

Financial & Trading Metrics Overview

Definitions, Purpose, and Formulas

Net Profit

- Definition: Net Profit is the total profit after subtracting losses and costs.
- Purpose: To measure overall profitability.
- Formula: $\text{Net Profit} = \text{Gross Profit} - \text{Gross Loss}$

Gross Profit

- Definition: Gross Profit is the total sum of profits from all winning trades.
- Purpose: To indicate the potential earnings before losses and costs.
- Formula: $\text{Gross Profit} = \text{Sum of all profits from winning trades}$

Gross Loss

- Definition: Gross Loss is the total sum of losses from all losing trades.
- Purpose: To evaluate the total magnitude of losses incurred.
- Formula: $\text{Gross Loss} = \text{Sum of all losses from losing trades}$

Max Run-up

- Definition: Max Run-up is the highest unrealized profit reached before a decline.
- Purpose: To measure the peak performance before a downturn.
- Formula: $\text{Max Run-up} = \text{Highest unrealized gain before a downturn}$

Max Drawdown

- Definition: Max Drawdown measures the largest drop from a peak to a trough in portfolio value.
- Purpose: To quantify the maximum potential loss from peak to trough.
- Formula: $\text{Max Drawdown} = (\text{Peak Value} - \text{Trough Value}) / \text{Peak Value}$

Buy & Hold Return

- Definition: The return if the asset is bought and held without trading.
- Purpose: To compare passive returns with active trading returns.
- Formula: Buy & Hold Return = $(\text{Ending Price} - \text{Starting Price}) / \text{Starting Price}$

Sharpe Ratio

- Definition: The Sharpe Ratio measures risk-adjusted return based on overall volatility.
- Purpose: To assess the efficiency of returns considering both gains and losses.
- Formula: $\text{Sharpe Ratio} = (\text{Average Return} - \text{Risk-Free Rate}) / \text{Std Dev of Returns}$

Sortino Ratio

- Definition: The Sortino Ratio focuses on risk-adjusted return by only considering downside risk.
- Purpose: To measure returns while accounting for harmful volatility.
- Formula: $\text{Sortino Ratio} = (\text{Average Return} - \text{Risk-Free Rate}) / \text{Downside Deviation}$

Profit Factor

- Definition: Profit Factor is the ratio of total profits to total losses.
- Purpose: To evaluate the profitability of a trading strategy.
- Formula: Profit Factor = Gross Profit / Gross Loss

Max Contracts Held

- Definition: Max Contracts Held is the highest number of contracts held at any time.
- Purpose: To indicate the largest position size in trading.
- Formula: $\text{Max Contracts Held} = \text{Maximum number of contracts held at any time}$

Open P&L

- Definition: Open P&L represents unrealized profit or loss from open positions.
- Purpose: To show current performance that can change as trades remain open.
- Formula: $\text{Open P\&L} = \text{Unrealized profit or loss from open positions}$

Commission Paid

- Definition: The total amount paid in transaction fees to brokers or exchanges.
- Purpose: To track costs that affect overall profitability.
- Formula: $\text{Commission Paid} = \text{Total amount paid in transaction fees}$

Total Closed Trades

- Definition: The total number of trades that have been completed.
- Purpose: To track trading activity and performance.
- Formula: $\text{Total Closed Trades} = \text{Total number of trades completed}$

Total Open Trades

- Definition: The number of trades that are still active.
- Purpose: To indicate the current market exposure.
- Formula: $\text{Total Open Trades} = \text{Total number of active trades}$

Number Winning Trades

- Definition: The total number of trades that resulted in a profit.
- Purpose: To measure the success rate of trades.
- Formula: $\text{Number Winning Trades} = \text{Total number of profitable trades}$

Number Losing Trades

- Definition: The total number of trades that resulted in a loss.
- Purpose: To track unsuccessful trades.
- Formula: $\text{Number Losing Trades} = \text{Total number of losing trades}$

Percent Profitable

- Definition: The percentage of trades that ended in a profit.
- Purpose: To show the proportion of profitable trades.
- Formula: $\text{Percent Profitable} = (\text{Number of Winning Trades} / \text{Total Trades}) * 100$

Avg Trade

- Definition: The average profit or loss per trade.
- Purpose: To assess average trade performance.
- Formula: $\text{Avg Trade} = \text{Net Profit} / \text{Total Number of Trades}$

Avg Winning Trade

- Definition: The average profit of all winning trades.
- Purpose: To assess the size of profitable trades.
- Formula: $\text{Avg Winning Trade} = \frac{\text{Gross Profit}}{\text{Number of Winning Trades}}$

Avg Losing Trade

- Definition: The average loss of all losing trades.
- Purpose: To evaluate the size of losses per losing trade.
- Formula: $\text{Avg Losing Trade} = \text{Gross Loss} / \text{Number of Losing Trades}$

Ratio Avg Win / Avg Loss

- Definition: The ratio of average winning trade to average losing trade.
- Purpose: To measure how much larger winning trades are compared to losing trades.
- Formula: $\text{Ratio Avg Win / Avg Loss} = \text{Avg Winning Trade} / \text{Avg Losing Trade}$

Largest Winning Trade

- Definition: The highest profit from a single trade.
- Purpose: To indicate the best-performing trade.
- Formula: Largest Winning Trade = Highest profit from a single trade

Largest Losing Trade

- Definition: The highest loss from a single trade.
- Purpose: To track the worst trade loss.
- Formula: Largest Losing Trade = Highest loss from a single trade

Avg # Bars in Trades

- Definition: The average duration of trades in bars (time units).
- Purpose: To measure how long trades last on average.
- Formula: $\text{Avg \# Bars in Trades} = \text{Average duration of trades in bars}$

Avg # Bars in Winning Trades

- Definition: The average number of bars for winning trades.
- Purpose: To show the duration of profitable trades.
- Formula: Avg # Bars in Winning Trades = Avg number of bars for winning trades

Avg # Bars in Losing Trades

- Definition: The average number of bars for losing trades.
- Purpose: To show how long losing trades last.
- Formula: $\text{Avg \# Bars in Losing Trades} = \text{Avg number of bars for losing trades}$

Margin Calls

- Definition: When the broker requests more funds due to insufficient margin.
- Purpose: To indicate potential over-leveraging or risky trading.
- Formula: $\text{Margin Calls} = \text{Number of margin calls received}$