

DRS vs. VIX Strategies

Strategy Comparison Series



VIX Strategies – Easy as It Sounds?

As part of an ongoing series trying to make sense of the broad, catch-all category called “liquid alternatives,” this post will explore one of the newest and most esoteric alternative strategies: volatility.

As has been the case in this series, we will discuss:

1. What are the drivers of returns in this strategy?
2. What are the risks of this strategy?
3. What role does this strategy play within a portfolio?
4. How does the given strategy compare to the Defined Risk Strategy?

For most of 2017, volatility has been very subdued. The most frequently cited measure of volatility, the VIX, has been at levels not seen in a decade. The shrewd investor might try to capitalize on anticipated increases of market volatility by investing in one of the new volatility-based exchange traded products (ETP). There are over two dozen ETPs or mutual funds in the Morningstar database that attempt to capitalize on volatility in some shape or form, up from zero in 2009. This category includes long volatility and short volatility strategies, leveraged and unleveraged, ETNs and ETFs, and as of 8/21/2017 has an aggregate AUM exceeding \$4.6 billion. They are used as hedging vehicles as well as speculative plays.

While betting on volatility might seem like a bright idea, it is much easier said than done. The unfortunate reality is the long-term performance of volatility-based ETPs has been atrocious. The average year-to-date return in the volatility category, through August 21st, 2017 has been -16.40%. Over the last three calendar years the averages have been -23.68% (2016), -26.38% (2015) and -21.25% (2014). Why is this?

Volatility Based ETPs - Performance through 8/21/2017	YTD 2017	1 Year	2 Year (ann)	3 Year (ann)	2016	2015	2014
Best	65.40	108.41	46.47	20.04	80.84	0.08	8.60
Average	-16.40	-16.56	-29.10	-27.31	-23.68	-26.38	-21.25
Worst	-79.62	-91.04	-90.88	-85.59	-93.87	-77.68	-62.59

Source: Morningstar Direct

Drivers of Returns

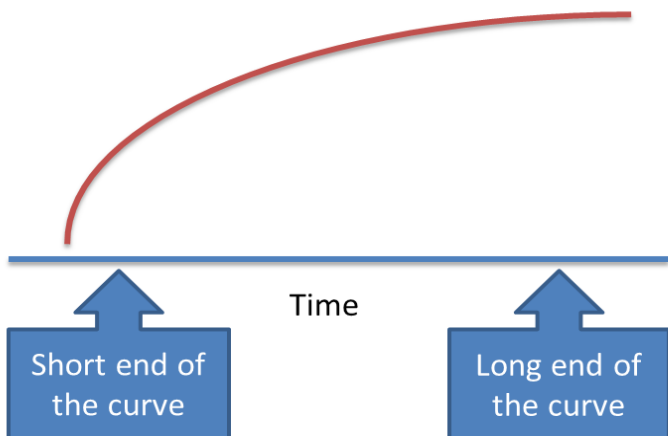
A lot of the problem stems from the fact that most of these products are based on VIX futures, or futures on the CBOE Volatility Index. But just what exactly is the VIX? A lot of people commonly refer to the VIX as the “fear gauge” but that description leaves a lot to be desired. What is VIX actually measuring? How is it calculated?

When you get down to it, the VIX is calculated by inferring the implied volatility of the S&P 500, using the prices of a basket of short-term puts and calls on the S&P 500 as an indicator of market expectations for future volatility. While from an academic standpoint there is some logic to inferring future volatility from option prices, what the VIX actually measures are the supply and demand of short-term options.

Also, from a practical standpoint the VIX is not an investable index. Unlike a standard stock index where one can simply purchase and hold the stocks in the proper weights, no one has yet devised a way to directly buy the VIX.

Instead, most products that try to capture the VIX movements do so via the use of short-term futures. Futures are of course another type of derivative, so a future on the VIX is really a derivative of a derivative. Futures have their own unique pricing complexities. In the case of VIX futures, the futures almost always trade at a premium to the VIX, a situation known in the futures market as “contango.” The term structure of futures resembles the yield curve, where typically the longer-dated securities are worth more than short-term securities.

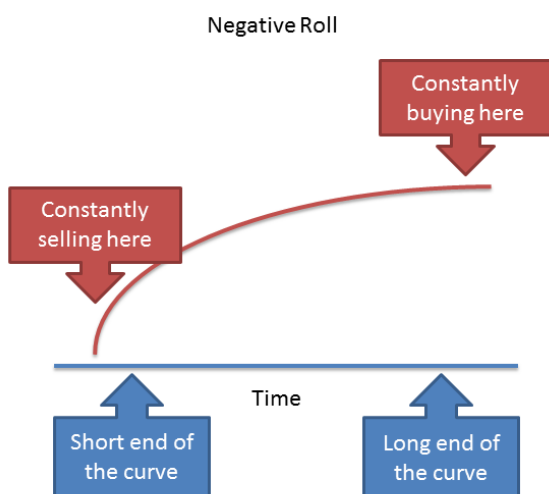
Futures Term Structure in Standard Contango



Source: Swan Global Investments

Risks

Because these are short-term contracts, a VIX futures strategy must constantly be buying futures that are almost always more expensive today than they will be in the future. As the futures contract gets closer to delivery date they lose value, sliding down the curve. In order to maintain exposure in futures, this process is repeated again and again. In practical terms, this means consistently maintaining a position in VIX futures will almost always lose money.



Source: Swan Global Investments

In addition, most volatility ETPs are passively managed. This is tricky when volatility conditions change extremely fast. Anyone who has kept an eye on daily movements in the VIX or related ETPs knows that double-digit daily moves are not uncommon. Yet many volatility ETPs are methodically managed in a passive fashion and are not designed to react to changing market conditions.

Finally, the very fact that the prices of volatility ETPs are so volatile themselves make them inappropriate as a long-term investment vehicle and impractical as a hedging vehicle. As discussed in a [previous blog post](#), variance drain deteriorates the long-term value of any investment.

Generally speaking, the more volatile an asset and the longer the holding period, the more variance drain will diminish its value. Since volatility ETPs are so volatile, the impact of variance drain is especially pronounced.

Role in a Portfolio

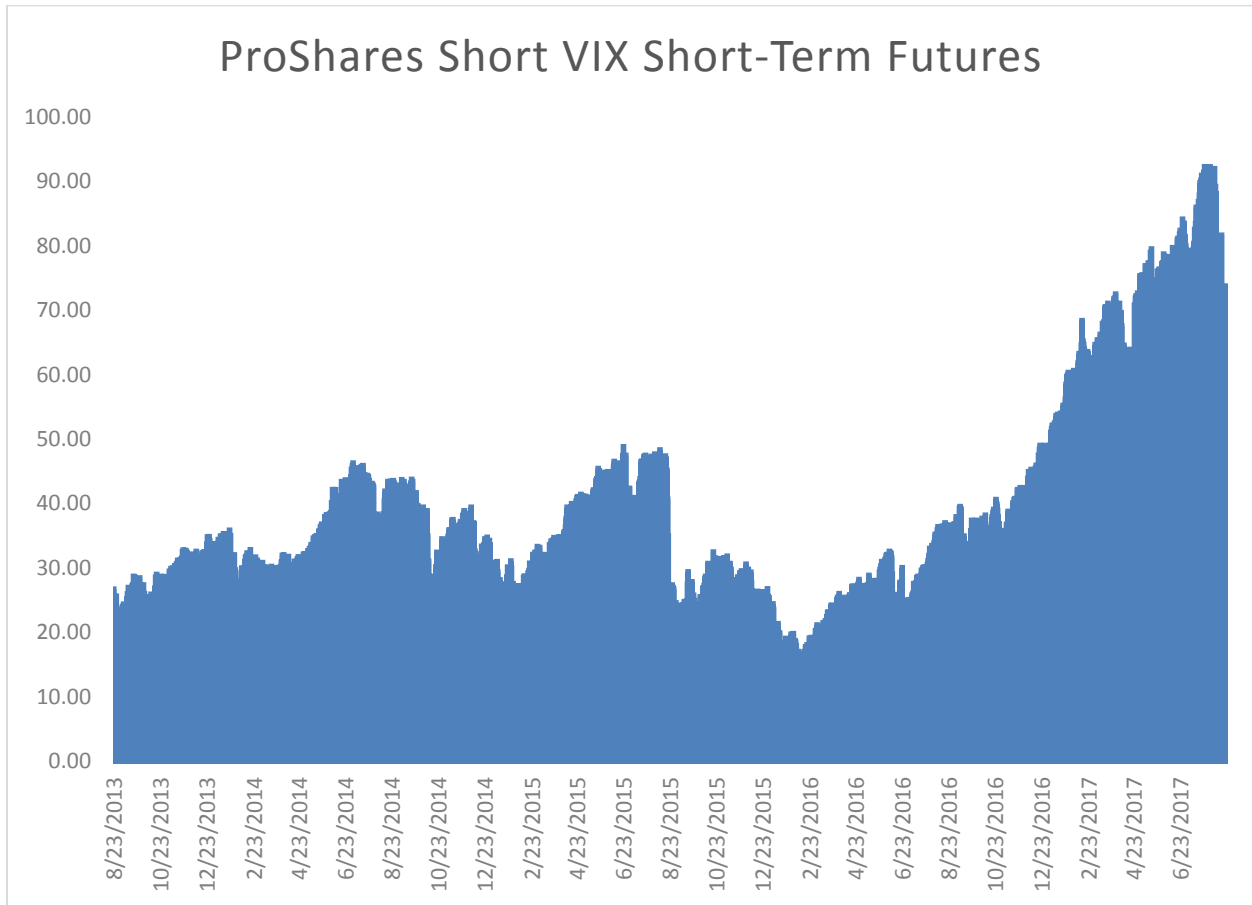
If one intends to use volatility ETPs to profit from volatility, the time horizon must be very short—not much longer than a few days or weeks, in most cases. In other words, volatility ETPs are better suited for speculative purposes. The factors discussed—contango, passive management, and variance drain—make volatility ETPs a poor choice for hedging or long-term investing.

At this point, an astute investor may wonder, “If long volatility strategies have lost so much money so consistently, then why shouldn’t we flip the script? Wouldn’t a short volatility strategy mint money?”

There are short volatility ETPs available, and yes, their performance of late has been [eye-popping](#). The fact that realized volatility has been less than implied volatility is the ideal situation for a short vol strategy. The contango phenomenon works for, not against, a short strategy.

That said, the other concerns regarding volatility plays remain true for short strategies. Short strategies are also very volatile and can lose a lot of money quickly. They are usually passively managed, so losing positions can snowball quickly, wiping out months of gains. Variance drain is very much a

concern in a highly volatile product, and the impact of variance drain will be multiplied in a leveraged product. The graph below shows the price movements on the SVXY, a short volatility product.



Source: Morningstar Direct, Swan Global Investments

During the August 2015 correction, the SVXY lost over half its value in ten trading days. A short while later, the ETF again lost almost half its value between December 1st, 2015 and February 11th, 2016.

VIX ETPs vs. Defined Risk Strategy

If one wishes to potentially harvest the so-called volatility premium over longer time horizons, it is the opinion of Swan Global Investments that you need to do so directly. If you want to seek profit from the fear and volatility that is priced into current options, you typically must trade the options themselves.

Also, given how quickly things change in the options market, it is essential to have active management and strict risk controls in place to mitigate and manage the risk of a volatility capture strategy. This approach to premium harvesting is one of the components of Swan's Defined Risk Strategy (DRS).

For 20 years the DRS has systematically attempted to collect the volatility premium by selling out of the money calls and puts on the S&P 500. The DRS combines volatility capture, long exposure to the market via ETFs, and hedging techniques in a single strategy seeking to provide consistent returns throughout rising, declining, or flat markets.

For more about how the Swan DRS compares with other strategies, check out previous posts in our Strategy Comparison Series:

- [DRS vs. Liquid Alternatives](#)
- [DRS vs. Covered Call Strategies](#)
- [DRS vs. Market Timing and Tactical Strategies](#)
- [DRS vs. Managed Futures Strategies](#)

About the Author:



Marc Odo, CFA®, CAIA®, CIPM®, CFP®, Director of Investment Solutions, is responsible for helping clients and prospects gain a detailed understanding of Swan's Defined Risk Strategy, including how it fits into an overall investment strategy. Formerly, Marc was the Director of Research for 11 years at Zephyr Associates.

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