Financial Metrics for Trade Performance

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Financial Metrics

Net Profit

$$\text{Net Profit} = \text{Total Gains} - \text{Total Losses}$$

Explanation: Total profit after accounting for all losses.

Return on Investment (ROI)

$$\text{ROI} = \left(\frac{\text{Net Profit}}{\text{Initial Investment}} \right) \times 100$$

Explanation: Efficiency of the investment.

Margin Equity

$$\text{Margin Equity} = \text{Market Value of Securities} - \text{Margin Loan}$$

Explanation: Margin Equity represents the equity value in a margin account.It helps to assess the financial health and risk.It is cummulative sum of trades .

Sharpe Ratio

$$\text{Sharpe Ratio} = \frac{\text{Average Return} - \text{Risk-Free Rate}}{\text{Standard Deviation of Return}} \times \sqrt{252}$$

Explanation: The Sharpe Ratio measures the risk-adjusted return of an investment, providing insight into the return generated per unit of risk.

Sortino Ratio

$$\text{Sortino Ratio} = \frac{\text{Average Return} - \text{Risk-Free Rate}}{\text{Downside Deviation}} \times \sqrt{252}$$

Explanation: The Sortino Ratio is similar to the Sharpe Ratio but only considers downside volatility, giving a more accurate measure of performance for investments with asymmetric return distributions.

Calmar Ratio

$$\text{Calmar Ratio} = \frac{\text{Annual Return}}{\text{Maximum Drawdown}}$$

Explanation: The Calmar Ratio measures the risk-adjusted performance of an investment, considering the maximum drawdown, which is crucial for understanding potential large losses.

Profit Factor

$$\text{Profit Factor} = \frac{\text{Total Profit}}{\text{Total Loss}}$$

Explanation: Determine overall profitability.

Win Ratio

$$\text{Win Ratio} = \left(\frac{\text{Number of Winning Trades}}{\text{Total Number of Trades}}\right) \times 100$$

Explanation: The Win Ratio indicates the success rate of a trading strategy by showing the percentage of trades that are profitable.

Average Winner

$$\text{Average Winner} = \frac{\text{Total Gains from Winning Trades}}{\text{Number of Winning Trades}}$$

Explanation: Potential upside risk a trading strategy.

Average Loser

$$\text{Average Loser} = \frac{\text{Total Losses from Losing Trades}}{\text{Number of Losing Trades}}$$

Explanation: Potential downside risk.

Maximum Drawdown

$$\text{Maximum Drawdown} = \frac{\text{Peak Value} - \text{Trough Value}}{\text{Peak Value}} \times 100$$

Explanation: The Maximum Drawdown measures the largest peak-to-trough decline in the value of an investment, providing a critical measure of risk and potential for significant losses.

Risk-Reward Ratio

$$\text{Risk-Reward Ratio} = \frac{\text{Average Gain}}{\text{Average Loss}}$$

Explanation: The Risk-Reward Ratio assesses the potential reward relative to the risk taken, helping to evaluate the attractiveness of a trading strategy.

Long Term and Short Term Strateg : Moving Average Crossover

How It Works

1. **Select Two Moving Averages:** Typically, a short-term (e.g., 5-period) and a long-term (e.g., 20-period) moving average.
2. **Identify Crossovers:**
   - **Buy Signal:** When the short-term moving average crosses above the long-term moving average.
   - **Sell Signal:** When the short-term moving average crosses below the long-term moving average.
3. **Set Stop-Loss:** Place a stop-loss order to limit potential losses.
4. **Take Profit:** Set a target profit level for each trade.

Why It Works

- **Simplicity:** Easy to understand and implement.
- **Trend Identification:** Helps identify short-term trends quickly.
- **Risk Management:** Minimizes risk with proper stop-loss placement, effectively managing potential losses.