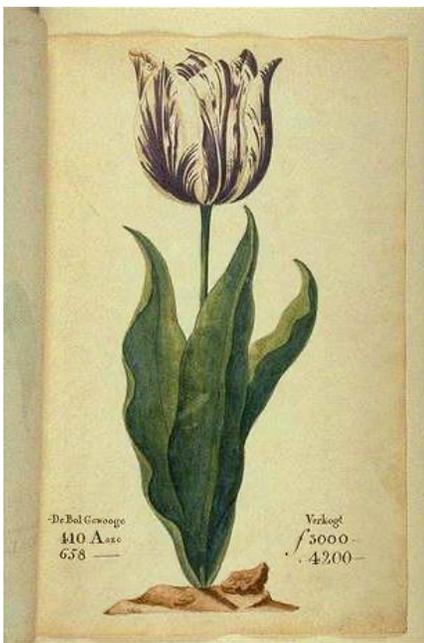


Insight

No Free Lunch

-Manchester Capital Management Strategy Group



"A tulip, known as "the Viceroy" (viseroij), displayed in the 1637 Dutch catalog...Its bulb was offered for sale between 3,000 and 4,200 guilders (florins)...A skilled craftsworker at the time earned about 300 guilders a year."¹

History has shown that there is no such thing as a free lunch, meaning that earning a return requires bearing some risk. If something earns a consistently high return with little variation, it is often an indication that a catastrophic risk is around the corner. From the tulip bulb mania in 1630's Holland to current products focused on shorting volatility, history is replete with examples of the perils of chasing returns without acknowledging risk.

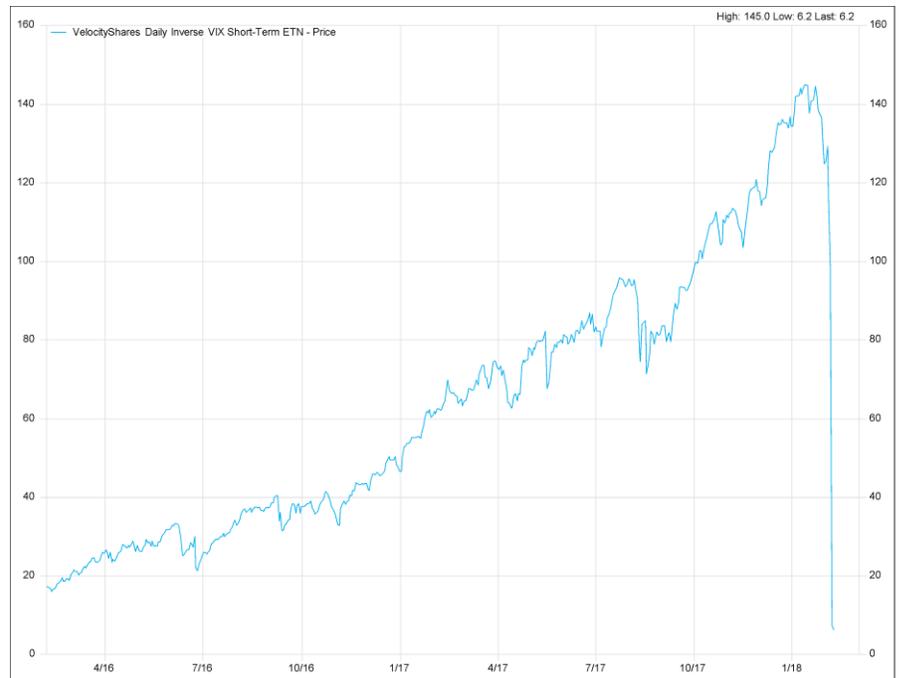
Most recent examples of calamity in financial markets center around a mispricing or misunderstanding of risk. Thirty years ago, portfolio insurance was a major contributor to Black Monday, when the stock market fell 23% on October 19, 1987. This was the first of a series of market mishaps over the years, characterized by computers replacing human judgment. Portfolio insurance theoretically allowed one to exit positions with minimal damage if markets began to fall, by selling increasing numbers of futures contracts. As computer programs called for more futures contracts to be sold, buyers of those contracts hedged their positions by selling the stocks underlying the futures contracts. As stock prices fell, the programs called for more selling of futures and the vicious cycle accelerated. While portfolio insurance fell out of favor, overreliance on computers did not.

Long-Term Capital Management's collapse in 1998 was another example of blind faith in computer models causing significant losses. The firm was founded in 1994 as a hedge fund focused on risk arbitrage.

Prior to its collapse, the firm managed \$4.8 billion for a "who's who" investor base. They had borrowed an additional \$155 billion and controlled another \$1.2 trillion in derivatives contracts, meaning that in total they were levered 283 to 1.² With that much leverage, it does not take much of an adverse move to create a catastrophe. The firm relied on a risk calculation called Value at Risk (VaR). When Russia defaulted on its bonds in August of that year, LTCM lost more than \$1.7 billion, a loss that their VaR calculations said should occur once every 6.4 trillion years! If the default were a random event that may have been true, but the fact that Russian default risk had been growing over the preceding year suggested their models failed them in falling short of reality. Being unprepared for adverse price movements is a recipe for disaster.

This year, the S&P 500 realized its first significant drawdown since 2016, falling almost 12% from peak to trough. Among the suspected culprits contributing to the decline were “short volatility” strategies, risk parity funds, and commodity trading advisors (CTAs). One product in the news lately (because it has been shut down) is the Velocity Shares Daily Inverse VIX Short-Term ETN, commonly referred to by its ticker symbol, XIV. Its demise was arguably one of the most predicted events in history. We even highlighted it as a significant market risk at Manchester’s annual investment retreat last September. Looking at a price chart of the XIV over the past two years, one can see it was a relatively reliable way to earn a return – until it wasn’t. In fact, that is exactly how Credit Suisse (the product’s sponsor) CEO Tidjane Thiam described the product to financial news channel, CNBC, saying, “...this kind of short volatility, long S&P trade was run by a lot of people, at their own risk, and it worked well for a long time until it didn’t.”³

XIV was a popular way to short VIX futures. The VIX is a volatility index and a widely used measure of market risk. The VIX is most often in contango, meaning that longer-dated futures are more expensive than spot prices. For example, if VIX futures two months out are trading at 20, and the spot value for VIX is 16, one could short the two-month futures and then cover your short in two months at 16, assuming no change in the curve, for an “easy” 4-point profit. All works well so long as the VIX stays low, as it has for years now. When volatility spikes, however, as it did on February 1st, the XIV must rebalance by buying futures into a market where volatility is already rising, thus exacerbating the move.



XIV Price Chart, February 8, 2016 to February 7, 2018

Source: Factset

Many investors bought the XIV as a hedge against their stock portfolios. When they lost money on the XIV, they sold stocks to “rebalance” their portfolios, accelerating the downdraft in stocks. Similarly, risk parity is a strategy to allocate across asset classes in accordance with their risk levels. Many risk parity strategies had been increasing their equity exposure in this period of low volatility. As a consequence of volatility spiking, risk parity strategies sold equities in order to rebalance their risks. This served to further increase volatility, which begat more equity sales. Kind of sounds like portfolio insurance, doesn’t it? As we said, that free lunch remains elusive and there is always a place for good, human judgment in financial markets.

ENDNOTES

¹ https://en.wikipedia.org/wiki/Tulip_mania#cite_ref-1

² CFA Institute, “Financial Scandals, Scoundrels and Crises”, April 18th, 2016

³ www.cnbc.com/2018/02/14/credit-suisse-ceo-on-controversial-volatility-trades.html

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