserves. The target rate is almost always what is meant by the media referring to the Federal Reserve "changing interest rates." The actual federal funds rate generally lies within a range of that target rate, as the Federal Reserve cannot set an exact value through open market operations.
- Another way banks can borrow funds to keep up their required reserves is by taking a loan from the Federal Reserve itself at the discount window. These loans are subject to audit by the Fed, and the discount rate is usually higher than the federal funds rate. Confusion between these two kinds of loans often leads to confusion between the federal funds rate and the discount rate. Another difference is that while the Fed cannot set an exact federal funds rate, it does set the specific discount rate.

Comparison with LIBOR

- Though the London Interbank Offered Rate (LIBOR) and the federal funds rate are concerned with the same action, i.e. interbank loans, they are distinct from one another, as follows:
 - The target federal funds rate is a target interest rate that is set by the FOMC for implementing U.S. monetary policies.
 - The (effective) federal funds rate is achieved through open market operations at the Domestic Trading Desk at the Federal Reserve Bank of New York which deals primarily in domestic securities (U.S. Treasury and federal agencies' securities).
 - LIBOR is based on a questionnaire where a selection of banks guess the rates at which they could borrow money from other banks.
 - LIBOR may or may not be used to derive business terms. It is not fixed beforehand and is not meant to have macroeconomic ramifications.

Fed Funds And Repo

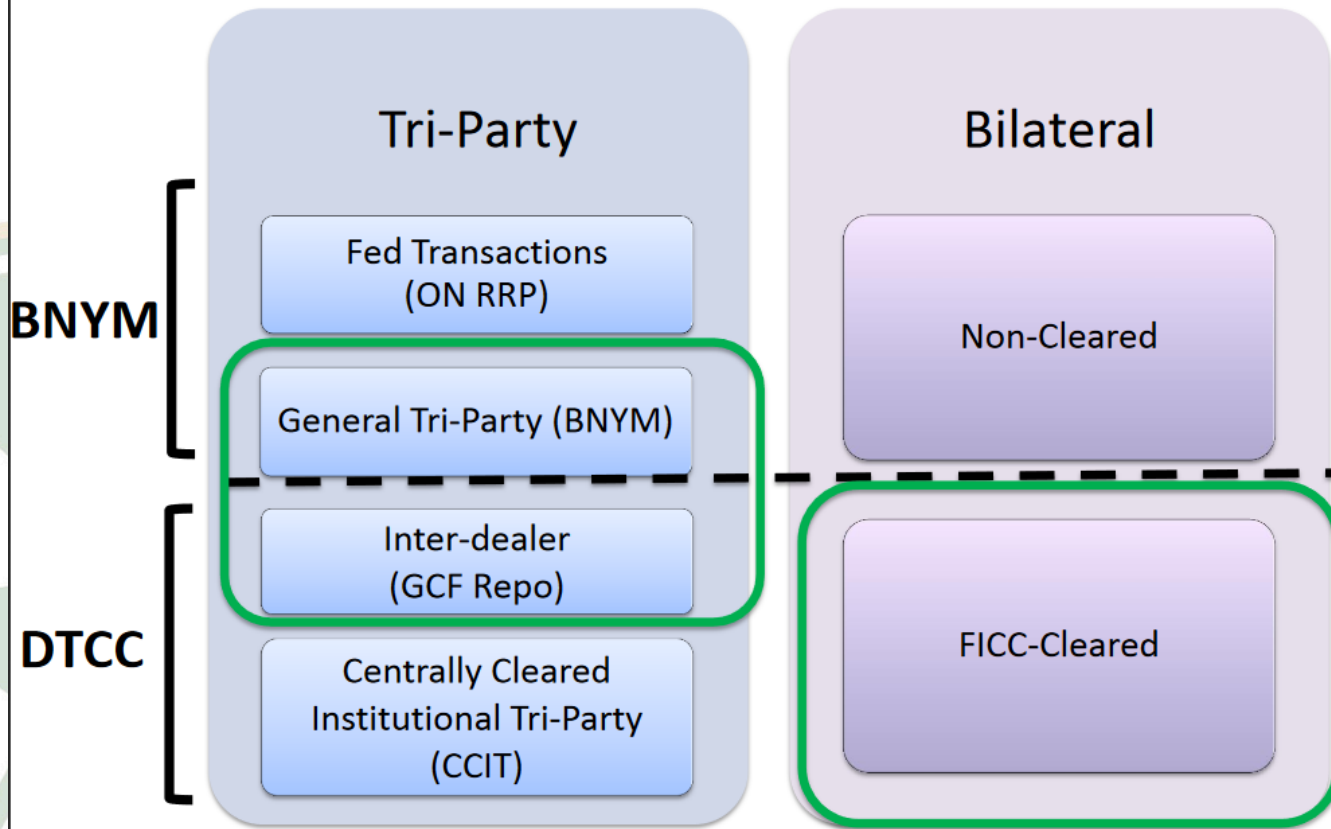
- Banks are required to keep a certain portion of their deposits as reserves at the Fed. Any cash in excess of those “required reserves” and not written as loans are a bank’s “excess reserves.” Those reserves can be deposited at the Fed or loaned to other banks in the inter-bank federal funds market.
- Participation in the federal funds market was limited to banks who held funds at the Federal Reserve Banks. The Fed liked the federal funds market because it provided members with a way to borrow bank reserves without tapping the discount window. Though the federal funds rate is the target short-term rate for monetary policy, the Fed uses the Repo market to manage the rate.
- The combination of the federal funds rate for banks and the Repo rate for non-banks became the dual overnight rates of the U.S. financial system. The Repo market includes both the banking system and the shadow banking system, all in one place. It’s the overnight borrowing and lending market of the entire financial system.

Secured Overnight Financing Rate (SOFR)

- Though it's not perfectly clear whether Libor will no longer be published after the end of 2021, it is clear that central bankers and regulators need to develop a robust alternative set of rates before that date to ensure that there is no market discontinuity if Libor were to stop being published.
- **New short-term benchmark rates**
- The Federal Reserve Bank of New York will begin publishing the Secured Overnight Funding Rate (SOFR), a broad Treasuries repo financing rate, in mid-2018.
- Unlike Libor, which by construction is a term market, SOFR is a spot market. The lack of a traded term market in SOFR will be less of an impediment as futures and forwards on the compound SOFR begin to trade.
- Investors in securities, loans, futures and derivatives that currently reference Libor will need to transition to SOFR-benchmarked products over time if they are concerned that Libor will become less liquid, or even stop being published.

Secured Overnight Financing Rate (SOFR)

Covers Multiple Market Segments, Allowing for Future Market Evolution



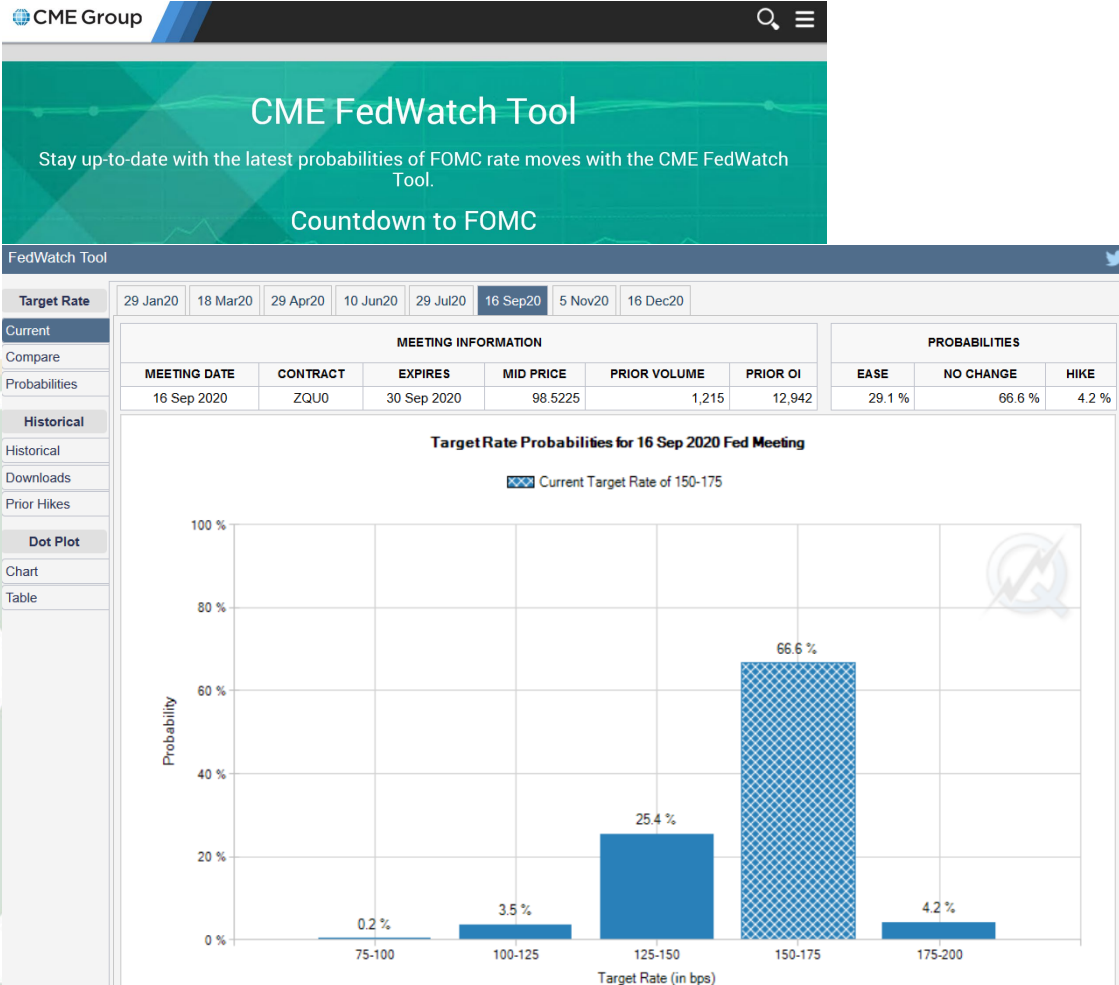
Sterling Overnight Index Average

- Other regions are turning to other rates:
- For example, the Bank of England and several major banks endorsed SONIA, or the Sterling Overnight Index Average, as their preferred short-term rate.
- The Sterling Overnight Index Average (SONIA) is the weighted average of the interest rates charged for all unsecured loans reported by market participants in the London overnight market. Only deals of at least 25 million GBP are considered when determining the average.

Predictions by the market

- Considering the wide impact a change in the federal funds rate can have on the value of the dollar and the amount of lending going to new economic activity, the Federal Reserve is closely watched by the market.
- The prices of Option contracts on fed funds futures (traded on the Chicago Board of Trade) can be used to infer the market's expectations of future Fed policy changes. Based on CME Group 30-Day Fed Fund futures prices, which have long been used to express the market's views on the likelihood of changes in U.S. monetary policy, the CME Group FedWatch tool allows market participants to view the probability of an upcoming Fed Rate hike. One set of such implied probabilities is published by the Cleveland Fed.

CME FedWatch Tool



<http://www.cmegroup.com/trading/interest-rates/countdown-to-fomc.html>

Cartoon

