

# EFFECTS OF DAILY REBALANCING AND COMPOUNDING ON GEARED INVESTING

Most leveraged and inverse funds, also called “geared” funds, have a one-day investment objective. That is, they aim to provide a multiple of the return of a benchmark for a single day, before fees and expenses. To maintain their investment objectives, geared funds rebalance their exposure to their underlying benchmarks each day by trimming or adding to their positions. As a result of **daily fund rebalancing**, an investor holding a geared fund longer-term is unlikely to continue to receive the fund's multiple times the benchmark's returns.

As long as the fund is held, **compounding** can cause the investor's exposure to the underlying benchmark to continue to deviate from the fund's stated objective. In trending periods, compounding can enhance returns, but in volatile periods, compounding may hurt returns. Generally speaking, the greater the multiple or more volatile a fund's benchmark, the more pronounced the effects can be.

## Compounding at Work

The table below illustrates hypothetical returns for a benchmark and a 2x fund in upward trending, downward trending and volatile markets.

- In an **upward trending market**, two days of 5% gains produces a 10.25% return for the benchmark, which is better than adding up each day's individual return, and a 21% return for the 2x fund. This would result in a \$21 gain on a \$100 investment.
- In a **downward trending market**, two days of 5% losses produces a -9.75% return for the benchmark, which is less than adding up each day's negative return, and a -19% return for the 2x fund. This would result in a \$19 loss on a \$100 investment.
- However, in a **volatile market**, a 5% gain followed by a 5% loss does not result in a 0% return, but a negative return of -0.25% for the benchmark and a -1% return for the 2x fund. This would result in a \$1 loss on a \$100 investment.

	BENCHMARK	2x FUND	\$100 INVESTMENT
	Daily Return	Daily Return	Daily Value
<b>UPWARD TREND</b>			
Day 1 Return	+5.00%	+10.00%	\$110.00
Day 2 Return	+5.00%	+10.00%	\$121.00
Compounded 2-Day Return	+10.25%	+21.00%	\$121.00
<b>DOWNWARD TREND</b>			
Day 1 Return	-5.00%	-10.00%	\$90.00
Day 2 Return	-5.00%	-10.00%	\$81.00
Compounded 2-Day Return	-9.75%	-19.00%	\$81.00
<b>VOLATILE MARKET</b>			
Day 1 Return	+5.00%	-10.00%	\$90.00
Day 2 Return	-5.00%	+10.00%	\$99.00
Compounded 2-Day Return	-0.25%	-1.00%	\$99.00

Note: This example shows extreme hypothetical index movement to illustrate the point. Actual index movements can be very different, and returns would be lower after fees, expenses and taxes.

Investors using geared funds over periods longer than one day are encouraged to actively monitor their investments, as frequently as daily, and to consider a strategy that either mitigates the effects of daily rebalancing and compounding or seeks to take advantage of the way leveraged and inverse funds can perform over time.

- For many investors, the most direct way to mitigate the effect of holding geared funds over time is to simply **limit the holding period**. Remember, returns for short periods (that are longer than a day) can still differ in amount and possibly direction from the target return for the same period.
- Investors looking to approximate a fund's multiple for longer than one day may need to **rebalance** their holdings by increasing or decreasing the investment to maintain a desired exposure. Rebalancing may result in transaction costs and tax consequences. Of course, rebalancing can reduce the negative effects of compounding on performance, but it may reduce the positive effects as well.
- An investor who has a conviction about the volatility and direction of a benchmark may use geared funds to **seek to benefit from the effect of the compounding** of the daily returns of the fund, for example, when expecting a low-volatility, trending period. However, investors should consider the cost of the investment and how their portfolios will be affected if the investment goes in the opposite direction of what they were expecting.

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Leveraged and inverse investing is not for everyone. Geared funds are generally riskier than funds without leveraged or inverse exposure. Before investing, read each fund's prospectus to fully understand all the risks and benefits. For a prospectus and other information, visit [ProShares.com](https://www.proshares.com) or [ProFunds.com](https://www.profunds.com).

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Geared ProShares ETFs and ProFunds mutual funds seek returns that are a multiple of (e.g., 2x or -2x) the return of a benchmark (target) **for a single day**, as measured from one NAV calculation to the next, before fees and expenses. Due to the compounding of daily returns, geared ProShares and ProFunds returns over periods other than one day will likely differ in amount and possibly direction from the target return for the same period. These effects may be more pronounced in funds with larger or inverse multiples and in funds with volatile benchmarks. Investors should monitor their holdings as frequently as daily. For more on risks, please read a ProShares or ProFunds prospectus.

**Investing involves risk, including the possible loss of principal.** Geared ProShares ETFs and ProFunds mutual funds entail certain risks, which may include risk associated with the use of derivatives (swap agreements, futures contracts and similar instruments), imperfect benchmark correlation, leverage and market price variance, all of which can increase volatility and decrease performance. Short ProShares ETFs and ProFunds mutual funds should lose money when their benchmarks or indexes rise. Geared ProShares ETFs are non-diversified. Please see their summary and full prospectuses for a more complete description of risks. **There is no guarantee any investment will achieve its investment objective. Past performance is no guarantee of future results.**

**Carefully consider the investment objectives, risks, charges and expenses of ProShares and ProFunds before investing. This and other information can be found in their summary and full prospectuses. Read them carefully before investing. For a ProShares ETF prospectus, visit [ProShares.com](https://www.proshares.com) or obtain one from your financial advisor or broker-dealer representative. For a ProFunds mutual fund prospectus, visit [ProFunds.com](https://www.profunds.com).**

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