**What is the Relative Strength Index (RSI)?**

The relative strength index (RSI) is a momentum indicator used in technical analysis that measures the magnitude of recent price changes to evaluate overbought or oversold conditions in the price of a stock or other asset. The RSI is displayed as an oscillator between two extremes and can have a reading between 0 and 100.

It was developed by J. Welles Wilder Jr. in 1978.

**Traditional Interpretation**

RSI values greater than or equal to 70 indicate that a security is becoming overbought or overvalued and may be primed for a trend reversal or corrective pullback in price.

Trend Reversal – A reversal is a change in the price direction of an asset. Meaning, if the price is in an upward trend, a reversal will make it a downward trend and vice versa.

Corrective Pullback – A pullback is a pause or moderate drop in a stock or commodities pricing chart from recent peaks that occur within a continuing uptrend.

RSI values less than or equal to 30 indicates an oversold or undervalued condition.

**Calculation**

The RSI is computed with a two-part calculation that starts with the following formula:

The average gain or loss used in the calculation is the average percentage gain or loss during a look-back period. The standard is to use 14 periods to calculate the initial RSI value.

**Ex**

Image the market closed higher seven out of the past 14 days with an average gain of 1%. The remaining seven days all closed lower with an average loss of -0.8%.

Once there are 14 periods of data available, the second part of the RSI formula can be calculated. The second step of the calculation smooths the results:

These formulas calculate the RSI, which allows for plotting. The RSI will rise as the number and size of positive closes increase, and it will fall as the number and size of losses increase. The second part of the calculation smooths the result, so the RSI will only near 100 or 0 in a strongly trending market.

The RSI indicator can remain in the overbought region for extended periods while the stock is in an uptrend. The indicator also may remain in oversold territory for a long time when the stock is in a downward trend.

**What does the RSI tell you?**

The primary trend of the stock or asset is an important tool in making sure the indicators readings are properly understood. It may be that the RSI during a downtrend would peak near the 50% rather than 70%, which could be used to indicate bearish conditions. Using bullish signals when the price is in a bullish trend and bearish signals when a stock is in a bearish trend will help to avoid many false alarms that the RSI can generate.

**Buy Signals?**

Some traders will consider it a ‘buy signal’ if a security’s RSI reading moves below 30, based on the idea that the security has been oversold and is therefore poised for a rebound. But, reliability will matter on the overall context. For example, the security may be caught in a significant downtrend, then it might continue trading at an oversold level for quite some time. Trading might be delayed until another signal confirms.