

## TRANSCRIPT

# Options 101: An introduction to options at Fidelity

**Nicholas Delisse:** Good afternoon everyone. My name is Nicholas Delisse; joining me is James Savage, both of us with Fidelity's Trading Strategy Desk. And we put together a lot of really great content for everyone this afternoon. So, this is going to be the first-part course in a series where we're going to be introducing everybody to kind of the basic options. This is a multi-part series, and so we'll definitely want to stick around for not only today's session, but also those follow-up sessions that we have, where we dive a lot deeper into the material. Today, it's just about the basics, talking about the difference between exercise and assignment, introducing some of those concepts of what a call is, what a put is, in addition some of the industry jargon that you might have heard of beforehand, what it means to have that timeframe, and what it means to be a rider or a holder of those options, or really again, to a lot of that today, so if you have some passing familiarity with options, you know, if you can learn those key concepts, that is just, as we mentioned, just essential for a new option trader, we're going to dive into that, in some nice depth for you today. In future sessions, of course, we're going to diving into more different strategies. Of course, first-time options, and then we're going to address in selling options.

After that, we're going to then talk about, you know, we have a session on trade management, how to manage of course those trades once you put into them and we'll take over the deeper dive into option pricing, to help you of course be sure that the strategies that you're using are ones that best be able to take advantage your outlook to then maximize everything you're doing, and be sure that you're taking the risk that you're looking to take. Really today, we're going to talking about what are options, and we're going to pick up that conversation on diving into that specific question, what are options, what is a call, what is a put, and such.

From there, we do want to address a little bit the anatomy of an option symbol, and a lot of this is because that different brokers, Fidelity include, display option symbols different ways. And so, there is a specific methodology that Fidelity uses to display an option symbol that is a little bit more unique to Fidelity, and once you of course learn about it and once you dive into that, it will make complete sense. But this becomes very important because when you're looking at placing trades and such, you have that options symbol on the trade ticket, or people can pull up a chart, might be used to charting stocks, or looking at price history. You have to have that options symbol pulled up, and so understand where the options symbol comes from can help you be sure

that not only are you looking at the option you intend to, but also if you know in general what option you want to pull up, you can easily pull that up.

After that, we're going to jump into exercise and assignment; we have a lot of examples to talk about that, because I know that there's so many traders that James and I and the rest of us on the Trading Strategy Desk have talked with, and have got a little bit tripped up on that, and we want to be sure everybody has a nice clear understanding on what exercise is, what assignment is, and of course, the difference between those where exercise is of course something that you do, where assignment is something that happens to you. And we'll kind of wrap up the conversation with some basics on, from a strategy perspective, on how options are used.

With that being said, let's go ahead and have a conversation on kind of what exactly options are. James, could you walk everybody through some of those basics for us?

**James Savage:** Absolutely, and thank you very much for that, Nick, and yes, welcome everyone. James Savage here, accompanying Nick from the Trading Strategy Desk also. And you know I've spoken with, I would say thousands of options traders throughout the years, and from all levels of experience, from

very beginner to very advanced. And when usually first getting introduced to options, I don't like using too much jargon from the get-go, and I really like to try to break it down as simply as possible, with plain English, right? So, when it comes to options, just keep in mind that on the very simplest level, it's simply a contract between two parties. That's it, a contract between a buyer and a seller. And when you decide to trade an option, you're going to make that choice from the very beginning. You can choose whether you're going to be first, either a buyer of the option, or a seller of the option. And what does make it a little bit easy, is that in order for these options to be tradeable, they are going to be standardized. What we mean by "standardized" is that they're going to be having an expiration. You're going to see that on your options. You're going to see a strike price. you're going to see an underlying, and that underlying for a typical option is going to represent 100 shares. So, once you have an understanding of well, there are going to be some standardized features to any option that I'm trading. So, it's going to be a choice between whether you want to start as a buyer or a seller.

And let's start with the buyer side. If you choose to be a buyer, you're going to be able to choose the right to either buy or sell, remember, typically 100 shares of an underlying security. Now that can be a stock, an ETF, or an index. If you choose to be a seller, what changes in the dynamic of the contracts is

that now you will be obligated to either buy or sell a security. So again, at that simplest form, is since the option is a contract between buyers and sellers, you can choose whether you want to be a buyer and have rights to either buy or sell, or if you want to be a seller, you're going to have an obligation to either sell or buy a hundred shares.

Now, along with defining whether you're going to be a buyer or seller, you also get to choose how long your contract is going to be valid for. And that is going to be what is called the "expiration date." Part of these standardized options is that they will have an expiration date. They have a finite life involved. And depending on how long you want your contract to be valid for will determine what expiration you want. There could be expiration that's a week out. There could be a month out. There could be many months, even years out. That's going to be a choice that you'll have to make whether you still want to decide to either buy that option or sell that option. Now in addition to the contract life, we also talked to keeping into motion that standardized theme is that there is what's referred to as a "strike price." That's a little bit on an option-specific lingo if you've never heard that before, a strike price is simply the price per share that the contract is either going to give you the right to either buy or sell, or the price-per-share that you're going to be obligated to buy or sell. Again, that is going to be that obligation versus the

right, and you're going to be choosing the expiration and the strike price.

Both buyers and sellers not only choose the underlying, but they also choose the expiration, they choose the strike, and then finally down there at the bottom, you'll see they determine the price.

Now we also use another bit of a synonym for price, another type of, we'll speak "option-speak" type of word, and that's premium. Whenever you hear "premium," that's just another way that we will refer to the price of the option and how much we'll be paying. Now again, kind of working on both the buyer side and the seller side, buyers will be paying the premium, and fairly self-explanatory, right? If you're a buyer, you're going to be paying for it, and if you're a seller, this might not always be as common for many folks here, you actually receive the premium, or we'll say price, from the very beginning. Now ultimately, these are trades that you decide to do. Whether you like the price or not, whether you want to be a buyer or seller, is going to be determined whether you want to enter the trade or not. But all of these choices are going to be available to you from the beginning of the trade, whether you choose to be a buyer or a seller.

Now, when it does come to the contracts, we added a little bit of a note down there at the bottom, you may have noticed that, two exercise styles. What

we're referring to is that these are around exercising. Now just, we'll get into the topic a little bit more about what is exercising, but I at least want folks to be introduced to this concept that some of these options are what's referred to as "American-style," and some of them are referred to as "European-style." Now I say some; the majority of the traders here within the US are going to come across American-style options. All that means is any time before expiration, one can be either assigned or choose to exercise. European style means the exercise will only happen at expiration. And we'll dive into that a little bit more, but just keep in mind the American style gives one the flexibility, if they're a buyer, to exercise any time up until expiration. The European style, one does not have that flexibility. If they want to exercise, they need to wait until expiration. Just again to give you more of a kind of a general ideas of these, American- versus European-style concepts, typically stocks, ETF, what you're going to find, they're going to be American-style, and the majority of pure indices, for example, are going to fall under European-style. It's not all-inclusive, but I at least like to give just an idea so you can get the large majority of the various types of underlyings.

So again, just to kind of recap this, because I think it's very important to keep that in mind: what is an option? It's a contract between a buyer and a seller. You're going to choose whether you want to be a buyer and have the rights, or

you want to be a seller and have obligations. So, as we go through some of the more advanced topics here, keep that in mind. Do you want to be a buyer, or a seller?

Now when it comes to, what are options, Nick I'd say that probably the second question after what are options is, why trade options, right? What are some of the good reasons why we should trade options?

**Nicholas Delisse:** There are so many reasons, of course, James, on why people trade options, and the biggest thing I want to mention on why trade options and why people trade options, is options are all about trading risk, trading one risk for another, increasing risk or decreasing risk. A comment I hear so often from people that have never traded options is that, I don't want to trade options; I won't ever trade options because options are too risky. Well to an extent that could be correct, but that's an overgeneralization. A lot of times, options can actually be less risky than trading stock, and a lot of traders, they don't realize that. So, because of this, some traders might utilize options as a way to manage their risk on a stock trade. This can be used as a way to protect a particular position, protect an individual security, if they're really worried that it's going to go down, or of course if they're short stock, if they really think it's going to go up and they want to protect against that. Options can also be

used as a way to get a broader portfolio. So as such, with that said, it can actually reduce your risk with options; options can be less risky than owning stock. With that, of course, even utilizing options as a method like a stock replacement type strategy, there could be ways that you can actually have less money out of pocket, and as such, again that reduces your potential risk because you have, less funds are tied up in the trade. Now that less funds tied up in the trade can also add to leverage, and allow you to then, since you only put half of that amount in a trade, well you can then put everything that you want to de-risk into the trade, and that can double things up. And as such, you know, don't forget of course, that leverage scenario cuts both ways. You know but having that benefit of potentially purchasing an option and having the same directional exposure as a stock for a lot less capital can be a very large benefit.

Now other traders, of course, they might trade options to help with income. Potentially for income generation, to improve those particular returns on securities, and there are a lot of strategies, of course, out there that are designed to generate income. And it's all about that risk tradeoff, that there's not anything with options where you get something for nothing. So if you're looking at, of course, generation additional income, well there has to be, of course, a different side of that, you know, when it comes to options trading,

there has to become, of course, risks associated with that with options trading that you have to keep in mind. The biggest thing I do want to mention, from a leverage perspective, is that leverage cuts both ways. It's a very, very sharp, double-edge sword, and so many traders, of course, they forget about that.

Now a lot of the reasons on why, of course, traders look to trade options have all to do with differences between stock and options. And something you have to keep in mind, you know, when it comes to stock is you could potentially be risking a lot more capital when you're purchasing shares of stock. So, you know, let's say of course you buy 100 shares of stock, and that stock is valued at \$100 a share. Well it would cost you \$10,000 to purchase that amount of stock. Now if that stock drops to zero, that could hurt a lot. You know, you could lose \$10,000. But let's say, as that slight leverage aspect with options, you're able to get that same positive upside exposure, but you're only putting up \$2500. You're putting up 25% of what it would cost to purchase all those shares of stock. Well how could this be both a benefit and a drawback? Well, if the stock drops to zero, well you only lost \$2500; you didn't lose \$10,000. So, therefore, you've risked a lot less, and potentially if the stock then goes up to \$150, \$200, \$500 a share, you're going to make about the same amount. You know, there's a slight difference associated with that dealing with breakevens that we'll touch on in a moment. But the ability to, in

essence, have slightly lower risk it that tradeoff. Now, with that leverage, if you're able to get the exposure of \$100 shares of stock from an options perspective and you're able to do that with just \$2500 versus the full \$10,000, what might happen to a lot of traders is that they might go, whoa, I wanted to invest \$10,000, so I'm going to then buy \$10,000 worth of options. Now they actually have the exposure of \$40,000 worth of stock. And as in beforehand, that leverage cuts both ways. When things are good, they're great. When things are bad, they really hurt. And as such, let's say you were doing that. But the stock dropped 45%. Well if you just had the 100 shares of stock, yes, you're potentially risking more capital on the one side, that one-to-one, but you only lost 20-25% of portfolio. If the stock drops by 25%, you kind of leverage-up, read that, \$10,000 in options, well that could potentially completely wipe you out. That's where a lot of people notice that options have so much more risk than stock and that's because they look to that leverage aspect. But without adding that leverage, or some of that one-for-one, options can actually do a little bit to reduce risk compared to stock.

Now, break-evens become very interesting, you know, when you're looking at and you're comparing both. Of course, if you're buying shares of stock, your breakeven is whatever you bought the shares of stock for. If it was at \$100 a share, well that's your breakeven; if the stock hasn't moved, you haven't made

anything; you haven't lost anything so there's potentially lower breakeven with stock.

With an option on the other hand, a lot of times with buyers of options, you're paying that premium James was talking about beforehand, the stock winds up having to move enough to offset the particular premiums you're paying, which means it has to go up at least a little bit to offset that. Then with a lot of this, you know, you have to keep in mind that options to an extent, they're based off of statistics. They're based off that 50% chance the stock goes up; 50% chance the stock goes down, and with that, that probability analysis, you can wind up having a higher or lower probability of success because of those higher or lower breakevens. You know, when you're, of course, paying that premium, the stock has to move -- you have higher breakeven, so there's a slightly lower chance of success because it has to have that move. But, the other side of that question, of course, is some trades you wind up bringing in a premium, which actually reduced your breakeven even more. So, to an extent, security could go sideways, and you're still making money. And so that creates an even lower breakeven than something purchased from the shares of stock. And so, this can kind of go both ways, but there's not ever something for nothing, and so there is of course tradeoffs; there are, of course,

downsides to both of either having a higher breakeven or a lower breakeven; there can be benefits to both.

Now, the big, big thing dealing with options versus stock, of course, is that options have a finite amount of time. They're a limited life expectancy; they're a wasting asset. And as such, you know at expiration, they're either going to be long or short stock, or they're going to be completely worthless. And stock on the other hand, you've been buying shares of stock and in 100 years the company is still around, you're still going to have shares in the company. And there's some very well-known examples of some very prominent investors that literally decades ago, you know, they purchased shares of stock, and they still have equity as an equity stakeholder in that particular company, where with an option, that's not really going to be the case as time goes by because an option is a wasting asset; it's a decaying asset. Also with stock, stock you're an equity holder, so you're entitled to proxy rights; you're entitled to be able to vote in different elections; you're entitled to receive a share of the potential future benefits that that company has in the form of dividends. Options, on the other hand, they're not entitled to vote in proxy elections; you don't get voting rights. You also don't get a share of that dividend. Now, even though you don't get to share that dividend, options are priced such that that's taken into account, and you know, we'll talk about a lot of that in future sessions we

have when we discuss option pricing. But the big thing you have to keep in mind, of course, is that options aren't entitled to dividends, just like they're not entitled to be able to vote in those particular elections.

Now, when it comes to the different strategies, the different ways you can trade, the beauty of options is the literally almost infinite different ways you can trade risk, you can really tailor everything to your particular outlook. Now of course with stock, you're left with just three choices. You can buy a stock if you're bullish, and you'd profit if the stock goes up, and you'd lost money if the stock goes down. You could sell stock short, which is kind of that inverse; it's that bearish position, or you could not have the stock position up. You know, there's not really much more beyond that, where options you have so many more different choices, because it just kind of, it expands upon that to many, many, many different levels. Now one thing of course with options that you have to take to mind, are of course, buyers and sellers of options, and as such, that's going to play the things, and that's going to make a large difference to you on whether you're a buyer or a seller. Now with this, when you're an option buyer, you're paying a premium, that options that you may have at that particular premium, they trade at where you can either buy it or sell it at the particular price. Now for every buyer of an option that's out there, there is an seller of an option; you can't buy an option and not have somebody

sell it to you, and so there's always going to be a buyer, and there's always going to be a seller. Now, you could be trading with somebody else in the market. Another individual just as yourself, or you could be trading with somebody who is stepping in to make a market and create an orderly market for you, where you're more trading with an institutional-type trader. This is, of course, you have the option buyer and the option seller. The option buyer is going to pay a premium, and they have the right to the contract. They have the right to exercise contract and they could utilize that right to either buy or sell 100 shares of that underlying security, and of course whether they're buying or selling is going to depend, of course, what type of contract they have, you know, whether that is a call or a put. And this 100 shares, this becomes important, because this is what James what talking about earlier when he mentioned standardized contracts. You know, with a standardized contract, it's covering that 100 shares. You have that right to trade 100 shares at that particular strike price that James was talking about. Now naturally, the option buyer has the right; the option seller has that obligation.

Before we then talk about the options seller, I do want to mention that an option buyer might also be called a "holder." If you bought a call, or you bought a put, you might then be termed as holding a call, or holding a put, being a call or put holder. Something that also plays, and this is, you're also

considered to be long the option. And you know, if you look in your account and you're an option holder, you're long the option, you're going to see you have a positive number of contracts in your account, just as if you were buying shares of stock, you have a positive number of shares in your account. Now everything is going to be positive on that particular side. If, on the other side, you're an options seller, you're going to receive that premium, you're going to have the obligation to fulfill the other side of that particular contract. So, if the option buyer exercises their right to buy or sell shares, then the options seller has the obligation to fulfill the other side. If the option buyer is selling shares of stock, they have the obligation to buy shares of stock. If the option buyer is selling shares on the flipside; they have other obligation to buy or sell 100 shares of security. Now, an option seller might also be termed an "option writer," might be called a "call writer," or a "put writer," and there are some strategies that many of you in the audience might be familiar with that actually has that in its name, a call writer, or that put writer. These particular trades might also be termed as being "short the option," you're going to be short the option, similar to being short stock. And when you look at your account, if you're an option writer, if you've sold the option, if you're short the option, you're going to see that show up as a negative quantity of shares in the account. It's going to be short those shares, that's going to display according

to that negative shares, that negative quantity, that negative premium in the account to display that.

So, kind of wrapping that up, if you're buying the call, you're a holder, you're the long the call, or buying a put, you're a holder, you're long the put. The flipside is is, if you're selling the option, you're a writer of the option, whether it's a call or put, you're also considered to be short that particular options.

Now James, I know I've been going on for quite a bit of time. Why don't you break down for everyone different types of options that are out there that I've touched on?

**James Savage:** Absolutely, and this quadrant that everyone sees here now, this is a very important quadrant when it comes to just understanding not only the option, but also the strategy and the outlook that's involved. And if you were a little bit confused by all those terms, I completely understand. If you told me, well if I buy a call, is that the same as being long the call, and as being a holder of the call? Yes, there's many different ways to mean the same thing. Whatever term works for you and you feel more comfortable with, I would say, use that term.

We've got four components on this grid. This is going to tell us what the actual strategy is going to be really doing from its simplest, we'll say, form. So, working with the top-half, let's work with the buyers, with the holders, with the folks that are said to be long the option, working with the long call first. So, it's working with a little bit of what we talked about when we first broke it down of well, these are essentially just a contract between buyers and sellers. If you are long the call, that will allow you as the buyer, as the holder, to buy 100 shares, typically, at the strike price, up to the defined expiration date. Now if we think about this, we break it down. If this contract, if you buy this call, that gives you the ability to buy shares of stock. So, if you have an outlook on price, what would you want price to do, if you can buy it at a certain price? We want it to go up, right? That old Wall Street adage, we want to buy low and sell high, this call, long call, requires a similar type of price outlook, and that is bullish; we want it to go up. We want to be able to buy at what could be considered a low price if the stock continues to rise. Let's move over to the other way that we can become a holder, or long a contract. We could decide that we want to buy a put, which will allow us to, in this case, sell typically 100 shares at whatever strike price we choose, remember? That is the share price that we would either be buying or in this case selling the, we'll say stock at up to the defined expiration date. This is said as being long the put or being a holder of the put. Now notice the similarities between these two at the top.

We're both buying a contract, right? We're both buying the right to do something. One of them, we are buying the right to buy stock; the other is we are buying the right to sell stock.

So, let's talk about the outlook. Why would you want to buy a put? Well if you've got the right to sell at stock, well, it only makes sense, right, if we can sell stock at a price, we want to be able to buy it for as cheaply as possible, because we already knew what we want to sell it at. So, a holder of a long put, they actually want the stock to decline in price. This is defined as being bearish price outlook. In keeping in mind with that theme, we want to buy low, sell high, well if we already know when we're going to sell, we want it to be high relative to whatever the price is, so the lower the price goes, the more money we will have in our pocket at the end of the day. So again, to summarize, both these two strategies, the long call and the long put at the top, both give us the right, both give us the ability to do something. One gives us the ability to buy shares; the other gives us the ability to sell shares.

Swapping back below to the inverse on this. Let's work with the short call first. Now, keeping with that theme that I talked about in the very beginning, the sellers have obligations for when we sell an option, in this case, sell a call, or when we write a call, or when we short a call, we are now going to be

obligated to buy shares -- I'm sorry to sell shares, typically 100, right, typically 100 for standardized contracts of the underlying at the strike price when exercised. So, we are obligated to be selling shares. And remember, when we talked about the style, American-style options, we could be obligated to sell shares at any time.

So, if we're going to be forced to sell shares, what would we ideally want? Best case scenario, if we sold this call, and we were forced to sell shares, we want the share price to go down. Keeping with that buy low, sell high theme, if the price goes down and we're forced to sell it at a certain price, well it'd be better to sell it at a price that's higher where we could buy it. So, our short call strategy requires a bearish outlook.

Now moving over to our final piece of our quadrant here, and this is going to be the short put. Just like with the short call, when we sell this, we are taking on an obligation. We are taking on the responsibility to buy typically 100 shares of stock of whatever the underlying that we choose at whatever strike price by the expiration date. And again, just to keep that terminology, we are said to be both short the put, we are writing the put, we are selling the put. Then if you would imagine what type of forecast, keep that buy-low, sell-high, right if we're obligated to buy a price, buy shares of stock at a specific price,

what would we like the market to do? What would we like the underlying stock to do? We want it to rise, right? We want it to continue to go up, because if we're stuck and we're obligated buying shares of stock, the higher it goes, the better, because if we're obligated to buy it, we want to be able to sell it again at a higher price than what we paid for. So, notice some similarities here. Look at the colors; we tried to make it somewhat, we'll say, easy to see. The long call gives us the right to buy the stock; the short put gives us the obligation to buy the stock. And inversely, right? The long put gives us the right to sell, and the short call gives the obligation to sell.

Now, I did talk about some of these standardized, right, I slipped it in there that typically 100 shares -- Nick, there are some examples, right, when there could be a scenario where it's not worth 100 shares of stock. A bit complicated, but I think we should talk about it.

**Nicholas Delisse:** You're absolutely right, James, and that's where we get into adjusted option contracts, and this can trip up a number of people, and I've even worked with experienced traders that might be trading these types of contracts and they'll have to call in to Fidelity and speak with a representative that... just to get a little bit of a clear understanding of this. And really, to an extent, all an adjusted contract means is it means that that particular contract is

no longer a standardized contract; it's no longer that contract that covers 100 shares of stock, has that 100 multiplier at the deliverable. Things have of course changed with that particular contract, and it's important to understand a lot of these things.

And we do of course have an example here that's a little bit more of a complex example, and one thing I want to address before we dive into this is a more simplistic example. Generally, with options, you know, with a stock split, if you have \$100 stock and it goes for a two-for-one split, you're going to wind up with beforehand, you might have had one option with a \$100 strike and after the split, you're going to wind up with two options with the \$50 strike, just like with stock. You know, you have one share of stock worth \$100; you're going to wind up with two shares of stock worth \$50. Where it really comes into play here is when you have a non-typical kind of stock split, you know, a three-for-two, a three-for-one, or even a reverse split. This can really make things a lot more complicated, or even if there's mergers or spinoff or anything like that.

But a great example, of course, for some of these more complex things is let's say we have a stock that's trading at \$75 a share, and the company announces a three-for-two stock split. You take a look at how the option is actually adjusted. As such, what's important to keep in mind is that notational value

the option has. Beforehand, the old option contract was trading at, you know, it's \$75 strike, that \$100 multiple. And then as such, that total notational value, so to speak, is that 100 times \$75 or \$7500. If you were long a contract, and you wanted to buy the shares of stock, you'd have put up \$7500 to buy the shares of stock, regardless of what the stock wound up trading. If you were long a put contract, like James was talking about, and you wanted to make somebody buy the shares from you, well they'd give you the \$7500 in exchange for the shares. So notational value becomes very, very important, and with this split, there's these adjustments that will happen of course, so as opposed to having that particular multiple covering 100 shares, well it's actually going to cover 150, because it went from a three-for-two; what was 100 shares for every two shares or now three, it's now 150 shares. So as such, you see that new share conversion, this contract was covering 150 shares versus that standard 100 shares. Price of course is also adjusted. So, the strike price is adjusted down. So as opposed to that strike price being at \$75, it's now at \$50, but that new option contract still has that same nominal value, that 150 times 50, still that \$7500 of notational value. That hasn't changed. And that's important to keep in mind when you have adjustments on that, is how did this adjust, how did this stay the same to keep that notational value the same?

Now, there are some fantastic resources out there if you aren't sure how exactly an adjustment affects your particular position, as I mentioned, there's some of those industry websites, you know, we mentioned on the slides here, the Options Clearing Corporation will give you in-depth details and terms about the adjustment option, or of course, you can call and you can speak with a Fidelity representative, and they'd be happy to walk you through what some of those particular changes are.

Now, with this being said about stock splits, we do of course want to touch on real quick some of those risks associated with buying options, some of those tradeoffs, because there's always tradeoffs. And really, we talked about these, you know, a little bit earlier when I was addressing some of those differences between stock and options. Like I mentioned, what's the tradeoff? What's the downside? Options have that finite amount of time left; they're going to expire. And at their expiration date, they're either going to be worthless, or they're going to be shares of stock; they're going to have shares underlying, either long or short. And then of course that leverage I mentioned is both a boon and a curse. Leverage cuts both ways. When things are going good, they're going great. When things are going poorly, they really hurt. And that's something that you have to keep in mind.

With that, let's go ahead and take a little bit of a deeper dive into kind of what makes up an options symbol. James, can you kind of step everybody through the different parts of an option symbol here at Fidelity?

**James Savage:** Absolutely, Nick, because I know when you first possibly place a trade of an option in the account, and you see the symbol, if you didn't get to look at it beforehand, it may not make sense for the very first glance. So, I always like to show a quick preview of what an options symbol will look like, and it really helps kind of illustrate and solidify the understanding of the actual contract and the terms that are going to be involved.

So, let's talk about it. We're using an example of an underlying. This is an ETF, and we're going to go through each of these, we'll say, these standardized parts of the option. So, beginning with the underlying, in this case, this is an ETF, the symbol is SPY. If it was a stock, by symbol EBC, it would be here as well. If it was a stock symbol with only one letter, it could be just one letter. So, this is whatever that stock symbol that you're used to trading is going to be listed here.

Now what about the next two numbers, 22? This is referring to the year of expiration. And yes, you read that correctly, as you notice, this contract does

go out for two years. Some options can go out significantly further than a week, or a month, or even many months. Now what happens after this is it keeps going to a more narrower focus. So, after we do our year, we have our month of expiration. Just by two numbers, 01, I'm sure it's no surprise to everyone here, this is going to be January. If you're still breaking it down, thinking about those contract terms, we've got the underlying, SPY, year, month, and, you guessed it, date of expiration. So, we've got in this case, maybe a little bit kind of backward from what we're used to it, but we're looking at SPY 2022, January 21<sup>st</sup>. We're just going from further, larger, to shorter timeframes, meaning a day. Our call and put is going to be related, is going to be designated by the C or P. As you can imagine, P is a call, P is a put, and those final numbers, whether it's going to be one, whether it's going to be a three-digit number is going to be our strike price, right, that ever important price of where we would be buying or selling, the share value.

Now, in addition to what you'll see when you're on your trade ticket, for example, you'll see the quote, and then you're also going to see the price that you'd be paying for. Oftentimes, you'll be looking at whether you're going to be buying or selling, and how much that price or, if you remember that options-specific term, premium, is going to include. Now these use some terms, we really want to focus more on just high-level at this point. So later

webinars are actually break down these topics. But the option price, as we talked about earlier, involves the premium. That's just another word, another way that we can call the price, just the premium that we'd either be paying for buyers or receiving for sellers. It comprises of two components, or two ways that we commonly like to break down that value: the intrinsic and the extrinsic. Now all that is is that an option contract has intrinsic value if it's "in the money." Now again, what that term is, it's just a way that we can phrase, well if we were going to use that option, say exercise it, would it immediately have value or not without any time left? The "out of the money" is just anything that is, we'll say that it's away from where it's trading. Sometimes it wouldn't make sense. For example, if we were going to exercise a contract and buy some stock, we'd only want to do it typically if it made sense, right? Maybe if we could buy stock at a lower price than where it's trading. We're certainly not going to do it at a higher price than where it's trading, right? If we could buy it on the open market, why would we use our option to buy it when we could just buy it at whatever it's trading at? So I want everyone to at least keep in mind some of these terms of "in the money" and "out of the money," and all they're referring to is whether oftentimes it will make sense to either exercise that option or just continue to hold it.

Now, intrinsic value and extrinsic value is again just related to what's part of the premium. For example, if we have a stock trading at \$11, we've got a call with a strike price of \$10, the intrinsic value is whatever the stock is trading above the strike price. In that example, where call strike at \$10, stock trading at \$11, intrinsic value would be just \$1, whatever the difference is between the current trading value of the stock and the strike price of our option. Extrinsic value is anything both above and beyond.

When I talked about the in the money and the out of the money, and one way that we could think about it is through exercise or assignment and whether that made sense, I do think it's a good time to actually talk about one very important concept when it comes with options, and that is exercise and assignment, right? What essentially is that in its most simplest terms?

**Nicholas Delisse:** And really James, exercise and assignment traps up so many different investors, even more experienced investors. And let's actually dive into real quick what it means to exercise an option. And the big thing I want everyone to remember here is that long options are exercise. It's an option-holder that is exercising their right, where short options are assigned. Assigned is something that happens to you; exercise is something that you do. Unfortunately, there's no way to exercise a short option; many short option

holders would love it if they could force the other side of their party to exercise the contract. When you're exercising a call, the option holder is opting to buy the underlying shares of stock at the strike price. Of course, when you exercise a put, the put option holder is opting to sell underlying shares at the strike price.

One important thing to keep in mind is that it does matter whether the particular options has intrinsic value or not. If you don't want to exercise the option you hold, you'll have to give what's called contrary exercise advice. Now, while these concepts might be a little bit more complex, one thing I do want to mention is that if you wish to exercise an option, or you wish to give that contrary exercise advice, you'll actually need to call in and speak with a Fidelity representative. Unfortunately, exercise is something that cannot be done online, and the representative assisting you with that exercise would be happy to walk you through that process, and if it makes sense to exercise your particular option or not. Generally, not very many options are exercised before expiration. Most traders will of course trade out of the option. And it really only makes sense to exercise an option if it is in the money, if it has intrinsic value. And options that don't have intrinsic value that are out of the money at expiration are typically left to expire, and they expire worthless. It comes back to that case of where an option either becomes stock or it

becomes nothing. If the option is out of the money, it expires worthless, it becomes nothing. If it is in the money, it is exercised, and in the case of a long call, shares are bought; in the case of a long put, shares are then sold onto somebody else.

Assignment is just the other side of that coin. If you're an option writer, you're fulfilling your obligation. When you write a call, you have the obligation to sell shares of stock at a specific price; you're selling shares at the strike price. If you've written a put, we then have the obligation to buy shares of stock at that particular price. The key thing again here is an option seller does not have the choice, if or when assignment will occur. I work with some traders that have had options assigned to them, and it was very much to their benefit to be assigned, and they were assigned early. And they didn't know why they were assigned early. Well that can happen at any time even if it doesn't make financial sense for the other side to do it. It can happen at any time. Just keep that in mind, of course, that the option can, of course, be assigned at any time, though generally, overwhelming majority of the time, it's not exercised until assignment.

With that being said, let's go ahead and step through a couple quick examples on how exercise and assignment might work, and let's start with that exercise of a long call.

**James Savage:** Absolutely, and this is going to be, I'd say the fun part. Now we can actually put a lot of the concepts that we applied and put it in a bit of a real-world example. So, let's start with style one here, so long call. Right, so you bought a call; you're the holder of a call. And in this case, if we bought a call at \$146 strike, what would that essentially allow us to do? Well 146 is our price-per-share that we'd be buying, and where a standardized contract is 100 shares, so if we exercised our call, we would be buying 100 shares at \$146. What if it was 10 contracts? Easy, all we do is just multiply what we just bid for one by 10. Now we're buying 1,000 shares at \$146. Now this is an American-style option in our example, so we could do this at any time.

And I'd like to go through kind of the opposite example as well. What if we were the seller in that scenario? We sold someone that contract, and they decided to exercise it? Being an American-style option, they can do that at any time; that's their prerogative. Now what would be happening? We would then be required to sell them our 100 shares at \$146. It doesn't matter what the stock is actually trading at in the open market. When we sold that call in

this example, we sold that flexibility. They got the right; we got the obligation. I sometimes like to say, we got the responsibility.

So that brings up an interesting point, if you catch this there. Well, we have to sell them our shares. What happens if we don't own shares? This is when it's very tricky; we've got to be careful about this. If we did not have shares and we were assigned our call, so we had to sell shares that we don't own, well we have to buy them, don't we? We're still responsible, we're still obligated to sell them shares at the strike price of \$146. So, we're going to have to buy them at whatever it's trading at on the open market. Doesn't matter if it's \$155, doesn't matter if it's \$200, doesn't matter if it's \$300. That's why we need to be careful if we're going to be selling calls, just as the example here, and we don't own the shares. Because if we're obligated to deliver them, we have to buy them back at any price.

And if we move over to puts, right, we talked about calls, let's not forget puts. Still working with the example; let's say we bought a put of XYZ stock and if we work with the same strike price, and remember an American-style option, we could decide to exercise our put at any time. What does this give us the ability to do? You probably guessed it; we can sell 100 shares at \$146. It does not

matter what the price is trading on the open market. We bought this right, we have that flexibility now.

And you probably see where I'm going with this, but in our final American-style example, what happens if we were assigned, and we were the seller of our put? Well now we are obligated to buy shares. So, keep that in mind, if you're going to be selling puts, you may want to hold aside the amount of cash to buy the shares.

Now we've got one extra little example here as I mentioned, I really wanted to kind of cover through these, and that is the European style. In this case, we're using an index. We can't exercise early; we won't be assigned early. But because it's an index and there's no underlying shares of stock, what will end up happening is if we bought an index option such as the SPX with a strike of 2,440 and it closed at one point above, 2,441, we actually receive money in that time. Now this is a little bit unique than regular stock or ETF options. Cash is only involved when it's regarding the underlying index.

So these were the examples that we wanted to show, and I hope that it at least helped with understanding, well, now do we get the very basics of these options and what they do, well from this, we can now generate various

strategies. And I'd like to just show this at the very very end, back to that quadrant that I showed earlier, when we talked about the long call and the long put, short call, short put, just from these options, we can create multiple strategies; combinations of the two can create different strategies, but remember at its simplest stated fact, these are just contracts, and they're going to be just calls and puts, and we're going to build on from there.

## END OF AUDIO FILE

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