

TRANSCRIPT

## Taking your first step: Placing an option trade

*Presenters: Edward Modla and Bill Purvin*

**Bill Purvin:** Thank you everybody for joining our second session. For those of you who joined us for the first time, my name is Bill Purvin. I'm the regional brokerage consultant Fidelity in the New York City market, there are colleagues like myself that cover the entire country. We're a resource for you as well. With our first session, we went over the basics with options, and Ed and I are going to go over how to place your first option trade. But Ed, would you like to take it further, please?

**Ed Modla:** Sure, I'll take it from here, yeah. Again, thanks for having me, good to be here. Nice to see such a large turnout for options education, so I'm always excited about that, and looking forward to this session, you know, placing an options trade. Me and Bill are going to start with, what are the things you need to know and be aware of as you're making that decision on how to put that trade together, and then, you know, weaved in there, we'll be showing some of the Fidelity platform and what you need to look at as far as analytics and data and putting that trade together when you're ready to start your first execution.

First our disclaimer, there is no affiliation between the Options Industry Council and Fidelity, and options are a complex tool that needs to be well understood before being used in a live account. Going to start with options pricing in this session, but the first step there is going to be defining moneyness and what that is, what it means, very important to understand those definitions. Rather simple, not too difficult to understand, but we'll walk through what moneyness means, and then with respect to options pricing, and then we'll finish up with choosing strike and expiration. There's not a one-stop shop for this, there's not a singular answer how to choose expiration, how to choose a strike price, but rather considerations and things you need to be aware of as you're making those decisions, and again along the way, we'll look at the Fidelity platform to see what kind of analytics and data you have available to you as you're using your account with Fidelity.

First with moneyness, this is a way to characterize an options contract with respect to comparing the strike price of the option to the open market share price of the stock. And there's going to be moneyness for calls and moneyness for puts, but defined the same way, we'll start with calls. There are three terms for moneyness that you need to be aware of: in-the-money, at-the-money, and out-of-the-money. An option is going to be one of these three, and if you were to ask over here the question, what is the "moneyness" of this

option, that question is asking, is it an in-the-money option, an at-the-money option, or an out-of-the-money option? I like to define these terms from the perspective of the option holder. And we're looking at calls here. If the call holder owns the rights to execute a transaction in shares of stock, that is better than available in the open market for the shares, then the call is in-the-money. Remember, owning calls is equivalent to the right to buy shares of stock. So, if the call holder, the call buyer has the right to buy shares at a lower price, a better price than where the stock is currently trading, then the call option is in-the-money. If the stock is at 50, all strike prices below 50 are considered in-the-money options, there already is going to be some inherent value there. And then one step further is you can quickly calculate, by doing simple arithmetic, how much is this option in-the-money, all of these options that have a 40 strike price are in-the-money because the holders have a right to buy shares at 40, open market is 50, so 40's better than 50. It's in-the-money, and it's also in-the-money by \$10. You would expect if you were buying this option today to pay at least \$10, probably more, to purchase this option.

But at-the-money is when the strike price and the open market price for the shares are equal to each other. That's by definition. What you'll hear from me and Bill a few times is that in practice, in reality, at-the-money options are more

or less considered to be those strike prices very close to where the stock is, but not necessarily matching penny-for-penny.

An out-of-the-money option for calls is when the call holder has the right to buy shares of stock at a worse price than they could get in the open market. If they could buy shares for \$50 in the open market, then the call option gives them the right to buy shares at 55 or 60 or 70 or 80, then those options are out-of-the-money, and you would expect these out-of-the-money options to cost less than at-the-moneys and at-the-moneys to cost less than in-the-moneys; as the strike price goes higher, the option premium for calls would decrease.

Again, in-the-money, when the option holder has the right to transact in shares of stock at a better price, out-of-the-money, when the option holder has the right to execute transaction at a worse price than the open market share price, and at-the-money when they are more or less equal to each other.

Same definitions for puts, but the opposite direction. A put option holder has the right to sell shares of stock, if they have the right to sell stock at a better price than where the stock is currently trading, or above where the stock is currently trading, it's in-the-money. Strike price above strike price is in-the-money, and then you can continue to calculate how much is it in-the-money, this April 55 strike put, the put holder has the right to sell stock at 55, that's

better than 50, that's in-the-money. The difference between the strike and the stock is \$5, it's in-the-money by \$5. If you're going to buy this put option today, if you're looking at this value in the open market, you would expect this option to be worth at least \$5, or cost you at least \$5, likely more than that. Put option is at-the-money, same as calls when the strike price and the stock price are virtually equal, and a put option is out-of-the-money when the put holder has the right to sell shares at a worse price than they could sell shares in the open market. For puts, those are the lower strike price options below 50, as put strikes go lower, the value or premium of the put options decrease. So same definitions as calls, but just looking at it from the opposite direction where the put holder has the right to sell stock at a better level for in-the-money and a worse level for out-of-the-money, and when the strike and stock are more or less equal to each other, those are your at-the-money options where most options trading activity takes place.

I'm going to go a little bit deeper now and talk options pricing. I always like to inject a little bit of history, I find it entertaining to talk about history when I can. Listed options began trading in 1973 on the exchange, cleared and traded on the exchange. Prior to 1973, options still traded, they still existed and traded, but they were traded in what's known as an over-the-counter fashion, just between two parties. An individual might call up somebody else, or a broker

or a firm may call up another firm and discuss between the two parties what option they might be interested in trading, and in somewhat of an arbitrary way, negotiate what price that they thought was fair to buy or sell that option, and it was somewhat of a manual process. In 1973, the options exchanges were launched, the Chicago Board Options Exchange was launched to initiate listed trades and listed transactions, but also, there was a publishing of a pricing model, the Black Shoals Options Pricing Model published in 1973. We're not going to get into the details of Black Shoals today, but with the publishing of that pricing model, there now was some math behind how to place a value on an option, and that installed a lot of confidence in the industry, and for market participants to feel like they were going to get a fair price, because now there was some calculation involved.

I will say with respect to pricing models, some of you may be familiar with them, you might use calculators, when you do use a pricing model, there's a number of inputs, we're going to see those in a few slides, that you will be putting in to a pricing model. The result is a theoretical value, it's a hypothetical value, of course, because it assumes that all of your inputs are correct. Options prices do not come from pricing models. They could be used as a guide to help you determine what an option might be worth, or what you think it could be worth given your inputs, but options prices are the result of all

market participants, buyers and sellers, that's me, you, and everybody else that enters in buy and sell orders driving prices higher, driving prices lower. It's the consensus of all bids and offers. Another way of looking at that synonymous with supply and demand, is buyers and sellers. The balance between supply and demand or the balance between buyers and sellers is ultimately what drives options prices. Of course, if you're entering orders to buy one or two contracts, that doesn't have as heavy an influence as orders to buy or sell 100 or 1,000 contracts, but it's that consensus, that culmination of all bids and offers from every market participant that drives supply and demand and moves prices up and down.

Now we're going to pick apart option premium here briefly, just so you understand it. If you're going to buy and sell an option, if you're going to track your trade over time as the stock moves, as time passes, and you see what your option is worth tomorrow and the next day and the day after that, it is very helpful to have some grasp on what that premium, what that option value represents, and that's what we're going to do here looking graphically and visually at the total amount of option premium, which in its most simple form, can be broken up into two pieces, and we're going to have to reflect on our moneyness discussion here. The first piece of option premium is known as intrinsic value. This only exists for in-the-money options. At-the-money or out-

of-the-money options have zero intrinsic value. In-the-money options will have intrinsic value, and that value is calculated as the difference between the stock price and the strike price, like we did before. We determined that those calls and those put options that we looked at earlier were in-the-money, and that we could continue to look at what's the difference between the strike and the stock. It's in-the-money by \$5; it's in-the-money by \$10. That becomes the intrinsic value of the option, again knowing, at-the-money and out-of-the-money options are going to have an intrinsic value of zero. Very simple, very easy to calculate and understand.

The second piece of an option premium is known as its extrinsic value. And this is where things get more complicated, we're going to spend a little time on extrinsic value today, but not too much, but just to make sure you understand that it's there, there are a number of different variables that go into extrinsic value. The time that we have here represented is the days 'til expiration. We have a perceived level of future stock price volatility, of course that makes sense if you're going to price an option contract that's forward-looking, you would want to include some idea of how much movement do I think this stock might experience between today and expiration, so some volatility rate. Interest rates, of course, is the cost of money. Dividends that are upcoming and scheduled to be paid will affect the stock price on the ex-

dividend date, but really going to focus on this time element, days 'til expiration. We know it is decreasing; we know it is moving lower, so this component of time is always decreasing. The idea that options are a decaying asset, and that sellers have an advantage, because the option naturally will erode its premium over time, that is coming from this piece right here, this time component that is always decreasing, and it affects the extrinsic value.

Two things I'll just point out, and then Bill, I'll be curious for your thoughts on premiums, and investors' understanding of it. When you look across all of these inputs, these are the inputs that you would need to use within a pricing model. Of course, you would need to know the stock price, right now, the strike price of the option, whether it's a call or put, how many days until expiration, a volatility assumption would have to be used, risk-free interest rates and dividends, and if you put all of that into an options pricing model, the result will be an option premium, going to represent that by the letter P, an option premium that is theoretical, because it assumes that your inputs are correct. When you look at these inputs, you can see, well we know where the stock price is, that's no secret. We know the strike price of the option, we know exactly how many days there are 'til expiration, we can look up risk-free interest rates, we know what the dividend schedule is. So I say it assumes all of these variables are correct, it really is this volatility variable that really is

always an uncertainty; it's always changing, it's moving higher and lower, simply as a result of the difference between the number of buyers and sellers in the market, more buyers drive option prices higher, more sellers drive option prices lower. One thing that investors do is we just sort of push this conversation a little bit further, is rather than use a calculator by inserting all six of these values and then calculating an option premium that is theoretical, what you could do is insert stock, strike, days 'til expiration, interest rates, dividends, and your observed premium amount, your trade if you execute a transaction, you bought or sold an option, what price did you pay, what price did you receive, or what midpoint of the bid offer are you looking at right now on your platform that you want to scrutinize? You can insert the observed option value, and most calculators will then allow you to backsolve for what volatility is that, what volatility assumption is associated or attached to that option premium. There's a few different ways you can use calculators.

But all of that discussion, if there's one thing, one thing to take away from this entire discussion about premium, this is it. Intrinsic value only exists for in-the-money options, and is sensitive to stock price movements. It does not decay. Intrinsic value sensitive to the stock versus strike price relationship. If you're a buyer or a seller of an option, and there is intrinsic value, you will want to know how much of this total premium is represented by intrinsic value. Because this

does not decay. Extrinsic value is sensitive to a number of factors, one of which we know is constantly decreasing, that's the days 'til expiration. Volatility can go up, it can go down. Interest rates are probably not going to change, the dividend schedule soon won't change, but time we know is decreasing. So this natural decay of an option contract is coming from this piece, the days to expiration. It is associated with the extrinsic value, and this is the portion of premium that has that natural erosion to it. Quick calculations can easily inform you of these numbers. Is it in-the-money or out-of-the-money? If it's in-the-money do the arithmetic and find out what's the difference between intrinsic and extrinsic, and when you do hear that options decay, sellers have an advantage, options decay, just remind yourself of whatever intrinsic value there is, if any, this value does not decay; it is sensitive to stock price movements.

So kind of a lot there. You know, Bill, what do you think? Do investors grasp premium? Do you feel like investors look at premium, they're just confused by it, or do you feel like investors seem to feel a bit comfortable with picking apart the pieces, and understanding what a premium represents when they see it on their screen?

**Bill Purvin:** I think this slide has a lot of great information, and I think for the new user, the person first looking at this, it looks a little daunting. And I think with anything that we look at, it's, this is a process, and I was market maker for most of my career, and we had a specialist talk to us about option trading. My manager actually hired somebody come in the room to talk to us about options. And the easy thing about option trading, it's easy to make it complicated. What the hard part is, making it simple. And I think it's important to understand the concept here, but don't get hung up not getting it the first time. Sometimes you have to come back this more than once. But what we do do at Fidelity, we try to make it easier for you to help you understand these numbers. Because there's a lot of, look like hard math there, that I might need help with that. So anytime you look at options, we're going to look at what we discussed earlier, any other deck, is the option chain. It's when you look at the option chain here, you can look at calls and puts, or you could just look at calls if you want. So we'll just make it simple right now and just show calls, if you're not seeing all the strikes you're looking for you can change them here. But on the screen here, we show bid-and-ask. To me, this is where I start first, what's the buyer at, what's the seller at. I prefer to see a gap between these two that's kind of small, a couple of pennies here or there. This seems to fit the bill there. If they're wide or understand that, especially when we get to the point where we talk about entering your trade, and when I

look at this, we get the last trade, we get the bid and the ask. But there are other fields, we talked about intrinsic value, how do I get that? If you right-click on here, and you go to settings, you can have that display here. So this is what's displayed here, we could have more show there. Of the very bottom are intrinsic, and basically your extrinsic value, and you click "apply" here, you could add them to the screen. When you add them to the screen, you'll get that value, see over here, intrinsic value, time value. If you take this number, and that number, it's going to equal the last trade price. So, good to see what those values are here, or the current bid-and-ask. You'll see the value how you come up with that value. If you notice here, they're grayed out here and then white here. These have no intrinsic value. So, the 459 strike when this ETF is trading at 458 below the price, has no intrinsic value. Trading really close there, another two pennies here, will have a value for intrinsic value. But a quick visual way to see what has intrinsic value, what the time value, extrinsic value might be. Ed, anything you wanted to add here?

**Ed Modla:** It's really helpful to have this visual display, because you're right, when you're looking at this and you're trying to explain it from an educational perspective, it can be a bit much, but when you see on a screen displayed the way you have it here, you can clearly see that breaking point where you have in-the-money versus out-of-the-money, it's gray on one line, it's white on the

other. And the intrinsic value itself is your tip-off, everything with zero there is going to be your out-of-the-money option, whether you're a buyer or seller of there, what that -- the takeaway is, all of that premium that you're either paying for or receiving is extrinsic value. All of that premium is going to be zero at expiration. It could fluctuate up and down in between, but it's going to be zero at expiration, and when you look at your in-the-money option, it's a little bit different. That entire premium consist of two pieces. Extrinsic is also going to be zero at expiration for your in-the-money options, but you have that other piece to the premium, that you're either paying for or receiving, that is going to be subject to the stock price movement. You might want to capture that, you might want to avoid that, but certainly you will want to know what piece of this option premium do I have risk or potential for the stock price moving in my favor, and what piece to this premium is going to be subject to time decay.

Let's move forward, Bill. I'll take the screen back, and we will move on to choosing more specific, we talked about premium, which is important, when you look at that chain that you just saw, we're going to look at it again in a little bit, interpreting this bid, the offer, the midpoint, and having some idea of what that premium represents is important, even if you're not forming an opinion on it. I talked to investors who say, look, I see this premium. How do I know? Is this too much, is it expensive, is it cheap? Even if you're not at that point of

evaluating an option price to that extent, at least understanding what that premium represents, you have the intrinsic piece, you have the extrinsic piece, and where that premium settles is simply a function of buyers versus sellers, supply and demand. Now that you've got that understanding, now you need to move forward. We're going to make a trade here, and you have to decide on your expiration date and your strike prices. You're going to have a lot of choices, depending on the symbol that you're trading, the ticker symbol that you're trading, you might have a lot of expirations, and a lot of strike prices. So what do you do, how do you fine-tune and get to that specific trade that you want to execute? With respect to expiration, of course the first thing to note is that the longer time until expiration, the greater premiums. More time means the potential for greater and wider stock price movements, more things can happen in the market from a micro- or macro- economic perspective. More time means more premium. And you'll want to keep that in mind. When you're choosing expiration, your forecast might lead you right there. If you're doing technical analysis, which is just another way to say you're reading the charts, you're looking at things like support and resistance and highs and lows, and moving averages, your market opinion that results from technical analysis might lead you right to a timeframe, where you think something's going to occur in two weeks, or a month, or three months, and that can help you select your expiration date. If you're doing fundamental analysis, we're talking about

company studies like forward multiples and margins and things like this, fundamental analysis doesn't lend itself as easily to a timeframe, but when you do have more of a long-term look, so you think the stock's trading at a low forward P/E ratio, it's undervalued, it's growing, it's going to do well, you might then gravitate towards buying more time or getting longer options expiration dates, because fine-tuning your expiration, or your timeframe might be more difficult. A lot of investors that I talk to incorporate a little bit of both, maybe they do look at fundamentals to gain an opinion, and then they use the technical to find out some semblance, or get some idea of how long it'll take to get there. But your forecast, and how you're getting that forecast, which is a critical piece, of course, might drive you right to an expiration date.

That reminds me of something that came up in session one, popular question, which is that piece, that first piece before the options trade. And if you're doing some options strategies that are not working out so well, and you're trying to answer some, what's going wrong here, often it is that first step. Options, they work as advertised, the strategies are going to work as they are constructed to work, but they don't trade themselves. And I get asked the question of, what's the best options strategy? Which one works the most? Which one works the best? And that's really an impossible question to answer. They work as they're supposed to. The first step in the process is

having a forecast, whether it's bullish, bearish, or neutral, and then implementing the right strategy, and we're talking options, so the right options strategy consistent with your confidence in that outlook, you can be aggressive, or you can be conservative within any of those three market directions. And then if you are correct, managing it appropriately, you will have a good chance to be successful. But your forecast is critical, and that first piece before the options strategy is decided upon and comes to fruition.

The calendar can certainly play a role, if you want to capture earnings or avoid earnings. Either way, you'll want to know when earnings are if you're going to trade shares of stock, or if you're going to trade options on stock, you will want to know when is that next earnings announcement, and then evaluate, is this -- based on the strategy, my risk tolerance, what I'm doing with my position, do I want to be a part of that earnings move, or do I want to avoid it? That can help you move your expiration date near-term or long-term. And then the bid-ask spread, this is the quality, Bill touched on this in session one, the quality of the bid-ask spread, your ability to get into the trade, and the potentially get out of the trade. You'll want to take a look at that as well for many of the most commonly traded ticker symbols. This is not an issue, you have nice markets to work with on both sides that'll stay that way, but for many ticker symbols, longer-term options tend to trade less, and will have fewer market participants.

In those circumstances, you might have wider bid-ask spreads. It might be more difficult to get in and out of the trade. Shorter term expirations tend to trade the most. Your shorter term and your at-the-money options tend to get your most activity.

Regardless of how you are deciding expiration, you got all these different possible ways to navigate that decision, but regardless of what it is, there's one concept within options that you do need to be aware of, and that is this acceleration of time decay. We have option theta and expiration. Theta is the option Greek that represents the expected natural decay of an options contract from one day to the next, so if theta throws you off, another way to say this is option time decay, and your choice of expiration, we're going to focus on at-the-money options, because that's where most activity is, and again, that loose definition of at-the-money where your strike price and your stock price are relatively close to each other, most activity occurs here, with a lot of time until expiration, let's say you've got six months, nine months until expiration. The passage of one date doesn't mean a whole lot. You've got 180 days until expiration, and one day passes, that doesn't decay the option to too much of a great extent. At some point, the passage of one day starts to become more significant. And that level tends to be right around, this is approximately 40 days or so until expiration, when you see the acceleration of

that daily time decay start to surface. Option buyers and option sellers both know this. Now if you're a buyer of options, you may look at this and think, I don't want to buy options 40 days out, and I don't want to buy options a week out. Look how fast that time decay is. Keep in mind that as you get closer to expiration, as even though the acceleration of decay is picking up, the actual option premiums themselves are also decreasing. To showcase that, on expiration day, you will have the fastest race of time decay. But, a option that is trading for a nickel at the opening bell that expires worthless, even though that's experienced a 100% rate of decay, doesn't get any faster than that, it only decayed a nickel. It might not be worth selling; it might be worth buying because of that actual dollar premium out. So remember that as this approaches expiration, the premiums themselves are decreasing, but the acceleration, the rate of decay is increasing. If you're a buyer of options, you may reflect on those things that you saw on the previous slide, market forecast, where is earnings, what kind of trading activity or liquidity can I get out of these various options, and it might lead you right to an expiration date which might be 40 days out. There are buyers of options that are looking at 6-week, 7-week options.

Now when it comes to a sellers, a little bit of a different commentary. Sellers are generally not going out very far, they're not going out six months, nine

months a year, because sellers of options who are trying to capture that time value and that time erosion are going to see very little of that until they get into this, we'll say within two months of expiration. And that's when you start to see sellers come in, all sorts of different perspectives on the right place to sell, with respect to days to expiration. Some like to sell right as this acceleration occurs, and then maybe close the option when it's lost most of its value. The only thing I'll say about that before I asked Bill his thoughts on this is, whenever you're selling an option, or whenever you are continuing to hold a short option position, just make sure whatever premium there is to gain, or to profit, is worth the obligation associated with being short the option. As I said before, selling an option with one day left, that's very fast decay. But you might only get a nickel for that option. Is it worth it to sell an option for a nickel? You know, maybe not. So when you sell an option, you track its premium, you might close it when the premium gets very low. You might leave it open, and you might just go ahead and keep it going until it expires and finishes out worthless.

So Bill, I want to hear what you thought about choosing expiration, about time decay, what kind of considerations do you hear from investors as they're looking at choosing expiration dates?

**Bill Purvin:** Yeah, I think, you know, again, which option you choose and how often, how far you go, it really depends upon the strategy. If I'm trying to do a bullish trade and I'm trying to, you know, participate if the stock goes higher, I'm buying a call. I like to buy more time than I need. Because with the option, every day the window is closing more and more to be right. So just understand that. That can work to your favor, and works in your favor with a covered call. So I prefer to do them shorter term. Also to a big factor with any type of stock is the big day for most stocks is the day they announce their earnings. And often too, it's not just what they're saying about what the results were, is the projection going forward. And when I do a covered call here, you're limiting your upside. Why would do I want to eliminate -- if I go out, like here's an option chain here, here's a stock, I think most of you have heard of Apple. And we'll look at an option here that expires here in ten days, and an option expires a couple years from now. That theta value, we can show them the screen here, you've got 15, 17 cents a day. For you as a covered call writer, that's your friend. If you go out further, it's a penny, two pennies a day. If I go out further, there are three, four, six, eight earnings dates. I give up upside. I don't think that typically makes sense with that type of trade. Call, I'm buying a call, I might want to have a couple of earnings in that. But you pay for time, so I want to spend as little as I can, but I want a window that I can be right, because again the big challenge is picking direction, but more

importantly with the option, is that and the time. So, you know I think those are factors you have to think about when you do that. Think about earnings, and we show you earnings dates on the chain here. So know that that could impact. I might not want to have a covered call that expires after the earnings date. I might want to have it prior to that. So, there are tools on the website and on Active Trader to show you what idea of what is happening with the numbers, and what to be aware of. Anything you wanted to add there, Ed?

**Ed Modla:** Yeah, that idea of earnings, it always seems to surface, and you're right, the options market doesn't give away anything for free. Earnings, of course, comes attached with potential for greater stock price movements, and you'll see that reflected in the options prices, and again, investors might tend to think, well if there's more premium and more volatility priced into options, wouldn't I want to be a seller, just remind yourself that the reason why options might be more expensive before earnings or leading up to earnings, is because of a significant event, and nothing is given away for free. So good discussion there on theta and time decay.

Let's look at that other piece towards making a decision, Bill, which is the expiration date, and what's the difference between various strikes. Again, not one answer here, just differences as you're trying to decide what strike do I

want to select. And we're going to put this into terms of moneyness, comparing in-the-money options to out-of-the-money options. First, in-the-money options of course are going to have higher total premium because they have both intrinsic and extrinsic value. You will want to know what value is attached to each of these, your Fidelity platform is going to give it to you, but keep in mind what that means, intrinsic value, whatever there is, whatever values they're sensitive to stock price movements, does not decay. Extrinsic value has a number of different variables, but the two important ones, one is that natural decay, you know time to expiration is going to keep decreasing. The other is volatility, which could move higher; it could move lower depending on the market's perception of future stock price movements. So intrinsic and extrinsic value are both in your in-the-money options, and you have this premium sensitive to stock price changes.

In-the-money options for buyers, they are looking for their option to be more sensitive to movements in the stock, that's what this says right here. The potential for more monetary gain would be there for in-the-money options, it's going to cost you more. The premiums are higher, you're going to pay more money to potentially have access to greater monetary gains. If the stock moves against you, you stand to lose more. So from again, a monetary

perspective, higher risk and higher potential reward as the options behave a little more like stock than their counterparts.

Sellers of in-the-money options, sellers are always trying to capture extrinsic value, so a seller of an in-the-money option is going to look to see how much extrinsic value is here. I want to make sure there's enough to make it worth my while. If there isn't that much, they might lean against selling the option. But sellers of in-the-money options are also implementing some sort of directional bias. If they are selling an option that has intrinsic value, then they are expecting that intrinsic value to go to zero. And remember, intrinsic value is sensitive to stock price changes, so if you're selling an in-the-money option, you are both thinking the stock price is going to move in a certain direction, intrinsic value is going to zero and you're going to capitalize on that, and the extrinsic value is also going to go to zero. Again, you'll want to know what those values are when you enter the trade.

In contrast, you have the at-the-money or out-of-the-money strikes. Of course they will have lower premium than the in-the-money options as their entire value is made up strictly of extrinsic value. Buyers of your out-of-the-money strikes, farther out-of-the-money, so when your call buyers that go higher and higher in strike buyers, or your put buyers that go lower and lower in strike

price farther away out-of-the-money, they're really being more aggressive. They need a larger move in the share price in order to be profitable. The likelihood of losing their entire investment is greater. Buyers who go far out-of-the-money are very confident in their market outlook and their market direction, and if they are correct, then they could experience a very significant percentage gain in their options. And I'm drawing that distinction, whereas in-the-money options, you might be looking for that dollar amount, that monetary gain on one contract. Buyers of out-of-the-money options who are successful and they witness that option move in their favor, will have a greater percentage gain, and since those options cost less, maybe they buy more of them. Buying an in-the-money option, maybe you buy one or two. You go far out-of-the-money, maybe you can buy five or eight or ten. And if you do that, then you can try to be more aggressive with your trade. Sellers who are going out of the money are going to receive less and less premium. The likelihood of that trade working out in their favor is going to increase, because they're giving themselves of profitability, but always have to remember, said it before when we were talking about time decay, when you're selling options, make sure that that the premium you received is worth taking on the obligations associated with the contract. At some point, as you go further and further out-of-the-money, you are likely going to determine that the premium this option

is giving me just isn't simply worth selling and taking on the obligations associated with it.

So we're talking about strike selection here, Bill. You know, what do you think about the investor and their confidence, and how market direction goes into all of this with respect to their strike selection, and how easy is it, do you think for investors to make this decision on choosing strike?

**Bill Purvin:** I think too, a lot of clients kind of overanalyze it. I think you should make a really clear choice. But like, I'll just show you one thing that I have just seen from being a market maker, that is just reflective of human behavior. Just want to show you one thing here, just to get a sense, because I think clients look at this, but I think they give it a little bit too much, in terms of attention. The volume in an option.

So if you look over here, I have two options here. The 160 option, and the 165, and the volume, how many traded, and the open interest are really large for these two, and it's less for this one. Why is the one smaller than the other, and this goes back to how human think. We all have the same DNA, we're all humans, we think the same way. We don't like to think in odd numbers. 162-and-a-half as opposed to 165, and 160. We like big, round numbers. So just

understand, don't always be swayed by that, because look at where the bid and ask is, where the buyers and sellers are, the gap between the buyer and seller. The gap between this buyer and this seller is 15 cents; it's 10 cents over here, it's a little bit more narrow here. That helps with the volume. But understand why people might be gravitating to a number, if it could become a resistance level they might be looking at, could be that big, round number. But when you're making a decision, you're going to buy the strike based on what you think is going to happen. You have to have an opinion of what is going to happen.

When you look at an option, there's a field that's going to show you how much an option moves. We don't cover this in the deck, but the delta shows you how much option will move when the stock moves a dollar. So if you think the stock's going to go up \$5 from here, and we're at 165, then the 170s don't make sense at expiration date; the 165s make more sense. Because the 170s will have no value if it's going to take that long to get there. So where do you think the stock is going to go, and that will help you decide which one to look at. Anything you wanted to add here, Ed?

**Ed Modla:** Again, as we look at the premiums, and then we can take some questions to close this session out. But yeah, as you look at the difference there

between bid and offer, there's one thing to point out and it's of course looking at Apple, you get pretty good markets here. But as you go further in the money, there's less activity, there's less market participants there, and you get those wider bid-asks, well there's a couple things that could be happening there. One is you might just have market makers as the one sole source of the bid and offer. Now remember, bids and offers come from everybody, so as you have more participants trading at-the-money, and more participants trading out-of-the-money options, you have those tighter bid-ask spreads, and when, with your in-the-money options, as you might just have professionals there putting up your bid and offer, you tend to get those wider markets. And then as Bill was alluding to, you know, your delta, your risk involved in the trade is also going to play a role, so as you go higher in strike price for calls, the delta or the risk of changes in stock, and the option price as the stock moves, gets a little bit more controlled, you will have a tighter bid-ask spreads there, so you're always going to look at that, certainly some symbols are better than others, but you might come across some tickers that you want to trade some options on. You may have to take a step back and see what kind of markets am I getting here, particularly in at-the-money and out-of-the-money options, just to make sure you can get in and out of those trades.

**Bill Purvin:** We're going to go over some questions. We have a third presentation.

We're going to cover most of the questions that were asked in the next deck, so we'll cover those questions and issues on that, so there's a lot we don't address in the questions we received here. And we're at -- close to at time, we have about six minutes, so I do want to cover a couple things. Because this deck is about how to do your first trade. There were a couple of questions about that, so let's actually cover that. So when you're on the website and you want to buy an option, there's I think a very simple process that many clients don't know. They actually click on the ask, it'll actually build a buy ticket. So if you noticed there, it actually filled in everything. It filled in the expiration date, strike price, call or put, you can change expirations and the strikes by the pulldown here. But it also shows you, we talked about market makers. The market makers and the markets, what the bid is and the ask is, you get more depth of market when you're doing the chain. So that's a simple way to do that, so click on the ask, you'll build a buy trade. If you're the covered call seller, when you click on the bid, you'll build a sell trade. So with a covered call, the first trade is a sell trade. If you're buying calls, you think stock's going higher, you're going to be buying a call to open, and you can switch it from here as well. But the system, website, and Active Trader are designed to help fill out the ticket. So that's a big challenge for that first trader.

Anything you wanted to add about this, Ed?

**Ed Modla:** That's really helpful, it's really slick to be able to do that, and again, clicking on the bid or offer and getting that auto-population, want to just make sure it is what you want to do, double-check everything, but it does help especially when you're starting out those first few options trades to have some of that pre-population come into your ordered ticket, and then it leads you down the right path. Make sure you understand it, don't just trust it, because maybe you clicked on the wrong thing. But check, make sure everything looks as it should, but that's a really nice feature to have on your execution platform.

**Bill Purvin:** And you could click these little lines, my buddy likes to call these "the hamburger," so these little lines over here, buy to open, buy to close, sell to open. I like clicking bid and ask, easy to trade for me, but you do what you're comfortable with, just pointing out a simple way to do this, a kind of process to do that.

So a couple of questions too, you know, how do I know this is a good candidate, or the right candidate for the type of trade that I'm doing here? Ed talked about volatility. I just want to show you something on the platform here. If you go to "Options," there's statistics, and on the bottom here, it

actually show, and if you've never heard of volatility but you've heard of VIX, you actually have heard of volatility. So the VIX looks at the broader market, the S&P 500, and that is often an indicator to get, like kind of a temperature gauge of the market. Anxiety levels, what's going on, is the market concerned, so that number you can actually chart out here. But that's the broader market. So to know where that is, that impacts option prices. So if I was looking at a stock, and I want to know where it's been relative to where it is, there's a 52-week implied volatility number to where we are at present, and where the 52-week range is here. If you look at a stock, so there's a tool on here called "Filters," and on this tool here it shows you, what's the best two-year return on doing, you know, covered puts, covered calls, cash covered puts, which one looks an interesting trade here. So here's OSTK, just no opinion on the stock, just near the top of the list here. The volatility here is 55 to 141. So this came as a candidate for a covered call here. It's very volatile. It's more volatile than the broader market; the broader market's 27. It's ranged from 55 to 141, typically at higher level. Could seem like an attractive candidate, but it might be too risky for what you're trying to accomplish. So, know what these numbers are relative to the broader market and what the fundamentals and what the story are of the stock you might be considering. Anything you wanted to add here, Ed?

**Ed Modla:** Just real quick, as you're talking about looking at these levels and checking volatility compared to, say the historical volatility that you've got up there, sometimes you do see where the current levels look high, and that might lead you to think, maybe I should gravitate towards selling options, or they might look low, and you might look towards buying options. That could be the case. But, just because something, and in general, just because something is expensive today doesn't mean it won't get more expensive tomorrow, or next week, or next month. We've seen many examples of volatility levels that looked very high that continued to go higher, or volatilities that were low that continued to move lower. So when you see any type of opportunity in that respect, we'll want to back that up by asking yourself why is this the case. Implied volatility is high today compared to where I've seen it before. Why is that the case? There might be an answer. If there isn't an answer, and you feel very confident that there isn't a good answer to it, then maybe you do gravitate towards those sell strategies. But there very well could be an answer, and it's worth taking a look to discover that.

END OF AUDIO FILE

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