

ASTORIA'S Q3 INVESTMENT COMMITTEE ETF INSIGHTS

TABLE OF CONTENTS

Astoria's Background 3
Sentiment Charts 4-13
Portfolio Construction Thoughts 14-17
Charts: The Good... 18-23
Charts: The Bad... 24-28
Charts: The Ugly... 29-38





ASTORIA PORTFOLIO ADVISORS HAS PRODUCED HUNDREDS OF PAGES OF **CONTENT IN** THE PAST 3 MONTHS. WHY DO WE SPEND SO MUCH TIME WRITING **RESEARCH?**

Astoria believes in being **transparent** with our portfolio risk characteristics. Some firms want to protect their "intellectual property" by saying their models or investment processes are "proprietary." If we were on the other side of the table thinking about allocating to that manager, we certainly would want them to be as transparent as possible.



We have been very vocal about utilizing portfolio construction tools and risk models when building multiasset ETF portfolios.





We don't know how many of our peers are as transparent as us.





SENTIMENT CHARTS

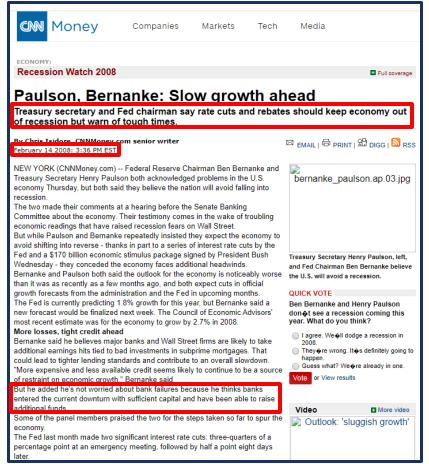




2 THINGS TO REMEMBER ABOUT RECESSIONS: I) THEY ARE ALWAYS DETERMINED ON AN EX POST BASIS 2) VERY FEW PEOPLE CAN **ACCURATELY PREDICT THE TIMING. REMEMBER 2008?**



Source: https://www.reuters.com/article/us-usa-fed-bernanke-growth/bernankefed-is-not-forecasting-a-recession-idUSWBT00818220080117



Source: https://monev.cnn.com/2008/02/14/news/economy/ bernanke paulson/index.htm

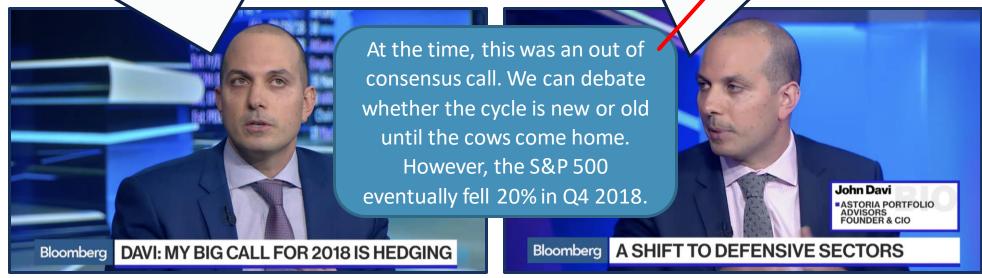




SINCE 2017, WE'VE BEEN STRATEGICALLY UTILIZING FACTORS AND ALTERNATIVES TO SOFTEN OUR PORTFOLIO VOLATILITY. IT HAS SERVED OUR CLIENTS WELL.

"The rate of change that made me bullish in 2017 (muted inflation, tremendous liquidity, and great earnings) is going to decline on the margin in 2018. The real story for 2018 is the decline of liquidity from rate hikes, QT, and ECB tapering. My big call for 2018 is hedge risk assets, own uncorrelated assets, and diversify your portfolio." —Bloomberg TV, December 2017

"Right now is when you want to get more defensive, raise cash, have alternatives, and hedge your portfolio more. Our view is that the cycle is over. People keep talking late cycle. We are in a new stock market cycle." -Bloomberg TV, July 2018



Source: https://www.bloomberg.com/news/videos/2017-12-27/the-year-of-the-hedge-for-etfs-video

Source: https://www.bloomberg.com/news/videos/2018-07-05/reading-the-dark-signs-in-etf-flows-video

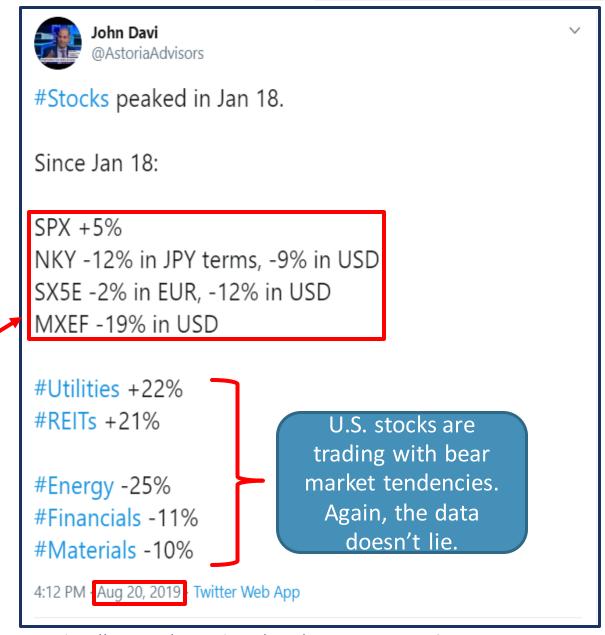




GLOBAL EQUITY INDICES PEAKED IN JANUARY 2018.

DON'T BELIEVE US?

THE STATS **DON'T LIE!**



Source: https://twitter.com/AstoriaAdvisors/status/1163906553403101186?s=20





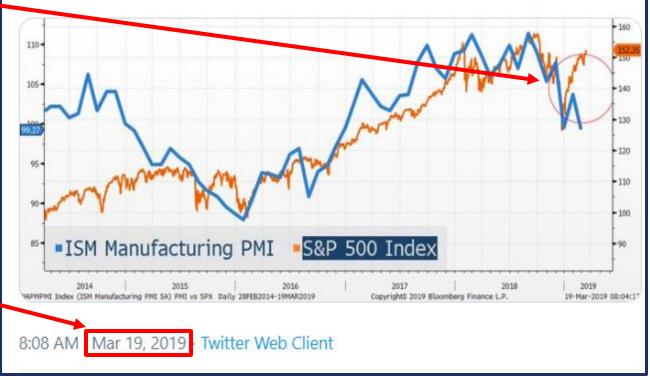


WEWARNED ABOUT THE DISCONNECT BETWEEN EQUITIES AND THE **DECLINING ISM BACK IN** MARCH.



Very large disconnect between \$ISM and \$SPX.

Have equities rallied a little too fast relative to their fundamentals?



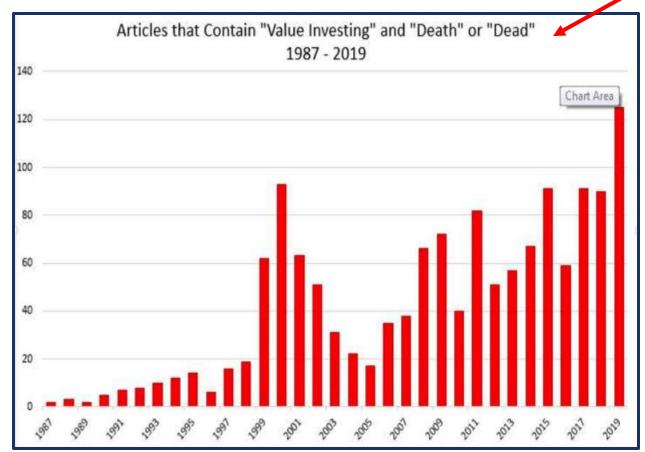
Source: https://twitter.com/AstoriaAdvisors/status/1107977130615410688?s=20, ISM Manufacturing PMI, Bloomberg, Astoria Portfolio Advisors







IS THE DEATH OF VALUE TRADE SIMILAR TO WHEN BUSINESS WEEK FAMOUSLY QUOTED THE DEATH OF EQUITIES IN THE LATE 70S (AND BEFORE THE ENSUING BULL MARKET, OF THE 80S)?



Source: https://twitter.com/verdadcap/status/1175153208064380928

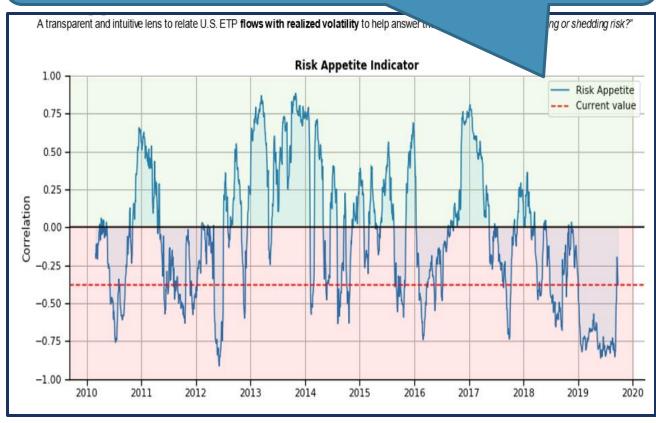
Source: https://www.bloomberg.com/news/articles/2019
https://www.bloomberg.com/news/articles/2019
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SENTIMENT IS AS WEAK AS ITS BEEN IN MANY YEARS. HONESTLY, WERE NOT SURPRISED. THIS IS, AFTER ALL, THE MOST HATED BULL MARKET EVER.

The amount of inflows into bonds (at such poor prices) is astonishing (and we don't use that word too often). Right now, the Agg Index is providing investors with a negative real-rate adjusted, after tax yield.



Source: BlackRock, with data from Markit and Thomson Reuters, as of September 30, 2019. Notes: The risk appetite indicator (RAI) describes the aggregate behavior of all U.S. listed ETP flows across 13 broad asset classes. The RAI is intended to help answer "Are investors adding or reducing risk?" Specifically, the RAI aggregates all U.S. listed ETP flows across 13 broad asset classes over a rolling 63 day window and then normalizes flows using a 2 year exponentially weighted moving average (EWMA) z-score. The volatility of daily returns for each asset class is then calculated over a 63 day EWMA. The flow z-scores and volatility are then converted to rankings (1st, 2nd,13th), where 1=lowest rank and 13=highest rank. Finally, we calculate the cross-sectional spearman rank correlation of flow rankings and volatility rankings, which produces a bounded value between [-1, 1] to measure ETP flow trends.





PEOPLE ARE **BUYING BONDS** WITHOUT ANY REGARD FOR VALUATION. THAT IS THE **CLASSIC SIGN** OF A BUBBLE. WE JUST DON'T **KNOW WHAT** THE CATALYST ISTO MAKE IT POP.



People keep piling into #bond funds with no regards to valuation or risk. To us at @AstoriaAdvisors, that is THE definition of a #bubble.

We know that this won't end well.

Here's a snippet from yesterday's #CNBC #ETFEdge #interview.

cnbc.com/2019/09/23/ish...

@ETFEdgeCNBC @CNBC

"The AGG index is providing you a negative real-rate after-tax return," he said in the same "ETF Edge" interview. "Year to date, it's up, ... but right now, given where yields are, I think it's a terrible risk-reward."

As the Federal Reserve keeps interest rates low, thus "pushing people up the risk curve," Davi recommended against rotating into high-yield credit funds that could bite investors later on.

"I think you can look at things like muni[cipal] bonds, some securitized mortgage-backed securities where you can get a better return per unit risk," he suggested. "That's what we do at our firm."

10:52 AM Sep 24, 2019 · Twitter Web App

Source: https://twitter.com/AstoriaAdvisors/status/1176509738013593601?s=20, CNBC









FORGET THE S&P 500 INDEX AS A BAROMETER FOR THE MARKET. LOOK UNDER THE HOOD. THERE HAS BEEN A DRAMATIC SPREAD BETWEEN BOND-LIKE PROXIES AND CYCLICALS SINCE JANUARY 24, 2018.

Investor sentiment is quite poor judging by the large year-to-date inflows into bonds funds and outflows from stock funds. State Street maintains an investor sentiment index which is hovering near 5-year lows.

90
80
70
63.20
60
50
State Street Investor Confidence Index
... Dec Mar Jun Sep Dec Mar Jun Se

Source: State Street Investor Confidence Index, Bloomberg, Astoria Portfolio Advisors

Performance 1/24/2018 – 10/2/2019:

Utilities +27%, REITs +21%, Energy -28%, Materials -12%, Financials -10%. Meanwhile, the S&P 500 Index is only up 177bps.



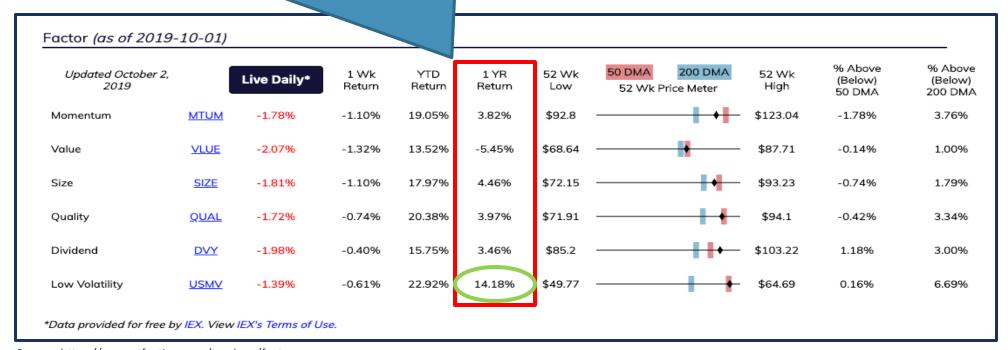
Source: Bloomberg





OVER THE PAST I YEAR, THE LOW VOLATILITY FACTOR HAS OUTPERFORMED THE OTHER BELLWETHER FACTORS BY 10-20%.

Low volatility has been the standout factor over the past 1 year.



Source: https://www.etfaction.com/trackers/factor





PORTFOLIO CONSTRUCTIONTHOUGHTS ON TWITTER

Make sure you follow us on
Twitter to get our regular
portfolio construction thoughts
and views: @AstoriaAdvisors

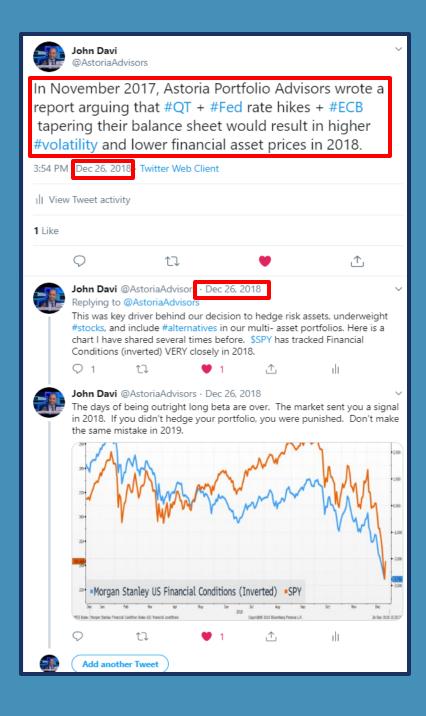




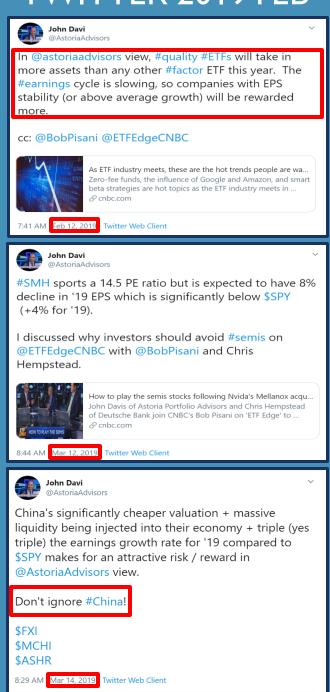
TWITTER 2018

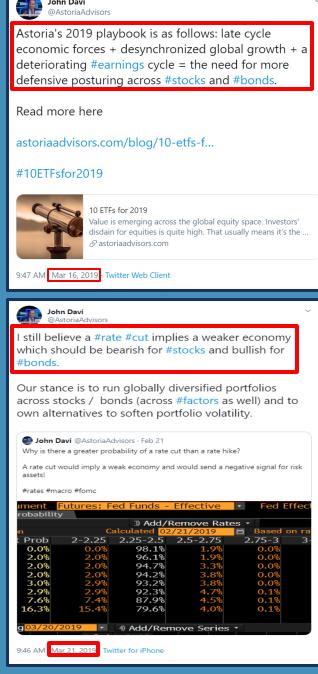






TWITTER 2019 FEB — APRIL



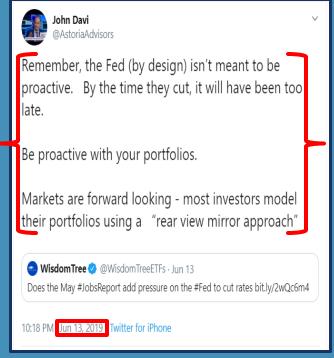


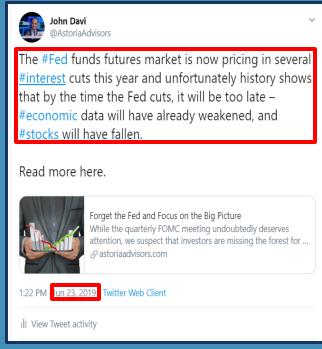


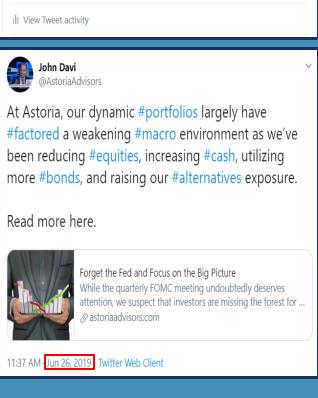
4:51 PM Apr 11, 2019 Twitter Web Client

TWITTER 2019 MAY - SEP

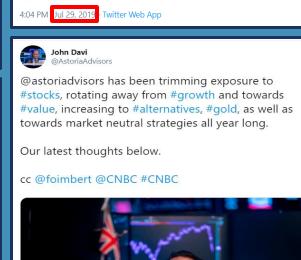












Stocks close little changed as tech shares and Ford weigh on the market
Stocks ended the day little changed, weighed down by a continuing decline in

tech shares while Ford was pressured by a downgrade.

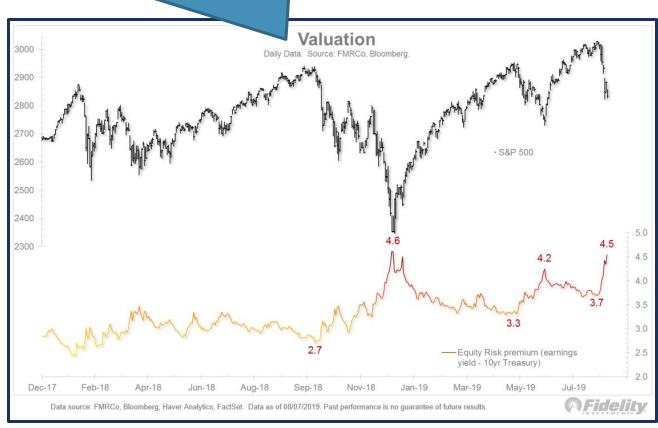
9:16 AM Sep 11, 2019 Twitter Web App

@ cnbc.com



LOWER **INTEREST RATES** SHOULD BE SUPPORTIVE FOR STOCKS. **INTEREST RATES** AREA CRUCIAL COMPONENT WHEN CALCULATING THE PRESENT VALUE OF A FIRM'S CASH FLOW.

Lower rates should be supportive for stocks.



Source: https://www.linkedin.com/feed/update/urn:li:activity:6565228311746875392/, FMRCo, Bloomberg, Haver Analytics, FactSet.

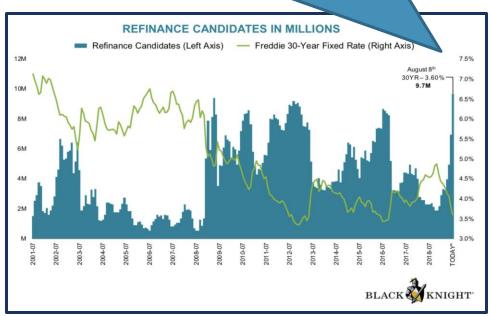






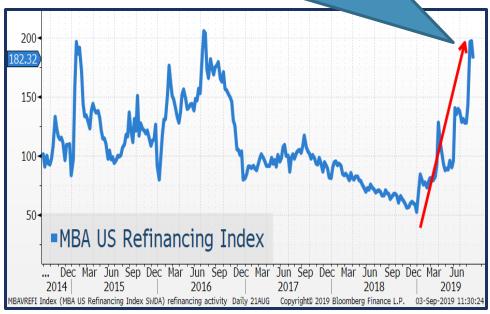
THE U.S. HOUSING MARKET REMAINS STRONG AND LOWER RATES SHOULD INCREASE CONSUMER'S SPENDING POWER.

More refinancing is on the way.



Source: https://thebasispoint.com/almost-10-million-people-can-refinance-their-homes/?utm_source=Iterable&utm_medium=email&utm_campaign=campaign_741458

The only reason why the U.S. economy hasn't gone into a recession is because the consumer remains healthy from a balance sheet perspective.



Source: Mortgage Bankers Association, Bloomberg, Astoria Portfolio Advisors



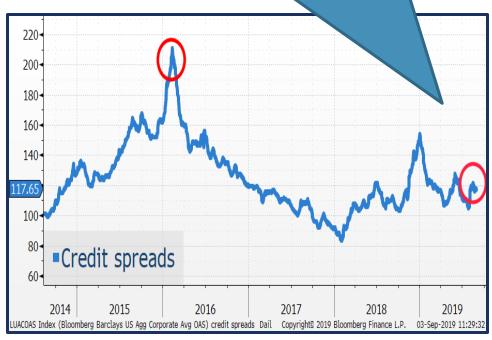




WATCH CREDIT SPREADS!

Credit spreads are contained – for now!

Consumer confidence remains strong – but admittedly it always is strong at the end of a cycle.



-110 -100 Conference Board Consumer Confidence Index ... Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun Sep Dec Mar Jun... CONCCONF Index (Conference Board Consumer Confidence SA 1985=100) Consumer Confi Copyright@ 2019 Bloomberg Finance L.P. 03-Sep-2019 11:29:

Source: Barclays, Bloomberg, Astoria Portfolio Advisors

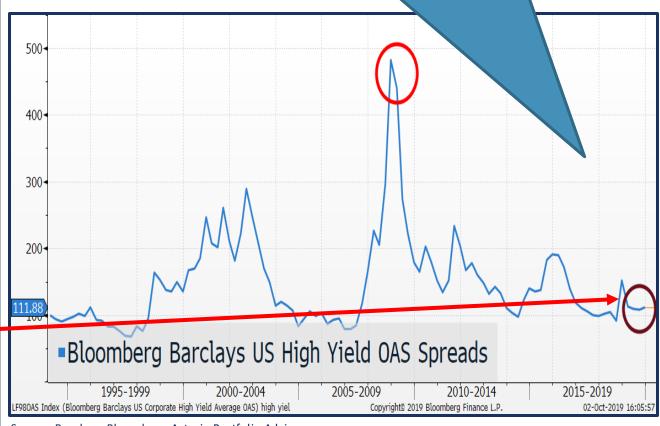
Source: Conference Board Consumer Confidence, Bloomberg, Astoria Portfolio Advisors





TYPICALLY HY CREDIT SPREADS BLOW **OUT PRIOR TO** A RECESSION. FOR NOW, **HIGH YIELD CREDIT SPREADS REMAIN** CONTAINED.

We will start to get nervous if HY credit spreads blow out to the 250bps level.



Source: Barclays, Bloomberg, Astoria Portfolio Advisors





HAD YOU LISTENED TO MOST MARKET PUNDITS, YOU **WOULD HAVE KEPT** MOST OF YOUR MONEY IN CASH THIS YEAR AND MISSED A BIG RALLY IN INTERNATIONAL STOCKS. THIS IS A KEY REASON WHY **OUR INVESTMENT** PROCESS UTILIZES **GAMETHEORY AND** IS SYSTEMATIC IN NATURE.

According to ETFAction.com, the iShares MSCI ACWI ex U.S. ETF (ACWX) currently has a P/E ratio of 14.07x based on 2019 analyst estimates. This is significantly lower than the SPDR S&P 500 ETF (SPY) which has a P/E ratio of 18.07x based on 2019 analyst estimates.



Source: Bloomberg



CHARTS: THE BAD...





THERE'S
NOTHING
GOOD TO
GATHER ON
CORPORATE
PROFIT FRONT.

Global earnings revision ratios are negative.



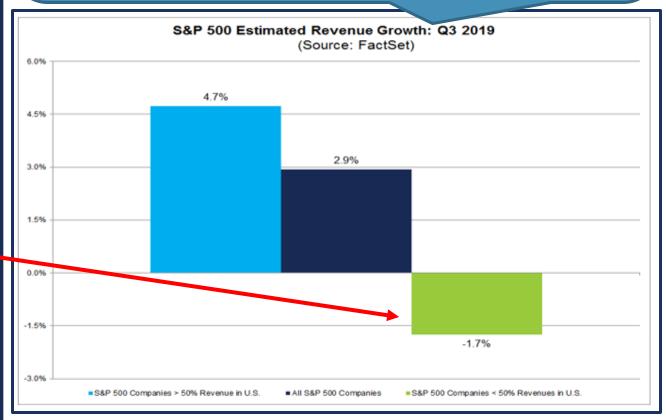
Source: Citigroup, Bloomberg, Astoria Portfolio Advisors





SPX COMPANIES WITH MORE **GLOBAL REVENUE EXPOSURE ARE** PROJECTED TO REPORT A YOY **DECLINE IN REVENUES IN** Q3.

It's simple: if you have global revenues, earnings will be negatively impacted because of trade concerns. If you are more domestic based, then earnings should be more insulated. This is a key reason why we are strategically tilted towards midcap stocks, which are in the sweet spot in terms of greater domestic exposure (compared to large caps), but don't have the credit/funding risk of small caps.



Source: https://bit.ly/2HL1Xgz, FactSet as of September 6, 2019





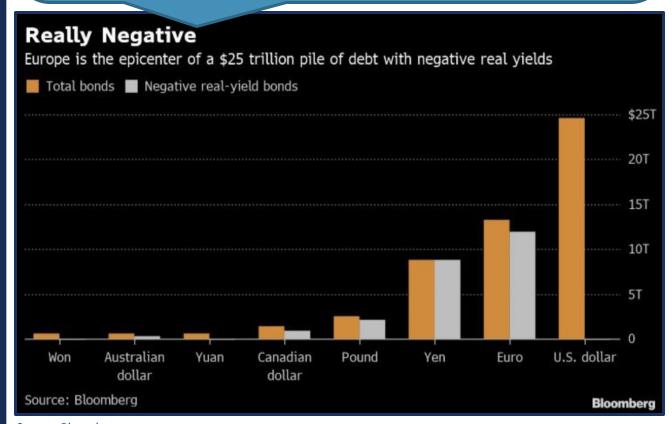


NEGATIVE YIELDING SOVEREIGN DEBT IS A MUCH, MUCH **BIGGER PROBLEM** THAN THE SUBPRIME CRISIS.

LOW INTEREST **RATES ARE PUNISHING SAVERS AND PUSHING INVESTORS OUT** THE RISK CURVE. **DANGER!**

People argue that the bubble in negative sovereign yielding debt isn't as "bad" as the subprime crisis. What on earth are they talking about? There are tens of trillions of negative sovereign debt (compared to a few trillion in subprime).

All it takes is a marginal increase in inflation to see a stampede in bond land.



Source: Bloomberg

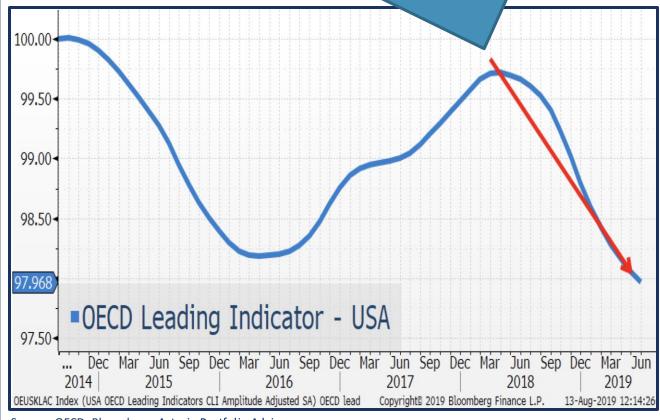






OECD LEADING INDICATOR HAS BEEN **DECLINING SINCE Q1 2018!**

Make sure you don't ignore leading indicators (most market pundits obsess over lagging indicators)!



Source: OECD, Bloomberg, Astoria Portfolio Advisors





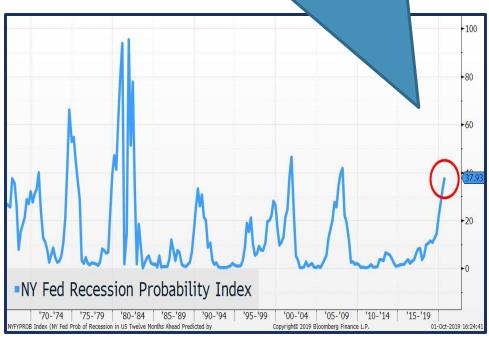
CHARTS: THE UGLY...



AN INVERTED U.S. YIELD CURVE, AN OIL SHOCK, AND FURTHER PENDING U.S. RATE CUTS SHOULD MAKE INVESTORS MORE CAUTIOUS IN THEIR ASSET ALLOCATION.

Recession probabilities are as high as they were in 2008. At some point, this becomes a self fulfilling prophecy. The more people talk about a recession, the greater the chances it will become a reality.

Are you surprised that CEO confidence has waned? They don't know how to model their businesses with looming trade tensions!



Source: New York Federal Reserve, Bloomberg, Astoria Portfolio Advisors



Source: Chief Executive Magazine, Bloomberg, Astoria Portfolio Advisors





WE WARNED ABOUT AN INVERTED YIELD CURVE GOING BACK TO JUNE 2018.



Source: https://twitter.com/AstoriaAdvisors/status/1007583484058140672?s=20 Bloomberg, Astoria Portfolio Advisors



Source: https://twitter.com/AstoriaAdvisors/status/1069982405598027776?s=20, Bloomberg, Astoria Portfolio Advisors





DOES AN INVERTED YIELD CURVE MEAN A RECESSION IS IMMINENT IN THE U.S.? OF COURSE NOT, BUT THE RECESSION CLOCK HAS BEGUN.



7 out of the 8 U.S. yield curve inversions since 1960 were followed by a recession. The key, however, is that a recession isn't imminent:

- The number of months between inversion and recession has increased (17 months) for the prior 3 yield curve inversions compared to the prior four inversions (9 months).
- 2. There was a **22-month lag** between the time the yield curve inverted in 2008 and the subsequent recession.



Astoria acknowledges the weakening economy. We believe a pending U.S. recession escalates if 3 things happen (materially, that is):

- 1. Credit spreads widen.
- 2. The U.S. consumer weakens.
- 3. The U.S. housing market declines.

How can a recession be avoided?

- 1. Substantial trade deal.
- 2. More fiscal policy globally.

Unfortunately, the damage is likely done and a recession is likely unavoidable.





MAYBE ALL THIS RECESSION TALK IS GOOD?

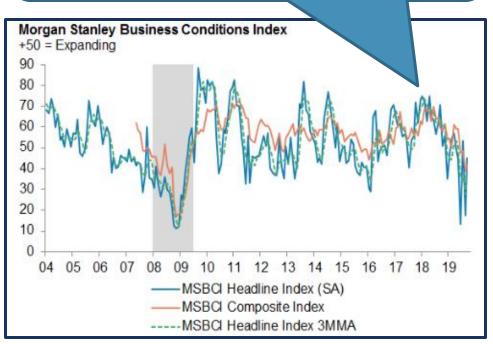
The good news is that investors should have ample time to properly structure their portfolios to soften any impact when the recession occurs.





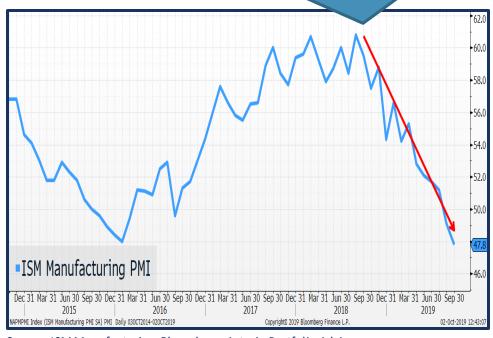
MANUFACTURING DATA HAS FALLEN OFF A CLIFF. WHY? I) TRADEWARS -NOBODY KNOWS HOW TO MODEL FUTURE BUSINESS EXPANSION WHEN THEY CAN'T BUDGET THEIR INPUT COST 2) SLOWDOWN IN **EUROPE/JAPAN**

Morgan Stanley's Business Conditions Index stands at 45 which staged a healthy rebound from its Aug reading of 17. Still remains in contractionary territory though.



Source: Morgan Stanley Research

Bye-bye ISM.



Source: ISM Manufacturing, Bloomberg, Astoria Portfolio Advisors



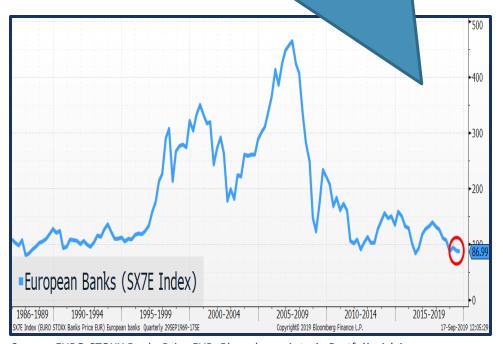




QE HAS BEEN A NIGHTMARE FOR EUROPEAN & JAPANESE BANKS - BOTH ARE TRADING AT 30+ YEAR _OWS!

Just remember that investors left Greece dead in the water and currently, that market is up 35% YTD. At some point, there should be some intrinsic value in these banks.

International banks needed a lot more than QE and yield curve targeting.



Japanese Banks (TPNBNK Index) PNBNK Index (Tokyo Stock Exchange TOPIX Banks Index) Japanese Banks Quarterl Copyright@ 2019 Bloomberg Finance L.P.

Source: EURO STOXX Banks Price EUR, Bloomberg, Astoria Portfolio Advisors

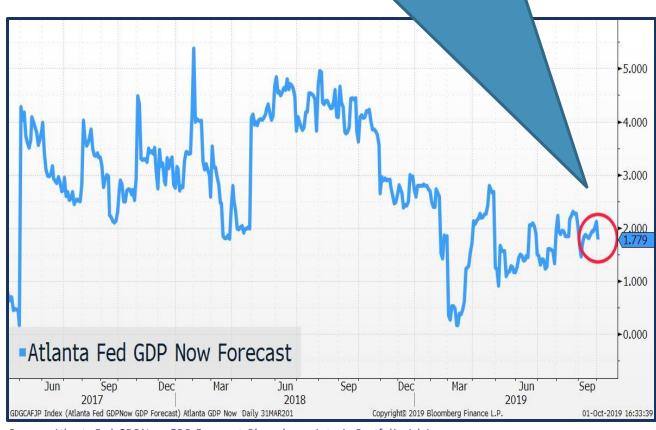
Source: Tokyo Stock Exchange TOPIX Banks Index, Bloomberg, Astoria Portfolio Advisors





THE U.S. CAN'T **SURVIVE A** SLOWDOWN IN EUROPE/JAPAN. THE WORLD IS TOO INTERCONNECTED. **ALTHOUGH, THE CURRENT ADMINISTRATION** SEEMS TO BE TRYING TO BREAK THAT LINKAGE. MAYBE IN THE FUTURETHE U.S. WON'T BE AS **DEPENDENT ON** THE REST OF THE WORLD.

The Atlanta Fed GDPNow Forecast Model is 1.78% as of September 30, 2019.



Source: Atlanta Fed GDPNow GDP Forecast, Bloomberg, Astoria Portfolio Advisors

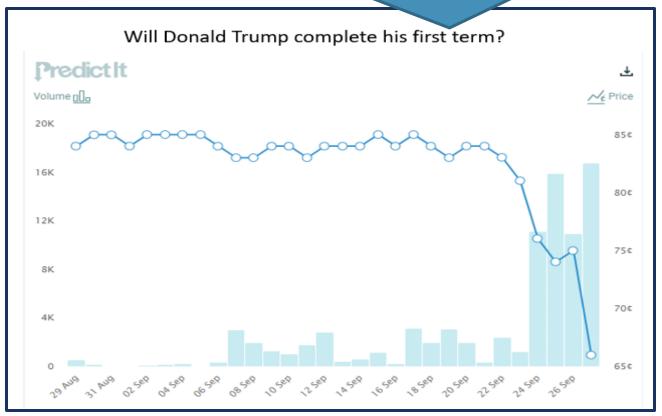






THE BETTING MARKET, WHICH CORRECTLY **PREDICTED THE** RISE OF ELIZABETH WARREN IN THE RACE FOR THE **DEMOCRATIC** NOMINEE, HAS REPRICED THE ODDS OF TRUMP **COMPLETING HIS** FIRST TERM AS POTUS. THE ODDS HAVE FALLEN FROM 85% A COUPLE OF WEEKS AGO TO 65%.

As Democratic leadership grows in the polls, market uncertainty will increase. This is yet another headwind for stocks.



Source: https://twitter.com/Garth_Friesen/status/1178053720417996805.Predictlt







WHAT HAVE
BONDS DONE YTD?
IN SHORT, U.S.
TREASURIES
RALLIED AND
EVERYTHING ELSE
HAS
UNDERPERFORMED.

The Aggregate Bond Index (comprised of 43% U.S. Treasuries) is up +8.29% YTD (as of Sep 27).

U.S. Treasuries have rallied significantly: IEF (7-10 year) is +9.50% YTD. Most other credit segments have substantially underperformed Treasuries.

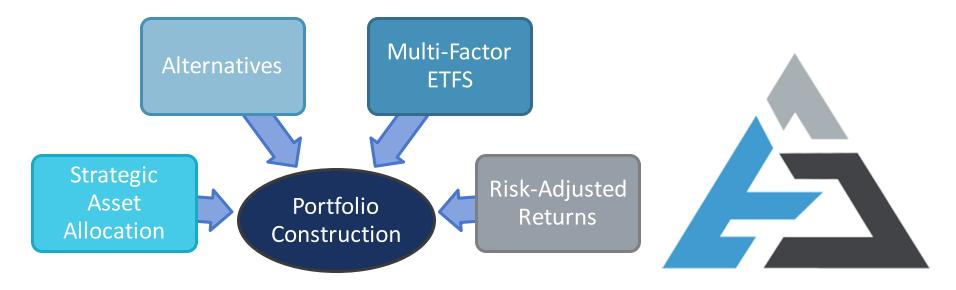


Source: Bloomberg



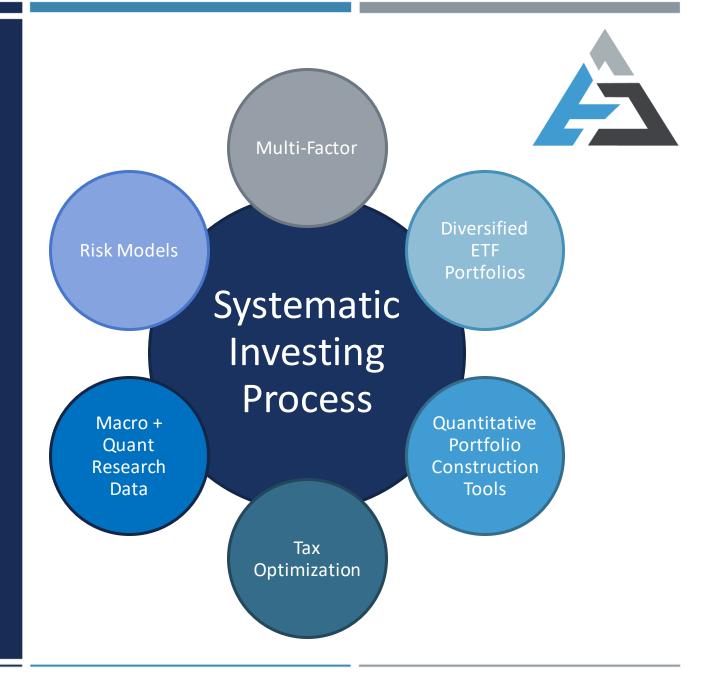


CHARTS: PORTFOLIO CONSTRUCTION



WE'VE GONE TO GREAT **LENGTHS TO DESCRIBE THE** MARKET -THAT'S THE **EASY PART.**

THE HARD PART IS: HOW DOYOU STRUCTURE A PORTFOLIO?







EUROPEAN STOCKS TRADE AT 50% DISCOUNT TO U.S. STOCKS.

The U.S. tends to trade at a premium to international stocks. If you have a long-time horizon, we believe a globally diversified ETF portfolio is a better risk reward than just owning the US.

Europe getting cheaper, US more expensive

CAPE

45
40
35
30
25
20
15
1985 1990 1995 2000 2005 2010 2015

Average CAPE US since 1870
CAPE US
36Y swerage CAPE Europe

Source Thomson Sessies Datastison Rinnero

Source: https://twitter.com/MebFaber/status/1148748390261374977/photo/1, Reuters. Datastream Robeco

Relentless demand for U.S. stocks!

Norway's Fund Wants to Add Up to \$100 Billion in U.S. Stocks By Sveinung Sleire and Mikael Holter August 26, 2019, 7:00 PM EDT Updated on August 27, 2019, 7:43 AM EDT Fund recommends dropping regional overweight on Europe stocks Finance ministry says will decide in spring of next year way's Fund Targets \$100 Billion in U.S. Stocks

Source: https://www.bloomberg.com/news/articles/2019-08-26/norway-s-1-trillion-fund-weighs-pivotal-shift-to-u-s-stocks



DISDAIN FOR
INTERNATIONAL
STOCKS IS HIGH.
NOBODY LIKES
THEM.THAT'S
USUALLY A
SIGNAL TO BUY



from @WisdomTreeETFs on the recent performance of hedged and unhedged in recent years.

Hard to find many who are strategically long #Europe these days.

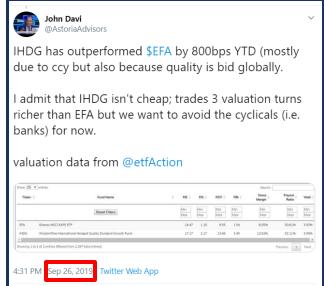
@AstoriaAdvisors have been vocal about allocating overseas.



Source: https://twitter.com/AstoriaAdvisors/status/ 1154392576176377856?s=20, WisdomTree



Source: https://twitter.com/AstoriaAdvisors/status/1177319844179521536?s=20, WisdomTree



Source: https://twitter.com/AstoriaAdvisors/status/ 1177319850869428228?s=20, ETFAction

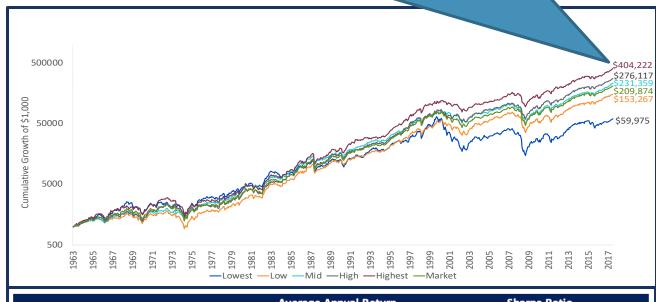






ASTORIA BEGAN ALLOCATING TO THE QUALITY FACTOR IN Q4 2018. IN 2019, PRETTY MUCH **EVERY BUYSIDE** AND SELLSIDE FIRM HAS RECOMMENDED AN ALLOCATION TO THIS FACTOR. THIS MAKES US **NERVOUS.**

The red line below is the highest quintile of quality stocks. It has the highest Sharpe Ratio compared to all other quintiles.



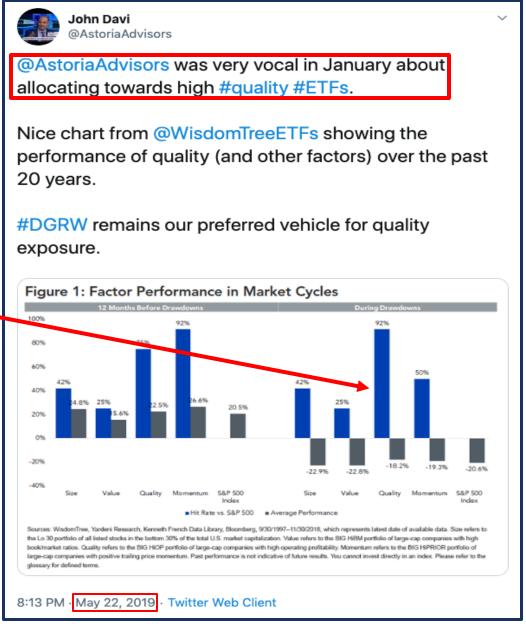
	Average Annual Return	Sharpe Ratio	
Highest	11.63%	0.45	
High	10.86%	0.40	
Mid	10.50%	0.39	
Low	9.67%	0.32	
Lowest	7.79%	0.16	
Market	10.30%	0.37	

Source: Kenneth French Data Library, with data as of 12/31/17, WisdomTree. Period based on availability of operating profitability returns sorted into quintiles, beginning 6/30/63. Universe is U.S.-listed equities grouped on the basis of operating profitability. Past performance is not indicative of future results. Sharpe Ratio: Measure of risk-adjusted return. Higher values indicate greater return per unit of risk, specifically standard deviation, which is viewed as being desirable.





QUALITY **WORKS DURING** PERIODS OF **MARKET VOLATILITY.JUST KEEP IN MIND** THAT **VALUATIONS** FOR THIS **COHORTARE** NOW ON THE HIGH END.



Source: https://twitter.com/AstoriaAdvisors/status/1131352341570031617?s=20, WisdomTree





THE STREET IS **PUSHING THE VALUE TRADE** AND **SUGGESTING TO** FADE MOMENTUM. DON'T FORGET THAT VALUE AND MOMENTUM **IDEALLY SHOULD** BE UTILIZED TOGETHER, GIVEN THEIR LOWER CORRELATION.

1/1/1927 - 12/31/2015 (Net of Fees)

Summary Statistics*	50% Value / 50% Momentum (Net)	Value (Net)	Momentum (Net)	SP500
CAGR	13.20%	11.81%	13.31%	9.85%
Standard Deviation	24.90%	31.79%	22.53%	19.04%
Downside Deviation (MAR=5%)	17.71%	21.21%	16.67%	14.14%
Sharpe Ratio	0.49	0.39	0.52	0.41
Sortino Ratio (MAR=5%)	0.59	0.51	0.61	0.44
Worst Drawdown	-84.46%	-91.74%	-79.34%	-84.59%
Worst Month Return	-32.11%	-44.00%	-28.77%	-28.73%
Best Month Return	57.67%	98.63%	28.63%	41.65%
Profitable Months	61.80%	60.11%	61.14%	61.61%
Rolling 1-Year Win %		55.25%	47.21%	62.25%
Rolling 5-Year Win %		58.67%	51.54%	75.32%
Rolling 10-Year Win %		61.22%	54.27%	89.99%
Sum (5-Year Rolling MaxDD)	-33875.15%	-36980.65%	-34498.86%	-28709.66%

*Returns start in 01/1927 for this strategy.

Correlation Analysis**	50% Value / 50% Momentum (Net)	Value (Net)	Momentum (Net)	SP500
Up %		92.52%	93.26%	92.09%
Down %		84.51%	87.71%	86.59%
Negative Correlation		90.81%	84.21%	84.54%
Positive Correlation		91.72%	74.03%	83.26%
Tracking Error		11.78%	11.78%	11.07%

Correlation Matrix	50% Value / 50% Momentum (Net)	Value (Net)	Momentum (Net)	SP500
50% Value / 50% Momentum				
(Net)	100.00%	94.22%	88.13%	90.87%
Value (Net)	94.22%	100.00%	67.21%	84.65%
Momentum (Net)	88.13%	67.21%	100.00%	81.46%
SP500	90.87%	84.65%	81.46%	100.00%

^{**}Bold denotes values less than [.5]

The results are hypothetical results and are NOT an indicator of future results and do NOT represent returns that any investor actually attained. Indexes are unmanaged, do not reflect management or trading fees, and one cannot invest directly in an index.

Additional information regarding the construction of these results is available upon request.

Source: https://alphaarchitect.com/2016/03/22/whv-investors-should-combine-value-and-momentum/,







WE ATTENDED THE **DELIVERING** ALPHA CONFERENCE WHICH REMINDED US WHY WE SHOULDN'T GIVE UP ON THE VALUE TRADE.

It amazes us why a large portion of investors are fixated in owning growth and momentum stocks. Notable value managers such as Joel Greenblatt, Warren Buffet, Leon Cooperman, and Seth Klarman have compiled successful, long-term track records by buying stocks below their intrinsic value and selling when they become expensive (i.e. they buy low and sell high). Not only do momentum investors ignore the time-tested approach of these value managers, they do the opposite (they buy high with the hopes of selling higher)!



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DON'T GIVE UP ON VALUE STOCKS. **HISTORICALLY** THEY HAVE **EXHIBITED** STRONG RELATIVE PERFORMANCE COMPARED TO OTHER WELL DOCUMENTED **FACTORS IN THE** PERIOD PRIOR TO A RECESSION.

Value has historically done well in the period leading up to a recession.

Table 2: Pre-Recession (1964-2015)

(84 monthly observations)		Excess Return vs. Large Stocks (%)		
Factor/Theme:		High	Low	Spread
	Value	5.4	-12.4	17.8
É.	Momentum	5.4	-5.3	10.7
SELECTION	Shareholder Yield	4.3	-5.8	10.1
	Dividend Yield*	1.5	-10.0	11.5
>	Financial Strength	3.6	-7.9	11.5
OUALITY	Earnings Quality	2.1	-3.4	5.5
70	Earnings Growth	2.2	-11.5	13.7

(Large Stocks universe: -0.5%)

Source: Thompson QA, Compustat, OSAM calculations

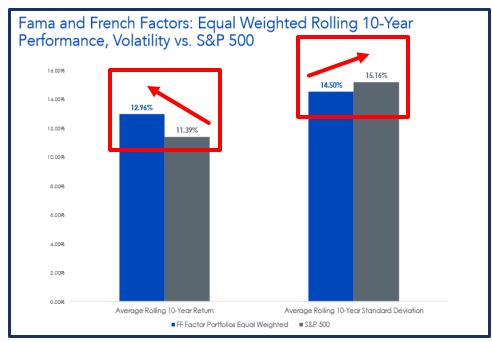
Source: https://www.osam.com/pdfs/whitepapers/_8_Commentary_TheEconomicCycleAFactorInvestors
Perspective May-2016.pdf



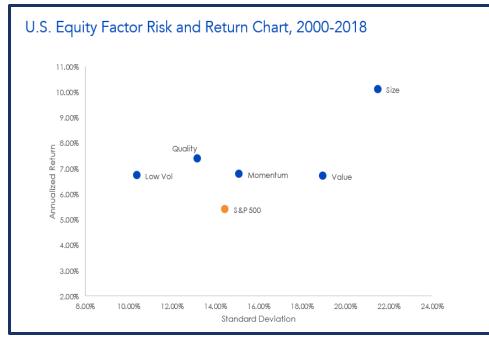


^{*} For dividend yield, "high" and "low" were formed from the Large Stocks universe restricted to dividend-paying stocks only.

COMBINING FACTORS HAS HISTORICALLY LED TO BETTER RISK ADJUSTED RETURNS WHEN HARVESTED OVER LONG PERIODS OF TIME. THAT'S WHY ASTORIA UTILIZES SEVERAL FACTORS IN OUR DYNAMIC AND STRATEGIC PORTFOLIOS.



Source: WisdomTree, Bloomberg, Zephyr StyleAdvisor, Kenneth R. French Data Library as of 6/30/2018. Fama and French Factor Portfolios Equal Weighted consists of Large Value (BIG HiBM), Large Quality (BIG HiOP), Large Momentum (BIG HiPRIOR), Large Low Volatility (BIG LoVAR), and Size (Lo 30) portfolios, combined in equal weights and rebalanced annually, beginning January 1, 1974. Data time frame chosen based on S&P 500 Total Return data availability and Fama and French data availability. Past performance is not indicative of future results. You cannot invest directly in an index.



Source: WisdomTree, Bloomberg, Kenneth R. French Data Library 12/31/1999 – 5/31/2018. Universe of stocks is defined by French Data Library and includes all companies listed on the NYSE, AMEX and NASDAQ. Value: Stocks above the median market-cap in the top 30% by book-to-market (2x3, BIG HiBM). Quality: Stocks above the median market-cap in the top 30% by operating profitability (2x3, Big HIOP). Size: Stocks in the bottom 30% by market cap (Lo 30). Momentum: Stocks above the median market-cap in the top 30% by prior price trends (2x3, BIG HiPRIOR). Low Volatility: Stocks in the top 20% by market-cap, and in the bottom 20% by variance (5x5, BIG LoVar). Past performance is not indicative of future results. You cannot invest directly in an Index.





WHY DOES ASTORIA INCLUDE **ALTERNATIVES?**

When we look across all public and private markets, most asset classes are fully valued. Private equity firms, which historically were able to buy assets at 7-8x cash flows, are now buying businesses at 12-13x.



Ironically, lower interest rates (which increases the present value of a company's cash flows) make equities more attractive compared to most other asset classes. Perhaps this is the reason stocks continue to rally despite their never-ending wall of worry.

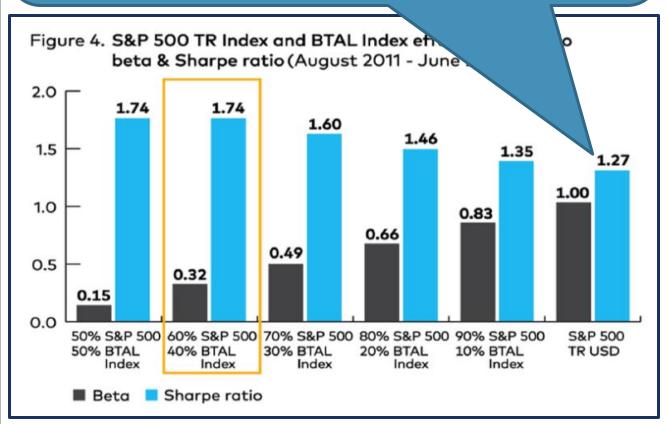
> But because we're never sure we're right, we always utilize alternatives to soften our portfolio volatility. Make sure you pick ones which are inversely correlated to your risk assets.



ADDING AN ALLOCATION OF BTAL TO A SPY PORTFOLIO HAS PRODUCED A **HIGHER** SHARPE RATIO SINCE AUGUST 2011.

BTAL is our top alternative ETF. Why?

- 1) Inverse correlation to stocks.
- 2) Systematic/rules based which fits Astoria's DNA.
- 3) Reasonable cost relative to the returns it provides.



Source: AGFiQ, Morningstar from August 22, 2011 to June 30, 2019. Past performance does not guarantee future results. One cannot invest directly in an index.





ALTERNATIVES GET A DIRTY CONNOTATION. JUST FIND ONE THAT IS INVERSELY **CORELATED WITH** YOUR RISK ASSETS. DON'T **OVERTHINK IT.**

BTAL HAS HISTORICALLY PRODUCED A -70% CORRELATION TO THE U.S. EQUITY MARKET.

Between Jan 25, 2018 thru Sep 30, 2019, BTAL is +46% whereas S&P 500 is +8%, Europe +5%, Japan -4%, and EM -16%.



Source: Bloomberg



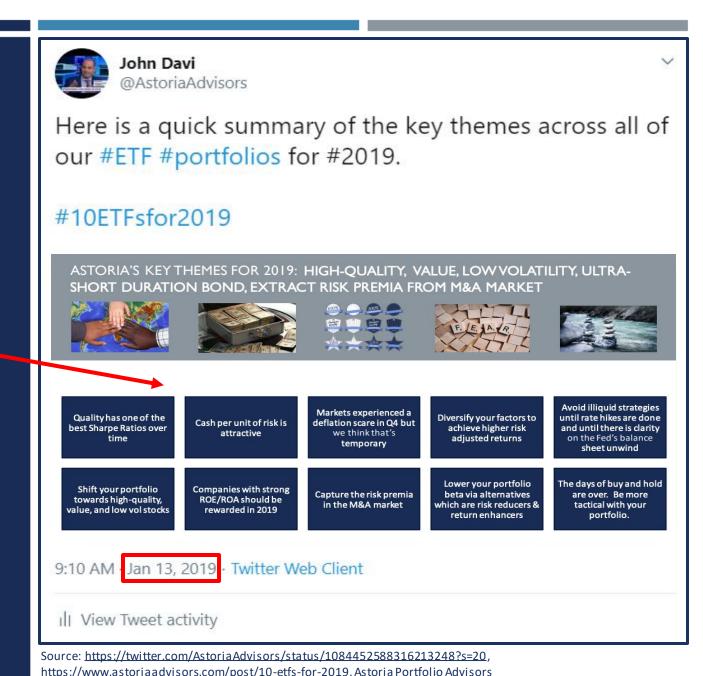




WHAT IS ASTORIA PORTFOLIO ADVISORS TELLING INVESTORS?

THESE WERE
ASTORIA'S KEY
THEMES GOING
INTO 2019.

WE STILL BELIEVE IN ALL THESE THEMES.









ASSET ALLOCATION SHOULDN'T BE A SET IT AND FORGET IT STRATEGY.



1. Extend time horizons

- The research shows that the probability of making money increases as you lengthen your time horizon.
- If a 3% daily decline in the S&P 500 makes you uncomfortable, then you are taking too much risk in your portfolio.



3. Diversify internationally

 International markets are offering a much wider margin of safety. The earnings yield in many international markets is high. In a world where there is \$15 trillion of negative yielding debt, the earnings yield for international stocks is attractive.



2. Diversify across factors

 Diversifying across factors has historically provided a smoother risk/return profile and can help move investors higher up on the efficient frontier.



4. Incorporate alternatives into your portfolio

- The key is to find strategies that are inversely correlated to stocks.
- We have written that we like Gold,
 Gold miners, Merger Arb, &
 Long/Short market neutral strategies.





STRATEGICALLY TRIM EXPOSURE TO GROWTH STOCKS AND DIVERSIFY ACROSS A PORTFOLIO OF FACTORS.



Astoria believes investors should:

- Have a more diversified portfolio both from an asset allocation and factor perspective.
- This involves trimming exposure to U.S. growth stocks, U.S. Treasuries, U.S. corporate credit, and U.S. high yield credit.



Strategic asset allocation shifts

- 50/30/20 is the new 60/40 given where U.S. bond yields are and U.S. stock valuations.
- Trim bonds (which have provided a tremendous Sharpe ratio in '19) and use more alternatives.
- You can't time value vs. growth.



We have strategically rebalanced our portfolios towards:

 U.S. value, U.S. quality, U.S. dividend yield, and international equities.



Be systematic & disciplined in investing

- Stop watching TV. It's bad for your financial health.
- Don't try to time the recession. If you build portfolios properly, you can weather most storms.
- Stop preparing for a 2008 scenario.
 That was a once in a century event.







VIEWS FROM ASTORIA'S INVESTMENT COMMITTEE



The U.S. Federal Reserve

- Downside risks from the U.S. and China trade discussions resulted in deteriorating macro-economic conditions and corporate earnings in 2019. As a result of the prevailing financial conditions, the U.S. Federal Reserve has lowered interest rates twice in the past three months.
- Moreover, the U.S. Federal Reserve has indicated it is open to cutting interest rates further in order to additionally stimulate growth and sustain the current economic expansion.



Views from Astoria's Investment Committee

- The macro-economic data and earnings outlook have been **deteriorating** for several quarters.
- There is no reason for the U.S. Fed Funds rate to be above the 30-year U.S. Treasury.



Despite the aforementioned economic conditions, the S&P 500 Index has produced a total return of 20.55% thus far in 2019.

Seven policymakers on the Committee see one more 25bps rate cut before year-end in their base case. On the other hand, five FOMC participants placed their dot at 2.125% on the September dot plot, which is 25bps above the current level of the federal funds rate.



Why is the U.S. yield curve inverting?

- Yield curves in several international markets **inverted** this year, prompting overseas investors to invest in the U.S. Treasury market for **higher yields**.
- Tariffs have been a huge driver behind investors' flight to quality, but there are some powerful supply/demand imbalances that are also contributing to the inverted U.S. yield curve:
 - 1. Certain developed markets have an aging population creating more demand for bonds.
 - 2. Pension funds need to meet liability targets.







ADDITIONAL FOOTNOTES & DISCLAIMERS

ADDITIONAL FOOTNOTES

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