Predictive Relationship: Percentage Price Oscillator

Contents

1 Trading Strategy Description

The percentage price oscillator (PPO) is a momentum indicator that measures the difference between two moving averages as a percentage of the larger moving average. The moving averages are a 26-period and 12-period exponential moving average (EMA). The Percentage Price Oscillator is shown with a signal line, a histogram and a centerline. Signals are generated with signal line crossovers, centerline crossovers, and divergences. A bullish reversal of an asset is identify when the PPO cross above zero line. And a bearish reversal when the PPO cross below the zero line.

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 PPO is above zero & Bearish Reversal - when PPO is below zero.

3 Rule Parameters

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

Parameter Name	Default Value	Description	Symbol
Short term look back Length	12	Short term look back length used to compute EMA.	L_s
Long term look back Length	26	Long term look back length used to compute EMA.	L_l
Signal look back Length	9	Look back length used to generate Signal line.	S_l

4 Equation

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

$$PPO = \frac{EMA(L_s) - EMA(L_l)}{EMA(L_l)} \times 100 \tag{1}$$

$$Signal = EMA(S_l) \tag{2}$$

where:
$EMA(L_s)$: is the short term exponentially weighted average.
$EMA(L_l)$: is the long term exponentially weighted average.
$EMA(S_l)$: is the exponentially weighted average computed to generate signal line.

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`