

# Predictive Relationship: Relative Strength Index

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## 1 Trading Strategy Description

The Relative Strength Index (RSI), developed by J. Welles Wilder, is a momentum indicator that measures the speed and change of price movements. It is an extremely popular indicator that is used to indicate overbought and oversold signals. RSI is considered overbought when above 70 and oversold when below 30. RSI can also be used to identify the general trend of an asset. It can also be used for identifying bullish and bearish divergences.

### 2 Rule Parameters

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

Parameter Name	Default Value	Description	Symbol
Overbought	70	Overbought Condition	$O_b$
Oversold	30	Oversold Condition	$O_s$
Time Length	14	Time frame on which the RSI is	L
	Days	calculated	

## 3 Equation

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

$$RSI = 100 - \frac{100}{(1+RS)} \tag{1}$$

with:

RSI: is the relative strength index at t

RS: is the relative strength which is calculated using below formula.

$$RS = \frac{AvgU}{AvgD} \tag{2}$$

with:

AvgU: average of all upward movements in the last L price bars

AvgD: average of all downward movements in the last L price bars

Ł: Time Length

## 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
- $2.\ \ Privacy\ Policy/Legal\ notice:\ {\tt https://www.infertrade.com/privacy-policy}$
- 3. InferStat Ltd: https://www.inferstat.com