InferTrade
PREDICTIVE RESEARCH TOOLS

Predictive Relationship: Moving Averages

Contents

1 Trading Strategy Description

This rule uses differentials between four moving averages to determine trade positioning. The parameters accepted are the integer length of each short average (2 parameters - one for price, one for research), the additional number of days for the longer averages (2 parameters - also, one for price, one for research) and 4 coefficients for each average's weighting contribution. The total sum is divided by the current price to calculate a position size.

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	2	Number of days in the short price average.	L_1^p
Long price average length	5	Number of additional days in the longer price average (added to the number in the short price average).	L_2^p
Short research average length	2	Number of days in the short research average.	L_1^r
Long research average length	5	Number of additional days in the longer research average (added to the number in the short price average).	L_2^r
Amplitude of short price average	1.0	Weighting coefficient for the short term average of price.	κ_1^p
Amplitude of long price average	1.0	Weighting coefficient for the long term average of price.	κ_2^p
Amplitude of short research average	1.0	Weighting coefficient for the short term average of research.	κ_1^r
Amplitude of long research average	1.0	Weighting coefficient for the long term average of research.	κ_2^r

3 Equation

$$\Lambda(t, L, \kappa, \zeta) = \frac{\kappa}{L} \sum_{n=0}^{L-1} \zeta(t-n) \tag{1}$$

$$z(t) = \frac{\Lambda(t, L_1^p, \kappa_1^p, p) + \Lambda(t, (L_1^p + L_2^p), \kappa_2^p, p) + \Lambda(t, L_1^r, \kappa_1^r, r) + \Lambda(t, (L_1^r + L_2^r), \kappa_2^r, r)}{p(t)} \tag{2}$$

where z_t is the portfolio allocation at time t, $p = p(t)$ is the value of the price series and $r = r(t)$ is the value of the research 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`