

# **Leveraged/Inverse ETFs**

**Leveraged ETF**: A fund that aims to provide a daily return as a multiple of its benchmark index's movement. For example, a 2X fund aims for a return of two times the change in the benchmark index.

Inverse ETF: A fund that aims to provide a daily return in the opposite direction of its benchmark index. For example, a -1X fund aims for approximately a 1% increase if the index drops by 1%. A -2X fund aims for approximately a 2% increase if the index drops by 1%.

Warning: L&I ETFs are designed for short-term investment. They aim to provide returns proportional to the benchmark index on a daily reset basis. The returns are calculated using a compounding effect, which means holding the fund for more than one day may cause the returns to deviate from the intended proportion of the index's change, especially in volatile market. Additionally, management fees and other related expenses may cause the fund's returns to differ from the index's changes.

This product is not suitable for investors who want to invest for the long term (buy & hold) or those who cannot monitor their investments regularly.

## **Key Risks and Precautions**

- 1. High Volatility: In highly volatile markets, expected returns may deviate from projections, as leverage causes price movements to be greater than those of the underlying index.
- 2. Long-Term Investment Risk (Compounding Effect): Holding for more than one day may affect returns due to daily rebalancing. Leveraged and Inverse ETFs "reset their returns daily."
  - This means returns are multiplied based on each day's performance, not over the long term.
  - If held for multiple days, results may differ from expectations (compounding effect). Example: Index = 100
    - Day 1: +10% → 110
    - Day 2: -10%  $\longrightarrow$  99 (does not return to 100)
- 3. High Volatility Quick Gains but Also Quick Losses.
- 4. Unsuitable for Long-Term Holding due to higher costs and daily reset, returns may not match expectations.
- 5. Liquidity Risk Trading activity may be thin, leading to potential difficulties in buying or selling.

# <u>L&I ETFs are Suitable for Investors Who:</u>

- Have Very High Risk Tolerance and Speculative Objectives: Investors willing to accept higher risks in exchange for the potential of higher returns.
- Are Disciplined and Understand the Products: Investors with discipline, clear objectives, a sound understanding of the mechanisms, and a concrete investment plan.
- Seek to Profit in a downward Market: Inverse ETFs provide a useful tool for investors looking to speculate in a declining market without engaging in short-selling or entering into futures contracts directly.



# Example:

Index starts at 100 We'll track performance for 3 days: Index moves:  $+10\% \longrightarrow +10\%$ Compare: Index, 2x Leveraged ETF, and -1x Inverse ETF

#### 1. Index

Day	Change	Value
Start	-	100.00
Day 1	10%	110.00
Day 2	-10%	99.00
Day 3	10%	108.90

# 2. 2x Leveraged ETF

Day	Change (2x)	Value
Start	-	100.00
Day 1	20%	120.00
Day 2	-20%	96.00
Day 3	20%	115.20

Even though the index ultimately rises by +8.9% (from 100  $\rightarrow$  108.9), the 2x ETF does not deliver a direct 17.8% return (as it would if simply multiplied). Instead, it ends up at 115.2  $\rightarrow$  +15.2%, due to the effect of daily reset.

# 3. -1x Inverse ETF

Day	Change (Inverse)	Value
Start	-	100.00
Day 1	-10%	90.00
Day 2	10%	99.00
Day 3	-10%	89.10

The index ultimately increases by +8.9%,

but the Inverse ETF does not deliver a direct -8.9% return.

Instead, it results in -10.9%, due to the compounding effect from daily reset.

From the example, returns are not a simple multiple of the index but depend on the path of the index's movement. Holding for multiple consecutive days may lead to deviations (for both leveraged and inverse ETFs). Therefore, these products are suitable only for short-term speculation or short-term hedging.

1. Continuous Upward Trend Assume the benchmark index increases by 10% daily for 4 consecutive trading days.



- If held for more than one trading day, the cumulative return of a 2X leveraged ETF will be **better** than two times the cumulative return of the benchmark index.
- The table and graph show that the benchmark index increased by 46% over 4 days, while the 2X leveraged fund provided a cumulative return of 107%. This return is more than twice the simple calculated return of the benchmark index.

#### Scenario 1: Continuous upward trend

Assume the index grows by 10% daily for 4 trading days



2X leveraged ETF's performance is <u>better</u> than two times the benchmark's cumulative performance in general when held for periods longer than one trading day

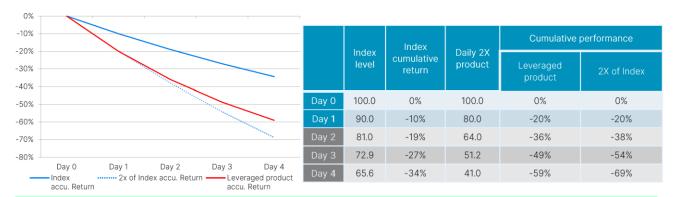
Zero management fee and tracking error are assumed.

Source : Nasdaq

- 2. Continuous Downward Trend Assume the benchmark index decreases by 10% daily for 4 consecutive trading days.
  - If held for more than one trading day, the cumulative return of a 2X leveraged fund will decrease by <u>less than</u> <u>two times</u> the cumulative return of the benchmark index.
  - The table and graph show that the benchmark index decreased by 34% over 4 days, while the 2X leveraged fund had a cumulative loss of 59%. This loss is less than twice the simple calculated return of the benchmark index.

## Scenario 2: Continuous downward trend

Assume the index falls by 10% daily for 4 trading days



2X leveraged ETF's performance is <u>better</u> than two times the benchmark's cumulative performance in general when held for periods longer than one trading day

· Zero management fee and tracking error are assumed.

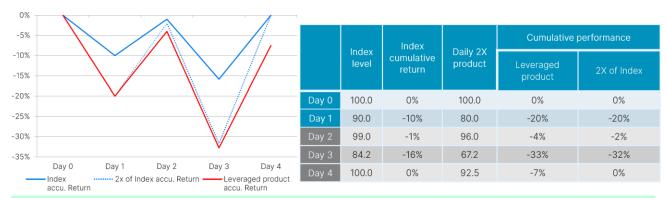
Source: Nasdaq



- 3. Sideways Trend (Volatile Market) Assume the benchmark index fluctuates within a narrow range, close to its original price.
  - If held for more than one trading day, the cumulative return of a 2X leveraged fund will decrease to a level worse than the cumulative return of the benchmark index.
  - The table and graph show that over 4 days, the benchmark index fluctuated back to its starting point, while the 2X leveraged fund had a cumulative loss of 7%. This loss is greater than two times the simple calculated return of the benchmark index.

#### Scenario 3: Volatile market

Assume the index has returned to its previous level in a volatile market



2X leveraged ETF's performance is <u>worse</u> than two times the benchmark's cumulative performance in general when held for periods longer than one trading day

· Zero management fee and tracking error are assumed.

Source : Nasdaq