Triangles Under the Microscope



all markets and time frames. Classic triangles are market consolidation patterns. They can lead to a change in trend, but can also confirm the existence of a trend. Within these consolidations, volatility decreases and the market builds pressure for the next tradable trend move.

Ideally, an ascending triangle (figure 1) interrupts a primary upward trend and is defined by a flat upper resistance line connecting two highs very close to the same level, as well as a lower upwardssloping support line connected by at least two price points. Buying pressure drives the market to a new high (A), the rally consolidates (B), and prices rally again but fail near the recent high (C). Prices then consolidate at a higher level (D). If prices approach the upper resistance line again an ascending triangle can be assumed. During formation, buying pressure under resistance is often detectable and should eventually push prices higher. Price movement within the triangle formation is of no concern, the objective is an upside breakout. Descending triangles are not covered in detail here, but basically their behaviour is similar. In that case a downtrend is formed above a support level leading to a downside breakout.

Whilst the likely direction of price resolution of an ascending or descending triangle can be forecasted based on increasing pressure within the formation, a symmetrical triangle is often not as clear. This consolidation formation is defined by two converging trend lines, one upward the other downward. The market shows indecision during the formation of the pattern as volatility decreases. As the trading range contracts, pressure builds, which is then released when prices break to the upside through the upper trend line or fall to the downside through the bottom trend line. Within this formation prices can run far into the apex of the two trend lines, increasing the chance of a false breakout. Increasing volume as prices break to the up or downside is an important indication of the formations true resolution.

Measuring Price and Time Targets

The classic way to measure an ascending triangle's price target is to project the height of the widest expansion within the triangle upwards from the breakout of the resistance line (Figure 1). A symmetrical triangle's price target (Figure 2) is measured similarly. Although the direction of price resolution of a symmetrical triangle is not always clear, there is a tendency for prices to continue in the direction of the trend prior to the triangle's formation. This allows another opportunity for projecting a triangle's price target. Simply measure the angle or trend line of the move prior to the triangle's formation and extend it from the breakout point.



can be assumed to be the trade's maximum forecasted time span.

Ascending, descending or symmetrical triangles often resolve into price channels. That fact can be used to establish time targets for breakouts. For instance, a line can be drawn from the top of an ascending triangle's base parallel to the lower trend line. The point where the price target intersects the channel line is the breakout's maximal time target. The same method can be used for descending or symmetrical triangles.

Entry Points

An ascending triangle that resolves to the upside offers the opportunity for long trade. Classic entry would be at point (1) with a stop-loss under the triangle's bottom line (Figure 1). A position can also be opened in the direction of the triangle's probable resolution once the formation has been identified and the upward trend has been confirmed. If prices bounce back down after hitting resistance entry can be made at point (2) with a stop again under the bottom trend line. After prices have broken through resistance they often pull back to the breakout level. If this is successfully tested a long position can entered at point (3). The stop can be placed directly under the breakout level now forming support.

The classic entry point (1) offers the least favourable risk/reward ratio and is not a preferred entry point. The stop-loss that makes sense in this case is the largest of the three entry possibilities. Additionally, prices are often short-term overbought after the breakout of the resistance line presenting the danger of a sharp pullback or even a false breakout. It really only make sense to enter at this point if the breakout is accompanied by strong momentum and volume. To reduce risk a stop can be placed under the broken resistance line. If the breakout is successful, prices should not return to this point.

The risk/reward situation at entry point (2) is decisively better. The stop can be sensibly placed close to the entry. Additionally, prices tend to be oversold when they fall back to the sloping support line improving the chance of a position running directly into profit. However it must considered that prices could remain within the triangle formation for a longer period of time or possibly never breakout

to the upside. This, of course, increases the trade's risk profile, as the formation's long trigger has not actually been reached at this stage.

Point (3) offers the most favourable entry. Following a successful upside breakout prices pull back relieving the overbought condition. If the broken resistance line holds as support, a long position can be opened together with a tight stop just under the support level. The formation's potential price target can be fully utilized in this way.

A symmetrical triangle offers similar entry points. Upside or downside entry at the points marked (1) would mean opening a position in an overbought or oversold market (Figure 2). This should only be done if the breakout is accompanied by high volume. The points marked (2) allow entry before an actual breakout with a low-risk time window of short duration. Again points (3) offer the most favourable entry following a successful breakout and re-test of the old resistance line. The stop is also placed just under the broken resistance line.

Exits and Securing Profits

The initial stop under the bottom trend line of an ascending triangle is the trade's maximum risk. If prices fall below that level the position should be closed as the formation has failed completely. If entry is made after a successful breakout, prices should not fall below that point again. If they do the position should be closed with a small loss, as there is a danger of a bull trap or a breakout in the opposite direction.

The profit target areas projected on the basis of the triangle formation are good places to secure profits. An extended trend channel line also offers good profit taking opportunities. This is where the advantages of an entry at point (3) become clearer. The trade's holding time until the potential price target is reached is much shorter when compared with direct entry at a breakout of resistance. The procedure is similar when trading a symmetrical triangle. The stop in this case is placed on the triangles middle line because of the generally longer distances between the formation's upper and lower trend lines. If prices pull back after a breakout of the upper trend line they should not fall further than the middle line.

