WHY SMALL-CAP PUT WRITING INDEXES MAKE SENSE

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<u>Volatility</u> is often a big concern for investors when allocating to risky assets such as <u>small-cap</u> equities. I recently demonstrated how investors can mitigate risk in their small-cap allocations by <u>utilizing strategies</u> such as the <u>WisdomTre</u> <u>e CBOE Russell 2000 PutWrite Strategy Fund (RPUT)</u>.

The strategy is designed to sell cash-secured monthly put options on the <u>Russell 2000 Index</u> and collect premiums that act as a cushion during market drawdowns. The cost of protection—<u>option premiums</u>—are a function of volatility, so they tend to decline during periods of low volatility. With increasing volatility, now may be the right time to allocate to a strategy that collects option premiums.

Here I extend my previous analysis to the <u>small-cap universe</u>, thus analyzing both faces of volatility (<u>implied volatility</u> and <u>realized volatility</u>) to get a more complete picture.

Volatility: Implied vs. Realized

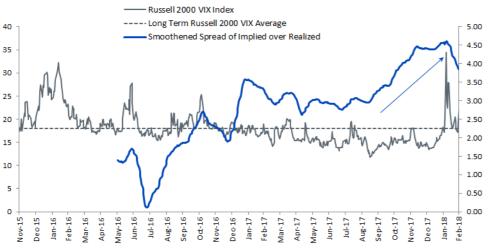
2017 was the ninth consecutive year for the <u>S&P 500</u> to have delivered positive returns; the last year the S&P 500 had negative returns was in 2008.¹ Market runs this long are not common—since the 1950s, there have been only two bull runs (1983–1989 and 1991–1999) of similar length as the current run. <u>Bulls</u> argue we are in a phase of synchronized global growth, with the U.S. leading global economic recovery and Europe, Japan and emerging markets closely following behind. As a result, the <u>Cboe Volatility Index</u> and <u>Russell 2000 Volatility Index</u> (VIX and RVX, respectively)—which are popularly considered to be gauges of investor fear and track the outlook for next 30-day volatility in large and small caps, respectively—are at their all-time lows.

Therefore, <u>put premiums</u> collected in any strategy like RPUT, which are priced based on the market's forward outlook for volatility or implied volatility, should go down. Implied volatility is just one face of volatility, and to get the complete picture, we also need to see the other side, which is realized volatility or actual trailing volatility.

The gray line in the chart below shows implied volatility in small caps, or the RVX. Though the RVX itself may be low, what is more interesting is that 30-day realized (or trailing) volatility is even lower. Even after recent noise in markets, their spread—i.e., implied minus realized—continues to trend significantly high compared to historical levels!

Rising Spreads of Implied Volatility Over Realized Volatility Making a Case for Selling Implied Volatility





Sources: Bloomberg and Cboe, for the period 11/30/15–2/28/18. 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.

Now, just as buying downside protection is a bet that realized volatility would increase more than current implied volatility, selling an option is a reverse of this. In other words, as long as implied volatility stays above realized volatility, people buying protection are overpaying, while people selling protection are collecting rich premiums. *What ultimately matters for a strategy like RPUT, which collects put premiums every month, is implied volatility being above realized volatility.*

Thus, when we look at both faces of volatility, the picture becomes more complete for strategies like RPUT. **Selling put** options and collecting premiums in the current environment has been akin to sticking to the fundamentals of investing: selling expensive, richly priced assets!

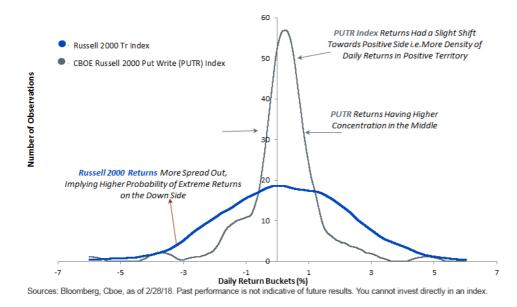
Thinner Tails of the Strategy Indicate Lower Likelihood of Extreme Returns

In addition to the premiums generated by RPUT as a driver of return, we believe risk management is another reason to consider RPUT. We show a bell curve distribution of returns that buckets historical returns of two indexes on the x-axis and counts the number of observations corresponding to each bucket or slot on the y-axis.

Since the underlying index of RPUT—<u>Cboe Russell 2000 PutWrite Index (PUTR)</u>—began in November 2015, we compare PUTR to the Russell 2000 Index to get the complete two-year historical data. If a strategy is less volatile, most of its returns should be concentrated in buckets closer to zero, while a more volatile strategy would see a higher number of observations in return buckets that are more extreme or far away from zero. Risk managers call this chart the distribution of returns.

Less Fat Tails of PUTR Index - Imply Better Historical Protection for Investors in Small Caps





There are three immediate takeaways from this chart:

1. RPUT's distributions were concentrated mostly in the middle—a return profile that shows closer to the mean.

2. The Russell 2000 Index was much more spread out—a return profile that swings much more away from the mean and has fatter tails (or a higher number of extreme observations).

3. Slight right skew or tile of RPUT distribution—a return profile with higher density of daily returns in positive territory.

Capturing Small-Cap Beta with Less Volatility

In essence, what I am trying to convey is that looking at either implied or realized volatility is just half the story. To get a complete picture, we need to consider both. And an option selling strategy like RPUT is the spread between the volatilities.

If markets continue to go up, investors of PUTR would continue to collect premiums and have positive returns. If markets go down, these richly priced premiums would offer protection against those drawdowns.

¹Source: Bloomberg, as of 2/28/18.

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DEFINITIONS

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

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

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.

Option premium : The current price of any specific option contract that has yet to expire.

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.

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.

Bullish : a position that benefits when asset prices rise.

CBOE Russell 2000 Volatiliy Index (RVX) : A key measure of market expectations of near-term volatility conveyed by Russell 2000® stock index option prices.

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

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.

Beta : A measure of the volatility of a security or a portfolio in comparison to a benchmark. In general, a beta less than 1 indicates that the investment is less volatile than the benchmark, while a beta more than 1 indicates that the investment is more volatile than the benchmark.

