

TRANSCRIPT

Identifying chart patterns with technical analysis

Presenters: Jonathan Lord and Robert Kwon

Johnathan Lord: My name is Johnathan Lord, I'll be joined by Mr. Robert Kwon, a friend and colleague here on the Trading Strategy Desk. So, really excited today. You can't see my face, but I am smiling. We're talking about identifying chart patterns with technical analysis, a really interesting portion of the technical analysis field, and something that, again, we're going to dive into and kind of look at in terms of risk management, in terms of rationalizing price action that you see within stocks and ETFs over time.

So, really just a quick introduction, our team at the Trading Strategy Desk, we do work with self-directed investors, we work on education and coaching, trying to challenge and refine everybody's trading strategies, and focusing really on technical analysis and some of those strategy creations and risk management. We do emphasize a lot of options trading as well, so some of those kind of niche areas that you may be interested in, certainly do join those.

And then our morning and after-market briefings are a good way to see us do this kind of real-time, right, looking at charts, give us symbols, we'll pull them up and kind of show you how we would analyze them over time. So, certainly, again, definitely a great system here with the Trading Strategy Desk, so do join those if you're able to. Also, we have these four-week courses, which this is a segue into kind of -- this is part of that, right. This is one of those sessions that we actually run

on technical analysis. It's a four-week class, we do have ones on, of course, the technical analysis, options, trading basics, if you're getting interested in the beginning of trading, and Active Trader Pro. So, certainly something to keep an eye on there. Look out for those, and you can sign up for those under the same area where you sign up for the webinars.

So, going back to that four-week course, this is kind of the four pillars of technical analysis, right. So, we do have basically a webinar series, and this would be part of that four-week course where you would start out with just some of the initial assumptions and getting the idea of what technical analysis is and following that up with understanding the indicators. So, that's the mathematical side of things, right. How do we understand price movement, its change over time, looking at volume, looking at other ranges, right, as well? So, very mathematical in terms of understanding price action.

But today, we're going to be doing what would be the third week, the identifying chart patterns, right. The idea of patterns happens over time, we start to see these continue and we start to see that human behavior show up in price patterns. So, how do we acknowledge that, how do we maybe try to profit from it, hopefully? And then definitely, understanding the risk and reward that goes with those patterns; we'll show you how to dive into that as well. Lastly, and probably most importantly, is managing risk with technical analysis. So, that filters into all of those areas, but certainly, again, something we have to be aware of, right. Manage our risk, we want to keep our money in our pockets, we want to make sure that compounds over time.

So, again, these are the four weeks that would come up. We will be focusing on week three, then, identifying chart patterns. So, just to give you an idea of where this kind of information comes from, of course charting itself is a centuries-old practice, right. Price movement and putting that down on a chart, certainly something that's been going on for some time.

But we have Charles Kirkpatrick, his book is sort of the field guide to technical analysis and all of those things I was just covering. I certainly have his book here, I have it -- I probably need a new copy, it's been opened, closed so many times and dog-eared, so certainly something to pick up. He does dive into, of course, chart patterns. There are other -- and borrows from of course others who have done the back testing, the research, to understand how chart patterns work over time. So, certainly, again, that is the co-author today, right, Charles Kirkpatrick.

So, then quickly, we'll just do our agenda for here. We have basically three things we'll be looking at. We'll see what we get to, right, but really techniques for trading patterns, we'll start there. Kind of the concept, right, you'll need to know. Once we know those concepts, we'll need to then understand how to dive into them by the actual looking at and construction of those common chart patterns. How do we recognize those? And then, how do we understand essentially their patterns and their limits, right? How do we understand how to trade upon those, how do we use those within a strategy? So, those will be kind of our three-pronged attack here today. We'll start with, of course, the techniques. And to do that, I do want to kick it over to, again, my friend and colleague, Rob Kwon.

Robert Kwon: Yeah, welcome everybody. So, since this is kind of part three of that four-week class, I do want to reiterate, technical analysis is not about predicting the future; it's a mechanism that traders, active investors use, to make decisions based off what has already occurred. Part of that foundation starts with the concept of trend, and that's covered in kind of the first class. But now we're going to expand our mechanism for identifying price action and kind of projecting different versions of the future. But most importantly, we need to be prepared to respond depending on what actually happens at those decision points. So, John, why don't we kick it over to the next slide and kind of let's define a couple of things up front.

So, what is a pattern? What do we mean by pattern? So, a pattern is going to be bounded by at least two trend lines, and those can be straight or curved. Now, you can certainly use a singular point, right, as some type of reference, like all-time high or recent visible low. But when we're talking about patterns, we're typically looking for at least two, two touches, right. Again, those can be bounded by curved or straight lines, and as long as an upper and lower band are defined, we potentially have some reference points for future decisions.

Now, the lines that bind price movement in a pattern, again, can be either sloping or angled trend lines or horizontal support and resistance lines. The lowest levels and the highest levels of the pattern, again, can be utilized for support and resistant concepts. Now, all patterns, the whole point of this, there's going to be some combination of the potential entry and even more significant, potential exit

points. And those patterns can either be continuation patterns or reversal patterns. Now, what we mean by that is in a vacuum, the pattern by itself, right, lacks context unless we look at what preceded that.

So, for instance, if the price movement leading into the pattern you're trying to identify was an uptrend, right, we're looking to see if that price action will continue along in the up move, or potentially be a battle that reverses in the opposite direction. And vice versa, if the price action leading into the pattern was a down move, right. Is this a consolidation or a battle that leads to further weakness, or is it a battle that resolves higher and changes the downward trajectory?

Now, a very useful concept is that patterns are fractal, meaning that they can be seen and utilized in any charting frequency or timeframe. So, if you're utilizing our Active Trader Pro platform or you're charting on Fidelity.com, it doesn't matter if you apply this concept to something that has weekly candles, like a much longer timeframe, maybe several years, a very popular daily frequency, or even if you're a shorter-term trader looking at intraday frequencies like one-minute, five-minute, 15-minute or even hourly candles, right, or bars.

Now, here's a critical part, right, John? We talk, especially people newer to technical analysis all the time, the pattern is not complete until the breakout point occurs. And the reason why this is important, and an important risk consideration for the active trader, is it's very easy for an observer to see the pattern forming, right, anticipating that that's how it's going to play out and try to get an early entry.

Like, pull the trigger before the actual what we call confirmation, right, is realized in the chart.

Of course, the benefit would be if you're correct in, right, your hypothesis of how the future's going to play out, you'll get a better entry price. But the problem is the pattern may never fully form, right, and you based your trade on an entry that never actually materialized in reality. So, we're going to talk about how to balance that a little bit later on. So, John, why don't we move over to the next slide? And we're going to cover some important concepts here.

What is one of the biggest flaws we have, John, as human traders? Our biases, right? So, this is more of an art than a science. It's very easy for somebody to look at a chart and kind of subjectively identify some patterns that they're looking at, and to try to program those specifics into a computer would be much more complicated, although many try to do that, and do do that, right.

But a number of our kind of tendencies can be dangerous. We already mentioned the kind of seeing things ahead of time, like projecting, using technical analysis for that predictive aspect. So, a lot of times we want to see patterns in data or in the world around us and we actually kind of see patterns where they don't actually exist, right. We see kind of what we want to see. We also tend to believe maybe stories, right, and market lore without actually having any evidence that that's how it plays out in reality. And just as important, we kinda tend to see the future by looking backwards into the past.

Now, we have a saying in technical analysis, right, that history, right, never repeats, but sometimes it rhymes. And that's what we're looking for here. Patterns can be a way of trying to see the future in the past to give yourself a game plan. Like, if you see similar conditions occurring again, we don't expect it to play out exactly the same way, but at least it gives us some type of pathway, hey, in scenario A, this is how I'm going to handle it, scenario B, scenario C, scenario D, and how many scenarios do you anticipate. Your goal using charts is to be prepared for whichever version of the future presents itself.

Now, here's the number one thing that catches people, John: a lot of times we put all of our kind of effort into the entry, our guess, and we tend to stick with the original price target regardless of how conditions have changed. So, the best way I can describe technical analysis is you are subjectively identifying levels that you will then objectively utilize to make your next decision depending on what happens at those levels, right. As long as you utilize it in that way, it can never fail you unless you don't execute your game plan. If you try to look at charts from a predictive standpoint, sometimes it's going to guess correctly, and sometimes it's not. But as a method of making decisions, right, it can be highly effective.

But remember, there's no process that's foolproof, right. So, in the scenario that hurts you, the losing scenario, right, technical analysis isn't going to help you completely avoid loss; it's just gonna help you define what losing looks like, right. So, hopefully that sets the stage for what we're trying to accomplish here. So, John, why don't I kick it back to you, and let's take a look at some more specifics here.

Jonathan Lord: Yeah, absolutely, no, a great setup there. I do love that, we hear that quote all the time, but there's a reason we use it a lot because it's true. It's the idea of markets and looking at the past and human behavior tends to continue to repeat itself over time. Another thing I always will hear is the tongue and cheek, this time is different, right, that's another quote I do love, right. The idea of this time it's different, and then it always ends up that a lot of times, again, kind of has that same shape, just with the different actors behind it.

And it's definitely an interesting concept, too, and we're going to talk about some of the techniques for trading in these patterns, right. So, now once we kind of go over what we would do once we did see a pattern, this would be essentially like how would we offer up on that, what would we look for, what are some of the names that we would look for, how we would turn those, right. You'll see that, you'll read about it, you'll hear these terms quite a bit. So, you want to make sure at least we understand some of the terminology that comes from that. So, these will be some of the techniques that you'll see for trading in these patterns.

I'm going to use sort of some analogies here. A lot of times I like to think of in terms of this kind of being a war or a battle between buyers and sellers, right. So, you're going to have these different types of techniques in order to kind of create that, again, systematic or mechanical process that we're trying to look for so that when we see these things, when we enter into these things like entry stops or protective stops, we're protecting our assets, we're, again, not operating off of these hunches or this idea that this time it's different, the stock's going to go up

and it's not going to even take a rest, right. It's going to continue moving higher and higher and higher; it's never going to reverse lower, that type of thing, right. So, we need to make sure that we're doing that.

And, again, I love the idea also of this being art versus science, right. Somebody was talking about how us as humans, we see patterns, we recognize our friends' faces, right, but there's not really a way for us to scientifically quantify that, right, we just recognize somebody. We don't know how we would essentially -- how would you put that into a computer to recognize your friend's face you hadn't seen for 10 years? So, a lot of this, again, into the theory of it, but we'll get into the meat and potatoes here shortly and actually show you some charts.

But I wanted to go over, of course, the idea of a breakout. This is going to be your key point. We are looking for breakouts, we are seeing the pattern, that is when the pattern has come to fruition, right. Rob was talking about the idea of we're anticipating, oh, this looks like a flag, this looks like a rectangle. Well, it doesn't actually become one until it breaks out. Otherwise, again, it can change or transform into something else, it may not fit into that criteria. So, a breakout is going to be that point. That's the point when the buyers or the sellers have maybe lost a few battles, but they're winning the war, right, they're breaking out of that prior resistance or support zones. So, something to keep an eye on.

So, we're going to talk a little bit about stops, right, the idea of risk management. Again, that was that fourth pillar and really one of the most important. So, the idea is we can use something like an entry stop. So, if we were looking for a breakout

— and this is always counterintuitive to people, the idea of buying high, right. We're always told to buy low, sell high. Well, the idea of maybe entering at an entry stop, you know, you're buying a little bit higher with the anticipation that it's going to be a true breakout. So, we'll talk a little bit more about that and kind of show you how that would work as well.

Protective stops would be the other side of that, below your price, below your purchase. You have a protective stop out there that, again, keeps that money in your pocket, right. It might protect you from having losses, it might protect your gains depending on where you are within that pattern or trade. So, protective stops, very key point for trading.

And then the last thing we'll talk about is retracements. We'll show you this on the chart patterns as well, right, the idea of a retracement meaning that you had the breakout, but it's starting to move back towards maybe that prior resistance or support line. And so, these type of retracements, again, are key to keep an eye on, to understand what's happening and when it's happening when trading. So, we'll keep an eye on that as well and we'll show you. These will all make more sense as we start to move along here.

So, I want to give you a visualization, though, of that breakout and then some other ideas in terms of how to confirm that a breakout does occur and then we'll go back to Rob. But kind of look at these on a chart essentially. So, the breakout here, again, we can see this image, right. So, here's your price, you've come in, we've got prior resistance, right. So, again, we're looking back in time and seeing

where those battles had been lost by maybe in this instance, this would've been in the buyers, right. Not enough buyers, not enough supply and demand or aggressiveness to get over this level here, right. So, we get this sort of pull back again.

But the idea is it's not over until it's over, and so we see this come back up to this resistance, try it again. And this would be your breakout, and we're going to see how this works within multiple different charts. But this is going to be your key figure here, right. This is where we want to be keeping an eye on. Is this going to continue higher, does this, again, fail again, does this retest this line, resistance becoming a support line? But this is the key to what you're going to see here; it's the violation of the trend line and then it's going to be the beginning of essentially a new trend.

So, if we're talking about tops or bottoms charts, right, this would be the idea is we are breaking out; we're moving out of that prior trend and we're starting a new one. And the whole idea, 101 with technical analysis, is always, you want to get in at the beginning of the trend and in as soon as you see it start to change, right.

The idea is you want to get in early and leave early, right. You don't want to be the last one leaving the party in these cases. So, you go along for the ride because of the way that markets we have seen trend over time, and so we can capitalize on that. So, the idea of breakouts, again, is going to be really the bedrock of these charts when it all comes to it; we need to see this breakout in order for the chart to be a true breakout.

There are multiple ways to do that through confirmation filters, right. So, again, we saw that breakout, that looked pretty clear, right? But there are multiple strategies for doing this, and so these are just some of the key ways to confirm that that is a true breakout. It's not actually going to fade out the next day, right. We have this happen all the time; you'll watch a chart — and ours we're gonna show you, they're gonna be pretty clean, right, they're gonna show that things were bouncing up our trend line. It doesn't happen that way all the time, right. There's gonna be multiple times where during the day to day, the bar goes over that point. It crosses over that resistance line. But then by the end of the day, it's come back down. So, if that's your aggressive move, then the intrabar would be -- you'd be really early, right, you'd be really aggressive.

If you were looking for multiple closes would be the next step, right. You say, all right, we've seen a close of that bar, we want to see another close of that bar to confirm that it's been above that price. If those have really moved higher, you might've missed out a little bit. But again, you're being a little more conservative in terms of understanding that there are multiple bar closes. And those bars could be any timeframe. Again, we're talking about the fractal nature of markets, right, this could be a minute, this could be a month bar, right. It could be anything in terms of timing. It's just understanding that there's going to be a very different price point is essentially -- when it comes to those timeframes.

You could use time itself, right, you could say I need to see a day, or I need to see a specific amount of time essentially above that. That's pretty clear as well, right. Percentage or point, another really key number, right. We can just say I need to

see a five percent over that breakout point. Just you can pick whatever -- again, considering your aggressiveness or conservativeness, depending on what your trading is, right. So, percentages or you could use a point basis depending on that. And a lot of times that'll line up, too, with what we talked about earlier, those stops, the protective stops and the buy stops.

Lastly, you'll see this occasionally, it doesn't come up very much, right, the idea of a money stop. So, if you're doing this in terms of your ideas, right, you might say if it's 100 dollars in terms of how many shares I was going to buy, that would be my point of purchase. Again, that's a little bit more complex in terms of pricing. You'll typically see more of the percentage, you might see something that looks for just any type of break above, or you might want to see a close above that resistance or support line for that breakout to be considered a confirmation there. So, again, this is a really key concept. Anything, Rob, you want to add on here before we jump into some of these stops?

Robert Kwon: Absolutely. So, I think what's important here is, there's no correct way to apply a filter or which one you choose. Hopefully you guys recognize that whatever choice you make has a tradeoff for the other one. If you respond to an intraday move, you could get faked out because it just like doesn't even last there by the end of the day. However, if that is in fact the true direction of the move, you're going to be, right, rewarded with your earlier entry. And that kind of goes into no different than the anticipating the breakout in the first place. And again, when we look at some actual examples in the slides, hopefully this, like the clarity

of the differences, if you wait for multiple closes, perhaps you're going to get confirmation or you'll feel more comfortable that hey, it's ready.

In this example here, we have almost the exact same thing from the textbook example with like the hand-drawn lines. What do we have here? We have price falling from an area, but then it starts to go back up. And notice, right, it actually fell a little bit lower, and that's there at angled trendline a little bit down, downward sloping. But underneath, it was putting in higher lows. So, we had kind of declining price up top, but rising price underneath. And it kind of led to this, right, reaction point that resolved higher towards the previous peak. That's the horizontal line to the left.

So, you can see that that candle, right, the wick -- so, the way candlesticks work if you're not familiar is the color is based off the open versus the close. So, this green color represents that the opening was down at the bottom-left corner of the green bar, and the closing was in the upper-right corner. But notice it wasn't quite at the high of the day; it actually stalled just a little bit at the previous peak. So technically speaking, for lack of a better term, right John, we didn't actually get a confirmation based off of a closing bar.

So, you can see that there's part art here, how it happened, right. Some traders will look at that and try to anticipate that even though it only intraday it tried to peak above but then calmed down, because of how it happened, they'll try to anticipate that that is in fact what this particular stock is going to try to do in the future. That goes into that using charts for predictive aspects. And there's nothing

inherently wrong with that because it'll be pretty clear, right, if you're wrong. Namely, instead of getting that gap up, that gap caused by price action outside of the standard market session, if it started what we call rejecting there, meaning going back down.

Now, it doesn't mean it's going to crater back down, right. So, you have to decide what level of being wrong, or it's closing from the risk management standpoint. And you can see anybody who waited for it to close above there, well, that means the next green candle, it opened at the lower left corner and closed at the upper right, if you wait for even a single-day close here, you would've missed out on a decent chunk of a short-term gain. So, you want to balance this with what your expectations are if this, in fact, is the breakout. And you can see in hindsight, would you really care that much if you're more comfortable entering here if you think this is, in fact, the more significant, longer term move higher? And you can see it continued to power higher in a very uniform fashion.

So, this is the concept of the entry stop. I know a lot of times people hear stop and they always think it's from -- if you're typically buying stocks, it's some type of, right, hey, if this goes against the order. But the entry stop might be, whether it's an actual stop order or just a mental stop, is that if it actually shows you it's trying to do what you want it to do. And only then do you actually put on the risk. So, the entry could be some level above in this case the resistance zone. Now, if you're more aggressive, maybe you use the angle trend line. So, there's no right or wrong here, right. You get to decide. And if that is, in fact, the true direction, you would've made more money with the earlier entry, okay?

But you can see over the very short term, it did hesitate at the horizontal level.

And if it didn't break through there, a lot of traders might -- what do you think they might do? Well, if it starts going back down here, maybe they might say, well, it's not ready to go up yet, so if we're not going up at a resistance level, what might it be in jeopardy of doing, John? Potentially going back down, and that's where you want to have your risk management decision. When do you close if the picture of the chart doesn't start looking like you imagined it would look like that rewards you with profit? The answer should be you should've thought about it before you ever placed the entry point, okay?

So, John, let's take a look at the next slide because this is very important. This is the concept of the false break or the failed breakout. And for those of you who are attending, if you've ever heard the nickname the bull trap or the bear trap, that's where that terminology comes from. So, you can see here, we have a similar concept, right. At the left side of the chart, you have price accelerating higher and then it retracted. It went up to retest that same level and failed, but when it pulled back, it put in a higher low. That's what that trend line was drawn; we're connecting those points extending to the right. And then it powered higher.

But just like the previous example, the big green bar didn't quite make it over the hurdle. So, decision time, right. And then in similar fashion, we got the breakthrough, not from trading throughout the regular trading session, but from the overnight move. And at that moment in time, it looks very similar to the prior chart, right, from a thematic standpoint. But what happened a couple trading days

later? Big, red bar that went back to test the breakout level. So, we're going to talk about this a little bit more in the later slides. A bullish trader, right, might look at whatever it does at that point will determine if this is, in fact, a true break or a false break.

In addition, though, how it happened, you should be on guard. If it can hold there, great. But do you see how it violently reversed down? So, it's decision time again. And the consequence of not doing something that day is look at the even bigger red candle that fell back below the breakout and also violated the upper sloping trend line that we're using as a reference in the shorter term. And in hindsight, what happened? That wasn't the breakout up; it was the false breakout, or trap.

And if you didn't respond to the fact that price, even though it looked like it was trying to go higher for a couple of days, quickly failed, you can see it was just weeks of pain if you didn't have a disciplined exit strategy, right, responding to that. Hopefully this is a great example of how two situations can start exactly the same essentially. What makes them different is what happened next. And you need to respond to that if you're using charts to make your trading decisions. And invalidation of your entry should logically trigger the exit scenario to protect yourself.

So, why don't we go onto the next one? And here's maybe the more common, right, if you -- a lot of investors are maybe bullish biased, right. So, you can see here that there was a prior peak and then it rallied up, but it kind of stonewalled

there, right. It didn't go down, right, but it really was kind of deciding what it wanted to do. So, this could kind of go either way. Well, it's either going to potentially either challenge and break higher or if it rejects there, might come down potentially quickly.

So, here's an example of how you can use the recent tight range at a resistance level as a way to balance risk. Hey, listen, just in case it doesn't go up, well, where did it just bounce from? Maybe it might go back down there if it rejects here. So, you could use that level to protect yourself. Now, in this scenario, it resolved higher, right. And notice that weeks later, it actually threw back to roughly challenge that same area of the breakout and then kept bouncing. So, depending on your timeframe, you could have a short-term retest, you could have a retest in the future, or it could never look back.

We'll cover some specific examples, especially in tomorrow's class, right, in the live classes. I think that's the benefit, is that we can see live examples instead of just doing like these case studies. But hopefully you're identifying the level you're going to make your next decision. That's what technical analysis is all about. It doesn't mean, hey, is it -- you know, I'm sure, John, we hear this all the time. You hear on TV, they ask the chart person, right, well, chart looks bullish, right, or chart looks bearish. That's inherently a biased statement, right. The chart doesn't tell us what's going to happen; it only tells us what has happened. And we'll all find out what happens next at the same time, right. And that's when the market opens again, or the stock opens again.

So, let's go to the next one. And here's an example of well what if you saw what you considered a false break? Well, number one, if you were bullish and you had that position or you entered, alarm bells should be going off and you want to be very clear on what would trigger your exit. Because again, if you don't get the break higher, what could it be in jeopardy of doing? And we've seen many examples of this recently, right John? So, you can see here, we had that same type of compressing pattern, right. There was a recent high and it sold off, put in lower highs up top, but higher lows at the bottom. And every time it gets to one of those boundaries, it could potentially decide it wants to do something. And in this case, it tried to go higher.

But then notice that tall wick on the second green candle. Even though the candle was green, it closed well off the highs. And boy, did it reverse quickly with a gigantic red candle in comparison that invalidated the entire breakout. Now, it didn't just crater completely; it tried to stabilize over about a week's time. But notice what happened next; it tried to rally, right. But then where did it fail? If we extended a trend line from the rising lows before, right, it basically failed outside of the extension of that triangle-type pattern that led to significant, lasting weakness.

Now, again, it doesn't have to play out this way. So, even if you're not somebody who takes bearish trades, if you see something like this where it tried to go higher but then quickly changed its mind, right, be prepared to make a decision. At least draw some line in the sand of hey, if it doesn't start responding or holding where I

want it to hold, is it better to remove myself and reevaluate or just hope it gets better?

Right, John, like anytime you start hoping that the chart starts doing what you want it to do, regardless of the price action showing, hey, this thing's in jeopardy here, it lost the battle I wanted it to win, right, then you're really making technical analysis, right, ineffective. You're using it to create the game plan, but if you don't follow through and respond to what happens next, right, there's no point in looking at a chart whatsoever. So, let's go to the next one here.

This is that retracement and just focusing in on that. So, there's various nick names that people utilize for this price action. From the official technical standpoint, in this example if you have a breakout down and then it looks like it's trying to go back up, the official term for that is called a pullback. If it tries to break higher and then comes back down to test the breakout, it's called a throwback. But really, they are references to the same thing. Some people might call it a checkback. It's just going back, trying to see hey, does it go back and reenter the pattern it just, in this case, fell out of?

So, a lot of traders will be prepared for this and will watch to see what happens at that decision zone. And some traders may even wait to see if a throwback, pullback, or checkback fails as their level of confirmation. Now, the tricky part here is if it never, right, pulls back or throws back at all, you might never get your entry. So, you have decisions to make here.

But if you see something happening or there's a break and it looks like it's going back to test where it just broke out from, a lot of eyes are going to be on the response at that level, okay? And you want to potentially respond as well. And you can see here, it tried to pull back and then rejected strongly and then went along its way down to the bottom-right corner of the screen, right. This is the version of the future if you were bullish, right, that hurts you. So, you can't sit there and hope this doesn't happen; if it looks like this is going to be its trajectory, you have a decision to make. Are you going to do anything about it given what you're seeing?

Now, if it had gone up through that retracement pullback flag, that little tag there, perhaps it might've been considered a false break downward. And it survived a very kind of scary moment on the chart, but it didn't do that. It rejected there, maybe reinforcing other traders who use this type of technique to make a decision, both a human or an algorithm, and it kind of becomes maybe like a self-fulfilling prophecy. If it doesn't win there, what is in jeopardy of doing? Going back the other way.

Now, there's a little note here, and this is from the author. A lot of these technicians have historically tried to test how these types of parameters have performed. And a lot of times, they find some statistical basis for making some comments. So, for instance, the retracement doesn't always occur, but a lot of times they've found that if it does retrace but still goes in that original direction, right, perhaps it can have an impact on the magnitude of the move. Again, that does into that kind of predictive aspect, but there are many technicians out there

that have statistically studied, right, how various patterns have performed. And obviously the author of some of this information is one that's pretty famous for it. So, you take that for what you feel it's worth. All right, John, let's move along.

Jonathan Lord: Yeah, I do appreciate that. No, that was great. Again, that's more the theory side of things. We're going to show you some actual chart patterns now. You would've seen them, you might've seen the triangle there, you may have seen some of those terms such as the entry, breakout, pullback, throwback, all of these, we've got those now in our back pocket. We can now start to actually look at how they respond on a chart. And remember, again, we need to keep in mind there's a lot of different types of charts, there's a lot of different patterns that we might see with candlesticks. There's going to be your short-term patterns that are going to show up here.

There's so much to this, and even on the desk, myself, Rob, we'll talk about charts all the time. We sit in these sessions together and we'll analyze the same stock, and we'll have different opinions, we'll have different chart patterns we might see. Somebody's eyes might focus on something, and another might on a different timeframe. Could be even the same timeframe, right. So, again, there is still that art to it, and this is not a science, this is not a hard science, right. It couldn't be, right? If it was and everybody traded double and triple bottoms in the same exact way, well, then it wouldn't work out, right. Everybody has a different reason for trading.

So, we're going to show you how to, again, analyze it, how to, again, assess the risk that goes with that trade. But there's never going to be a well, this is a double bottom, so it's going to have to resolve in this exact manner, right. So, they're all going to be looking a little bit different. So, let's dive into some of the actual images here. And again, we're going to show them in a very clear and concise way in order to kind of show, hey, this is what this chart would in theory look like. You can see here the actuality of it, right, the actual double top. It gets a little messier. It's not going to be this clean in terms of peaks and troughs, but we'll talk a little bit here just to start out on the concept of the double top.

So, I like the idea here, we call it horizontal congestion. If we think about the chart, we think about this — and again, another metaphor here, but in terms of this is your roadmap, right, that you need here. You want to know where to go, where you've been. The idea is this is congestion. We have a move, right. So, this is a top, number one. So, for it to be a top, that means that we're reversing. It is a reversal point. We have hit the top. Everybody wants to talk about calling the top on a market or calling the bottom, right. So, when they're doing that, they're trying to make money on the concept that it's going to reverse the other direction; that trend is going to change.

So, in order for that to happen, number one, it's got to come in from the bottom. It can't be coming in from the top, right, because then that would've meant that the price had been already above here. So, we are coming in from the lower side, that's our entry, but we then have two successive peaks. It says here clearly

rounded or pointed. Again, this is extremely pointed, right, but you can certainly have some rounding to these.

And the people that do these back testing, they'll give you the exact numbers on a rounding top is better or a reversal or whatever it may be exactly. So, depending on what you're looking for, a V-shaped top. So those, again, we're going to keep this pretty simple and just kind of focus on the idea of two successive tops. We've got one trough here and then we have this breakout. So, this isn't a double top until this happens. If this thing continues to bounce along, well we have maybe a triple top, maybe it's a rectangle. We can't know that until -- maybe it's a continuation pattern, right. So, suddenly if it exits to the upper side here, it's not a top anymore, right. It can't be a top by definition. It's got to be reversing out; it's got to come in from the bottom and exit back out on the bottom side.

So, again, this is price here. We have a breakout; we have that pullback. I always think of it as you fell off the cliff, somebody's pulling you back up towards this prior support line, a key tenant of technical analysis, the support and resistance lines, they often switch. So, whereas this was a support line, we would cross this out, this is now the resistance. And here is where that pullback ran into that resistance zone and faded lower.

You can certainly, in this instance here, see quite a breakout gap down, right. If that was your case of -- again, you've got to be careful with these patterns. In terms, this would be the prettier version, this one of course might've been a little tougher to trade. It did have some fight back here, but once that breakout

occurred, it's certainly a sharp move to the lower end. Maybe something, an earnings, something else comes out. Again, things you've got to keep in mind, but very interesting to see that, right. Here's the theoretical, here's how it is in practice.

There is an idea of calculating price targets, again, a little more theoretical in nature. Of course, I always want to make sure, of course, we're focusing on actual numbers here because it's sometimes easier to focus this way. So, if the trough here is 30, if the resistance line is 40, well we've got a 10-dollar spread. So, the idea for a calculation of a price point, which would have to be on the lower end, would be to take this, subtract out your 10, so you would have a 20-dollar price target here. Again, this being 30, 40, you would assume a 20-dollar price target according to the calculation.

These are all going to show the calculations of target price. Remember, they can get there in different ways; they may not get there. We want to look for prior historical, again, support resistance lines, trend lines in order to see where price might show a little bit of fight back here in some of these other ranges. But certainly, from the deferential standpoint, that would be how we would calculate the price target. So, we'll kind of run through these. I know we're already getting through on time, so there are a few to run through.

So, let's take a look at the double bottom. Just reverse everything, right. Just turn it upside down and then you'll see the double bottom. So, if we said that the other one had to come in from the bottom, exit from the bottom, the double

bottom has to come in from the top, exit from the top. Now, we have that, again, something comes out of the water, we're going to throw it back in. So, it's a throwback, bounces back off. We can see here kind of in that same example, right. It makes a little bit of a nice little W; we see that breakout occur.

Again, this could be where you would talk about your buy stop somewhere in this range, right. Maybe this is where you need to see multiple closes. Again, if this doesn't continue higher, if you get this throwback, you may get another opportunity to trade it here again. But these are oftentimes -- these are going to be your idea points that come back into this range, into this rectangle. Again, something you want to keep an eye on. The calculation of the price target, same thing, and also the idea of rounded and pointed. Just pretty much step by definition is just the opposite of the double top. So, let's go -- Rob, you have to run through some of the pretty much, again, not real clever on their naming here, they got the triple top. So, why don't you go ahead with that one?

Robert Kwon: Yeah, John, here's the thing, right, what might a triple top be? It's thematically very similar to what we're trying to identify with the double, but in this case, at the kind of breakout point, the triple top doesn't break down. It goes back and tries to test the top part again, but then fails again. So, this is just like an extended version of what we just saw, whereas we didn't like -- there wasn't the response we expected on the breakout of the range, it just bounced back into the pattern only to fail later. It's nothing more complex than that.

Now, what do traders sometimes try to do, especially with the double top version? They try to anticipate that if they see a similar or lower peak, or maybe even slightly higher, like any weakness there, they start imagining that's the double top or the triple top. But you can see thematically, where is the actual confirmation point from a technical perspective? It's if it goes down, in this case it's the top version, and breaks one of those bounce points, right. So, depending on how violent the move in between was, the actual confirmation, right, could be significantly lower, not at one of the circles that's drawn on these slides.

So, that's where we get to like hey, are you trying to see into the future of what this chart looks like? There's nothing inherently wrong with that, right, because clearly if it goes back up and breaks higher and your premise is potentially invalidated. But that's a very common question we get in like our classes. Like, when we're at the second or the third peak, it'll say hey, is this a double top or is this a triple top? And the answer always is, well, it could be, right. But the confirmation of that is way down below.

So, let's quickly go to the triple bottom version. Not too different. Now, notice they don't make it easy on us, right John? You have the textbook, nicely drawn, picture perfect example, and then you've kind of got the mess of the real-world price action sometimes. So, here, what we're getting here is the horizontal bounces below, but we don't exactly have a nice and neat, right, resistance point up top. So, don't be afraid to create some type of angled level.

And in this example here, right, you can see that it hesitated after trying to break out. See the red candles after the breakout tag on the chart? So, it looked like it was in trouble, but it was able to regain itself and complete the breakout, eventually test that prior peak, right, if you look to the left, and then power higher from there. So, you can see, in reality, not all the charts are going to be nice and neat, so don't try to have this rigid picture, right, of what the chart, right, these exact points. Give yourself a range. Generally, what are you looking for, all right?

So, let's go on to the next one here. And really, the difference here in the rectangle — and for those of you who attend the sessions that I host, you know I draw a lot of rectangles around sideways price action — and this is really you're looking for at least two touches on either side of similar levels. So, in the case of the triple bottom, right, we didn't necessarily need a horizontal reference point; we had an angled one in reality. The rectangle concept is more a visible, defined support and resistance.

And you can see the more prototype example in this slide here. Clear, multiple ping pong bounces. Anytime it gets to one of the boundaries, if the other side loses that battle, that's what traders are going to be waiting for to see what happens there. And in addition, any price action in between those levels you identified is what we call noise. So, there can be significant price movement, especially if the range is big.

But for that particular pattern if you've identified it, anything within that pattern is considered noise within the pattern itself. And the more significant level to watch

is anytime it gets to one of the boundaries, does it try to leave the pattern? In this case, what did it do? It fell quickly, sharp bounce — so it tried to reenter the pattern it just broke — and then strong rejection. That's that concept of the pullback in play; failure to reenter the pattern led to significant weakness after that. So, you can see the bounce can be very strong, right, but all eyes would've been on could it reenter the pattern it fell out of, and when it failed, right, look out below in this example.

Jonathan Lord: So, we've talked about those two horizontal lines, right. Well, let's talk a little bit more about some of the sloping aspect, right. So, triangles: very, very common when trading. Also known as a coil, right, price coiling up. We talked about the -- those were all had certain terminology, right, the top and bottom. So, triangle doesn't have really a bias, right.

The idea is that both sides — we talk about the battle right, battlegrounds, supply and demand on both sides, buyers and sellers — they're coming into essentially a point; we call that point the cradle. It doesn't always get that far. A lot of times you'll see it get into this more of a 75 percent range in this area here of that. But essentially, again, you can be entering from either side. This is a breakout up, but a triangle is essentially just finding price. Did it get wider, bigger bars here, tighter and tighter range that then eventually has to kind of resolve itself is the concept when it comes to triangles.

So, this is symmetrical. Again, I don't have to take you back to geometry class, but these are going together. These are moving towards each other over time. You

can reverse this, there's also an expanding triangle essentially where the price is going the other direction where it's starting out tighter and then expanding over time. So, these are very, very, very common, you see these all the time, especially after a big move, a consolidation of price that you might see here. But the same concept to work out, right. You're breaking out, but in this case, you're trying to break out over this resistance line in this instance. Oftentimes you'll see that throw back into this cradle area as well.

And then from the price targets, if you're interested in those, of course calculating the price target. This time we have what's called the base. The base is essentially where that first touch is on the upper side versus the entry. You would essentially take that and add that to essentially where the breakout zone was for the upwards or downwards range. But again, that's just part of the calculation there. You'll see that and oftentimes we do these in our classes, we'll try these out in real time, see what happens.

And you'd be surprised, there are times where these things really do work out in terms of the price. There is rationality behind it, right, the idea of where people are trading, who are holding on the security. We can see that oftentimes with something like volume at price, and we can see that maybe there's not a lot of people holding up here, so these things can really run. Maybe the other way, too.

Robert Kwon: Yeah, and John, let me just add one point here. You have to understand that technical analysis, right, is probably one of the most popular techniques active traders use to make decisions, just like fundamentals. Like, it's not a debate, right,

and there's like statistics. So, if you can identify by looking at a chart the same area that a lot of other technical traders might be identifying, depending on what happens there, right, they may take actions based off this type of concept.

And again, part of it may become a self-fulfilling type of effect. Not because that's what was intended to happen, but if it loses a battle somewhere or wins a battle somewhere, then, okay, we're off to the next level, the next battleground area. So, that's why you want to -- even if you are a fundamental investor, there's enough traders and money, right, based off technical levels that you can use it to supplement. So, they don't have to be mutually exclusive techniques. You can use them in combination to try and make the most effective decision.

Jonathan Lord: One hundred percent there, Rob. You guys have this deck, there are certainly a lot more types of examples of charts.

Robert Kwon: John, let's just do one more. Let's go to the head and shoulders.

Jonathan Lord: That's what I was thinking.

Robert Kwon: All right, perfect. So, this is probably one of the most commonly referred to patterns. And in a way, it's kind of a variation of the triple top, right. So, the price action leading into the potential pattern would be an upward movement. Now notice, instead of kind of three roughly equal, we have what we call a left peak, like the shoulder, a higher peak in the middle which is the head. Now, here's the thing: that left shoulder and the head part may look no different at the

time in the concept of an uptrend. It could just look like the next pullback and next step higher in an uptrend.

So, what makes it different is the pullback down that forms the potential right shoulder, a lot of times will visibly break — it doesn't have to — will visibly break the uptrend that you were in. And then that right shoulder a lot of times is the attempt to retake or reenter the broken uptrend line, but it falters at a lower peak, typically somewhere along the same lines of where the left shoulder was. And then the confirmation was if it goes back down and breaks what we call the neckline, which should be some visible low, right, which was the bounce leading into the head from the left side, and then the bounce leading into the right shoulder, again from the left side.

So, you can see if it held there where that breakout flag was tagged, it could what we call invalidate, right. It could be no confirmation for the head and shoulders. But in this example, we have a textbook breakdown, an attempt to bounce, a noisy failure to retake, so the pullback, and then significant weakness. And of course, if there is a head and shoulders, there's obviously the inverse of that, and this is what that example looks like.

So, hopefully this session was a good introduction to understanding the concept of patterns. What we're doing here is just using price structure to make our guess, but we still have to respond to what happens next. And hopefully you can see the benefits of it. If you lack a way to make these types of decisions, technical analysis allows you to create a way to make the next decision. It doesn't mean it's going to

help you predict the future any better; if that's what you're trying to use charts for, it will inevitably fail you. If you use it as a way to make decisions and manage risk, as long as you follow your game plan, it can never fail you. That's personally why I use it myself, right, once I recognized that's what its true benefit was, and it hasn't let me down since. It's only let me down if I had a failure of my own discipline.

END OF AUDIO FILE

Options trading entails significant risk and is not appropriate for all investors. Certain complex options strategies carry additional risk. Before trading options, contact Fidelity Investments by calling 800-544-5115 to receive a copy of Characteristics and Risks of Standardized Options. Supporting documentation for any claims, if applicable, will be furnished upon request.

Any screenshots, charts, or company trading symbols mentioned are provided for illustrative purposes only and should not be considered an offer to sell, a solicitation of an offer to buy, or a recommendation for the security.

Investing involves risk, including risk of loss.

Past performance is no guarantee of future results.

Stop loss orders do not guarantee the execution price you will receive and have additional risks that may be compounded in periods of market volatility. Stop loss orders could be triggered by price swings and could result in an execution well below your trigger price.

Trailing stop orders may have increased risks due to their reliance on trigger pricing, which may be compounded in periods of market volatility, as well as market data and other internal and external system factors. Trailing stop orders are held on a separate,

internal order file, place on a "not held" basis and only monitored between 9:30 AM and 4:00 PM Eastern.

Technical analysis focuses on market action – specifically, volume and price. Technical analysis is only one approach to analyzing stocks. When considering which 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 as to 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.

Fidelity Brokerage Services LLC, Member NYSE, SIPC, 900 Salem Street, Smithfield, RI 02917

993727.1.0