



# CLASSIC PATTERNS

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# Classic Patterns

*Classic* is a term used to refer to a group of patterns that typically have a longer-term horizon (greater than 12 days) and which have distinct price swings such that the price swings form distinctive patterns. The names of classic patterns often reflect the shape of the formation such as the Double Top, Double Bottom, Head and Shoulders Top, Ascending Triangle and so on.

Bullish Patterns	Bearish Patterns
<ul style="list-style-type: none"> <li>• Ascending Continuation Triangle</li> <li>• Bottom Triangle</li> <li>• Continuation Diamond (Bullish)</li> <li>• Continuation Wedge (Bullish)</li> <li>• Diamond Bottom</li> <li>• Double Bottom</li> <li>• Flag (Bullish)</li> <li>• Head and Shoulders Bottom</li> <li>• Megaphone Bottom</li> <li>• Pennant (Bullish)</li> <li>• Rounded Bottom</li> <li>• Symmetrical Continuation Triangle (Bullish)</li> <li>• Triple Bottom</li> <li>• Upside Breakout</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation Diamond (Bearish)</li> <li>• Continuation Wedge (Bearish)</li> <li>• Descending Continuation Triangle</li> <li>• Diamond Top</li> <li>• Double Top</li> <li>• Downside Breakout</li> <li>• Flag (Bearish)</li> <li>• Head and Shoulders Top</li> <li>• Megaphone Top</li> <li>• Pennant (Bearish)</li> <li>• Rounded Top</li> <li>• Symmetrical Continuation Triangle (Bearish)</li> <li>• Top Triangle</li> <li>• Triple Top</li> </ul>

All of the above patterns are explained in greater detail in the following section.

# BULLISH PATTERNS

## 1. Ascending Continuation Triangle

### Implication

An Ascending Continuation Triangle is considered a bullish signal. It indicates a possible continuation of the current uptrend.

### Description

An Ascending Continuation Triangle shows two converging trendlines. The lower trendline is rising and the upper trendline is horizontal. This pattern occurs because the lows are moving increasingly higher but the highs are maintaining a constant price level. The pattern will have two highs and two lows, all touching the trendlines.

This pattern is confirmed when the price breaks out of the triangle formation to close above the upper trendline (view figure 1).

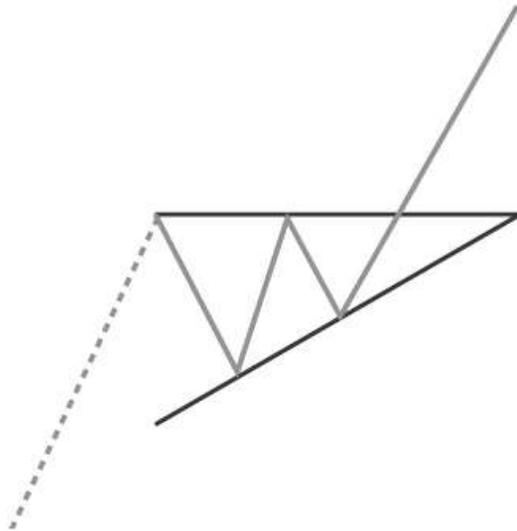


Figure 1: Ascending Continuation Triangle

Volume is an important factor to consider. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about decisions based on this Triangle.

### **Important Characteristics:**

Following are important characteristics about this pattern.

#### *1. Occurrence of a Breakout*

Technical analysts pay close attention to how long the Triangle takes to develop to its apex. The general rule is that prices should break out - clearly penetrate one of the trendlines - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the Triangle. The closer the breakout occurs to the apex the less reliable the formation.

#### *2. Duration of the Triangle*

The Triangle is a relatively short-term pattern. It may take between one and three months to form.

#### *3. Shape of Triangle*

The horizontal top trendline need not be completely horizontal but it should be close to horizontal.

#### *4. Volume*

Investors should see volume decreasing as the pattern progresses toward the apex of the Triangle. At breakout, however, there should be a noticeable increase in volume.

### **Trading Considerations**

#### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to the target price. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

#### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

### **Criteria that Support**

#### *Support and Resistance*

Look for a region of support at the lowest low and a line of resistance at the top of the Triangle.

#### *Moving Average*

Compare prices to the 200 day Moving Average. When prices are close to or touch the 200 day Moving Average this signal is considered stronger.

#### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

### **Criteria that Refute**

#### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### **Underlying Behavior**

This pattern with its increasingly higher lows and constant highs indicates that buyers are more aggressive than sellers. The pattern forms because a supply of shares is available at a fixed price. When the supply depletes, the shares quickly break out from the top trendline and move higher.

## 2. Bottom Triangle - Bottom Wedge

### Implication

Bottom Triangles and Bottom Wedges are considered to be bullish signals that mark a possible reversal of the current downtrend.

### Description

Bottom Triangles and Bottom Wedges make up a group of patterns which have the same general shape as Symmetrical Triangles, Wedges, Ascending Triangles and Descending Triangles. The difference is that these particular formations are reversal and not continuation patterns. These patterns have two converging trendlines. The pattern will display two highs touching the upper trendline and two lows touching the lower trendline. Contrary to Triangle formations, Wedges are characterized by their boundary trendlines both moving in the same direction.

This pattern is confirmed when the price breaks upward out of the Bottom Triangle or Bottom Wedge formation to close above the upper trendline.

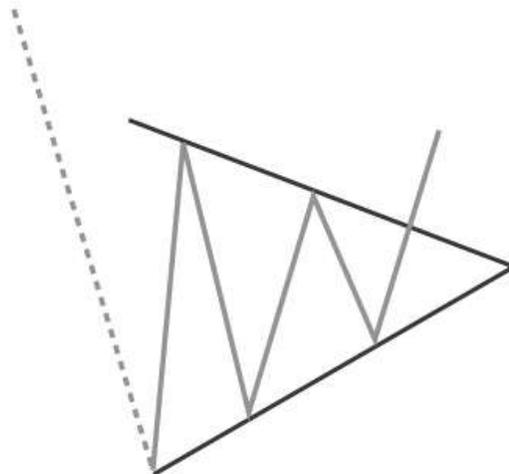


Figure 2: Bottom Triangle - Bottom Wedge

Volume is an important factor to consider. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when the breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about decisions based on the particular Triangle or Wedge pattern.

## Important Characteristics

Following are important characteristics for this pattern.

### *1. Occurrence of a Breakout*

Technical analysts pay close attention to how long the pattern takes to develop to its apex. The general rule is that prices should break out - clearly penetrate the upper trendline - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the Triangle or Wedge. The closer the breakout occurs to the apex the less reliable the formation.

### *2. Duration of the Triangle or Wedge*

This pattern is a relatively short-term. While long-term Bottom Triangles and Bottom Wedges do form, the most reliable patterns take between one and three months to form.

### *3. Volume*

Investors should see volume decreasing as the pattern progresses toward the apex of the triangular or wedge shaped pattern. At breakout, however, there should be a noticeable increase in volume.

## Trading Considerations

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to reach its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

### **Criteria that Support**

#### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

#### *Moving Average*

Watch for the 200 day moving average to flatten. When prices cross above the 200 day moving average (usually about two-thirds to three-quarters of the way through the pattern), the pattern is considered more reliable.

#### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

### **Criteria that Refute**

#### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### **Underlying Behavior**

This pattern is a result of converging trendlines of support and resistance which give this pattern its distinctive shape. This occurs because the trading action gets tighter and tighter until the market breaks out with great force. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the range of the price movements increasingly tight. As the range between the peaks and troughs marking the progression of price narrows, the trendlines meet at the "apex".

The narrowing of the trading action and the decreasing volume of trade reflect the indecision in the market. Finally consensus or decision in the market is reached and this is reflected as the price breaks out upward to close above the triangular or wedge shaped boundary. A spike in volume on this breakout date reflects stronger consensus that the financial instrument should move in that direction.

### 3. Continuation Diamond (Bullish)

#### Implication

A Continuation Diamond (Bullish) is considered a bullish signal, indicating that the current uptrend may continue.

#### Description

Diamond patterns usually form over several months in very active markets. Volume will remain high during the formation of this pattern. The Continuation Diamond (Bullish) pattern forms because prices create higher highs and lower lows in a broadening pattern. Then the trading range gradually narrows after the highs peak and the lows start trending upward. The Technical Event<sup>®</sup> occurs when prices break upward out of the diamond formation to continue the prior uptrend.

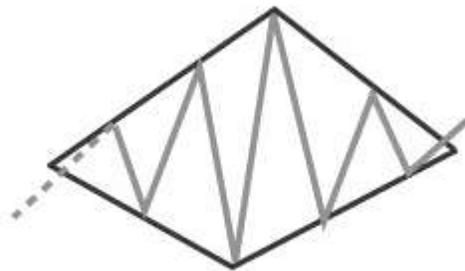


Figure 3: Continuation Diamond (Bullish)

#### Trading Considerations

##### *Duration of Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

##### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the

target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

#### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least 2 times the duration of the pattern.

#### **Criteria that Support**

##### *Support and Resistance*

Support can be found at the turning point of the lows and resistance at the top peak of the Diamond.

#### **Criteria that Refute**

##### *No Volume*

A lack of a volume throughout the pattern is an indication that this pattern may not be reliable.

##### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 4. Continuation Wedge (Bullish)

### Implication

A Continuation Wedge (Bullish) is considered a bullish signal. It indicates a possible continuation of the current uptrend.

### Description

A Continuation Wedge (Bullish) consists of two converging trend lines. The trend lines are slanted downward. Unlike the Triangles where the apex is pointed to the right, the apex of this pattern is slanted downwards at an angle. This is because prices edge steadily lower in a converging pattern i.e. there are lower highs and lower lows. A bullish signal occurs when prices break above the upper trendline.

Over the weeks or months that this pattern forms the trend appears downward but the long-term range is still upward. Volume should diminish as the pattern forms.

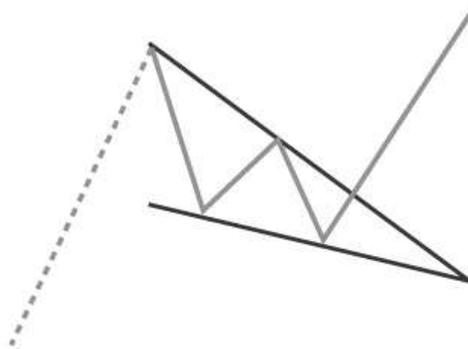


Figure 4: Continuation Wedge (Bullish)

### Trading Considerations

#### *Pattern Duration*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to the Target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### **Criteria that Support**

#### *Volume*

Volume should diminish as the pattern forms.

#### *Price moves above Resistance Level*

You can also check that the prices following the pattern have crossed above a resistance level such as the 200 day moving average. This would provide extra confirmation that the trend is poised to continue upward.

### **Criteria that Refute**

#### *Rising or Stable Volume*

Volume should diminish as the pattern forms. If volume remains the same or increases this signal is less reliable.

#### *Price moves below Support Level*

If post pattern prices have dropped below a key support level such as a 200 day moving average, this could be a temporary pullback (which is common) or perhaps a sign that the previous bullish signal was actually a false signal - sometimes called a bull trap. When such a pullback is encountered, one helpful clue is to look at volume. If pricing pulled back on high volume this may signify a failure of the original bullish pattern - sometimes leading to a potentially profitable bearish play. If there is not much volume, then it could simply be a temporary pullback to the breakout level and prices may change direction and continue upward after all.

### **Underlying Behavior**

In this pattern prices edge steadily lower in a converging pattern i.e. there are lower highs and lower lows indicating that bears are winning over bulls. However, at the breakout point the bulls emerge the victors and the price rises.

## 5. Diamond Bottom

### Implication

A Diamond Bottom is considered a bullish signal, indicating a possible reversal of the current downtrend to a new uptrend.

### Description

Diamond patterns usually form over several months in very active markets. Volume remains high during the formation of this pattern.

The Diamond Bottom pattern occurs because prices create higher highs and lower lows in a broadening pattern. Then the trading range gradually narrows after the highs peak and the lows start trending upward. The Technical Event<sup>®</sup> occurs when prices break upward out of the diamond formation.

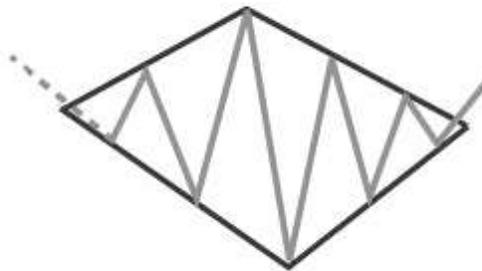


Figure 5: Diamond Bottom

### Trading Considerations

#### *Duration of Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least 2 times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Support can be found at the turning point of the lows and resistance at the top peak of the Diamond.

### *Moving Average*

Watch for the 200-day Moving Average to flatten out. Then watch for the 50-day Moving Average to cross above the 200-day Moving Average. This should signal the breakout.

## **Criteria that Refute**

### *No Volume*

A lack of a volume throughout the pattern is an indication that this pattern may not be reliable.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 6. Double Bottom

### Implication

A Double Bottom is considered a bullish signal, indicating a possible reversal of the current downtrend to a new uptrend.

### Description

Double Bottoms are considered to be among the most common of the patterns. Since, they seem to be so easy to identify, the Double Bottom should be approached with caution by the investor. The Double Bottom is a reversal pattern of a downward trend in a stock's price. The Double Bottom marks a downtrend in the process of becoming an uptrend.

A Double Bottom occurs when prices form two distinct lows on a chart. A Double Bottom is only complete, however, when prices rise above the high end of the point that formed the second low. The two lows will be distinct. The pattern is complete when prices rise above the highest high in the formation. The highest high is called the "confirmation point".

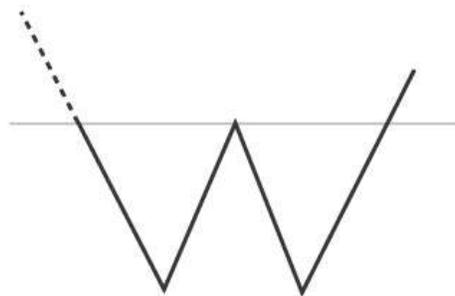


Figure 6: Double Bottom

Analysts vary in their specific definitions of a Double Bottom. According to some, after the first bottom is formed, a rally of at least 10% should follow. That increase is measured from high to low. This should be followed by a second bottom. The second bottom returning back to the previous low (plus or minus 3%) should be on lower volume than the first. Other analysts maintain that the rise registered between the two bottoms should be at least 20% and the lows should be spaced at least a month apart.

Sometimes the two lows comprising a Double Bottom are not at exactly the same price level. This does not necessarily render the pattern invalid. Analysts advise that if the second low varies in price from the first low by more than 3% or 4%, the pattern may be less reliable.

The bottoms will have a significant amount of time between them - ranging from a few weeks to a year depending on whether an investor is viewing a weekly chart or a daily chart.

Generally, volume in a Double Bottom is usually higher on the left bottom than the right. Volume tends to be downward as the pattern forms. Volume does, however, pick up as the pattern hits its lows. Volume increases again when the pattern completes, breaking through the confirmation point.

### **Important Characteristics**

Following are important characteristics to look for in a Double Bottom.

#### *Downtrend Preceding Double Bottom*

The Double Bottom is a reversal formation. It begins with prices in a downtrend.

#### *Time between Bottoms*

Analysts pay close attention to the "size" of the pattern - the duration of the interval between the two lows. Generally, the longer the time between the two lows, the more important the pattern is as a good reversal. Some analysts suggest that investors should look for patterns where at least one month elapses between the bottoms. It is not unusual for a few months to pass between the dates of the two bottoms.

#### *Increase from First Low*

Some analysts argue the increase in price that occurs between the two bottoms should be consequential, amounting to approximately 20% of the price. Other analysts are not so definite or demanding concerning the price increase. For some, an increase of at least 10% is adequate. The rise between the lows tends to look rounded but it can also be irregular in shape.

#### *Volume*

Volume tends to be heaviest during the first low and lighter on the second. It is common to see volume pick up again at the time of breakout.

#### *Pullback after Breakout*

A pullback after the breakout is usual for a Double Bottom.

## **Trading Considerations**

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target price. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Location of Moving Average*

The Double Bottom should be below a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Direction of Moving Average Trend*

The Moving Average should change direction within the duration of the pattern and should head in the direction indicated by the pattern. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

### *Other Patterns*

Other reversal patterns (such as Bullish and Bearish Engulfing Lines and Islands) that occur at the peaks and valleys indicate strong resistance at those points. The presence of these patterns inside a Double Bottom is a strong indication in support of this pattern.

## **Criteria that Refute**

### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Location of Moving Average*

If the Double Bottom is above the Moving Average then this pattern should be considered less reliable. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## **Underlying Behavior**

A Double Bottom consists of two well-defined lows at approximately the same price level. This shape is formed because prices fall to a support level, rally and pull back up, then fall to the support level again before increasing and eventually breaking through the resistance line.

## 7. Flag (Bullish)

### Implication

A Flag (Bullish) is considered a bullish signal, indicating that the current uptrend may continue.

### Description

A Flag (Bullish) follows a steep or nearly vertical rise in price, and consists of two parallel trendlines that form a rectangular flag shape. The Flag can be horizontal (as though the wind is blowing it), although it often has a slight downtrend.

The vertical uptrend, that precedes a Flag, may occur because of buyers' reactions to a favorable company earnings announcement, or a new product launch. The sharp price increase is sometimes referred to as the "flagpole" or "mast".

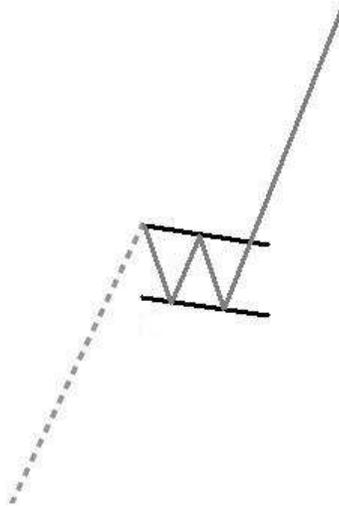


Figure 7: Flag (Bullish)

The rectangular flag shape is the product of what technical analysts refer to as consolidation. Consolidation occurs when the price seems to bounce between an upper and lower price limit. This might occur, for example, in the days following a positive product announcement, when the excitement is starting to subside, and fewer buyers are willing to pay the high price that was commanded just a few days before. But, at the same time, sellers are unwilling to sell below a lower support limit.

A bullish signal occurs when the price rebounds beyond the upper trendline of the Flag formation, and continues the original upward price movement. This is considered a pattern confirmation.

When speaking about Flags, technical analysts may use jargon and refer to the flag as "flying at half-mast". Visually, this reference is nothing like a flag at half-mast, such as on a day of national mourning. Instead, this term refers to the location of the flag - at the mid-point of what would otherwise be a continuous uptrend.

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Trendlines*

Flags are very similar to Pennants. However, with a Flag, the price trendlines tend to run parallel, whereas with a Pennant, the price trendlines tend to converge.

### *Volume*

As the Flag develops, the volume tends to decrease. Following a positive product announcement, the price may have reached an unexpected high, and fewer buyers will be willing to buy. Interest in the stock may resume, however, as prices drop, and sellers begin to lower their price. The increased activity explains why you will often notice a sharp spike in volume at the end of a Flag.

### *Duration of the Pattern*

Martin Pring notes in his book, *Technical Analysis Explained* that "Flags can form in a period as short as 5 days or as long as 3 to 5 weeks." John J. Murphy identifies that Flags "often last no longer than one or two weeks."

## **Trading Considerations**

### *Possibility of Price Reversal*

In some rare cases, the price will break against the original price movement, and create a reversal trend. The pattern reversal may be signaled during the Flag formation by a sharp increase in volume, as opposed to the more typical decrease.

### *Duration of the Pattern*

The duration of the pattern depends on the extent of the price fluctuations (consolidation). The greater the fluctuations, the longer a pattern will take to develop.

### *Target Price*

It is commonly held that the length of the flagpole indicates the potential price increase. When the Flag completes, the price typically jumps to replicate the height of the original flagpole, while continuing in the direction of the inbound trend.

## **Criteria that Support**

### *Volume*

Volume should diminish noticeably as the pattern forms.

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume over the course of the pattern should be declining on average.

## **Criteria that Refute**

### *Duration of the Pattern*

According to Martin Pring, a pattern that exceeds "4 weeks to develop should ... be treated with caution". After 4 weeks, interest in the stock is likely to decrease to point that it is unlikely to continue in a strong uptrend.

### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable and may actually reverse.

### *Long Inbound Trend*

Shabacker writes that, "When a mast is long ... and it's Flag relatively small, we should naturally expect the movement to be pretty well exhausted when its indicated objective is reached." He suggests that when you observe this formation, and a price continuation occurs, it is best to use the flagpole as a "yard-stick" to indicate the level at which to "take profits, step aside, and watch for further chart developments."

## **Underlying Behavior**

This pattern is effectively a pause in an uptrend. The price has gotten ahead of itself with a steep rise; therefore market activity takes a break before continuing the uptrend. This pause is reflected in the decreasing trading volume. Similarly, a spike in volume marks the resumption of the uptrend.

## 8. Head and Shoulders Bottom

### Implication

A Head and Shoulders Bottom is considered a bullish signal. It indicates a possible reversal of the current downtrend into a new uptrend.

### Description

The Head and Shoulders bottom is a popular pattern with investors. This pattern marks a reversal of a downward trend in a financial instrument's price.

Volume is absolutely crucial to a Head and Shoulders Bottom. An investor will be looking for increasing volumes at the point of breakout. This increased volume definitively marks the end of the pattern and the reversal of a downward trend in the price of a stock.

A perfect example of the Head and Shoulders Bottom has three sharp low points created by three successive reactions in the price of the financial instrument. It is essential that this pattern form following a major downtrend in the financial instrument's price.

The first point - the left shoulder - occurs as the price of the financial instrument in a falling market hits a new low and then rises in a minor recovery. The second point - the head happens when prices fall from the high of the left shoulder to an even lower level and then rise again. The third point - the right shoulder - occurs when prices fall again but don't hit the low of the head. Prices then rise again once they have hit the low of the right shoulder. The lows of the shoulders are definitely higher than that of the head and, in a classic formation, are often roughly equal to one another.

The neckline is a key element of this pattern. The neckline is formed by drawing a line connecting the two high price points of the formation. The first high point occurs at the end of the left shoulder and beginning of the downtrend to the head. The second marks the end of the head and the beginning of the downturn to the right shoulder. The neckline usually points down in a Head and Shoulders Bottom, but on rare occasions can slope up.

The pattern is complete when the resistance marked by the neckline is "broken". This occurs when the price of the stock, rising from the low point of the right shoulder moves up through the neckline. Many technical analysts only consider the neckline "broken" if the stock closes above the neckline.



**Figure 8: Head and Shoulders Bottom**

The volume sequence should progress beginning with relatively heavy volume as prices descend to form the low point of the left shoulder. Once again, volume spikes as the stock hits a new low to form the point of the head. It is possible that volume at the head may be slightly lower than at the left shoulder. When the right shoulder is forming, however, volume should be markedly lighter as the price of the stock once again moves lower.

It is most important to watch volume at the point where the neckline is broken. For a true reversal, experts agree that heavy volume is essential.

### **Variations of the Head and Shoulders Bottom**

There are a few notable variations for this pattern.

#### *Multiple Head and Shoulders Patterns*

Many valid Head and Shoulders patterns are not as well defined as the classical head with a shoulder on either side. It is not uncommon to see more than two shoulders and more than one head. A common version of a multiple Head and Shoulders pattern includes two left shoulders of more or less equal size, one head, and then two right shoulders that mimic the size and shape of the left shoulders.

#### *Flat Shoulders*

The classic Head and Shoulders pattern is made up of three sharply pointed components - the head and two shoulders. This is not always the case. Sometimes, the shoulders can lack sharp low points and instead be quite rounded. This does not affect the validity of the pattern.

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Symmetry*

In a classic Head and Shoulders Bottom, the left and right shoulders hit their relative low points at approximately the same price and level. In addition, the shoulders are usually about the same distance from the head. Experts like to see symmetry but variations are not lethal to the validity of the pattern.

### *Volume*

It is critical to watch the volume sequence as this pattern develops. Volume will usually be highest on the left shoulder and lowest on the right. Investors, looking to ensure that volume increases in the direction of the trend, should ensure that a "burst" in volume occurs at the time the neckline is broken.

### *Duration of Pattern*

It is not unusual for a Head and Shoulders bottom to take several months to develop. Volume activity in stocks is characteristically less after a period of declining prices than after a bull market. Because of this lower volume, bottoms take longer to form and tend to be smaller than tops

### *Need for a Downtrend*

This is a reversal pattern which marks the transition from a downtrend to an uptrend.

### *Slope of the Neckline*

In a well-formed pattern, the slope will not be too steep, but don't automatically discount a formation with a steep neckline. Some experts believe an upward sloping neckline is more bullish than a downward sloping one. Others say slope has little to do with the stock's degree of bullishness.

## **Trading Considerations**

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to reach the Target Price. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration. The duration of the pattern is sometimes called the "width" or "length" of the pattern.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Location of Moving Average*

The Head and Shoulders Bottom should be below the Moving Average. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

The Moving Average should change direction within the duration of the pattern and should head in the direction indicated by the pattern. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Volume*

Volume will usually be highest on the left shoulder and lowest on the right.

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern.

### *Other Patterns*

Other reversal patterns (such as Bullish and Bearish Engulfing Lines and Islands) that occur at the peaks and valleys indicate strong resistance at those points. The presence of these patterns inside a Head and Shoulders is a strong indication in support of this pattern.

### **Criteria that Refute**

#### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Location of Moving Average*

If the Head and Shoulders Bottom is above the Moving Average then this pattern should be considered less reliable. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

#### *Moving Average Trend*

Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 9. Megaphone Bottom

### Implication

A Megaphone Bottom also known as a Broadening Bottom is considered a bullish signal, indicating that the current downtrend may reverse to form a new uptrend.

### Description

This rare formation can be recognized by the successively higher highs and lower lows, which form after a downward move. Usually, two higher highs between three lower lows form the pattern, which is completed when prices break above the second higher high and do not fall below it.

The pattern is completed when, usually on the third upswing within the pattern, prices break above the prior high but fail to fall below this level again.

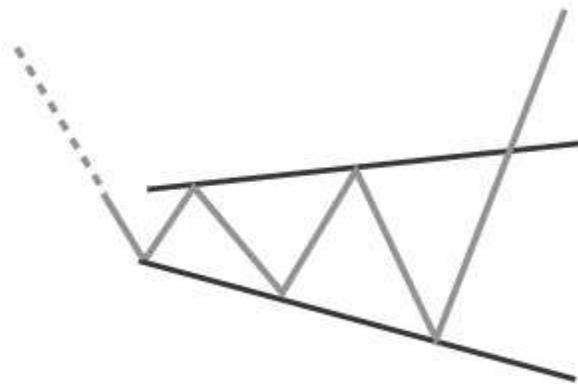


Figure 9: Megaphone Bottom

## 10. Pennant (Bullish)

### Implication

A Pennant (Bullish) is considered a bullish signal, indicating that the current uptrend may continue.

### Description

A Pennant (Bullish) follows a steep or nearly vertical rise in price, and consists of two converging trendlines that form a narrow, tapering flag shape. The Pennant shape generally appears as a horizontal shape, rather than one with a downtrend or uptrend.

Apart from its shape, the Pennant is similar in all respects to the Flag. The Pennant is also similar to the Symmetrical Triangle or Wedge continuation patterns however; the Pennant is typically shorter in duration and flies horizontally.

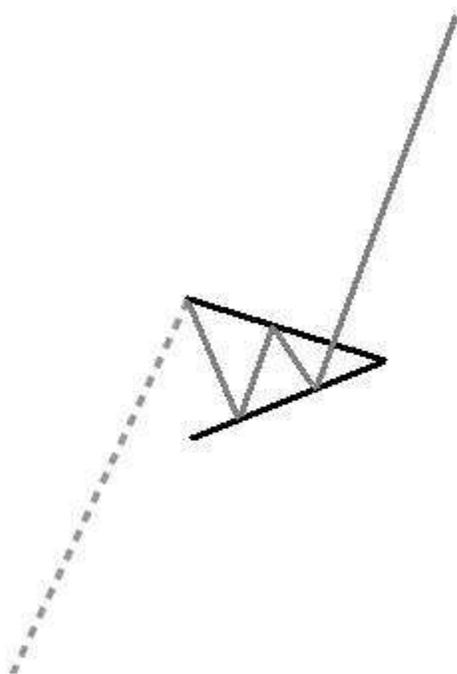


Figure 10: Pennant (Bullish)

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Trendlines*

For Pennants, the price trendlines tend to converge. At the start of the Pennant, the price spikes, perhaps in response to a favorable product or earnings announcement. Following the price spike, the price fluctuations continue until they taper out and become decreasingly less volatile. This behavior appears on a price chart with the initial price spike forming what technical analysts refer to as the "mast" of the Pennant, followed by a triangular pennant shape.

### *Volume*

As the Pennant develops, the volume tends to decrease. Martin Pring notes in his book, *Technical Analysis Explained*, "a pennant is in effect a very small triangle. If anything, volume tends to contract even more during the formation of a pennant than during that of a flag." However, as with Flags, when the Pennant completes you will often observe a sharp spike in volume.

### *Duration of the Pattern*

In his book, *Technical Analysis of the Financial Markets*, John J. Murphy identifies that Pennants and Flags are relatively short-term and should be completed within one to three weeks. He also notes that by comparison, the bullish patterns take longer to develop than the related bearish patterns.

## **Trading Considerations**

### *Possibility of Price Reversal*

In some rare cases, the price will break against the original price movement, and create a reversal trend. The pattern reversal may be signaled during the Pennant formation by an increase in volume, as opposed to the more typical decrease.

### *Duration of the Pattern*

The duration of the pattern depends on the extent of the price fluctuations (consolidation). The greater the fluctuations, the longer a pattern will take to develop.

### *Target Price*

It is commonly held that the length of the mast indicates the potential price increase. Like the Flag, the Pennant is considered to be a pause in an uptrend. Following the Pennant, the price typically jumps to replicate the height of the mast, while continuing in the direction of the inbound trend.

## **Criteria that Support**

### *Volume*

Volume should diminish noticeably as the pattern forms.

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume over the course of the pattern should be declining on average.

## **Criteria that Refute**

### *Duration of the Pattern*

According to Martin Pring, a pattern that exceeds "4 weeks to develop should ... be treated with caution". After 4 weeks, interest in the stock is likely to decrease to point that it is unlikely to continue in a strong uptrend.

### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable and may actually reverse.

## **Underlying Behavior**

This pattern is effectively a pause in an uptrend. The price has moved ahead of itself with a steep rise; therefore market activity takes a break before continuing the uptrend. This pause is reflected in the decreasing trading volume. Similarly, a spike in volume marks the resumption of the uptrend.

## 11. Symmetrical Continuation Triangle (Bullish)

### Implication

A Symmetrical Continuation Triangle (Bullish) is considered a bullish signal, indicating that the current uptrend may continue.

### Description

A Symmetrical Continuation Triangle (Bullish) shows two converging trendlines, the lower one is ascending, the upper one is descending. The formation occurs because prices are reaching both lower highs and higher lows. The pattern will display two highs touching the upper (descending) trendline and two lows touching the lower (ascending) trendline.

This pattern is confirmed when the price breaks out of the triangle formation to close above the upper (descending) trendline.

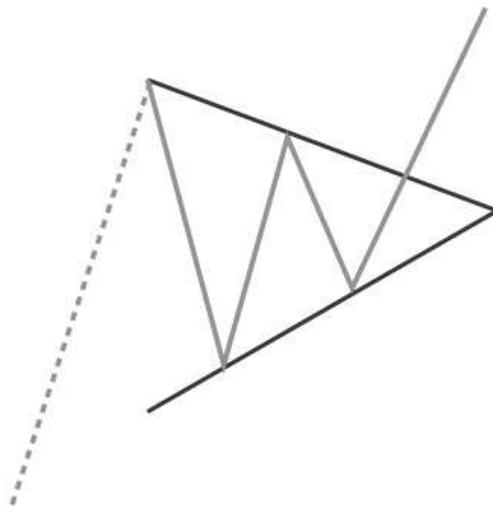


Figure 11: Symmetrical Continuation Triangle (Bullish)

Volume is an important factor to consider. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when the breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about decisions based on this triangle.

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Occurrence of a Breakout*

Technical analysts pay close attention to how long the Triangle takes to develop to its apex. The general rule is that prices should break out - clearly penetrate the upper trendline - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the Triangle. The closer the breakout occurs to the apex the less reliable the formation.

### *Duration of the Triangle*

The Triangle is a relatively short-term pattern. While long-term triangles do form, the most reliable triangles take between one and three months.

### *Volume*

Investors should see volume decreasing as the pattern progresses toward the apex of the Triangle. At breakout, however, there should be a noticeable increase in volume.

## **Trading Considerations**

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to reach its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

### *Confirm the Breakout*

To avoid taking an inadvisable position in a stock, some investors advise waiting a few days to determine whether the breakout signals that the price is ready to move. A key sign of a possible false move is low volume. If there's no pick up in volume around the breakout, investors should be wary. Typically, a good breakout from a Triangle formation will be accompanied by a definite surge in volume.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Price moves above Resistance Level*

You can also check that the prices following the pattern have crossed above a key resistance level such as the 200 day moving average. This would provide extra confirmation that the trend is poised to continue upward.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

## **Criteria that Refute**

### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### *Price moves below Support Level*

If post pattern prices have dropped below a key support level such as a 200 day moving average, this could be a temporary pullback (which is common) or perhaps a sign that the previous bullish signal was actually a false signal - sometimes called a bull trap. When such a pullback is encountered, one helpful clue is to look at volume. If pricing pulled back on high volume this may signify a failure of the original bullish pattern - sometimes leading to a potentially profitable bearish play. If there is not much volume, then it could simply be a temporary pullback to the breakout level and prices may change direction and continue upward after all.

### **Underlying Behavior**

This pattern is a result of converging trendlines of support and resistance which give this Triangle pattern its distinctive shape. This occurs because the trading action gets tighter and tighter until the market breaks out with great force. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the range of the price movements increasingly tight. As the range between the peaks and troughs marking the progression of price narrows, the trendlines meet at the "apex" located at the right of the chart.

The narrowing of the trading action and the decreasing volume of trade reflect the indecision in the market. Finally consensus or decision in the market is reached and this is reflected as the price breaks out of the triangle. A spike in volume on this breakout date reflects stronger consensus that the stock should move in that direction.

## 12. Triple Bottom

### Implication

A Triple Bottom is considered a bullish signal, indicating a possible reversal of the current downtrend to a new uptrend.

### Description

The Triple Bottom is composed of three sharp lows, all at about the same price level. Investors should note that the three lows tend to be sharp. While the three lows should be sharp and distinct, the highs of the pattern can appear to be rounded. The pattern is complete when prices rise above the highest high in the formation. The highest high is called the "confirmation point".

The highs should be fairly rounded in shape, although it is not absolutely necessary for the validity of the pattern.

The Triple Bottom is a reversal pattern and illustrates a downtrend in the process of becoming an uptrend. It is, therefore, vital to the validity of the pattern that it commence with prices moving in a downtrend.



Figure 12 : Triple Bottom

Generally, volume in a Triple Bottom tends to trend downward as the pattern forms. Volume tends to be lighter on each successive low. Volume then picks up as prices rise above the confirmation point and break into the new upward trend.

An investor should not dismiss a Triple Bottom if volume does not display this pattern. The pattern can take several months to form and, during that time, volume can be irregular and unpredictable. Volume should be higher at the lows than on the days leading to the lows.

### **Important Characteristics**

Following are important characteristics that should be noted for a Triple Bottom.

#### *Duration of the Pattern*

The Triple Bottom usually takes longer than other patterns to develop. The longer the pattern takes to form, the greater the significance of the price move once breakout occurs.

#### *Need for a Downtrend*

The Triple Bottom is a reversal pattern. This means it is essential to the validity of the pattern that it begins with a downward trend in a stock's price.

#### *Volume*

It is typical to see volume diminish as the pattern progresses. This changes however, when breakout occurs. A valid breakout will be accompanied by a burst in volume. Certain experts are less concerned by seeing a steadily diminishing trend in volume as the pattern progresses through its three lows.

#### *Pullback after Breakout*

It is very common in the Triple Bottom to see a pullback after the breakout.

#### *Symmetry*

Investors looking for a valid Triple Bottom should be wary of a pattern that shows a lot of white space as it is developing. The pattern should display a fairly regular progression among the three, well-separated lows. The symmetry of this pattern is something that should catch your eye.

### **Trading Considerations**

#### *Duration*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Location of Moving Average*

The Triple Bottom should be below the Moving Average. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

The Moving Average should change direction within the duration of the pattern and should head in the direction indicated by the pattern. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume within the duration of the pattern should be declining on average.

### *Other Patterns*

Other reversal patterns (such as Bullish and Bearish Engulfing Lines and Islands) that occur at the peaks and valleys indicate strong resistance at those points. The presence of these patterns inside a Triple Bottom is a strong indication in support of this pattern.

### **Criteria that Refute**

#### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Location of Moving Average*

The Triple Bottom should be below the Moving Average. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. If the Triple Bottom is above the Moving Average then this pattern should be considered less reliable.

#### *Moving Average Trend*

A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable. Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### **Underlying Behavior**

The Triple Bottom pattern is composed of three sharp lows, all at about the same price level. When prices hit the first low, sellers become scarce, believing prices have fallen too low. If a seller does agree to sell, buyers are quick to buy at a good price. Prices then bounce back up. The support level is established and the next two lows also are sharp and quick.

### 13. Upside Breakout

#### Implication

An Upside Breakout is considered a bullish signal, marking a breakout from a trading range to start a new uptrend.

#### Description

An Upside Breakout occurs when the price of a financial instrument breaks out through the top of a trading range. This Technical Event<sup>®</sup> indicates that prices will rise explosively over a period of days or weeks as an almost vertical uptrend appears.

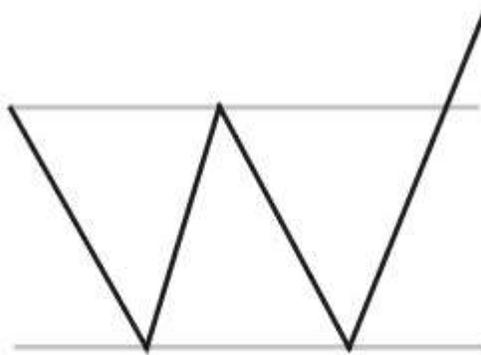


Figure 13 : Upside Breakout

#### Trading Considerations

##### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Duration of Trading Range*

The duration of the trading range for which the breakout occurred can provide an indication of the strength of the breakout. The longer the duration of the trading range the more significant the breakout.

### *Narrowness of Trading Range*

The "narrowness" of the trading range can also be used to gauge the breakout. To determine the narrowness of the trading range compare the upper boundary with the lower boundary of the trading range. If the trading range has a small difference between the upper and lower boundary (making it narrow) then the breakout is considered stronger and more reliable.

### *Support or Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Moving Average*

Prices which quickly move 50% above the 200-day Moving Average strongly support this pattern.

### *Moving Average Trend*

Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. The Moving Average should change direction within the duration of the pattern and should now be heading in the direction indicated by the pattern.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

## **Criteria that Refute**

### *Duration of the Trading Range*

The duration of the trading range for which the breakout occurred can provide an indication of the strength of the breakout. The shorter the duration of the trading range the less significant the breakout.

### *Narrowness of the Trading Range*

The "narrowness" of the trading range can also be used to gauge the breakout. To determine the narrowness of the trading range compare the upper boundary with the lower boundary of the trading range. If the trading range has a large difference between the upper and lower boundary (making it wide) then the breakout is considered weaker and less reliable.

### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Moving Average Trend*

Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 14. Rounded Bottom

### Implication

A Rounded Bottom is considered a bullish signal, indicating a possible reversal of the current downtrend to a new uptrend.

### Description

Rounded Bottoms are elongated and U-shaped, and are sometimes referred to as rounding turns, bowls or saucers. The pattern is confirmed when the price breaks out above its moving average.



Figure 14 : Rounded Bottom

### Important Characteristics

Following are important characteristics to look for in a Rounded Bottom.

#### *Shape*

The price pattern forms a gradual bowl shape. There should be an obvious bottom to the bowl. Price can fluctuate or be linear; however, the overall curve should be smooth and regular, without obvious spikes. For example, a V-shaped turn would not be considered a rounded bottom.

### *Volume*

Volume tends to mirror the price pattern. Consequently, as the rounded bottom begins to descend, volume tends to decrease as bearishness wanes and investors become indecisive. Following a period of relative inactivity, at the bottom of the bowl, the price pattern starts its upward turn. As sentiment becomes more decisively bullish, volume tends to increase. When looking at volume in a rounded bottom pattern, Robert D. Edwards and John Magee note that "volume accelerates with the [price] trend until often it reaches a sort of climactic peak in a few days of almost 'vertical' price movement on the chart."

### *Duration of the Rounded Bottom*

Rounded Bottoms are long-term patterns. Martin J. Pring identifies that the pattern can occur over a period of about 3 weeks, but can also be observed over several years.

## **Trading Considerations**

### *Duration of the Pattern*

The duration of the pattern indicates the significance of the price movement. John J. Murphy writes that rounded bottoms "are usually spotted on weekly or monthly charts that span several years. The longer they last, the more significant they become."

### *Target Price*

Understandably, investors like to buy at the lowest possible price. However, even the most promising-looking rounded bottoms patterns can fail. To determine whether a downturn has bearish potential, watch the price at the bottom of the downturn. For a rounded bottom, the price tends to hover and bounce between an upper and lower price limit. You may observe this behavior for weeks or even years, as knowledgeable investors accumulate stock at the lowest possible price.

Clifford Pistolese advises that, "If well-informed, long-term investors are buying within the trading range, the eventual breakout will probably be to the upside." To manage risk, both Pistolese and Thomas N. Bulkowski suggest that investors buy stock when the breakout actually occurs.

Price may end higher or lower than it was at the beginning of the formation. After an upside breakout, technical analysts may use the starting price at the left side of the bowl to determine where the price may head. However, you will want to monitor the stock with interest.

## **Criteria that Support**

### *Volume*

Volume should parallel the price formation, dropping off as the pattern reaches the bottom, then increasing as the new uptrend is established.

### *Moving Average*

Moving averages help to determine whether the rounded bottom has the potential for an upside breakout. For a rounded bottom, the price should cross the moving average when it begins to ascend. When this crossover occurs, the pattern is "confirmed".

There is an abundance of literature about moving averages if you are interested in understanding how they operate. In simple terms, the moving average can be used to detect a possible pattern success or failure. Typically, a moving average represents the closing price of a stock over a specified number of days, and can be used to predict the general direction of a stock. Depending on the type of stock, investors may decide to use a long, medium or short term moving average. For example, short duration patterns generally use a 50-day moving average, and longer patterns generally use a 200-day moving average.

## **Criteria that Refute**

### *Shape*

A formation is not a true rounded bottom when it does not involve a period of consolidation. Consolidation occurs following the descent when the price at the bottom of the pattern seems to bounce between an upper and lower limit. While, there are V-shaped patterns that yield successful returns, the rounded bottoms are a more reliable and predictable formation.

## **Underlying Behavior**

A Rounded Bottom forms as investor sentiment shifts gradually from bearishness to bullishness. As the sentiment turns down toward the bottom, there is a drop off in trading volume due to the indecisiveness in the market. There is a period of consolidation at the bottom as trading bounces within a certain range, and then finally there is a gradual upturn marking the shift to bullishness. As investors become more decisive about the bullishness, there is an increase in trading volume.

# BEARISH PATTERNS

## 1. Continuation Diamond (Bearish)

### Implication

A Continuation Diamond (Bearish) is considered a bearish signal, indicating that the current downtrend may continue.

### Description

Diamond patterns usually form over several months in very active markets. Volume remains high during the formation of this pattern. The Continuation Diamond (Bearish) indicates a possible continuation of a downtrend.

The Continuation Diamond (Bearish) pattern occurs because prices create higher highs and lower lows in a broadening pattern. Then the trading range gradually narrows after the highs peak and the lows start trending upward. The Technical Event<sup>®</sup> occurs when prices break downward out of the diamond formation to continue the prior downtrend.

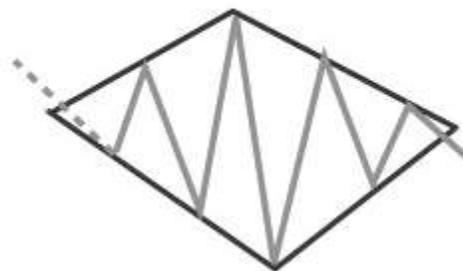


Figure 15: Continuation Diamond (Bearish)

### Trading Considerations

#### *Duration of Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least 2 times the duration of the pattern.

### **Criteria that Support**

#### *Support and Resistance*

Support can be found at the turning point of the lows and resistance at the top peak of the Diamond.

### **Criteria that Refute**

#### *No Volume*

A lack of a volume throughout the pattern is an indication that this pattern may not be reliable.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 2. Continuation Wedge (Bearish)

### Implication

A Continuation Wedge (Bearish) is considered a bearish signal, indicating that the current downtrend may continue.

### Description

A Continuation Wedge (Bearish) consists of two converging trend lines. The trend lines are slanted upward. Unlike the Triangles where the apex is pointed to the right, the apex of this pattern is slanted upwards at an angle. This is because prices edge steadily higher in a converging pattern i.e. there are higher highs and higher lows. A bearish signal occurs when prices break below the lower trendline.

Over the weeks or months that this pattern forms the trend appears upwards but the long-term range is still downward.

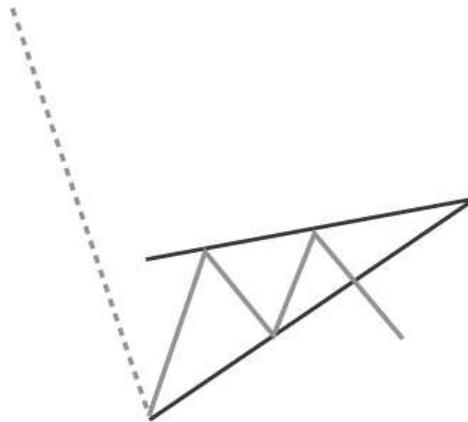


Figure 16: Continuation Wedge (Bearish)

Volume should diminish as the pattern forms.

### Trading Considerations

#### *Pattern Duration*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to the Target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### **Criteria that Support**

#### *Volume*

Volume should diminish as the pattern forms.

#### *Price moves below Support Level*

You can also check that the prices following the pattern have also crossed below a support level such as a 200 day moving average. This would provide extra confirmation that the trend is poised to continue downward.

### **Criteria that Refute**

#### *Price moves above Resistance Level*

If post pattern prices have risen above a key resistance level such as a 200 day moving average, this could be a temporary retracement to the breakout level (which is common) or perhaps a sign that the previous bearish signal was actually a false signal - sometimes called a bear trap. When such a retracement is encountered, one helpful clue is to look at volume. If pricing retraced on high volume this may signify a failure of the original bearish pattern - sometimes leading to a potentially profitable bullish play. If there is not much volume, then it could simply be a temporary retracement and prices may change direction and continue downward after all.

#### *Rising or Stable Volume*

Volume should diminish as the pattern forms. If volume remains the same or increases this signal is less reliable.

### **Underlying Behavior**

In this pattern prices edge steadily higher in a converging pattern i.e. there are higher highs and higher lows indicating that bulls are winning over bears. However, at the breakout point the bears emerge the victors and the price descends.

### 3. Descending Continuation Triangle

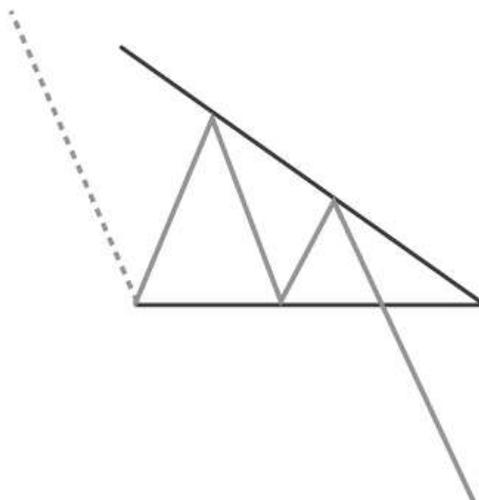
#### Implication

A Descending Continuation Triangle is considered a bearish signal, indicating that the current downtrend may continue.

#### Description

A Descending Continuation Triangle features two converging trendlines. The bottom trendline is horizontal and the top trendline slopes downward. The pattern illustrates lows occurring at a constant price level, with highs moving constantly lower. The pattern displays two highs touching the upper trendline and two lows touching the lower trendline.

This pattern is confirmed when the price breaks out of the triangle formation to close below the lower trendline.



**Figure 17: Descending Continuation Triangle**

Volume is an important factor to consider. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about decisions made based on this pattern.

## **Important Characteristics**

Following are important characteristics about this pattern.

### *Occurrence of a Breakout*

Technical analysts pay close attention to how long the Triangle takes to develop to its apex. The general rule is that prices should break out - clearly penetrate the lower trendline - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the Triangle. The closer the breakout occurs to the apex the less reliable the formation.

### *Duration of the Triangle*

The Triangle is a relatively short-term pattern. It may take from one to three months to form.

### *Shape of Descending Triangle*

The horizontal bottom trendline need not be completely horizontal.

### *Volume*

Investors should see volume decreasing as the pattern progresses toward the apex of the Triangle. At breakout, however, there should be a noticeable increase in volume.

## **Trading Considerations**

### *Duration of Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to reach its target. The shorter the pattern the sooner the price moves. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least 2 times the duration of the pattern.

### **Criteria that Support**

Look for a region of support at the bottom trendline and a line of resistance at the highest high of the Triangle.

### *Moving Average*

Compare prices to the 200 day Moving Average. When prices are close to or touch the 200 day Moving Average this signal is considered stronger.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

### **Criteria that Refute**

#### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### **Underlying Behavior**

This pattern with its increasingly lower highs and constant lows indicates that sellers are more aggressive than buyers.

## 4. Diamond Top

### Implication

A Diamond Top is considered a bearish signal, indicating a possible reversal of the current uptrend to a new downtrend.

### Description

Diamond patterns usually form over several months in very active markets. Volume remains high during the formation of this pattern. The Diamond Top indicates a reversal to a downtrend.

The Diamond Top pattern occurs because prices create higher highs and lower lows in a broadening pattern. Then the trading range gradually narrows after the highs peak and the lows start trending upward. The Technical Event<sup>®</sup> occurs when prices break downward out of the diamond formation.

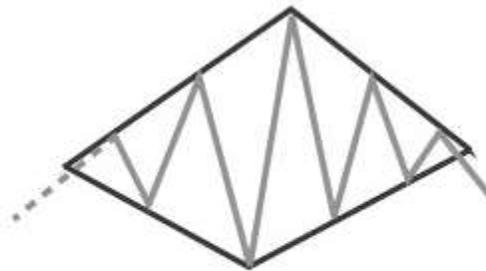


Figure 18 : Diamond Top (Bearish)

### Trading Considerations

#### *Duration of Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least 2 times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Support can be found at the turning point of the lows and resistance at the top peak of the Diamond.

### *Moving Average*

Watch for the 200-day Moving Average to flatten out. Then watch for the 50-day Moving Average to cross below the 200-day Moving Average. This should signal the breakout.

## **Criteria that Refute**

### *No Volume*

A lack of a volume throughout the pattern is an indication that this pattern may not be reliable.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 5. Double Top (Bearish)

### Implication

A Double Top is considered a bearish signal, indicating a possible reversal of the current uptrend to a new downtrend.

### Description

Sometimes called an "M" formation because of the pattern it creates on the chart, the Double Top is one of the most frequently seen and common of the patterns.

The Double Top is a reversal pattern of an upward trend in a financial instrument's price. The Double Top marks an uptrend in the process of becoming a downtrend.

A Double Top consists of two well-defined, sharp peaks at approximately the same price level. The two tops are distinct and sharp. The pattern is complete when prices decline below the lowest low in the formation. The lowest low is called the "confirmation point".

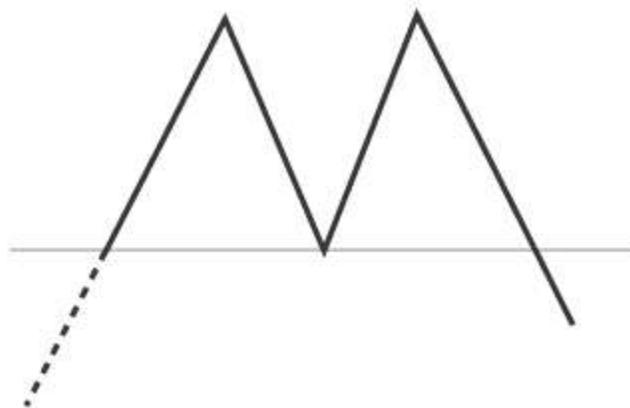


Figure 19 : Double Top (Bearish)

Analysts vary in their specific definitions of a Double Top. According to some, after the first top is formed, a reaction of at least 10% should follow. That decline is measured from high to low. The second rally back to the previous high (plus or minus 3%) should be on lower volume than the first. Other analysts maintain that the decline registered between the two tops should be at least 20% and the peaks should be spaced at least a month apart.

The pattern is comprised of two distinct tops that appear near the same price level. Tops will have a significant amount of time between them - ranging from a few weeks to a year.

Generally, volume in a Double Top is usually higher on the left top than the right. Volume tends to be downward as the pattern forms. Volume does, however, pick up as the pattern hits its peaks. Volume increases again when the pattern completes, breaking through the confirmation point.

### **Important Characteristics**

Following are important characteristics for a Double Top.

#### *Uptrend Preceding Double Top*

The Double Top is a reversal formation. It begins with prices in an uptrend. The trend upwards should be fairly long and healthy.

#### *Time between Tops*

Analysts pay close attention to the "size" of the pattern - the duration of the interval between the two tops. Generally, the longer the time between the two tops, the more important the pattern is as a good reversal signal. It is not unusual for a few months to pass between the dates of the two tops.

#### *Decline from First Top*

The deeper the trough between the two tops, the better the performance of the pattern.

#### *Volume*

Volume tends to be heaviest during the first peak and lighter on the second. It is common to see volume pick up again at the time of breakout.

#### *Pullback after Breakout*

A pullback after the breakout is usual for a Double Top. The higher the volume on the breakout, the higher the likelihood is for a pullback.

#### *Two Peaks at Different Levels*

Sometimes the two peaks comprising a Double Top are not at exactly the same price level. This does not necessarily render the pattern invalid. Some analysts point out that investors should be less concerned if the second peak does not hit the high of the first peak.

## **Trading Considerations**

### *Pattern Duration*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its expected target. The shorter the pattern the sooner the price will move to its target. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern suggests. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance Lines*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Relationship of Pattern and Moving Average*

The location of a Moving Average relative to the pattern can be a good indicator of the potential of the pattern. The Double Top should be above the Moving Average. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

The Moving Average should change direction within the pattern and should head in the direction indicated by the pattern. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Volume*

Volume is important for a Double Top. Two characteristics regarding volume should be noted. A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume throughout the duration of the pattern should be declining on average.

### *Other Patterns Present*

Reversal Patterns (such as Bullish and Bearish Engulfing Lines and Islands) that occur at the peaks and valleys indicate strong resistance at those points. The presence of these patterns inside a Double Top is a strong indication in support of this pattern.

## **Criteria that Refute**

### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Relationship of Pattern and Moving Average*

If the Double Top is below the Moving Average then this pattern should be considered less reliable. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## **Underlying Behavior**

A Double Top occurs when prices are in an uptrend. Prices rise to a resistance level, retreat, and then return to the resistance level again before declining. A Double Top often forms in active markets, experiencing heavy trading. A stock's price heads up rapidly on high volume. Demand falls off and price falls, often remaining in a trough for weeks or months. A second run-up in the price occurs taking the price back up to the level achieved by the first top. This time volume is heavy but not as heavy as during the first run-up. Prices fall back a second time, unable to pierce the resistance level. These two sharp advances with relatively heavy volume have exhausted the buying power in the stock. Without that power behind it, the instrument reverses its upward movement and falls into a downward trend.

A pullback after the breakout is usual for a Double Top. The higher the volume on the breakout, the higher the likelihood is for a pullback. When everyone sells their shares soon after a breakout, what is left is an imbalance of buying demand (since the sellers have all sold), so the price rises and pulls back to the confirmation point.

## 6. Downside Breakout

### Implication

A Downside Breakout is considered a bearish signal, marking a breakout from a trading range to start a new downtrend.

### Description

A Downside Breakout occurs when prices break out through the bottom of a trading range and descend quickly as a new downtrend forms. It appears that the market is being flooded with sell orders. There are usually gaps throughout this activity. This pattern can last for a few days to a few weeks.

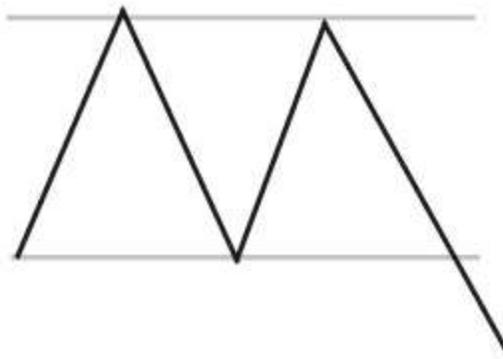


Figure 20: Downside Breakout

### Criteria that Support

#### *Duration of Trading Range*

The duration of the trading range for which the breakout occurred can provide an indication of the strength of the breakout. The longer the duration of the trading range the more significant the breakout.

#### *Narrowness of Trading Range*

The "narrowness" of the trading range can also be used to gauge the breakout. To determine the narrowness of the trading range, compare the upper boundary with the lower boundary of the trading range. If the trading range has a small difference between the upper and lower boundary (making it narrow) then the breakout is considered stronger and more reliable.

### *Support and Resistance*

Look for a region of support or resistance. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Moving Average Trend*

Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. The Moving Average should change direction during the duration of the pattern and should head in the direction indicated by the pattern.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

## **Criteria that Refute**

### *Duration of Trading Range*

The duration of the trading range for which the breakout occurred can provide an indication of the strength of the breakout. The shorter the duration of the trading range the less significant the breakout.

### *Narrowness of Trading Range*

The "narrowness" of the trading range can also be used to gauge the breakout. To determine the narrowness of the trading range, compare the upper boundary with the lower boundary of the trading range. If the trading range has a large difference between the upper and lower boundary (making it wide) then the breakout is considered weaker and less reliable.

### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Moving Average Trend*

Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable.

## 7. Flag (Bearish)

### Implication

A Flag (Bearish) is considered a bearish signal, indicating that the current downtrend may continue.

### Description

A Flag (Bearish) follows a steep or nearly vertical decline in price, and consists of two parallel trendlines that form a rectangular flag shape. The Flag can be horizontal (as though the wind is blowing it), although it often has a slight upward trend.

The vertical downtrend, that precedes a Flag, may occur because of buyers' reactions to an unfavorable company announcement, such as a court case, or a sudden and unexpected departure of a CEO. The sharp price decrease is sometimes referred to as the "flagpole" or "mast".

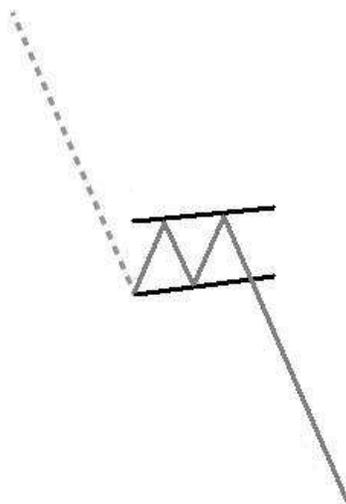


Figure 21: Flag (Bearish)

The rectangular flag shape is the product of what technical analysts refer to as consolidation. Consolidation occurs when the price seems to bounce between an upper and lower price limit. The Flag (Bearish) pattern formation reflects the reaction of sellers who are willing to sell at a lower cost, and the influx of buyers who inadvertently drive up the price as they compete to buy at the best possible price.

A bearish signal occurs when the price rebounds beyond the lower trendline of the Flag formation, and continues the original downward price movement. This is considered a pattern confirmation.

When speaking about Flags, technical analysts may use jargon and refer to the flag as "flying at half-mast". Visually, this reference is nothing like a flag at half-mast, such as on a day of national mourning. Instead, this term refers to the location of the flag - at the mid-point of what would otherwise be a continuous downtrend.

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Trendlines*

Flags are very similar to Pennants. However, with a Flag, the price trendlines tend to run parallel, whereas with a Pennant, the price trendlines tend to converge. John J. Murphy notes that a price drop below the lower trendline may indicate the resumption of the downtrend.

### *Volume*

As the Flag develops, the volume tends to decrease. However, you will often notice a sharp spike in volume at the end of a Flag, whether it is bearish or bullish.

### *Duration of the Pattern*

Martin Pring notes in his book, *Technical Analysis Explained* that "Flags can form in a period as short as 5 days or as long as 3 to 5 weeks." John J. Murphy identifies that Flags "often last no longer than one or two weeks."

## **Trading Considerations**

### *Possibility of Price Reversal*

In some rare cases, the price will break against the original price movement, and create a reversal trend. The pattern reversal may be signaled during the Flag formation by a pattern of increasing volume, as opposed to the more typical decrease.

### *Duration of the Pattern*

The duration of the pattern depends on the extent of the price fluctuations (consolidation). The greater the fluctuations, the longer a pattern will take to develop.

### *Target Price*

It is commonly held that the length of the flagpole indicates the potential price decrease. When the Flag completes, the price typically jumps to replicate the height of the original flagpole, while continuing in the direction of the inbound trend.

## **Criteria that Support**

### *Volume*

Volume should diminish noticeably as the pattern forms.

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume over the course of the pattern should be declining on average.

## **Criteria that Refute**

### *Duration of the Pattern*

According to Martin Pring, a pattern that exceeds "4 weeks to develop should ... be treated with caution". After 4 weeks, interest in the stock is likely to decrease to point that it is unlikely to continue in a strong downtrend.

### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable and may actually reverse.

### *Long Inbound Trend*

Shabacker writes that, "When a mast is long ... and it's Flag relatively small, we should naturally expect the movement to be pretty well exhausted when its indicated objective is reached." He suggests that when you observe this formation, and a price continuation occurs, it is best to use the flagpole as a "yard-stick" to indicate the level at which to "take profits, step aside, and watch for further chart developments."

## **Underlying Behavior**

This pattern is effectively a pause in a downtrend. The price has gotten ahead of itself with a steep decline; therefore market activity takes a break before continuing the downtrend. This pause is reflected in the decreasing trading volume. Similarly, a spike in volume marks the resumption of the downtrend.

## 8. Head and Shoulders Top (Bearish)

### Implication

A Head and Shoulders Top is considered a bearish signal. It indicates a possible reversal of the current uptrend to a new downtrend.

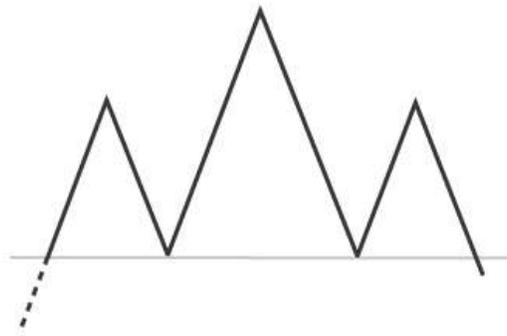
### Description

The Head and Shoulders Top is an extremely popular pattern among investors because it's one of the most reliable of all formations. It also appears to be an easy one to spot. Novice investors often make the mistake of seeing Head and Shoulders everywhere. Seasoned technical analysts will tell you that it is tough to spot the real occurrences.

The classic Head and Shoulders Top looks like a human head with shoulders on either side of the head. A perfect example of the pattern has three sharp high points, created by three successive rallies in the price of the financial instrument.

The first point - the left shoulder - occurs as the price of the financial instrument in a rising market hits a high and then falls back. The second point - the head - happens when prices rise to an even higher high and then fall back again. The third point - the right shoulder - occurs when prices rise again but don't hit the high of the head. Prices then fall back again once they have hit the high of the right shoulder. The shoulders are definitely lower than the head and, in a classic formation, are often roughly equal to one another.

A key element of the pattern is the neckline. The neckline is formed by drawing a line connecting two low price points of the formation. The first low point occurs at the end of the left shoulder and the beginning of the uptrend to the head. The second marks the end of the head and the beginning of the upturn to the right shoulder. The neckline can be horizontal or it can slope up or down. The pattern is complete when the support provided by the neckline is "broken." This occurs when the price of the financial instrument, falling from the high point of the right shoulder, moves below the neckline. Technical analysts will often say that the pattern is not confirmed until the price closes below the neckline - it is not enough for it to trade below the neckline.



**Figure 22: Head and Shoulders top (Bearish)**

There are many variations, some of which are described here and can be just as valid as the classic formation. Other factors - including volume and the quality of the breakout - should be considered in conjunction with the pattern itself.

### **Variations of a Head and Shoulders Top**

Following are some variations of the Head and Shoulder pattern that may occur.

#### *The Drooping Shoulder*

The drooping shoulder, where the neckline has a downward slope, is highly unusual and demonstrates extreme weakness. The droop happens because the price at the end of the head and the beginning of the right shoulder has dropped even lower than the previous low at the end of the left shoulder and the beginning of the head. Most experts agree that a downward slope has bearish implications for market weakness. When the right shoulder is drooping, the trader will have to wait longer than usual for a decisive neck break. It should also be noted that when that decisive break does occur much of the move will have already occurred.

#### *Varying Width of Shoulders*

The classic Head and Shoulders Top is symmetrical. However, if the shoulders don't match in width, don't discount the pattern.

#### *Flat Shoulders*

While the classic Head and Shoulders Top is made up of three sharp upward points, these need not be present for the pattern to be valid. Sometimes, shoulders can be rounded.

### *Multiple Head and Shoulders Patterns*

Many valid Head and Shoulders patterns are not as well defined as the classical head with a shoulder on either side. It is not uncommon to see more than two shoulders and more than one head. A common version of a multiple Head and Shoulders pattern includes two left shoulders of more or less equal size, one head, and then two right shoulders that mimic the size and shape of the left shoulders.

#### *Volume*

Volume is extremely important for this pattern.

For a Head and Shoulders Top the volume pattern is as follows.

Volume is highest when the left shoulder is forming. In fact, volume is often expanding as the uptrend continues and more and more buyers want to get in.

Volume is lowest on the right shoulder as investors see a reversal happening. Experts say low volume levels on the right shoulder are a strong sign of a reversal.

In the head portion of the price pattern, volume falls somewhere between the strength of the left shoulder and weakness of the right shoulder. Volume often increases when the neckline is broken as the reversal is now complete and downside pressure begins in earnest. One of the key characteristics looked for in a Head and Shoulders Top by seasoned Technical Analysts is very high volume on the breakout.

Although volume is important, experts warn us not to get caught up in the precise number of shares being traded. What is more important are changes in the rate of trading.

### **Important Characteristics**

Following are important characteristics for this pattern.

#### *Symmetry*

The right and left shoulders peak at approximately the same price level. In addition, the shoulders are often about the same distance from the head. In other words, there should be about the same amount of time between the development of the top of the left shoulder and the head as between the head and the top of the right shoulder. In the real world, the formation will seldom be perfectly symmetrical. Sometimes one shoulder will be higher than the other or take more time to develop.

#### *Volume*

Volume is highest on the left shoulder, lowest on the right shoulder and somewhere in between on the head.

### *Duration of the Pattern*

Some experts say that an average pattern takes at least three months from start to the breakout point when the neckline is broken. It is not uncommon, however, for a pattern to last up to six months. The duration of the pattern is sometimes called the "width" or "length" of the pattern.

### *Need for an Uptrend*

This is a reversal pattern which marks the transition from an uptrend in prices to a downtrend. This means that the pattern always begins during an uptrend of prices.

### *Slope of the Neckline*

The neckline can slope up or down. An upward sloping neckline is considered to be more bullish than a downward sloping one, which indicates a weaker situation with more drastic price declines. It is rather rare to have a downward sloping neckline for this pattern.

## **Trading Considerations**

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to the target price. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern is considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Location of Moving Average*

The Head and Shoulders Top should be above the Moving Average. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

The Moving Average should change direction within the duration of the pattern and should head in the direction indicated by the pattern. Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Volume*

Volume is highest when the left shoulder is forming.

Volume is lowest on the right shoulder.

In the head portion of the price pattern, volume falls somewhere between the strength of the left shoulder and weakness of the right shoulder.

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern.

### *Other Patterns*

Other reversal patterns (such as Bullish and Bearish Engulfing Lines and Islands) that occur at the peaks and valleys indicate strong resistance at those points. The presence of these patterns inside a Head and Shoulders is a strong indication in support of this pattern.

## **Criteria that Refute**

### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Location of Moving Average*

If the Head and Shoulders Top is below the Moving Average then this pattern should be considered less reliable. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable. Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

## 9. Megaphone Top

### Implication

A Megaphone Top also known as a Broadening Top is considered a bearish signal, indicating that the current uptrend may reverse to form a new downtrend.

### Description

A Megaphone Top is a relatively rare formation and is also known as a Broadening Top. Its shape is opposite to that of a Symmetrical Triangle. The pattern develops after a strong advance in prices and can last several weeks or even a few months.

A Megaphone Top is formed because the prices make a series of higher highs and lower lows. The Megaphone Top usually consists of three ascending peaks and two descending troughs. The signal that the pattern is complete occurs when prices fall below the lower low.

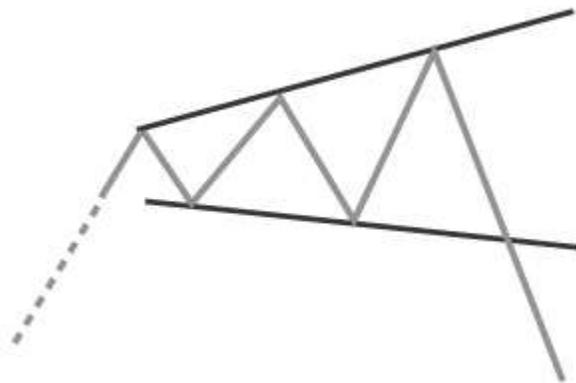


Figure 23: Megaphone top

Volume in the Megaphone Top usually peaks along with prices. It is usual to see trading volumes increase or remain high during the formation of this pattern. The eventual breakout and reversal can be difficult to identify at the time of its occurrence because volume does not appear unusual.

### Trading Considerations

#### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful, however you must consider the current price and the volume of shares you intend to trade.

## **Criteria that Support**

### *Volume*

Volume in the Megaphone Top usually peaks along with prices. A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern.

### **Underlying Behavior**

The creation of the pattern reflects a period of time when bulls and bears are battling to gain control of the stock. The pattern occurs after the bulls have been charging and driving the stock price appreciably higher. During the formation of the Megaphone Top, however, bears are exerting increasing influence on the price and causing it to set a series of lower lows. The increasing volatility eventually creates a sense of uncertainty, leads to profit-taking, and deters some of the bulls from making any further commitments. The bears eventually triumph.

## 10. Pennant (Bearish)

### Implication

A Pennant (Bearish) is considered a bearish signal, indicating that the current downtrend may continue.

### Description

A Pennant (Bearish) follows a steep or nearly vertical fall in price, and consists of two converging trendlines that form a narrow, tapering flag shape. The Pennant shape generally appears as a horizontal shape, rather than one with a downtrend or uptrend.

Apart from its shape, the Pennant is similar in all respects to the Flag. The Pennant is also similar to the Symmetrical Triangle or Wedge continuation patterns however; the Pennant is typically shorter in duration and flies horizontally.

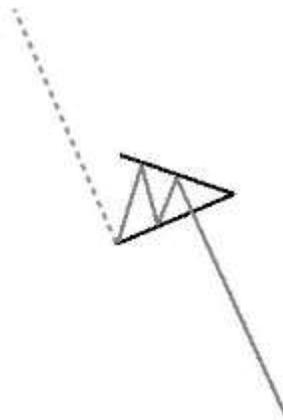


Figure 24: Pennant (Bearish)

### Important Characteristics

Following are important characteristics for this pattern.

#### *Trendlines*

For Pennants, the price trendlines tend to converge. At the start of the Pennant, the price spikes downward, perhaps in response to an unexpected and negative company announcement. Following the price spike, the price fluctuations continue until they taper out and become decreasingly less volatile. This behavior appears on a price chart with the initial price spike forming what technical analysts refer to as the "mast" of the Pennant, followed by a triangular pennant shape.

### *Volume*

As the Pennant develops, the volume tends to decrease. Martin Pring notes in his book, *Technical Analysis Explained*, "a pennant is in effect a very small triangle. If anything, volume tends to contract even more during the formation of a pennant than during that of a flag." However, as with Flags, when the Pennant completes you will often observe a sharp spike in volume.

### *Duration of the Pattern*

In his book, *Technical Analysis of the Financial Markets*, John J. Murphy identifies that Pennants and Flags are relatively short-term and should be completed within one to three weeks". He also notes that by comparison, the bullish patterns take longer to develop than the related bearish patterns.

## **Trading Considerations**

### *Possibility of Price Reversal*

In some rare cases, the price will break against the original price movement, and create a reversal trend. The pattern reversal may be signaled during the Pennant formation by an increase in volume, as opposed to the more typical decrease.

### *Duration of the Pattern*

The duration of the pattern depends on the extent of the price fluctuations (consolidation). The greater the fluctuations, the longer a pattern will take to develop.

### *Target Price*

It is commonly held that the length of the mast indicates the potential price increase. Like the Flag, the Pennant is considered to be a pause in a downtrend. Following the Pennant, the price typically jumps to replicate the height of the mast, while continuing in the direction of the inbound trend.

## **Criteria that Support**

### *Volume*

Volume should diminish noticeably as the pattern forms.

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume over the course of the pattern should be declining on average.

## **Criteria that Refute**

### *Duration of the Pattern*

According to Martin Pring, a pattern that exceeds "4 weeks to develop should ... be treated with caution". After 4 weeks, interest in the stock is likely to decrease to point that it is unlikely to continue in a strong downtrend.

### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable and may actually reverse.

## **Underlying Behavior**

This pattern is effectively a pause in a downtrend. The price has moved ahead of itself with a steep decline; therefore market activity takes a break before continuing the downtrend. This pause is reflected in the decreasing trading volume. Similarly, a spike in volume marks the resumption of the downtrend.

## 11. Rounded Top

### Implication

A Rounded Top is considered a bearish signal, indicating a possible reversal of the current uptrend to a new downtrend.

### Description

A Rounded Top is dome-shaped, and is sometimes referred to as an inverted bowl or a saucer top. The pattern is confirmed when the price breaks down below its moving average.



Figure 25: Rounded Top

### Important Characteristics

Following are important characteristics to look for in a Rounded Top.

#### *Shape*

Robert D. Edwards and John Magee describe the rounded top as being a "gradual, progressive, and fairly symmetrical change in the trend direction, produced by a gradual shift in the balance between buying and selling". For a rounded top, the price can fluctuate or be linear. However, the overall curve should be smooth and regular, without obvious spikes.

### *Volume*

Volume can fluctuate, however volume generally appears to be concave, and follows the inverse of the price pattern. Therefore, as the price begins to ascend, volume tends to decrease. Once the top of the price pattern starts its downward turn, volume tends to increase.

As Martin J. Pring writes in his book, *Technical Analysis Explained*, "The tip-off to the bearish implication of the rounded top is the fact that volume shrinks as prices reach their highest levels and then expand as they fall."

### *Duration of the Rounded Top*

Rounded Tops typically occur over a period of about 3 weeks, but can also be observed over several years.

## **Trading Considerations**

### *Duration of the Pattern*

The duration of the pattern indicates the significance of the price movement. Clifford Pistoletto writes, "a rounding top that is completed in a couple of months will usually be less significant than one that takes a much longer time to complete."

### *Target Price*

After a downside breakout, technical analysts may use the starting price at the left side of the dome to determine where the price may head. However, you will want to monitor the stock with interest. Price may end higher than it was at the beginning of the pattern. Furthermore, there is the potential for the price to rise after the rounded top completes. Thomas N. Bulkowski writes that, "most of the time prices rise after a rounding top completes".

## **Criteria that Support**

### *Volume*

Volume should diminish as the pattern forms.

### *Moving Average*

Moving averages help to determine whether the rounded top has the potential to descend. For a rounded top, the price should cross below the moving average when it begins to descend. When this crossover occurs, the pattern is "confirmed".

There is an abundance of literature about moving averages if you are interested in understanding how they operate. In simple terms, the moving average can be used to detect a possible pattern success or failure. Typically, a moving average represents the closing price of a stock over a set number of days, and can be used to anticipate the general direction of a stock. Depending on the type of stock, investors may decide to use a long, medium or short term moving average. For example, short duration patterns generally use a 50-day moving average, and longer patterns generally use a 200-day moving average.

### *Trendlines*

Price trendlines provide investors with a way to monitor and validate a rounded top. To track a potential rounded top, technical analysts draw a line just beneath the lower limits of the price uptrend. The trendline is straight, regardless of the fluctuations of the price. When the price drops beneath the line, there is indication that the uptrend has ended.

When the downtrend begins, technical analysts draw another line just above the upper limits of the price pattern, and continue down towards the start price of the pattern formation. When the price rises above the line, there is an indication that the new downtrend has ended.

## **Criteria that Refute**

### *Upside Breakouts*

A promising-looking rounded shape with a breakout above the moving average, instead of below, may not establish or maintain a new downtrend.

## **Underlying Behavior**

A Rounded Top forms as investor sentiment shifts gradually from bullishness to bearishness. As the sentiment turns up toward the top, there is a drop off in trading volume due to the indecisiveness in the market. There is a period of consolidation at the top as trading bounces within a certain range, then finally there is a gradual downturn marking the shift to bearishness. As investors become more decisive about the bearishness, there is an increase in trading volume.

## 12. Symmetrical Continuation Triangle (Bearish)

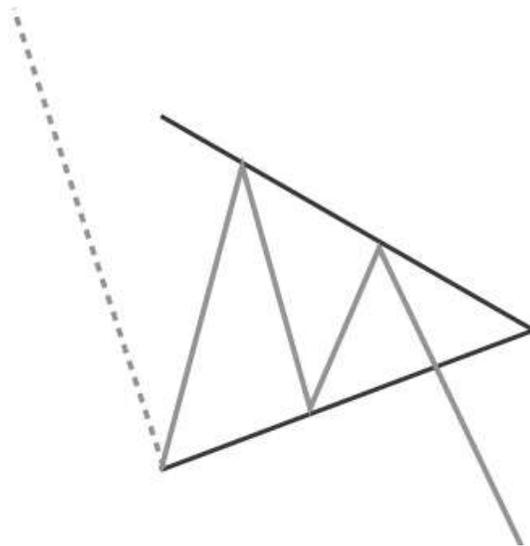
### Implication

A Symmetrical Continuation Triangle (Bearish) is considered a bearish signal, indicating that the current downtrend may continue.

### Description

A Symmetrical Continuation Triangle (Bearish) shows two converging trendlines, the lower one is ascending, the upper one is descending. The formation occurs because prices are reaching both lower highs and higher lows. The pattern will display two highs touching the upper (descending) trendline and two lows touching the lower (ascending) trendline.

This pattern is confirmed when the price breaks out of the triangle formation to close below the lower (ascending) trendline.



**Figure 26: Symmetrical Continuation Triangle (Bearish)**

Volume is an important factor to consider. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when the breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about decisions based on this triangle.

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Occurrence of a Breakout*

Technical analysts pay close attention to how long the Triangle takes to develop to its apex. The general rule is that prices should break out - clearly penetrate the lower trendline - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the Triangle. The closer the breakout occurs to the apex the less reliable the formation.

### *Duration of the Triangle*

The Triangle is a relatively short-term pattern. While long-term triangles do form, the most reliable triangles take between one and three months to form.

### *Volume*

Investors should see volume decreasing as the pattern progresses toward the apex of the Triangle. At breakout, however, there should be a noticeable increase in volume.

## **Trading Considerations**

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to reach its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

### *Confirm the Breakout*

To avoid taking an inadvisable position in a stock, some investors advise waiting a few days to determine whether the breakout signals that the price is ready to move. A key sign of a possible false move is low volume. If there's no pick up in volume around the breakout, investors should be wary. Typically, a good breakout from a Triangle formation will be accompanied by a definite surge in volume.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Price moves below Support Level*

You can also check that the prices following the pattern have also crossed below a support level such as a 200 day moving average. This would provide extra confirmation that the trend is poised to continue downward.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

## **Criteria that Refute**

### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### *Price moves above Resistance Level*

If post pattern prices have risen above a key resistance level such as a 200 day moving average, this could be a temporary retracement to the breakout level (which is common) or perhaps a sign that the previous bearish signal was actually a false signal - sometimes called a bear trap. When such a retracement is encountered, one helpful clue is to look at volume. If pricing retraced on high volume this may signify a failure of the original bearish pattern - sometimes leading to a potentially profitable bullish play. If there is not much volume, then it could simply be a temporary retracement and prices may change direction and continue downward after all.

## **Underlying Behavior**

This pattern is a result of converging trendlines of support and resistance which give this Triangle pattern its distinctive shape. This occurs because the trading action gets tighter and tighter until the market breaks out with great force. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the range of the price movements increasingly tight. As the range between the peaks and troughs marking the progression of price narrows, the trendlines meet at the "apex" located at the right of the chart.

The narrowing of the trading action and the decreasing volume of trade reflect the indecision in the market. Finally consensus or decision in the market is reached and this is reflected as the price breaks out of the triangle. A spike in volume on this breakout date reflects stronger consensus that the stock should move in that direction.

### 13. Top Triangle - Top Wedge

#### Implication

Top Triangles and Top Wedges are considered bearish signals that indicate a possible reversal of the current uptrend to a new downtrend.

#### Description

Top Triangles and Top Wedges make up a group of patterns which have the same general shape as Symmetrical Triangles, Wedges, Ascending Triangles and Descending Triangles. The difference is that these formations are reversal and not continuation patterns. These patterns have two converging trendlines. The pattern will display two highs touching the upper trendline and two lows touching the lower trendline. Contrary to Triangle formations, Wedges are characterized by their boundary trendlines both moving in the same direction.

This pattern is confirmed when the price breaks downward out of the Triangle or Wedge formation to close below the lower trendline.

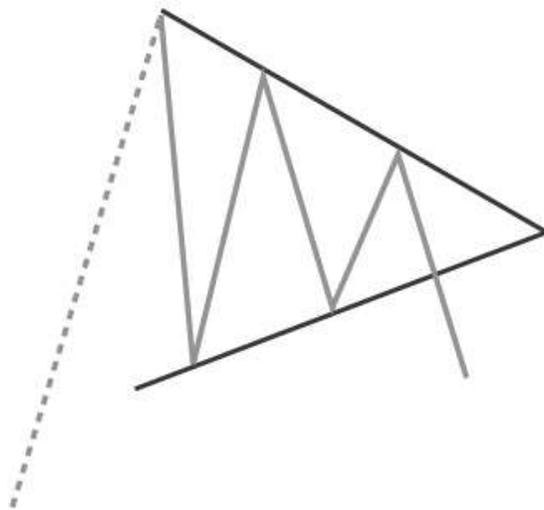


Figure 27: Top Triangle - Top Wedge

Volume is an important factor to consider. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when the breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about decisions based on the particular Triangle or Wedge pattern.

## **Important Characteristics**

Following are important characteristics for this pattern.

### *Occurrence of a Breakout*

Technical analysts pay close attention to how long the pattern takes to develop to its apex. The general rule is that prices should break out - clearly penetrate the lower trendline - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the Triangle or Wedge. The closer the breakout occurs to the apex the less reliable the formation.

### *Duration of the Triangle or Wedge*

This pattern is a relatively short-term. While long-term Top Triangles and Top Wedges do form, the most reliable patterns take between one and three months to form.

### *Volume*

Investors should see volume decreasing as the pattern progresses toward the apex of the triangular or wedge shaped pattern. At breakout, however, there should be a noticeable increase in volume.

## **Trading Considerations**

### *Duration of the Pattern*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to reach its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

### **Criteria that Support**

#### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

#### *Moving Average*

Watch for the 200 day moving average to flatten. When prices cross below the 200 day moving average (usually about two-thirds to three-quarters of the way through the pattern), the pattern is considered more reliable.

#### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume during the duration of the pattern should be declining on average.

### **Criteria that Refute**

#### *No Volume Spike on Breakout*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### **Underlying Behavior**

This pattern is a result of converging trendlines of support and resistance which give this pattern its distinctive shape. This occurs because the trading action gets tighter and tighter until the market breaks out with great force. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the range of the price movements increasingly tight. As the range between the peaks and troughs marking the progression of price narrows, the trendlines meet at the "apex".

The narrowing of the trading action and the decreasing volume of trade reflect the indecision in the market. Finally consensus or decision in the market is reached and this is reflected as the price breaks out downward to close below the triangular or wedge shaped boundary. A spike in volume on this breakout date reflects stronger consensus that the stock should move in that direction.

## 14. Triple Top

### Implication

A Triple Top is considered a bearish signal, indicating a possible reversal of the current uptrend to a new downtrend.

### Description

A Triple Top is a reversal pattern. It marks an uptrend in the process of becoming a downtrend.

The Triple Top pattern is comprised of three sharp peaks, all at the same level. While the three peaks should be sharp and distinct, the lows of the pattern can appear as rounded valleys. The pattern is complete when prices decline below the lowest low in the formation. The lowest low is also called the "confirmation point".

The three peaks are well separated and are not part of a congestion pattern. The peaks do not have to be precisely at the same level.

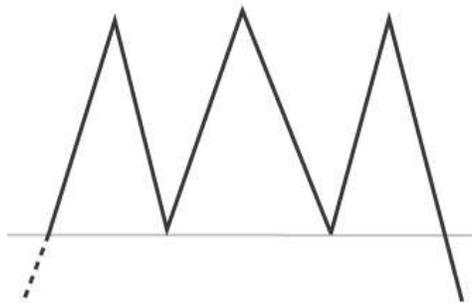


Figure 28: Triple Top

There is a hybrid variation that appears to be a cross between a Double and Triple Top. The middle peak is slightly lower than the left and right peaks. This is still a valid reversal pattern.

It is also possible for the pattern to display a fourth peak before reversal occurs.

Generally, volume in a Triple Top tends to be downward as the pattern forms. Volume is lighter on each rally peak. Volume then picks up as prices fall under the confirmation point and break into the new downward trend. Volume is higher on the peaks than at the lows.

## **Important Characteristics**

Following are important characteristics for a Triple Top.

### *Duration of the Pattern*

This pattern can take upwards of several months to form. In addition, experts agree that the longer the pattern takes to form, the greater the significance of the price move once breakout occurs. The three highs do not need to be equally spaced from one another.

### *Need for an Uptrend*

The Triple Top is a reversal pattern marking the transition period between an uptrend and a downtrend in prices. This pattern must begin with an uptrend of prices.

### *Volume*

It is typical to see volume diminish as the pattern progresses. This should change, however, when breakout occurs. A valid breakout should be accompanied by a burst in volume. Some experts are less concerned by seeing a steadily diminishing trend in volume as the pattern progresses through its three highs. All agree, however, that an investor will want to see a definite increase in volume at the time of the break through the confirmation point.

### *Rally after Breakout*

A high percentage of Triple Tops have rallies back to the point of the breakdown more often than not.

## **Trading Considerations**

### *Duration*

Consider the duration of the pattern and its relationship to your trading time horizons. The duration of the pattern is considered to be an indicator of the duration of the influence of this pattern. The longer the pattern the longer it will take for the price to move to its target. The shorter the pattern the sooner the price move. If you are considering a short-term trading opportunity, look for a pattern with a short duration. If you are considering a longer-term trading opportunity, look for a pattern with a longer duration.

### *Target Price*

The target price provides an important indication about the potential price move that this pattern indicates. Consider whether the target price for this pattern is sufficient to provide adequate returns after your costs (such as commissions) have been taken into account. A good rule of thumb is that the target price must indicate a potential return of greater than 5% before a pattern should be considered useful. However you must consider the current price and the volume of shares you intend to trade. Also, check that the target price has not already been achieved.

### *Inbound Trend*

The inbound trend is an important characteristic of the pattern. A shallow inbound trend may indicate a period of consolidation before the price move indicated by the pattern begins. Look for an inbound trend that is longer than the duration of the pattern. A good rule of thumb is that the inbound trend should be at least two times the duration of the pattern.

## **Criteria that Support**

### *Support and Resistance*

Look for a region of support or resistance around the target price. A region of price consolidation or a strong Support and Resistance Line at or around the target price is a strong indicator that the price will move to that point.

### *Location of Moving Average*

The Triple Top should be above the Moving Average. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Moving Average Trend*

The Moving Average should change direction within the duration of the pattern and should head in the direction indicated by the pattern. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

### *Volume*

A strong volume spike on the day of the pattern confirmation is a strong indicator in support of the potential for this pattern. The volume spike should be significantly above the average of the volume for the duration of the pattern. In addition, the volume within the duration of the pattern should be declining on average.

### *Other Patterns*

Other reversal patterns (such as Bullish and Bearish Engulfing Lines and Islands) that occur at the peaks and valleys indicate strong resistance at those points. The presence of these patterns inside a Triple Top is a strong indication in support of this pattern.

### **Criteria that Refute**

#### *No Volume Spike on Confirmation*

The lack of a volume spike on the day of the pattern confirmation is an indication that this pattern may not be reliable. In addition, if the volume has remained constant, or was increasing, over the duration of the pattern, then this pattern should be considered less reliable.

#### *Location of Moving Average*

The Triple Top should be above the Moving Average. Compare the location of the pattern to a Moving Average of appropriate length. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average. If the Triple Top is below the Moving Average then this pattern should be considered less reliable.

#### *Moving Average Trend*

A Moving Average that is trending in the opposite direction to that indicated by the pattern is an indication that this pattern is less reliable. Look at the direction of the Moving Average Trend. For short duration patterns use a 50 day Moving Average, for longer patterns use a 200 day Moving Average.

#### *Short Inbound Trend*

An inbound trend that is significantly shorter than the pattern duration is an indication that this pattern should be considered less reliable.

### **Underlying Behavior**

A Triple Top occurs when prices are in an uptrend. Prices rise to a resistance level, retreat, return to the resistance level again, retreat, and finally, return to that resistance level for a third time before declining. In a classic Triple Top, the decline following the third peak marks the beginning of a downtrend.