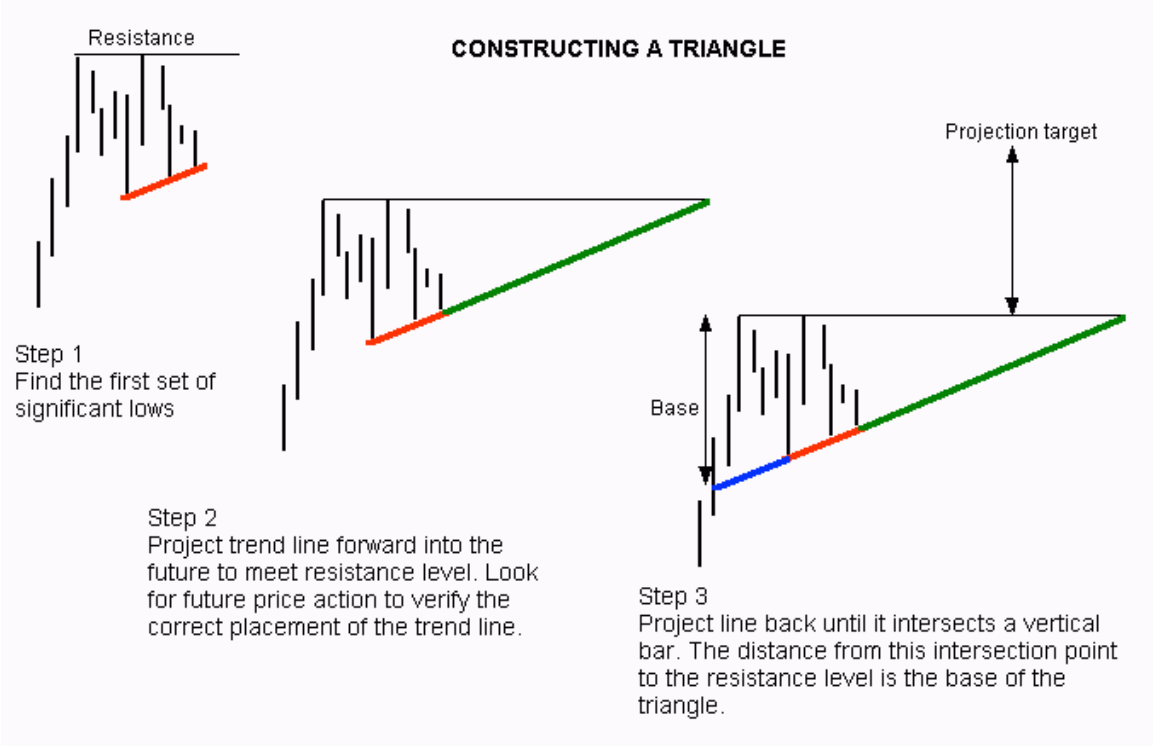
CALCULATING THE TRIANGLE BASE

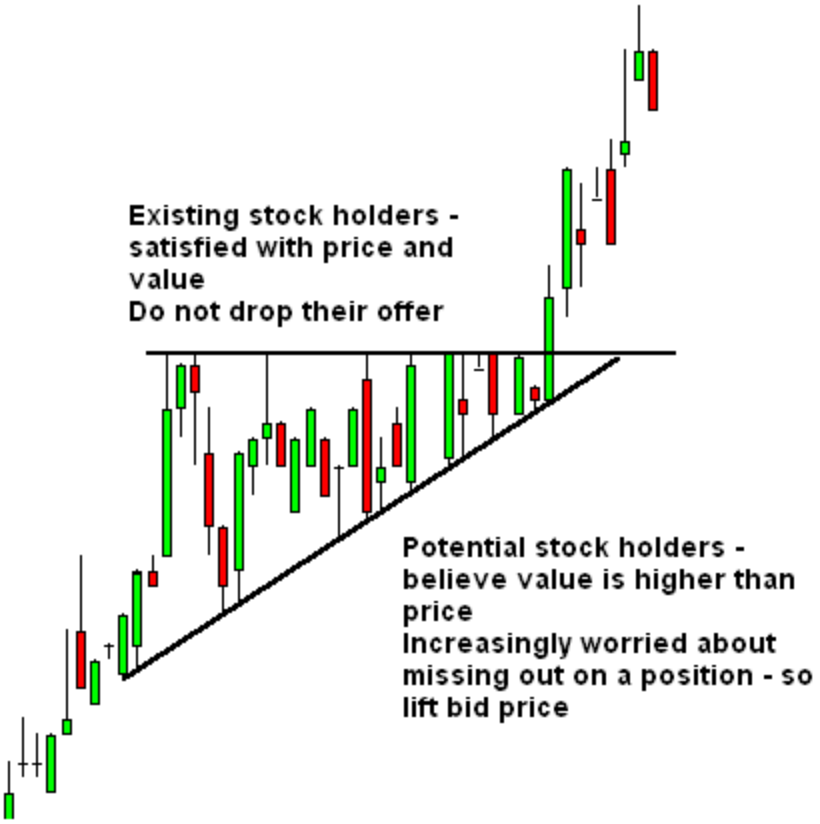
By Daryl Guppy

A triangle pattern has three components. These are the resistance or support level. Whenever we see these features on chart we immediately take the next step and look for a trend line that may confirm a triangle pattern . The second component is the trend line. Placing the trend line uses the normal trend line conditions. It requires at least three touch points before the line is valid.



The third feature is the measurement of the base or vertical edge, of the triangle pattern. This is critical because this measurement is used to project the measured move, or the breakout target.

We start with the first two basics and the chart extract shows how these come together in a standard triangle pattern.



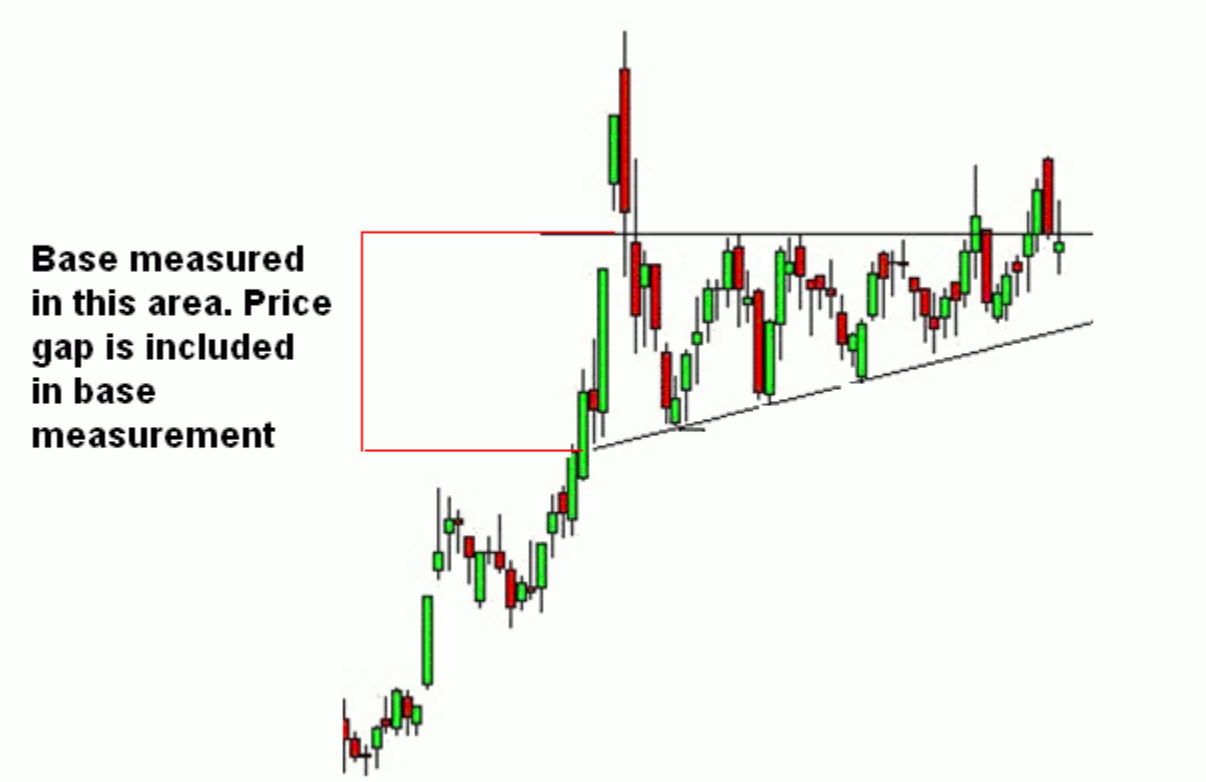
The support or resistance level is most easily determined. It usually has a clear historical precedent and its an extension of pervious support or resistance levels.

The trend line starts with two points and may be projected forward to help determine the future price activity that will confirm the triangle pattern. The trend line is also projected backwards to help define the full extent of the pattern. The line projection often starts at the beginning of a rally as shown in the first chart extract.

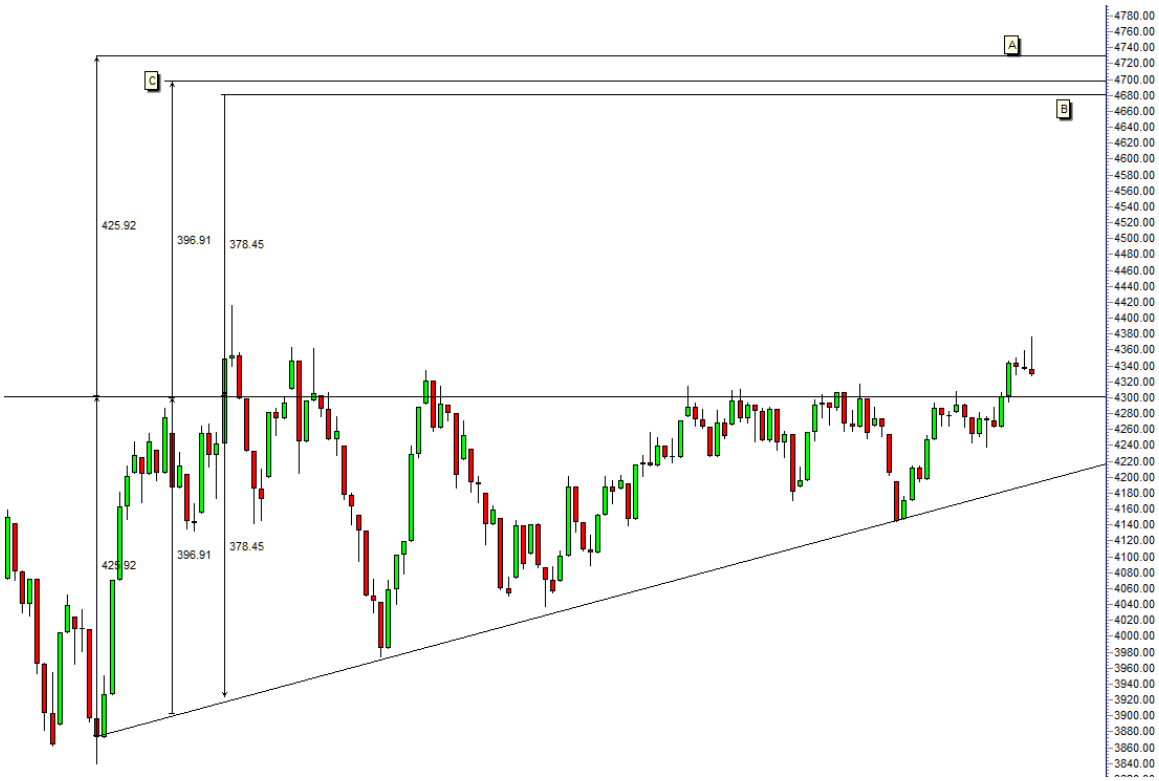
The situation becomes a little move complicated when the trend line does not start from an exact picot point low. As shown in the extract, the trend line may intersect an existing candle. This is a hanging start for the triangle pattern.

The key features we are interested in is the way that the base, or vertical side of the triangle pattern is measured. Our preferred construction rules say the base of the perfect triangle is created by between one to 5 days of price activity moving in the same direction. That is, all, or most of the candles in the base pattern should be the same color.

The first chart shows the ideal pattern for the base formation. Calculating the height of the base is very easy. Start at the first candle on the trend line and end with the first candle that touches the resistance level. No confusion here.



The same method is applied even if there is a gap in the rally that creates the triangle base. In a hanging triangle, the measurement is taken from the point where the triangle trend line intersects the candle up to the point where the resistance level intersects the next candle. This is shown on the chart extract. The excessive price movement above or below these points is ignored for calculation purposes.



The most difficult conditions for base calculations come when the price activity is spread over a longer period. The other two components of the pattern may be very clear, as with the chart. Getting the base calculation wrong makes a large difference to the final target calculation. This is the point where we place sell orders and stop orders, so getting the calculation right is important.

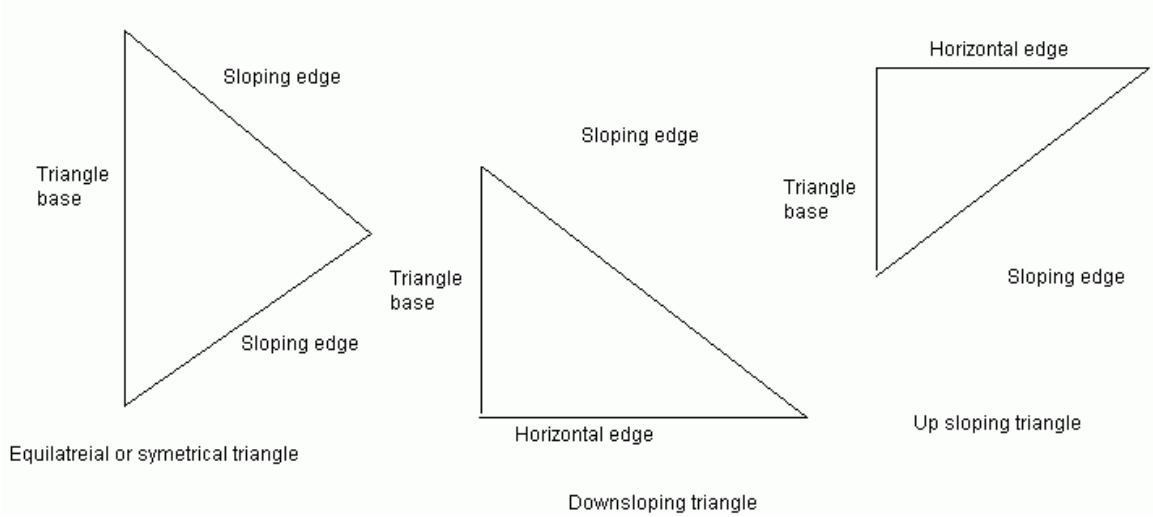
We have a choice of three calculation methods on this chart. These are shown as A, B and C. Calculation A starts from the point where the trend line intersects the first candle in the base. This base measurement gives an upside target of 4730 on the chart. We find that using this as the starting point for the measurement is not particularly reliable. The target is too high, and often not reached.

The second calculation starts at point B. This starts from where the rally hits the resistance level. The width of the triangle is measured from this point, and provides a lower breakout target. This gives an upside target near 4680. We find that this is very reliable in the sense that the target is often achieved. However it is unreliable in the sense that the target is also often exceeded.

Our preference is for a calculation based at point C. This is a judgement call. We take the midpoint of the price activity. This is not always the middle of the time span between point A and B. We try to locate where the bulk of the upwards movement has occurred. We use this measurement to set the upside target. It has a target near 4700.

From a trade management perspective we use the point B calculation as an initial target. Once the price moves above this level then this point B calculation is used as a stop loss. The exit target is calculated with the point C calculation.

The difference in the calculation are not extreme in this example, but they may be quite significant with some triangle patterns.



The same base calculation methods are applied to all varieties of triangle patterns. Triangle patterns offer high probability trading outcomes. We increase the probability of success by accurate measurement of the base of the pattern so that high probability upside targets can be established.