
WHAT IS VIX TELLING INVESTORS?

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06/14/2018

I have written on the [jump in the VIX that occurred in February](#), taking investors by surprise. While there was a precursor to this unprecedented surge in the [VIX](#) (a compression of spreads between [implied](#) minus [realized volatility](#)), it was subtle and the move was very sudden. VIX moves are important due to their strong negative [correlation](#) to equities.

In this blog post, I will highlight another relatively more stable signal we have been following and the one that has been flashing red for some time, the VIX futures curve. I will also talk about strategies that can cushion [market corrections](#) that typically follow periods of heightened [volatility](#).

[VIX Futures Curve: A Signal to Watch](#)

The VIX is indicative of one-month implied or forward volatility. When there is a spike in the VIX, it simply means investors anticipate higher volatility in the future.

Now, most investors are aware of term-structure curves in relation to [commodity futures curves](#). Similarly, VIX can also have a futures curve where different points in the curve imply investors' anticipation of implied volatilities at that time.

Under normal circumstances, as one moves further out in the future on the curve, corresponding values should be higher, partly because six months have more uncertainty than, say, one month.

In other words, usually six-month minus one-month VIX futures spreads should be positive. Commodity traders refer to this upward sloping nature of a futures curve as being in "contango," and it also implies a roll cost every month—why investors structurally long in volatility-hedging products face a strategic headwind.

The exhibit below shows a standardized series of VIX one-month and six-month futures contracts going back 10 years. Out of about 2,610 trading days, there were about 1,193 days (46% of time) when the one-month standardized VIX was higher than the standardized six-month VIX.

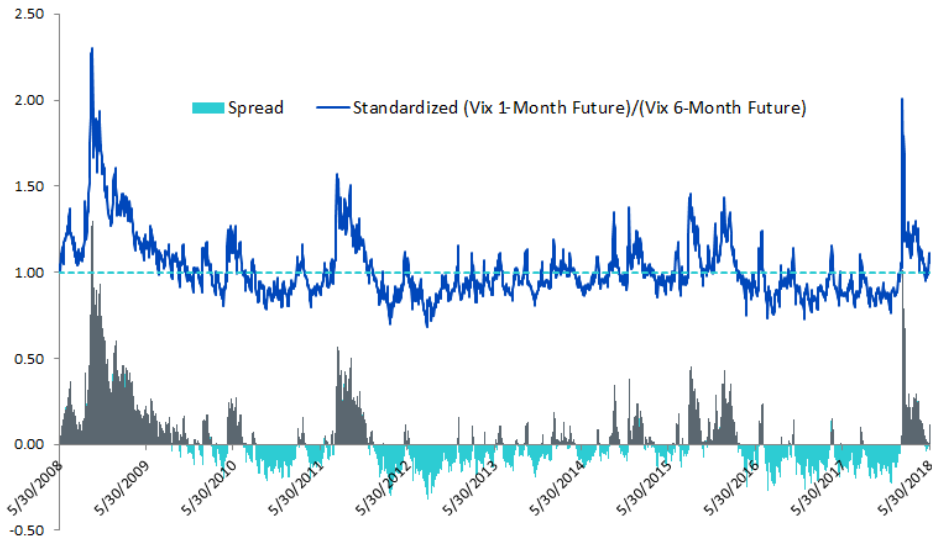
To put it simply, VIX one-month futures surged faster than VIX six-month futures (highlighted in gray on the lower chart). It happened during the **financial crisis of 2008-09** and during the **Greek default and euro-contagion in 2011**, and **most recently this inversion started on January 29**, right before a big spike in VIX on February 5 ahead of the substantial decline in equities in the weeks that followed.

An acceleration in the near-term over medium-term VIX can thus be a strong signal of

heightened volatility and possible market corrections.

What can take investors by surprise is that with an occurrence rate of almost 50% (1,193 days out of 2,610 days), this acceleration is not uncommon!

VIX 1-Month Volatility Surpasses VIX 6-Month



Sources: CBOE, Bloomberg, WisdomTree, as of 5/31/18. Period covered: 5/30/08–5/31/18. Past performance is not indicative of future results. You cannot invest directly in an index. Index performance does not represent actual fund or portfolio performance. A fund or portfolio may differ significantly from the securities included in the index. Index performance assumes reinvestment of dividends but does not reflect any management fees, transaction costs or other expenses that would be incurred by a portfolio or fund, or brokerage commissions on transactions in fund shares. Such fees, expenses and commissions could reduce returns. WisdomTree, its affiliates and their independent providers are not liable for any informational errors, incompleteness or delays or for any actions taken in reliance on information contained herein.

How WisdomTree Can Help?

Can investors mitigate these periods of high volatility?

In 2016, WisdomTree launched its first option-selling strategy, the [WisdomTree CBOE S&P 500 Putwrite Strategy Fund \(PUTW\)](#), which tracks the [Cboe S&P 500 Putwrite Index \(PUT\)](#).

This cash-collateralized strategy sells [at-the-money \(ATM\)](#) monthly [put options](#) on the [S&P 500 Index](#) and collects [premiums](#). Therefore, by generating monthly income by selling put options, this strategy aims to offset losses in a declining market while still providing positive returns during rising markets.

Given PUTW’s popularity and track record, we also launched a [small-cap](#) version of the same strategy, the [WisdomTree CBOE Russell 2000 Putwrite Strategy Fund \(RPUT\)](#), which tracks the [Cboe Russell 2000 Putwrite Index \(PUTR\)](#) and sells [cash-collateralized](#) monthly ATM options on the [Russell 2000 Index](#).

The table below highlights the relative cumulative outperformance of these option-selling strategies against their respective equity benchmarks during above-discussed periods when short-term volatility surged.

	Large Caps		Small Caps	
	# Days	Total Outperformance of PUT Index Over S&P 500 Index	# Days	Total Outperformance of PUTR Index Over Russell 2000 Index
When VIX 1 Month future picked up faster than Vix 6 Month future	1193	51%	190	12%

Sources: Bloomberg, CBOE. Period Covered (Large Caps) 05/31/2008 – 05/31/2018. Period Covered (Small Caps) 11/30/2015 – 05/31/2018. Past performance is not indicative of future results. You cannot invest directly in an index. Index performance does not represent actual fund or portfolio performance. A fund or portfolio may differ significantly from the securities included in the index. Index performance assumes reinvestment of dividends but does not reflect any management fees, transaction costs or other expenses that would be incurred by a portfolio or fund, or brokerage commissions on transactions in fund shares. Such fees, expenses and commissions could reduce returns.

For definitions of terms in the chart, please visit our [glossary](#).

Taking it one step further, I also show the five longest instances in which VIX one-month futures constantly traded higher than VIX six-month futures, for [large](#)- and small-cap universes.

Large Caps

PUT Index vs S&P 500 Index

Period Start	Period End	Period Length (# Trading Days)	PUT Tr. Index	S&P 500 Tr. Index	Total PUT Excess Return
5/30/2008	7/20/2009	297	-16.4%	-30.0%	13.6%
7/26/2011	12/14/2011	102	-1.4%	-8.2%	6.7%
1/26/2018	5/9/2018	74	-0.5%	-5.6%	5.1%
12/4/2015	3/10/2016	70	-2.9%	-4.3%	1.4%
5/3/2010	7/8/2010	49	-10.0%	-10.6%	0.6%

Small Caps

PUTR Index vs Russell 2000 Index

Period Start	Period End	Period Length (# Trading Days)	PUTR Tr. Index	Russell 2000 Tr. Index	Total PUTR Excess Return
12/7/2015	3/10/2016	69	-5.8%	-8.6%	2.9%
1/26/2018	4/16/2018	57	-0.8%	-2.8%	2.0%
4/17/2018	5/8/2018	16	0.7%	0.4%	0.3%
6/10/2016	6/22/2016	9	0.3%	-1.3%	1.6%
4/7/2017	4/19/2017	9	0.7%	0.2%	0.5%

Sources (both tables): Bloomberg, CBOE. Past performance is not indicative of future results. You cannot invest directly in an index.

Options selling strategies did what they were designed to do: outperform their respective equity indexes, which were mostly trading negative for those days when volatility had spiked.

Conclusions

Short-term investors try to time markets by developing and watching various signals to time risk on or off, while long-term investors go by a simple rule: Time spent in the

market is more important than timing the markets. What connects the two investing themes: To grow your portfolio, your asset allocation should be able to survive the cyclicalities of markets' booms and busts.

Strategies designed to help reduce volatility, such as wisdomTree's PUTW and RPUT, deserve attention to help stay the course without introducing unique stock selection risk of other low-volatility investment strategies. By incorporating option strategies, investors could outperform not only during periods of stress but also potentially on a longer-term risk-adjusted basis. Additionally, option-selling strategies have the potential to generate higher income for an investor's portfolio during periods of heightened volatility. We believe PUTW and RPUT are compelling candidates for any risk-sensitive equity asset allocation.

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DEFINITIONS

Implied volatility: The estimated volatility of a security's price. Implied volatility is a way of estimating the future fluctuations of a security's worth. It is backtracked from live option prices with a future maturity date.

Realized Volatility: The daily standard deviation of returns of an underlying asset, index, instrument, security, or ET.

Volatility: A measure of the dispersion of actual returns around a particular average level.

VIX Future Curve: A futures curve is a curve made by connecting prices of futures contracts of the same underlying, but different expiration dates. VIX futures curve is made of prices of individual VIX futures contract.

Commodity Future Curve: A futures curve is a curve made by connecting prices of futures contracts of the same underlying, but different expiration dates. Commodity future curve is based on commodity future contract prices.

CBOE S&P 500 Putwrite Index (PUT): Measures the performance of a hypothetical portfolio that sells S&P 500 Index (SPX) put options against collateralized cash reserves held in a money market account. The PUT strategy is designed to sell a sequence of one-month, at-the-money, S&P 500 Index puts and invest cash at one- and three-month Treasury Bill Rates. The number of puts sold varies from month to month but is limited so that the amount held in Treasury Bills can finance the maximum possible loss from final settlement of the SPX puts.

"At the money": option's strike price is identical to the price of the underlying security.

Put options: an option to sell assets at an agreed price on or before a particular date.

S&P 500 Index: Market capitalization-weighted benchmark of 500 stocks selected by the Standard and Poor's Index Committee designed to represent the performance of the leading industries in the United States economy.

Put Premium: An option premium is the income received by an investor who sells or 'writes' an option contract to another party.

Small caps: new or relatively young companies that typically have a market capitalization between \$200 million to \$2 billion.

Cboe Russell 2000 Putwrite Index (PUTR): An Index designed to track the performance of a hypothetical strategy that sells a monthly at-the-money (ATM) Russell 2000 Index put option. The written Russell 2000 put option is collateralized by a money market account invested in one-month Treasury bills.

Cash-Collateralized: When short put positions on S&P 500 are secured with cash (1 month and 3 month Treasuries) serving as a collateral for maximum possible hypothetical loss.

Russell 2000 Index: Measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap

and current index membership.

Large-Capitalization (Large-Cap): A term used by the investment community to refer to companies with a market capitalization value of more than \$10 billion. Large cap is an abbreviation of the term “large market capitalization”. Market capitalization is calculated by multiplying the number of a company’s shares outstanding by its stock price per share.