Determining entry and exit points with technical analysis

Presenters: Nicholas Delisse and Jonathan Lord

Nick Delisse: Good afternoon, everybody. I just again want to welcome everybody to the session today. And if you of course would like to learn more about what we do and more about technical analysis, we do also have a full-week-long class on technical analysis. Because I know what we talk about today is going to go by -- the hour's going to go by really quick talking about different indicators.

But to set that ground running, take a look at Fidelity.com/classrooms for our technical analysis classroom. It is a full-week-long class. So, please take a look at that, it's going to go for four weeks long. And if you want to dig into more of that, also take a look at some more of their group coaching session whereas opposed to just being an hour talking about trend, momentum, volume, volatility and such, which is a lot of what we're going to talking about today, we'll spend an hour specifically on trend indicators and specially on momentum indicators and such. We'll really break everything down a lot more than we will during this particular session, cause this time will seem to go by just super, super, super quickly.

Now, one thing I would like to do is I'd like to kind of just you know, pause and you know mention that we did of course have the help of Charles Kirkpatrick with these particular slides. And one very, very, very popular question we get asked is, if I want to learn more about technical analysis, where should I start? What should I read? Could you recommend some books for us? If you take a look at the books that he's written, they're great, great resources for technical analysis to help you begin, start, continue your progression along the path to learn more about technical analysis.

Now, with that being said, like I now mentioned, what we're going to be addressing and talking about today, we're going to start off with trend indicators, the basics of trend indicators and different indicators in general, where then going to shift, and we're actually going to dive into different technical indicators. We're going to dive into, we're going to talk about trend indicators, we're going to talk about momentum indicators, we're going to shift over, we're going to address volume indicators, volatility indicators. And we'll wrap up the session talking about support and resistance, some different tools we have in Active Trader Pro and on our website to address support and resistance.

So, with that being said, kind of taking into and looking at some of the basics of technical indicators before we even shift over and we're addressing and talking about the different indicators, is I want to mention

what indicators are. They're a mathematical representation of price. And many traders, they might pull up a chart. And you can look at a chart without anything on it and just see price and go, this is an uptrend, this is a downtrend.

You don't necessarily need indicators so to speak. But indicators will take price, apply some mathematics to it, and you then have an output that's designed to help you to analyze things, help you not miss the forest for the trees. You might be looking at a chart and the chart just looks like a jumbled mess. Well, you can pull up an indicator and do some mathematical calculation to see well, averages are going higher. And you can then see on that broader base what's happened. Or you can see averages are going higher, faster — and this is what shifts into some of those different types of indicators that we're going to be addressing, we're going to be talking about today.

So, when you talk those averages going higher, they're talking about trend. You know, where is trend going? I'm sure many of you in the audience have heard that old axiom of the trend is your friend, or to trade with the trend. And that's what many technical analysts attempt to do. Now, you're not going to be buying at the very bottom, selling at the very top. That's just not kind of the design of technical analysis. It's not predictive of the future. Technical analysis is reflective of the path to tell you what's

happened and how can you tell if something was the bottom until it hit the bottom and started to come back up? You don't know; you don't know if that was the bottom or that was just a steppingstone as it continues to go lower.

So, technical analysis isn't going to tell you the exact bottom as it happens, it's not going to tell you the exact top as it happens. But typical trend traders, what they're looking to do is they're looking to capture that middle 60 percent of the move. They're going to miss out on the bottom 20 percent, they're going to miss out on the top because well it tops and it goes back down. But if they can capture that middle 60 percent of the move, that's what they're looking for. And they're going to do that by identifying trend through different trend indicators, they're going to look at momentum. Is trend increasing or decreasing at a faster or slower rate? How much volume is there behind this? And then of course what's become more and more popular lately, dealing with volatility on there.

So, these are some of the big different types of indicators that traders will look at. And I like to think of these as, from a trend perspective, trend is, are you going backwards or forwards? How fast are you going? Momentum is, is your foot on the accelerator or is your foot on the brake? And maybe traders look at momentum and go, well, it's too far on one side, I'm not going to trade into it. But think about momentum from that

acceleration standpoint. You're getting on the highway. Your foot might be on the gas getting up to speed for quite a bit of time. Likewise, securities can remain like that for quite a bit of time. And you might still be trending and going that southerly direction for a long period of time.

Now, when trend changes, I like to think of that from the perspective of a big oil tanker or a big cruise ship. Trend goes in this direction and depending on how big the trend is, it can take longer to turn and if it's a little, quick speedboat it'll go "whoop." It can shift really, really fast. But if it's not — if it's bigger, longer term trend — it does take time to turn. And this is what indicators are trying to do; they're trying to help you identify these different aspects of price movement. It all comes back to the price move from that particular perspective.

Now, I know I've been waxing big picture for quite a bit of time, so it's kind of time to jump into that minutia, the smaller details. And with that being said, Jonathan, why don't you kind of introduce to us trend indicators? And let's go ahead and jump off that diving board, so to speak.

Jonathan Lord: Absolutely. No, I appreciate the introduction here. And again, great to talk to you guys today. I've been with Fidelity for some time now, working specifically with clients one-on-one, so I may have talked to you guys out there in the past. So, again, hello and let's dive in. Some really

interesting stuff here, right? So, the title of our session today is about entry and exit. And all that comes down to the idea of trend. So, there's a reason we're starting with trend, right?

So, Charles Kirkpatrick already mentioned trend is your friend, but the idea of investing or technical analysis is try to follow that trend, to try and locate it at its earliest point and exit it at the latest point so that you capitalize on that move. Markets all the time are bouncing between ranges and it can be very difficult just to trade with that. We all know, we've seen the stocks, we've seen the long-term charts where stocks just tend to continue in a trend for some period of time and our idea is to capitalize on that.

Going back to kind of the basics of technical analysis and moving averages and trend in general, when you flip a coin, it could be heads, it could be tails, it has no memory of the past. We think of markets as having some memory to them. We think of them as what's called a feedback loop over time, whereas markets continue to move higher, people tend to expect that to continue. So, that is the idea. We're going to try and find our entry and exit points using technical indicators. Again, these things have no bias to them; they are just mathematical equations that tell us exactly what's happened in the past. Can we use that, then, going forward to, again, make money? Hopefully, in the long run. That's what we're here for.

So, we're going to start out with the simple moving average, and this is the one you're probably most familiar with. We see them on charts all the time. The idea of what is an average, a price, over a specific period of time. You'll often hear this, the 200-day moving average, the 50-day moving average. Again, these are basically 200-bars or 50-bars. A lot of times your portfolio, when you pull up a chart, it's going to be a day chart. So, that's why you hear that oftentimes, the 200-day, the 50-day.

But what we're doing is we're actually looking at it, and that brings up another concept of trend and technical analysis which is what's called being fractal in nature. So, if you're a day trader, you can certainly use this tool even for trend within the day. If you are a long-term investor, you can do this using quarterly and yearly charts going back 20, 30, 50 years. It should all kind of work in the same perspective, utilizing averages over time.

So, the SMA I always bring up with clients, you're trying to create some order out of the chaos of trades. You see these charts, you see all of these bars up and down, things are happening quickly, there's a lot of chaos in there. So, what this does is it creates an average. The simple moving average is just the simplest version of that. What they're doing is they're taking the amount of periods in there — so, a 200-bar is using 200 periods, be that a one-minute bar, be it a daily bar, but 200 periods — and then averages that ending price of that bar is the idea.

So, it's moving because what's happening across the chart, if you picture a window, and you go back in time 200 days or 200 bars, you go back in time 50 bars, what that's doing is it's moving over time. So, the next day, what happens? You lose one bar; you gain a new one. And so, those prices then kind of drop off. And that's one of the things we need to look at with simple moving averages, that can kind of swing things. A lot of people will look at that and say oh, well, it's maybe excluding some prior price. It just completely drops off. So, that's called a drop-off effect. Something to keep in mind when we talk about our next tool which is going to be the EMA.

But while we're talking about the SMA, there's additionally of course every bar in that 200 days actually is the same. If you look at what the calculation is, it's very simple. It's really just, again, simple moving average, you're just taking those prices and you're dividing by the amount of bars and that gives you your average price, and that will move along over time. And what this does, again, is it gives us that idea of slope. Nick, great example, stole my thunder there with the car moving, the boats moving. We always use these examples when trying to describe these in a relative idea.

So, this is the where are we going, and how fast? So, if we are moving up in terms of trend, if you are seeing that line, the SMA is moving from the bottom left of your chart, time always moves one way, so then it would

have to go up to the top right. If you see that, if it's a 45-degree angle, if it's a little bit just barely above a flat, again, you're getting some slope there, you're getting trend. And that's telling us some of that feedback.

You can see here, we're going to give a great example and we're going to talk a little bit more about what's called crossover, something else you've probably heard mentioned quite a bit. But the idea then of course, now we can see on this chart, again, starting at the very bottom left, we see substantial trend. And trend slope is definitely something that's important to keep an eye on. Steep slopes, again, may not be sustainable. So, oftentimes you'll see, much like you do in the center of this chart, eventually it does kind of turn over. And so, what we're going to be trying to do is trying to find that turning over. That's what I mentioned earlier about getting in early, leaving early on the trend. We want to get out before that trend turns over, try to capitalize, to take those gains and move along using our technical indicators.

So, what's you've probably heard of is the idea of using multiple distances, time frames in terms of SMA. You might use the 200 typically is considered the long-term. You'll sometimes see like 100, you'll see 50, 20 days, all these other iterations within -- you can go all the way down to a five-day moving average. And so, all these are going to give you different reflexivity to price. So, longer term is going to take a little bit more for it to move.

You get one new bar out of 200 that comes in, even if it's a big move, it might not have that much impact. So, it's going to be a slower moving, that's going to be your giant oil tanker that Nick described over time.

But your shorter-term, maybe your 50- or your 20-day, not going to be as much. Each new bar is going to have much more of an impact on that price. Again, this all gets down into the math. What ends up happening is you get this picture on the chart, and you're going to see here multiple moving averages that we've built in here. And what'll happen is you're oftentimes looking for transition periods. And so, the way that we can utilize that -- we can see here it often acts kind of as a support below price as we move up along the way.

But what we'll see is these kinds of crossovers, and you'll see these in this green circle here in the middle and green circle on the right third of the chart there. And so, these crossovers you'll hear when the shorter-term is crossing under, again giving that kind of signal of weakness, so if there's a shorter term is more sensitive, then that means that weakness starts to come down, you'll see that cross below maybe that longer-term moving average. Well, that is called our death cross. You'll hear that quite a bit. The news loves to pick that up I think just because of the name. So, you'll hear that oftentimes, weakness is coming through because we are seeing it start to roll over, we're seeing price lose momentum and we're going to see

that come up here when we get into our momentum-type indicators really specifically there as it crosses over.

And so, then we go in the other direction, too. We have kind of our exit signals with the death cross. Well, we can go the other way with it too. So now, suddenly the 50-day is now showing support, it's starting to move faster, it starts to move up and cross over. So, you can see here on the chart very clearly as this thing started to turn and create a new trend essentially. That's where we saw this crossover. And then they start to move in that same type of period where they start to move up and to the right again.

Important things to keep an eye on, of course, these are again, historical in nature; they're looking backwards. These aren't telling us what's going to happen in the future, but it's giving us that indication that price is starting to show some changes. If we're talking about that car example and we start to see the car start to make a move, we can start to kind of assess essentially where we think price is going to be and then have a strategy in terms of exit plans and entry plan. Once we enter into a trade, then we can start to utilize some of those other moving averages maybe for a stop-loss.

And again, depending on your timeframe, these could be on a daily basis, these could be weekly, monthly, yearly, quarterly, any type of iteration

there on. So, definitely something to keep an eye on, though. And again, now, hopefully if you hear this again, the golden cross, the death cross come up again, those are great line items that you're going to see headline the news. When you see those come up, now you should kind of have an idea of what exactly you're looking for.

And so, I think that kind of headlines us or moves us into the next type of moving average, which I think is extremely important as well, which is the exponential moving average or EMA. And so, you're going to see this come up and this kind of addresses what I was talking about earlier. There are a couple of criticisms about the SMA. There was the drop-off effect over time, you find out that that big bar that was there that was now 201 days away no longer matters into that interaction here.

And then also as well as you move forward, again, the more recent price information is going to be weighted a little bit less. So, the EMA does this where it weights it to the forward. So, definitely something to lead into. I'm going to let Nick take this here because what you're going to tell us is how EMA works and then dive into an indicator that is extremely common, the MACD, which uses this EMA. So, a great segue there. Nick, take us away there.

Nick Delisse: Absolutely. And one last thing I want to mention on what Jonathan was talking about, because we always get asked this. Because everybody hears on the news about the golden cross, the death cross, it is specially having that 50-period moving average crossing that 200-period moving average as Jonathan was talking about. That longer-term trend and the kind of intermediate-term trend with the 50, and many traders even use that shorter-term 20 as well. Keep in mind though, there is a tradeoff with everything between relevance and reliability. Something like having a moving average crossover, it's much more reliable than just having price crossing. But sometimes it's much less relevant because it takes more and more and more time for that to happen.

So, with that, some traders, they might use different types of indicators that try and give them a little bit advantage on relevance. But again, there's always this tradeoff with relevance and reliability. As such, one thing that traders might do is as opposed to using a simple moving average, they'll use an exponential moving average. And what this does is this more heavily weights more recent information. And so, as such, if price moves a lot, this is going to more approximate where price has moved to because of that particular calculation. It's providing that greater weight to more recent data.

And this alleviates one of the big things, the big problems with a simple moving average. Namely, let's say you had price that was way up here, and then price just fell off a cliff and adjusted down here. Or vice versa happened. And this could be due to even something like a spinoff where part of the company was pulled out and just price is adjusted down. Well, you have this adjustment that maybe you have 30 trading days of price being at this different level. Well, a simple moving average is going to need 30 trading days of this and then it's like a 50, and the 20 of the upper higher one, so it's going to be artificially lifted up because it's equally weighting that old data as it is recent data. Where an exponential moving average is going to more heavily weight that more recent data.

Now, again, there are tradeoffs with this. You can potentially get more signals or get sooner signals with exponential moving averages, but again, relevance, reliability, they might then be less reliable sometimes with that. And there's been a lot of testaments been done on these, look at well which one's better? And there's no real clear answer which one's better. It really comes down to that partial preference, which indicator you're familiar with, which one are you getting better signals on? And that's what you're going to want to look at, what you're going to want to do cause both of these are used to help identify trend. What direction is the trend going in?

And you're using that to see well, is the moving average sloping upward, or is it sloping downward? If it's sloping upward, trend is up. If it's sloping downward, trend is down. Is price above or below as well? And that price crossing, that's a big, big, big signal kind of coming back to the whole name of our session here, entry and exit points. Our traders will use those as entry and exit points because frequently these moving averages will act as those support resistance areas.

And if you have an area of support that's broken, what do traders typically do? Well, they then exit the security. Or if there's an area resistance, where just not going to go through the boom, it goes up through the resistance. What do traders look at doing? You know and many times, from a resistance perspective, they might then purchase that because what was resistance becomes support and they're looking for that continued momentum going upward. Or if it's at a support level, they might then exit as it breaks support, because what was support becomes resistance on there. So, this then becomes important to keep in mind, important to look at from that particular perspective.

Now, we have a little bit of a comparison here on EMA versus SMA. Now, both of these are looking at the last 30 trading days. And you can kind of see up here, the SMA being the pink color and the EMA being more of the darker purple color. Now, as we see right here on this left-hand side, as

price jumps up, we see that purple color, it jumps up a little bit sooner.

Now, the SMA does follow along, and so you can kind of see when we have a big shift in price, EMA reacts a little bit quicker. But then over here, we then have this slow, more upward movement. Well, the lines are about the same.

Now, there are a couple times when it spiked up that we're getting a little bit difference there and we'll see when it's a bigger move down, a quicker move down, EMA reacts quicker than the SMA and the same thing when it goes up. But when it's just kind of grinding one way or the other, they tend to be a lot closer to each other. But this is the big, big, big thing that we wanted to point out of course, is that the EMA reacts faster. It reacts quicker to new pullback, reacts quicker to a rally.

But this a double-edged sword here. Coming back to this right here, now we see price came down what broke the EMA but not the SMA, and then it bounced back up. If you got out there because that happened, well again, the relevance versus reliability, you had a more relevant signal, potentially less reliable. You might've gotten whipsawed there where you got out, you got back in on there. And that can happen, this does tend to happen. There are other examples over here where we'll see it broke up into it, and even broke up above the other one and then came back down.

But over here, where price finally came back and reacted, actually the EMA and the SMA were about the same level when that ended up happening. And so, there's tradeoffs with this, with having that relevance versus reliability. Now, many traders, they like it to be more heavily weighted, the more recent information versus old information. But it almost comes down to when you kind of fix one problem, you can create another one: there's no perfect solution. It kind of comes back to your potential preferences, what you're looking at, and what kind of works for you.

Now, another type of trend indicator — and this is a little bit of a blend — is the moving average convergence/divergence indicator, or MACD. Now, it is an oscillator, but it does of course indicate trends. Because what this is doing and why we have this in trends is because it's in essence taking the 12 period and that 26-period moving average, and it's looking for when they cross. This kind of goes back to that discussion of well, when moving average cross, what does that signal? The faster moving average crosses below the slower moving average. Well, that's a bear signal. That's that potential exit point. When the faster moving average crosses back above the slower moving average, what is that? That's a potential bullish signal that traders will look for. And that's of course represented with MACD on a crossing above or below the zero line.

Now, that's kind of why this is addressing us that when it turns up from the zero line, it's considered bullish, when it turns down, that's considered to be bearish. Now, why is this also that blend with it being momentum? Because we're also taking a moving average of this particular distance here, and we can see the relative nature on how far apart those lines are. Which is just really kind of getting into that momentum side of when those lines get really far apart, the fast one's really far above the slow one or vice versa, where momentum could be a lot stronger with this. And so, there are other little aspects that MACD add onto it provide more color than just having a 12-period and a 26-period exponential moving average on your chart.

So, with that, what you also have is as the MACD line crosses above or below the signal line. This is bullish or potentially bearish when it's way above, if it crosses below it on that. And the way to think about this as kind of what the signal line is, is a signal line is the exponential moving average of the MACD line, of the difference there. And so, with this just kind of illustrates, you can apply indicators to indicators as well and just kind of as well with that complexity here.

Now, one thing to keep in mind with this is you want to kind of limit what you're using at. So, if you have simple moving average on your chart, you don't also want to have exponential moving average. You kind of want to pick one. And if you're using MACD on your chart, you should probably

also -- if you're using MACD, you don't want to then have simple moving average to the chart, you want to have exponential because they kind of go together with that.

So, with that, kind of shifting over, I do of course want to address, want to talk about this, and we have a nice little chart with this. We use different aspects in different places that I was kind of talking about. Then we then have, of course, the MACD line, is the red line, and the dotted green line is the signal line. It's a crossover, this is bullish. It's just like having a moving average crossover. We have that crossover, that's bullish. The MACD line then crossing up above zero. That's also bullish because that represents the moving average crossover actually on the chart.

Now, again, like I was saying, the further below zero this cross happens, the more bullish it is. The further above the opposite cross happens, the more bearish it is. We see of course bullish cross, MACD crossing above the signal. Bullish cross, MACD crossing above the zero line. Bearish cross, the MACD crossing below the signal. Bearish cross, the MACD going below that particular signal line. And this is again, these are your signals that you're looking for on those particular entry and exit points.

So, shifting over, we do have a couple additional trend indicators that we want to talk about before jumping to momentum. Any maybe last thoughts you have on MACD, Jonathan, before we look forward?

Jonathan Lord: No, I think this is again a great hybrid tool. You'll hear it kind of mixed in. It's using trend, but it's also showing you momentum because of how much those are converging/diverging. Again, it's the same concept going back to the moving average crossovers when we talked about the death cross and the golden cross, just in a different type of shape using EMAs and then adding on some additional factors to there. But, no, I think this is, again, a great tool and you've mentioned as well, the idea of making sure that you're pairing things up correctly. Someone once told me you don't put a hat on a hat; you always want to make sure that you're mixing things correctly when you're getting dressed in the morning. So, you use a moving average or a MACD, but you want to make sure, again, that you're also utilizing something that includes maybe some volume to it. Maybe you're looking at volatility and make sure that you're, of course, tracking trends. So, I think that's a good little segue there.

So, we'll get into how do you find trend? Besides just looking at it, there are things you can draw onto the chart. We talked a little bit about using the SMA, EMA in terms of its direction of course. But there's a nice little tool that was created here which is the average directional movement

index, ADX. It can get a little busy on this chart, but it's actually fairly simple when you break it all down. So, it is looking at what's called the +DMI and the -DMI. Those are essentially the two factors in terms of strength moving up or down based off of the prior trades in that period. So, it's using those and that gives us an idea of directionality. When the +DMI's above the minus DMI, well, that means that we have a positive movement.

But what we really typically use this on, and we can usually see that, is just to check our work is the idea. The idea of ADX is to kind of say, are we seeing a trend forming or are we starting to see it start to slow down? The idea is that you're going to look at this ADX line and when they created this, the same guy that created the RSI and some of these other things that we looked at, Mr. Wilder, he specified that when the ADX is above 25, that we're seeing a trend present.

Now, it doesn't say that we have a bullish or bearish trend here; it says that there is a trend present. And the idea as well is then we can look at the shape of that line and see if it's coming down. Well, maybe we're starting to see weakening of trend. Again, it's just looking at historical price and trying to find an idea of where we've been, are we starting to slow down, are we seeing that trend start to lose its strength? And again, these are ideas of going forward, when we're looking at our entry and exit points, we should use this to try to see okay, we've ridden this trend for quite a long

time, we're starting to see some red flags form, let's start to kind of make sure that we have a price picked here, are using some of our type of trades such as a trailing stop or a stop in order to then capitalize to make sure that we don't get caught with a stock that suddenly has been dropping 20, 30, 40 percent off of those highs. So, we want to see that start to go.

Or, on the other side of that, we can try and find that change in trend; the early moments when this thing starts to curl back up. That could be our entry signal that the prior trend is starting to change. So, these are little things that we can look for. It also says the no-trend present below 20, but we're going to get into this as well here shortly where we're going to talk about like momentum and oscillators where it's going to say if something is in a trending market it might not be as strong of a tool. So, when we talked about putting on our hat in the morning, you got to watch out to make sure that if we're in a strong trending market, something like we're going to talk about stochastic, might not be a good fit for you. So, again, we don't paint everything with one brush. We're going to make sure that we have all the available tools available to us here.

So, another great picture — again, we love these charts, we love to see it in motion. You can see how busy it looks. It looks like some kind of EKG heartrate-type thing going on. But the idea is we're focusing here on this kind of bluish-purple line, which is the ADX. You can see the box; you can

see pretty clear from the perspective of where the chart is above there. So, again, we know that this is under the 25 range, so we are seeing a trendless market. If you were in this stock, you're not doing much. You're taking this thing for a ride, you're certainly going up and down, maybe trending maybe a hair down. But over time, again, this is kind of the dead money at this point during this period. As you start to see this thing start to curl up, you'll see it's a little slow to get in when it breaks out, these things are trailing. They're using prior information.

So, again, the idea is not to be there at the exact bottom point. That's tough, a lot of that is luck when you actually pick that one. But the idea is then to locate, again, the start of that trend and then let it go for a ride. And see, this is a prime example of that. Once it breaks out of that range, we start to see strength start to continue, push higher. We start to see, again, smaller periods of that, but again, continuing to move higher. And then we start to see that trend start to flatten, start to move lower. So, we see a weakening trend on that ride side of that chart. Very important that we use that to then, again, notice where we are in terms of trend.

A lot of times we can see this pretty visually, but again, it's a confirmation of our thesis. It's a confirmation that we're breaking above that level. It's utilizing specifically a strategy and taking out that emotion. There can be emotion here, but we know this is over 25, suddenly, there's no bias here,

the ADX is telling us hey, look, we're starting to see some trend form. Maybe we use that for our evidence in terms of buying a position or on the other side, exiting the position.

So, that's average directional movement. I think a great tool that we can use. And I think it's a good point to now probably dive into maybe some of the momentum indicators. Again, we talked a little bit about this. So, let's go ahead and, Nick, I'll toss it to you to kind of introduce momentum and then we'll get started on some of the other actual indicators.

Nick Delisse: So, part of why that MACD indicator is also seen a lot of times as kind of that blend is because it is an oscillator. And most momentum indicators are oscillators. They're also often bounded indicators, where there is a limit between each sign. Something like stochastics in our side that we're going to touch on next will go from zero to 100, just between those. Other ones might go from zero to negative 100 or something like that, but they'll be bound, where MACD wasn't necessarily bound, even though it did oscillate so to speak above and below the zero level.

So, with this, why this bounded oscillator becomes important is because you'll have different levels and such that become important. Different overbought and oversold levels based on how high or how low the particular indicator's reading; above or below that 50-percent level.

Typically, when it gets into that overbought territory, that's kind of like what we talked about having the foot on the gas, you're accelerating. Where the oversold, you're starting to tap on the breaks, or maybe you've flipped directions. You just happen to have your foot on the gas going the other direction instead.

And so, with this, you're really looking at trying to get confirmation with these types of indicators with your trend indicators. If you're going one way but you're just kind of sputtering along in your car, that can be one thing. Or if you're very, very much accelerating but you're kind of going in circles, that can be something else. So, you're really looking for kind of confirmation between the two indicators. And that's really kind of what momentum is trying to do, is where is that confirmation going.

Now, this really, really, really helps when you're trading in a range. So, when you're starting to see it's going up and down, up and down, you're kind of going sideways, this is where they can really excel with that. But if trend is strong, well as I said you can remain overbought for a very long time. So, it's really not adding any additional information other than kind of what you're looking at with that particular trend perspective. So, keep in mind that just because it says overbought, it doesn't mean, oh, too much has been bought into it, I got to get out. It could be the very inopportune time to liquidate and sell the security. So, with that, why don't we go ahead

and shift over and let's introduce stochastic oscillator to everybody, Jonathan.

Jonathan Lord: Yeah, we're going to cover two of probably the most common ones here. So, stochastics is one way of comparing momentum, so the idea is it's looking back to the prior high/low ranges and seeing where we are in that range. So, again, another thing that's really great in terms of these what's called trading ranges, you may not have heard that before. Trading range is the non-trending; it's in that sideways action, so you've had a big move higher or lower. And you tend to see this all the time — the market moves into this range, and then all of a sudden it starts going sideways. Suddenly, we've seen with that ADX maybe it's starting to come below that 20, we're moving into a range where suddenly we're not getting that trend. And so, we need to figure out, of course, where entry and exit signals based off of when the momentum is starting to fade to enough of a point where we either need to exit, or on the other side, start to strengthen to the point that we need to enter.

So, stochastics uses, again, that bounded zero to 100 essentially, 100 being where it would be at the highest point in that range, zero would be at the lowest point. So, again, that momentum in that prior period, what we're looking for typically is the 80 being the overbought range, 20 being the oversold range. You're going to see some symmetry here for some of the

other indicators in those, you'll see 70/30. Again, these are adjustable based on certain positions. You can always look at, again, there's an art to this. It's not always pure science, but there's ability to adjust these. And so, we're going to show as well the sell signals and buy signals.

Essentially, it's not always you're going to think, oh, it entered in the overbought range, we hear this all the time, I need to sell. That means it's running too hot; it needs to sell. Typically, that's not going to be what the answer is; the answer is usually we want to see that move into that range and then with some kind of gusto, move out of that range back down. Same going from the other way; the deeper we go into those ranges and then out of them essentially is when you're seeing that actual lack of conviction in terms of momentum. It's really important. You'll see that with some of the other oscillators as well.

Also, we're going to introduce here divergences which is a really key thing, and you'll hear that come up quite a bit as well, the divergence of an indicator from price. One of them is wrong typically in that case, so we'll show you how that looks here shortly as well. But just again, an important indicator. Stochastic you'll see moved around. It'll have trailing with the slow stochastics, you'll see what's called a fast stochastic. But at the end of the day, again, an idea of momentum within a prior range is important.

So, let's look and see how this looks on a chart. You'll see some examples here of those green circles being key points where we've entered into a period there of oversold and then exiting out of it. You start to see in this one at first range, it didn't give us a whole lot. But this is that trading range. We see it kind of bounding between both sides. Eventually, we do see it reach out of that range. But you can see here what happened; it turned into a trend. This is that same kind of image earlier of that ADX as we move into a trend, it starts to move higher.

This could stay in that overbought range for some time, and it certainly did. This would've been a great trade right, if you had entered it in, held onto it. It never came out of that overbought range with any real force essentially. It never really came back down into that midpoint at all, ran through here. And then we see this line here on the right, the dashes, the divergence in price versus the indicator showing us slowing momentum, showing weakness under the surface.

We talked earlier about the chaos of price, and then what this is doing under the surface is it's trying to make sense of it all. It's trying to create some order. We see here what's happening. We're starting to lose our range here, we're starting to see this thing turn flat, even though price is attempting to move up over, it's not reaching any of those new highs. We

see lower highs, lower lows coming down as price is reaching all-time

highs.

And again, obviously a picked example here; that doesn't always work this

great in practice, but you can see here that we eventually do move out of

that direction. So, that is called a bearish divergence. Even though the

stock is moving up, it is moving, but we're expecting some kind of bearish

transaction there. So, again, this is stochastics. I think another one you're

probably going to hear quite a bit, we're going to move into here shortly,

RSI, relative strength. Nick?

Nick Delisse: (inaudible) stochastics and RSI. And the one thing I do want to

mention and want to address is stochastics is typically seen as that old

school stock, where RSI is that newer school. And likewise, what becomes

important with these is you use what you're familiar with; you use what

you're comfortable with. One isn't necessarily better than the other,

though naturally more frequently, Jonathan and I will talk about RSI as a

momentum indicator with clients as opposed to stochastics. And so, many

times we wind up becoming more familiar with one or the other just

through our natural conversations that we'll have.

So, it is important of course that you're familiar with the indicator that

you're using. One isn't necessarily better than the other; they're very, very,

very similar. And actually, if you added them both to your chart, you're

going to see they're going to kind of give you the same signals. They're going to be a little bit different, but they're going to give you almost the same signals. And because of that, you don't want to have both of them on your chart, you'll want to pick one. And whichever one you become more familiar with or more comfortable with, you get better signals on, that's the one that you'll want to use.

Now, RSI differs from stochastics as that opposed at overbought territory being above 80, overbought is above 70, and oversold is below 30 versus it being below 80. So, RSI doesn't quite go to the extremes as much as stochastics does, so it has that 70/30 versus the 80/20 on that. But beyond that, much of how it's utilized is the same. In the uptrend market, RSI tends to be near the top, finding support at the 40 to 50 level. In a downtrend market, it tends to be on that lower finding support in the 50 to 60 area. Now, as you can kind of see with that -- sorry, I should say finding resistance, not support. The resistance at the upper movement on that.

So, with that, what is very, very important again is divergence with that. If prices are making higher highs, but RSI isn't, you're not seeing that agreeance there. There could be divergence talking about and addressing a potential reversal. And that's really one of the biggest, biggest, biggest ways that RSI can be utilized. And we'll see this as an example lower lows with this, but with the RSI we're not getting lower lows. This a positive

divergence with this on here. Now, look at this next point. Higher highs on this price peak but you're also seeing RSI making higher highs. And so, this would not be divergence here because we're seeing higher highs and higher highs with that as opposed to this here that we're seeing lower lows but we're not seeing lower lows on the chart.

So, a powerful tool and again, looking to see are you getting agreeance with your trend indicator? Is your trend indicator kind of going sideways or starting to see we're not really in a trendless environment? You're no longer in a bullish trend and now you're starting to see something like this, which potentially you're seeing a signal where things might be going down, things might be going up or something like that. You're looking for namely agreeance with the signals. Are you seeing positive signs with momentum, are you seeing positive signs with trend? And vice versa. Negative signs and negative signs. When they're kind of disagreeing, that's really where I kind of raise my eyebrow on that and do a little bit more digging.

But many times, there might not really be a signal that's going on that's happening. You might simply be seeing RSI's in the middle; it's between that 40 and 60. Maybe it's resisting on one side, but you're really going to be looking at what is trend doing? Because trend is that big, big, big aspect that traders are looking to make and when it comes down to it, though,

price is what price is. You're really most concerned about price from that particular aspect.

So, with that, let's go ahead and shift over and let's address volume.

Jonathan Lord: Yeah, volume, it definitely plays a place in your strategy, but it is kind of in this area here where we've covered a lot of the trend and momentum — those tend to be the first things that we're going to focus on. Volume is kind of an underlying thing. It's an idea of it should reinforce your decisions, but again, it can be kind of tertiary. It's a little outside of what we would typically look at in terms of trends. Some people don't even follow the volume at all.

So, the idea, though, with this is that the idea is we're trying to find out underlying the surface, is there volume backing that move? Is it reinforcing that trend direction? It should be going higher as we move into a stronger trend. You'll see periods of dormancy, or you'll see periods where it will spike. But again, it can be very difficult to kind of see when you're just looking at the bottom of that chart, you'll see all these very specific little bars along the way, the histogram essentially of volume.

So, an important thing to look at, it should be used as a warning. Again, but this is the key point here, it's not a signal of change in trend direction specifically, it is more of a warning sign of something under the surface,

things are starting to brew there. Certainly, some of these tools will look at timing as well in terms of where we close, the idea of institutions doing their trades at the end of the day versus at the beginning of the day in order to close up shop. So, we've seen some of that in some changes in some of the structures now, a lot more after-hours trading, things to that effect.

But probably the key one, one of the biggest one's you're going to see is going to be what's called on balance volume, or OBV. We'll cover a couple of those, money flow index and accumulation distribution are additional ones. But Nick, take us through a nice little look at on balance volume here to kind of see.

Nick Delisse: Absolutely. So, what on balance volume is doing is it's actually adding positive volume and adding negative volume. So, kind of an interesting question that we'll frequently get deals with why is it red and green on volume? And sometimes it might look red and green, and it might be an opposite color of your candlesticks. Well, a red volume bar is red when we have a down day, when today's close is lower than yesterday's close. The candle itself might be green because well the candle represents, if it's green, today's close is higher than today's open. And it could've opened down and then kind of closed now down as much, you can have a green candle, but that volume bar will be red.

So, what on balance volume is doing is in essence, if it's a red day, it's subtracting the volume, if it's a green day, it's adding the volume. And so, really what the value is not important. What becomes important is kind of the trend of a volume. Are you seeing price making higher highs but on balance volume is kind of going lower? Well, hat that means is there's more volume on the down days than the up days. And so, this is again -- we were starting to see divergence between them, this is what's really important to take a look at. And so, again, not the different specific levels, but you get price making higher peaks but on balance volume is failing to do that. And that's what's important with this.

Very, very similar in application to momentum. Just looking again for confirmation between that and the different signals.

So, this is again what on balance volume will look like. You have these big green bars up here, and if likely it was a big-volume day as well and so we're really seeing this shift go up. But you're looking for something like this where a price is making higher highs but on balance volume isn't. What might be causing this is on these down days, we're seeing more volume on the down days and we're seeing volume on the up days to help it recover. So that's really important with that to keep in mind and to look at.

So, with that, that's one of the more popular, more commonly used volume indicators. And I want to shift over and jump into, and let's take a look at volatility indicators. And I want to mention these, I want to bring these up because in the past, trend, momentum, volume, those were the three big indicators that traders utilized: trend, momentum, and volume. Now, lately, traders, they pay a little bit less attention to volume and they pay more attention to this newer indicator, volatility.

And as such, why didn't they use it 40, 50 years ago? Well, calculating historic volatility is a little bit more of an intensive process, and so with the rise of computers, traders have been using more and more volatility metrics as opposed to volume metrics. Especially with the argument on people are just going in and out, in and out throughout the day and maybe that volume not being a good application for longer-term investors, it being more representative of shorter-term traders with that. So, with that being said, Jonathan, why don't you kind of take us through some of the basics of a very, very common volatility indicator, Bollinger Bands?

Jonathan Lord: Yep, absolutely. You'll hear quite a bit about the Bollinger Bands. This is what's called a price envelope that's added on top of the price on the chart. You'll see it, it will have these moments of squeezing in expansion as well. So, what it's doing is it's taking essentially that moving average over time, a 20-day, and what it's doing then is it's showing what's

called two standard deviations. So, if you want to go back to statistics class and kind of understand how that works, it's essentially just trying to encompass quite a bit of the price. Usually about -- I'm forgetting the number now -- 68 percent, right in that range where it's sort of, again, an envelope that's showing exactly what kind of that spread would be. So, it's kind of telling us that there's going to be an outside move or not depending on where it's been trading historically. So, again, nice little way to kind of see that volatility.

And there's a couple things that you'll typically get where you'll have these ideas of tightening of bands where they're narrowing. Oftentimes when we see this, you think about it like a coil that's being twisted over time. That volatility is collapsing and oftentimes it's waiting on some kind of news event or waiting on -- I always think of it like a guitar string; you're waiting on it to get plucked and then suddenly you'll see this kind of volatility move out. So, the idea being, again, this is going to encompass quite a bit of the trading range.

So, when we start to see that sort of expansion happen, you might see this thing peak outside of those bands. We know that, then, this is a move off of that prior range. We should expect some sort of expansion. You're going to see multiple things happen oftentimes riding the upper band or riding the lower band — it can go both ways — where essentially it is

moving and showing relative strength all the way up. You can see this on this riding the band here. Oftentimes people will use this as a buy signal. All of a sudden, you've got strength, you see this sort of trend starting to move here. And then what this is doing is it's thinking about oftentimes mean reversion. So, we've got the SMA, which is our mean, we'll often then see this thing start to come back down and ride between those bands.

So, again, over time we would expect this to revert back into one of these price ranges into those center areas or to bounce between the two. You'll see quite a bit here as we move into what we talked about earlier, that kind of trading range where suddenly we've had a nice, strong trend, we rode the band and now we're starting to bounce back between these bands across each other. We see that expansion over time as this band starts to widen as well.

So, definitely something to keep an eye on. It's a newer concept that people use with their trading, the concept of, of course, you want to be comparing apples to apples when you're putting in something. Like, we talked about exit strategies. If you're putting a stop on there and the stock is suddenly getting more and more volatile in nature, you want to be careful. So, if you're putting on a very tight stop onto your trade, you might see that that thing gets filled immediately and you get what's called a whipsaw — I think mentioned earlier by Nick — where you end up getting

on both sides of this. Over time, as this thing is bouncing between the bands, you're just getting hit on those orders multiple times, you're not seeing any trend open up. So, things to look at here with Bollinger Bands. Again, a great tool in terms of kind of encapsulating price and giving an idea of how strong is the move in terms of volatility, and then finding periods of essentially dormancy there.

Nick Delisse: So, one thing I want to mention when it comes to volatility is we always get asked about even applying indicators and applying technical analysis to other volatility measures and such. And so, this actually kind of brings us to -- we were asked some questions on can you apply technical analysis to indexes versus just stocks and such? And yes, you can absolutely apply these particular concepts to something like the S&P 500, to the NASDAQ. You can apply these to baskets of securities and such.

Now, you need to be very, very mindful about what you're applying it to because if it is an actively managed security, technical analysis kind of breaks down on that particular factor because it could be really a different stock than it was a day ago or a week ago or a month ago from that particular perspective. With that, when it also comes back to volatility and addressing volatility, well if you're trying to then apply technical analysis to a volatility index, especially if you're looking at implied volatility, it's future expectations of what might happen in the future.

Now, those expectations might or might not come to pass. And I kind of equate looking at what's actually happened historically with what happens in the future by comparing actual weather patterns to what the meteorologist said. Now, sometimes they're spot on; they say it's a cloudless day, it's a cloudless day. But so often they say, let's say 10 percent chance of raining and I got an inch of waterfall in my backyard. Or they say it's a 90 percent chance of rain and I cancel my plans and it ends up being a sunny day. So, that's kind of what to think about with implied volatility is that it's a future expectation that might or might not come to pass. Historic volatility, like what we talked about with Bollinger Bands, very, very different. This is actually based on past price movement. It's based on what the security has done in the past and then looking that looking forward.

Now, there might be events like an earnings announcement that could shift things that could make the security act differently than it had in the past. So, keep that in mind. Or there could something like an earnings announcement that happened in the past, so the security moved a lot and it's not expected to have that happen in the future. And so, keep that in mind with some of the limitations, especially, especially, especially when it comes to volatility indicators on that. They're a little bit different in that particular perspective. And also, keep in mind when you're looking at

applying technical analysis to a security, that if there's been a spinoff. Well, a security post-spinoff is very, very different than what the security was pre-spinoff. Or if there's been a merger or an acquisition, it's a different stock and you have to kind of, in essence, clear out all the data before that happened and look at it moving forward and such.

Now, I do kind of just want to just briefly touch on support and resistance indicators that most traders what they'll use this simply kind of drawing lines, like drawing trend lines and such, using moving averages for that particular perspective. This is what most traders will utilize for that. We do have a tool in Active Trader Pro that will algorithmically draw support resistance for you with Recognia pattern analysis that can be a very, very powerful tool to help you with that if you're not hand drawing things on your own using something like Fibonacci's, using something like regular horizontal line, using something like an angular line drawing trends and such.

So, that really kind of wraps up what we wanted to address, what we wanted to talk about today.

END OF AUDIO FILE

991359.1.0