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Introduction

Aside from knowing what to buy or sell, the question of when to buy and when to sell could very well be the question of all questions when it comes to trading.

Fundamentals of course are ultimately the key in determining the price or value of a stock. And statistics have shown that companies receiving upward earnings estimate revisions outperform the market while companies receiving downward earnings estimate revisions underperform the market.

But technical analysis (and specifically chart pattern analysis) can give you insight as to when the market is ready to react to those fundamentals.

Just because you think you’ve found a solid company, doesn’t necessarily mean it’s ready to go up as you’d anticipated. How many times have you read about, heard about or researched a certain stock, determined that the fundamentals were bullish or bearish, only to then take a position and watch the market go the other way? Confused and frustrated you then abandon your position only to then watch it finally go the way you had been expecting from the beginning. And the reasons for your earlier market convictions are now being played out in the media while you stand by wondering what happened?

Brutal, huh? It happens all the time.

Very often, the price action on a chart can form meaningful patterns. These chart patterns reflect the collective buying and selling sentiment of the market and can in turn be used in trying to forecast future price direction and the timing surrounding it.

Keep in mind, nothing is foolproof. But a strong fundamental outlook combined with a good technical viewpoint creates a very potent combination for the trader and investor.

In the pages that follow, we’ll identify the eight classic chart patterns, what they mean and how to trade them.

The best part about this form of technical analysis is that it’s very straightforward. The chart action has either formed a certain shape or it hasn’t. No guesswork. No subjective interpretation. It’s either there or it isn’t. It’s quick. It’s easy. And oh yeah, it works!

Kevin Matras
Zacks Investment Research, Inc.
Chart Patterns and Technical Analysis

Why Chart Patterns?

Identifying chart patterns is simply a form of technical analysis. And technical analysis is just a method for trying to forecast the ups and downs of the market. Research has proven that some chart patterns have high forecasting probabilities. These patterns include:

- Symmetrical Triangles
- Ascending Triangles & Descending Triangles
- Wedges
- Flag & Pennants
- Rectangles
- Head and Shoulders patterns

What do these chart patterns all have in common?

They were all patterns in some of the biggest market moves!

Continuation Patterns and Reversal Patterns

Different chart patterns can be classified as either continuation patterns or reversal patterns.

Continuation Patterns are called that because they generally will continue the direction of the trend. For example: if a stock is in an uptrend and then pauses or enters into a period of consolidation (i.e., trading is temporarily confined to a well-defined pattern or range), the expectation is that the market will ultimately breakout to the upside and continue the direction of the trend.

If the trend was down prior to the consolidation, the expectation would be for the stock to breakout to the downside and continue the direction of the downtrend.

Symmetrical Triangles, Ascending & Descending Triangles, Rectangles and Flags & Pennants are the most common continuation patterns.

Reversal Patterns have a tendency of reversing the trend. These consolidation patterns can signal a reversal in both uptrends as well as downtrends.

The Head and Shoulders patterns (which includes the Inverted Head and Shoulders) is typically identified as a reversal pattern. Interestingly, there are times when a Head and Shoulders pattern can act as a continuation pattern. These instances can be explosive and we'll show you how to identify which is which.

Wedges can act as both continuation patterns and reversal patterns as well. The preceding trend and the slant of the Wedge make it easy to identify which is which and what direction the ensuing move is likely to be.
Symmetrical Triangles

Overview

Symmetrical Triangles are continuation patterns that generally mark a pause in the preceding trend. It’s identified as having two converging trendlines that take the shape of a sideways triangle.

This pattern can mean the market has simply gotten ahead of itself and it needs to consolidate or it truly is in a period of indecision and is looking for direction. Attempts to push higher are met by selling and attempts to push lower are met with buying. Each new lower high and higher low becomes shallower than the last. Volume will usually diminish during this period as well.

Eventually, the symmetrical triangle resolves itself and often with an explosive breakout in the direction of the preceding trend.

Symmetrical Triangles in Uptrends / Bullish

The majority of the time, a Symmetrical Triangle in an uptrend will breakout to the upside. A high volume breakout is more reliable than a low volume breakout.

Symmetrical Triangles in Downtrends / Bearish

Symmetrical Triangles in downtrends will typically breakout to the downside. However, an increase in volume is not required for a successful breakout. In fact, a significant increase in volume might be considered suspect. Although, volume should start to increase as the downside move continues.

Identifying and Drawing Symmetrical Triangles

Triangles are usually quite easy to see on a chart. Especially when the lines have already been drawn in. To identify a Symmetrical Triangle pattern on your own, remember that it has to have at least four points: two points at the top to draw the downward slanting trendline and two points at the bottom to draw the upward slanting trendline. Connecting
Symmetrical Triangles continued...

the high point and the subsequent lower high forms the top part of the triangle. Connecting the low and the subsequent higher low forms the bottom part of the triangle.

Symmetrical Triangles in uptrends are bullish, while Symmetrical Triangles in downtrends are bearish.

For a bullish Symmetrical Triangle pattern, the first point (the point farthest left, i.e., the earliest point) is at the top.

For a bearish pattern, the first point is at the bottom.

A triangle can have more than four points. The image to the right has six.

Measured Moves (Minimum Profit Targets)

To determine your projected minimum profit target, measure the distance between points 1 and 2. This is the widest part of the triangle and is often referred to as the base.

For example: if the top of the base (point 1) was $56 and the bottom of the base (point 2) was $50, the base would be $6. This is your measured move.

To project your minimum profit target, identify at what price the stock broke thru the triangle. For this example, let's say $54. Then add $6 to the breakout price of $54 and you have your minimum projected profit target of $60. (See image to the right.)
Failures and Stop-Out Points

There are different failure points based on how you enter the trade.

If you enter the trade after a breakout, you should use a move below the apex point as your failure point and exit the trade. (The image below depicts a Symmetrical Triangle in an uptrend for illustration.)

![Symmetrical Triangle in Uptrend](image)

Apex

Failure

If you get in before a breakout occurs in anticipation of one, a move below the last point of the triangle (e.g., point 4 in a four-pointed triangle or point 6 in a six-pointed triangle, etc.) should be your failure point and you should consider exiting the trade. (The image to the right depicts a Symmetrical Triangle in an uptrend for illustration.)

![Symmetrical Triangle in Uptrend](image)

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Failure

For the more experienced chart pattern trader, you might choose to stay in a little longer if you believe the pattern is being ‘re-drawn’ into a new pattern such as a larger triangle, or a bullish flag or even a wedge. This can make sense if your early entry was near the bottom of the pattern and staying in a little longer still keeps your risk within your level of tolerance.

Summary

The use of the word ‘Symmetrical’ in describing the Triangle is used loosely and is more of a way of distinguishing it from an Ascending Triangle and Descending Triangle. The Symmetrical Triangle doesn’t have to be symmetrical per se’, but as stated earlier, it does have to have two converging trendlines -- the top line slanting downward and the bottom line slanting upward so that they eventually come together to form a right-sided triangle.

Since this pattern is a continuation pattern, it’s most profitable to trade this in the direction of the preceding trend.

You can get in after a breakout has occurred or you can choose to get in early in anticipation of a breakout taking place. Either way, pay attention to the volume and your failure points and the Symmetrical Triangle will become a trusted pattern in your trading.
Examples

Symmetrical Triangle in an Uptrend (Bullish)

Identification

Breakout

Symmetrical Triangle in a Downtrend (Bearish)

Identification

Breakout
Overview

The Ascending Triangle is a variation of the Symmetrical Triangle. The difference is that the Ascending Triangle has a flat line on top (i.e., horizontal trendline) instead of a downward slanting trendline like in the Symmetrical Triangle. The bottom of the pattern has an upward slanting trendline. The two lines eventually come together to form a flat-topped, right-sided triangle.

The Ascending Triangle is a continuation pattern. It's generally considered bullish and is most reliable when found in an uptrend.

In ascending triangles, the market becomes overbought and needs to consolidate. As prices try to advance, they are turned back by selling. Buying then re-enters the market and prices soon reach their old highs. Resistance is met again and they are turned back once more. Resistance occurs at approximately the same high price each time (horizontal trendline), while new buying on the pullbacks, serve to lift the support levels higher (upward slanting trendline).

This bullish price action most often leads to an upside breakout in the direction of the preceding trend, as the old highs are taken out and prices are propelled even higher as new buying comes in. Volume usually diminishes during the formation of the pattern, but explodes on the breakout.

Ascending Triangles in Uptrends / Bullish

As in the case of the Symmetrical Triangle, Ascending Triangles in uptrends are bullish and the breakout is generally accompanied by a marked increase in volume. Low volume breakouts should be watched carefully as they are more prone to failure. Ascending Triangles in downtrends are less reliable and are therefore not a part of the classic Chart Patterns set-ups.
Identifying and Drawing Ascending Triangles

Ascending Triangles are also quite easy to see on a chart. To identify an Ascending Triangle pattern on your own, remember that it has to have at least four points: two points at the top to draw the horizontal trendline and two points at the bottom to draw the upward slanting trendline. Connecting the two, approximately same, high points forms the top (flat) part of the triangle. Connecting the low and the subsequent higher low forms the bottom part of the triangle.

Ascending Triangles in uptrends are bullish.

For a bullish Ascending Triangle pattern, the first point (the point farthest left, i.e., the earliest point) is at the top.

And just like Symmetrical Triangle, an Ascending Triangle can have more than four points. The image to the right has six.

Measured Moves (Minimum Profit Targets)

To determine your projected minimum profit target, measure the distance between points 1 and 2. This is the widest part of the triangle and is often referred to as the base.

For example: if the top of the base (point 1) was $70 and the bottom of the base (point 2) was $63, the base would be $7. This is your measured move.

To project your minimum profit target, identify at what price the stock broke thru the Ascending Triangle. (This is easy to predict even if it hasn't yet broken out because the breakout point is essentially the high of the pattern (i.e., the flat trendline at the top). So if the breakout price is $70, then add $7 to that price and you get your minimum projected price target of $77. (See the image to the right.)
Failures and Stop-Out Points

There are different failure points based on how you enter the trade.

If you enter the trade after a breakout, you should use a move below the apex point as your failure point and exit the trade. A secondary failure point could be placed at the last point (or point 4 in this example). (See the gray dotted line showing this scenario.) This additional failure point is usually only used if the breakout and subsequent trading has not extended beyond the length of the pattern (i.e., apex) and the risk levels are still within your tolerance. (The image below depicts an Ascending Triangle in an uptrend for illustration.)

If you get in before a breakout occurs in anticipation of one, a move below the last point of the triangle (point 4 in this example) should be your failure point and you should consider exiting the trade. For the more experienced trader, you might choose to stay in a little longer if you believe the pattern is being 're-drawn' into a new pattern such as a larger ascending triangle or a rectangle. If this is the case, use the bottom of the base (point 2) as the failure point and exit below there. (See the gray dotted line that shows this scenario.) This can make sense if your early entry was near the bottom of the pattern and staying in a little longer still keeps your risk within your level of tolerance. (The image below depicts an Ascending Triangle in an uptrend for illustration.)
Summary

Since this pattern is a continuation pattern, it’s most profitable to trade this in the direction of the preceding trend. And remember, it’s most reliable when found in uptrends. In fact, the Ascending Triangle has an astounding success rate, breaking out to the upside 70% of the time.

You can get in after a breakout has occurred or you can choose to get in early in anticipation of a breakout taking place. This high probability pattern is a great bullish indicator.

Example
Overview

The Descending Triangle is basically the reverse of an Ascending Triangle. The flat line (horizontal trendline) is on the bottom and a descending trendline defines the top part of the pattern. The two lines come together to form a flat-bottomed, right-sided triangle.

The Descending Triangle is a continuation pattern and is generally considered bearish. It is most reliable when found in a downtrend.

In the Descending Triangle, prices drop to a point where they are considered oversold. Tentative buying comes in at the lows and prices perk up. The higher prices however attract more selling and the old lows (horizontal trendline) are re-tested. Buying once again lifts prices, although resulting in a lower high (downward slanting trendline). New selling comes in and pushes it back down.

This bearish price action typically leads to a downside breakout to new lows, continuing the direction of the downward trend. Volume decreases during the formation of the pattern but should noticeably increase on the breakout.

Descending Triangles in Downtrends / Bearish

Descending Triangles in downtrends are bearish and the breakout usually sees an increase in volume. A low volume breakout should be carefully watched. Descending Triangles in uptrends are less reliable and are therefore not a part of the classic Chart Patterns set-ups.

Identifying and Drawing Descending Triangles

Descending Triangles are easy to spot. To identify a Descending Triangle on your own, remember that it has to have at least four points: two points at the bottom to draw the horizontal trendline (you'll draw a line connecting the recurring lows) and two points at the top to draw the downward slanting trendline (a line connecting the lower highs).
Descending Triangles in downtrends are bearish.

In bearish Descending Triangles, the first point (the point farthest left, i.e., the earliest point) should be at the bottom.

Like the other triangles covered so far, the Descending Triangle can have more than four points. The image to the right has six.

**Measured Moves (Minimum Profit Targets)**

To determine your projected minimum profit target, measure the distance between points 1 and 2. This is the widest part of the triangle and is often referred to as the base.

For example: if the bottom of the base (point 1) was $50 and the top of the base (point 2) was $60, the base would be $10. This is your measured move.

To project your minimum profit target, identify at what price the stock broke thru the Descending Triangle. (Like the Ascending Triangle, this is easy to predict even if it hasn’t yet broken out because the breakout point is essentially the low of the pattern (i.e., the flat trendline at the bottom). So if the breakout price is $50, then subtract $10 from that price and you get your minimum projected price target of $40. (See the image to the left.)
Descending Triangles continued...

Failures and Stop-Out Points

Since the Descending Triangle in a downtrend is bearish, a breakout to the upside would constitute a failure.

If you enter the trade after a breakout, you should use a move above the apex point as your failure point and exit the trade. A secondary failure point could be placed at the last point (or point 4 in this example). (See the gray dotted line showing this scenario.) This additional failure point is usually only used if the breakout and subsequent trading has not extended beyond the length of the pattern (i.e., apex) and the risk levels are still within your tolerance. (The image below depicts a Descending Triangle in a downtrend for illustration.)

If you get in before a breakout occurs in anticipation of one taking place, a move above the last point of the triangle (point 4 in this example) should be your failure point and you should consider exiting the trade. For the more experienced trader, you might choose to stay in a little longer if you believe the pattern is being 're-drawn' into a new pattern such as a larger descending triangle or a rectangle. If this is the case, use the top of the base (point 2) as the failure point and exit above there. (See the gray dotted line that shows this scenario.) This can makes sense if your early entry was near the top of the pattern and staying in a little longer still keeps your risk within your level of tolerance. (The image below depicts a Descending Triangle in a downtrend for illustration.)
Summary

The Descending Triangle is a continuation pattern that is most reliable when found in downtrends. This makes it a high probability bearish chart pattern.

Whether you choose to trade it early or wait for a confirming breakout – act as a short seller or use it to exit longs, the Descending Triangle can help you accurately spot stocks that look to be headed lower.

Example
Flags and Pennants

Overview

Both Flags and Pennants can be categorized as continuation patterns.

The consolidation part of the pattern usually represents only a brief pause in an otherwise powerful market. They are typically seen right after a big, quick move – either up or down. The market then usually takes off again in the same direction. Research has shown that Flags and Pennants are some of the most reliable chart patterns to trade. And they can be found in some of the most explosive price moves.

Flags: Bullish in Uptrends

Flag patterns in uptrends are bullish. They are typically referred to as simply ‘Bull Flags’. Bull Flags are characterized first by a sharp upward price move. This can be one big day or multiple days of progressive price action. The steepness of the move can sometimes look almost like a straight line up (like a flagpole). The consolidation that follows is identified by a short series of lower tops and lower bottoms that slant against the trend. The trendlines that can be drawn on the top of the pattern and the bottom of the pattern run parallel to one another (like a downward sloping rectangle). Volume typically diminishes during this ‘time-out’, but then explodes higher as it breaks out.
Flags: Bearish in Downtrends

Flags in downtrends are bearish. Bear Flags look like the inverse of Bull Flags. Bear Flags are characterized by a sharp downward price move, followed by a short series of higher lows and higher highs. The trendlines that can be drawn also run parallel to one another. But this time, it looks like an upward sloping rectangle. Volume will also typically diminish during this period, but will expand on the downside breakout.

Pennants: Bullish in Uptrends

Pennants in uptrends are bullish. Pennants look very much like small symmetrical triangles. But the characteristic, near straight-up, ‘pole-like’ move that precedes the pennant part, makes its identification unmistakable. The pause after the sharp move higher is defined by two converging trendlines that form a small right sided triangle. Just like in the Flagging patterns, volume should dry up during the pennant part and then explode higher on the breakout.

Pennants: Bearish in Downtrends

Pennants in downtrends are bearish. Bear Pennants look like upside down Bull Pennants. In the Bear Pennant, there’s a big move to the downside, followed by a short consolidation pattern that looks like a small triangle. The market then breaks out to the downside in the same dramatic way that set the pattern up in the first place. Volume drops off during the pennant part, but then quickly picks up on the breakout.

Identifying and Drawing Flags and Pennants

Flags and Pennants are some of the easiest patterns to spot on a chart. And just like all the other patterns described so far, you need a minimum of four points to draw a Flag or Pennant: two points at the top of the pattern and two points at the bottom. Remember, the defining lines of a Flag run parallel to each other. The Flag part should also slant against the trend. The defining lines of a Pennant converge to form a small triangle that points to the right.

Flags in uptrends are bullish while Flags in downtrends are bearish.
Flags and Pennants continued...

In both bullish or bearish Flags, the first point should be the point farthest left, i.e., the earliest point. In uptrends, the first point of the Flag, should be at the top of the pattern. In downtrends, the first point of the Flag should be at the bottom.

The same is true for bullish and bearish Pennants. In Bull Pennants, the first point should be the point farthest left and at the top. In Bear Pennants, the first point should be the point farthest left and at the bottom.

Flags and Pennants can also have more than four points. The Bull Flag and Bear Pennant illustrations below show them with six points each. Although, since these types of consolidation patterns typically form over short periods of time, it's less likely to find patterns with more than six points.
**Measured Moves (Minimum Profit Targets)**

To determine your projected minimum profit target, measure the size of the pattern's 'Pole-like' move (i.e., the sharp price advance that set the pattern up). Once again, this move is often called the Flagpole or just Pole. Calculate the distance between the bottom of the Pole (beginning of the price move) to the top of the Pole (first point of the pattern). This is your measured move.

For example, if the beginning of the upmove was $35 (as shown in the Bull Flag example to the right), and the top of the Flag (point 1) was $45, the measured move would be $10. Then add $10 to the Flag's breakout point ($43 in this example), and your minimum profit target is $53.

The same measuring technique is applied to the Bear Flag and the Bull and Bear Pennant.

**Bear Pennant**

In the Bear Pennant example to the left, calculate the size of the Flagpole (i.e., the distance between the beginning of the price move (beginning of the Pole-like move) to the first point of the pattern (end of the Pole-like move).

For instance: if the beginning of the sharp downmove was $70 and the bottom the Pennant (point 1) was $59, the measured move would be $11. Subtract $11 from the breakout price ($57 in this example), and your minimum profit target is $46.
Failures and Stop-Out Points

Bull Flags and Bear Flags follow the same basic rules when it comes to failure points.

If you enter the trade after a breakout, you should use a move thru the 2nd point as your failure and exit the trade. If the Flag is a small pattern that doesn’t slant too steeply against the trend, you might consider using the 4th point (or the 6th point for instance in a 6 point Flag) as your failure point. But only do this if it stays within your tolerance for risk. (Keep in mind, the first tip-off that a Flag breakout might not succeed is the fact that the market is making its way back into the pattern as opposed to the customary explosive move out of it.)

If you get positioned early in anticipation of a breakout, a move thru the bottom part of the Bull Flag or the top part of the Bear Flag (enough so that the market is no longer confined within the parallel trendlines), is your cue that the pattern is breaking down along with its implications.
Bull Pennant and Bear Pennant failures are virtually identical to Symmetrical Triangle failures. This makes sense because a Pennant is really nothing more than a small triangle. (The preceding Pole-like move that distinguishes the Pennant from an ordinary triangle does not change what constitutes a failed consolidation pattern.)

If you enter the trade after a breakout, you should use a move below the apex point as your failure point and exit the trade. The image to the right depicts a Bull Pennant breakout and then failure. The failure point is the same for a Bear Pennant as well. A move thru the apex is your failure point and you should exit the trade.

If you get in before a breakout occurs in anticipation of one happening, a move thru the last point of the Pennant (e.g., point 4 in a four pointed Pennant or point 6 in a six pointed Pennant, etc.) should be your failure point and you should consider exiting the trade. (The image below depicts both a Bull Pennant and Bear Pennant for illustration.)

For the more experienced trader, you might choose to stay in a little longer if you believe the pattern is being ‘re-drawn’ into a new pattern such as a larger Pennant/Triangle or Flag or even a Wedge. This can makes sense if your early entry was close to the failure point and staying in a little longer still keeps your risk within your level of tolerance.
Below are examples of a Bull Pennant failure being re-drawn into a Bull Flag, and of a Bear Pennant failure being re-drawn into a Bear Flag. Can you see the ‘new pattern in gray?’

**Summary**

The Flag and Pennant patterns are continuation patterns and are most reliable when traded in the direction of the trend. In general, the breakout of the Flag or Pennant and the move that follows should be approximately the same size as the sharp move (Flagpole) that preceded it.

These patterns are often traded before they breakout for many reasons. Of course, their high probability of success is one of them. But also, since Flags and Pennants are typically small, short-term patterns, it doesn’t take long to see if the trade will be a winner or not. And, since the patterns are typically small, there’s usually only a relatively small distance between an early positioning and a potential failure point.

So whether you decide to get in early in anticipation of a breakout or if you prefer to wait for the confirming breakout before you do, history has shown that these patterns have produced some spectacular price action. Now you know how to incorporate these dynamic patterns into your own trading.
Examples

Bull Flag in an Uptrend (Bullish)

Identification

Breakout

Bear Flag in a Downtrend (Bearish)

Identification

Breakout
Flags and Pennants continued...

Bull Pennant in an Uptrend (Bullish)

Identification

Breakout

Bear Pennant in a Downtrend (Bearish)

Identification

Breakout