

## TRANSCRIPT

# Using straddles and strangles to manage stock events

*Presenters: Konstantin Vrandopulo & Robert Kwon*

**Konstantin Vrandopulo:** Hello, everyone. Welcome to today's webinar. Both Robert and I are very excited to spend the next hour with you in the audience and share what we've learned about this particular topic over our trading careers. It's safe to say that between Robert and I we have close to about 40 years' worth of active trading experience, and the things that most traders with experience would agree on is that markets figure out ways to humble everybody. There are no best strategies, and there are no sure things. So, the way we execute successfully in an ever-changing market environment is by doing three things: by listening to the market, watching closely, and adapting along the way.

Today, we're discussing a relatively nuanced topic in options strategies, trading strangles and straddles, but I assure you we've prepared our slides and our notes in a way that would make it easy to understand, regardless of where you are in your options learning spectrum.

So, wanted to introduce kind of the structure and the lay of the land of how we're going to go about this topic today. You're going to learn everything

there is to know about the trade structure in and of itself, so we'll talk about it from both the long and the short side. We'll dive in into the understanding of our Greeks exposure with those strategies, again, from both the long and the short side. And, finally, we'll learn how to set up a trade for a potential binary event that is on the horizon.

So the important thing here is that we're discussing, again, from the long and the short side, and I want to plant the seed here to emphasize the fact that we need to recognize for every trade there's a counter-party to the trade that we're doing. So, if we are buying something, somebody else is selling it to us, and has effectively the exact opposite view of what we have, at least from that particular trade's perspective.

Now, I'll turn it over to Robert here to introduce us to the long side of straddles and strangles.

**Robert Kwon:** Yeah, welcome everybody. So, let's look at the long straddle first. So, we'll start with the construction. So, to construct the position, you would buy both a call and a put at the exact same strike price and the same expiration date. The maximum theoretical profit is unlimited, and that's going to be driven by the unlimited upside of the long call. On a downward move, the

maximum profit would be a decline of the underlying to zero. Your maximum loss is the total initial debit and occurs if the underlying is exactly at the strike price at expiration, the point where both options would theoretically expire worthless. And at expiration we had two break-even points. Our higher breakeven point is found by adding the combined premium we paid to the strike price, and then our lower breakeven point is found by simply subtracting the combined premium from the strike price.

So, let's flip over to the next slide. The outlook: so, the price outlook can actually be one of indifference, but there should be an expectation of significant movement. So, in other words, you either can't decide which direction you think it will move, or you don't have a preference which direction it moves, as long as it moves significantly. Now, Konstantin, what does that word "significantly" mean?

So, many traders actually look at the cost or the size of the straddle to gauge the option market's expectation of price movement for a given expiration. Therefore, significant movement must be looked at in the context of the specific underlying. So, for example, you may believe an underlying can move up or down 10 percent in a month's time, but then look at the one-month

straddle and see that it's pricing in a 20 percent move. So, it depends on the context.

Now, let's take a look at the initial exposure in terms of the Greeks. Assuming the strike you select is roughly at the money, or close to where the underlying is trading, our Delta will be neutral or close to zero. Our at the money call will have roughly positive 50 Delta, and our at the money put will have roughly negative 50 Delta. Both long calls and long puts have positive Gamma, and therefore our Gamma exposure is positive. So, if the underlying moves up, the Delta of our long call will become larger, or more positive, and the Delta of our long put will become smaller, or less negative. And conversely, if the underlying moves down the Delta of our long call will become smaller, or less positive, and the Delta of our long put will become larger, or more negative.

Long calls and long puts have negative Theta, and therefore our Theta is negative and, in essence, double negative. So, all else being equal, if you buy the long straddle the faster it moves, the better. And then, finally, long calls and long puts have positive Vega, and therefore our Vega is positive. Increased demand, represented by increasing implied volatility for options, will benefit both of our options. And again, conversely, decreased demand, or decreasing implied volatility, will hurt both of our options. So understanding

how demand for options behaves and changes is a critical part of the outlook for trading straddles, both long and short, but in addition -- right, Konstantin? - - demand for options doesn't necessarily behave the same for upward movements in price and downward movements in price.

So, let's take an example. Let's think about something like the broader S&P index. Historically, it shows increases in demand for options on declines in price, especially big declines, whereas upward movement in price is often accompanied by decreases in demand or decreases in implied volatility of S&P 500 index options. So even though the long straddle would benefit from enough movement up or down, the more favorable scenario for a long straddle on the S&P before expiration, given this type of options behavior, would actually be a decline in price along with an increase in implied volatility. In other words, before expiration you'll typically need to see a greater move up than down to show a similar profit if implied volatility continues to behave this way.

So now let's look at a long strangle. Here, we're splitting the strikes instead of using the same strike. So, we are buying an out of the money, or higher strike, call, and buying an out of the money, or lower strike, put. Once again, the maximum gain is unlimited, and our maximum loss is a total initial debit.

Notice here, though, there is now a range where the maximum loss at expiration can occur, and that range is the gap between and including our strike prices. At expiration, our higher breakeven point is found by adding the combined premiums to the higher call strike, and our lower breakeven is found by subtracting the combined premiums from the lower put strike.

So, the information on this slide should look familiar, because we want the same things with the long strangle that we want for the long straddle. It's just a variation of a similar trade. Our out of the money call will typically have a smaller than 50 positive Delta, right, but our out of the money put will have a typically smaller negative Delta, but similar to the long call, so our starting Delta will once again roughly be zero, or neutral. Konstantin will touch upon this a little bit later on, but one thing to keep in mind is Gamma, Vega, and Theta are going to be the highest for at the money strikes, so here, using out of the money strikes, we're still going to have similar exposure, but to a lesser degree.

So why don't we take a look at the next slide so we can look at a summary kind of comparing the long straddle and the long strangle? The long strangle will require a smaller debit for using out of the money options. This is no different than just taking one side of this trade, right? Buying an at the money call

versus an out of the money call. So therefore, our potential return on investment is higher, and since we paid less (laughs) our maximum loss is lower. However, in favor of the long straddle is a higher probability of profit, and an associated tighter breakeven range. And remember, there is only a single point at expiration where the long straddle will be at its maximum loss.

So now that we've covered buying straddles and strangles, as Konstantin mentioned, who's selling them, and why, right? Where This is one side of the trade, we know what helps and hurts us, now Konstantin's going to look at, well, what's the other side of this trade.

**Konstantin Vrandopulo:** Perfect, Robert. So, let's think about the other side of a long straddle, which would be a short straddle. So, on a long straddle example, we were buying options at the money. We were picking a put, or picking a call, as close at the money as possible, and we were paying premium out of pocket, or a net debit [forth?]. Well, the other side of the trade is someone that's selling the straddle, and as a seller of options, you are, of course, receiving the premium that the other side is paying. Now, the third bullet point here, in terms of the max loss, should probably make you recognize that this type of a strategy has a very significant risk potential to it: it has unlimited maximum loss, and it's unlimited on the short call side, because

equity markets, indices, individual stocks have uncapped upside potential. So, the downside, of course, the risk is still very significant. Stock could go to zero. It doesn't happen very often, but it does happen. Stocks do go down, and in some cases, they crash in a very short period of time. So, I would say that the scale on this image probably doesn't do justice to the risk side of the trade. You can only do this type of a transaction, of course, in a margin-enabled account, and with the ability to short options [naked?].

So, let's talk about the breakevens at expiration. Of course, the breakevens are the strike price, plus or minus the combined premiums of both options that you sell. So, in this case, we are selling a short call for \$3.30, and we're selling the hundred strike put for 3.20. The combined credit is 6.50. Our breakeven to the upside is at 106 and a half, and our breakeven to the downside is at 94 and a half.

Now, the interesting part here is, again, this strategy by itself has unlimited risk potential, and as options traders we call this, in a maybe grotesque sort of way, the guts of another strategy that some of you might be familiar with. So, if you are a type of person who likes to cap your risk potential, you could potentially be looking at buying the wings in this strategy, which would create an iron butterfly. So, the guts of a short iron butterfly is a short straddle, and

then you would be purchasing the wings on the outside to protect you from exorbitant loss potential.

All right, very good. So, let's talk about the outlook here. Again, what are we betting on, as premium sellers in this case? We are being very aggressive. We are going right at the money. We're receiving a decent amount of premium upfront, the largest amount of premium, in fact, by selling at the money options. Our outlook on price is that the stock is not going to move a whole lot, or at the very least it's going to be range-bound between now and the expiration date. We're betting on the fact that whatever is baked into the cake currently in terms of price movement, the volatility expectations by traders, are overpriced, and therefore the stock is not going to do a whole lot.

So, Robert gave us a nice rundown of our Greek exposure. Well, our Delta at the start would be neutral. We don't care which way the underlying is going to go, so long as it doesn't go outside of our breakeven points. Our Gamma, the rate of change of Delta, is negative in this case. Gamma's job is to get Delta to either one or negative one, or zero at an end of an option's life. And what does that mean? Well, the option either becomes long or short stock at expiration, or it expires worthless. Gamma is trying to get Delta to either one or zero, and since we have negative Gamma exposure, the movement in the

underlying stock is a risk to this trade, in either direction. And, obviously, the bigger the move in either direction, the more significant the risk becomes.

We also have negative Vega exposure, and that's a way that we measure by how much our option values are going to change if the implied volatility expectations, the demand, and supply equation in the market, is changing. So, for every one absolute percentage change in implied volatility, up or down, we're going to be seeing the effect on our short straddle by the amount of net negative Vega. So, again, what are we saying here? Well, we want the market expectations for future volatility in this underlying that we're trading to actually subside instead of increase. If it subsides, we get to keep more of the premium received quicker.

And, finally, our Theta exposure is positive here. So, we are premium sellers. We're benefiting from time decay. And, in fact, time decay and the current implied volatility levels is the asset that we're selling.

Let's hop over into the short strangle example. So how do we construct it? And, again, you would notice that we're just widening out the strikes from being at the money, to going slightly out of the money on both sides of the equation. So, we're selling upside calls, and we're, in this case, selling

equidistant downside puts. Considering that the stock is trading at a hundred bucks a share, we're selling the 105 call for a buck 50, and we're selling the 95 put for \$1.30. Our net credit is now \$2.80. You would notice that it's significantly lower than the credit that we received in a short straddle example.

Now, what's the construction? What's the benefit? What's the risk? Well, from the perspective of maximum gain, from its structure nothing changes, because the maximum amount that we could make is the amount of premium received. It is a smaller amount of premium. So, since I've given something up, since I've given up some premium instead of being very aggressive and shorting the straddle right at the money, there has to be some sort of a benefit, and the benefit is that my breakeven points are now widened. So, I've given the stock some room to calibrate within, or to move up and down within, that potentially increases my probability of success.

The maximum risk, of course, of this trade, and the maximum loss, is still unlimited. And, again, I want to emphasize this: that the scale on the risk side, unlimited to the upside, and, of course, all the way down in this case in the stock going to zero, is very substantial. And the guts of the strategy being the short strangle is basically the middle, the body, of a short iron condor if you

were to cap your risk by buying further out of the money puts, and further out of the money calls, creating an iron condor.

Very good. So, let's hop over into the outlook here. Our outlook, just like it is with a straddle, is going to be a decrease in implied volatility and smaller price movements. Our Greeks are going to be effectively the same, but to a lesser degree. When we are going further out of the money on both the calls and puts, we're shorting options with lower Delta values, but they still should be offsetting each other. So, our outlook is neutral. Same with Gamma, same with Vega, and same with Theta.

Wanted to talk about comparisons of short straddles versus short strangles, and if you're an astute listener you probably are recognizing already the fact that these things are just flipped to what the long side was. The short straddle has higher return on investment potential. Well, why is that? I am taking on more risk by being more aggressive, and shorting both sides right at the money. If I cannot make up my mind which direction the underlying is going, I am receiving more in credit for doing so, and therefore, if I am correct in my assessment, I potentially get to make more money on the capital necessary to maintain your margin requirement.

It lowers my max loss, as well, because I am bringing in more in premium upfront. But the contra side to that is that, just like with the long straddle, you'll want an explosive move in either direction, the faster the better. With a short straddle you want the exact opposite, and the only way to make all of the money, or most of the money, if the stock does absolutely nothing and just sits right at the money, without any movement whatsoever. Now, ladies and gentlemen, if you've been watching stocks move around, especially in the last couple of years, you know that they do tend to move around.

So, higher probability of profit trades is going to be on the short strangle, where you're allowing the stock to have some sort of an area of maneuverability between now and expiration date, and it has a tighter breakeven rate.

From the Greeks exposure perspective, the neutrality of Delta is still going to be there, but your Gamma, Vega, and Theta has taken on a little bit of a kind of different angle, the more negative versus less negative. The way I like to think about it is in some situations you're just going to be tested a lot more: are there going to be strategies in a short straddles case where it's not going to be a set it and forget it type of a trade for most people; you're going to have to manage it, because you do not want the stock to move away too far, right,

through your original expectations. Otherwise, the risk is huge. It's there. It's massive. With a short strangle, you still want no movement, but you are allowing the stock a range to bounce around in between. So, it's going to be a less gut-checking type of a strategy, generally speaking.

Very good. So, let's hop over into the understanding of the Greeks exposure. And, again, this is just a recap slide. So, our Gamma is provided to us in Delta terms. It's the only Greek that's provided to us in Delta terms. And it's the rate of change in Delta, so it's what's getting Delta to either one or zero at the end of a slide. It's telling us, by how much our Delta will change, if the underlying stock price moves by a dollar in either direction.

I like this bullet point here: Gamma is the creator or the destroyer of Deltas, and that certainly is true, especially the closer to expiration that we get in time.

Vega is the rate of change of options prices, given a one absolute percentage change in volatility. So, again, Vega is quantifying in dollar terms by how much my option is going to change in value, given a one percent, absolute percent, up or down movement in the current implied volatility of the options that I'm trading. And then, finally, Theta, that time decay measure, all else being

equal, by how much my option is going to decay in value, given a one-day passing on the calendar.

Now, significant consideration for longer-term trades, less relevant for shorter-term trade: I would say that might be true because the Theta of the longer-term trade is going to be a larger portion, right, and value in dollar terms, but we need to remember that Theta tends to accelerate towards the end of an option's life. So, the acceleration piece, the increase of Theta every day that's passing relative to the value of the option is significant for short-term traders, as well. So, it's not something that we can just chuck away into the corner and not think about.

**Robert Kwon:** Yeah, Konstantin, I think the way to think about this is even though that Theta, right, is going to be a theoretically larger number, for shorter-dated options, if your intention of the trade is only to be in it for a short period of time, whether it's a short-dated option or a long-dated option, right, the driver of your trade is going to be more dependent on the movement of the stock, or the underlying, and changes in volatility, and your goal is to not make Theta a relevant factor. So, this is more important for, like, short-term traders, like maybe even day traders or swing traders. That's what that slide is referencing.

**Konstantin Vrandopulo:** Very good. So, let's set up an earnings play here, Robert -- I mean, a binary event potential that happens to every stock: that is exchange listed four times a year.

**Robert Kwon:** Yeah, so binary events right now, in hindsight, we can look back at earnings as a recurring event, typically four times a year, and in hindsight they're not all digested by the market, right, with the same reaction. However, you know, what we can look at is for each specific moment, traders will look at the cost of the straddle to gauge the expected move for an expiration date, and that expiration date can be inclusive of an event like earnings.

So, typically you will find the expiration date that is closest to but expires after the event, and then look at the cost of the straddle. That's where the demand what we call skew is going to be, where all the speculators and hedgers are going to influence demand the most. So, in the example, we have a stock trading at 21, and the combined cost of the at the money call and put is \$1.20. So, the option market is pricing in a range, up or down, of \$1.20 from 21.

Now, just make a note here that some traders may use a percentage of this value, such as 85 percent, as the expected move, and it could also depend on how far away that expiration date is from the event. So, there's a lot of options

now that have weekly expirations, so many times you might find an event that occurs, say, early in the week, and there's an expiration for that particular Friday. Other options that don't have weeklies, you might find that you look at an event and the closest expiration is something that doesn't expire for maybe even a couple of weeks. So, some traders will factor that into the equation, as well. In addition, notice the parentheses mid. You would typically use the midpoint of the bid and ask prices on both the call and the put, simply to mitigate the impact of option liquidity on the straddle price you're trying to evaluate.

So, let's take a look at the next slide here. What we are looking at here are some examples of demand changes, or changes in implied volatility, for options after different types of events. Now, this one here is from our IV index, provided on Fidelity.com, and they're looking at roughly one-month options. The first example on the left shows demand for options rising ahead of results of a significant event for a pharmaceutical company.

What do these results typically show? They're either on track for an effective, right, product, or might be back to the drawing board. So once the results are known, we could see significant movement in the stock, but a collapse in implied volatility, and that's exactly what we see here in this example. Look

what the yellow line rising ahead of the uncertainty, and then once the event is digested, the results are digested by the marketplace, you can see the blue line, the actual movement in the stock, jumped significantly, but a collapse in implied volatility, which, again, is the expected future volatility in terms of option pricing.

In the middle example, right, the middle example looks more repetitive, and this example revolved around the earnings cycle of a company that has had some volatile earnings reports. Once again, notice that the demand for options starts to rise ahead of the event, and subsequently retracts after the event has been held.

And then finally, on the right, we have a historical one-year look-back on a large-cap stock that typically prices in lower implied volatility than the middle example.

So, what's the takeaway here? To some degree the demand for options typically will retract post-event. The behavior is so common, it's even nicknamed the vol, or volatility, crush, and this is a critical factor in the outlook for deciding on an options trade.

So, let's look at the two perspectives. From the buy side, you can potentially take advantage of an event that can move the underlying, without focusing on taking a direction. Konstantin, if you just trade stock, and you think the stock slingshots higher, but you can't decide which one is going to occur, what trade is there? It should be none, right? You have to justify --

**Konstantin Vrandopulo:** Probably you're sitting out.

**Robert Kwon:** Yeah, you have to justify why you're putting yourself at risk. If you can't make that type of decision, right, there's really no justification for taking a position. But here, there is an option, for lack of a better term, that even if you can't decide or don't care which direction it goes, as long as after looking at the cost of the options, or the cost of the straddle, you feel the realized move in the stock will be significant enough to show a profit, you may take the buy side.

On the sell side, you can potentially take advantage of, quote, "expensive options" by selling the volatility, anticipating some type of implied volatility crush after the earnings are released, and the realized move in the stock will not be outsized or greater than expected; or, if it does move, you anticipate

that it will not persist, and perhaps retrace back into your profitable range by your expiration date.

**Konstantin Vrandopulo:** Very good, Robert. So, let's look at an example where a trade actually played out exceptionally well. We're looking at an ABC stock price, 524 and three quarters. So, what we're doing into this event is trading an at the money straddle from the long side. So, remember, from back a few slides ago, what is our expectation? Well, whatever is currently priced in into options is not enough, in your view. You think that not only that the stock is going to go in one direction or the other, but it's going to move by significantly more than what is currently being priced in. In this case, the stock has been oscillating between two levels that are very obvious that you could draw resistance and support against, and your bet going into this event is that that resistance to the upside, or the support to the downside, is not going to hold, based on the information that this event will actually bring about.

So, we open the trade for \$22.20 on a \$525 underlying. That's the expected move. We're paying that, and we're hoping it moves by more. The closing trade the next morning is the stock opens at \$566 and three quarters and we're closing our straddle at \$39.80. So, a tremendous return in a very short order. And, Robert, I want to emphasize that if you're going to be trading

either from the long side or the short side of short straddles or strangles, or long straddles or strangles, you should probably be thinking about and planning what your exit strategy is going to be in both situations. You cannot only be thinking about how do I make money in this trade, right? If the market cooperates, and it goes in the direction of the trade that you anticipated, you're going to be making money. So, we always try to first start planning for risk side how am I going to be exiting in case I'm wrong, and where. What are the signs that the market is going to be providing to me that is going to invalidate the thesis for the trade? So, you're staying mechanical, and you're being true to your strategy. In this case, the market accommodated. We got the move correct. We didn't know which way it was going to go, but we were thinking it's going to break either resistance or support, and it did, and it broke it by a significant amount. So, we made a substantial return in a very short order.

Stock moved by 42 bucks, about 8 percent. The long at the money straddle increased by \$17.66; that's a 79 percent return on invested capital. Statistically speaking, there was a very low probability that that stock would move by this much, and, Robert, this goes to the point of always try to gauge what is currently being already baked into the cake, meaning what is currently expected by market participants. And remember that there are thousands, if

not hundreds of thousands, of them out there. Everyone is trying to decide what is going to occur.

A big, quick move to the upside allows for a big profit. This last bullet point is very important. We had to overcome the implied volatility expectations, the time value that we paid for an at the money straddle, all of the premiums that we paid for both the put and the call, or time value. There was no intrinsic value. And at the time of closing of this trade, we had significant amount of intrinsic value on the call side, because the stock went up by a lot more than expected, and that overwhelmed the amount of implied volatility that we needed to overcome. So, in Greek terms, we were saying that Gamma, the acceleration of our directional exposure, overwhelmed the decline, most likely, in implied volatility that Robert talked about that generally happens post-binary events like earnings. Back over to you, Robert, of what also could potentially happen.

**Robert Kwon:** Yeah, so one thing to remember is this stuff impacts that extrinsic value, right? So, from the long side, if you pay an amount for a straddle and then the stock either launches or collapses, so that simply one side of the trade has enough intrinsic value to show a profit, right, that can completely be a rationale for taking the trade. You just expect all of your value to be driven

from intrinsic value. What we're trying to focus on here is different versions of being right or wrong, and what it might look like ahead of expiration.

So, in this second example, we have XYZ trading at 103.38, and we decide to purchase the at the money, or closest to 103 straddle for a total of \$3.54. In this case, though, our closing trade occurs post-event, with a stock trading at 105.38, so it did move. But it turns out we close our straddle for only 2.27, at a loss.

So, what happened in this example? Let's analyze this on the next slide here.

So, the stock price moved by \$2, or about 2 percent. But remember, the straddle cost was 3.54, or more than 3 percent. The long at the money straddle decreased in value by 1.27, or about negative 36 percent, and when you have a negative next to your return, that's a fancy way of saying it's at a loss, right? So, in the end, even with a 2 percent move in the underlying, the straddle lost because the move wasn't enough to overcome the volatility change, a.k.a. the volatility crush.

So, Konstantin, obviously this is a significant consideration, so let's look at the next slide. How can traders try to quantify the impact of the vol crush? So

here we're looking backwards to analyze, but when you're placing the trade you have to try to project these scenarios, but with the benefit of hindsight in this example we can see what the rough impact was, the pre-earnings implied volatility on the at the money straddle, right -- remember, this IV chart is typically looking at one- to two-months options -- was 52 percent. The post-announcement IV was 27 percent. Our pre-earnings Vega on the at the money options was 0.03 and would be positive if we bought the straddle. So, a 25-point nominal -- right, absolute point -- drop in IV, times three cents, is 75 cents a contract, times two with the straddle. So, the long straddle lost about \$1.50 from changes in implied volatility.

Now, remember, we only lost about \$1.27 overall. That's because, right, it did move up. So, in essence, the directional movement was simply not enough to overcome Vega, and, of course, theoretically one day passing the double Theta exposure. So just remember, keep in mind that the Greeks are dynamic, and are to be used as an estimate of your exposure. In the end, your option is worth it's trading for when the option market is open. And don't forget different option contracts, both strikes and expirations, may respond differently to demand changes, and this concept is related to volatility skew.

**Konstantin Vrandopulo:** Yeah, Robert, and I think volatility skew is a concept that needs to be looked into further. We obviously offer monthly courses on that, on Fidelity.com/coaching. If the idea may be not that significant of an impact on the straddle price, because at the money volatility generally tend to be equal, but the demand and supply equations for out of the money options could be significantly different -- Robert explained one example of what happens in the S&P 500, puts being generally a lot more expensive than calls, because people are much more worried about downside risk in a stock market decline than they are about melt-ups in the market, because the majority of people are long exposure to the S&P 500 underlyings. So, in this case, right, if you were setting up a strangle, and you're doing them equidistant, the premiums that you're receiving from the puts or the calls could vary, you know, significantly. So, it's something that you need to be paying attention to, of course, a more nuanced topic, and more in that in additional classes that we provide.

Very good. So, the effect of Gamma. So, let's talk about it from the... Yeah, you're asking a question, maybe: well, if, on the long trade, I have positive Gamma, and Gamma is the rate of change of Delta, as we have established already with you today, positive Gamma is accelerating my gain on the winners that I have. So, if I am long straddles and long strangles, the higher

the underlying goes, or the lower the underlying goes, the faster, right, and bigger my wins become. And at the same time, it decelerates the losses on losing positions.

So, you would be asking, well, who in the world would be taking the other side of my trade? If positive gamma accelerates my wins and decelerates my losses on long contracts, who's on the other side, and why would they be doing that trade? Well, we call that the Gamma/Theta tradeoff, because in a short straddle or short strangle strategy, there are more than one way to win. In other words, for long positions you need the underlying to move, and you need it to happen as fast as possible. Time only goes in one direction. It ticks away. We know exactly how much time there is left, up to a second in the trading day, but it only goes in one direction. There's no way to stop it. So, the underlying needs to do what you're expecting it to do. You need it to move.

In the short straddle and short strangle example, if the underlying is doing nothing, the premium decay allows you to win. So you have negative Gamma on the short side of the trade, which decelerates your gains, the opposite of what it does with longs on winning positions, and it accelerates your losses on long positions, but you have that Theta working for you if nothing happens.

Remember that Gamma is either creating Delta, so it's either moving Delta towards 100, or 100 shares of stock, positive or negative -- right, you could be long or short stock at the end of expiration -- or it's destroying Delta and moving it to zero. So, in a short straddle or short strangle scenario, we want Gamma to be destroying Delta. We wanted to keep Delta at zero, in other words, again, emphasizing the fact that the less of the movement that we experience in the underlying stock, the greater the potential for us to make money.

Why did the ABC trade win? Well, that was the first example, when there was an outsized move to the upside, and, like we said a little bit earlier, the positive Gamma accelerated the Delta for the long call position by much more than the volatility has declined, and we closed the trade effectively the next morning with hardly any time impact at all.

Very good. Setting up your trade. So, Robert, a few takeaways here. Again, thinking about unlimited profit potential on the long straddle or long strangle should excite you, because there is potential for making a lot of money, but we need the underlying to move, and if implied volatility or demand for options is actually declining, and the time is passing, that is going to be hurting us, so

therefore these strategies are not going to be set it and forget it types of trades. We are going to have to manage them. In most cases, they're going to have to be managed when the adjustments are called for. And that means that we have to be keeping attention, right, paying attention to what's going on with the underlying stock, and making sure that we have exit strategies on both the profit side as well as the risk side. You don't want the premium that you're paying, just because it's the maximum amount that you can lose, to go to zero, to become a donut. That's what gamblers do. If you're a trader, you have a risk management technique in place, and you know exactly where you would be exiting, at what percentage of loss of the initial premium paid.

**Robert Kwon:** And, Konstantin, thinking about that --

**Konstantin Vrandopulo:** On the opposite side, Robert... Mm-hmm.

**Robert Kwon:** Yeah, think about the example that worked, right? The ABC example. The trade is different than what it started out as. What do you have now? Well, the call part of it, because the stock price rose, is now an in the money call, and the put part of it is an out of the money put. So, you're no longer Delta-neutral. So a lot of times, Konstantin, when we talk to traders, is we keep thinking about the trade from what it started out as, instead of looking at

the trade for what it now is, and they say, "What should I do now?", or they think about it. And the best way to think about this is: listen, if you didn't have any trade whatsoever, would you be buying a deep in the money long call as the way to take advantage of that, if you think it's going to keep going up? If the answer is not a clear yes, then what you should be doing is you should probably be closing your current position, because that's what you have now in deploying the strategy you think is going to be most effective with your updated outlook. I think that's really what people have a maybe more difficult time if you come over from stock investing, is because stock, there's just shares of stock, right? If you think a stock's going to keep going up, right, what would you do? Well, you'd either buy stock, or, if you have some, you'd hold it, right? And it's just a matter of the quantity. But with the option trades, your option trade is always changing, simply because time's always moving forward, but your strike price is fixed, so the money-ness could be different. That's why it helps to look at it from a fresh perspective. Here's my new expectations from here. What's the trade I'd place as a new trade, if any, to take advantage of that? And then compare that to the existing positions that you have. And if the trade looks nothing like the trade you'd place, then more than likely it warrants merit for closing and deploying the new strategy or moving on to the next trade.

**Konstantin Vrandopulo:** Robert, the contra side to that is if you were short strangles or straddles, yes, there is more than one way to win, meaning either the underlying doesn't move by a lot, or moves by less than what's being firmly priced in, or the stock is not doing much at all and the time is passing. But the nemesis of the short straddle or short strangle is that you have unlimited risk potential. And, again, for those of you who are not comfortable with unlimited risk -- and I know that most people that I speak with are not -- you could potentially be structuring your trade a little bit differently. And I talked about that when I was presenting the short side of the trade by thinking about it from the short iron butterfly or the short iron condor perspective, where you're capping your risk to both the upside and the downside.

The payout ratios and the probabilities obviously change. If we're capping our risk, we have to be giving something up. That means that our initial credits are going to be smaller. But that is the type of trade that maybe the majority of people, especially when you're starting out, would be more comfortable with.

**Robert Kwon:** In addition, Konstantin --

**Konstantin Vrandopulo:** I would also encourage... Mm-hmm?

**Robert Kwon:** Yeah, just a quick point, right? Some traders that are not comfortable with that level of risk, or perhaps they're trading in a type of account that doesn't even allow that type of trade, like a retirement account, but perhaps you do feel like, hey, I think the expectation is going to be range-bound, well, this is where your knowledge of the different tools in the toolbox come into play. So, a strategy that would try to take advantage of a similar outlook, but with a dramatically different risk profile, to the short straddle is actually a long calendar. So, we cover those in separate classes, in separate webinars, but just know, right, there is a potential alternative. Of course, if you mitigate the risk, there must be something worse about it, and with the long calendar versus the short straddle it's usually in the profit potential. So, this is why it's important: knowledge, planning, and discipline: that's the keys to success as an options trader.

**Konstantin Vrandopulo:** All right, so the last couple of points that I would like to make as a trader and an investor with substantial amount of experience, what I like to do is, looking at the straddle prices, even if you're not going to be trading them, and plotting the values of the expected moves to the upside and to the downside, versus the closing price of a stock, or where the stock is trading at that moment in time, as relative potential levels of support and resistance, you can do that, obviously, in Active Trader Pro or Trade Armor,

just to see how markets react, and whether or not what was priced in gets overwhelmed or not. So, don't jump in headfirst into these strategies. Maybe simulate a couple, using our profit and loss calculator. Look at how they work out, because not all stocks are created equal; not all markets are the same. Get familiar and comfortable with the strategy by evaluating a few in a simulated way before you put real money at risk. Analyze implied volatility relative to its historical levels. Look at previous moves in the stock price post-earnings, versus the implied volatility levels of what it used to be and what it is today. You can look at implied volatility levels relative to the prices of stocks, as well as those expected moves, on a chart in Active Trader Pro by looking at the VOL historical and implied volatility indicator that can be found on our platform.

Thank you very much. We appreciate it. We hope to see you in some of our additional virtual coaching sessions soon. Best of luck to everybody.

END OF AUDIO FILE

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