Prometheus Capital – Quant Trading Glossary

Alpha
The portion of return generated by a trading strategy that cannot be explained by market exposure or beta. It represents the value added through skill, structure, or unique insight.

Algorithmic Trading (Algo Trading)
Automated execution of trades according to predefined rules. Focuses on speed, precision, and consistency rather than discretionary judgment.

Alternative Data
Non-traditional datasets used to generate insights or predictive signals, such as satellite imagery, web traffic, or sentiment data.

Backtest
A simulation of a trading strategy using historical data to evaluate potential performance. It helps test hypotheses but can be prone to bias if not handled carefully.

Basis Point (bps)
One hundredth of a percent (0.01%). Used to measure small changes in prices, yields, or trading costs. For example, 5 bps = 0.05%.

Beta
The portion of a portfolio's risk or return that is explained by general market movement, as opposed to idiosyncratic factors.

Best Execution
A MiFID II regulatory principle requiring firms to take all sufficient steps to achieve the best possible result for clients, considering price, cost, speed, and likelihood of execution.

Capacity
The maximum amount of capital a strategy can deploy before execution costs or market impact erode profitability.

Circuit Breaker
A mechanism that halts trading temporarily when extreme price movements occur, to prevent disorderly markets.

Data Mining
Searching large datasets for patterns without an underlying hypothesis, often resulting in spurious correlations that fail out-of-sample.

Dark Pool
A private, non-transparent trading venue where participants can execute large orders anonymously to avoid market impact.

Discretionary Trading
Trading based on human judgment and qualitative reasoning, as opposed to rule-based or model-driven systems.

Drawdown
The peak-to-trough decline in portfolio value over a specific period, used as a measure of risk.

Execution Cost
The total cost incurred when implementing a trade, including slippage, fees, commissions, and bid-ask spread.

Execution Slippage
The difference between the expected execution price and the actual fill price. Can result from latency, order size, or liquidity conditions.

Feature

A measurable input variable used by a quantitative model to generate a signal. Examples: moving averages, volatility, or momentum.

Fill Price

The actual transaction price achieved for a trade order.

High-Frequency Trading (HFT)

Ultra-fast algorithmic trading that exploits millisecond-level opportunities in market data.

Hypothesis Testing

The process of defining, testing, and validating an idea statistically. In quant research, a hypothesis must be falsifiable and measurable.

Liquidity

The ease with which an asset can be traded without causing a significant change in price. Higher liquidity generally means lower transaction costs.

Market Maker

A participant that continuously quotes both buy (bid) and sell (ask) prices, providing liquidity to the market.

Market Microstructure

The study of how trades are processed, orders matched, and prices formed in financial markets.

Mean Reversion

A trading hypothesis that asset prices tend to revert toward their historical average over time.

Momentum

A trading hypothesis that assets which have performed well (or poorly) in the past tend to continue doing so in the near future.

Multilateral Trading Facility (MTF)

A regulated electronic trading venue that brings together multiple buyers and sellers under non-discretionary rules.

Organized Trading Facility (OTF)

A trading venue for non-equity instruments (like bonds and derivatives) where operators exercise discretion over order matching.

Out-of-Sample Testing

Evaluating a model's performance on data not used during its development, to verify that it generalizes and isn't overfit.

Overfitting

When a model learns patterns specific to historical data rather than underlying structure, leading to poor future performance.

P&L; (Profit and Loss)

The measure of realized or unrealized gains and losses from trading activity, after accounting for costs.

Quantitative Trading (Quant Trading)

The use of mathematical models, statistical analysis, and data-driven systems to make trading decisions.

Sharpe Ratio

A common measure of risk-adjusted performance, calculated as excess return divided by volatility.

Signal

The output of a quantitative model indicating a direction or strength of trade (e.g., long/short, buy/sell probability).

Slippage (Arrival Cost)

The cost of executing a trade relative to the price observed when the decision was made. Represents real-world friction.

Smart Order Routing (SOR)

Algorithmic logic that automatically selects the best venue or order type to achieve optimal execution.

Spread (Bid–Ask Spread)

The difference between the price to buy (ask) and sell (bid). Reflects liquidity, volatility, and competition in a market.

Systematic Trading

Rule-based trading governed by pre-defined quantitative models rather than human judgment.

Transaction Cost Analysis (TCA)

Evaluation of execution performance by comparing achieved prices against benchmarks such as VWAP or arrival price.

Variance

A measure of how much returns fluctuate around their mean. Used in risk estimation and portfolio construction.

Venue

A marketplace or platform where financial instruments are traded. Includes exchanges, MTFs, OTFs, and dark pools.

VWAP (Volume-Weighted Average Price)

An execution benchmark calculated as the average price weighted by traded volume during a specific time window.

Winsorization

A statistical technique for reducing the influence of outliers by capping data at chosen percentiles (e.g., 1st and 99th). Used in execution analysis to stabilize averages.