WHY SHOULD I SELL PUT OPTIONS IN A LOW-VOLATILITY ENVIRONMENT?

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Investors have often relied on option selling strategies to reduce volatility in their portfolios. WisdomTree's CBOE S&P 500 PutWrite Strategy Fund (PUTW) is designed to collect premiums by selling cash-collateralized S&P 500 Index put options every month. WisdomTree believes this strategy can help reduce portfolio beta and potentially provide higher risk-adjusted returns over the long run.

Since the cost of protection–option premiums–tends to decline during periods of low volatility, one question often comes up: ***Is now the right time to be collecting premiums by selling puts, when volatility is so low?***

My analysis below will show why sticking to the basics of investing can answer this question and help investors with the risk mitigation they look for.

Investing 101–Sell Overpriced Assets

In 2017, the S&P 500 Index is into its eighth consecutive positive year, without a negative year since 2008. Historically, a consecutive-year bull run as long as this is rare and has happened only two other times since the 1950s: 1983–1989 and 1991–1999. A sense of complacency among the investment community is natural after such long bull runs. As a result, the CBOE Volatility Index® (VIX®), a gauge of investor fear that tracks 30-day implied volatility (or markets' expectation of the next 30-day volatility), is at its all-time low.

It is natural that in such a low-volatility environment, the cost of insuring downside–put premiums–would go down. That is what the gray line in the figure below shows. However, while VIX itself may be low, 30-day realized volatilities are even lower. In fact, the spread of VIX over trailing 30-day realized volatility has not been higher in the last 10 years.

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

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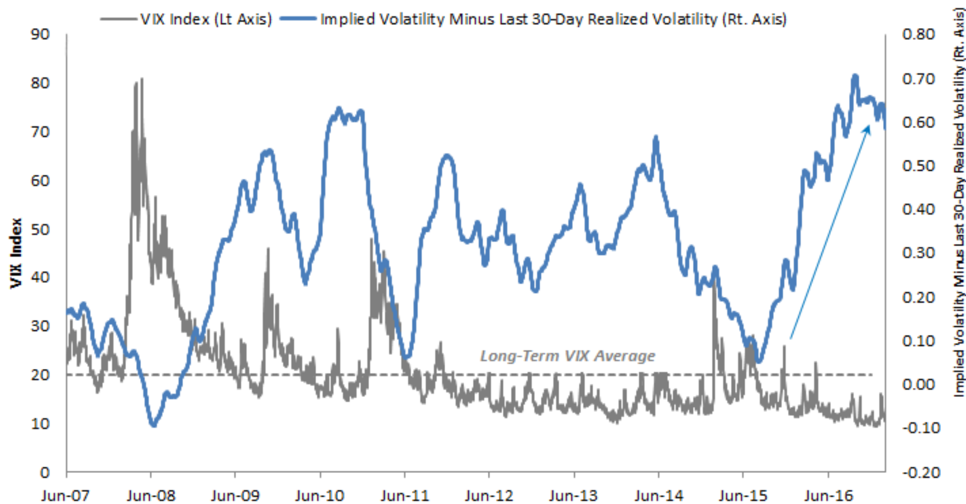


Sources: Bloomberg, CBOE, for period 6/29/07–8/31/17. You cannot invest directly in an index. Past performance is not indicative of future results.

This means that implied volatility (i.e., market expectation for the next 30-day volatility) is much more richly priced than realized volatility (i.e., trailing 30-day volatility). 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.

To put it simply, as long as implied volatility stays above realized volatility, people buying protection are overpaying, while people selling protection are collecting rich premiums. What matters for a strategy like PUTW, which collects put premiums every month, is for implied volatility to stay above realized volatility, making premiums that it collects richer than they ought to be.

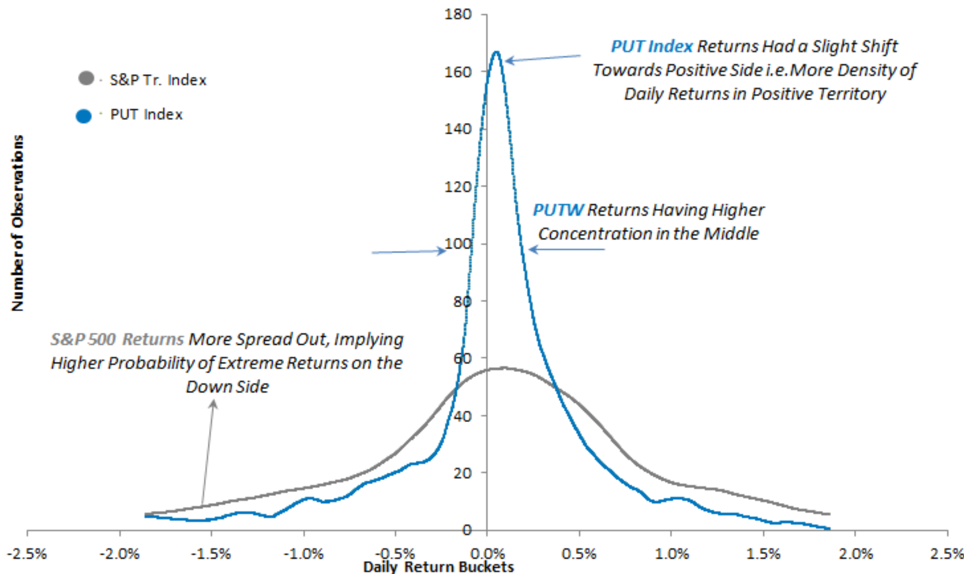
With this logic in mind, I believe selling put options and collecting premiums in the current environment is akin to sticking to the fundamentals of investing: selling expensive, richly priced assets.

Downside Protection through Option Premiums

The CBOE S&P 500 PutWrite Index (PUT), whose performance PUTW seeks to track, before fees and expenses, has a track record of more than 10 years, and we can compared actual day-to-day returns of PUT with the S&P 500 Index. One way of doing this is bucketing returns of two indexes in various return slots and counting the number of observations corresponding to each bucket or slot.

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 Wide Tails of PUT Index (Historically) - Implying Better Protection for Investors



Sources: Bloomberg, CBOE, for period 6/29/07–8/31/17. You cannot invest directly in an index. Past performance is not indicative of future results.

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.

What is immediately obvious in the figure above is that:

1. PUT distribution concentrated in middle—***a daily return profile that stays closer to the mean (i.e., 0)***

2. S&P distribution spread out—***a daily return profile that swings much more away from the mean (i.e., 0 and with fatter tails)***

3. Slight right tilt of PUT distribution—***a return profile with higher density of daily returns in positive territory***

Conclusion

Two things to take away from the above charts:

1. Collecting premiums makes sense at a time when implied volatility is as richly priced compared to realized volatility as it has ever been.

2. Long-term distribution of PUT also indicates a return profile that was much less volatile compared to traditional index equities.

As nobody can claim to know the future, and the S&P 500 may very well continue its bull run for years to come, I do not think investors should migrate away from equities. ***I think investors who blend their equity holdings with PUTW can potentially not just collect income from options but reduce volatility of daily returns in their portfolios.***

Read more about blending equity position with PUTW.

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You cannot invest directly in an index.

DEFINITIONS

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 losse.

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.

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.

Risk-adjusted returns : Returns measured in relation to their own variability. High returns with a high level of risk indicate a lower probability that actual returns were close to average returns. High returns with a low level of risk would be more desirable, as they indicate a higher probability that actual returns were close to average returns.

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

Bullish : a position that benefits when asset prices rise.

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.

Low Volatility : Characterized by lower standard deviation of price over time. This term is also associated with the Low Volatility Factor, which associates lower volatility stocks with better risk-adjusted returns vs the market over time.

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

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

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.