InferTrade
PREDICTIVE RESEARCH TOOLS

Predictive Relationship: Bollinger Bands

Contents

1 Trading Strategy Description

Bollinger Bands developed by John Bolinger in the 1980s, is a technical indicator that is used to identify when an asset is overbought and oversold. The bands comprise a volatility indicator that measures the relative high or low of a security's price in relation to previous trades. It is comprised of the upper, middle, and lower band which envelopes the price range levels. An asset is considered oversold when it breaks below the lower band and considered overbought when it breaks above the upper band.

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.

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

The strategy is to identify asset's price cycles. Bullish Reversal - when Price is above the upper band & Bearish Reversal - when Price is below the lower band.

3 Rule Parameters

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

Parameter Name	Default Value	Description	Symbol
Look Back Length	20	Look back length used to compute MA.	L
Number of standard deviations	2	Number of standard deviation used to compute Bollinger Band limits.	m

4 Equation

Below are the equations which govern how this specific trading rule calculates a trading position.

$$P_n = \frac{H_n + L_n + C_n}{3} \tag{1}$$

$$MA(P_n, n) = \frac{1}{n}\sum_{i=1}^{n} P_i \tag{2}$$

$$B_u = MA(P_n, L) + m \times \sigma[P_n, L] \tag{3}$$

$$B_l = MA(P_n, L) - m \times \sigma[P_n, L] \tag{4}$$

where:
P_n: is the price at nth period.
H_n: is the highest price at nth period.
L_n: is the lowest price at nth period.
C_n: is the closing period at nth period.
m: is the number of standard deviations.
$\sigma[P_n, L]$: is the standard deviation in P_n within L periods.

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`