

TRANSCRIPT

The Building Blocks of Technical Analysis

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ANDREW MCGOWIN: Hello, everyone. Welcome to the Technical Analysis Basics classroom. My name is Andrew McGowin, part of our Trading Strategy Desk here at Fidelity, happy to be with everyone, taking a look at the building blocks of technical analysis. I am joined by my colleague James Savage. We are both part of the Trading Strategy Desk. We are a group of about a dozen or so traders here at Fidelity, dedicated specifically for your education. We put on a variety of different sessions on a daily basis, live sessions that you can join anytime, ask questions and answers, taking a look at all of the different components that you see listed here at [fidelity.com/coaching](https://www.fidelity.com/coaching).

So once again, my name is Andrew McGowin, joined by my colleague James Savage. How's your day going so far, James? If you don't mind introducing yourself for the crowd.

JAMES SAVAGE: Hey, Andrew. Good to be here. James Savage, also, of course, from Fidelity's Trading Strategy Desk. It's exciting. We get to talk about one of my favorite topics in regards to training, and that is technical analysis. So I am eager to get started. I hope everyone else is too.

ANDREW MCGOWIN: Yeah, couldn't agree more. But as mentioned, we'll take a look at really three to four different core topics here today. First and foremost, we want to define what technical analysis ultimately is. Why do people use technical analysis? How is that different than other types of analysis that is out there? And how we can use that in our decision-making process.

From there, we'll look at charts. What does it mean to actually construct a chart? What are the different types of charts that are out there? How can we use all of the different charts and different types of chart styles that there may be?

Basics of trend-- how trend itself is the defining concept of what we're trying to accomplish when it comes to markets. And what are some best practices for trend traders?

So first and foremost, defining technical analysis. What is technical analysis? Most of the time when people first learn about markets and trading and all of the different concepts therein, the natural component tends to be that people gravitate to the world of fundamental analysis. Maybe they end up learning technical analysis later on, but most people tend to have an intuitive component of what fundamental analysis ultimately is.

So what is fundamental analysis? Well, it's what most people tend to think about as the classical finance approach to evaluating markets. If you think about what does it mean to be an investor in a company, what are things that you generally are asking as an investor, well,

what does this company do? How well do they do it? What revenue are they generating? What margins do they have? What profits do they have?

It's the classical finance approach to the world of just utilizing business analysis in that component. And again, most people tend to have an intuitive understanding of how that operates in the world of markets. I always joke that even if you aren't someone who is a naturally financed background person, if you've ever had people ask about a company and people ask about what this company does, that's the natural state of a fundamental analysis. It's asking all of these questions and trying to arrive at a conclusion of, is this company fairly valued? Are they undervalued? Are they overvalued? Is there an opportunity to be found if we can arrive at that conclusion?

What, however, is the difficulty of fundamental analysis? Well, it's difficult to sometimes arrive at that conclusion. It is tough to compete against others, in the grand scheme of things, of trying to determine whether or not this company is fairly valued, if there is an opportunity to be found.

I always joke that I came from maybe nonclassical finance background. I originally had more of a liberal arts major back in the college days. And the component of fundamental analysis sometimes seemed fairly difficult to overcome, in the sense that all of these major Wall Street institutions who have all of these individuals and analysts trying to arrive at the same conclusion as I am, trying to determine whether or not there is value in these companies.

And again, that's a difficult, crowded field from time to time and, too, as many people will know and experience in markets, sometimes a company can be what we think is undervalued, and the stock keeps going down. There is other components to markets at all moments in time. It's not naturally inherently rational at all moments in time. So it makes the timing of the investment sometimes difficult. It makes the buying and the selling decision sometimes fairly difficult.

And at the end of the day, if the decisions are determined and the profit and losses are determined by the share price, sometimes it makes it difficult to quantify that risk versus reward component. So originally, again, what spoke to me as a trader was this concept of technical analysis. Essentially, what technical analysis is doing at the end of the day is saying, well, if we incorporate all of this components of markets, all of these decisions, all of these analysts and fundamental traders and things of that extent, if we understand at the end of the day, someone has to make a decision, are they buying this underlying or are they selling this underlying?

Well, in a broad-based case, those decisions are expressed, they are shown on the charts themselves. If we assume that we are operating within a freely traded market, buyers and sellers are making decisions. Well, those decisions on balance are expressed through the simple supply and demand dynamic of the stock price itself.

It allows us to somewhat put on the blinders of what all of these different media news and information that we're hearing and say, is the price of the underlying going up? Or is it going down? Are our shares of the underlying being accumulated? Or are they being distributed?

We can visualize these shifts in supply and demand via the use of chart and chart patterns. We can also account for some of the other components that I mentioned earlier within the fundamental space. And the fundamental space essentially always operates under the assumption that people are acting rationally. We know that sometimes traders can be irrational and markets can be irrational from time to time. It accounts for the emotional aspects of the marketplace. It accounts for the fundamental. It quantifies that component of risk.

It does not mean that we will inherently always be right. And that does not mean that just because a technical analysis pattern or signal happened that the market has to do x, y, or z, but it helps us quantify that decision-making perspective. It does not by any means have knowledge or try to predict the future.

The way I tend to think about technical analysis, it is not predictive. It is reactive. It is using these components to help us make a decision based off of what is happening at that exact moment in time, incorporating all of these different perspectives.

A lot of the time, people will sometimes assume that technical analysis is the antithesis of fundamental analysis, that they are opposite of one another. But really, technical analysis is the expression of fundamental analysis. If all of those major institutions, if all of the people out there-- you, me, James, everyone-- making a decision, it is going to be reflected in the price of that stock.

If the institution came at it from a fundamental lens, if Andrew came at it from a technical lens, if James came at it from an emotional lens, all of those are still buys or sells at the end of the day. And we are simply trying to find moments in time that are advantageous for us to potentially be long the position, to not be long the position, all of these decisions that we have the ability to make.

Now, again, it's also not perfect. It is not going to tell us what is going to happen next. There is a natural human component to the world of technical analysis. So patterns, trends, indicator, they require sometimes human interpretation, which naturally incorporates sometimes human bias. We are susceptible to emotion, to cognitive biases, as any other traders are. It is not by any means any sort of guarantee.

Again, it is a decision-making process. It helps us hopefully make decisions in a timely manner, allowing us to find some opportunities that may be out there in the marketplace. So what are the assumptions that we make about technical analysis? One, it has to be on a more or less freely traded market that is being ultimately determined by supply and demand. We unfortunately can't apply technical analysis, say, local companies in your local area that you're wanting to potentially invest in, because there's not a freely traded market for those

things. That's where fundamental analysis is naturally going to be a more prevalent perspective.

But on large companies, ETFs, indices, broad-based components of the marketplace where buys and sells are happening thousands, millions of times a day, for the most part, we assume that every decision being made is a decision to be buyers or sellers. In essence, we assume that price is discounting at that moment in time all publicly known information. Any sort of new information that comes in, the market at that moment is immediately trying to determine, is that valuable information? How does that shift the overall perspective?

So then we assume that prices aren't inherently random, but we also know that they're not predictable. New information can come to the front. Things can change along the way. Decisions can change. Traders can change their mind. But we assume that that is not happening in a random capacity.

And more than anything, as technicians, we tend to operate under the assumption that markets have trend, that there is a momentum factor to the marketplace, that the market has phases of accumulation, of distribution, and that those trends are more likely to continue than they are to change. It sometimes shifts the general perspective that people have about markets.

As we tend to mention on our team, a lot of people generally assume that markets are always mean reverting, the "buy low, sell high" mantra, the natural ebb and flow of the marketplace. And I'm not here to tell you that "buy low, sell high" is not the mathematical formula to a successful trade. But sometimes "buy high, sell higher" can equally be that same sort of perspective but flipping the paradigm to a more trend-based observation.

We also generally assume that markets aren't inherently the same as they always have been, but there is a natural repetition from time to time in the market, so, in essence, that the old quote "history doesn't always repeat itself, but it tends to rhyme." We're using past components to help inform our decision-making process, knowing that things aren't always going to be the exact same. But at the same time, is there going to be a natural overlap from time to time?

And we also may use the term "fractal" from time to time. Ultimately, what that just means is that something on a shorter term time frame can be as equally useful as something on a longer term time frame. That component of rules within the technical analysis sphere are sometimes equally applicable on short-term decisions, as well as long-term decisions in the same sort of decision-making factor.

You know I've been going for a few minutes, though, on the basics of technical analysis. As mentioned, we want to spend some time on charts. The main tool in the tool belt of the traders are charts. We are using charts to observe price action, to analyze data, to look at all of these components across the board. So I'll bring my colleague James back in. We'll get started on taking a look at what it does mean to construct different types of charts.

JAMES SAVAGE: And if I was to ask you, What is the first thing that comes to mind when you think of technical analysis? I would bet most here, most listening would say charts. You think of the word "technical analysis," and maybe you have an image of possibly a movie or a TV show. But you have this idea of a trader sitting at their computer with multiple monitors. And what's on that monitor? Variety of different charts, maybe four or more charts even.

And that is a key component of what technicians will use to help make their buying and sell decisions. You could also imagine if you were maybe sitting at home and the only way that you could find out what a stock is doing was by looking at a ticker or seeing what that last trade was. And you'd have the price as only a single point in time.

And even if you could record all of those individual prices, they might be somewhat meaningless without looking at all of those prior prices in the context of where they have been in relationship to each other. And that's what a chart does. It allows us to see not only what the current price is but all of the prices that, well, that our chart can go back in time to. And by doing that, we can then analyze how price has behaved. When has it been high? When has it been low? We can visualize both patterns and the trending nature of prices.

And from that data, we can then more easily make our buying and selling decisions. So it would make sense that as we dive into technical analysis, we need to make sure that we are comfortable of the variety of charts and chart types that are available to us.

Now, we've got four listed here. Understand that these are not all of the different chart types and chart styles that are available to you here on our platform. But these are some of the more well-known chart types.

Now, we're going to be focusing primarily on two today. And that is the bar chart and the candlestick. But I'll briefly mention the other two. There is both the line chart, which is probably one of the simplest ones there, where it is just a line connecting all of the prices within a given period, typically closing prices.

And there is the point and figure chart, which is-- I don't want to call it antiquated, but it's certainly an older style of charting that was very useful before the age of computers, where we didn't have to necessarily mark up each and every price point on a paper chart. As you can imagine, in the past, maybe someone drawing it with a pencil on a very large sheet of paper-- well, given today that we're going to be charting on our computers, it's a bit of an outdated type of chart, so to speak.

So we're going to focus on the two in the middle here. And that is going to be the both bar chart and the candlestick chart. So starting with the bar chart, what we're looking at on this example here is the bar, sometimes known as the IHLC, which is a, to some extent, a vertical line that shows us our open, high, low, and close for a specific time interval.

Now, those bars could be established for a day, where we'd have the opening price, the high, the low, and the closing price of that day. We could look at a chart of a singular day, where each bar corresponds to maybe one minute of price, where we'll have each minute

the open, high, low, and close. And when I mean open and close, that's basically the start and the end of that 1-minute frequency.

So depending on the time frame that is of interest to you, you might choose a bar chart. One of the advantages of this is that it is one of the most common. So it's something that most have been familiar with it at some point in time, if they dabbled in charting in the past. It's easy to read, and it provides the full range of trading for that time interval.

And that contrasted with that line chart I told you about earlier, where you're missing some of that information. You just typically will have, say, a closing price to go back with, instead of, in this case, visualizing the open, high, low, and close.

Now, the other chart type that we want to talk about is also the candlestick chart, which is very similar. It's gaining popularity, but it does have a bit of a key difference. Now, the candlestick chart also will show you your open, high, low, and close. So you're getting some of the most important pieces of price data within that given period.

Some may say it's even a little more visually appealing because it's even easier to read because nowadays, it incorporates color. On our platform, we default to both green and red, as opposed to in the past, where it was filled versus hollow. And what it also does is that it uses color to show the difference between the open and closing prices.

Now, the bar charts that we talked about in the previous slide also did the same, but there's a slight difference. So in a bar chart, by default, the color is based on the prior closing bar and the current closing price of that bar. Imagine two bars correspond to two days. If the current day was closed higher than the prior day, that bar would be green. If the current day closed lower than the prior day, that bar would be red.

With the candlestick, the color is based on the difference between the open and the close. So meaning if the day closed higher than when it opened for, it's green. If the day closed lower than what it opened for, it is the red. So do you see the key difference? It doesn't take into consideration whatever the prior day closed at.

So if you're thinking to yourself, Is one better or worse than the other? not really. It's just different information that could be useful for different traders, different approaches to assessing what price is doing. So you'd oftentimes want to make the choice for yourself. Would you rather have that visual color aid of close to close, between those bars, or open to close of that individual candle?

So those were very, very briefly just four different types of chart types. Now, for the remainder of our sessions here, what we're going to be doing is focusing mostly on those candlestick patterns. What we found is that it's fairly popular just because of that more vibrant color contrast.

Now, within charts, where we have, let's say, our candlesticks, what is going to be one of the key fundamental parts of what we're going to be talking about for the rest of this webinar is

going to be the identification of reversal points. So that can be when price is either rising, stops, and then declines, or falls, stops, and then declines. So there's two terms that we're going to be using for this. And that is going to be the term both "peak" and "trough."

Peak-- think of a mountain peak. That is the top. And the trough, I like to think of it as that valley between mountains. Now, in the situation where price is rising, stops, and then reverses and declines, that is our peak. That is our top of that reversal point.

Now, the reversal point that is declining, stops, and then rises, well, that is our trough. And the reversal points are the-- really the foundation of trend, of trend lines, channels, support, and resistance, and various types of chart patterns. So we're going to be going back to this identification of reversal points throughout the entirety of our series here.

And just to show maybe a bit of an example of a variety of different both peaks that we've identified here on the slides, and even though we haven't identified them, take a look at the example. I bet many of you could identify where those troughs are, those noticeable dips or declines in price that shortly reversed.

Now, oftentimes, the longer the trend, the more important that individual reversal point is. And we would imagine that within any possible stock or ETF that we're following, we can understand that the price isn't going to go straight up and straight down. This is part of the natural dynamic between buyers and sellers, also known as supply and demand, that is creating these visual reversal points on our chart.

So the next time you take a look at a chart, I'd invite you to try to identify some of those reversal points. And you can find this in whatever time frame that you are looking for. And as I mentioned, this is part of the foundation of trends, which is coincidentally what we're going to be talking about next. So imagine these reversal points. And then we can use that to start getting an idea of whether the underlying stock or ETF that we're following is within a trend.

ANDREW MCGOWIN: Absolutely. Couldn't agree more, James. When we think about the core components of trend, it is that function of peaks and troughs, that function of buyers and sellers making a decision. So nonetheless, let's look at what ultimately determines some of these components of trend.

As we discussed, technical analysis is based upon this concept of trend, the principles of trend, that this trend arising as an interaction of buyers and sellers out there in the marketplace. Buyers making a decision because they think the underlying is going to go up, sellers making a decision because they think the underlying is going to go down, that effectively creates a market. That is what makes a market at the end of the day. And we assume effectively that the profit that we're trying to make is from that trend that we can observe in prices, that a trend's direction is something that we are trying to take advantage of.

So what are some assumptions that we make about trends? Well, we assume that they're more likely to continue rather than reverse. We are fully accepting of the fact that eventually,

it may reverse. And that is the component. But to have a trend reverse, that means that on balance, traders who were making, say, a decision to buy are either no longer making a decision to buy or making a decision to sell. So something has shifted in the overall underlying component of the marketplace.

And in that case, we assume that they're influenced by other components of trend. They are fractal, as mentioned earlier. They are not easily mechanically programmed in that sense but that they are observable components in the marketplace.

So with these trends, I just like to paint a picture of a person out there. Say if it's me or James or one of you all, if you can relate to some of these components, imagine you were looking at-- this is just a random stock. It's a textbook example, but imagine you were theoretically bullish on this underlying, maybe from a fundamental perspective, maybe technical, maybe any sort of reason that you had out there. But you were bullish, and you held off on buying it.

You saw it on the left-hand side of this chart going originally at 700 and quickly went up to \$1,000 per share. And if you've ever been in that scenario, you're thinking, hey, I know I should have been in this position. I just held off. I wanted to wait for it to pull back some. And maybe you're saying, well, hey, it's at 1,200. If it gets back down to 1,000, you're willing to buy some.

And what do traders do on balance here? Buyers step in at that trough, at that dip as James had mentioned. And now prices push back to 1,300. And maybe trader one is saying, I knew I should have bought that. I should have bought more. If it dips down any lower, I'm going to buy more of it. Or if you were, say, trader two and you were thinking, I know I should have bought it at 1,000. Now it's at 1,300.

I should buy it if it gets any dip. And we see this slow accumulation, this very observable, palpable component of demand, accumulating shares over time. I mentioned earlier that we tend to operate on the assumption as a underlying an accumulation phase or a distribution phase or in a consolidation phase.

We can see for this one, in this uptrend, buyers are stepping in at incrementally higher prices because they are being rewarded with incrementally higher prices. Higher highs and higher lows are being found in this name. It doesn't mean that it's going to go on forever. It does not mean that it's guaranteed to keep going up. But it does mean as long as that function is remaining in place, it helps allow us to stay in a trade or to continue to add to this trade over time.

As mentioned, though, does this happen forever? Unfortunately, no. And unfortunately, as many of us know, stocks can indeed do go down. That is what we're looking for within a downtrend phase.

What is the other side of this scenario, if you've ever been in a scenario like this-- I know I have, where the stock was at \$42. You think it'll never stop going up. Maybe buy some at 42. Or maybe you remember having some at 42, and you're excited for it to keep going up. And

out of nowhere, it goes from \$42 to \$35, just goes down so quickly. And you're thinking, oh, goodness, I've got to get out of this position. It's no longer going up. I do something different. I need to get my money back, and I need to get out of this position.

And what do traders do? Well, it doesn't quite get back to \$42, but it gets to 40. So they say that's good enough. I'll take this position off the table. I don't want to hold it at 35, 36 like I did a few days or weeks ago. I didn't like how I felt when that was the case. I didn't like what the number was in my account when that was the case. So they took that position off the table.

And then it continues to go down. And more traders start having that same sort of thought, that they say, I need to get out of this position. Every time it bounces, I'm going to take that as an opportunity to get this position off the table, to take some of my money off the table, to reallocate to maybe something else or to cash, because this accumulation phase that may have been in there beforehand is now a distribution phase.

Over time on balance, we are seeing a distributive effect on this underlying for any sort of reason. Maybe the company's fundamentals are going down or not improving as they once were. Maybe things have changed as far as a growth outlook for a company. All of these things can help explain what price is doing. But at the end of the day, price is going down. And our traders' looking to make sure that they are being cautious and managing their risk accordingly of our hard-earned capital and making sure if something is no longer working for us, we're putting it somewhere else instead.

That function of what we saw on the uptrend, higher highs and higher lows, buyers buying at incrementally higher prices because they're being rewarded with incrementally higher prices is no longer the case in this downtrend. We are seeing lower highs and lower lows. That's what defines a downtrend. Lower highs and lower lows.

Sellers are taking opportunities to get out of their long positions. Or maybe sellers are getting into speculative short positions because they believe that the stock will keep going down. And that is an important function to always remember, is that socks can and do go down at different periods of time. We sometimes forget about that as naturally optimistic humans, as naturally bullish individuals in the marketplace, that not every stock goes up all the time throughout its lifespan.

Now, I've made it seem very simple that, hey, it's either accumulation or distribution. You're either long or not long, or it's an uptrend or a downtrend. Unfortunately, that is not inherently always the case. There is a secret third type of trend, and that is just simply the discernible lack of a trend, a sideways trend where nothing is happening at this moment in time that we can objectively take action of within respect to uptrend or downtrend.

Markets can be at an equilibrium of sorts. Buyers and sellers more or less agree upon a price, so it kind of just moves from side to side to some degree. And in that case maybe that is one. It's not a downtrend. So maybe that gives you enough of a permission structure to not get out of a position.

But at the same time, is there an opportunity cost to a sideways trend? If we think that if we are noticing a sideways trend, does that give us a permission structure to go find something in an uptrend to reallocate to a position, because this one is not working out in our favor at this moment in time? So it is always important for us to continue to keep that in mind, to make sure that we have positions in our account that are working in the favor of what we ultimately want the position to do.

So if we can maybe eyeball test an uptrend or a downtrend, what's a way that we can maybe have some sort of actual trend line component to it? That is something that we can draw on charts, that we can use as a function of seeing what is happening, to define levels in time along the way, to see what that trend line is ultimately doing. We generally are going to draw trend lines either from peak to peak or from trough to trough, the highs or the lows.

Where we do that is generally dictated by what type of trend that we are in-- upward sloping, downward sloping, or a sideways trend of sorts. Generally speaking, if we are in an upward trend, the reason that we draw the trend line at those troughs, at those lows is for no other reason but really that that tends to be where the bulk of the decision-making is coming in. When we think about people driving the force of an uptrend, what is the driving force of an uptrend? It's demand. It's buyers, buyers stepping in at incrementally higher prices.

So we draw this trend line here, which in further sessions we'll talk about other ways of drawing and other ways of taking a look at trends. But we draw this trend because that is where the decisions are ultimately being made. Buyers are stepping in at these incrementally higher prices.

Again, does that mean it will go on forever? Unfortunately, no. But when price breaks that trend, that gives us an important component of what those decisions are being made, where buyers have been stepping in one, two, three, four, five different times, if price breaks below that, that means that buyers didn't step in there. Maybe they decided they no longer wanted to be buying at those incrementally higher prices. Is that an important piece of information for us to know? Is that an important takeaway that we can have as decision-makers in our own portfolio, that the defining level that buyers were defending stopped?

They got out of the way of it. They no longer were buying those levels. That's why we connect an upward sloping uptrend to those troughs, to those buying areas that buyers had defended, because maybe if that breaks one day, does it become a downward sloping trend line? Does it shift to the supply-driven distinction, to the sellers driving that overall equation? Because again, we draw it this way on a downtrend, because that is where the decision factor is ultimately being found.

The driving force of a downtrend is distribution is selling. That is the overall concept of supply that we are finding here-- sellers taking positions off the table. Or again, maybe they're entering speculative short positions, because they believe that this trend is more likely to continue rather than reverse. As we discussed earlier, we're thinking about it through that lens.

Again, trends can change, but something has to change in the underlying function of what is driving that force. If we were in a downtrend and sellers have been driving that decision-making for a bit of time, what has to change? Well, sellers either have to stop selling, or buyers have to start buying. That is that function of a change of trend, which we'll look at here in the next few moments.

But I'll pause for a brief moment because as mentioned, there is still a consolidation component, the concept of support and resistance that can be found. I know James mentioned those topics earlier, those terms earlier. If you don't mind, James, kind of explaining a little bit more what support and resistance ultimately might mean for the traders out there.

JAMES SAVAGE: And we'll get to almost revisit some concepts. So as we were looking at this downward-sloping line here, did you notice how every time those peaks seem to have reached that trend line, well, they reversed? And that is really the concept of what we're going to be showing next here.

And that is the idea of support and resistance, which for someone who's seeing this for the first time-- I know I thought this-- it almost felt like magic in the way that, how could it reverse at these somewhat similar price points? Now, this is a idea of a way that we can describe the battling that's taking place or the dynamic between buyers and sellers, as we talked about earlier, also known as supply and demand.

Now, if we take a step back and imagine that within the market, there are trillions of dollars that is trading hands, so to speak. Now, whether you're looking at a stock or an ETF, with all of the different players that are involved, all the different buyers and sellers, not everyone can decide on what's a fair price. So going forward, don't think of this as a specific singular price point.

Now, you'll notice that there are lines drawn on our chart, and it almost gives the impression that it's happening at a single price point that we can almost go to the penny. I want you to think of these areas as zones within your chart. It's commonly thought in the sense of it's displayed as a horizontal zone. So the support or resistance that we're going to be breaking down is a zone that is always going to be at a singular price point or a singular area that remains at that area in time.

But these can be diagonal, which is oftentimes what we're using to draw our trend lines, thinking back to when Andrew was talking about the uptrend and the downtrend. So what is a support and resistance? Well the support is the oftentimes horizontal line, or maybe you might draw a rectangle that connects the troughs at a similar price level.

So those are those bottoms on our chart here. And as we can see within the example, we've drawn those circles, and we've put a line through them. Now, the resistance is the horizontal line or maybe a rectangle that is drawn through peaks at roughly the same area.

So we can imagine maybe a narrative to describe what is happening. And that is where when we get to that resistance point, that is where supply or the sellers are overwhelming demand. And that leads price to decline.

Similarly, in support, that is where the buyers or demand starts to overwhelm the supply. And we see price rally from those points. And despite most technicians trying to profit from trending, well, it is possible to profit from this sideways or no-trend environment when prices maybe you'll even say stuck between support and resistance.

So here, we can imagine that, well, buyers that could be purchasing as we are bouncing off of support could find an opportunity there, where they're buying at the low price and ideally selling at that higher price. And for those interested in taking the short side of the equation, you could possibly either sell at your profit target or maybe even sell short at that top at that peak at that resistance point and then wait for another opportunity should price go down. Now, don't think that all because you've identified an area of support and/or resistance that it has to respect that area. It's almost a given. It's assumed that at some point, it's going to break out of that range in price. And we don't when that's going to happen.

Technical analysis, it's not trying to predict what will happen. But with the identification of support and resistance, it can help give us a plan. It can be used as a bit of a guideline of when we might decide could be an appropriate time to either enter or exit our position. And understanding that, when we're looking at this, what point would you say we've created support or resistance. And this can be a bit of a subjective, I guess we could say, decision.

Some might say once we have two reversal points, let's say a bottom that we can call that support or two reversal points that it could occur at the top end of a range, that is resistance. Other traders might say they want to see three reversal points that take place at that period of time. So the idea is that the more times you see price reverse, say, at a given support or resistance level, or the greater the validity that it has, the greater the strength-- so imagine if we saw price reversing, say, five times at a given area of resistance, we might say that's stronger than an area where price only reversed three times.

And in addition, the time frame that that support and resistance level holds can also give us a degree of how strong that particular zone, that level is. If we see price being resisted at a certain price point for, say, years, we might say that's a stronger level of resistance than if price was resisted for the time frame of, say, six months.

Now, your time frame can be very different from another trader's time frame. Maybe you're someone who's only trading in an intraday time frame, such as a day trader. And you can think of that same idea applies. If you see support holding price up over the period of a few hours, well, that could be viewed as a stronger level of support than an area that was holding price up for maybe a few minutes.

So those are some of the general ideas when it comes to not only identifying support and resistance, which are those reversal points that happen at similar price levels, but at what point is it considered strong or tradable, so to speak.

Now, there's what some might say is a very interesting characteristic that occurs when either support or resistance gets broken. And we'll talk about what happens when maybe support gets broken.

Now, we know that at some point, even if you've identified support or resistance, it's likely going to break. And when it does, that is the, really, way that we're looking at price tell us that there has been a change in that buyer and seller dynamic, between supply and demand. So in our example on our chart here, where we can see one, two, three, maybe four times price was supported. When it finally broke through on that, say, fifth time and broke through support, it continued moving to the downside. So you can imagine maybe even some traders viewed that as a signal to either enter or exit a trade, maybe enter if they were a short trader or exit if they were long on a position.

And you notice how as that price dips and then ends up reversing and then coming-- comes back up to that what was once the prior level of support, very interesting there. It found resistance. And that was reflective of again that shift between buyer and seller dynamic. I'd like to give a bit of an example, maybe a narrative that can explain why that happens. And think to yourself, have you ever been in a situation where maybe you bought a stock, thought, oh, this is a great time to buy? It's going to go up from here. And it immediately goes down. You buy it, and it feels like you were a curse on the underlying. And it continues to move lower at that very moment.

And then you thought to yourself, I'm going to hold on to this, but if it ever gets back up to that break-even price, I am going to get out of the trade. Well, I found a lot of traders over the years that have found themselves in that situation. So don't be bashful if you found yourself there as well.

And it finally gets back up to that price. You're at break-even. And you're just happy to get out of the trade. Now, I'm not saying that is the rationale behind every time, but I think it's a bit of a narrative that is helpful to remember maybe why this type of situation occurs. And if you start looking at a few charts going forward, you might be surprised just how often you recognize this type of shift in that buyer and seller dynamic occurs when support gets broken.

Now, if support can become resistance, do you think that resistance can become support? Well, you are certain it can. And we have an example on our chart here of just that ever-changing dynamic between how buyers and sellers interact with one another, where in this case, we can see resistance was created. Maybe you might say two times or possibly even three times that we found a reversal point at a particularly high price.

Once it was finally broken and price pierced through that resistance, well, in the normal oscillation, the noise that price behavior exhibits, when it finally came back down to that prior resistance, it ended up turning into support. I think this is a great example.

Now, this is from-- this is a real chart. This was taken from a real example in the past, where we can see how that ever-shifting dynamic between buyers and sellers battling it out, so to

peak, occur where we'll break through resistance. That resistance becomes support. New resistance is formed. We break through that resistance. And then that new resistance becomes a new level of support.

And we haven't identified it on this example. But don't you think that the most recent highs could also be considered a new zone of resistance? So the idea of support and resistance is very important in your journey of technical analysis.

And again, like with some of the prior examples, I challenge you to look at a few charts. See if you can possibly connect some peaks and troughs. And then you just might see some of the support and resistance pop out at you. You could say it was hiding in plain sight.

So now that we've talked about trend, some of the basics of trends, uptrends, downtrends, sideways trends, we've talked about support and resistance, we could maybe go through a few examples of, well, trading some of those concepts.

So let's go into some of the best practices. And that is maybe some hypothetical attempts at profiting a strategy, if you will, that once you've identified, say, trend, whether it's an uptrend or a downtrend, you've identified key reversal points, you can use that not to predict what price will do. That's key. We're not predicting anything, but we're using what price is telling us to help make our decision.

And if we were to maybe use a theoretical example first, imagine we see price create an area of resistance. It falls back down. It creates a peak. It comes back up to that prior peak and then goes even higher, so the idea of an uptrend-- a higher high and a higher low. Well, that could be a reason for someone entering. That can be enough evidence to support someone's conclusion that I'm going to purchase this stock, ETF, et cetera, because of those characteristics of higher peaks, higher troughs breaking through resistance.

And you might remain in that position at that point, until the same characteristics that might have got you into a trade, again, maybe an uptrend, become invalidated or no longer present themselves, where we start to see price no longer putting in higher highs and higher lows but possibly starting to put in lower highs and lower lows. So when investors use technical analysis, they can use that analysis to help with that, ultimately, the decision-making process of when to buy and when to sell.

So we've got two examples we'll try to show today. And one is the beginning of a downtrend. So within our example here, we've got both price on top and volume at the bottom. And we'll focus more on volume later on in this series. We didn't draw the circles here, but I'd imagine many of you would probably identify those various peaks that create this downtrend where the peaks got successively lower and lower as time went on, as did the troughs.

And when price finally broke through, just at that very end there, that could have been viewed as the signal that the dynamic between buyers and sellers, where the sellers were more or less leading price downward, that that dynamic has changed. And I think what this is

also a great example of is all because a downtrend has been broken doesn't mean it has to go back up. It doesn't mean, oh, we've broken our downtrend. Now it's time for an uptrend. It just means that there has been some type of shift.

And in this case, we can notice that as we broke that downtrend, what did price do for some time? More or less moved sideways. Could almost have drawn an area of support and resistance in the time that price was moving sideways.

Now, could this have been an opportunity to buy? Would you have made money? Well, possibly. But it is for that reason why traders will look for the, again, the characteristics of trend, all because we've broken a downtrend. You'd oftentimes be waiting for an uptrend. So we would want to see higher highs and higher lows.

And what about an exit strategy? So in there, we've got maybe an entry strategy. You're going to enter when a downtrend has ended. Well, we can use that same type of idea for an exit strategy.

Now, on this example, we do have something we're going to be talking about shortly, and that is moving averages. But focus on that really accentuated blue line there. We have an uptrend that's been created. We're connecting various troughs in that period of time. And you can imagine a trader might decide to say, hey, as long as we're remaining in this uptrend and the uptrend that I have identified through my trend line, I would feel comfortable being long this. I am bullish. Why? Because of the characteristics that price is presenting to me.

Well, if price were to break through that uptrend that we've identified, that we've defined, that could be a reason for exiting, for closing that position, because what we use to give us confidence, what we use to validate our bullish thesis, our bullish forecasts, with it becoming invalidated, well, that would then question, why would we remain in the position?

And we can see in the example listed here, it would have been a great thesis at the breaking of our trend line, at the piercing beneath it. Well, that has shown us that there has been a change in the buyer and seller dynamic. And exiting that position would have saved us possibly a few dollars as the trade continued to move to the downside. That is what we might call the trigger for the next course of action.

So that's going to bring us to the end of the basics, these building blocks of technical analysis, where we went over some of the assumptions, the definitions, the limits. We went over the identification of a few different chart styles. We went over trends, trend lines, support, and resistance. But we've still got a few other very important concepts and tools and techniques that traders use. As we wrap up here, Andrew, any possible closing thoughts, words of wisdom, or anything else that you'd like to add before we wrap it up?

ANDREW MCGOWIN: Yeah. These last two slides are really just so valuable thinking about the functions of trend because especially in moments like we see on this entry strategy, so many traders, naturally, we see a stock. It's what? \$8 in this chart. It goes to \$6. That's a pretty

small difference. \$2. That's a 25% drop in this name. And what do a lot of traders naturally like to think? Well, hey, hey, buy low, sell high. Buy the dip.

If I buy it at \$6, if it goes back to 8, I've made 33% on it at that moment in time. But the issue is it may keep going down. 6 becomes 5, becomes 4, becomes 3, becomes 2. We don't know where the bottom might ultimately be. But if we are using some sort of trend-based system, well, we can see when that distribution phase starts to wane. When it stops going down to some degree, does that give us enough of a permission structure to allow us to be back in within a trade?

Are we letting other traders do the dirty work for us, of figuring out where this stock might end up going and figuring out if it may end up going back up eventually? In the same sort of way on that exit strategy slide, we can see when that accumulation stopped. We can see when traders started getting out of the way of that downside. How valuable could that be for us to potentially avoid some of those destructive moves in a portfolio?

A lot of the time trend trading, it's not going to be timing the exact top and timing the exact bottom, because no one's ever going to ring a bell at the bottom or the top. We're trying to sometimes capture that kind of middle third, where there's a prevailing wind of sorts, that we can hopefully point our sails accordingly too and try to capture that trend along the way. It's not going to be a guarantee. It's not going to be inherently something that has to happen because x, y, or z technical component happened. But it's hopefully a way that we can use to help make decisions, to analyze opportunities, to manage risk.

As James mentioned, though, this is part 1 of the Technical Analysis Basics classrooms. Keep in mind we've got two more on deck. We'll be discussing both technical indicators as well as classic chart patterns and upcoming events. Do stay tuned. We'll be taking a look at a variety of topics. And you can always find our team at [fidelity.com/coaching](https://www.fidelity.com/coaching). Thanks again to everyone for joining us here today. We'll see you next time.

Investing involves risk, including risk of loss.

Technical analysis focuses on market action - specifically, volume and price. Technical analysis is only one approach to analyzing stocks. When considering what stocks to buy or sell, you should use the approach that you're most comfortable with. As with all your investments, you must make your own determination whether an investment in any particular security or securities is right for you based on your investment objectives, risk tolerance, and financial situation. Past performance is no guarantee of future results.

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