

Financial Risk Management

MSBA IN FINANCIAL RISK MANAGEMENT



Sentiment Indicator

Wall Street tenet: “someone always knows more than you.”

Fear & Greed Index beta

What emotion is driving the market now?

Sponsored by



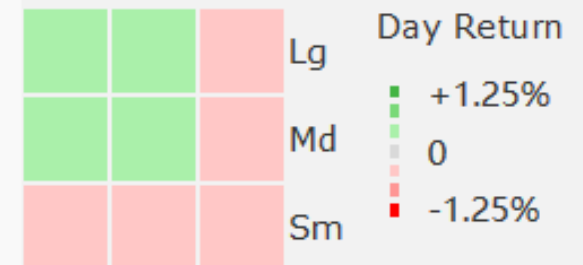
Previous Close	77
Extreme Greed	
1 Week Ago	92
Extreme Greed	
1 Month Ago	67
Greed	
1 Year Ago	36
Fear	

Last updated Oct 13 at 4:55pm

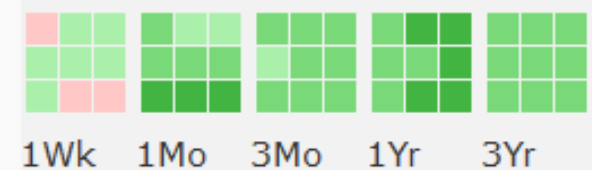
Market Barometer

- **Morningstar Market Barometer** provides a snapshot view of the market.
- By rendering each index in varying shades of red and green according to performance, market movements are clearly revealed. The color scale at the bottom indicates the range of return corresponding to that color.

Market Barometer



Value—Growth



Stock Market Heat Map



<https://finviz.com/map.ashx?t=sec&st=w52>

DOW

▲ 0.41%

S&P 500

▲ 0.13%

NASDAQ

▲ 0.09%



Trending Now

ETH.X

TRX.X

PTIE

DGAZ

MU

WTW

GSUM

GILD



Watchlist

Sign up to StockTwits to save a watchlist for easy access to your favorite stocks

[Sign Up](#)

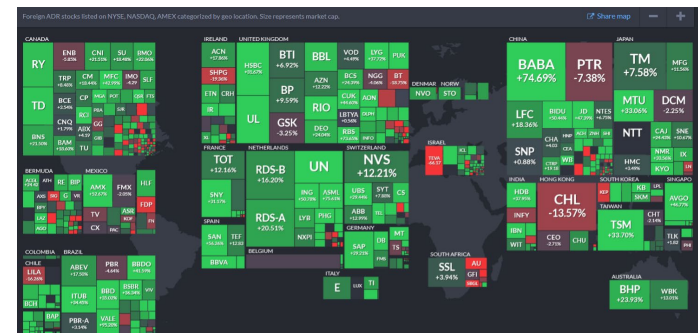
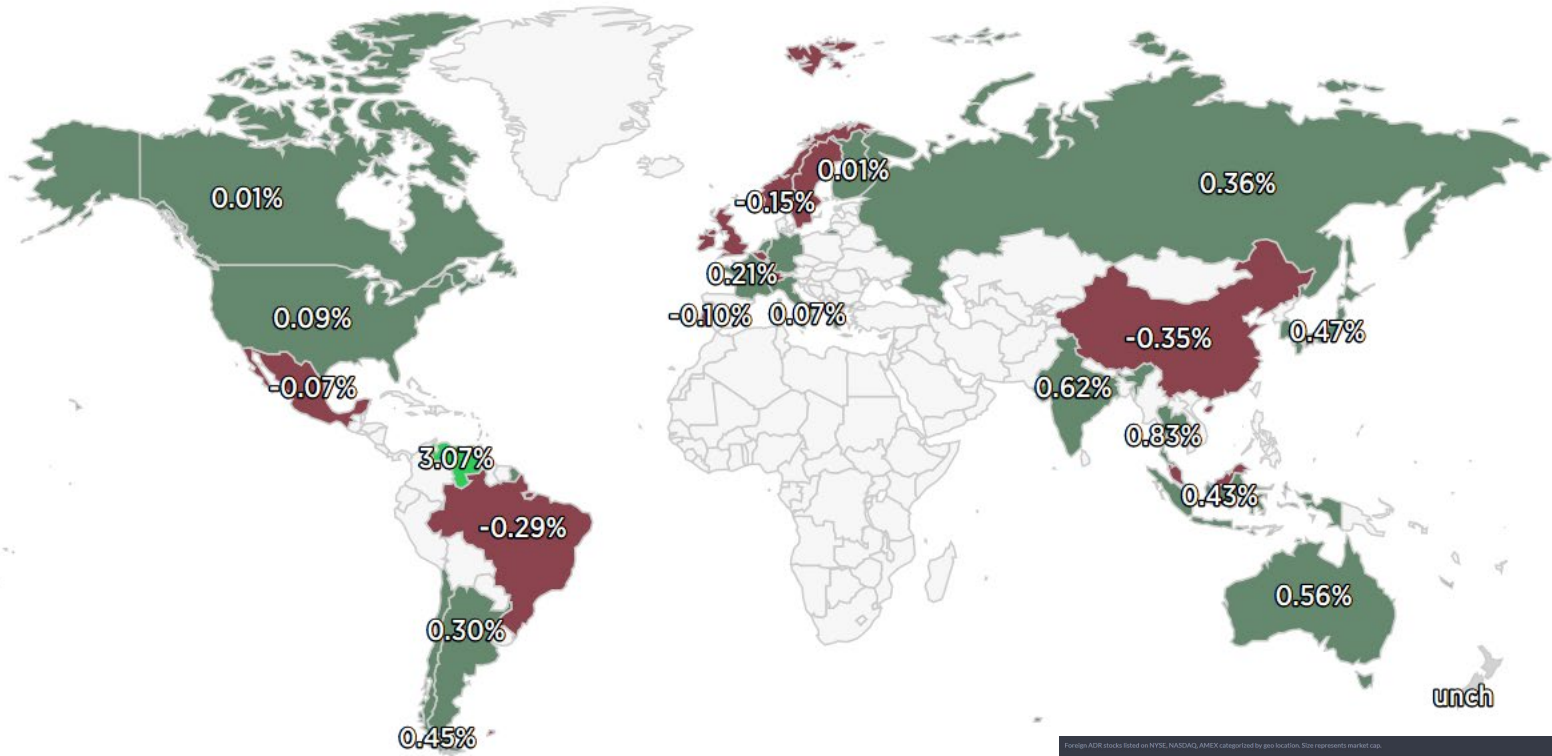
or [Login](#)

TD Ameritrade

TRADE



World Stock Markets Heat Map





Python for Financial Analysis and Algorithmic Trading

Learn numpy pandas matplotlib quantopian finance and more for algorithmic trading with Python!

Fear & Greed Index beta

Sponsored by

What emotion is driving the market now?



Previous Close **Extreme Greed** 75

1 Week Ago **Greedy** 63

1 Month Ago **Greedy** 64

1 Year Ago **Greedy** 67

Last updated Jan 9 at 4:57pm

Stock Price Sentiment

- Stock Price Momentum
 - The S&P 500 vs. its 125-day moving average

Market Momentum

Extreme Greed

The S&P 500 is 9.01% above its 125-day average. This is further above the average than has been typical during the last two years and rapid increases like this often indicate extreme greed.

Last changed Dec 29 from a **Greed** rating

Updated Jan 30 at 4:20pm

S&P 500 and its 125-day moving average



Stock Price Sentiment

- Stock Price Strength
 - The number of stocks hitting 52-week highs exceeds the number hitting lows and is at the upper end of its range, indicating extreme greed.

Stock Price Strength

Extreme Greed

The number of stocks hitting 52-week highs exceeds the number hitting lows and is at the upper end of its range, indicating extreme greed.

Last changed Jan 8 from a Greed rating

Updated Jan 30 at 3:58pm

Net new 52-week highs and lows on the NYSE



Stock Price Sentiment

- Stock Price Breadth

- Number and volume of shares trading on the rise vs. declining

Stock Price Breadth

Extreme Greed

The McClellan Volume Summation Index measures advancing and declining volume on the NYSE. During the last month, approximately 0.07% more of each day's volume has traded in advancing issues than in declining issues, pushing this indicator towards the upper end of its range for the last two years.

Last changed Dec 20 from a Greed rating

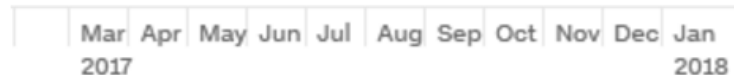
Updated Jan 30 at 4:06pm

McClellan Volume Summation Index

Market breadth strong ▲



Market breadth weak ▼



Market Diaries

Market Diaries					Data as of 1/30/2018 04:43:29 PM
Issues:	NYSE	AMEX	NASDAQ	Bulletin Board	
Advancing	586	80	742		7
Declining	2,420	239	2,218		6
Unchanged	72	23	120		4
Total	3,078	342	3,080		17
Issues at:					
52 Week High	46	1	49		2
52 Week Low	252	33	65		0
Volume:					
Advancing	661.08M	74.56M	480.42M		50,020
Declining	3.27B	85.95M	1.65B		7.49M
Unchanged	40.12M	2.36M	24.75M		3,620
Total	3.97B	162.87M	2.15B		7.54M

<http://bigcharts.marketwatch.com/markets/default.asp>

Confidence Index



- Confidence Index

- The ratio of the average yield on 10 top-rated corporate bonds divided by the average yield on 10 intermediate-grade corporate bonds
- Higher values are bullish

MONDAY, JANUARY 29, 2018

As of: 01/27/2018

WEEKLY BARRON'S C.I./YIELD GAP

The weekly Barron's Confidence Index is a ratio of the average yield-to-maturity of the Best-Grade bond list compared to the average yield-to-maturity of the Intermediate Grade bond list. The ratio is higher and the bond yield spread narrower as the confidence index rises when investors are confident about the market. The ratio is lower when the intermediate grade average bond yield is rising faster, or at least, falling more slowly than the best-grade bonds. A falling confidence index reflects decreasing confidence in the market. The weekly yield gap reflects the spread between the Barron's Best Grade Bonds yield-to-maturity and the Dow Jones Industrial Average dividend yield.

Week Ended		Conf. Index	Intrm. Bonds	Best Grade	DJI Yield	Yield Gap
2018						
Jan	26	79.9	4.25	3.39	1.96	-1.43
	19	79.9	4.24	3.38	2.00	-1.38
	12	78.1	4.20	3.29	2.02	-1.27
	5	79.0	4.14	3.27	2.06	-1.21
2017						
Dec	29	78.7	4.12	3.24	2.11	-1.13
	22	79.0	4.16	3.29	2.11	-1.18
	15	78.7	4.06	3.20	2.12	-1.08
	8	78.2	4.10	3.21	2.15	-1.06
	1	79.6	4.10	3.27	2.15	-1.12



Confidence Index



- Safe Haven Demand: Difference in returns stocks vs. bonds



Safe Haven Demand

Extreme Greed

Stocks have outperformed bonds by 7.46 percentage points during the last 20 trading days. This is close to the strongest performance for stocks relative to bonds in the past two years and indicates investors are rotating into stocks from the relative safety of bonds.

Last changed Jan 2 from a Greed rating

Updated Jan 30 at 4:09pm

Difference in 20-day stock and bond returns



Confidence Index



- Junk Bond Demand: Spread between investment-grade and junk-bond yields

Junk Bond Demand

Extreme Fear

Investors in low quality junk bonds are accepting 1.98 percentage points in additional yield over safer investment grade corporate bonds. This spread is higher than recent levels and suggests that investors are becoming more risk averse.

Last changed Dec 20 from a **Fear** rating

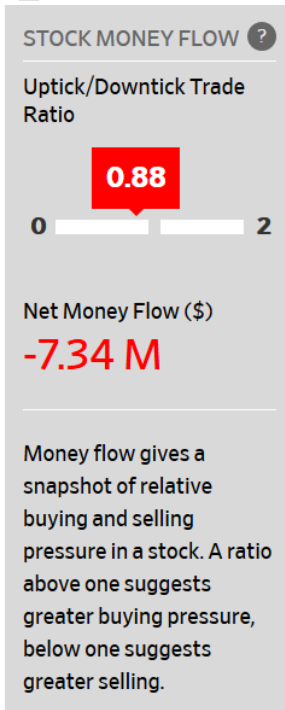
Updated Jan 30 at 4:09pm

Yield Spread: Junk bonds vs. investment grade



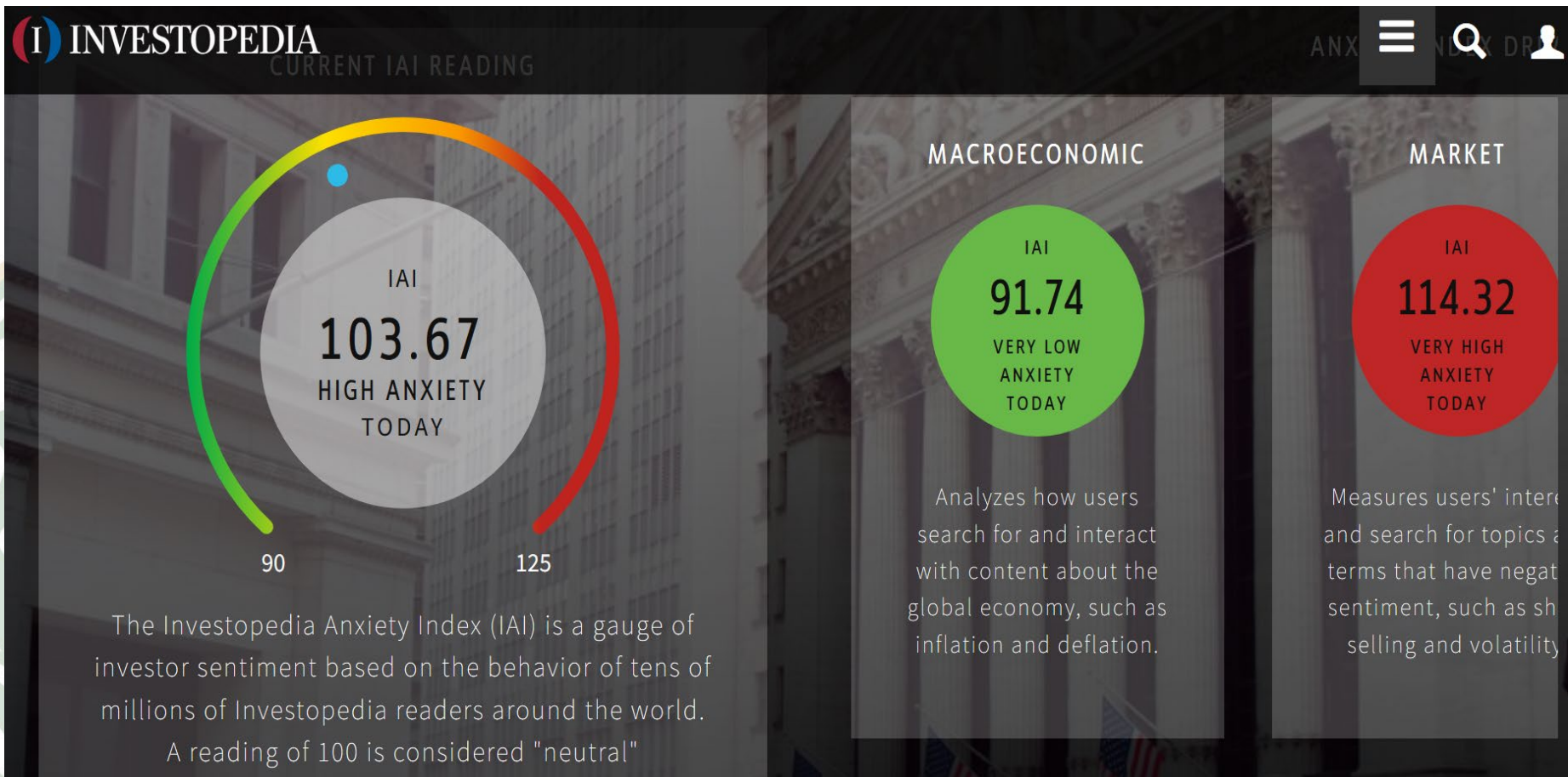
Money flow

- Money flow gives a snapshot of relative buying and selling pressure in a stock. A ratio above one suggests greater buying pressure, below one suggests greater selling



Investopedia Anxiety Index (IAI)

- <https://www.investopedia.com/anxiety-index/>

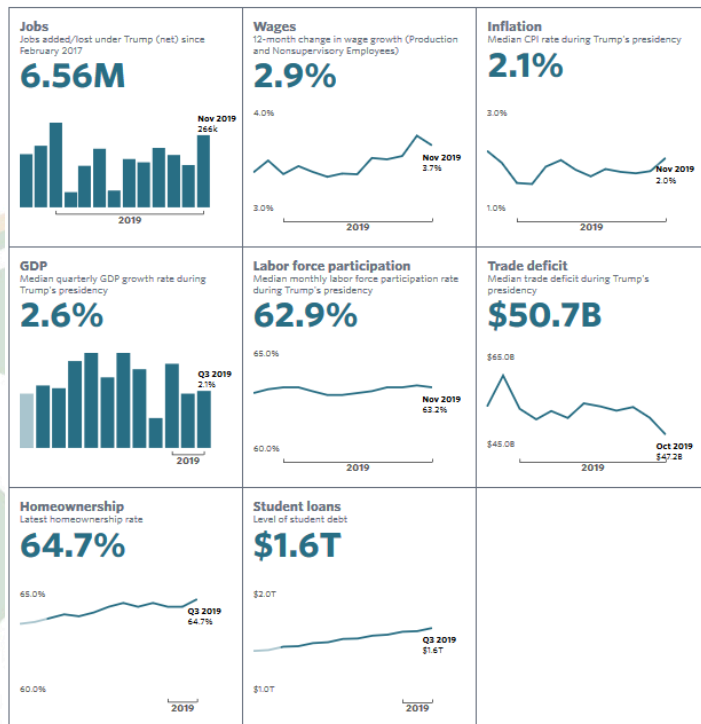


The Trump Scoreboard

The Trump Scoreboard

Tracking how markets and the economy perform under President Trump

[Read more coverage in MarketWatch's Trump Today column](#)



Source: U.S. Bureau of Labor Statistics via FRED
*Median of months in presidency so far
**Compound annual growth rate of Trump's first year in office

CORRECTION: Some of the cumulative numbers previously displayed in this graphic were incorrectly calculated for the past 12 months, instead of for Trump's full presidential term. The calculation error has been corrected.

The stock market is one of three metrics MarketWatch uses for the Trump Scoreboard.

Dow Theory

- The Dow theory is a theory which says the market is in an upward trend if one of its averages (industrial or transportation) advances above a previous important high and is accompanied or followed by a similar advance in the other average. For example, if the Dow Jones Industrial Average (DJIA) climbs to an intermediate high, the Dow Jones Transportation Average (DJTA) is expected to follow suit within a reasonable period of time.

Dow Theory

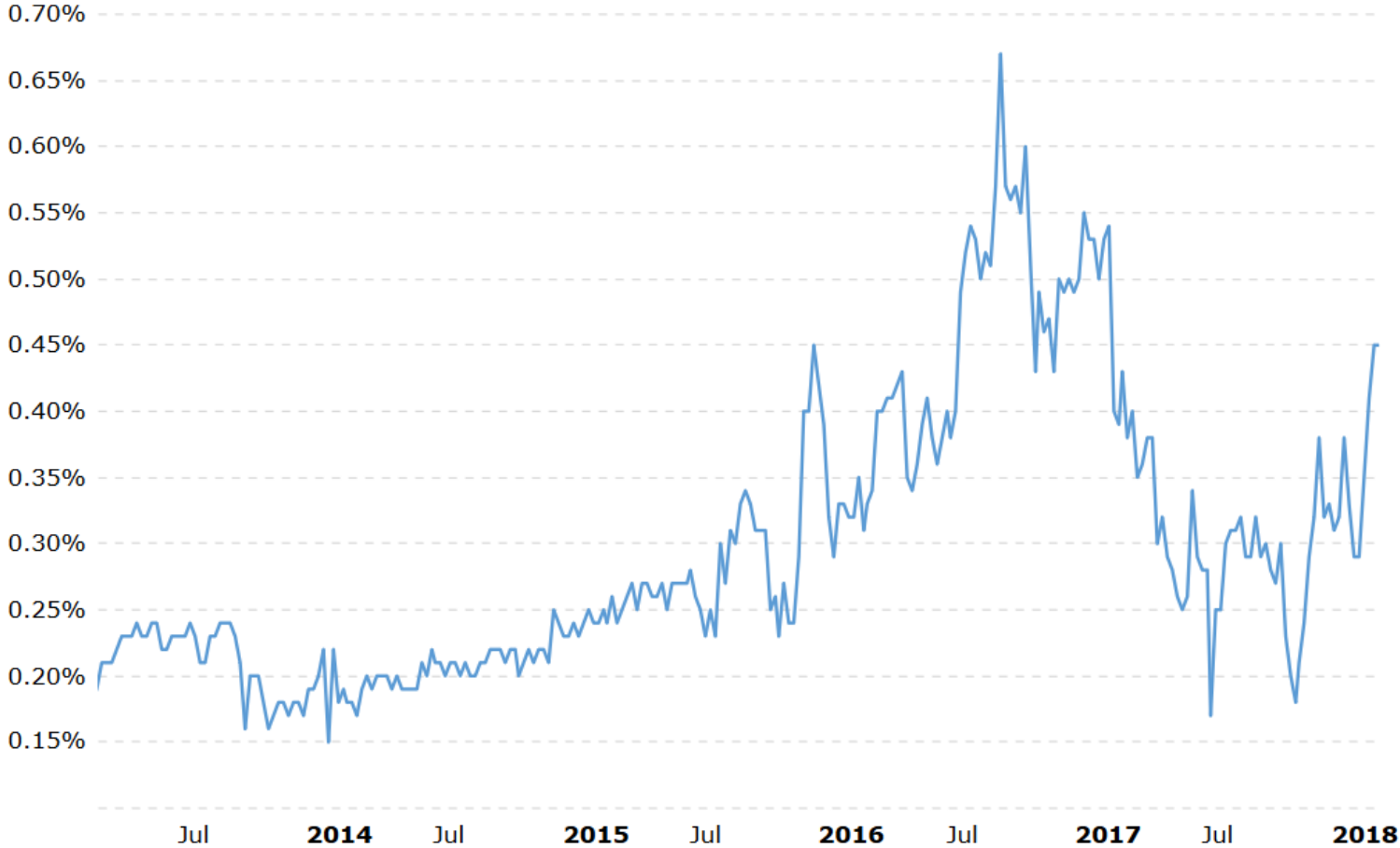


Source: MarketWatch

TED Spread

- This interactive chart tracks the daily TED Spread (3 Month LIBOR / 3 Month Treasury Bill) as a measure of the perceived credit risk in the U.S. economy. LIBOR measures the interbank lending rate so as the spread between LIBOR and the T-bill rate increases, it shows an accelerating lack of trust between banks and a corresponding tightening of credit for all other counterparties.

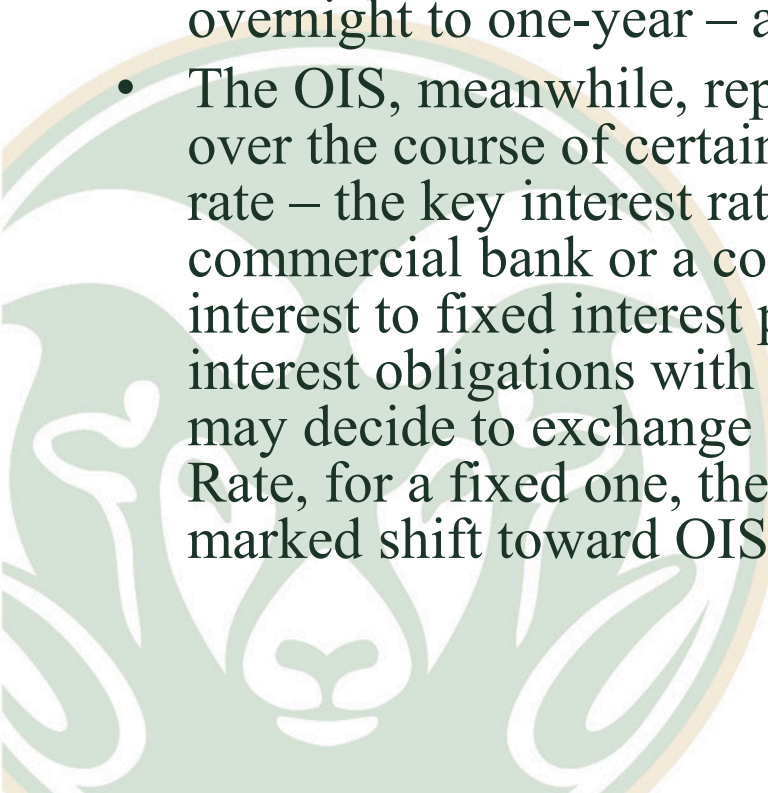
TED Spread



<http://www.macrotrends.net/1447/ted-spread-historical-chart>



Libor-OIS spread

- The spread on the London interbank offered rate for dollars over the overnight indexed swap rate, known as Libor-OIS
 - LIBOR (officially known as ICE LIBOR since February 2014) is the average interest rate that banks charge each other for short-term, unsecured loans. The rate for different lending durations – from overnight to one-year – are published daily.
 - The OIS, meanwhile, represents a given country's central bank rate over the course of certain period; in the U.S., that's the Fed Funds rate – the key interest rate controlled by the Federal Reserve. If a commercial bank or a corporation wants to convert from variable interest to fixed interest payments – or vice versa – it could “swap” interest obligations with a counterparty. For example, a U.S. entity may decide to exchange a floating rate, the Fed Funds Effective Rate, for a fixed one, the OIS rate. In the last 10 years, there's been a marked shift toward OIS for certain derivative transactions.
- 



Libor-OIS spread





Libor-OIS spread

No Systemic Risk

Libor-OIS widening due to structural forces that may persist

■ Three-month U.S. dollar Libor-OIS spread



Fear Index

- VIX (the **fear index**) shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options.

Market Volatility

Extreme Fear

The CBOE Volatility Index (VIX) is at 14.79, 39.78% above its 50-day moving average and indicates that investors are concerned about the near-term values of their portfolios.

Last changed Jan 26 from a Neutral rating

Updated Jan 30 at 4:14pm

VIX and its 50-day moving average



Long & Short Volatility

- Unlike the S&P 500 or Dow Jones Industrial Index, there's no way to directly invest in the CBOE's VIX® index.
- Some really smart people have tried to figure out a way, but there's just no way to do it directly with something like a VIX index fund. Instead, you have to invest in a security that attempts to track VIX.

Five ways to go long on VIX

- Buy a leveraged exchange traded product (ETP) that [tends to track](#) the daily percentage moves of the VIX index. The best of these from a short term tracking standpoint are ProShares' [UVXY](#) and VelocityShares' [TVIX](#).
- Buy Barclays' VXX (short term), VXZ (medium term) Exchange Traded Note (ETN) or one of their competitors that have jumped into this market. [Volatility tickers](#) gives investors a full list of volatility ETN/ETFs.
- Buy VXX or VXZ call options (ProShares' VIXY and VIXM have options also)
- Buy UVXY options (2X leveraged version of the short term rolling futures index used by VXX)
- Buy VIX call options / short VIX put options

Long & Short Volatility

- [VIXY](#) ProShares VIX Short-Term Futures ETF
- [UVXY](#) ProShares Ultra (2x) VIX Short-Term Futures ETF
- [SVXY](#) ProShares Short (-1x) VIX Short-Term Futures ETF

- [VIIX](#) VelocityShares Daily Long VIX Short-Term ETN
- [TVIX](#) VelocityShares Daily (2x) VIX Short-Term ETN
- [XIV](#) VelocityShares Daily Inverse (-1x) VIX Short-Term ETN
- [ZIV](#) VelocityShares Daily Inverse (-1x) VIX Medium-Term ETN

- [VXX](#) Barclays S&P 500 VIX Short-Term Futures ETN
- [VXZ](#) Barclays S&P 500 VIX Mid-Term Futures ETN

Long & Short Volatility

- VelocityShares' XIV and its sister fund ZIV are designed to go up when the volatility of the S&P 500 goes down.
- XIV has a shorter time horizon (1 to 2 months) whereas ZIV has a 5-month timeframe.
- XIV trades like a stock. It can be bought, sold, or sold short anytime the market is open, including pre-market and after-market time periods. With an average daily volume of 29 million shares, its liquidity is excellent and the bid/ask spreads are a penny.
- Unfortunately, XIV does not have options available for it. However, its Exchange Traded Fund (ETF) equivalent, ProShare's SVXY does, with five weeks' worth of Weeklys with strikes in 50 cent increments.

Long & Short Volatility

- VelocityShares' XIV and its sister fund ZIV are designed to go up when the volatility of the S&P 500 goes down.
- XIV has a shorter time horizon (1 to 2 months) whereas ZIV has a 5-month timeframe.
- XIV trades like a stock. It can be bought, sold, or sold short anytime the market is open, including pre-market and after-market time periods. With an average daily volume of 29 million shares, its liquidity is excellent and the bid/ask spreads are a penny.
- Unfortunately, XIV does not have options available for it. However, its Exchange Traded Fund (ETF) equivalent, ProShare's SVXY does, with five weeks' worth of Weeklys with strikes in 50 cent increments.

Long & Short Volatility

- Unlike stocks, owning XIV does not give you a share of a corporation. There are no sales, no quarterly reports, no profit/loss, no PE ratio, and no prospect of ever getting dividends. Forget about doing fundamental style analysis on XIV. While you're at it forget about technical style analysis too.

Trade the Fear Index

#BUSINESS NEWS

FEBRUARY 6, 2018 11:50 AM 12 DAYS AGO

Credit Suisse 'volatility' fund liquidated after market selloff

Michael Shields, Trevor Hunnicutt

5 MIN READ



ZURICH/NEW YORK (Reuters) - Credit Suisse (CSGN.S) said on Tuesday it would terminate the second-largest publicly traded product betting on future swings in the S&P 500 after its value plunged during the global market rout.



<https://www.reuters.com/article/us-credit-suisse-gp-notes/credit-suisse-volatility-fund-liquidated-after-market-selloff-idUSKBN1FQ256>

Fear Index

- Put and Call Options: Trading volume of bullish call options relative to bearish put options

Put and Call Options

Greed

During the last five trading days, volume in put options has lagged volume in call options by 45.23% as investors make bullish bets in their portfolios. However, this among the lowest levels of put buying seen during the last two years, indicating greed on the part of investors.

Last changed Jan 29 from an **Extreme Greed** rating

Updated Jan 30 at 4:12pm

CBOE 5-Day Average Put/Call Ratio



BIS Early Warning Indicators

- The BIS has analysed and monitored early warning indicators of domestic banking distress.
- They are calibrated with reference to the signal-to-noise ratio, defined roughly as the ratio of correctly predicted historical episodes to false alarms.
- These indicators capture financial overheating and signal potential banking distress over medium-term horizons. The first is the gap between the credit-to-GDP ratio and its long-term trend. The second is the gap between the residential property price index and its long-term trend. The last one is the difference between the debt service ratio (DSR) and its average over time.

BIS Early Warning Indicators

- Household and international debt (cross-border or in foreign currency) are a potential source of vulnerabilities that could eventually lead to banking crises.
- Early warning indicators (EWIs) of banking crises are typically based on the notion that crises take root in disruptive financial cycles.
- The basic intuition is that outside financial booms can generate the conditions for future banking distress. The narrative of financial booms is well understood: risk appetite is high, asset prices soar and credit surges. Yet it is difficult to detect the build-up of financial booms in real time and with reasonable confidence. It is here that EWIs come in. Many studies, including at the BIS, have found that one can identify such unsustainable booms reasonably well based on, say, deviations of credit and asset prices from long-run trends ("gaps") breaching certain critical thresholds.

Early warning indicators for stress in domestic banking systems

Table 4

	Credit-to-GDP gap	Debt service ratio (DSR)	Household DSR	Cross-border claims to GDP
Australia	-8.1	1.0	1.0	21.3
Brazil	-6.4	-0.9	...	0.5
Canada	9.6*	2.9*	0.7*	33.1*
Central and eastern Europe ¹	-12.5	-1.9	...	11.4*
China	16.7	5.1	...	-27.9
Finland	-5.2	0.9	0.8	-22.4
France	4.0	1.6	0.5	2.7
Germany	-2.1	-1.6	-1.9	6.9
Hong Kong SAR	30.7*	6.9*	...	-12.3
India	-7.8	0.5	...	-30.6
Indonesia	6.9*	0.5*	...	-10.9
Italy	-18.0	-1.2	0.0	-10.8
Japan	7.6*	-1.8	-1.0	20.5*
Korea	-1.3	0.1	1.7	-13.9
Malaysia	4.0*	0.4*	...	-1.6
Mexico	6.2	1.1	...	17.9
Norway	-1.0	-0.3	1.1	34.4
Russia	-4.6	1.8	1.8	-24.9
South Africa	-2.2	0.0	-0.3	22.1
Spain	-50.7	-3.6	-1.6	-19.5
Sweden	-11.2	-0.4	1.1*	-1.9
Switzerland	16.3*	1.7*	...	7.5
Thailand	6.7*	-0.6	2.8*	-16.6
Turkey	5.4	6.1	...	-1.2
United Kingdom	-17.7	-1.3	-0.8	0.6
United States	-6.9	-1.1	-1.5	-15.2
<i>Legend</i>	<i>Credit/GDP gap ≥ 9</i>	<i>DSR ≥ 1.8</i>	<i>DSR ≥ 1.4</i>	<i>XB claims ≥ 34</i>
	<i>4 ≤ Credit/GDP gap < 9</i>	<i>0.1 ≤ DSR < 1.8</i>	<i>0.6 ≤ DSR < 1.4</i>	<i>18 ≤ XB claims < 34</i>

The threshold for red (amber) cells minimises false alarms conditional on capturing at least two thirds (90%) of historical crises with a cumulative three-year prediction horizon (see Table 2 and Tables A2–A6 in the Online Appendix). Asterisks highlight a signal of the combined indicator when property price gaps were above 11 at some point during the last three years (see Table 3).

¹ Simple average of CZ, HU and PL.

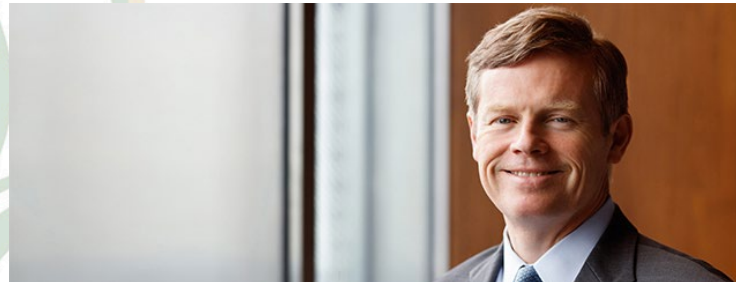
Sources: IMF, *International Financial Statistics*; national data; BIS credit to the non-financial sector, locational banking and property price statistics; authors' calculations.

Early Warning Signs Of The Next Financial Crisis

- Reduced bank capital requirements;
- Soaring private debt: Overvalued Collateral such as credit card debt, subprime auto loans, loans that finance corporate leveraged buyouts, and general corporate debt.
- A ballooning federal budget deficit;
- And massive student loan debt, which is a staggering \$1.3 trillion
 - like in the mortgage crisis, the federal government, not the colleges themselves, bears the risk of default.

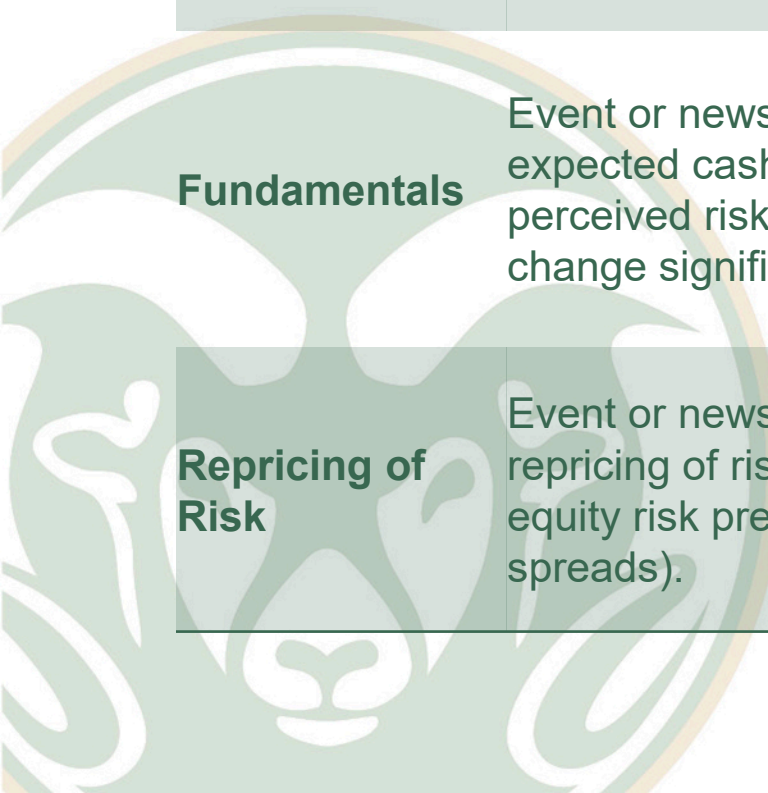
When the Market is In Fear

- "A better course of action, when faced with market volatility, is to treat the media narrative with skepticism and run some simple tests on fundamentals, valuation and positioning to decide on what action, if any, should be taken."
 - Dr. David Kelly, Global Market Strategist, JP Morgan



Market Meltdowns: Reasons, Symptoms and Consequences

Explanation	Symptoms	Market Consequences
Panic Attack	Sharp movements in stock prices for no discernible reasons, with surge in fear indices.	Market drops sharply, but quickly recovers back most or all of its losses as panic subsides
Fundamentals	Event or news that causes expected cash flows, growth or perceived risk in equities to change significantly.	Market drops sharply and stays down, with price moves tied to the fundamental(s) in focus.
Repricing of Risk	Event or news that leads to repricing of risk (in the form of equity risk premiums or default spreads).	As price of risk is reassessed upwards, market drops until the price of risk finds its new equilibrium.





Read the tea leaves

- It is natural that when faced with large market moves, we look for logical and rational explanations. There are three possible explanations for any market meltdown over a short period.
- The question in any meltdown is which explanation dominates, since stock market crisis has elements of all three.
- The essence of volatility: The rises can be as sudden and unexpected as the gut-wrenching drops.
- Worthwhile pieces of advice during market corrections
- "Stay the course." "Stick with your asset allocation plan."
- "Focus on what you can control."

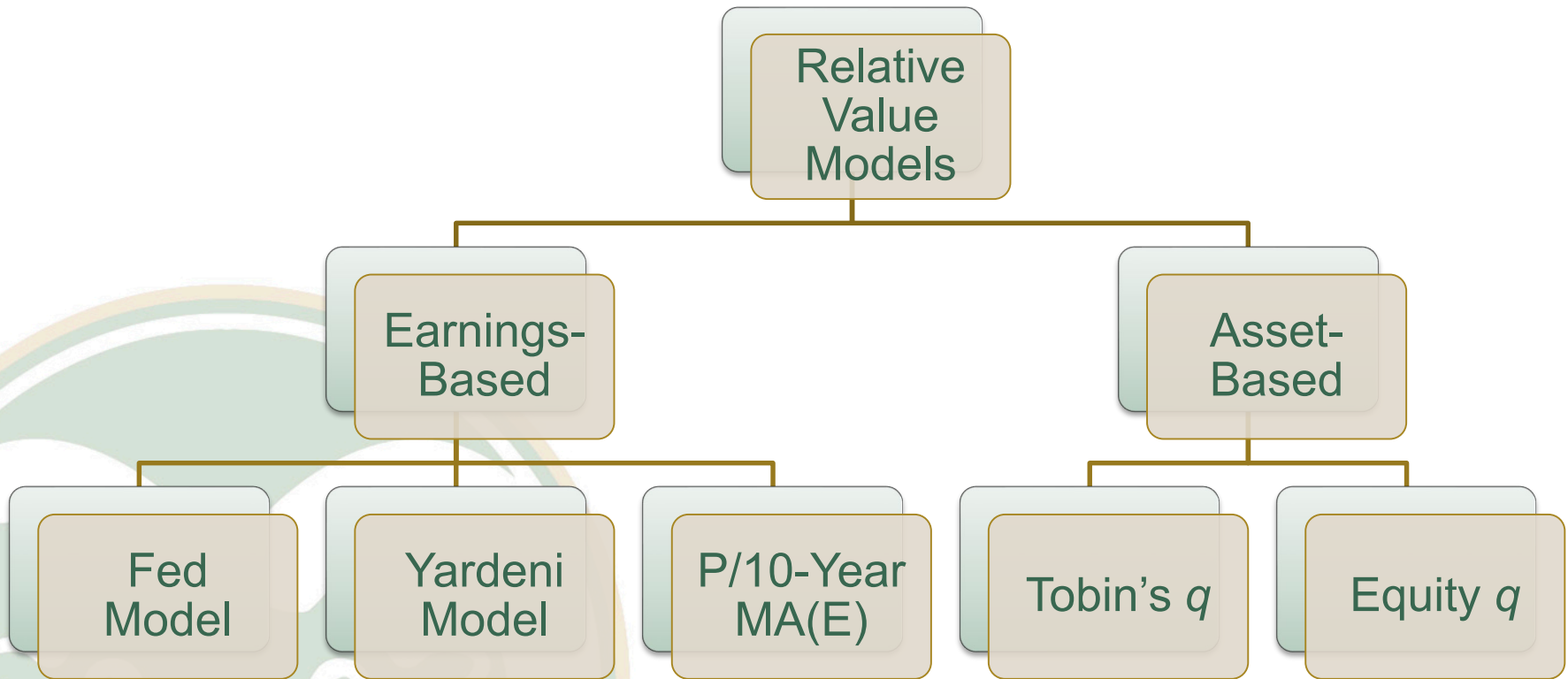
The Dollar

- Perhaps there may be one indicator to watch to help answer the difficult question plaguing the stock market of how much growth is too much growth: the dollar.
- Since the U.S. is among those nations seeing better growth and is at risk of overheating, using the dollar as a barometer for global growth and inflation trends may be worthwhile.
- The dollar benefits from faster growth, but not from inflation. This is different than interest rates, which go up in either case. But even this signal isn't without noise. It is possible that growing U.S. trade and budget deficits are weighing on the dollar, rather than inflation.

No Simple Rules

- Bear markets, the term for a decline of 20% or more, are most commonly associated with economic recessions.
- Correction is the often-used term for a 10%-20% decline. It is called a "correction" because it corrects an overshoot and returns prices to their longer-term trend.
- History shows that corrections in bull markets are common, especially during the last few years of the economic cycle when they have averaged two or three per year.
- Unfortunately, there aren't simple rules to follow that work every time to signal the end of a correction. This implies that long-term investors would benefit more by letting the correction run its course than trying to call a bottom.

Relative Value Models



Fed Model

- The Fed model is a valuation methodology that states there is a relationship between the forward earnings yield of the stock market (typically the S&P 500 Index,) and the 10-year Treasury bond yield to maturity (YTM).
- The yield on a stock is the expected earnings over the next 12 months divided by the current stock price and is symbolized in this article as (E_1/P_S) . This equation is the inverse of the familiar forward P/E ratio, but when shown in this yield form it highlights the same concept as the bond yield (Y_B)—that is, the concept of a return on investment.

In the strict form, the relationship is such that the forward stock yield equals the bond yield:

$$(E_1/P_S) = Y_B$$

Two conclusions can be drawn from this:

1. The difference in $(E_1/P_S) - Y_B = 0$,
2. Alternatively, the ratio of $(E_1/P_S)/Y_B = 1$.

Relative value models:

$$\text{Fed model ratio} = \frac{\text{S\&P earnings yield}}{\text{Treasury yield}}$$

A value >1 indicates that equities are undervalued and should increase in value.

Fed Model

- The premise behind the model is that bonds and stocks are competing investment products. An investor is constantly making choices between investment products as the relative prices between these products change in the market place.

The Fed model evaluates whether the price paid for the riskier cash flows earned from stocks is appropriate by comparing expected return measures for each asset: YTM for bonds and E_1/P_S for stocks.

- This analysis is typically done by looking at the difference between the two expected returns. The value of the spread between $(E_1/PS) - YB$ indicates the magnitude of mispricing between the two assets. In general, the bigger the spread, the cheaper stocks are supposed to be relative to bonds and vice versa. This valuation suggests a falling bond yield dictates a falling earnings yield, which will ultimately result in higher stock prices. That is PS should rise for any given E_1 when bond yields are below the stock yield.

Yardeni Model

Moody's A-rated corporate bond yield

Consensus five-year earnings growth forecast for the S&P 500

$$\frac{E_1}{P_0} = y_B - d \times LTEG$$

Weighting factor measuring the importance the market assigns to the earnings projections (average is about 0.10)

Concerns:

- 1) The risk premium captured by the model is largely a default risk premium and not the future equity risk premium, which is unobservable.
- 2) The consensus five-year earnings growth forecast for the S&P 500 from Thomson Financial may not be sustainable.
- 3) Evidence suggests that the weighting factor varies significantly over time.

P/10-Year MA(E)

Campbell and Shiller's (1998, 2005) 10-year Moving Average Price/Earnings [=P/10-year MA(E)] has become a popular measure of market valuation:

- Numerator of P/10-year MA(E) is the real S&P 500 price index.
- Denominator is the moving average of the preceding 10 years of real reported earnings.
- Stock index and earnings are adjusted for inflation using the Consumer Price Index (CPI).
- Purpose of the 10-year moving average of real reported earnings is to control for business cycle effects on earnings.

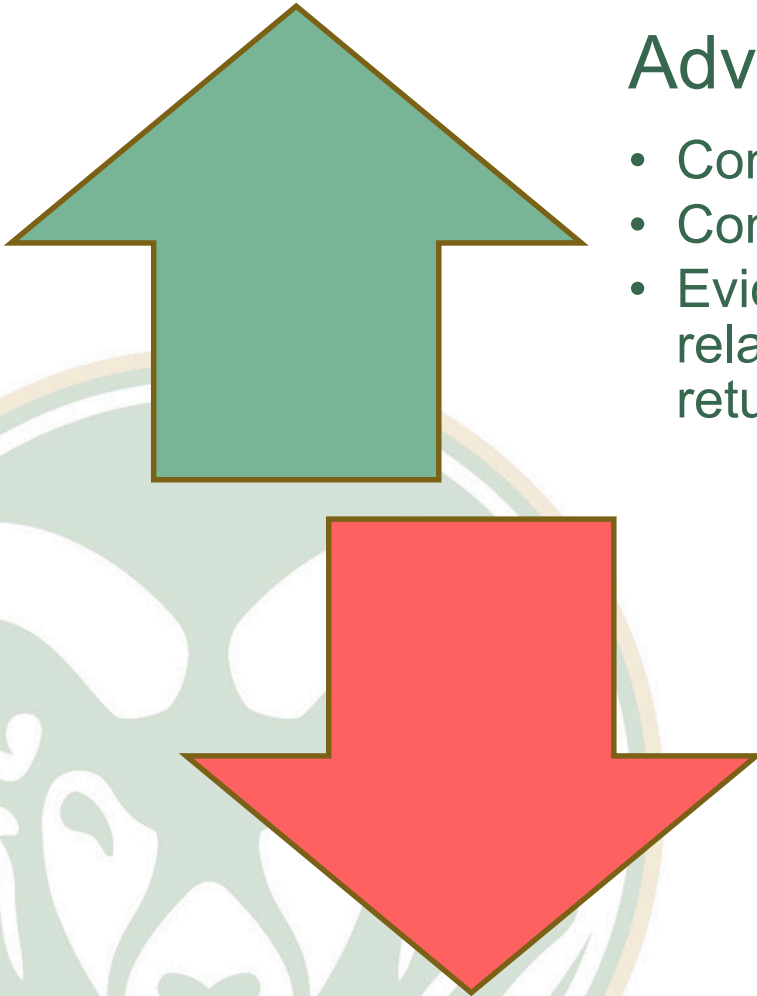
P/10-Year MA(E): Advantages and Disadvantages

Advantages

- Controls for inflation
- Controls for business cycle effects
- Evidence supports a negative relationship with future equity returns

Disadvantages

- Changes in accounting methods may lead to comparison problems
- Current period data may provide better estimates of value
- Evidence suggests high and low levels can persist for long time periods



Asset-based Models: Tobin's q and Equity q :

<u>Assets at Market Value or Replacement Cost</u>	<u>Liabilities</u>	<u>Market Value of Equities Outstanding</u>
28,277.33	12,887.51	9,554.05

Data source: www.federalreserve.gov/releases/z1/.

Fourth quarter 2008

Tobin's q = Market value of a company \div Replacement cost of assets = $(12,887.51 + 9,554.05) \div 28,277.33 = 0.79$

Equity q = Equity market capitalization \div Net worth measured at replacement cost = $9,554.05 \div (28,277.33 - 12,887.51) = 0.62$

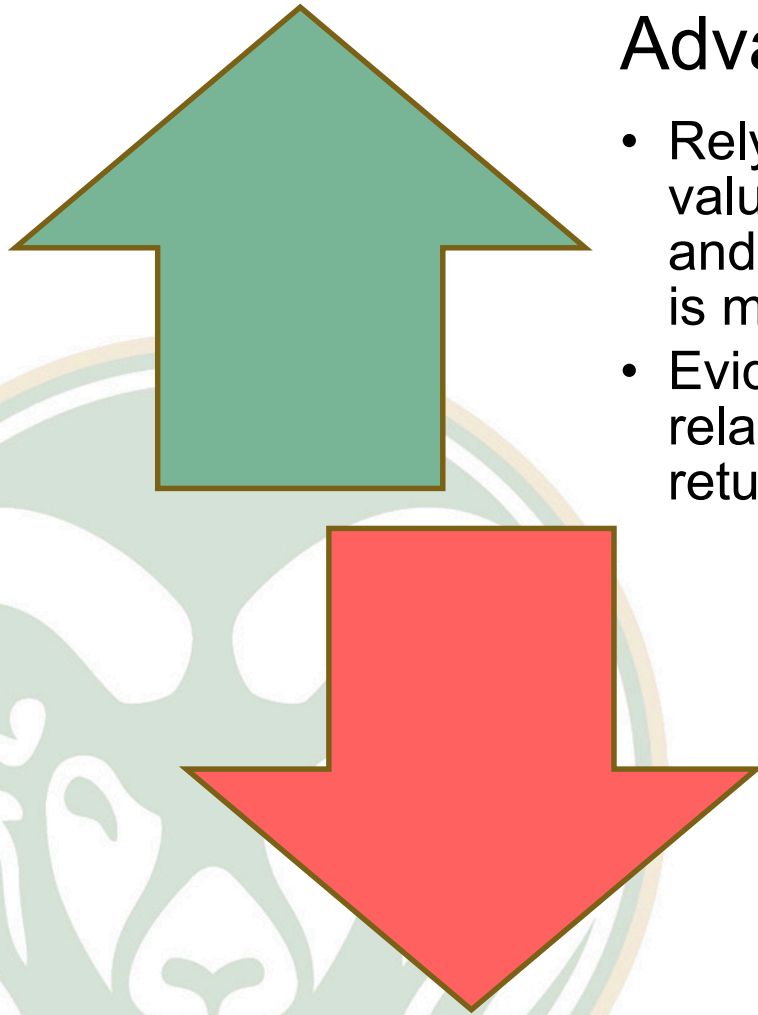
Tobin's q and Equity q : Advantages and Disadvantages

Advantages:

- Rely on a comparison of security values with asset replacement costs and theory suggests the relationship is mean-reverting
- Evidence supports a negative relationship with future equity returns

Disadvantages:

- Difficult to accurately measure replacement cost for many assets
- Evidence suggests high and low levels can persist for long time periods



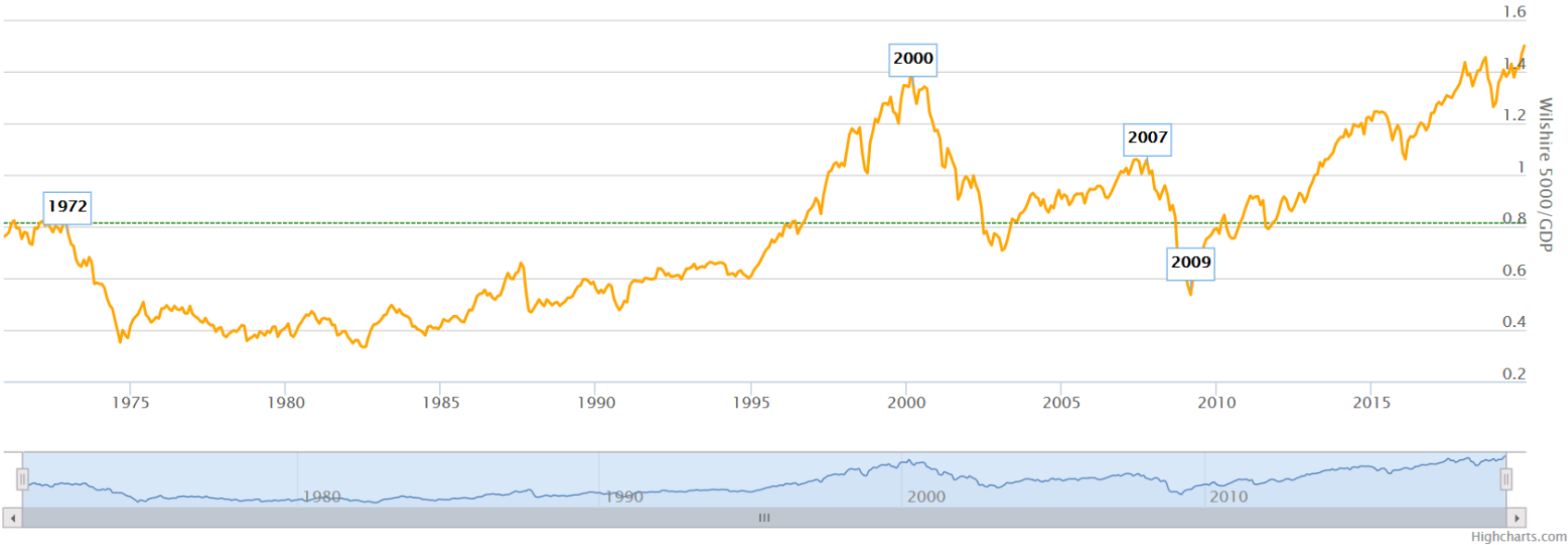
Buffett Ratio

- Warren Buffett has said he favors a valuation measure that is the ratio of the value of all stocks traded in the US to nominal GNP, which is nominal GDP plus net income receipts from the rest of the world.
- The data for the numerator are included in the Fed's quarterly Financial Accounts of the United States. The ratio was 1.85 at the end of 2017, surpassing the prior record high of 1.80 during Q1-2000.
- During the latest bull market, Buffett remained bullish when his ratio rose back to 200% in 2017, observing that historically low inflation and interest rates were major considerations.

Buffett Ratio

Wilshire 5000 / GDP Ratio

Zoom 1y 5y 10y 30y All



<https://www.longtermtrends.net/market-cap-to-gdp/>