

Options In Practice - BXNT™

Nasdaq Investment Intelligence

Introduction

A covered call strategy can be used to generate income in the form of options premiums by selling a call option on a stock or index that an investor already owns. A call option gives the holder the right, but not the obligation, to buy the underlying stock at a certain price (known as the “strike price”) on or before a certain date. The key feature of a call option is that it increases in value as the price of the underlying asset rises above the strike price.

For a brief explanation and example of a covered call strategy, please see “Understanding Covered Calls” in the further resources section below.

The Cboe Nasdaq-100 BuyWrite V2™ Index (BXNT™) measures the total rate of return on a Nasdaq-100® covered call strategy. This strategy consists of holding a portfolio indexed to the Nasdaq-100 and selling a succession of one-month at-the-money Nasdaq-100 (NDX®) call options.

Covered calls can provide substantial yield in the form of option premium

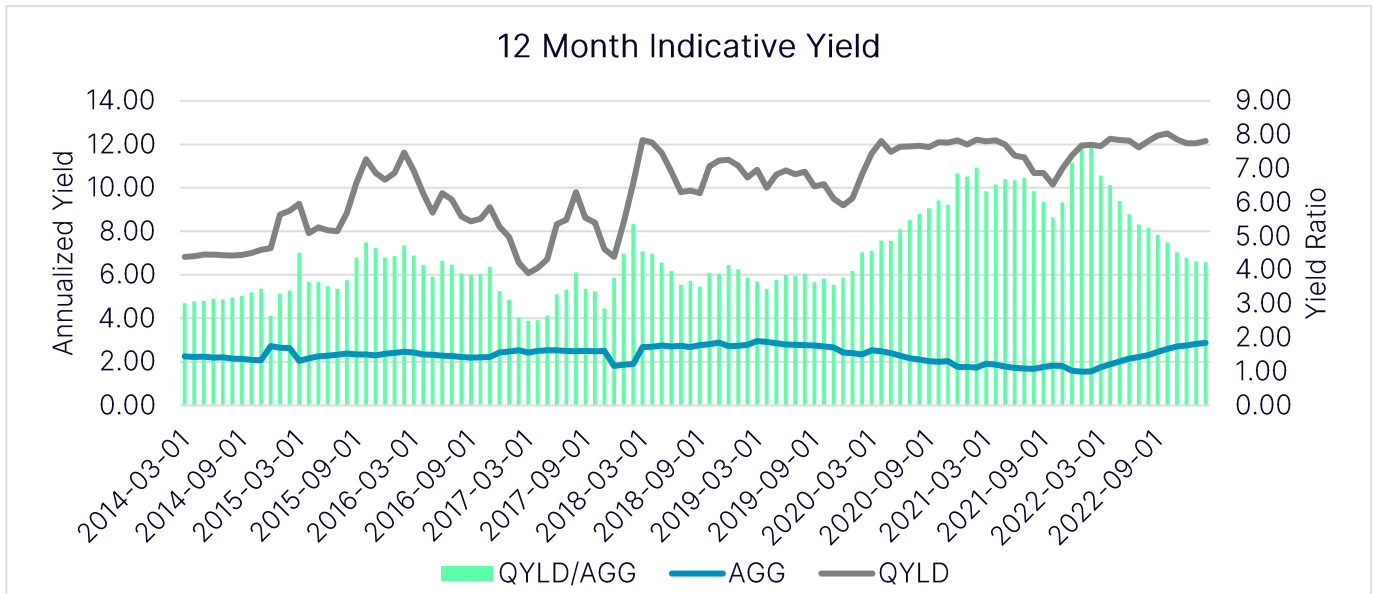
A covered call strategy may serve as a complement to, or replacement for, fixed income investments, as selling covered calls can generate substantial income in the form of premiums. The BXNT Index is calculated as if premiums are reinvested in the portfolio, making it difficult to estimate distributions. Fortunately, the QYLD ETF has tracked the index for nearly 10 years (12/12/2013 inception) and makes monthly distributions that we can use for our analysis.

For the sample studied, QYLD had an average distribution yield of just over 10% per year, more than four times that of AGG, an ETF that tracks the Bloomberg US Aggregate Bond Index. This yield did come with higher risk, as QYLD expressed annualized volatility of approximately 15%, while AGG had an annualized volatility of approximately 5%. This does not tell the entire story, however, as we should consider the yield received relative to the risk taken. One way to do that is to look at the ratio of yield to volatility, which suggests that the covered call strategy (0.65) may be superior to using AGG (0.48).

Because the covered call strategy has (historically) generated more yield relative to risk, we can approximate the yield or risk of a position in AGG with potentially better results. If we were to make an investment in QYLD intended to have equal volatility as solely investing in AGG, we might put a little under 1/3 of our capital in QYLD and the remainder in T-bills. Ignoring the yield on T-bills (negligible, until recently), we would still have enjoyed an extra 1% in yield for the same amount of risk. We could also attempt to match the yield of AGG using QYLD. To generate yield at the same level as AGG, we could invest a little less than 25% of our capital in QYLD with the rest in T-Bills and would experience lower volatility as a bonus.

	AGG	QYLD	Eq. Risk	Eq. Yield
Yield	0.0233	0.1003	0.0313	0.0233
Volatility	0.0485	0.1554	0.0485	0.0362
Yield/Vol	0.4811	0.6454	0.6454	0.6454

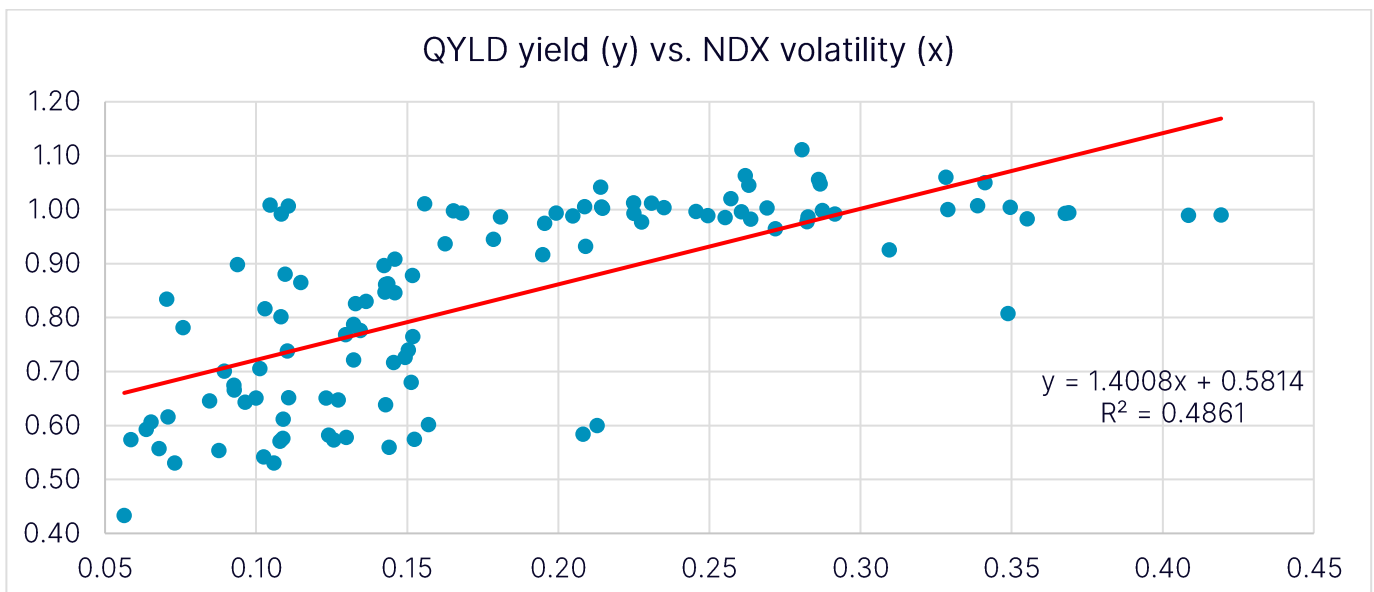
The yields of the two strategies have changed through time. The chart below plots the rolling 12-month indicative yield for the AGG and QYLD ETFs, as well as the ratio of the QYLD yield to that of AGG (QYLD/AGG). The yields are smoothed by taking a 3-month average to improve readability.



The yield of QYLD has historically been more than triple that of AGG, but has often been even higher. This is because covered call strategies tend to generate more premium during times of higher volatility.

Premiums are often higher during periods of increased stock market volatility

An interesting feature of options is that their prices are intrinsically linked with the volatility of the underlying asset. As such, premiums tend to be higher when stocks are more volatile, which means that yields from a covered call strategy may be higher during times of market stress. In the chart below, we plot one month indicated yields versus the one month realized volatility of the Nasdaq-100. It is clear that yields do indeed have a strong positive relationship to the volatility of the Nasdaq-100, with an R-squared of 0.4861, which corresponds to a correlation of 0.6984.



The yield of AGG does not have a significant relationship to its volatility, this relationship does not hold for AGG, and a visual inspection of the 12 Month Indicative Yield chart shows that the ratio of yield between QYLD and AGG tends to increase during periods of notably higher volatility. Higher premiums during times of market stress have an additional benefit in that they can dampen the volatility of the underlying index investment.

Conclusion

The Cboe Nasdaq-100 BuyWrite V2 Index (BXNT) measures the total rate of return on a Nasdaq-100 covered call strategy. This strategy consists of holding a portfolio indexed to the Nasdaq-100 and selling a succession of one-month at-the-money Nasdaq-100 (NDX) call options. This strategy can serve as a complement to, or replacement for, fixed income investments, and may generate higher yield during periods of increased market volatility.

Notes and Further Resources

- Understanding Covered Calls – Nasdaq Investment Intelligence
- Option-Strategy Indexes: A Powerful Tool for Improving Portfolios
<https://jii.pm-research.com/content/early/2023/01/27/jbis.2023.1.031.abstract>
- Nasdaq-100 Education: <https://www.nasdaq.com/solutions/nasdaq-100/education>
- Nasdaq-100 Index Options: <https://www.nasdaq.com/solutions/nasdaq-100-index-options>
- Global X Nasdaq 100 Tail Risk ETF: <https://www.globalxetfs.com/funds/qtr/>

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