Leverage: Friend or Enemy?

A fundamental **analysis** assessing the impact of using **leverage** in investments.

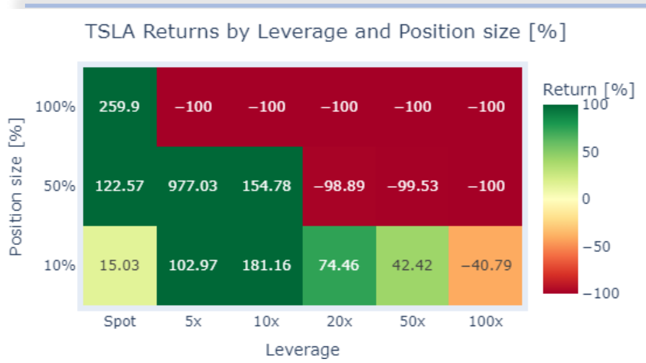
How does leverage affect investment risk and returns?
What are the advantages and risks of using leverage in investments?
How does position size impact portfolio returns when using leverage?

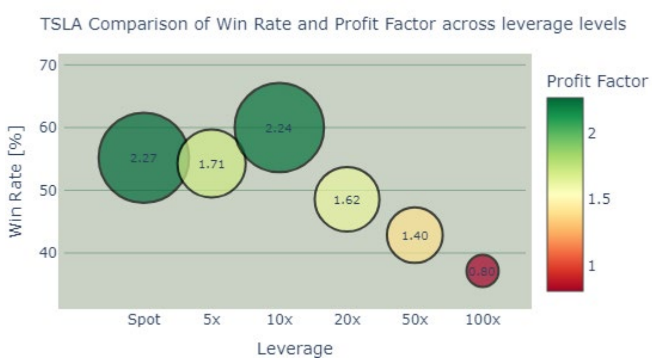
Amplifying gains and risks by controlling more with less capital. Used wisely, it's a friend; mishandled, it's an enemy.

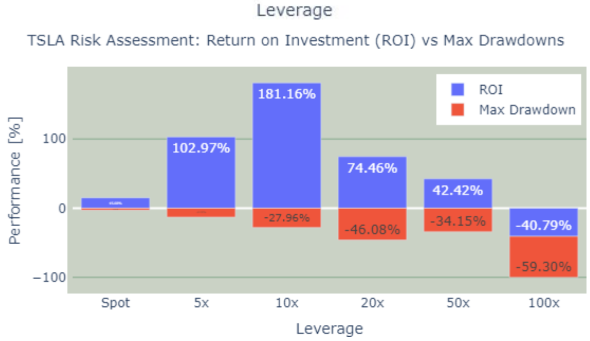
Flexible Model: Leverage impact assessment

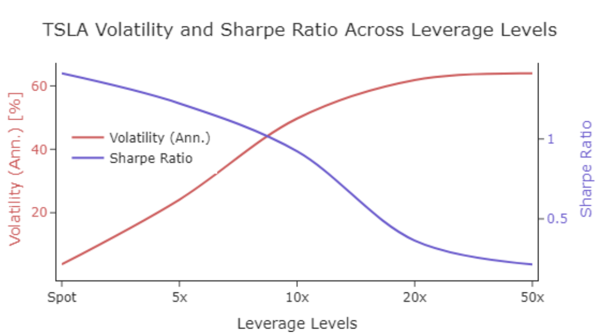
- Designed to evaluate and visualize the effects of leverage on an investment strategy applied to an asset, with selected leverage level and position size.
- Aims to provide insights into how leverage influences investment returns and risks.
- Collect historical data from Yahoo Finance and analyze merged data frames of aggregated statistics from multiple investment strategy simulations.

Leverage	Size	Change	Gain	Loss
Spot	$1,000	5%	$50	- $50
5x	$5,000	5%	$250	- $250
10x	$10,000	5%	$500	- $500
20x	$20,000	5%	$1000	- $1000









Analysis

Simulations on SMA Cross strategy on TSLA daily data for 1000 days, testing 3 position sizes and 6 leverage values, generating 18 statistical reports, aggregated into dataframes for further analysis.

Strategy

Signal: 13 SMA crosses 21 SMA
Stop Loss: Liquidation price
Target Price: 2x Liquidation price
Commission: 0.2%

**Spot has no SL or TP. Trades close and reverse on opposite entry signal.*

Key findings

While higher leverage can boost returns, it also increases the risk of significant losses.

Smaller position sizes (e.g., 10%) provide a more balanced risk-reward profile with leverage.

Opting for spot trading offers a safer, more stable investment approach, reducing the risk of substantial losses.

Leverage can boost profits, but it's a balancing act. It works well up to a point (like 10x leverage) but going too far can reduce the number of successful trades and returns on investment.

Frequent liquidations drain profit quickly with higher leverage levels due to decreased price movement range.

Higher leverage usually comes with higher risk. As leverage increases, the chances of losing money rise, especially at higher levels of leverage.

Higher leverage can mean a more volatile ride, but it doesn't guarantee better risk-adjusted returns. It is important to weigh risks and rewards carefully.

Balancing risk and reward is key.

Viktor Nagy Abonyi, 20/10/2023
BrokerChooser Recruitment Process