

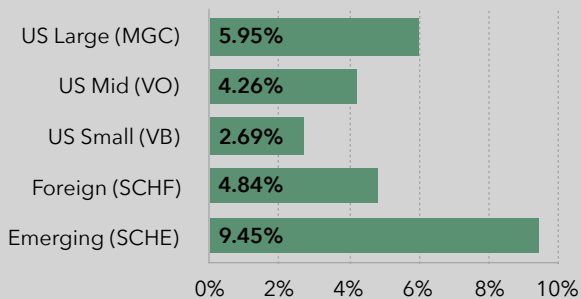
## January 2018

### Economic Data

- A strong 200,000 jobs were added in January and unemployment stood pat at 4.1%, but what was really interesting was that wage inflation heated up to 2.9%
- Year-over-year inflation (CPI) ticked down one-tenth to 2.1% in December, but the aforementioned wage inflation could put upward pressure on this figure in the coming months
- Existing home sales fell 3.6% in December amid record-low supply of only 3.2 months
- A decent holiday shopping season saw retail sales up 0.9% in November (upwardly revised) and 0.4% in December

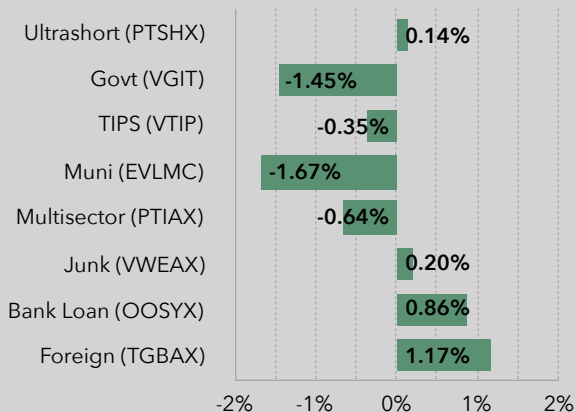
### Stocks

#### January Returns



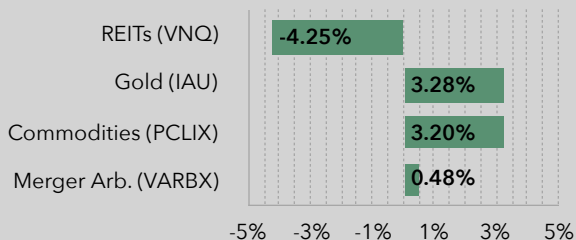
### Bonds

#### January Returns



### Alternatives

#### January Returns



Performance data provided by Morningstar.

The brain uses two systems to process information. The first type is intuitive but lazy, rapidly forming judgements with no conscious input. The second system is slow, reflective, and is not guided by emotions. It is that second system – type 2 – that we want in control of our investment portfolios.

### Well That Escalated Quickly!

Here is a simple math question for you. If you invest \$100 in an exchange-traded note with the stated goal of delivering the *inverse* of the daily return of some underlying index, and that index goes up by 100% in one day, how much money should you have?

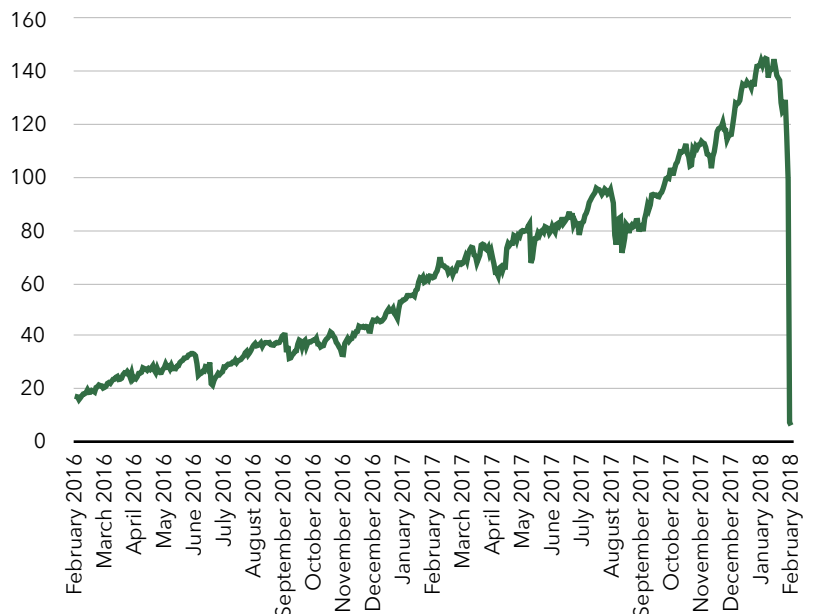
The answer is you get nothing! You lose! Good day, sir!

Well, this is essentially what happened to the VelocityShares Daily Inverse VIX Short-Term ETN (ticker: XIV). XIV is a debt note issued by Credit Suisse that promises to provide the holder with a return based on a formula tied to the inverse return of an index of short-dated VIX futures. Got that? No? Well, the VIX is an index that measures the implied volatility of the S&P 500. When things are calm, the VIX is generally relatively low. When things are volatile – usually during a selloff – the VIX tends to spike. You can't invest directly in the VIX, but products like XIV try to achieve similar exposure (or the inverse of it in this case) by buying and selling derivatives that are tied to the VIX.

On Monday, the index XIV tracks jumped 96.1%, and so XIV did its job and fell 96.1%. The move broke the threshold for a "termination event" and the fund will be shut down February 21, leaving investors with something like 4 or 5 cents on the dollar.

I can't tell you with any certainty whether this was a symptom of the market selloff, or a case of the tail wagging the dog. It does appear to have created a negative feedback loop, as Credit Suisse and others had to go out and buy VIX futures to close out their shorts. Either way, it happened and a bunch of smug investors in XIV got wiped out on a "can't lose" investment because they didn't understand it. The prospectus actually says in bold lettering: **"The long term expected value of your ETNs is zero. If you hold your ETNs as a long term investment, it is likely that you will lose all or a substantial portion of your investment."** My congratulations to Credit Suisse for delivering as advertised.

VelocityShares Daily Inverse VIX Short-Term ETN (XIV)



I have never invested in one of these because while the VIX will never go to zero, it also can't continually go higher for any sustained period of time. *Warning: here comes a forced and hackneyed reference to the Super Bowl.* You can think of it like the total score of a Super Bowl game. There are no ties in the postseason, so the total score can't be zero and must be at least 2 (a safety). The lowest total ever was 21 (Super Bowl VII). Likewise, the VIX has to be more than zero and has never been lower than 8.56 (November 24, 2017). I'm sure there is a theoretical limit to how high the score could go in a Super Bowl game if you consider the time it would take to return every kickoff for a touchdown, but the record total score is 75 – a mark the Eagles and Patriots only fell one point shy of on Sunday. The all-time intraday high for the VIX was 89.53 (October 24, 2008) while we were in the midst of the financial crisis.

The very nature of it demands that the VIX has to revert to its mean. Therefore, your expected return on either side of the trade over a long enough time horizon is negative when you consider costs and fees. And so I pass.

## 2018 Strategic Review

Every year around this time we review our strategic asset allocation. This is industry speak for our long-term view on what assets we want to invest in, what we expect the returns for those assets to be, and how we expect those assets to behave relative to each other. It isn't an exercise that necessarily results in any changes, and if it does the changes are not typically dramatic. However, this year's review resulted in some noteworthy shifts in philosophy.

First, we have eliminated REITs from the alternatives portfolio. Real estate investment trusts are commonly viewed as a distinct asset class because of their pass-through tax structure and because they hold rent-generating property as opposed to less tangible assets. However, REITs are still equities and they were given their own sector designation in late 2016. They currently make up about 3% of the S&P 500, similar to Utilities or Materials, so we are already invested in them through index ETFs. An additional allocation amounts to nothing more than a sector overweight. Furthermore, the recent change in the tax code has significantly narrowed the relative tax advantage REITs have over regular C corporations. The allocation was rolled back up into equities, specifically international and emerging markets which have a more favorable long-term expected return than domestic stocks.

In addition to REITs, we eliminated corporate bonds and high yield bonds because of their higher correlations to equities relative to other bond classes. The goal here was to reduce overall portfolio volatility while also increasing expected return. It allowed us to reallocate that capital towards assets that have low or negative correlations with stocks, like Treasury bonds, TIPS, taxable municipal bonds, and non-agency mortgage backed securities.

The result of these changes is a reduction in the number of holdings within the bond portfolio. We are allocating capital to a more limited set of funds that are impacted by specific factors in a more focused way. These factors primarily include interest rates, inflation, credit, prepayments, and foreign currency, and each fund represents a single lever to pull to adjust our exposure to these factors.

## Portfolio Positioning

I don't believe what we've seen over the past week is simply a "healthy correction". Rather, I believe it is just the beginning. The short volatility trades have mostly been wiped out, but a very leveraged market still needs to address higher borrowing costs and the removal of stimulus in the form of a massive unwind of the Fed's balance sheet. These aren't issues that are resolved in days, but rather months or even years.

The good news is we were well positioned for this correction, with an underweight to both equities and bonds, and an overweight to cash-like investments (ultrashort bonds) and alternative investments. Furthermore, in conjunction with the strategic changes we made last month we made a tactical move to significantly reduce duration and credit risk in the bond portfolio.

Credit spreads are about as tight as they can reasonably be expected to get, so there isn't much reward for taking on credit risk. Meanwhile, the supply of fixed income coming to market is likely to double over the next couple years from its 2017 pace. This will put upward pressure on yields and credit spreads.



Bonds will feel additional pressure as large US corporations – mostly tech and pharmaceutical giants – begin to repatriate overseas cash. US non-financial corporations hold \$1.4 trillion overseas, according to Moody's. The money has been held "offshore," but really it is invested in Treasuries and investment-grade corporate bonds. Tax reform has lowered the repatriation tax to 15.5%, and in doing so eliminated one of the largest buyers of these securities.

On top of that, net Fed and ECB purchases will turn negative in the second half of the year. Net Fed + ECB + BOJ is expected to be net negative by February 2019. At the same time, Treasury borrowing needs are increasing to fund the deficit. Higher supply plus lower demand equals lower prices.

## Binge Box

### The Twilight Zone (Netflix)

If you haven't seen *Black Mirror* yet, with its cautionary tales about technology and the future, please do so now. If you have and want more, head over to Amazon Prime and get your fix with Philip K. Dick's *Electric Dreams*. If you are still Jonesing, 1990's *The Outer Limits* is now on Hulu. But if you really want to show your love for the sci-fi anthology genre, you have to enter another dimension, a dimension not only of sight and sound but of mind. A journey into a wondrous land of imagination. Next stop, *The Twilight Zone*! As I've been watching the series, I've really grown to appreciate show writer/narrator Rod Serling's genius. There are so many works that have borrowed from this show's single-episode stories that it often feels familiar even when watching for the first time.

Within alternatives we took some gains in gold and reallocated that to the PIMCO CommoditiesPLUS® Strategy (PCLIX). We seem to be in the early stages of a bull market for commodities, which tend to do well in the late stages of the business cycle. PCLIX tracks the Credit Suisse Commodities Index, which has just over half of its allocation in Energy. This is relatively heavy compared with the more popular Bloomberg Commodity Index, and that was intentional. Strong backwardation (a downward sloping futures curve that creates positive yield when rolling commodities contracts over from month to month) in the oil market supports the case for commodities investment. Soft commodities, however, are mostly still in contango (an upward sloping futures curve), but with prices near cyclical lows.

The equity selloff has been violent, but let's try to keep it in perspective. All we've done so far in February is give back December and January's gains. And as I'm writing this, maybe a little of November, too. The number of consecutive days without a 0.6%+ decline in the S&P 500 had been at a record high. In 2017, the S&P 500 did not have a single monthly decline and had risen for 14 months in a row through the end of January. This has never happened before, and it was bound to end at some point.

We are only two or three rate hikes away from an inverted yield curve, with the Fed forecasting three rate hikes for the year. Still, there is little indication of an impending recession in leading economic indicators. The economy looks likely to be safe for at least the next 12 months.

The VIX feedback loop is largely extinguished at this point, and I expect we will see calmer days ahead and a market that is not just a sea of red, but has little fits of green as well. It's possible we have seen the top already, but the rhymes of history have primed me to believe we are just beginning to set the table. So I'm not inclined to make further cuts in equities until there are more willing buyers to take the other side of the trade.

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Tactical Asset Allocation					
Asset Class	Heavy Under-weight	Under-weight	Neutral	Over-weight	Heavy Over-weight
<b>Cash Equivalents</b>					●
<b>Fixed Income</b>		●			
US Govt.		●			
TIPS				●	
Multisector		●			
Bank Loans		●			
Foreign Bonds			●		
<b>Equities</b>		●			
Large Cap		●			
Mid Cap		●			
Small Cap	●				
Developed Intl.		●			
Emerging			●		
<b>Alternatives</b>					●
Commodities					●
Hedging					●

## About EmeraldSpark

EmeraldSpark Investments, LLC is a Registered Investment Adviser based in Chicago, IL. We were founded by Ryan P. Layton, CFA in 2015 to provide personalized financial planning and fiduciary investment management services to select individuals. Our investment process blends the foundations of Modern Portfolio Theory with the latest research in the field of behavioral finance. We specialize in asset allocation and investment due diligence to help provide our clients with investment strategies personalized to match their specific goals and risk comfort zone.

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