Ultimate Oscillator Technical Indicator

Description

The ultimate oscillator is a momentum indicator. It was developed by Larry Williams in the mid-1970s. It uses 3 timeframes to try to get a more accurate reading of the direction of the investment vehicle. Many momentum indicators use a single timeframe. Because of this, they give a very bullish reading when stocks first take off. And they slowly grow more and more bearish as the move continues. By using 3 different timeframes, Williams wanted to eliminate this bearish bias.

The ultimate oscillator is made up of quite a few calculations. And each of the 3 timeframes can be changed. In this example, we are going to look at settings of (7,14,28). That is 7 prints for the short term, 14 prints for the medium term, and 28 prints for the long term.

For each day, we generate a buying pressure (BP) number and a true range (TR) number. These formulas are listed below:

- BP = current close - minimum (current low or prior close)
- TR = maximum (current high or prior close) - minimum (current low or prior close)

Again, we generate the BP and TR numbers every single day. The next step is to calculate the average of the BP divided by the average of the TR across each period. Williams refers to this as the Daily Average (DA). For our example, we calculate the 7DA, 14DA, and 28DA using the following formulas:

- 7DA = (sum of current 7 BPs) / (sum of current 7 TRs)
- 14DA = (sum of current 14 BPs) / (sum of current 14 TRs)
- 28DA = (sum of current 28 BPs) / (sum of current 28 TRs)

Next, we compute the ultimate oscillator using a weighted mean. We generate the weighted mean from a combination of the 7DA, 14DA, and 28DA. In this case, the weighted mean is created by:

- multiplying the shortest average by 4 (7*4 = 28)
- the mid average by 2 (14*2 = 28)
- and the long average by 1 (28*1 = 28)

We then add those results together and divide that total by the sum of the weights. Finally, we multiply by 100 to get the final value. In this case (7,14,28) the ultimate oscillator (UO) final calculation is:

- UO = 100 * [(4 * 7DA) + (2 * 14DA) + (1 * 28DA)]/[4 + 2 + 1]

So that's it! Easy right? Yea, not really. Williams has a good reason for including 3 timeframes in the oscillator. When there is one timeframe used for an oscillator, there can be a lot of false signals. By including three timeframes, the aim is to reduce the number of false signals. Let's discuss what makes up a buy signal and a sell signal.

A buy signal is a divergence between the price and the ultimate oscillator. As the price makes a new low, the oscillator is moving up. However, let's get a bit more precise.

1. For the UO, a bullish divergence occurs when the stock is making new lows as UO starts moving higher.
2. This bullish divergence indicates the downward momentum is slowing and may soon reverse.
3. The previous recent low of the UO should be below 30. We want a stock that has made a meaningful move down.
4. The buy signal occurs when the UO moves above the high of the bullish divergence value.

As you can guess, a sell signal is the opposite of a buy signal. As the price makes a new high, the ultimate oscillator is moving down. Let's get a bit more precise.

1. For the UO, a bearish divergence occurs when the stock is making new highs as UO starts moving lower.
2. This bearish divergence indicates the upward momentum is slowing and may soon reverse.
3. The previous recent high of the UO should be above 70. We want a stock that has made a meaningful move up.

4. The sell signal occurs when the UO moves below the low of the bearish divergence value.

Watch for an update to the page where test out this simple UO trading strategy. Maybe we'll even determine exactly how to make it work.