

# TRIN: A Tricky Indicator



quantra

## What makes TRIN a tricky indicator?

- It is important to note that since TRIN values generally hover around 1, this makes the value of 1 an important interpreter in TRIN. A day of heavy selling (by volume) could see spikes in the TRIN close to 3. Similarly, days of heavy buying could see TRIN drop to a low of 0.3. When these results are plotted over time, TRIN values would show *higher spikes but shallower dips*. This makes the data or the chart *lopsided*.

We can make mathematical adjustment to TRIN by *normalizing* the values above and below 1, taking logarithmic values and multiplying it by a factor.

- The *volatility* in TRIN data on a day to day basis is also high.

We can make mathematical adjustments by taking the value of TRIN and creating Bollinger bands at optimal standard deviations (usually  $2\sigma$ ) away from the moving average of TRIN. *These bands will move away from one another when the volatility in the ratio increases and would come closer to one another when the volatility decreases*. We can then take our sell and buy positions when the value of TRIN has breached the Upper Bollinger band or Lower Bollinger Band respectively.

- The *volume* can also create problems in interpreting the TRIN.

For example, there can be a scenario when the day is bullish and advancing stocks are 2 is to 1 higher than declining stocks. But the total number of stocks being bought in the market (volume traded) may not be as high comparatively and can be close to 2 to 1. This would take TRIN closer to 1 indicating a neutral market on a bullish day. Also, if the advancing issues were 3 is to 1, but volume being choppy was only 2 is to 1, can also cause problems. This can take the ratio closer to 1.5 indicating bearish sentiment on a bullish day.

We can introduce a *market thrust* component to TRIN for understanding the volume.

$$\text{Market thrust} = (\text{Advancing stocks} * \text{Advancing volume}) - (\text{Declining stocks} * \text{Declining volume})$$

A higher market thrust will indicate a bullish sentiment. In our example,

$$\text{Market thrust 1} = (2 * 2) - (1 * 1) = 3$$

$$\text{Market thrust 2} = (3 * 2) - (1 * 1) = 5.$$

A TRIN of 1.5 (bearish sentiment) with a market thrust of 5 (bullish sentiment) would not go together; hence we can understand there are contradictions in TRIN and thrust values, indicating volume to be a factor and act accordingly. We can always use mathematics and our imagination to come up with other combinations to verify TRIN.

- Each indicator and the strategy associated with it has its own shortcomings. To understand the real sentiment in the market we can take a look at more than 1 sentiment indicators to gauge the market sentiment. If there are conclusive evidences that it is a bull or bear and more importantly (since we are dealing in contrarian strategies), it's an overbought bull or an oversold bear, we can take appropriate positions in the market and maximize our returns.