

### Audio Script: Get Technical, Get with the Trend Part 1

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#### Audio Script:

Welcome to the continuation of our get technical series. In our last video, you should have learned the essentials of technical analysis and recognizing trends. Please remember technical analysis is performed by an individual and derives from many theories. This presentation is for information purposes only.

Investing involves risk, therefore – please take a moment to read through and be aware of all of the information contained in these disclosures. You can contact us if you have questions on this information or anything else we cover today.

Today we will build upon the foundational concepts that you learned during the Essentials of Technical Analysis session. We will kick off "Get with the Trend" by reviewing how to read price action and support & resistance to determine a trend. We are going to start with identifying trend reversals and price action patterns that identify the end of a trend. We will then assess multiple continuation patterns to understand when a trend may continue. As well as an introduction to Fibonacci numbers to identify the magnitude of a trend reversal or continuation. All of the topics today are intended to help us identify bullish and bearish signals to decipher which direction, if any, a security may be headed.

We will be assessing charts. All screenshots in this presentation are sourced from Merrill Edge MarketPro®, which is available to Merrill Edge Self-Directed clients. You can access the platform by hovering over trade and selecting Merrill Edge MarketPro from the drop down. We are focusing on charts and the use of drawing tools. Let's dive in.

In our Get with the trend series, we are going to cover three primary methods to identify trends. First, we will start with using price action to identify chart patterns. Technical analysts consider price action to be the purest form of technical analysis, since price action should reflect all information available. Chart pattern analysis requires only a basic knowledge of support and resistance to identify patterns that repeat or rhyme with history. We explore how chart patterns can be utilized to determine the continuation or reversal of a primary trend. However, it is important to understand that chart patterns are subjective and may provide different conclusions to each user.

The second trend analysis technique that we will learn is trend lines. Trend lines add an element of time to the analysis that provide insights into the speed and rate the trend. Trend lines are another tool for analysts to determine whether a current trend is still intact or coming to an end. However, just like chart patterns, trend lines are also subjective and may provide different conclusions to each user.

And lastly, we will explore how technical indicators can automatically determine a trend. Technical indicators have become increasingly popular and widely accepted as a tool to determine the outlook of a security. While they are very popular and the calculations of each indicator is objective, each user may still have different interpretations of the same technical indicator. During today's webinar, we will cover chart patterns and dive into trend lines and technical Indicators in part two of this series. Let's start with a review of primary trends.

We will start today's session with a quick review of price action and how support and resistance levels can determine a primary trend. When we see the price of a security trade with higher highs and higher lows, this reflects investors paying higher prices and that demand is increasing relative to supply. This is identified as an uptrend, and investors need to continue paying higher prices for the uptrend to remain intact. The series of ascending peaks and troughs are what we can use to identify an uptrend.

Now, let's look at the opposite of that, a downtrend. When we see the price of a security trade with lower lows and lower highs, this reflects investors selling the security at lower prices. This is identified as a downtrend, and investors need to continue selling at a lower price for this downtrend to remain intact. The series of descending peaks and troughs are what we can use to identify a downtrend.

Lastly, when support forms at or near the same price below the market and resistance forms at or near the same level above the market, we can identify this as a trading range. This is where supply and demand of a security is relatively balanced. A security will remain range bound as long as investors continue to transact within the highs and lows of this range. This can be identified by connecting a series of horizontal peaks and troughs. With this knowledge, let's jump into some chart patterns that can be used to identify the continuation or reversal of a primary trend. In all of the examples that we will review today, we will use charts with daily intervals. However, the techniques that we are teaching, can be utilized on different timeframe charts. It is common for investors to use weekly intervals for longer term views and intraday charts with minute by minute intervals for shorter term outlooks.

We will start our journey with reversal patterns. This is to identify shifts in supply or demand that causes a change in a primary trend. We will utilize our knowledge of support and resistance to identify these chart patterns for both bullish and bearish reversal patterns. A bullish bottom reversal pattern reflects exhausted supply, where the primary trend of a security changes from down to up. A bearish top reversal pattern reflects diminishing demand, where the primary trend of a security changes from up to down. Let's take a look at specific examples of reversal patterns.

We will start with one of the most common chart patterns used by technical analysts to determine the reversal of a downtrend, back into an uptrend. This is referred to as a double bottom formation, which as the name implies are made of two consecutive troughs that are of equal price. To identify a double bottom formation, there must first be a prior trend, in this particular case the security declines from its \$36 high down to its \$15 low. For a double bottom to form, a first trough is made around \$15, marking the lowest point of the current trend, followed by a peak of \$21 in this example. And then a second trough at roughly the same price as the first trough of \$15. After the consecutive troughs, it must break higher above the peak in-between the troughs of \$21 to reverse into its new trend higher.

Next, let's take a look at a double top, which is similar to a double bottom, except used for determining the reversal of an uptrend, back into a downtrend. A double top, as the name implies, are made of two consecutive peaks that are of equal price. To identify a double top formation, there must first be a prior trend, in this case the stock rallies from its \$56 low up to its \$68 high. For a double top to form, a first peak is made around \$68, marking the highest point of the current trend, followed by a trough of \$64 in this example, and then a second peak at roughly the same price as the first peak of \$68. After the consecutive peaks, it must break lower below the trough in-between the peaks of \$64, to reverse into its new trend lower. Note that both bottom and top reversal patterns can also have triple or even quadruple bottoms and tops as well, with consecutive troughs and peaks formed around the same price. These formations can all be used to determine the end of a primary trend.

Lastly, one of the trickier reversal formations to identify, is a head and shoulders formation. Similar to a double top, a head and shoulders formation is used to identify the end of an uptrend, back into a downtrend. It contains three consecutive peaks, where the middle peak, the head, is the highest, with the two outer peaks, the shoulders, are lower than the head, but of equal price. The troughs in-between each consecutive peak can be connected to form what's called the neckline. To identify a head and shoulders formation, there must first be a prior trend, in this case is an uptrend from a low of \$84 to its first peak of around \$92. This peak is followed by a trough down to the \$90 level, which completes the left shoulder. It then rallies above its prior peak of \$92 to \$95 to start the formation of the head and back down to the \$90 prior trough to complete the head formation. Lastly, another peak is formed at the same price of the left shoulder.

Once a head and shoulders formation is complete, the trend reversal starts with a break below the neckline at \$90. In certain cases, a neckline support, is re-tested as a resistance level. A rejection at this new \$90 resistance level confirms the reversal and the distance from the head peak to the neckline can be used to project price targets to the downside. In this case, the \$5 from the head peak to the neckline projects the break of the \$90 neckline down to a price target of \$85. Head and shoulders can be a powerful formation to identify a trend reversal, however it can be quite subjective.

Some have a neckline that isn't perfectly horizontal, and the left and right shoulders sometimes can be of unequal price. This is why head and shoulder formations can be quite subjective to each technical analyst and trickier to use.

Next on our journey, we will identify continuation patterns. This identifies shifts in supply or demand that causes a pause in the trend, but not strong enough to reverse it. We will utilize our knowledge of support and resistance to identify these chart patterns and explore both bullish and bearish continuation patterns. A bullish continuation pattern reflects pauses in an uptrend and can be used as a potential entry point for long exposure. A bearish continuation pattern reflects pauses in a downtrend and can be used as a potential entry point for short exposure. Let's take a look at some specific examples of continuation patterns.

We will start with one of the most common chart patterns used by technical analysts to determine the continuation of an uptrend. We are going to first explore a triangle formation, which is identified as at least two swing highs and two swing lows as a converging price range. There are three basic styles of triangles: symmetrical, ascending and descending. From the perspective of continuation patterns, they can all be used interchangeably. In our first example, to identify a triangle continuation pattern, there must first be a prior trend, which in this case the security rallies from its \$200 range to its high of \$325. To identify a continuation pattern, a series of swing highs and swing lows are connected to form a triangle. In this case, there are a series of lower highs and equal lows, forming a descending triangle. For a bullish continuation pattern to complete, the security must break above its upper bound of the triangle. Additionally, the distance from the start of the rally to the peak of the triangle can be utilized to determine a target price for the pattern. In this example, a \$200 to \$350 rally, projects a breakout at \$300 will run towards a target price of \$450.

In many cases, a primary trend can see multiple continuation patterns as we have in our example. After the first continuation pattern target of \$450 is reached, a new pattern emerges. This one starts at the breakout level of \$300 to \$500, before entering a longer symmetrical triangle formation for three months before breaking out around the \$450 level. With a \$200 rally into the formation, the price target for this continuation pattern would be \$450 plus \$200, implying a price target of \$650, which the stock reached and exceeded within a month and a half of the breakout. As you can see, the primary trend of a security may contain multiple entry points. Continuation patterns are also sometimes called consolidation ranges and can be of different shapes such as rectangles, pendants and flags. In our next example, we will explore a flag formation as a continuation pattern.

We will now apply the same concept to a bearish continuation pattern. They are identified as pauses in a downtrend and can be used as a potential entry point for short exposure. In this example, we are going to evaluate a flag formation as a bearish continuation pattern. A flag is similar to a triangle, where a series of swing highs and swing lows form a support and resistance line that is counter to the direction of the primary trend. To be considered a bearish flag continuation pattern, there must first be a prior trend, which in this case the security declines from its \$195 high to a low of \$150. Then a series of higher swing highs and higher swing lows are connected to form an inverted flag formation. Once the security breaks the support level of the flag formation, the continuation flag is complete. A price target can be assessed from the initial decline of \$195 to \$150 of \$45. This is subtracted from the break below the flag's support level of \$160 to calculate a target price of \$115.

It is also possible for multiple flags to form within a large primary downtrend. In this chart, a security experiences a pause every few weeks within the primary downtrend, completes a flag formation, only to continue lower in the downtrend. Even though we explored triangles as bullish continuation pattern, and flags as a bearish continuation patterns, both patterns, among others can be utilized for both bullish and bearish continuation patterns.

Now that we have explored chart patterns to identify the end or continuation of a primary trend with Tony, let's take a look at how we can use Fibonacci to define price targets. Let's start by defining Fibonacci. Fibonacci is a sequence of numbers that have been observed in nature, mathematics, architecture and even art. The numbers of petals on flowers, spirals found in pinecones, seashells and the milky way all correlate to Fibonacci. In technical analysis, we use the Fibonacci sequence as a guide to identify support, resistance and estimate targets based on prior price trends. After all, one of the three principles of technical analysis is history repeats itself.

Let's dive into the Fibonacci sequence, we begin with 0 and 1, then the remainder of the sequence is created by adding the sum to the previous number. Let's see if you can spot the pattern. 0 plus 1 gives us 1, 1 plus 1 is 2, the sum of 2 plus the previous number 1 is 3, 3 plus 2 is 5, 5 plus 3 is 8, 8 and 5 is thirteen, you can see how the sequence continues. This is the Fibonacci sequence, from a technical perspective we derive ratios from the constant relationships found in the number sequence.

We look at ratios to determine how much a stock will move. For simplicity and easy math let's look at a price range of \$100.00. If the stock remains at \$100.00, its moved 0%, if the stock moves the entirety of the range to \$0 it moves 100%, and in between \$50.00, we mark 50%. These are the parameters of Fibonacci retracements. To determine the other price levels, we look at the ratios found in the sequence.

The first ratio observed is when we divide any number by the number located to its left, the number is about the same consistently throughout the sequence. For example, if we divide 610 by 987 we get .618, if we divide 377 by 610 we get again .618. This happens steadily throughout the sequence. Essentially, this uncovers that there is a 61.8% move in between each number in the sequence. This is sometimes called "the golden ratio", we add a 61.8% price movement line to our price range.

The second ratio observed is found by dividing any number in the sequence by the number located two to the right. For example, 377 divided by 987 gives us .382, 233 divided by 610 also gives us .382, the pattern of course continues. This provides another important insight to any number in the sequence, that is: every other number is 38.2% of the larger number. Therefore, we add a price level at 38.2% to our trading range.

Essentially, the ratios uncovered by the constant relationships in the number sequence creates Fibonacci retracement levels. In this example, we look at a price range of \$0 to \$100, in practical application we rarely start with zero. We apply Fibonacci levels based on a high and a low period, which could be a time frame or a trend. In this example, we are watching for a retracement of 38.2% of the range of \$100 to \$61.80 and a 50% change to \$50.00 and a 61.8% change to \$38.20. Additional levels can be applied by analyzing the relationship of every three numbers, four numbers and so on. These relationships will provide additional ratios that can be added to the Fibonacci levels. However, most Fibonacci retracements default to the ratios depicted on the screen.

There are many ways to use Fibonacci numbers, however retracement and extension techniques are some of the most widely used. As we just observed, there are many Fibonacci ratios, but the commonly used ones by investors are the 38.2%, 50% and 61.8%. Let's look at an example. A Fibonacci retracement can be used once a chart reversal pattern has been identified, such as a double top, to project potential targets of the counter trend. In our example, the security rallies from a low of \$35.50 to a high of \$81.96, an increase of \$46.46. We would plot the Fibonacci retracement using the drawing tools. We draw a diagonal line from the lowest point, which is \$35.50 to the highest point, of \$81.96, the platform will plot the levels for you. The lowest Fibonacci retracements can be measured as a percentage of the \$46.46 rally. A 38.2% retracement of the initial rally would project a first target of \$64.21, and 50% retracement would target \$58.73 and lastly a 61.8% retracement would target \$53.24.

We can see this stock reach or test multiple target levels prior to retracting. Fib retracements are useful both in determining the potential of a reversal pattern, and also to identify how early or late into a counter trend the security has experienced.

Lastly, using the same Fibonacci ratios, we can also project the subsequent rally after a pullback or retracement is complete. Extensions are specifically useful when there are no prior prices to reference, such as a security trading above its previous all-time highs. Using drawing tools, we would define our trend and extend the line to forecast potential resistance levels. We start where we left off with our previous example, using the same security after it completes its pullback or retracement to the 61.8% level. We use the pullback level of \$53.25 to measure the upward extension based on the initial rally of \$46.46. A 61.8% increase of the initial rally targets the all-time highs of \$81.86, a 100% extension would then project a new all-time high of \$99.61, and lastly a 161.8% extension would create a final target of \$128.33. There are many other ways to creatively use Fib ratios to create price targets when other methods fall short, however it is important to remember to draw Fibonacci ratios starting and ending with major trends. Longer time-frame Fibonacci projections are generally considered to hold more weight than intraday or shorter-term trends.

Let's recap what we learned here today. You should now have a solid understanding of support and resistance levels. How to identify basic reversal patterns using support and resistance. Recognize a bullish and bearish continuation patterns on a chart. And lastly, have an understanding of how Fibonacci ratios can be used to determine the magnitude of a trend. This is just the beginning of our Trend Analysis series, please join us for part 2 to learn more about trend lines and technical indicators!

This concludes the Get with the Trend, Part 1. We encourage you to refine your charting skills with Merrill Edge MarketPro. Please feel free to give us a call with any questions or concerns at (877)653-4732. Also, we would love to hear from you. We welcome any feedback or question in regard to today's presentation as well as suggestions for future webcasts. Fill out the "have a question" box found at the bottom of this page. On behalf of OptionsPlay and the Merrill Team, thank you.