

GLOBAL X INSIGHTS

Augmenting Exposure to Information Technology with Covered Calls

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Investors focused on growth often allocate significant capital to the Information Technology sector, a segment of the market that tends to experience wider peaks and valleys than others, according to historical implied volatility metrics. 1 That said, as a function of long-term economic growth, the peaks tend to come about with greater frequency, and they often represent primary reasons why some investors can outperform their respective portfolio benchmarks.

After these peaks occur, employing a strategy that can help investors protect their assets or generate returns can be a material differentiator in a portfolio. For example, strategies that systematically write covered call options may be able to create a stream of premium distributions when capital appreciation potential may be limited. The premiums that they receive can also be reinvested to support future growth and help cushion against market declines. The Global X Information Technology Covered Call & Growth ETF (TYLG) is one such strategy that writes call options on 50% of its notional holdings monthly and distributes the lower of half its premium received or 1% of its NAV, while reinvesting the balance of the premium back into the fund.

Key Takeaways

- The Information Technology sector was one of the primary drivers of U.S. economic growth in 2023. However, with many
 of its leaders recently establishing new 52-week high stock prices, investors might be somewhat concerned over how far
 valuations can stretch.
- Option premiums are more than just a potential source from which distributions are derived. The opportunity to reinvest a
 portion of this acquired capital adds dimensions to the fund's total return potential and could help support growth-oriented
 accounts.
- Investors interested in covered call option strategies are not strictly required to cap price appreciation potential entirely.
 Writing calls on half the notional balance of an investment can generate premiums and keep long exposure intact.

Market Valuations Suggest Tech's Recent Momentum Could Cool

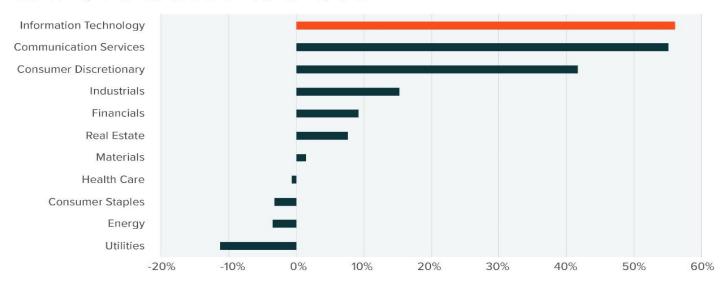
In 2023, the Nasdaq 100 Index gained 54% in market value and the S&P 500 Index gained 24%.2 As was the case with many other bull markets of the past, the Information Technology sector led the way, while the Communication Services and Consumer Discretionary sectors were significant contributors, as well.





S&P 500 SECTOR PRICE PERFORMANCE IN 2023

Source: Global X ETFs with information derived from Fidelity. S&P 500 sector performance from January 2, 2023 to December 29, 2023. Data retrieved on December 29, 2023.



Past performance is not a guarantee of future results.

The increase in market value stemmed from investors' enthusiasm over artificial intelligence technology, enhancements in cloud computing, and the growth of the Internet of Things. Additionally, developments in blockchain, cybersecurity, and robotics contributed to the tech sector's vigorous expansion. Many of these ground-breaking technologies have the potential to drive meaningful earnings growth for major players in the space. Ongoing capital investment activity also lends confidence to investors that future sales and earnings targets might be achieved.

Despite these potential catalysts, however, some investors may still be hesitant to consider Information Technology positions because of the sector's wide fluctuations in price or the belief that its recent growth trajectory may not be sustainable. In that vein. based on a variety of historical performance ratios, the stocks of several leading companies seem to be trading at premiums. The chart below illustrates a few of the relative measures that suggest these stocks may be due for a price correction.

RELATIVE VALUATIONS OF THE TOP-FIVE TECHNOLOGY SELECT SECTOR SPDR FUND CONSTITUENTS

Source: Global X ETFs with information derived from Bloomberg L.P. Company average price-to-earnings. price-to-book, and price-to-sales ratios calculated using information as of December 29, 2023 using the financial analysis function. Retrieved January 12, 2024. Cell colors denote the comparative value of a specific ratio for a specific equity relative to like ratios for the same equity over alternative time frames with green representing the lowest value, yellow representing the second-highest value, and red representing the highest value.

	Price -To-Earnings (P/E)			Price-To-Book (P/B) Average			Price-To-Sales (P/S)		
Company	5-Year Average	3-Year Average	December 2023 Average	5-Year Average	3-Year Average	December 2023 Average	5-Year Average	3-Year Average	December 2023 Average
Microsoft Corp. (MSFT)	29.99	30.55	32.92	10.51	10.65	9.71	10.51	11.36	12.69
Apple, Inc. (AAPL)	25.27	26.98	29.38	32.64	40.84	41.21	6.15	6.93	7.99
Nvidia Corp. (NVDA)	44.70	47.88	39.04	17.56	20.81	28.10	19.73	23.18	26.45
Broadcom, Inc. (AVGO)	15.57	16.94	22.33	8.97	11.09	15.97	7.05	8.11	12.22
Adobe, Inc, (ADBE)	36.25	34.75	33.83	13.51	13.77	14.77	14.45	13.96	14.21

Additionally, three of the top five constituents in the S&P 500 Information Technology Index are forecast to deliver lower earnings growth in 2024.3 Forecasts like these don't necessarily indicate immediate mean reversion, particularly given the long-term earnings potential presented by the innovative technologies that these companies deliver. Share earnings are still projected to increase for these top firms at what could be considered a healthy clip. However, traditional market metrics may support an investor potentially taking their foot off the gas pedal.

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Call Options Could Offer Diversified Risk Exposures and Create Investable Premia

Writing call options might not be the most intuitive strategy for a growth-minded investor. In fact, substituting a reference asset's price appreciation potential for the premiums received for writing the calls goes against the growth mentality almost completely. However, when managing investments in relatively volatile spaces, it's important to be aware of the potential benefits that alternative forms of diversification can provide.

Writing call options against existing holdings places an effective cap on the upside price appreciation potential that can be realized by taking a long position in the reference asset, depending upon the strike price of the option. That said, adding covered call premium income to a portfolio can create an opportunity to limit the variability experienced in a basket of holdings to the downside, as well. Although there is limited historical data surrounding covered call option writing strategies on technology sector investments specifically, by charting monthly returns associated with S&P 500 alongside the returns produced by the Cboe S&P 500 BuyWrite Index, which is an index designed to track the performance of a hypothetical covered call strategy on the S&P 500, across various intervals, it can be noted how incorporation of the covered call strategy might help narrow both positive and negative tails associated with the distribution.

TWENTY-YEAR MONTHLY RETURN DISTRIBUTIONS OF THE S&P 500 VERSUS A BUYWRITE STRATEGY

Source: Global X ETFs with information derived from Bloomberg L.P. S&P 500 Index (SPX) versus the Cboe S&P 500 BuyWrite Index (BXM) total returns. Returns calculated from February 20, 2004 to January 19th, 2024 using monthly returns to the third Friday of every month when options are deemed written by BXM. Retrieved on February 9, 2024.



Index returns are for illustrative purposes only and do not represent actual Fund performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

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In demonstrating how covered calls can support a growth-oriented investment strategy, it is important to consider the opportunity for reinvestment of the premiums that the fund seeks to retrieve. The periodic selling of call options can act as a source of consistent cash flow for an investor, which can then be readministered toward a broader growth-targeted allocation. This strategy can be likened to dollar cost averaging, in that premiums can be reinvested upon receipt regardless of the cost. That said, an investor could just as easily choose to reinvest premiums more tactically in an attempt to seek out a lower market price altogether.

For example, a strategy like the Global X Information Technology Covered Call & Growth ETF (TYLG), which writes calls on 50% of its notional holdings, could be paired with long holdings in the constituents of the S&P 500 Information Technology Index. The result is a portfolio that can potentially provide less-widely oscillating patterns of price returns like those in the histogram presentation above. The combination can potentially do so while only losing a few basis points in overall performance by investing premium distributions into an uncovered position.

INFORMATION TECHNOLOGY PORTFOLIO RETURNS WITH TYLG DISTRIBUTIONS REINVESTED IN THE S&P 500 INFORMATION TECHNOLOGY INDEX

Source: Global X ETFs with information derived from Bloomberg L.P. S&P 500 Information Technology Index and Global X Information Technology Covered Call & Growth ETF (TYLG) cumulative market price total returns from November 22, 2022 (TYLG list date) to December 29, 2023. Blended portfolio calculated by synthetically reinvesting TYLG distributions into the S&P 500 Information Technology Index on dates when distributions are made payable. Retrieved on January 12, 2024.

Name		100% S&P 500 Info Tech			100% TYLG		
Total Return			46.06%		36.36%		
Name	25% S&P 500 Info Tech/7	5% TYLG	50% S&P 500 Info Tech/50% TY	/LG	75% S&P 500 Info Tech/25% TYLG		
Total Return	33.04%		37.38%		41.72%		
Sortino Ratio	2.69		2.68		2.67		
Beta	1.04		1.13		1.22		
Downside Volatility	13.55%		14.61%		15.79%		

The performance data quoted represents past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than their original cost and current performance may be lower or higher than the performance quoted. High short-term performance is unusual and investors should not expect such performance to be repeated. For performance current to the most recent month- and quarter-end, please visit our site.

The Fund Structure Offers Exposure to Tech With a Degree of Flexibility

When it comes to the equity of major players in Information Technology, liquidity is rarely an issue. More likely, investors are concerned about individual stock valuations, growth prospects, and share-price momentum. However, investigating these metrics, picking stocks, and analyzing an entry point require more ability, attention, and time than many investors have. A valid alternative is to seek broad exposure through an ETF, which can offer similar liquidity, potentially at a lower overall cost. ETFs have the ability to create these positions and incorporate systematic covered call option writing strategies.

TYLG is one example of a vehicle that can create exposure to covered calls but still allow an investor to maintain half the upside price appreciation potential associated with the Technology Select Sector SPDR Fund (XLK). It does so by purchasing the stocks that make up the Information Technology Select Sector Index and XLK, an ETF that seeks to track the index. TYLG then writes monthly call options on XLK representing approximately 50% of the value of TYLG's portfolio and distributes the lower of half its premium received or 1% of its NAV. Operating in this fashion, TYLG seeks to create a source of income and allows an investor to maintain long exposure to the constituents of the index.



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HOW IT WORKS: SECTOR COVERED CALL & GROWTH STRATEGY IN PRACTICE

TYLG is an ETF that implements a half-covered call strategy on the Information Technology Select Sector Index.

Owns the stocks in the Info Tech Select Sector Index and the **XLK ETF**



Writes monthly Call Options on the Information **Technology Select Sector** SPDR ETF (XLK)

Components:	Underlying stocks in the Information Technology Select Sector Index
	2) Information Technology Select Sector SPDR ETF (XLK)

Style:	FLEX
Strike Price (SP):	Closest listed SP above last value
Options Strategy:	Written monthly

Additional Info

Ticker:	TYLG
Inception Date:	11/21/2022
Gross Expense Ratio:	0.66%
Net Expense Ratio1:	0.60%
Distributions:	Paid Monthly

TYLG seeks to provide investment results that correspond generally to the price and yield performance, before fees and expenses, of the CBOE S&P Technology Select Sector Half BuyWrite Index. 1Fee waivers are contractual and in effect until at least March 1, 2024.

TYLG delivers augmented exposure to the Tech sector by pursuing income through option premiums, creating a positive correlation with volatility. Indeed, while stock prices tend to have a negative correlation with volatility, option premiums generally rise in conjunction with the measure. And by pairing a position in TYLG with an investment in a growth-oriented Tech allocation, an investor could tactically manage what portion of their overall allocation is covered.

Conclusion: Covered Calls May Narrow Tech Position Variability While Seeking to Procure **Premiums**

Holdings within the broader Information Technology sector are a virtual no-brainer for buy-and-hold investors. The same is true for those investors with a more tactical bent, who want to lean into the growth potential that the sector provides. However, rather significant volatility is common. Covered calls can be a strategy for these swings. By throttling varying levels of asset coverage, investors can harness premiums in an effort to augment their risk/reward profile. Covered call writing also represents an opportunity to maintain exposure to an underlying asset and create a stream of premium distributions for reinvestment aimed at compounding arowth.

Related ETFs

TYLG - Global X Information Technology Covered Call & Growth ETF

Click the fund name above to view current performance and holdings. Holdings are subject to change. Current and future holdings are subject to risk.

Footnotes

- Bloomberg L.P. (n.d.) [S&P 500 Information Technology Index 30-Day Implied Volatility versus S&P 500 Communication Services, Consumer Discretionary, Consumer Staples, Energy, Financials, Health Care, Industrials, Materials, Real Estate, and Utilities Indexes' 30-Day Implied volatilities from June 28, 1996 to December 29, 2023. Data Retrieved on January 23, 2024.]
- Bloomberg L.P. (n.d.) [Nasdaq 100 Index and S&P 500 Index price performance from December 30, 2022 to December 29, 2023. Data retrieved on January 5, 2024.]
- Factset. [Consensus generally accepted accounting principals annualized earnings estimates for Microsoft Corporation (MSFT), Apple, Inc. (AAPL), Nvidia Corporation (NVDA), Broadcom, Inc. (AVGO), and Adobe, Inc. (ADBE) for fiscal years ending June 2024, September 2024, January 2025, October 2024, and November 2024, respectively.]





Glossary

Call Option: A call option gives the buyer the right, but not the obligation, to buy a security at a pre-determined strike price within a given time frame or on a specific date.

Covered Call: A covered call (call write) strategy involves purchasing securities, such as equities, and then simultaneously selling a call option on those securities.

Nasdaq 100 Index: The NASDAQ 100 index includes 100 of the largest non-financial companies listed on the stock market.

S&P 500 Index: The S&P 500 index includes 500 of the largest public companies listed on the stock market.

S&P 500 Information Technology Index: The S&P 500 Information Technology Index includes those companies included in the S&P 500 index that are classified as members of the GICS information technology sector.

Global Industry Classification Standard (GICS): Analysis framework designed to classify companies by operating industry.

Standard Deviation: A statistical measure of the variation or dispersion within a set of numbers. In investing it is used to discuss the volatility in returns. Typically, fixed income returns are more stable while equity returns have a higher level of volatility.

Sortino Ratio: Measures the risk-adjusted return of an investment by reducing returns against a risk-free asset and comparing the product to the standard deviation of negative returns of the investment.

Beta: Measures the volatility of an asset's price relative to the volatility in the market index and can also be identified as the percentage change in the price of the asset given a 1% change in the market index. A beta below one suggests that the asset was less volatile than the market benchmark. A beta above one suggests that the asset was more volatile than the market benchmark.

Downside Volatility: A measure of downside risk that focuses on returns that fall below the average annual return related to an associated investment. Calculated by taking the standard deviation of returns that are below the mean return of a broader portfolio.

Cost Basis: Cost basis is the price that was originally paid to purchase a security.

This material represents an assessment of the market environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. This information is not intended to be individual or personalized investment or tax advice and should not be used for trading purposes. Please consult a financial advisor or tax professional for more information regarding your investment and/or tax situation.

Index returns are for illustrative purposes only and do not represent actual Fund performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

Investing involves risk, including the possible loss of principal. Concentration in a particular industry or sector will subject TYLG to loss due to adverse occurrences that may affect that industry or sector. Investors in TYLG should be willing to accept a high degree of volatility in the price of the fund's shares and the possibility of significant losses. The Fund invests in securities of companies engaged in Information Technology, which can be affected by rapid product obsolescence and intense industry competition.

TYLG engages in options trading. An option is a contract sold by one party to another that gives the buyer the right, but not the obligation, to buy (call) or sell (put) a stock at an agreed upon price within a certain period or on a specific date. A covered call option involves holding a long position in a particular asset, in this case U.S. common equities, and writing a call option on that same asset with the goal of realizing additional income from the option premium. By selling covered call options, the fund limits its opportunity to profit from an increase in the price of the underlying index above the exercise price, but continues to bear the risk of a decline in the index. A liquid market may not exist for options held by the fund. While the fund receives premiums for writing the call options, the price it realizes from the exercise of an option could be substantially below the indices current market price. TYLG is non-diversified.

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns. The market price returns are based on the official closing price of an ETF share or, if the official closing price isn't available, the midpoint between the national best bid and national best offer ("NBBO") as of the time the ETF calculates current NAV per share, and do not represent the returns you would receive if you traded shares at other times. NAVs are calculated using prices as of 4:00 PM Eastern Time. Indices are unmanaged and do not include the effect of fees, expenses or sales charges. One cannot invest directly in an index.

Carefully consider the funds' investment objectives, risks, and charges and expenses before investing. This and other information can be found in the funds' full or summary prospectuses, which may be obtained at globalxetfs.com. Please read the prospectus carefully before investing.

Information on the Technology Select Sector SPDR Fund is provided strictly for illustrative purposes and should not be deemed an offer to sell or a solicitation of an offer to buy shares of the funds.





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