



**Audio Script: Get Technical, The Essentials of Technical Analysis**

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## **Audio Script:**

The world of technical analysis is vast and ever-growing. There are hundreds of indicators, various theories and many complex tools and strategies out there. However, if you are looking to get started by understanding the underlying essentials for all of technical analysis, then this is for you. We will cover the foundational elements: reading charts and identifying patterns. Learn the essentials of how to look at charts to uncover trends, and how to identify the reoccurring patterns of stocks and other investments in your portfolio. I would like to make you aware that technical analysis is performed by an individual and derives from many theories. This presentation is intended for informational 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 are going to cover the foundational concepts of technical analysis including its uses and definition, followed by a quick review of chart basics, which you may already be familiar with. We are going to visit economics 101 and discuss the relationship of supply and demand and support and resistance. We are going to assess supports and resistances on a chart to identify areas and zones, breakouts and breakdowns, as well as the trend and assessing the importance of the trend. All of the topics of discussion today are intended to help us find bullish and bearish signals to ultimately decipher which direction, if any direction, a security may be headed.

Today we will be assessing charts. All screen shots in this presentation are sourced from Merrill Edge MarketPro, which is available to Merrill Edge Self-Directed clients after you log in. You can access the platform by hovering over trade and selecting Merrill Edge MarketPro from the drop down. We are focused on charts and the use of drawing tools.

What exactly is technical analysis? Well, technical analysis is the study of visual market data and accomplished by applying mathematics via indicators or studies to assess investment behavior and ultimately analyze future price movements. Which is just a fancy way of saying, viewing a chart, adding indicators, and assessing patterns to decipher which direction, if any direction, a security may be headed. Every indicator has a mathematical formula behind it which helps us apply measurements, calculations and statistics to help us define the trend, price targets and price levels. Don't worry, you don't need to know the math calculation to apply technical analysis. Again, you will find all the tools you need in Merrill Edge MarketPro.

Technical analysis begins with three main assumptions. First, the market discounts everything. This means that market prices should reflect all relevant information. All fundamental, economic, news headlines and any other known applicable data is already reflected in the price. The market is also forward looking and prices in any new information as it becomes known. For example, if a job report is released lower or higher than anticipated, the market immediately reacts and the price will reflect the new information. From a technical perspective, how markets are moving is more important than why. In technical analysis we understand that the price is fundamentally driven and is reflected as such, therefore, we focus on the how.

The second assumption is prices move in trends. Much like Newton's law, a trend in motion remains in motion until disrupted by a large enough counterforce. We will dive deeper into trends later on. And finally the third assumption, history repeats itself. Whether history repeats or rhymes, there is an echo. Technicians believe that market patterns and signals will repeat based on human nature, like fear and greed. These three assumptions are very important to keep in mind when you're analyzing a chart. But before we do that, it's important that we cover some basics that you might already be familiar with.

Let's start with a chart. What exactly is a chart? Well, a chart is a visualization of the market data we are looking to analyze. The chart shows your chosen security's price or performance over time. You can select the time frame and the interval. This is something you decide. You can look at years, months, weeks, or even days. The time frame is on the x-axis. The price is on the y. The most recent information is always displayed on the right hand side. How the price is depicted can vary based on the chart type.

There are 3 common chart types that is line charts, bar charts, and candlestick charts.

Line charts are used to look at the big picture. Line charts only display closing prices, which means you cannot see intraday price movements or the selected frequency's range. This chart is normally used for mutual funds, this is because mutual funds do not trade intraday, they only trade once a day and this type of chart is not ideal for technical analysis.

A bar chart on the hand it does show a full day's trading range. A bar chart shows the open, high, low and closing prices for a specified period. For example, if we are looking at a one year time period, with a daily frequency, each bar will represent an entire trading day. The top of the bar is the high of the day, the bottom of the bar is the day low, the horizontal line to the left represents the opening price, and the right represents the closing price.

Candlestick charts provide us with the same picture, but with a little more color. Literally. Similar to a bar chart, the vertical line in a candlestick represents the high and low for the day or frequency. The candlestick has a wide part which is referred to as the 'real body'. The real body displays the price range between the open and close of the day or frequency. If the real body is green or hollow, the security closed higher than it opened, it had an up day. If the real body is red, the security closed lower than it opened and it had a down day. Candlestick charts are used to spot gaps, patterns, and so much more.

Now that we've covered the anatomy of the chart, let's look at analyzing.

Analyzing begins with economics 101 and the law of supply and demand. Understanding the relationship of supply and demand will help us understand and assess price patterns. If there are more buyers than sellers, there is a high demand and a low supply. Buyers would drive the price up competing for the purchase. Prices are driven higher as demand increases and enters an uptrend. Concentrated areas or zones of demand are support levels. When buying occurs at a set price level it creates support, halting a decline.

On the other hand, if there are more sellers than buyers, there is high supply and low demand. Sellers would drive the price down trying to get rid of their inventory. Prices are driven lower as supply increases and enters a downtrend. Concentrated areas or zones of supply are considered resistance levels. When selling occurs at a set price level it creates resistance, halting a rally.

A great analogy for supply and demand is a look at holiday shopping. Around the holidays, it seems that there is always a toy that every child wants, it is impossible to find that toy on store shelves and the only way to purchase the toy is at an extremely inflated price on a marketplace platform of some sort. As the toy becomes increasingly more popular (and you wait until the last minute to do your shopping like I do) there is an increase in demand, sending the price up even higher.

We see demand increase as more and more individuals enter the marketplace in search of the toy (whether they want to invest in a toy for their child or capture profit by selling to someone who wants the toy for their child) we also see low supply as the toy never seems to be found at the store. As a result the price is much higher than what it was originally sold for, simply because there are more buyers than sellers.

Let's add some clarity to that by looking at an example. Let's start with resistance, resistance occurs at a price level where sellers overpower buyers, at an area of supply. An influx of selling pushes the prices down.

Notice how this stock has a difficult time moving above \$375.00. The inability to reach a higher high than \$375.00 creates a resistance zone, multiple resistances at \$375.00 strengthen the resistance zone. Using drawing tools, we would create a level line at \$375.00 to plot resistance. Holding resistance is bearish and breaking or moving above \$375.00 can be bullish if it is sustained. Resistance levels interest sellers.

Now, let's look at support. Support occurs at a price level where buyers overpower sellers, at an area of demand. Notice how this stock has a difficult time declining beyond \$320.00. Again, multiple resistances is the beginning of a pattern, the reoccurrence strengthens the pattern. In this case, support has formed at \$320.00. We can use the same drawing tools to draw a level line at \$320.00 plotting the support line. Holding support is bullish, and breaking support can signal bearish movement if it's sustained. Support levels interest buyers. Let's go ahead and assess this on a chart.

We can see increasing demand, or more buyers, driving the price upward. As we move across the chart we see decreasing demand, or more sellers, driving the price downward. Essentially, an uptrend and a downtrend during this time frame. Looking at the beginning of the time frame, we see the stock resisting a higher high at \$440.00, this is our first resistance level line. The stock declines and rallies again to a high of \$432.00 prior to declining, this is our second level line. This forms a resistance zone from \$432.00 to \$440.00. We would watch this zone carefully to determine which direction the stock will move next. In this case, resistance was sustained for a small period of time.

Resistance did break our lower resistance line of \$432.00, right here. The following day, we see a large jump in the stock breaking our second resistance line of \$440.00, this is a bullish signal. As time progresses, the upward trend is validated as we see higher highs and the stock remains above the old resistance line. That is an important point to reiterate: in order to maintain the bullish trend, we need the stock to remain above the old resistance. This means that old resistance becomes new support. Support and resistance can and often times does reverse roles. And you can see as we move across the chart, the old resistance now support line held here and here as time progressed.

At the peak of the upward trend at \$609.00, we see the stock fail to reach a higher high. This creates our first new resistance line as the stock failed to surpass \$609.00. The second resistance line is created as the stock fails to move beyond \$591.00. Now, we have a big resistance price zone from \$591.00 to \$609.00. Looking again at the bigger picture, you can see when the resistance zone is reached an area of supply exists, sending the stock downward until an area of demand is reached, sending the stock back upwards. Almost like a ball bouncing from floor to ceiling. As time progresses, we would be watching for these support and resistance levels to be maintained or broken.

In this case, support was tested once more, made a small rally upwards and eventually broke support, this is a bearish signal. In order to maintain the bearish trend, the stock would need to remain below the support level it broke. Therefore support reverses roles once more and becomes resistance again. We can see that the stock was unable to move above the resistance line multiple times. On the lower level, we see the stock fail to reach a lower low at \$350.00, which is where we draw our first new support line.

This happens again around \$358.00, which again creates a support level zone between \$350.00 and \$358.00. We see the stock stay in between the support and resistance zones for some time. We can assume that the market will continue in this pattern until an indication is given otherwise. Or it breaks the pattern. Which it does, the stock does break the support line, which is a bearish signal. But, it's not sustained. Over a short period of time, the stock moves above the support zone, which is a bullish signal.

So how do we determine if the stock is bullish, bearish, or even neutral? And the answer is to define the trend. Let's start with the uptrend. We know a stock's price will increase when investors are willing to pay higher and higher prices for the security. Which is another way of saying demand is increasing relative to supply. A stock is in an uptrend when we see higher highs and higher lows. The stock needs to consistently reach higher highs and higher lows to remain in the uptrend. The higher highs are ascending peaks and the higher lows are ascending troughs.

We can draw a line connecting the lower lows to create an upward moving support line. This support line will be closely monitored and the saying goes: the trend is your friend. We assume the trend in motion remains in motion until a strong enough counterforce occurs. A downtrend is just the opposite.

When supply is increasing relative to demand, investors are willing to sell securities at lower prices. This often leads to lower resistance and support levels, which are lower highs and lower lows. The stock needs to consistently reach lower lows and lower highs to maintain the downtrend. We can see descending peaks and descending troughs as time progresses. We would draw a line connecting lower lows to monitor if the trend is sustained. A stock or security can also be in a trading range.

This occurs when support forms at or near the same price below the market. Zones can form in this area and are depicted with horizontal troughs. Resistance forms at or near the same level above the market. The peaks are horizontally clearly articulating the resistance level. The stock is considered to be trending in the trading range when moving horizontally across support and resistance. This is sometimes referred to as sideways, neutral or consolidation. You can see how the stock falls when resistance is reached and rallies when the stock hits support consistently.

According to the Dow Theory, which is the theory that began technical analysis, a trend is in consolidation prior to a move higher or lower. Just as we were discussing earlier, in order to determine if the stock will move higher or generate a bullish signal, we would look for the stock to breakout above the resistance line. This is called a trading range break out. Where demand has become strong enough to overpower the area of supply, signifying more buyers.

And of course to monitor for a bearish signal, we would look for the stock to break down below the support zone. This is called a trading range breakdown. Which suggests that supply has become strong enough to overcome demand, signifying more sellers. Let's assess this on another chart. Early on, we see a down trend and supply increasing relative to demand. We also confirm this with the clear depiction of lower lows and lower highs. Then, the stock fails to make lower lows, around \$14.00, creating a support line. The stock fails to move above \$16.00 and \$16.50 creating a resistance zone. The stock is in a trading range where supply and demand have found balance.

Now, we need to monitor for a bullish or bearish signal or change to the supply and demand balance. The stock breaks out above the resistance line. But, this needs to be sustained in order to be a true bullish signal. The stock did breakout, retracted back into the trading range and then broke out once more and remained above resistance, a valid bullish signal. Again, an upside break or breakout from a trading range above resistance is bullish and suggests that demand has become strong enough to overcome supply. We will look for higher highs and higher lows as an indication of an uptrend and the continuation of demand increasing relative to supply. Which we see occurring on the chart.

At the peak of the uptrend, we see the stock creating an area of supply at \$34.00 as the stock has a difficult time moving above \$34.00 and again at \$33.50. This zone is, you guessed it, the new resistance zone. We see an increase of supply around \$31.00 and again at \$30.50, this creates the support zone and a trading range between \$30.50 and \$34.00.

While the stock is in the trading range, we want to monitor for a breakout or a breakdown. We are looking for a bullish or bearish signal to break the trend. The stock does breakdown from the trading range below support, this is a bearish signal, but again it is not sustained. We need the stock to stay below the old support level, which means that support reverses roles and becomes new resistance.

We see the stock rally back into the trading range, break through the support zone, making it all the way up to resistance and eventually the stock does breakdown and remain below the trading range, which is a bearish signal. The bottom of the trading range becomes resistance which we see is tested prior to the next move lower. The bearish indicator and breakdown is sustained creating the beginnings of a downtrend.

Now, we will look for the increase of supply that caused the breakdown from the support zone to continue to increase. We will visually see this with lower highs and lower lows. Or in other words, declining support and resistance areas. So how do we assess the importance of each support and resistance area?

Support and resistances are congestion areas. This is because prices have a difficult time moving through these zones, which we have seen as we have been assessing the chart. Some congestion areas do hold more significance or strength than others.

We first look at time, the more time spent at a major support and resistance zone, the stronger it becomes. We would see a sell off triggered at resistance or purchasing triggered at support in a consistent pattern. The time frame is also extremely important. Support and resistances that are in effect for a day or even intraday is a minor trend and will lose its effectiveness more quickly. However, longer time frames such as weekly or monthly over years hold higher significance. Because we are looking at a longer time frame, it is considered a major trend and it holds more strength, which makes sense. The longer the pattern is in existence, the more it is validated.

Second is tests, the more we see the levels tested and sustained the stronger the congestion zone tends to be. Resistance and support zones that are hit ten times hold more weight than a resistance and support zones that is hit three times. Third is depth, a wider congestion area tends to be stronger than a narrow one, a wider support and resistance zone is more difficult to break than a narrow one. Meaning, a range from \$30.00 to \$35.00 will experience less variance than a \$30.00 to \$31.00 range, because it has more room to move. And last is volume, if we see higher volume in a congestion zone, it suggests that there is greater interest to sell at resistance and buy at support. The more volume seen at these levels the stronger the levels become. This is different from tests, the amount of tests are absolutely important, but the amount of volume or transactions at the tests strengthen the zones.

Essentially, as we assess supports and resistances, we also assess the strength of each level by evaluating the time spent at the level, how long the level remains in-tact, how many times the level is tested and not broken through, the range of movement and the amount of transactions at each level. A strong support and resistance level can help us determine which direction the stock is headed and ultimately decide if it is time to sell or even buy.

So, let's recap what we have covered. You should have an understanding of what technical analysis is, as well as chart types and their uses. The relationship of supply and demand with support and resistance, recognize when an area or a zone of support and resistance is forming. A breakout or breakdown from these zones as well. Recognize an upward, downward or trading range trend and assess the importance of this trend.

This concludes the essentials of technical analysis. We encourage you to refine your charting skills with Merrill Edge MarketPro. Which again you can access after logging in. And continue the series and watch our next video Get with the Trend Part 1. And 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 the Merrill Team, thank you.