

TEUCRIUM

Guide to Trading *Daily* **LEVERAGED** Commodity **ETFs**

October 2024



@TEUCRIUM EFTs

Introduction to Leveraged Commodity ETFs

Leveraged commodity exchange-traded funds (ETFs) offer traders a dynamic way to capitalize on the often-volatile price movements of commodities like oil, natural gas, gold, and agricultural products. These ETFs are designed to deliver magnified returns - typically two or three times the daily performance of a commodity index. While leverage can generate significant short-term gains, it also comes with heightened risks, making leveraged ETFs a powerful but risky tool for investors.

In this guide, we'll explore the mechanics of leveraged commodity ETFs, their benefits and risks, as well as the strategies traders can employ while seeking to maximize their potential and manage the inherent volatility.

Who Should Read This Guide?

Whether you're a savvy day trader seeking to profit from rapid market shifts or a financial advisor looking to strategically incorporate commodity exposure into client portfolios, this comprehensive guide will demystify leveraged commodity ETFs. You'll gain valuable insights into their mechanics and discover practical strategies for potentially harnessing their power in your investment approach.

What You'll Learn

By reading this guide, you'll gain a deeper understanding of:



How leveraged commodity ETFs work

Learn the mechanics behind how these ETFs amplify daily price movements and the financial instruments they use, such as futures contracts and derivatives.



The risks and rewards of leverage

Discover why leveraged ETFs can offer large potential returns but also carry significant risks, including volatility drag and the potential for magnified losses.



Trading strategies

Explore general approaches for both day trading and swing trading leveraged commodity ETFs and learn how some traders use technical analysis tools like candlestick charts and moving averages to identify trading opportunities.



Managing risk effectively

Learn about key risk management techniques, including position sizing, stop-loss orders, and diversification, that some traders use when seeking to protect capital while trading these high-risk instruments.

By the end of this guide, you'll have a comprehensive overview of leveraged commodity ETFs and how you may consider using them as part of a focused, well-informed trading strategy.

The Role of Commodities

Before discussing the mechanics of leveraged commodity ETFs, let's first explore why investors might consider commodities in the first place.

Typically, investors gravitate toward commodities for the potential diversification benefits as these assets often move independently of traditional stocks and bonds. Diversification helps spread investment risk and potentially enhance overall portfolio performance.

Additionally, traders are often attracted to the potential volatility which may present opportunities for short-term gains. Commodity prices are often sensitive to global economic factors, geopolitical headlines, and weather which makes commodities like oil, precious metals, and agricultural products particularly attractive markets for leveraged exchange-traded funds (ETFs).

Skilled traders may attempt to profit from short-term price moves, potentially earning significant returns in a single day. However, volatility works both ways meaning that sudden price swings can result in substantial losses just as quickly as they can generate profits.

Introducing leverage to the trade magnifies performance and may help enhance a diversified investment portfolio. However, given the considerable volatility investors must thoroughly grasp leveraged ETF mechanics and potential risks before incorporating them into their strategies.

How Leveraged Commodity ETFs Work

Leveraged ETFs utilize complex financial tools such as futures contracts, index, and swap agreements to amplify daily investment returns.



For every dollar invested a leveraged ETF may obtain \$2 or \$3 of exposure to the underlying asset, depending on the amount of leverage applied. This amplification means that a modest 1% increase in a commodity index over a single trading day could potentially translate into a 3% return for investors in a 3x leveraged ETF, before accounting for fees and expenses associated with the fund.

However, as mentioned, leverage works both ways: if the underlying index were to experience a 1% decline, the leveraged ETF would suffer a magnified loss of 3%. This symmetrical amplification of both gains and losses underscores the high-risk, high-reward nature of leveraged ETFs.

Leveraging Futures

Futures contracts are one of the most common ways leveraged ETFs generate leverage for investors.

Futures contracts are standardized agreements to buy or sell a specific asset at a predetermined price on a future date. These financial instruments allow traders and investors to speculate on price movements or hedge against potential risks in various markets, including commodities.

Futures trading offers significant leverage opportunities due to the relatively low margin requirements. Unlike stock trading where investors typically need to put up 50% of the purchase price, futures traders can control large contract values with a smaller percentage of capital.

Margin requirements for futures contracts are often as low as 3-12% of the total contract value. This allows traders to amplify their potential gains (and losses) by controlling a much larger position than

their account balance would otherwise permit.^[1] For example, with \$10,000 in capital and a 10% margin requirement, a trader could potentially control \$100,000 worth of futures contracts.

By investing in an ETF, investors delegate to the fund's portfolio managers the task of executing strategic transactions in the futures market. This approach allows investors to obtain leveraged exposure to commodity price movements without directly trading futures contracts themselves.

Note that a fund may obtain leverage by other means such as entering reverse repurchase agreements, swap agreements, or trading commodity-related indexes. A discussion as to the specifics of these trading strategies is beyond the scope of this introductory guide. However, it's important to understand that there are multiple ways for a fund to obtain leverage in addition to utilizing a futures trading account.

Risks

Volatility and Beyond

Leveraged ETFs carry substantial risks that investors must carefully consider. As mentioned, leverage magnifies both gains and losses.

What's more the daily reset mechanism, a key feature of leveraged ETFs, can cause significant performance divergence from the underlying index over extended periods. This divergence often results in returns that differ markedly from what an investor might expect based on the index's performance alone.

The daily reset can result in a negative compounding effect, or decay over time. The decay effect can significantly reduce returns, especially in volatile markets. This decay can occur even when the underlying index is up, or flat after a period of up and down days. For example, if an index experiences alternating daily gains and losses of 5%, a 2x leveraged ETF tracking that index would lose value over time due to the compounding of daily returns, despite the index itself remaining unchanged.

Example: The Impact of Daily Gains and Losses on a 2x Leveraged ETF

An index experiences alternating daily gains and losses of 5%. A 2x leveraged ETF that tracks this index would amplify those daily movements, but over time, it can lose value due to the way returns compound. Here's how it works:

Day 01

Index starts at 100.

Index gains 5%: $100 * 1.05 = 105$.

2x ETF gains 10% (2x the index move): $100 * 1.10 = 110$.

Day 02

Index loses 5%: $105 * 0.95 = 99.75$.

2x ETF loses 10%: $110 * 0.90 = 99$.

Day 03

Index gains 5%: $99.75 * 1.05 = 104.74$.

2x ETF gains 10%: $99 * 1.10 = 108.90$.

Day 04

Index loses 5%: $104.74 * 0.95 = 99.50$.

2x ETF loses 10%: $108.90 * 0.90 = 98.01$.

After 4 days:

The index is almost back to its original level at 99.50.

But the 2x ETF dropped to 98.01 (a 2% loss).

This phenomenon can lead to substantial underperformance of leveraged ETFs compared to their benchmarks over extended periods.

Given these complexities and risks, leveraged ETFs require a thorough understanding and active management, making them more appropriate for experienced short-term traders rather than long-term allocators.

We discuss some of the typical ways investors utilize these funds in the next section.



Trading Strategies

Day Trading vs. Swing Trading

Leveraged commodity ETFs are powerful tools for both day traders and swing traders.

Day trading involves making rapid trades within a single trading session, aiming to capitalize on short-term price fluctuations.

Swing trading, on the other hand, takes a slightly longer-term approach, with positions held for several days or even weeks. Leveraged commodity ETFs can be utilized in either approach.

Day trading leveraged commodity ETFs has gained traction among investors due to the inherent volatility of these instruments and their daily reset feature. This reset allows traders to start fresh each day, potentially magnifying gains (or losses) based on daily price movements. The high liquidity and ability to profit from both upward and downward price swings make these ETFs particularly attractive for day traders seeking to exploit intraday market inefficiencies.

Swing trading leveraged commodity ETFs, while less common, can still be an effective strategy for those looking to capture larger market moves over a period of days or sometimes weeks. Swing traders must be mindful of the compounding effects of daily resets over longer holding periods, which can lead to tracking errors relative to the underlying commodity's performance (see above). However, for those with high conviction around short to medium-term trends, swing trading these ETFs may offer substantial profit potential.

Regardless of whether one chooses day trading or swing trading, success with leveraged commodity ETFs requires a solid foundation in technical analysis. Traders should be adept at reading price charts, identifying key support and resistance levels, and interpreting various technical indicators.

Identifying Market Trends

Getting Technical

For those trading daily leveraged commodity ETFs, spotting short-term opportunities is critical. Traders use several technical analysis tools to identify potential price points.

This section discusses a few of the more common strategies and indicators. We encourage all traders to delve deeper into these tools and techniques, conduct independent research and determine which methods align best with their individual trading strategies and goals.

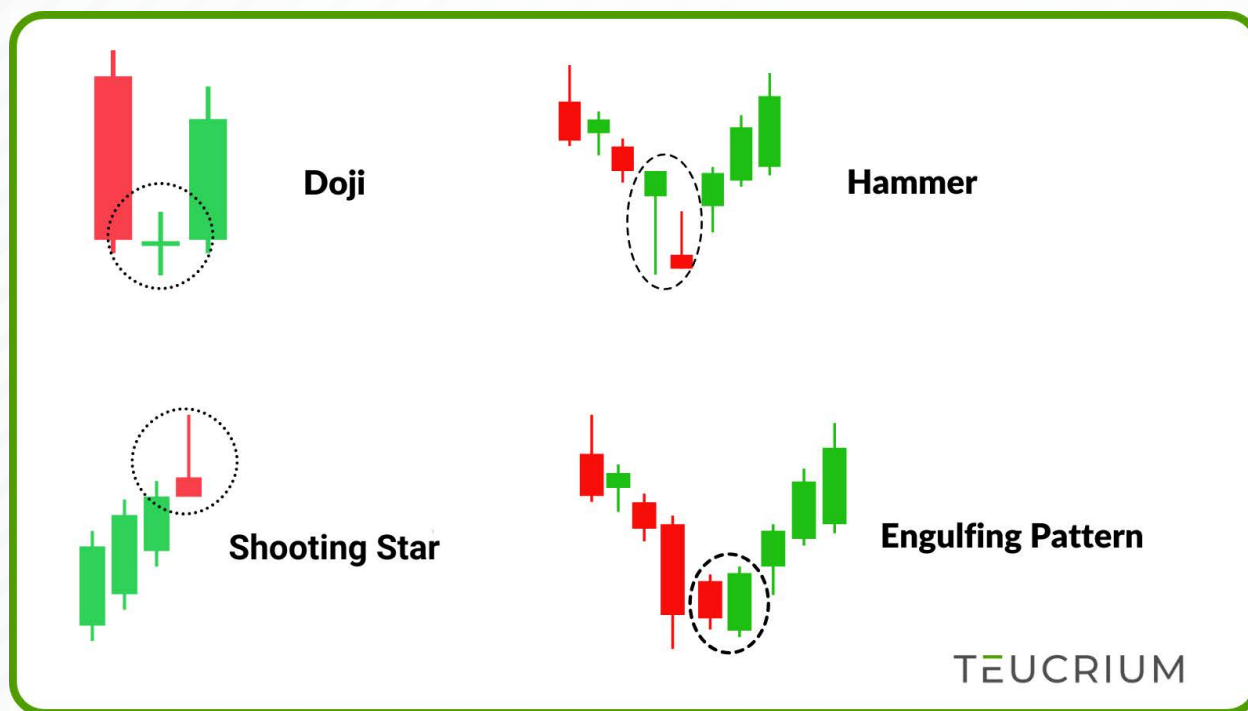
Candle Stick Charts

Candlestick charts provide a simple visual representation of daily price movements. Candle price patterns on these charts can offer valuable insights for day traders, indicating potential trend reversals or continuations.

Each candlestick on the chart represents a specific time period, typically a day, and displays four key pieces of information: the opening price, closing price, highest price, and lowest price reached during that period. The body of the candle shows the range between the opening and closing prices, while the thin lines (called wicks or shadows) above and below the body indicate the highest and lowest prices.

Some common candlestick patterns that traders look for include:

- ✓ **Doji:** A candle with a very small body, indicating indecision in the market.
- ✓ **Hammer:** A bullish reversal pattern with a small body at the top and a long lower wick
- ✓ **Shooting Star:** A bearish reversal pattern with a small body at the bottom and a long upper wick
- ✓ **Engulfing Patterns:** When one candle's body completely engulfs the previous candle's body, signaling a potential trend reversal.



By recognizing these patterns, day traders can make more informed decisions about when to enter or exit trades. Note that there are dozens of candle stick patterns, and traders are encouraged to conduct further independent study.

Additionally, it's important to note that candlestick patterns should not be used in isolation but rather in conjunction with other technical analysis tools in an effort to develop more reliable trading signals.

Short-Term Moving Averages

Most investors are familiar with longer-term moving averages such as 50, and 100-day moving averages. However, longer-term averages are of limited value to short-term traders.

Short-term traders often rely on shorter-term moving averages, such as 5, 13, and 20-day moving averages, to capture more immediate price trends and make quicker trading decisions.

The 5-day moving average is highly responsive to recent price changes and can help identify very short-term trends. The 13-day moving average is slightly less sensitive and can help smooth out some of the noise in price action. The 20-day moving average is often used as a medium-term indicator that can help identify trends lasting several weeks.

Simple vs Exponential Moving Averages

Many traders are familiar with the concept of simple moving averages, which calculate the average price over a specific number of periods giving equal weight to each price point. But there is a lesser-known type of moving average, known as the exponential moving average.

An exponential moving average gives more weight to recent prices, making it more responsive to current price changes.

EMAs react more quickly to price changes than SMAs, which can be beneficial for short-term traders looking to capture rapid market movements. However, this increased sensitivity also means that EMAs may generate more false signals in choppy markets. SMAs, while slower to react, can provide a more stable trend indication and may be less prone to whipsaws.

As shown in the corn futures price chart below, the red line, representing the 13-day exponential moving average (EMA), is less smooth than the blue line, which represents the 13-day simple moving average (SMA). This difference highlights the EMA's greater sensitivity to short-term price movements.





Source: Bloomberg Finance L.P | Teucrium

[in](#) [X](#) @TEUCRIUM ETFs

Traders often use a combination of these short-term moving averages, along with other technical indicators, to develop their trading strategies and make informed decisions in fast-moving markets.

Moving Average Convergence Divergence (MACD)

The MACD, which calculates the difference between two moving averages, can signal potential trend changes and momentum shifts. This versatile indicator not only helps in identifying trend direction but also provides insights into the strength of price movements.

When the MACD line crosses above its signal line, it may suggest a bullish trend is forming, while a crossover below the signal line could indicate a bearish trend. Additionally, divergences between the MACD and price action can alert traders to potential trend reversals, making it a useful tool for timing entries and exits in the volatile world of leveraged commodity ETFs.

See the gold arrows on the chart below pointing out MACD signal line crosses.



Source: Bloomberg Finance L.P | Teucrium



To enhance understanding, investors should explore resources like Investopedia's technical analysis section (<https://www.investopedia.com/terms/t/technicalanalysis.asp>) and TradingView's educational content (<https://www.tradingview.com/education/>).

Additionally, investors are encouraged to visit www.cmtassociation.org to learn more about the discipline of technical analysis.

Utilizing these resources may help investors make informed decisions and navigate financial markets confidently.

Managing Risk

"The essence of investment management is the management of risks, not the management of returns"
 Benjamin Graham

Effective risk management is a cornerstone of successful investing. This section explores key strategies that investors may employ to mitigate potential losses and protect their portfolios. By understanding and implementing these techniques, traders may navigate the markets with greater confidence.

Position Sizing

Position sizing is fundamental to investment risk management. Proper position sizing is essential, as it helps avoid over-leveraging and ensures that no single investment can disproportionately impact the overall portfolio. There are several methods investors can use to determine appropriate position sizes:

- ✓ **Percentage of portfolio:** Allocating a fixed percentage of the total portfolio value to each position. For example, limiting each position to 5% of the total portfolio.
- ✓ **Equal dollar amounts:** Investing the same dollar amount in each position, regardless of the portfolio's total value.
- ✓ **Risk-based sizing:** Determining position size based on the potential risk or volatility of the investment. Higher-risk investments may warrant smaller position sizes.

By implementing effective position sizing techniques, investors may better manage risk, preserve capital, and potentially improve long-term returns. It's important to remember that no single approach works for everyone, and investors should tailor their position sizing strategy to their specific goals and circumstances.

Stop-loss orders

Stop-loss orders automatically trigger a sale when a stock reaches a predetermined price, which may protect against significant losses. Here's how they work:

- ✓ An investor sets a specific price point below the current market price.
- ✓ If the stock price falls to or below this set price, the stop-loss order converts to a market order – i.e., an order to buy or sell a security immediately at the best available price.
- ✓ The stock is then sold at the next available market price.

For example, if you buy a stock at \$50 and set a stop-loss order at \$45, your shares will automatically be sold if the price drops to \$45 or lower. This helps investors manage risk and emotion-driven decisions during market volatility. However, it's important to note that in fast-moving markets, the execution price may be lower than the stop price.

Good Old Diversification

Diversification across asset classes and sectors may help mitigate risk. By spreading investments across various sectors (e.g., technology, healthcare, finance, consumer goods) and asset classes (e.g., stocks, bonds, commodities) an investor may potentially smooth out returns, as different assets often react differently to market conditions. Remember, diversification doesn't guarantee profits or protect against losses, but it can help manage overall portfolio risk.

Go Flat and Sleep at Night

Some traders prefer to go flat at the end of the day. Flat meaning they close all open positions and keep money in cash.

This approach allows traders to sleep peacefully at night, knowing their capital is not exposed to potential market volatility when they are unable to actively monitor and manage their positions. By closing all trades before the market closes, traders can start each day with a clean slate and make decisions based on current market conditions rather than being influenced by existing positions.

Additionally, going flat at the end of the day can help traders maintain better emotional control. It reduces the anxiety and stress associated with holding positions overnight, which can lead to more rational and objective decision-making during active trading hours. This strategy is particularly beneficial for day traders and those who prefer short-term trading styles.

By employing these techniques, investors may create a more resilient investment strategy that balances potential returns with acceptable levels of risk.

Selecting the Right ETF

When considering leveraged commodity ETFs, investors should carefully evaluate several key factors. First, they must assess the specific short-term outlook for the underlying asset. For short-term traders, timing is key. Developing a disciplined process for identifying entry and exit points may be the difference between success and failure over time.

Keep in mind that leveraged ETFs might not always be the most appropriate choice, especially for longer-term investment horizons.

For instance, if an investor's bullish view extends beyond a few days, a 1x long ETF might be more suitable. These non-leveraged ETFs can provide exposure to the commodity without the compounding effects associated with leveraged products.

Investors should be aware of the potential impact of market volatility and the effects of daily rebalancing on long-term performance, which may lead to significant tracking errors in leveraged products over time.

Be sure to consider the fund's structure, fees, and tracking methodology. Leveraged ETFs often have higher expense ratios and may use complex financial instruments to achieve their stated objectives.

Furthermore, when multiple companies offer similar ETFs, investors should carefully evaluate the experience and commitment of the issuing company. Key factors to consider include:

- ✔ **Market Expertise:** Does the issuer have a strong understanding of the markets the ETF targets? Their experience in these markets can influence the ETF's overall reliability.
- ✔ **Experience:** How long has the company been involved in issuing ETFs? A longer history often signals stability and familiarity with the complexities of managing funds.
- ✔ **Investor Support:** Does the issuer provide tools, educational resources, or market insights to assist you? Companies that offer comprehensive investor support can improve your overall investment experience.

By considering these factors, you can ensure you're choosing a company that is both capable of managing the ETF and committed to supporting your investment journey.

Conclusion

In summary, this guide has provided a comprehensive overview of leveraged commodity ETFs, emphasizing their potential and the risks they entail. Key takeaways include a thorough understanding of how these ETFs work, the importance of managing risks effectively, and the trading strategies that may help you maximize their potential. You've learned that while these funds offer magnified returns through financial tools like futures contracts, they also carry heightened risks due to leverage and volatility drag, especially over longer periods.

We also explored how to use technical analysis tools, such as candlestick patterns and moving averages, to identify short-term trading opportunities. Equally important are the risk management techniques we covered, like position sizing, stop-loss orders, and diversification, which

are essential for protecting your capital in the fast-moving world of leveraged ETFs.

Finally, we discussed the importance of selecting the right ETF issuer by evaluating their market expertise, experience, and investor support. Armed with this knowledge, you're now better equipped to navigate the complexities of leveraged commodity ETFs and incorporate them into a disciplined, well-informed trading strategy.

Please feel free to contact us as well at www.teucrium.com. We will be happy to speak with you and address your questions or concerns.

[1] <https://www.cmegroup.com/education/courses/introduction-to-futures/margin-know-what-is-needed.html>

Appendix

Definition

1

Index

An index is a measure that represents the performance of a group of assets, typically tracking the overall performance of a specific sector or market. Leveraged ETFs often use an index to gauge and replicate the movement of the assets they aim to amplify.

2

Margin Requirements

The margin requirement is the minimum amount of equity an investor must maintain in their account to hold a position in futures or other leveraged assets. Low margin requirements can amplify both potential gains and risks.

3

Position Sizing

Position sizing determines the number of units or amount of capital allocated to each trade or investment, balancing risk and potential return. Effective position sizing helps manage risk and minimize losses.

4

Stop-Loss Order

A stop-loss order is a type of order placed with a broker to sell a security when it reaches a specified price, used to limit potential losses. It provides an automatic way to exit a position if it moves against the investor.

5

Go Flat

“Going flat” means closing all open positions and holding no market exposure, typically done to avoid overnight risk. For day traders, going flat means starting each new day without active trades from the prior day.

6

Tracking Error

Tracking error measures how well an ETF's performance matches its underlying index. High tracking error indicates the ETF's performance diverges significantly from the index, which is common with leveraged ETFs due to daily rebalancing.

7

Exponential Moving Average (EMA):

An exponential moving average gives greater weight to more recent prices, making it more sensitive to current price changes compared to a simple moving average.

8

Simple Moving Average (SMA):

A simple moving average calculates the average of prices over a specified number of periods, providing a smoothed trend line. It weighs each price point equally across the period.

Teucrium Investment Advisers utilize Artificial Intelligence (AI) for certain document creation and editing services. The use of AI is supplementary in nature to assist with the development of market commentary, marketing, and advertising, and is not used for advisory services. This document was drafted and edited by Daizy in collaboration with several external Large Language Models. No proprietary data or information was input into Daizy for the creation of this document. All calculations provided were performed by the Daizy LLM Analytics Service. All data outputs and calculations provided by Daizy are evaluated by the investment professionals of Teucrium. The contents of this document do not constitute investment, tax, or legal advice, and Daizy (Vesti.ai Ltd) is not authorized to give any advice. [Please refer to our terms of use.] More information regarding the use of AI is available upon request.

TEUCRIUM

www.teucrium.com



@TEUCRIUM EFTs