

MOVING AVERAGE

Moving averages are the most basic trending indicator. Moving average show what direction the price is going and where the levels of support and resistance may be. Moving averages themselves can serve as both support and resistance.

Simple Moving averages (SMA) are calculated by finding the average closing price of an asset at any given time and then plotting the points on a price chart. The volatility of a moving average can be adjusted by adjusting the time frame of the indicator.

An N-day Simple Moving Average is calculated by calculating the average of N most recent prices

Calculations:

Simple moving average of N days is calculated as

$$SMA(N) = \frac{\sum_{(Today-N)}^{Today} \text{Closing Price}}{N}$$

When to use...

SMA smoothens the price movements and hence is more helpful to identify trends. Short term SMAs react faster to prices than longer term SMAs. When short-term moving average crosses above the longer term moving average it gives a buying signal and indicates the beginning of an uptrend and vice versa.