

Predictive Relationship: Simple Moving Averages

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1 Trading Strategy Description

A simple moving average (SMA) is a technical indicator used by most traders to identify the trend of an asset. It calculates the average of a selected range of prices, usually closing prices, by the number of periods in that range. A crossover is usually used by traders as a signal to buy and sell. It is considered bullish when the SMA cross below the price of an asset and considered bearish when the SMA cross above the price of an asset.

2 How to Trade

In order to trade with the rules InferTrade provides, we calculate allocations for each day. We then allocate that fraction of our total portfolio value (cash and securities) to the market we are trading - to do this we buy or sell securities to reach the target allocation. h

How Allocation Determines Trade Size

The allocation is the fractional amount of the portfolios value used to determine the size of the trading position. For example, if the allocation for Microsoft (MSFT) shares is 50%, and we have \$100, we invest \$50 so that the value of held stock is the same as the value of held cash.

Rule Specific Trading Details

Te strategy is to identify bullish and bearish crossovers. Bullish Crossover: when SMA cross below the asset price. Bearish Crossover: when SMA cross above the asset price.

3 Rule Parameters

Below is a table summarizing the parameters specific to this trading rule.

Parameter Name	Default Value	Description	Symbol
Window size	20	This is the number of time steps over which contributions are sourced	L

4 Equation

$$SMA = \frac{1}{L} \sum_{n=0}^{L} p_{t-n} \tag{1}$$

where p_t is the price at time t,

5 Glossary

- Bullish: Positive outlook on the market. Expectation of positive returns.
- Bearish: Negative outlook on the market. Expectation of negative returns.
- Allocation: The allocation is the fractional amount of the portfolios value used to determine the size of the trading position.
- Parameter: Value used by the trading rule in the calculation for trading position
- Trading Rule: Strategy to determine when to buy, hold or sell a position.

Further Links

- 1. InferTrade: https://www.infertrade.com
- 2. Privacy Policy/Legal notice: https://www.infertrade.com/privacy-policy
- 3. InferStat Ltd: https://www.inferstat.com