InferTrade

PREDICTIVE RESEARCH TOOLS

Predictive Relationship: Differential Moving Average Momentum

Contents

1 Trading Strategy Description

This trading rules takes the slope, or derivative or momentum of two different price moving averages and subtracts one slope from the other to determine position size. The parameters accepted are the momentum length, the look back length of the short moving average and the look back length of the long moving average.

2 Rule Parameters

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

Parameter Name	Default Value	Description	Symbol
Short price average length	20	Number of days in the short price average.	L_1^p
Long price average length	100	Number of additional days in the longer price average (added to the number in the short price average).	L_2^p
Moving average momentum length	5	Number of days in the moving average slope calculation.	M^p

3 Equation

$$\Lambda(L_1, p) = \frac{1}{L_1} \sum_{n=0}^{L_1} p_n \tag{1}$$

$$\Lambda(L_2, p) = \frac{1}{L_2} \sum_{n=0}^{L_2} p_n \tag{2}$$

$$\Lambda(\Lambda(L_1, p), M^p, t) = \frac{(\Lambda(L_1, p)(t) - (\Lambda(L_1, p)(t - M^p))}{M^p} \tag{3}$$

$$\Lambda(\Lambda(L_2, p), M^p, t) = \frac{(\Lambda(L_2, p)(t) - (\Lambda(L_2, p)(t - M^p))}{M^p} \tag{4}$$

$$z(t) = \Lambda(\Lambda(L_1, p), M^p, t) - \Lambda(\Lambda(L_2, p), M^p, t) \tag{5}$$

where z_t is the portfolio allocation at time t and $p = p(t)$ is the value of the price series.

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`