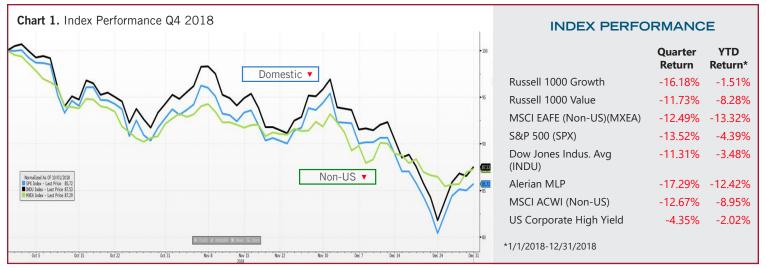


DATA TRUMPS NOISE



Source: 2018 Bloomberg Finance L.P.

"The narrative just follows the price" ... and *value* follows cash flow. This is another quote from Bill Miller, chairman and CIO of Miller Value Partners, and we added the bit about value. We love the quote and think it is appropriate for the current market environment. When listening to CNBC, or most other news channels each day, more often than not the headlines seem to focus on **Price** and **Narrative**. Rarely do we hear anyone talking about value, cash flow, or much else related to the value of the underlying business. To our disappointment, there seems to be a very low ratio of signal to noise, with most market moves, and even individual stock volatility boiled down to just one narrative or story. We believe there is much more to focus on and prefer to apply a mosaic theory to our analysis and research. By mosaic we mean we gather and analyze the most data we can regarding a market, economy or stock. Blending quantitative and fundamental analysis allows our investment process to indeed create a mosaic of research in order to arrive at thoughtful and data-driven decisions when building client portfolios.

When researching the markets for example, rather than look at only the forward price-to-earnings ratio for the S&P 500, we look at trailing *and* forward price-to-earnings, as well as price-to-sales, price-to-book, enterprise value-to-EBITDA, and price-to cash flow. In addition, different multiples are more relevant during different economic and business cycles, and in different sectors. We also look at the discounted cash flow or intrinsic value of the different indices to get the lay of the land, along with many other economic and index metrics. Similarly, our asset

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allocation and equity portfolios benefit from this mosaic and data-centric approach. We do not want to simply go with what the crowd thinks or base decisions on emotion. If we do have a gut feeling based on our years of industry experience, we stop and research the relevant data and re-run our models. Process, process, process! We believe, this results in more rational and higher quality decision making to guide portfolio construction and management through difficult periods in the market.

The fourth quarter of 2018 was unsettling and a downright scary on a few occasions. As investment managers, it is our job to navigate these periods of uncertainty in the best interest of the clients whose accounts we have the privilege of managing. As we begin 2019 and reflect on the market and what we might expect to see in the coming year, one thing that continues to resonate is Data Trumps Noise!

It is imperative for our research to include multiple factors (think mosaic), and even the "noise" on occasion. But let us focus our commentary in this piece on the data and why we think it trumps the noise.

RETURNS IN A RISING RATE ENVIRONMENT

During the last quarter of 2018, and indeed all of 2018, headlines surrounding the Federal Reserve and interest rate increases dominated market related dialogue. Many investors are subject to heuristic bias in our opinion, meaning they like "rules of thumb" to help them sift through complex problems quickly. One rule of thumb we have heard a lot lately is "when interest rates go up, it is bad for stocks." Let's take a look at this theory by reviewing the data.

In an article published by the Bank of America - Merrill Lynch Quant Strategy team¹, since 2009, periods of rising rates have actually coincided with positive stock returns nearly to 90% of the time. In fact, the best year for stock performance was 2013 when the market was up 32% (Chart 2)! Coincidentally, interest rates increased +100bp during the year. The study went on to also highlight the following findings:

- There is no set level at which interest rates begin to hurt equities, although the probability of loss in the S&P 500 does go up when the U.S. 10-year exceeds 3% (Chart 4).
- The study failed to find any "magic numbers" for rates, although it did find it best to avoid high yield equities and secular growth names, while focusing on cash-rich large capitalization stocks with lower leverage.
- The study also found that quality is best when interest rates rise, and stocks do better than bonds.

We have mentioned similar views in recent investment committee commentary and have already implemented some of these key themes in our portfolio models, including moving to higher quality and cash flow generating holdings in our equity models. And in the allocation models we have also focused on lower duration exposure and have become more defensive in bonds with an eye towards quality (We take a deeper dive into asset allocation further in the newsletter – see page 6).

In chart 2 we see that rising rates have not historically led to negative markets, and chart 3 makes the important point that the direction of rates along with the magnitude needs to be considered.

The study did find the probability of loss begins to increase above 3% on the 10-year (Chart 4), so we want to watch this, but this is more of a concern if growth slows significantly. Growth can offset the increase in rates, especially in the intrinsic value equation.

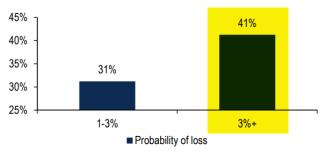
What about Fed tightening cycles? Data in chart 5 shows very good returns with average annualized S&P 500 returns of 17%, and positive returns 100% of the time!

Chart 2. &P 500 returns vs. change in the 10 yr Tsy. yield, 2019-now

Year	S&P 500 Total Return	Change in 10yr Tsy. Yld. (bp)
2009	26%	160
2010	15%	-55
2011	2%	-141
2012	16%	-11
2012 2013 2014	32% 14%	-11 126 -87
2015	1%	10
2016	12%	18
2017	22%	-5
YTD 2018	0%	46

Source: FRB, S&P, BofA Merrill Lynch US Equity & US Quant Strategy

Chart 4. Probability of loss (based on monthly S&P 500 returns) In terms of ranges of the 10-yeat Treasury yield (1953-present)



Source: FRB, S&P, BofA Merrill Lynch US Equity & US Quant Strategy

Chart 3. Average monthly S&P 500 returns based on ranges and director of the 10-year Treasury yield (1953-present)

10-yr yield range	Rising	Falling
1-2%	1.4%	-0.5%
2-3%	1.9%	1.2%
3-4%	1.2%	-0.4%
4-5%	0.7%	0.4%
5-6%	0.6%	0.1%
6-7%	-0.2%	2.5%
7%+	-0.6%	1.8%

Source: FRB, S&P, BofA Merrill Lynch US Equity & US Quant Strategy

Chart 5. S&P 500 annualized returns around tightening cycles

		Last 12		
	12 months prior	start	Throughout	months
Jan-87-Sep-87	24%	6%	43%	40%
Mar-88-May-89	-8%	18%	25%	29%
Feb-94-Feb-95	7%	5%	3%	1%
Jun-99-May-00	23%	7%	9%	11%
Jun-04-Jun-06	19%	6%	8%	8%
Dec-15-?	7%	11%	NA	NA
Average	12%	9%	17%	18%
Positive %	83%	100%	100%	100%

Source: BofAML US Equity & Quant Strategy, S&P, Federal Reserve Board

Me INFLATION AND GROWTH

Inflation in relation to Price to Earnings (P/E) might be the better gauge in predicting future market returns. The "sweet spot' looks to be 1-3% inflation, and also offers the lowest probability of negative returns (Chart 6).

Chart 6. S&P 500 returns based on CPA ranges (quintiles) historically (1928-present)

Inflation (CPI) Range (Quintiles) -11% to 1%	S&P 500 Average Return 4%	S&P 500 Median Return 6%	Probability of Negative Returns
1% to 2%	12%	14%	22%
2% to 3% 3% to 5%	12% 8%	12% 8%	16% 26%
5% to 20%	2%	0%	50%
Deflation only (<0%)	-2%	-5%	56%

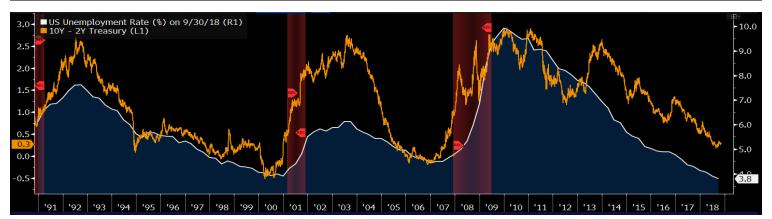
Source: BLS, S&P, BofA Merrill Lynch US Equity & US Quant Strategy

ARE WE HEADING FOR A RECESSION?

According to Brian Westbury, Chief Economist at First Trust Advisors, "a correction is the cost of creating longterm wealth." We agree! Risk and reward are immutably linked. Investors cannot achieve the returns necessary to grow wealth, without taking some risk. We all intuitively understand this fundamental concept, yet tend to forget it in the short-term when fear takes hold. Addressing recessionary fears, Mr. Westbury believes that the economy will grow at a nominal GDP rate of 5.0%, placing his neutral rate at 4.5%. Add to that the current excess reserves in the system of \$1.6 trillion, along with M2 (Money Supply) growing at 7.1% for the latest 3 months, and we are nowhere near monetary policy that is considered tight.

Moreover, a true bear market occurs during recessionary periods. We are not in a recession, and as we have stated through previous commentary, we believe the volatility experienced during the last quarter of 2018 was a typical market correction. Adding to the conversation, recent and extremely low unemployment numbers (Chart 7) make it even harder to make the recessionary case. We are not saying a recession isn't possible, but simply stating that the probabilities look very low in the near-term.

Chart 7. US Unemployment rate 1990-2018



Source: 2018 Bloomberg Finance L.P.



SLOWING EARNINGS GROWTH?

While expectations for U.S. GDP are indeed projected to slow year-over-year, it is worth noting that growth remains at some of the best levels in the last 10+ years. Slowing does not mean the economy is negative. Recall that growth in 2018 was pushed higher on the heels of the President's tax overhaul. And while some of these tax benefits will continue to influence growth, some may indeed have played out, resulting in a slight reduction in growth. That said, and as we have stated previously, growth in the 2.5 - 3.0% range is still quite healthy (Chart 8).

Chart 8. Regional Comparison GDP Growth & Projections

Region Comparison	▼ Co	 Contributor Contributor Composite 					Yearly Quarterly			
G-8							Rea	l GDP		•
Actual/ Forecasts										
Country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
G-8 (YoY%)	1.7	1.5	1.4	1.9	2.0	1.4	2.1	2.1	2.0	1.6
Countries										
Canada (YoY%)	3.1	1.8	2.3	2.9	0.7	1.1	3.0	2.1	1.9	1.7
France (YoY%)	2.2	0.3	0.6	1.0	1.1	1.2	2.2	1.6	1.6	1.5
Germany (YoY%)	3.7	0.5	0.5	2.2	1.7	2.2	2.2	1.6	1.6	1.5
Italy (YoY%)	0.6	-2.8	-1.7	0.1	0.9	1.1	1.6	1.0	0.9	0.9
Japan (YoY%)	-0.1	1.6	2.0	0.4	1.3	0.6	1.9	0.9	0.9	0.6
Russia (YoY%)	4.3	3.7	1.8	0.7	-2.5	-0.2	1.6	1.7	1.5	1.7
United Kingdom (YoY%)	1.6	1.4	2.0	2.9	-2.5 2.3	1.8	1.8	1.3	1.5	1.6
United States (YoY%)	1.6	2.2	1.8	2.5	2.9	1.6	2.2	2.9	2.6	1.9

Source: 2018 Bloomberg Finance L.P.

Chart 9. Earnings Expectations

	Best EPS	Growth %
2018	\$170.49	16.43%
2019	\$188.70	10.68%
2020	\$203.57	7.88%

Source: 2018 Bloomberg Finance L.P.

We can similarly look to earnings expectations for validation of market fundamentals. Earnings expectations for S&P 500 companies are slowing, but again, remain relatively robust (Chart 9).

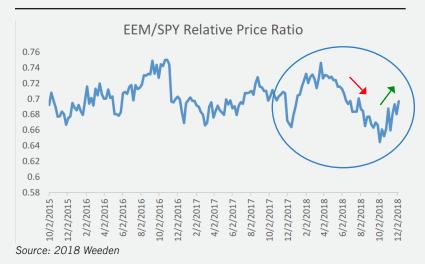
■ INTERNATIONAL MACRO VIEW

While trade and tariff discussions played a large part in the fourth quarter volatility, international markets outperformed the U.S. market. Multiple other issues also weighed on sentiment, including:

- **Brexit**
- Italy budget concerns
- Weaker Chinese data, and
- Weaker European economic data

We continue to monitor developments and their impact on international markets, yet remain positive on the space. Valuations remain one of the main positives for emerging markets, as well as international markets. While the valuation can become more attractive, relative valuation has been a key part of the out-performance story according to Michael Purves of Weeden and Co. (See Chart 10). Price-to-Earnings (P/E) of emerging markets dropped 8.8% over the fourth guarter, but has currently rebounded 3.4% to start 2019, and currently stands at 11.96 as of this writing.

Chart 10. EEM/SPY Relative Price Ratio



Indeed, 2019 is shaping up to be a volatile year due to overhangs that persist, however, we do believe many of these factors will be corrected over the course of the next 12 months. In particular, we have seen headlines throughout the quarter and year mentioning a "global slowdown," referencing China's growth and concerns regarding the role tariffs have played. There is hard evidence illustrating the effects of the tariffs placed on the country by the U.S, yet expectations still remain for China to grow at 6.2%. With the

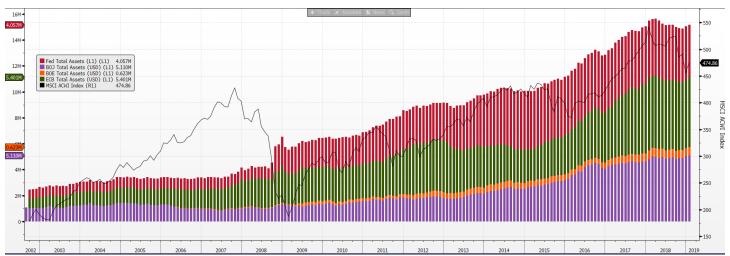
90-day window fast approaching for a deal to be cut between the U.S. and China, we expect there to be some additional concessions and truces made between the countries. As these tensions continue to dissipate with new developments being announced, we believe this will ultimately allow investors to focus on fundamental's for the beaten-down and dislocated international stocks whose valuations are too cheap to ignore.

ASSET ALLOCATION VIEW

During the last quarter of 2018 we were reminded that what central banks say and do can have a great impact on the volatility of risk assets. During this time frame, we have seen Federal Reserve (Fed) Chairman Powell's stance evolve from an indication that Fed policy would be driven by dual mandates of controlled inflation and full employment, to a more dovish stance centered around the notion that the Fed would listen to the markets and adjust as needed. As the tone of his comments changed, so too did the direction of the markets.

Historically, the Fed and other central banks have influenced monetary policy primarily through their control of very short-term lending rates (the overnight rate). When the Fed wanted to ease financial conditions, they would lower rates, and would raise rates when they felt tightening was necessary. As a result of the 2008 financial crisis, the Fed and other central banks worldwide employed an additional tool known as quantitative easing. Though the effects of this on the financial crisis can be debated, without a doubt quantitative easing greatly increased worldwide liquidity as the central banks purchased risk assets (debt and in some cases equities) out of the market and increased the currency supply. We are now at a point where the Fed has begun to shrink its balance sheet. Other central banks are also considering if they can pursue similar actions.

Chart 11. Central Bank Balance Sheets vs. MSCI ACWI



Source: 2018 Bloomberg Finance L.P.

Chart 11 shows the relationship between the MCSI ACWI All World Stock Index and the size of the balance sheets of the largest central banks. Note that the recent market peaks and volatility occurred as the European Central Bank (ECB - green) and Bank of Japan (BOJ - purple) pulled back their quantitative easing, and the Fed (red) began to shrink its balance sheet. The question remains whether this is causative or just coincident. That said, from a monetary policy perspective, we are in a place we have not been before, and will continue to carefully evaluate various risk asset classes in light of central bank actions and market reactions.

ALLOCATION INSIGHT

Current global market conditions factor into, and have the following implications for asset allocation:

GENERALLY – We recommend a somewhat more defensive position as we monitor how markets respond to the actions of the various central banks, while also keeping in mind the favorable equity valuations that have resulted from the recent correction. We expect volatility in all asset classes to remain elevated.

EQUITY ALLOCATION - We continue to monitor financial conditions and market returns to determine our best asset allocation. Relative to benchmarks, we are slightly overweight equities relative to fixed income, overweight U.S. equities, and slightly overweight small/mid cap equities. We are underweight developed international, especially the Eurozone. We have moved to a neutral weighting on emerging markets based on opportunities due to favorable valuations in many of these markets.

FIXED INCOME ALLOCATION – We continue to advocate a modest underweight in duration and a cautious exposure to credit spreads. In practice, this means exposure to areas such as high quality short-term and high quality floating-rate securities. We believe the long end of the curve will continue to rise over time and we think these allocations will continue to outperform the U.S. bond market as measured by the Barclays AGG Index.

THANK YOU & HAPPY NEW YEAR!

Investment Committee



Value Investing: From Graham to Buffett and Beyond (Wiley Finance Book 82) by Bruce C. N. Greenwald and Judd Kahn

You Can Be a Stock Market Genius: Uncover the Secret Hiding Places of Stock Market by Joel Greenblatt

Margin of Safety: Risk-Averse Value Investing Strategies for the Thoughtful Investor by Seth A. Klarman

How to Measure Anything: Finding the Value of Intangibles in Business by Douglas W. Hubbard

Buyology: Truth and Lies About Why We Buy by Martin Lindstrom and
Paco Underhill

Think Twice: Harnessing the Power of Counterintuition by Michael J. Mauboussin

Thinking, Fast and Slow by Daniel Kahneman

The Black Swan: Second Edition: The Impact of the Highly Improbable by Nassim Nicholas Taleb

IMPORTANT INFORMATION

The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual. The economic forecasts set forth above may not develop as predicted and there can be no guarantee that strategies promoted will be successful. All performance referenced is historical and is no guarantee of future results. No strategy including asset allocation assures success or protects against loss. All indices are unmanaged and may not be invested into directly.

Stock investing involves risk including loss of principal. Value investments can perform differently from the markets as a whole. They can remain undervalued by the market for long periods of time.

International and emerging market investing involves special risks such as currency fluctuation and political instability and may not be suitable for all investors.

The Standard & Poor's 500 index is a market capitalization weighted index of 500 stocks designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The Dow Jones Industrial Average (DJIA) is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange (NYSE) and the NASDAQ.

The MSCI World ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries--excluding the United States. With over 1,000 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. The CBOE Volatility Index® (VIX®) is meant to be forward looking, showing the market's expectation of 30-day volatility in either direction, and is considered by many to be a barometer of investor sentiment and market volatility, commonly referred to as "Investor Fear Gauge".

The Dow Jones Industrial Average (DJIA) is a price-weighted average of 30 significant stocks traded on the New York Stock Exchange (NYSE) and the Nasdaq. Price-weighted means stocks with higher share prices are given a greater weight in the index. The DJIA is a stock market index that shows how 30 large, publicly owned companies based in the United States have traded during a standard trading session in the stock market. The value of the Dow is not a weighted arithmetic mean and does not represent its component companies' market capitalization, but rather the sum of the price of one share of stock for each component company.

The Russell 1000 Index is a market capitalization weighted stock market index that tracks the highest-ranking 1,000 stocks in the Russell 3000 Index, which represent about 90% of the total market capitalization of that index. The Russell 1000 is a subset of the Russell 3000 Index. It represents the top companies by market capitalization. The Russell 1000 typically comprises approximately 90% of the total market capitalization of all listed U.S. stocks. The Russell 1000 Growth Index measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values. Russell 1000 Value Index measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The MSCI EAFE Index is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada. The MSCI EAFE Index consists of the following developed country indices: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland and the UK.

The Bloomberg Barclays U.S. Aggregate Bond Index is an index of the U.S. investment-grade fixed-rate bond market, including both government and corporate bonds.

The Bloomberg Barclays U.S Corporate High-Yield Bond Index is an unmanaged market value weighted index composed of fixed-rate, publicly issued, non-investment grade debt.

The Alerian MLP Index is the leading gauge of energy Master Limited Partnerships (MLPs). The capped, float-adjusted, capitalization-weighted index, whose constituents represent approximately 85% of total float-adjusted market capitalization, is disseminated real-time on a price-return basis (AMZ) and on a total-return basis (AMZX).

IMPORTANT INFORMATION

¹ "Equity Strategy	Focus Point-A st	ock investor's inte	erest rate F.A.C	.", BofA M	lerrill Lynch	US Equity &	US Quant	Strategy,
February 21, 201	8							

² "First Trust 2019 Market Outlook & Navigating Volatility", First Trust, January 9, 2019