

Predictive Relationship: Exponential Moving Average Trading Rule

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1 Trading Strategy Description

Gives a buy signal when the asset price closed above the EMA(L) and gives a sell signal when the asset price closed below or lower than EMA(L). The lookback length, L, determines how far back the rule looks.

2 Equation

$$EMA_t = \left(V_t * \left(\frac{S}{1+L}\right)\right) + EMA_{t-1} * \left(1 - \frac{S}{1+L}\right)$$

$$\tag{1}$$

where:

EMA is exponentially weighted moving average.

 V_t is current stock value.

L is look back length.

S is the smoothing factor.

3 Rule Parameters

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

Parameter Name	Default Value	Description	Symbol
Window size	14	This is the number of time steps over which exponential contribu- tions are sourced.	L
Smoothing Factor	2	Smoothing factor represents the weighting applied to the most recent period's value.	S

4 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