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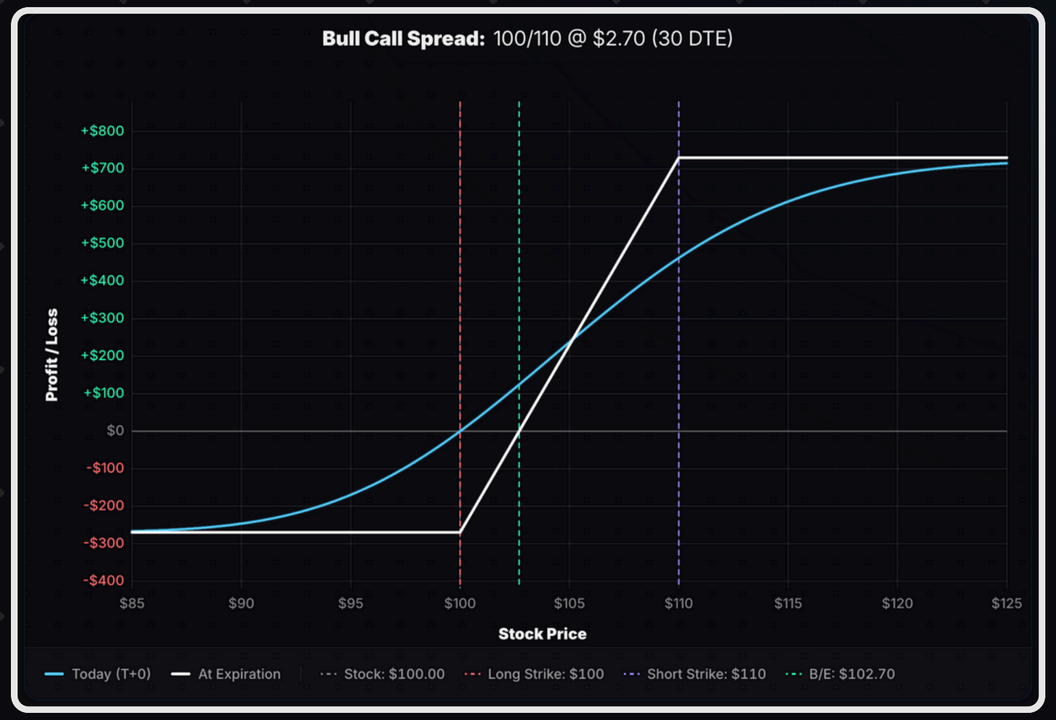


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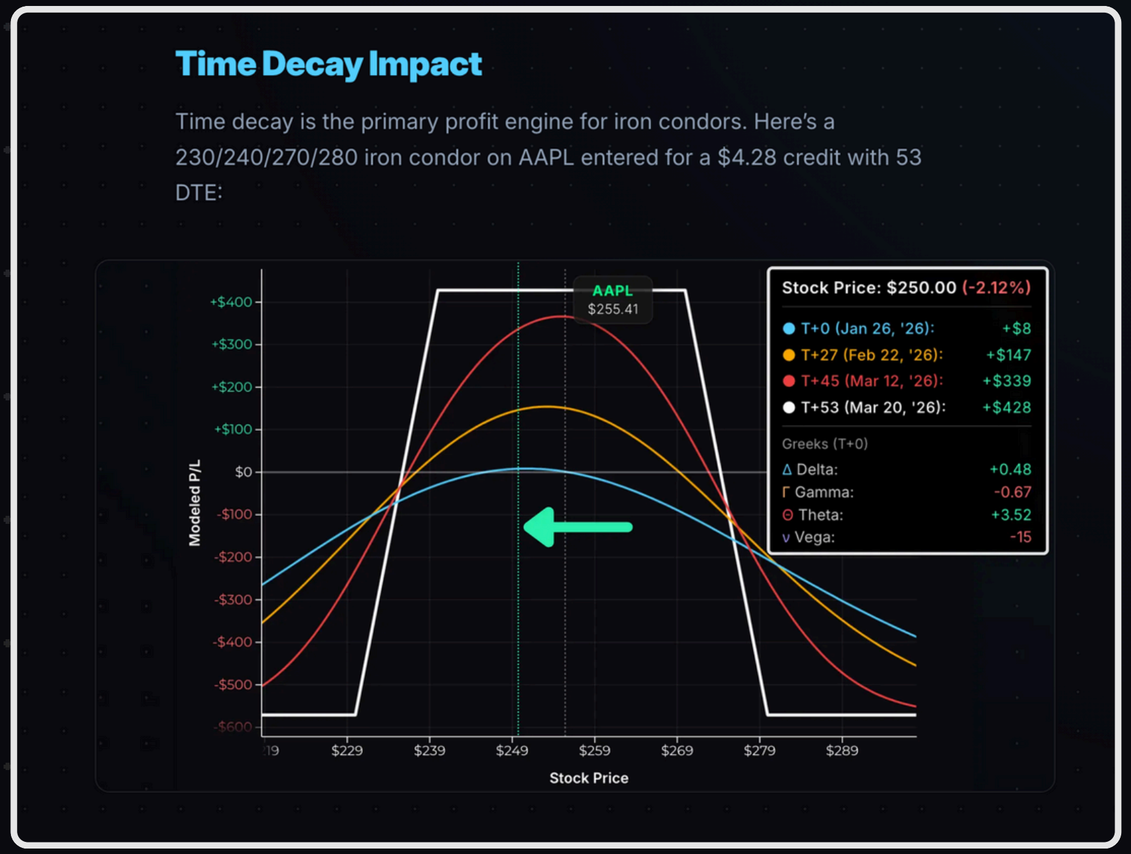


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# Options Trading for Beginners

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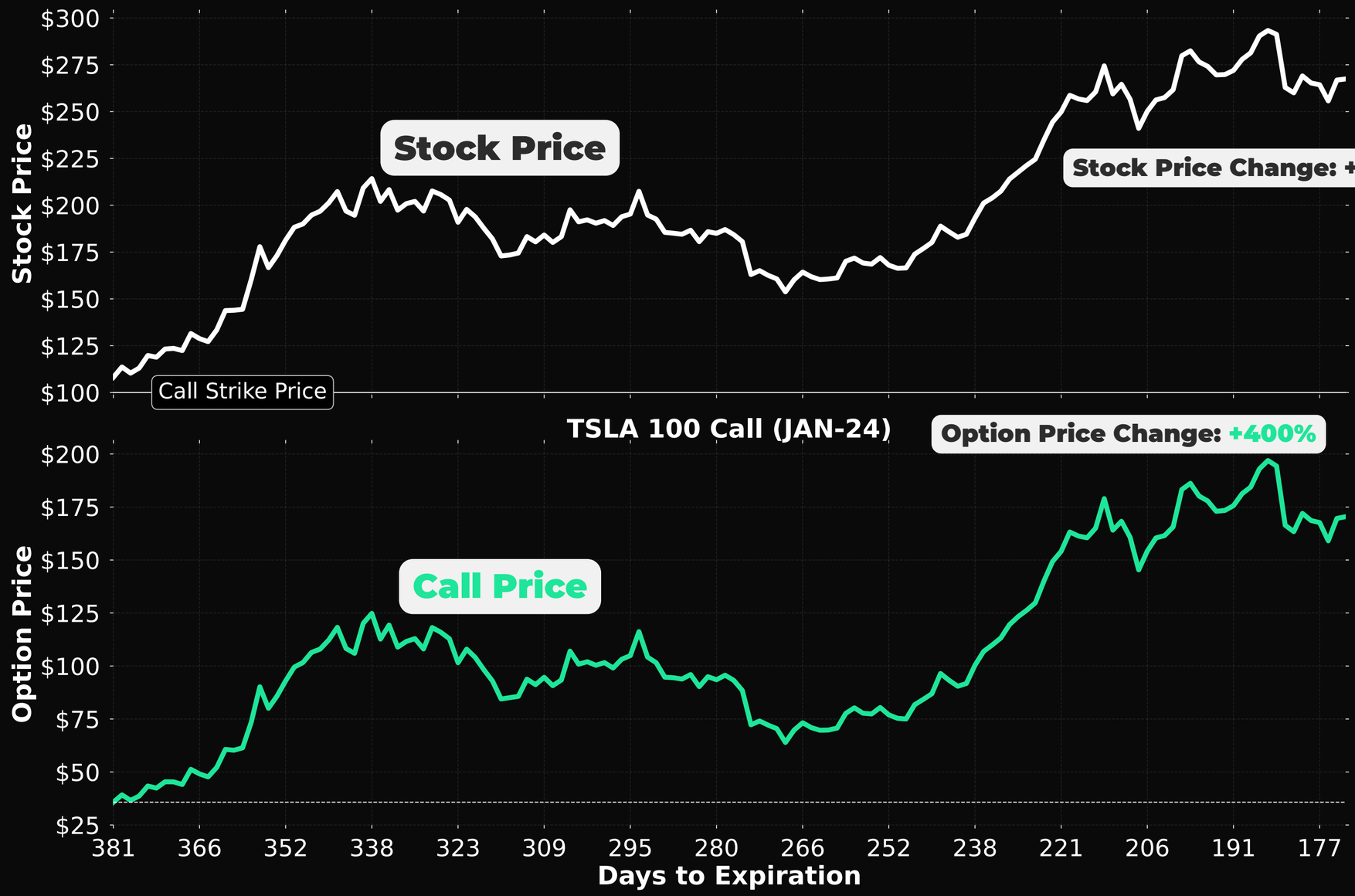
# Defining Options

# Defining Options

A stock option is a financial tool that allows the owner **the right to buy/sell 100 shares** of stock at a **fixed price** before a **specified date**.

There are two types of options:


# TSLA Call Option Example




**Call option prices go up and down with the stock price.**

Options traders buy calls when they believe a stock will go up in the future.

If they are correct, they can make a far higher return on the option as compared to shares of stock.

If they are wrong, they can lose the entire amount paid for the option.

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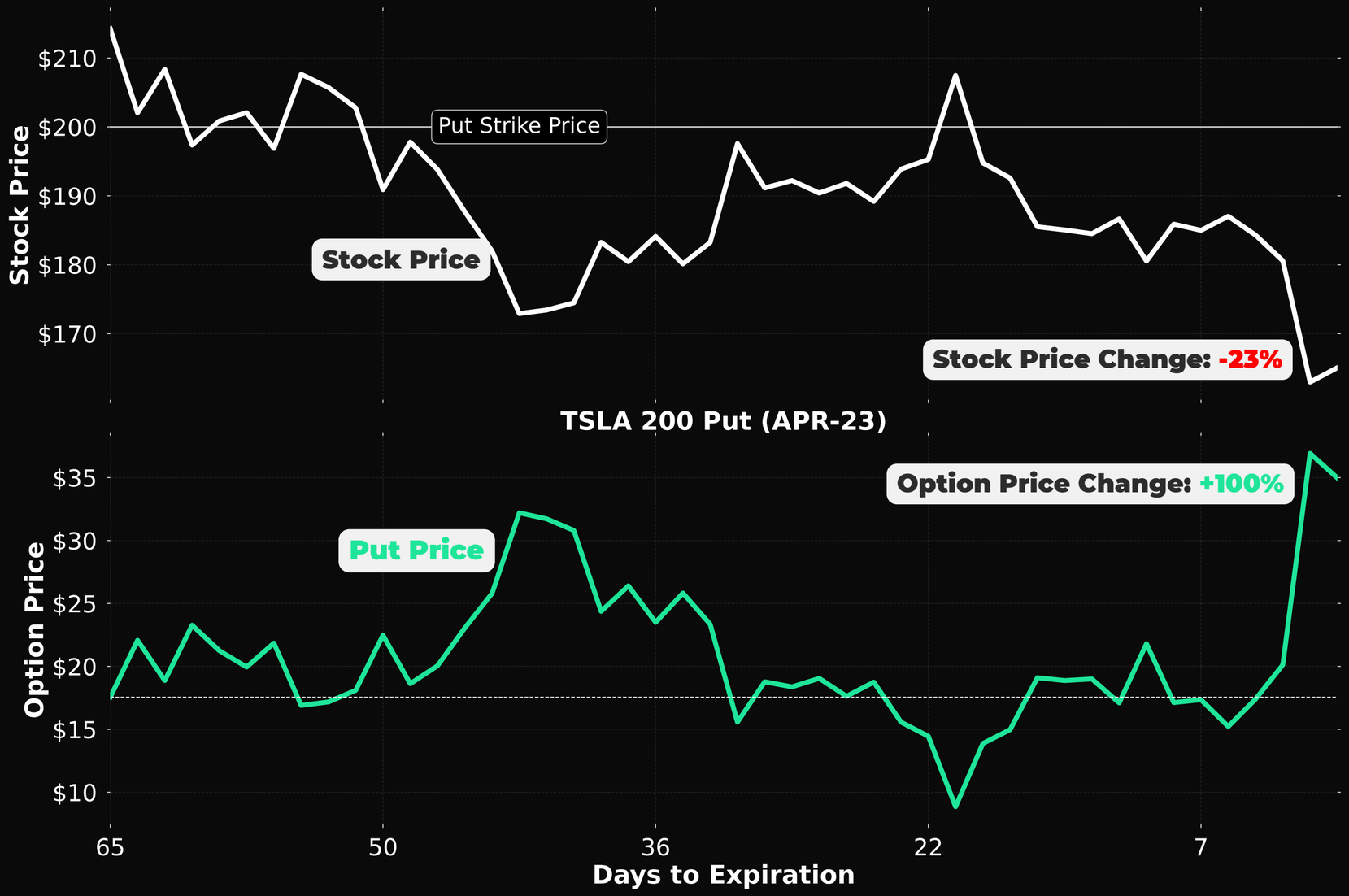
# Put Option Intro

# TSLA Put Option Example




**Put option prices go up when the stock price falls, and down when the stock price rises.**

Options traders buy puts when they believe a stock will fall in the near future.

If they are correct, they can make money from the put price increase as the stock price falls.

If they are wrong, they can lose the entire amount paid for the option.

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# 0 DTE Put Option Example


**Some traders use short-term options as a replacement for stock trading due to the huge percentage gains short-term options can see.**

The limited-risk nature of buying an option contract also acts as a natural stop-loss on the trade.

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# Key Terminology

Every option has a **strike price**, **expiration date**, and **contract multiplier**.

We need to learn these terms to understand option prices and what options represent.

# The Strike Price

The **strike price** is the specified price at which an option owner can buy/sell the asset the option is tied to.

If I own a call option with a strike price of $125, I have the right to buy stock at $125, no matter what the stock does.

# The Expiration Date

The **expiration date** is the final day an option exists and can be traded. An option's final value is determined on the expiration date.

If I own a call with a strike price of $125 that **expires in 30 days**, I can only use the call to buy shares at $125 **for 30 days**.

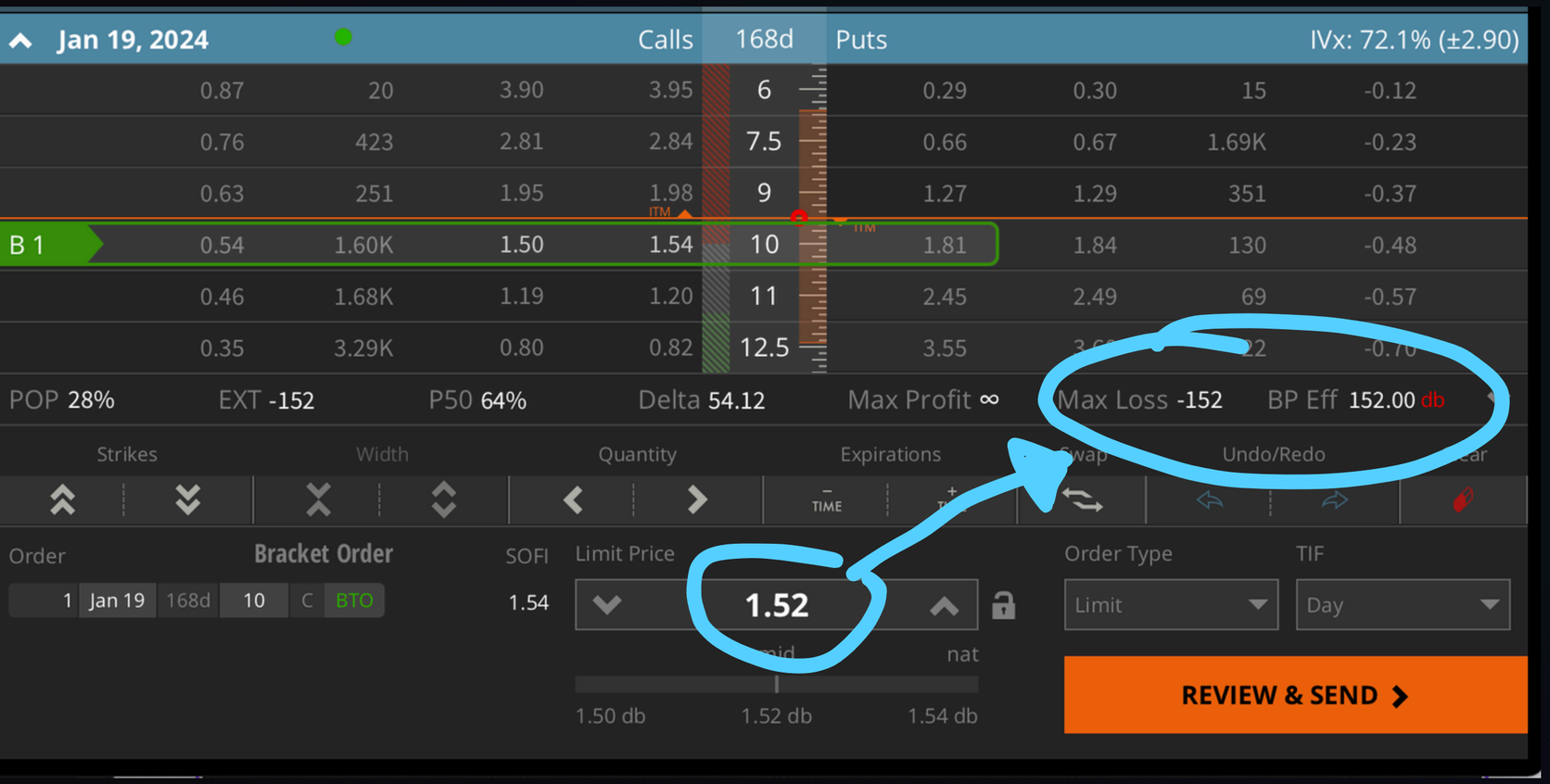
# The Contract Multiplier

A single share of stock with a price of $120 can be purchased with $120 in cash. Options are different.

If an AAPL option is listed at **$5.00**, I need **$500** to buy the option.

That's because "standard equity options" (options on AAPL, TSLA, GOOGL, etc.) can buy/sell **100 shares** of stock at the strike price.

# The Contract Multiplier




The call option in this image has a price of **$1.52**, requiring **$152** in available funds to purchase.

**Price:** $1.52

**Cost/Value:** $152

**Here's how to interpret the difference between the option's listed price and its actual cost:**

**For a cost of $1.52 per share**, the contract can **buy 100 shares** of stock at the strike price. If we pay a $1.52 per-share "fee" for the right to buy 100 shares at the strike price of $10, we pay $152.

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# Buying Calls Explained

# Call Option Introduction

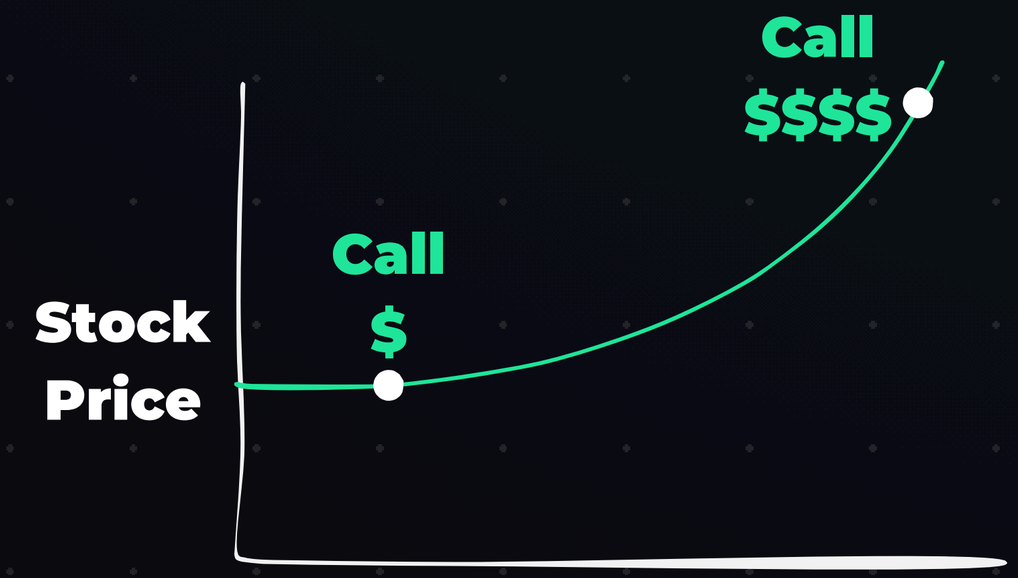
A **call option** grants the owner the ability to **buy 100 shares** of stock at the strike price on or before the expiration date.

Call prices go up with the stock price because **the value of buying shares at the strike price goes up as the stock price rises:**

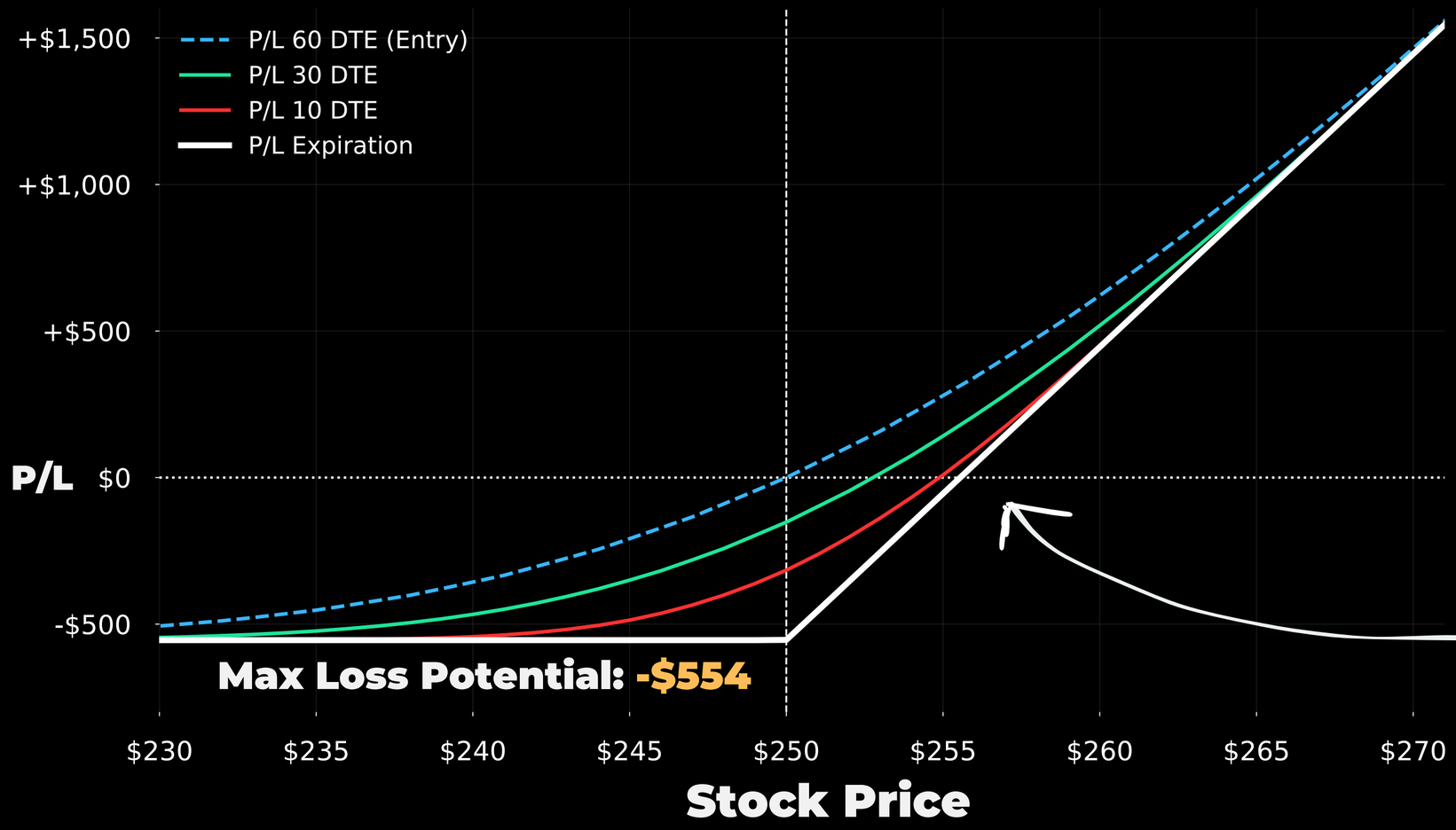
## To keep it simple:

When you buy call options, you want the stock price to go up.

**Buy Call**



# Call Purchase (Long Call) Risk Graph




Here is a risk graph showing simulated profits and losses for a 60-day, 250-strike call option purchased for $5.54.

If the stock doesn't increase, we'll lose money on the trade as time passes (we'll talk more about this later).

The **max loss** is the amount paid for the option initially, which was $554.

The **breakeven stock price at expiration** is $255.54, which is the strike price plus the initial option purchase price.

The **max profit** is theoretically unlimited as the call price goes up with the stock price.

**Key Point**
Buying calls has limited loss potential and unlimited upside.

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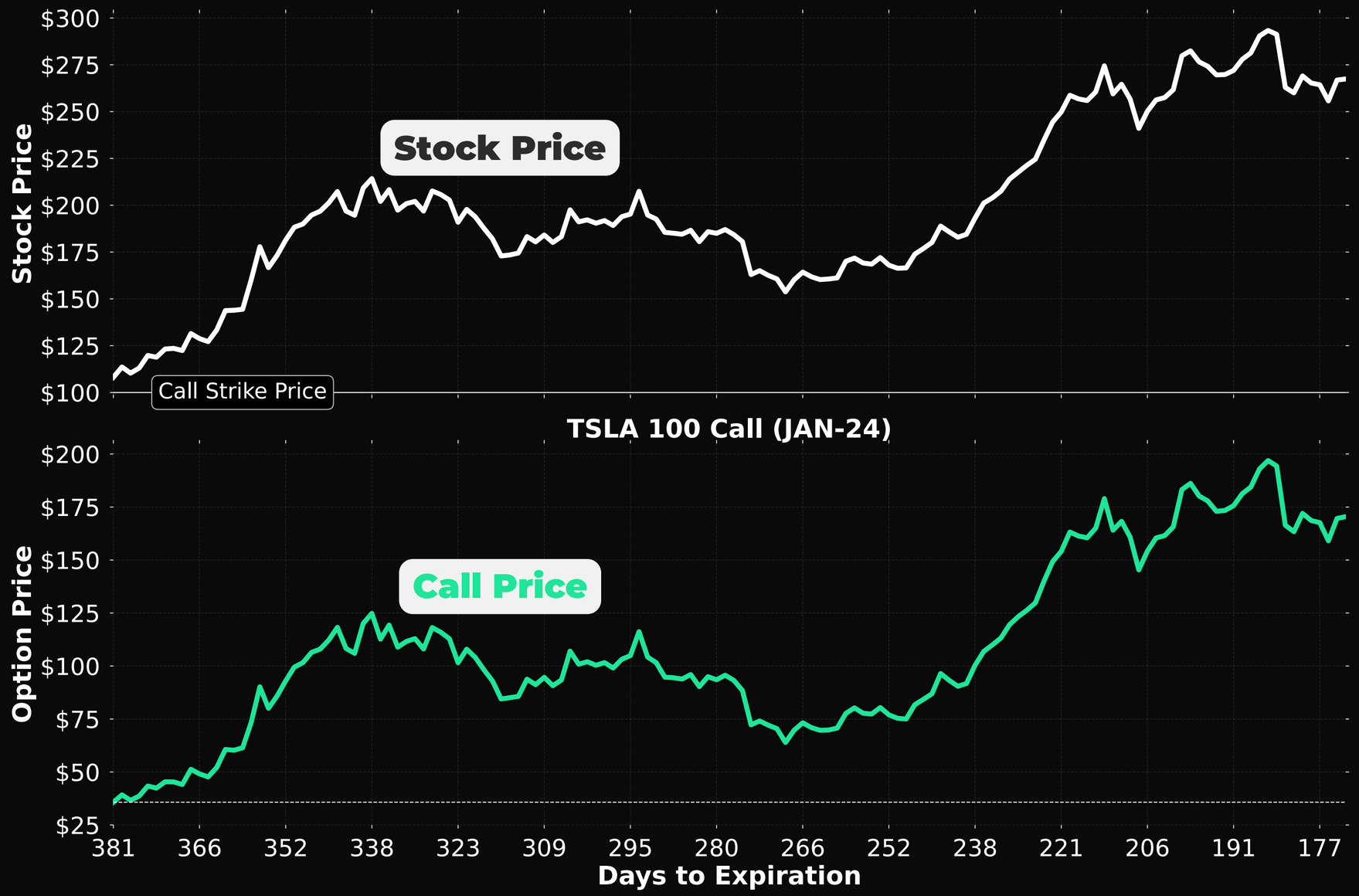
# Call Option Introduction

**Stock:** Tesla (TSLA)
**Expiration:** January 19th, 2024
**Days to Expiration:** 381
**Call Strike Price:** $100
**Call Price:** $35
**Call Cost/Value:** $3,500

A trader who buys this call gains the right to purchase 100 shares of TSLA stock at $100/share on or before the expiration date of January 19th, 2024.

For this ability, a trader would need to pay **$3,500** at the call's current price.

# TSLA Call Option Example




At the beginning of 2023, TSLA shares were trading for a little over $100.

The 100-strike call expiring in January 2024 had a year until expiration.

The call's price was near $35 (a total cost/value of $3,500).

As TSLA shares rose further above the call's strike of $100, the 100-strike call gained value as well.

**Why?** Its ability to purchase shares at a bigger discount to the stock price became more valuable.

And when the stock price came back down, so did the value of the call's ability to buy stock at $100.

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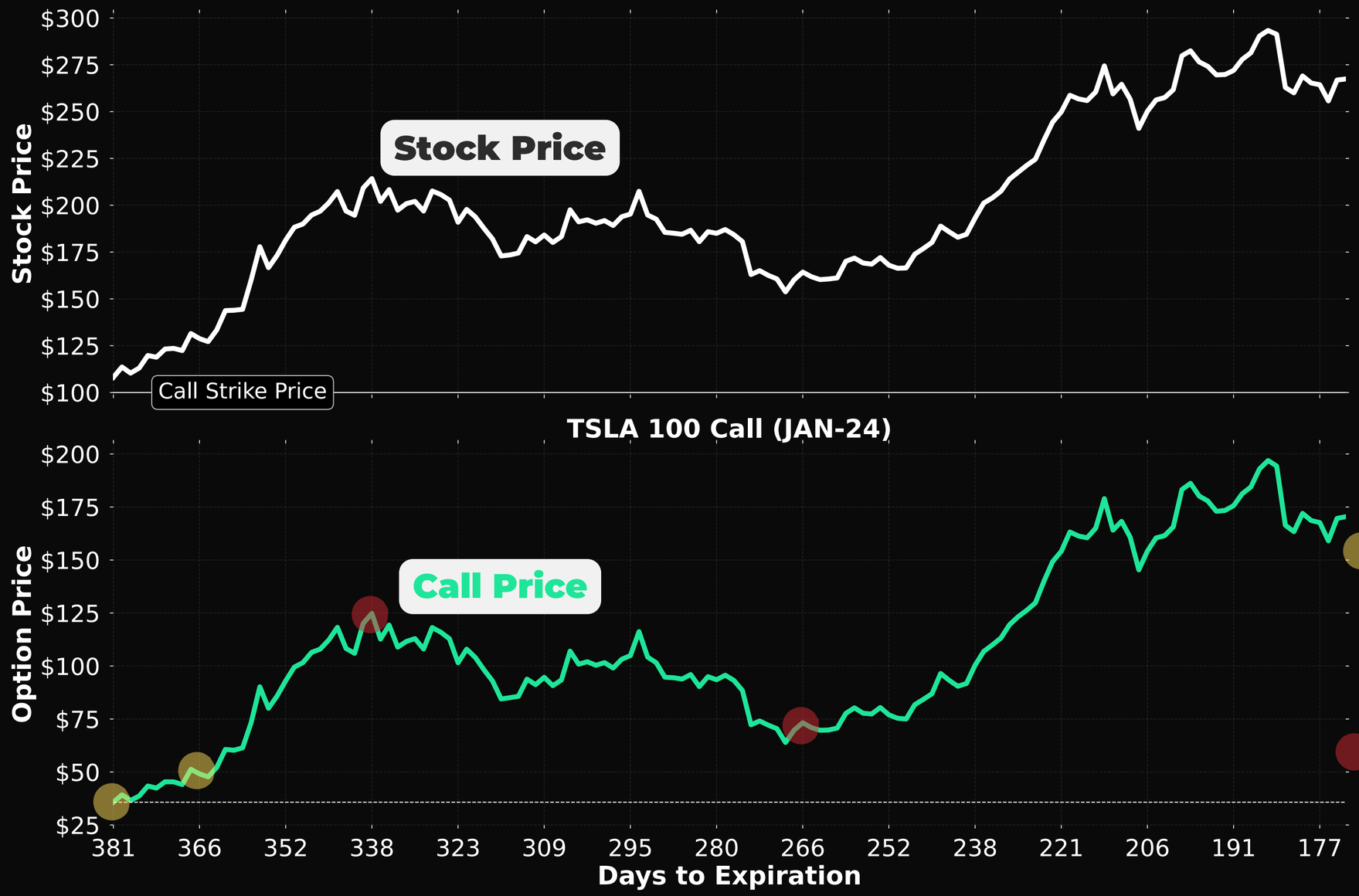
# TSLA Call Option Example




## Key Takeaways:

**1)** Note how the call price goes up with the stock price because the value of buying shares at $100 (the call strike) changes as the stock price changes.

**2)** Option prices change every day as the stock price changes. You can buy/sell options whenever the market is open.

You could have bought the call at the beginning for $3,500 and sold it a few weeks later for $5,000, making a $1,500 profit.

Or, you could have bought it for $12,500 at 338 DTE and sold it for $7,500 at 266 DTE, losing $5,000.

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# Exercising Options

Exercising an option is ‘using’ the option to convert it into a stock position.

In the case of calls, exercising a call would mean purchasing 100 shares of stock at the call’s strike price. The call would disappear from your account and you would get the shares in exchange.

# Options Traders Rarely Exercise Options

A key point to understand here is options traders don’t exercise options to make money.

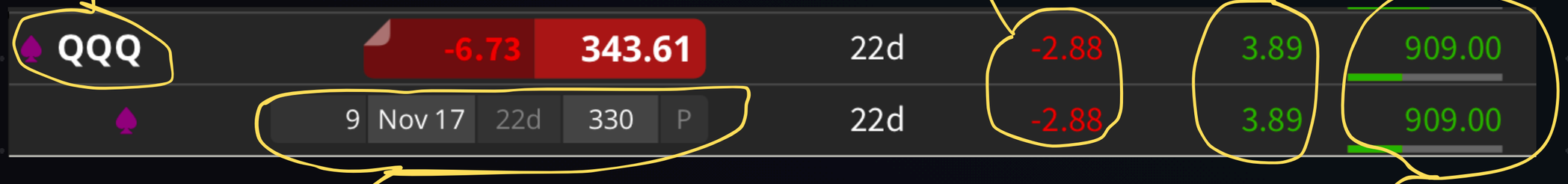
**Traders make money from the option price changes.**

But option prices ultimately stem from the option’s ability to buy/sell shares at the strike price (or the potential benefit of it in the future), which is why I bring it up often when teaching how calls/puts work.

**Stock:** QQQ

**Entry Price:** $2.88
($288 value per)

**Current Price:** $3.89
($389 value per)




**Option:**
November ‘23
330-Strike Puts

**Open P/L: +$909**
(+$101 per option x 9 contracts)

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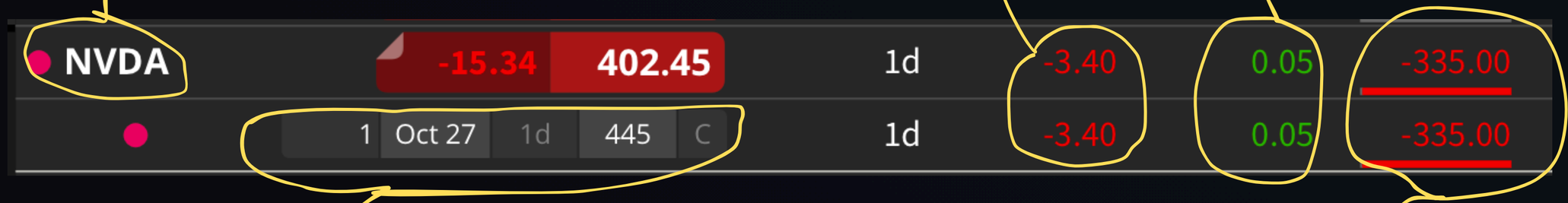
**Entry Price:** $3.40
($340 value)

**Current Price:** $0.05
($5 value)

**Stock:** NVDA




**Option:**
October 27th 2023
445-Strike Calls

**Open P/L: -$335**

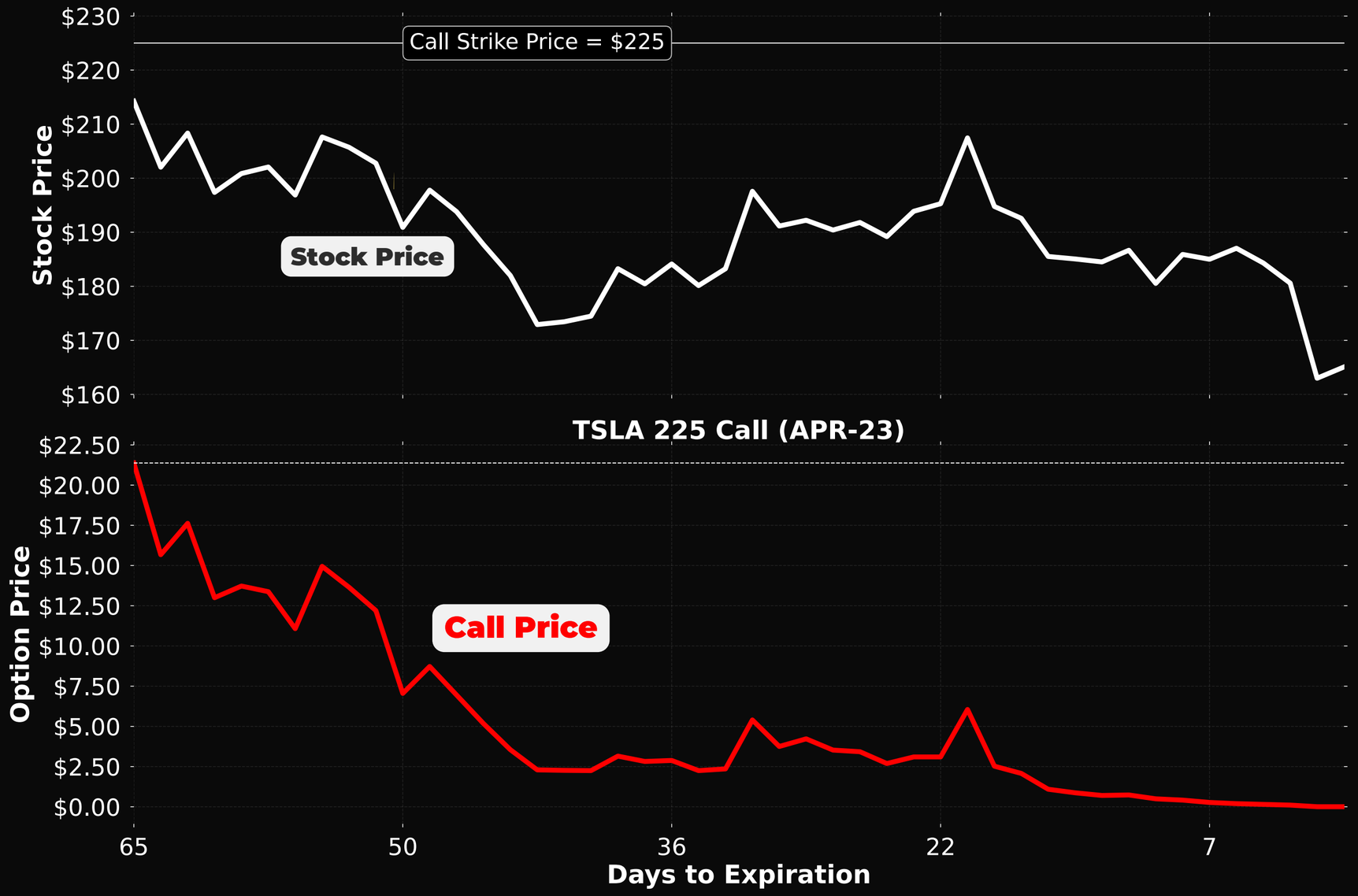
# Losing Money Buying Call Options

If you buy a call option and the share price falls, so will the value of the call option.

If the stock price is below the call's strike price at expiration, the call option will "expire worthless" and **you will lose the entire premium you paid for the option.**

**Let's look at a real example of this in TSLA.**

# Losing Money Buying TSLA Calls




**Initial Stock Price:** $214
**Call Strike:** $225
**Expiration:** April 21, 2023
**Days to Expiration (DTE):** 65
**Option Purchase Price:** $21.38

In this example, the stock price begins at $214 on February 15th, 2023.

The call strike price is $225.

As the stock price trended lower and time passed, the 225 call's value plummeted as it became less likely for it to be valuable at the time of expiration.

It expired worthless as the stock price was at $165 at expiration.

There's no value in the 225 call's ability to buy stock at $225 when the stock price is at $167.

And since the option reached expiration, there was no more time for the stock price to increase to make the call valuable.

# Losing Money Buying Call Options

The failed TSLA call purchase highlights a big risk of buying options:

You will lose 100% of your investment if the stock price ends below your call strike at expiration.

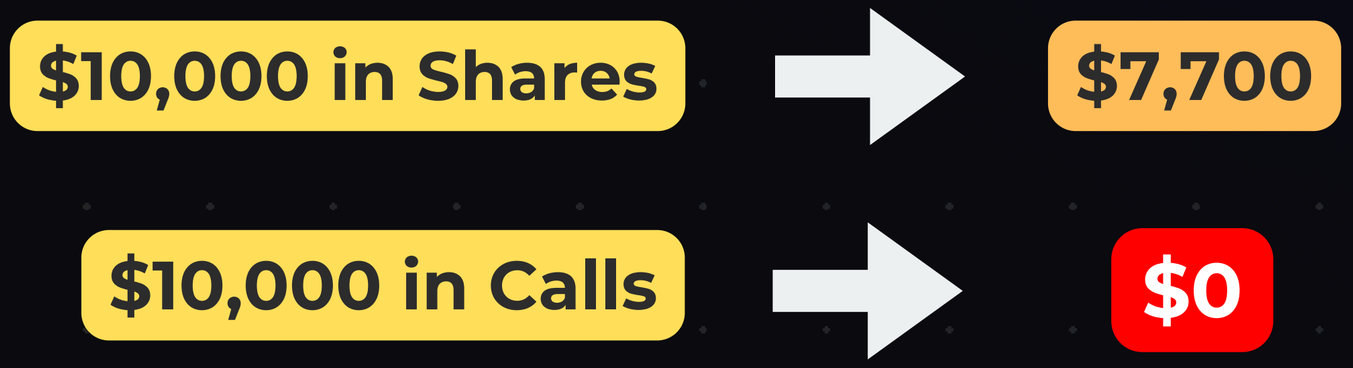
**The stock didn't go to zero, but the option did.**

# Losing Money Buying Call Options

Therefore, a similar investment in the option and shares would result in a much higher loss in the option.

TSLA shares went from $214 to $165: **a 23% loss**.

The 225-strike TSLA calls expiring in April went from $21.38 to $0.00: **a 100% loss**.



# Call Options: What We've Learned

1. A call option is one of the two option types.
2. Calls give the buyer the ability to buy 100 shares of stock at the call's strike price.
3. Calls become more valuable as the share price rises because the ability to buy shares at the strike price can produce greater and greater profits.
4. You don't have to exercise a call to realize profits. The call's price will always include any profit you can make by exercising it. We can take profits by simply selling the call option at a higher price than we paid for it.
5. Call options can provide far greater returns than the stock price return.

# Buying Puts Explained

# Put Option Introduction

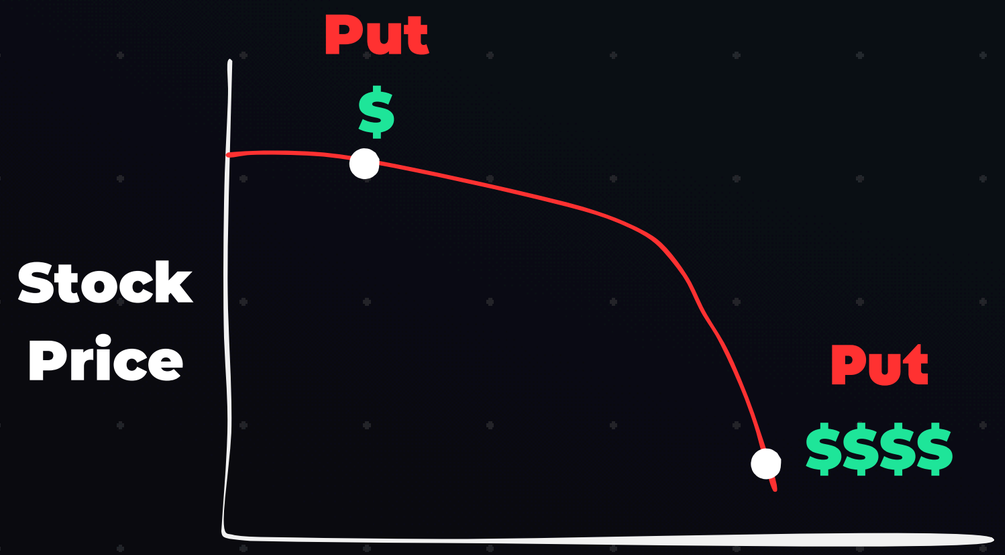
The second option type is called a **put option**.

A **put option** grants the owner the ability to ***sell* 100 shares** of stock at the strike price on or before the expiration date.

Put prices move inversely to the stock price because **the value of selling shares at the strike price goes up as the stock price falls:**

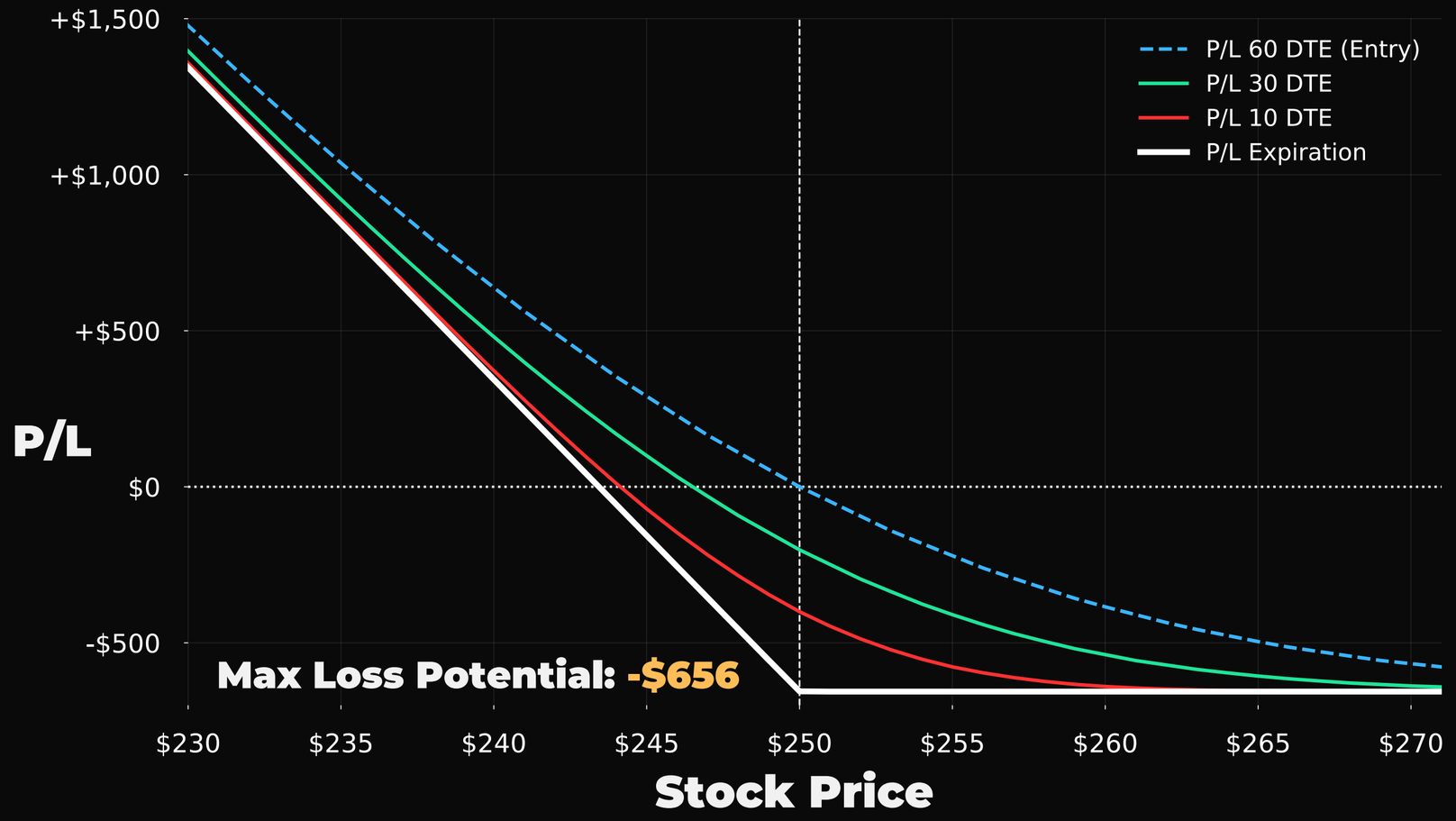

# To keep it simple:

When you buy put options, you want the stock price to go down.

# Put Purchase (Long Put) Risk Graph

**Strike Price = $250, 15% Volatility, 5% Risk-Free Rate**




Here is a simulated P/L graph of buying a put option with a strike price of $250 and 60 DTE. The stock was at $250 at the time of entry and the put was $6.56.

If the stock doesn't fall, we'll lose money.

The **max loss** is the amount paid for the option initially, which was $656.

The **breakeven stock price *at expiration*** is $243.44, which is the strike price MINUS the initial option purchase price.

The **max profit potential** is the strike - price paid, or $243.44, which occurs if the stock goes to zero.

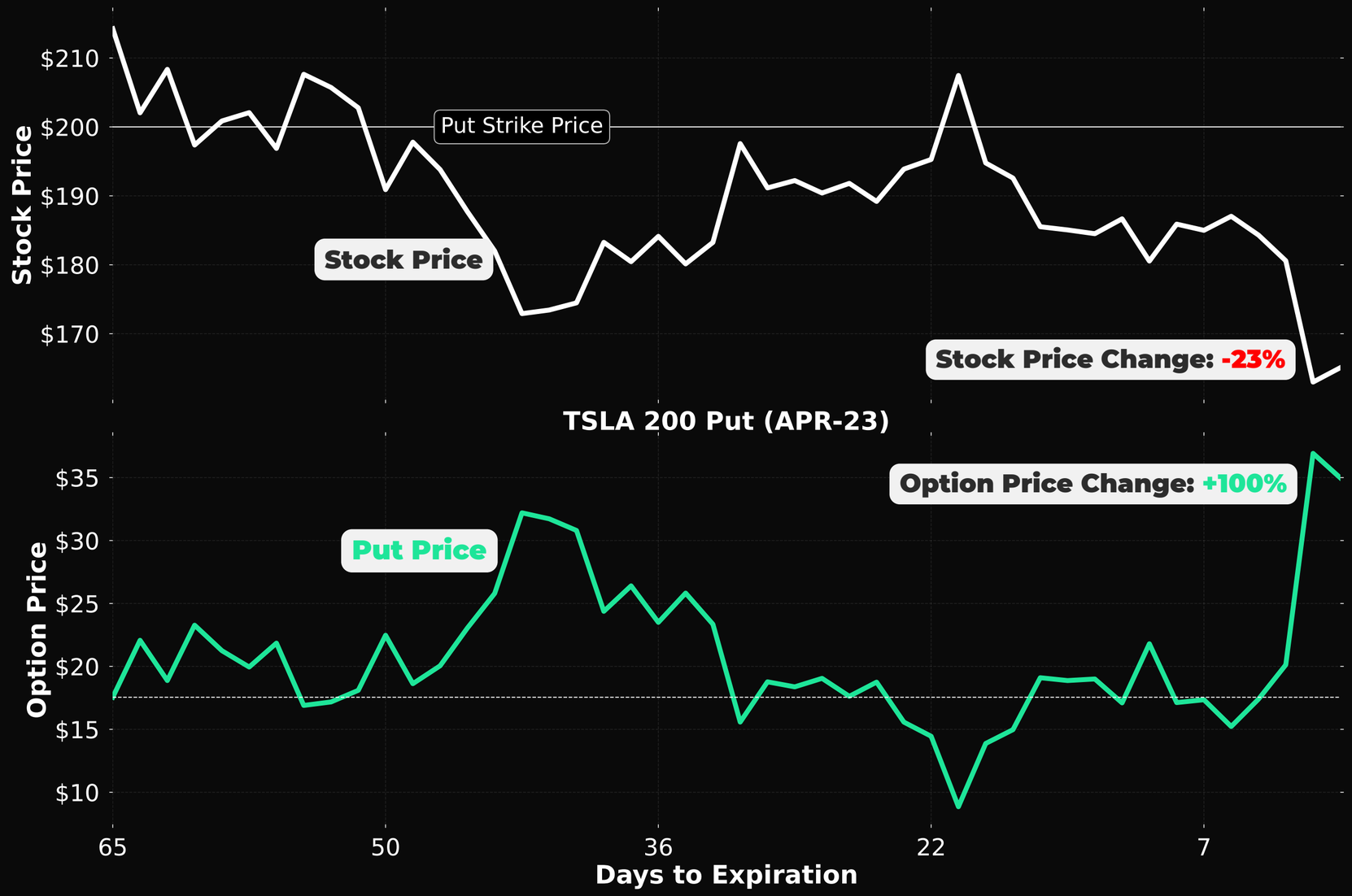
**Key Point**

Buying puts has limited loss potential and huge downside potential.

# Buying a Put Option (Long Put)
# Trade Examples

Let's look at a couple of examples of buying puts to see how they work!

# TSLA: Buying a Put Option




**Initial Stock Price:** $214
**Put Strike:** $200
**Expiration:** April 21, 2023
**Days to Expiration (DTE):** 65
**Option Purchase Price:** $17.55

In this example, TSLA shares begin at $214 on February 15th, 2023.

The put strike price in this example is $200.

Note how the put price surged initially as the stock price plummeted towards $170.

**Why?** Because the ability to sell shares at $200 (the put strike) grew in value as the shares fell further below $200, leading to a higher put contract value.

**Expiration:** With the stock price at $165, the put was worth a final price of $35. A trader who bought the put for $17.55 could have sold the put at expiration for $35, a $1,745 profit [($35 - $17.55) x 100]

# Buying a Put (Long Put) Example


**Initial Stock Price:** $113.64
**Put Strike:** $100
**Expiration:** March 17, 2023
**Days to Expiration (DTE):** 72
**Option Purchase Price:** $8.83

In this example, TSLA shares begin at $113.64 on January 4th, 2023.

In this example, the stock price increased over the entire period, and the put price declined constantly.

As the stock got further above the put strike, and expiration got closer, it became less likely the put would become valuable by expiration, driving the put's price to zero.

**Expiration:** With the stock price at $180, the put was worth a final value of $0. A trader who bought the put for $8.83 initially and held to expiration would have lost the entire $883 premium paid (per contract).

# Losing Money Buying Put Options

If you buy a put option and the share price increases, the put value will fall.

If the stock price is above the put's strike price at expiration, the put option will "expire worthless" and **you will lose the entire premium you paid for the option.**

# Put Options: What We've Learned

1. A put option is one of the two option types.
2. Puts give the buyer the ability to sell 100 shares of stock at the put's strike price.
3. Puts become more valuable as the share price **falls** because the ability to sell shares at the strike price can produce larger gains.
4. You don't have to exercise a put to realize profits. The put's price will always include any profit you can make by exercising it. We can take profits by simply selling the put option at a higher price than we paid for it.
5. Put options can provide far greater returns than the stock price return.

# Why You Don’t Have to Exercise Options

# Why You Don’t Have to Exercise Options

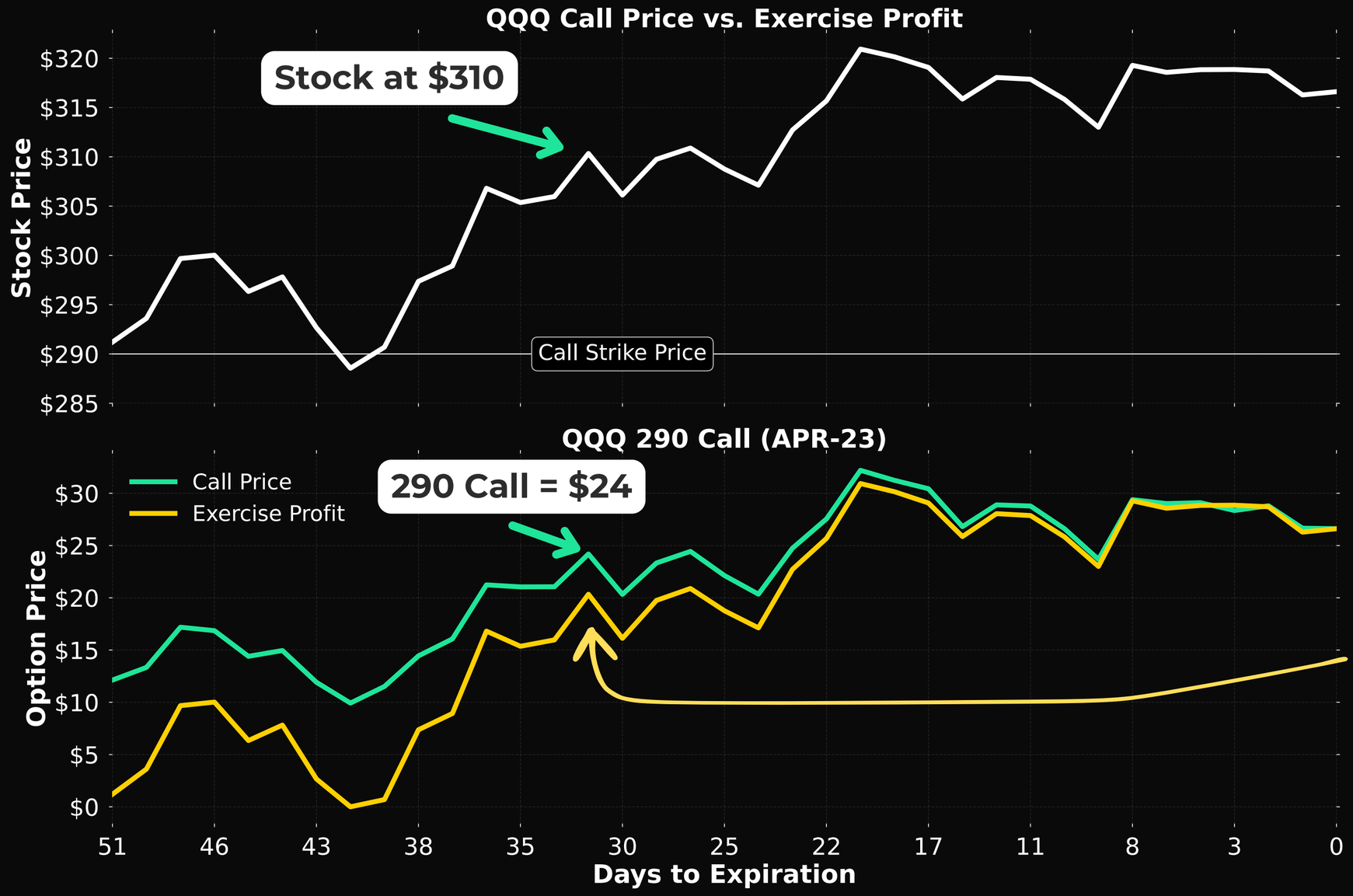
Using an option to buy/sell shares at the strike price is called ‘exercising’ an option.


**Exercise Call**
Buy Shares @ $105
Sell Shares @ $120
+$15 Gain

**An option‘s price will always include the ‘exercise profit‘ (AKA intrinsic value).**

We can sell the option and secure the $15 gain without exercising the option.

# Option Prices Always Include the “Exercise Profit”




A call’s price always includes the profit that could be made by exercising the option and closing the resulting share position.

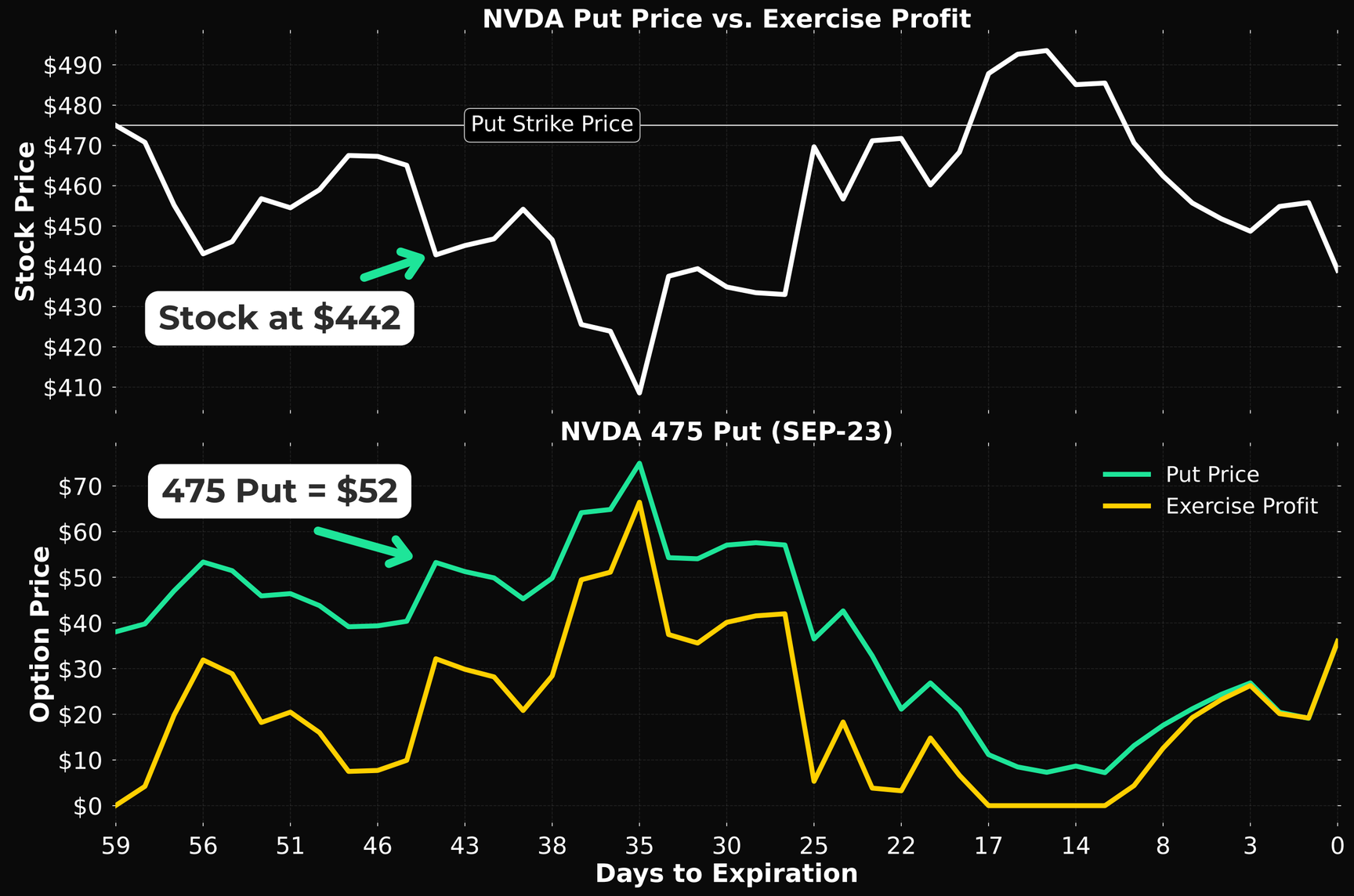
**Example**
Stock at $310
Call Strike of $290

**Exercise Call**
Buy 100 shares at $290/share
Sell 100 shares at $310/share

**Exercise Profit**
+$20/share

Selling the call for $24 includes the gain we’d make from exercising and selling the stock.

# Option Prices Always Include the “Exercise Profit”




A put’s price always includes the profit that could be made by exercising the option and closing the resulting share position.

**Example**
Stock at $442
Put Strike of $475

**Buy shares at $442**

**Exercise Put**
Sell shares at $475/share

**Exercise Profit**
+$33/share

Selling the put includes the $33 gain we’d make from buying stock and exercising the put.

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# Intrinsic & Extrinsic Value Explained

# Understanding Option Prices:

## Intrinsic & Extrinsic Value

We've covered the basics of buying calls and puts, and how they make/lose money with some examples.

Now we need to dive deeper into understanding option prices.

**Option prices are made up of two possible components:**

Intrinsic Value and Extrinsic Value

# **Understanding Option Prices:** Intrinsic Value

**Intrinsic value** is the part of an option's price that is explained by the gain it provides the owner if they were to exercise it (the “exercise profit” from previous slides).

**TSLA Stock Price:** $225
**Call Strike Price:** $100

Here, the call owner can buy TSLA stock $125 below the current share price.

**The 100-strike call has $125 of intrinsic value.**


**Strike Price**
**$385**

## Call Owner Exercises Call:

Buy stock at **$385**

Sell stock at **$406.32**

**+$21.32**

**The 385 call has $21.32 of “intrinsic” value.**

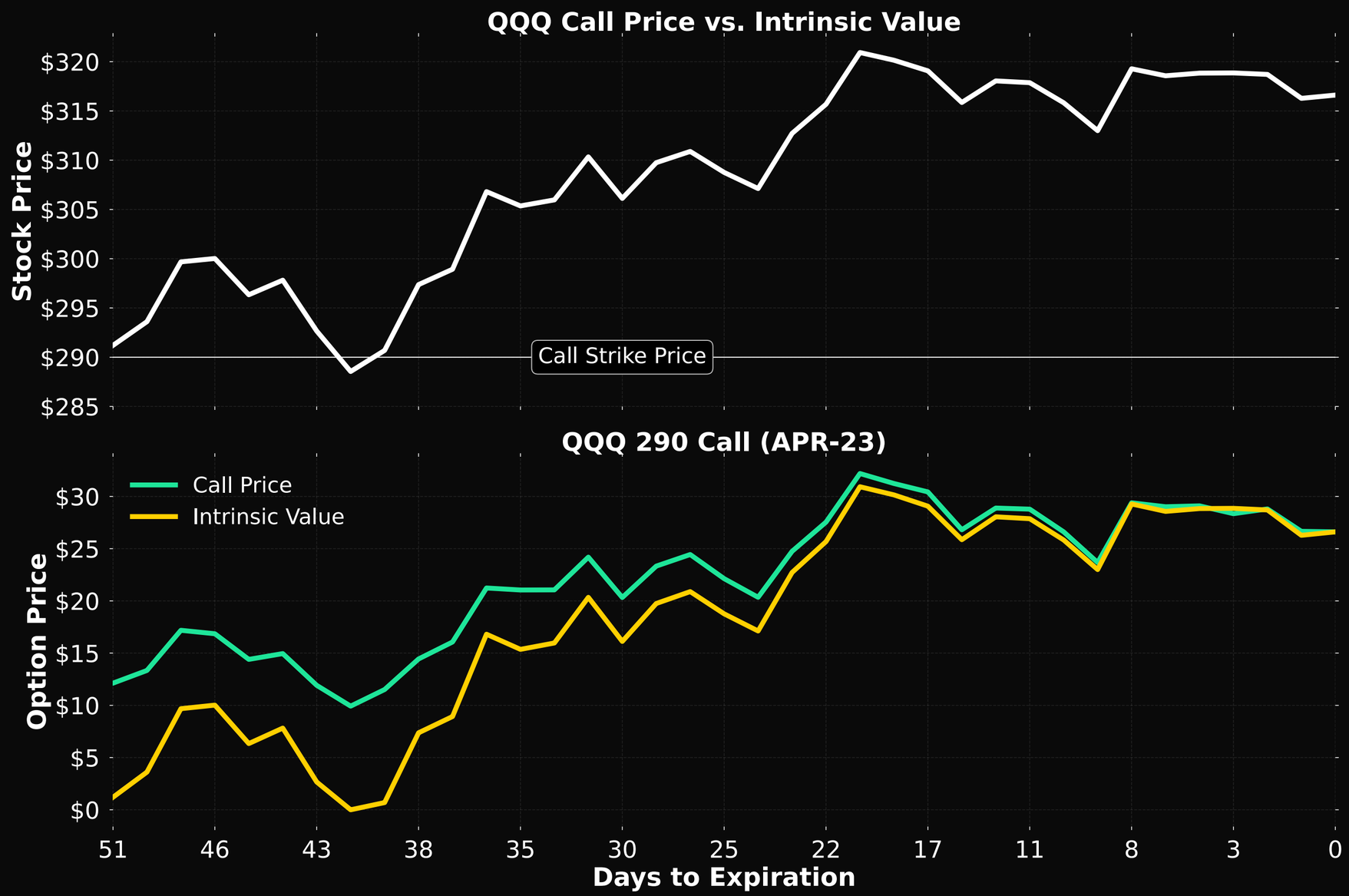
# **Understanding Option Prices:** Intrinsic Value

Call options have intrinsic value when the stock price is **ABOVE** the call's strike price.

**Think:** is buying stock at the call's strike price a better deal than buying at the current stock price? If yes, the call has intrinsic value. If not, the call has no intrinsic value.

# Call Option Intrinsic Value

# Call Option Intrinsic Value = Stock Price - Strike Price (0 if negative)

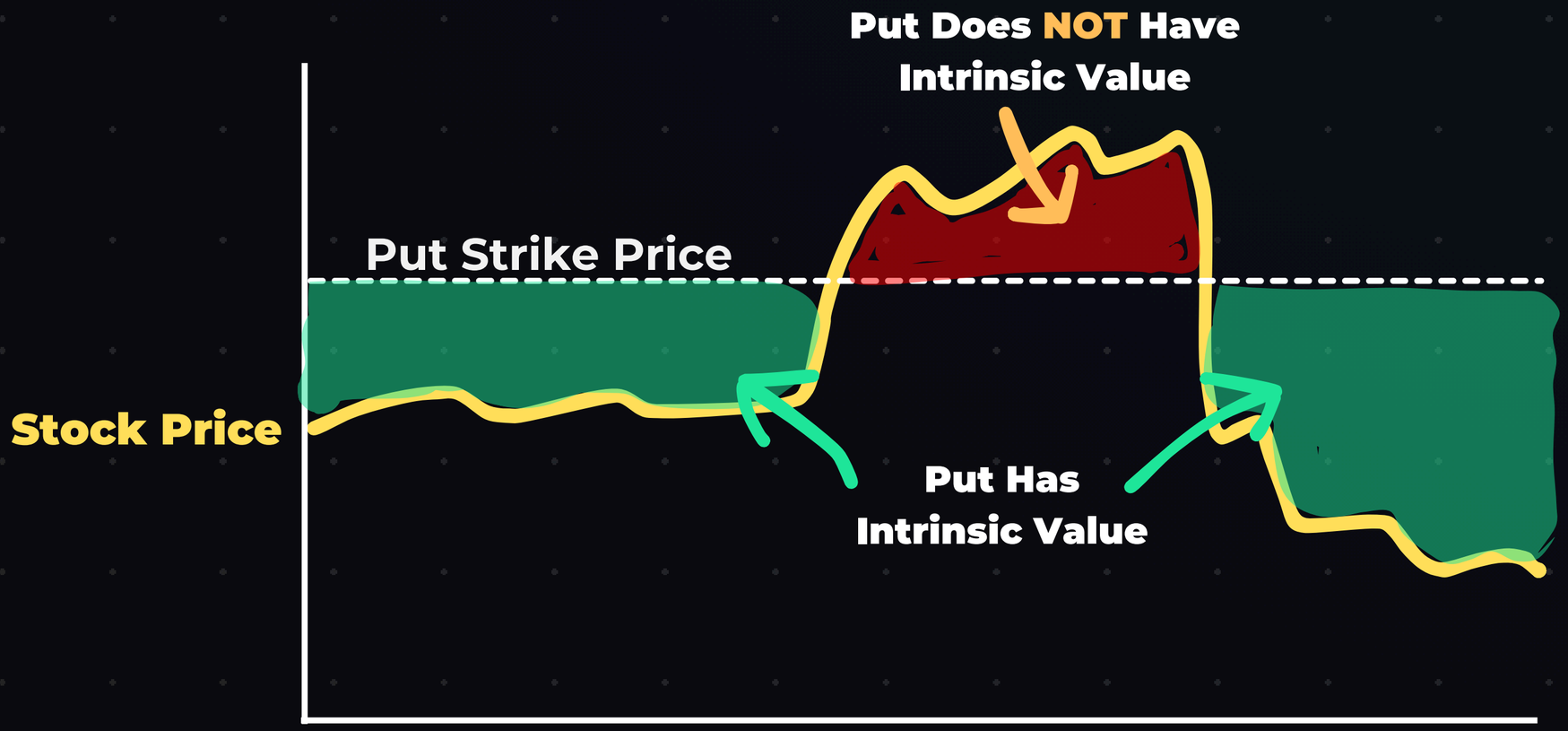


# Call Option Intrinsic Value

# **Understanding Option Prices:** Intrinsic Value

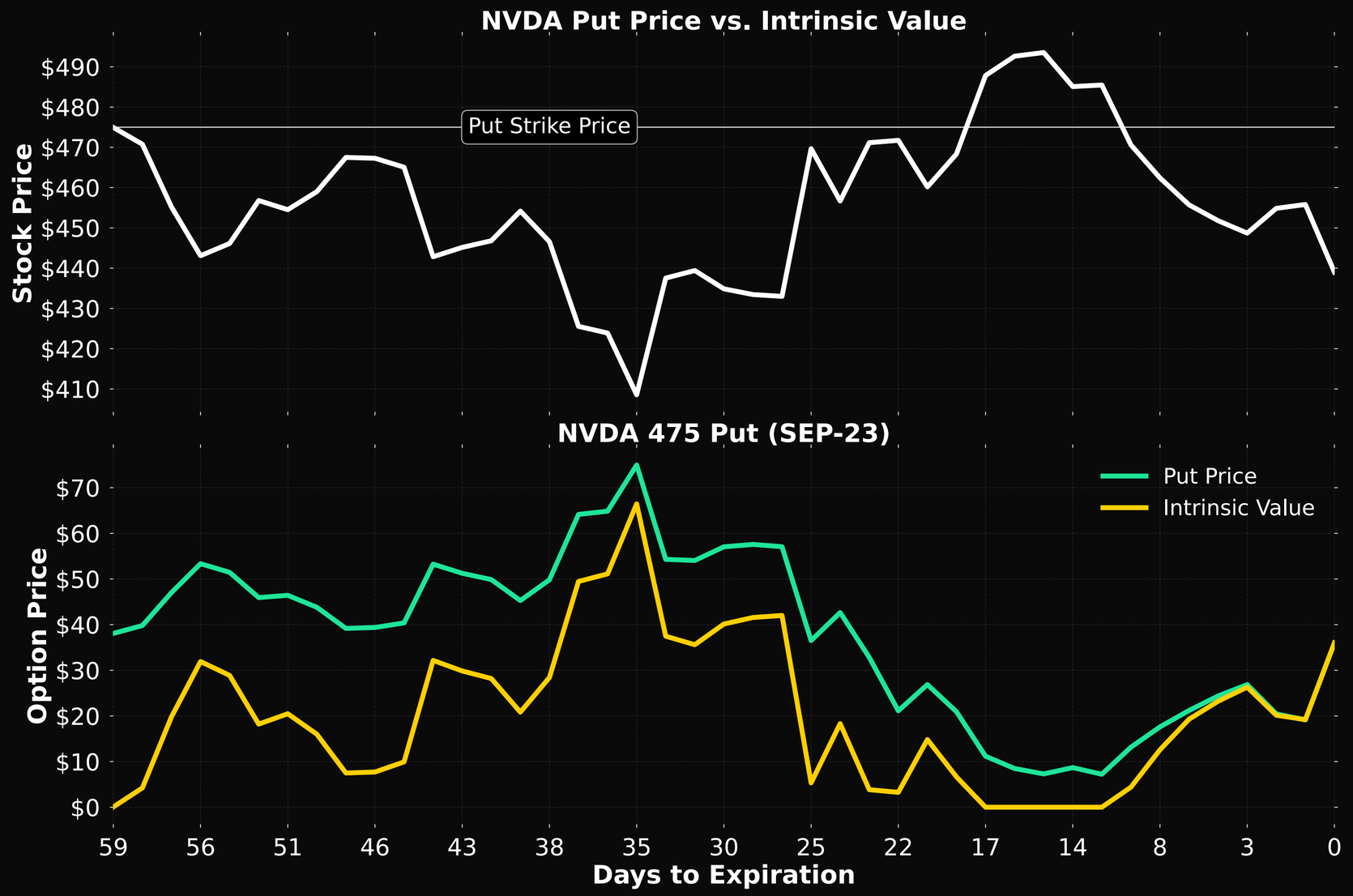
Put options have intrinsic value when the stock price is **BELOW** the put's strike price.

**Think:** is selling stock at the put's strike price a better deal than selling at the current stock price? If yes, the put has intrinsic value. If not, the put has no intrinsic value.



# Put Option Intrinsic Value

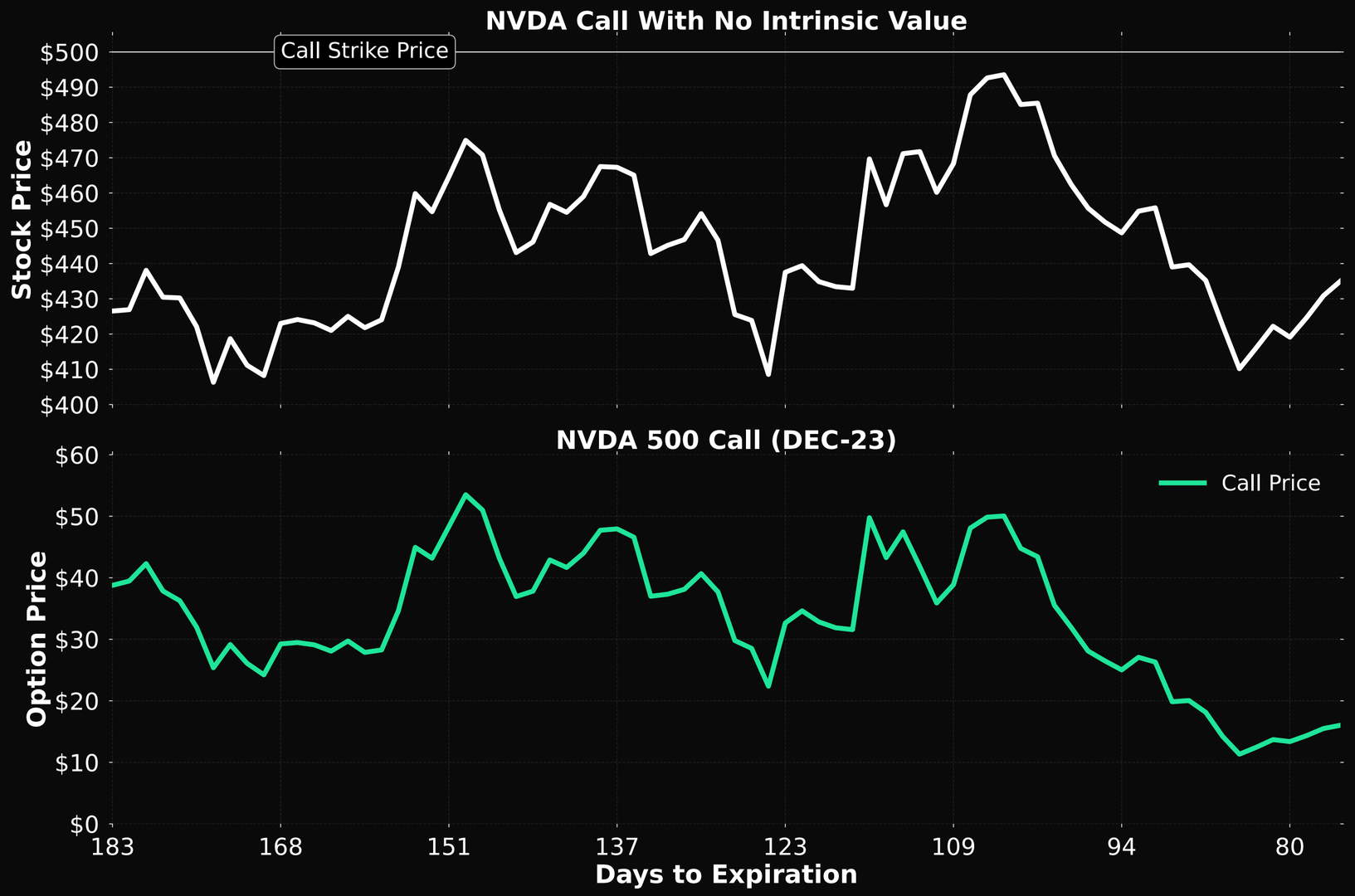
# Put Option Intrinsic Value = Strike Price - Stock Price (0 if negative)



# Put Option Intrinsic Value

Options with NO intrinsic value can still be valuable.

# Call Option With NO Intrinsic Value = Valuable?




Options are often still valuable even without any intrinsic value.

**Example**

NVDA 500-Strike Call
183 Days to Expiration
Stock Price Below $500

Why was the call still worth $4,000+ with the stock price at $430?

Option prices without intrinsic value but lots of time until expiration will include “extrinsic” or “time value.”

**Understanding Extrinsic/Time Value**

There’s time for the stock price to move and increase the option’s price before it expires.

# Extrinsic Value:

The part of an option’s price that exceeds its intrinsic value.


Intrinsic Value: **$12.50**

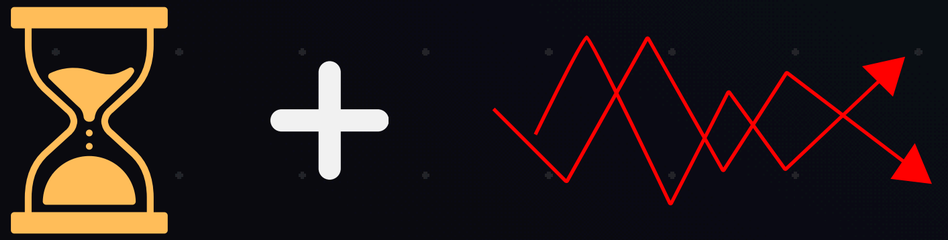
Option Price: **$22.50**

## +$10 of Extrinsic Value

But the put is worth $22.50.
The additional $10 of value above its intrinsic value is the **extrinsic value**.

# *Where* Does Extrinsic Value Come From?

**Extrinsic value in option prices comes from the amount of time until expiration and expected stock volatility.**



**= Extrinsic Value**

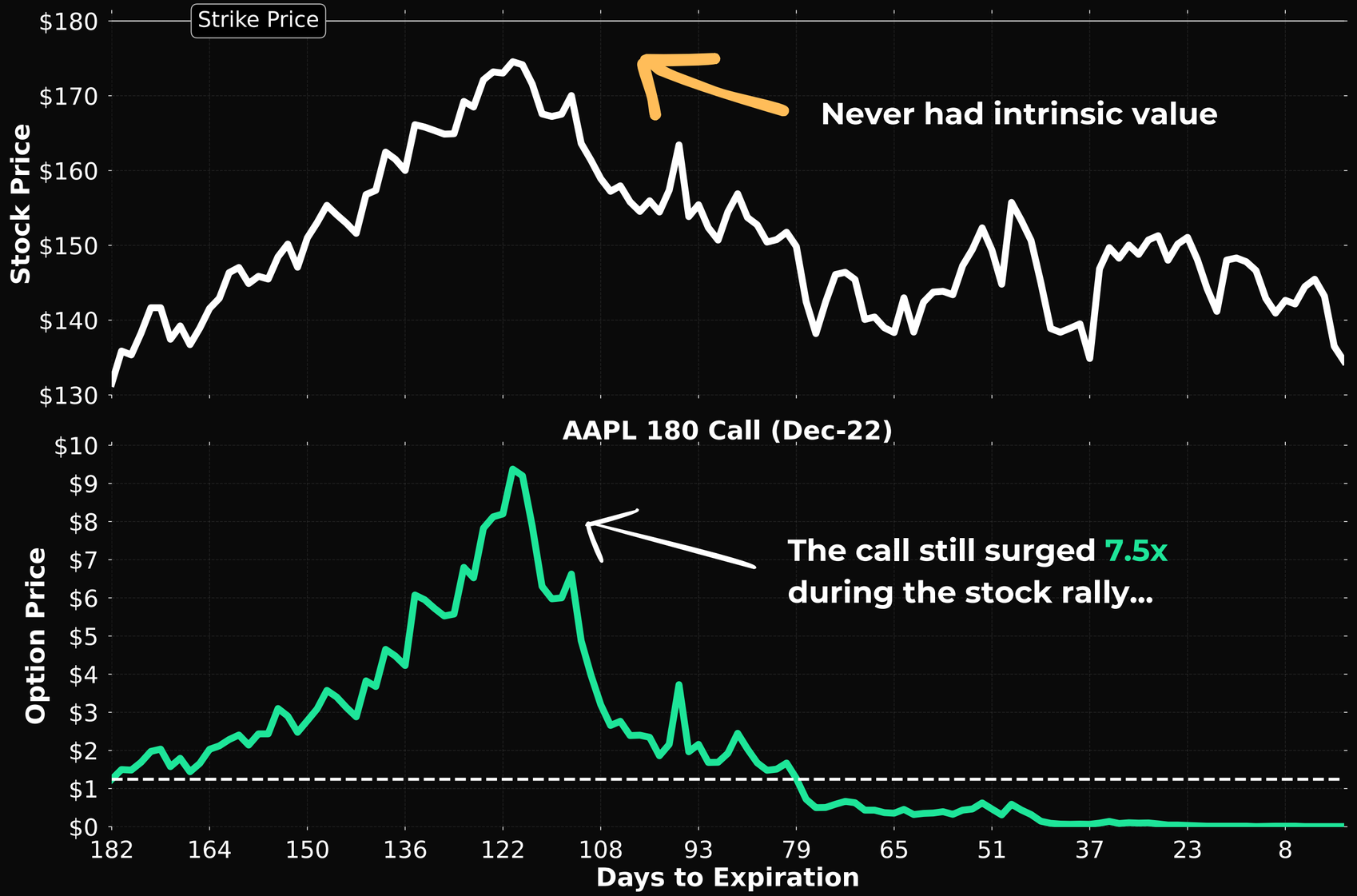
More time to expiration = more time for the stock to move.
More volatile stocks = options see bigger price swings.

# **Understanding Extrinsic Value:**
AAPL Example

Let's look at a historical AAPL call option that was valuable despite never having any intrinsic value.

# AAPL Call Example

($180-Strike Call Expiring Dec-2022; Entry June 17th, 2022)




**Initial Stock Price:** $131.56
**Call Strike Price:** $180
**Expiration:** December 16th, 2022
**Days to Expiration (DTE):** 182
**Starting Call Price:** $1.25

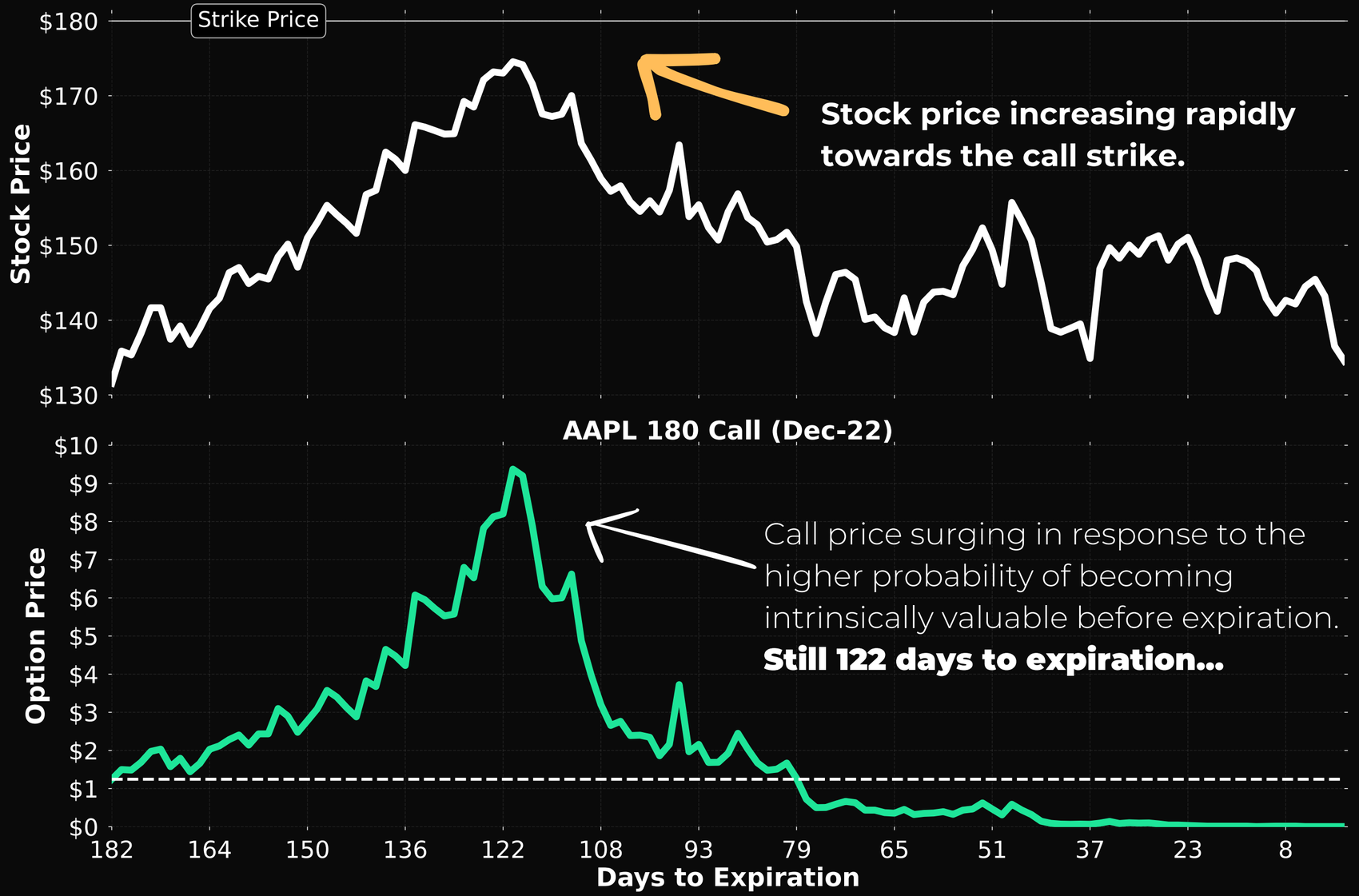
Knowing that call options only have intrinsic value when the stock price exceeds the strike price, this 180-strike call option never had any intrinsic value.

Despite having no intrinsic value, the call price went up 7.5x, from $1.25 to $9.40 at the high point when AAPL shares hit $175 when the call had about 122 days left until expiration.

**Why?**

# AAPL Call Example

($180-Strike Call Expiring Dec-2022; Entry June 17th, 2022)




**Initial Stock Price:** $131.56
**Call Strike Price:** $180
**Expiration:** December 16th, 2022
**Days to Expiration (DTE):** 182
**Starting Call Price:** $1.25

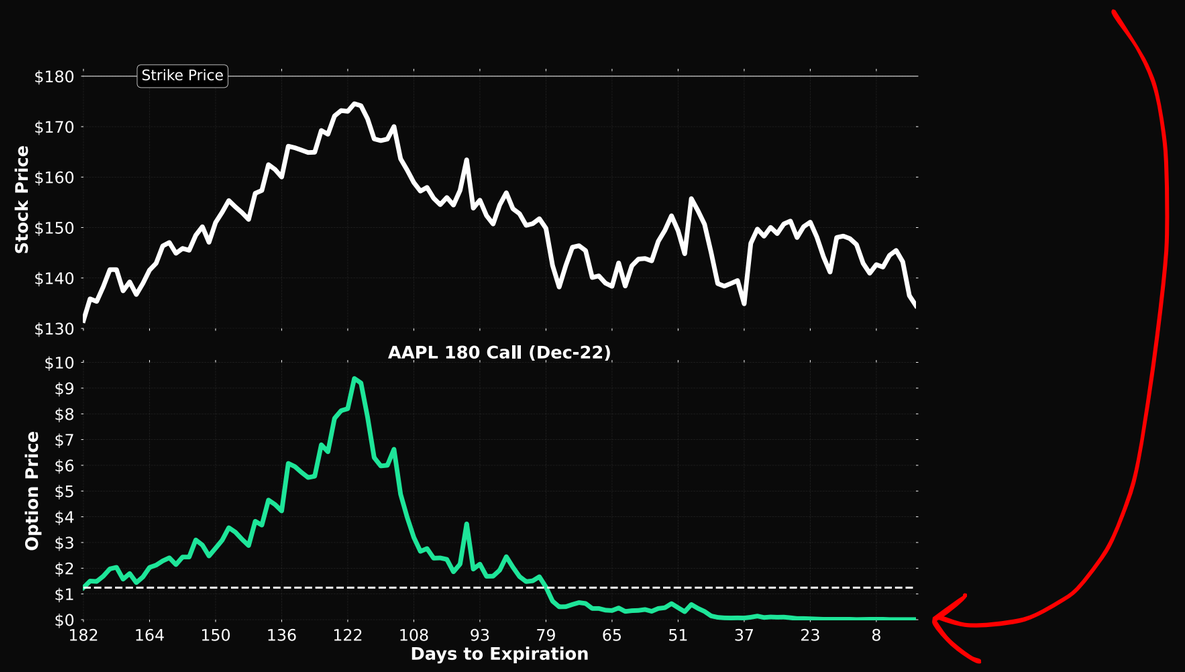
Because **the probability of the stock getting above the call's strike price increased** as the stock price went from $132 to $175.

# Intrinsic Value is All That Remains at Expiration

**At expiration, an option will only be worth its intrinsic value.**

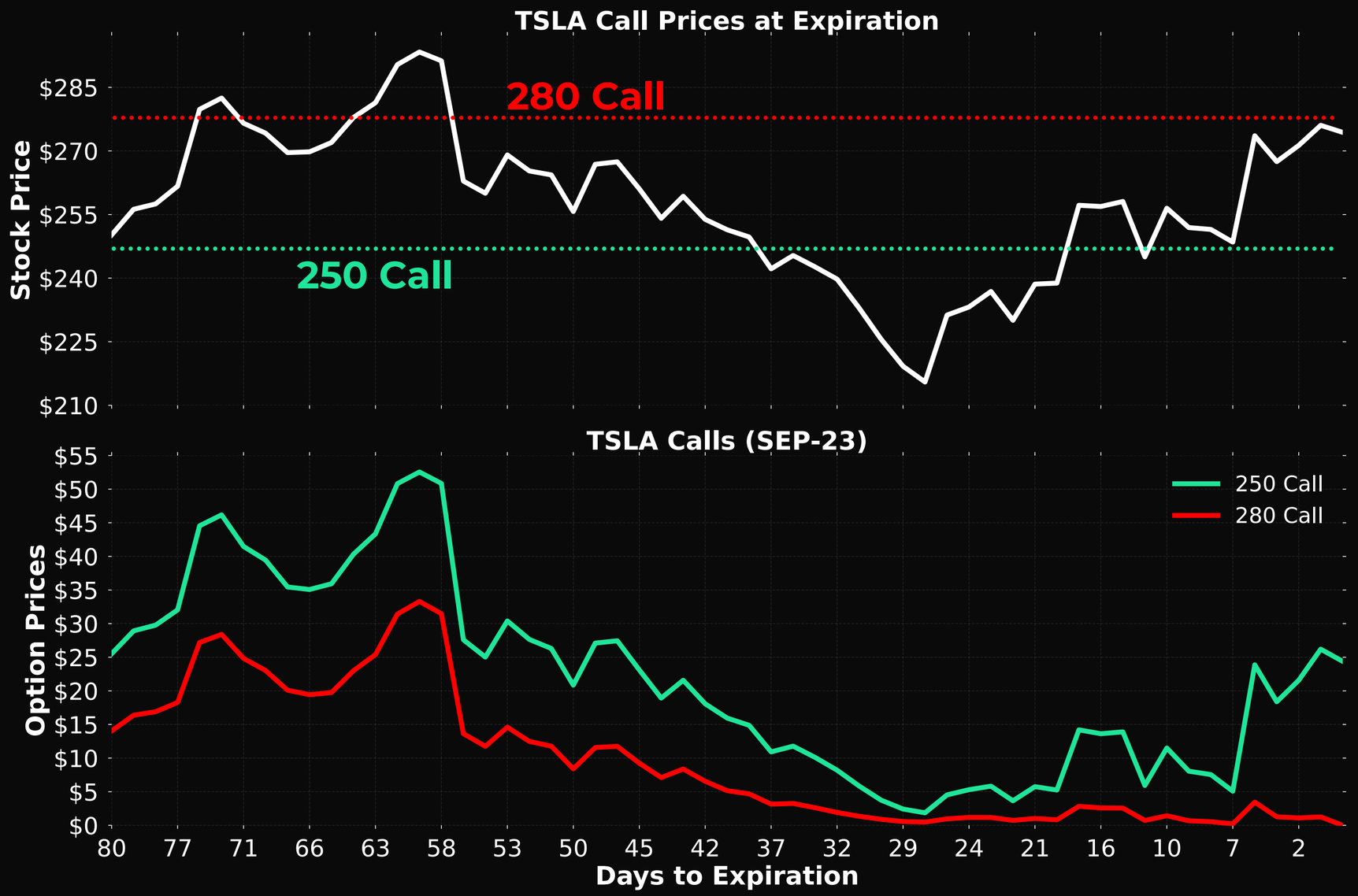
If the option has no intrinsic value at expiration, it is worthless ($0.00).

As we saw in the AAPL example, the option's extrinsic value went up and down as its probability of expiring in-the-money (with intrinsic value) went up and down. **Ultimately, the option price trended toward its intrinsic value, which was zero.**



Because an option will only be worth its intrinsic value at expiration, **it’s price will always trend to its intrinsic value over time.**

# Call Prices at Expiration

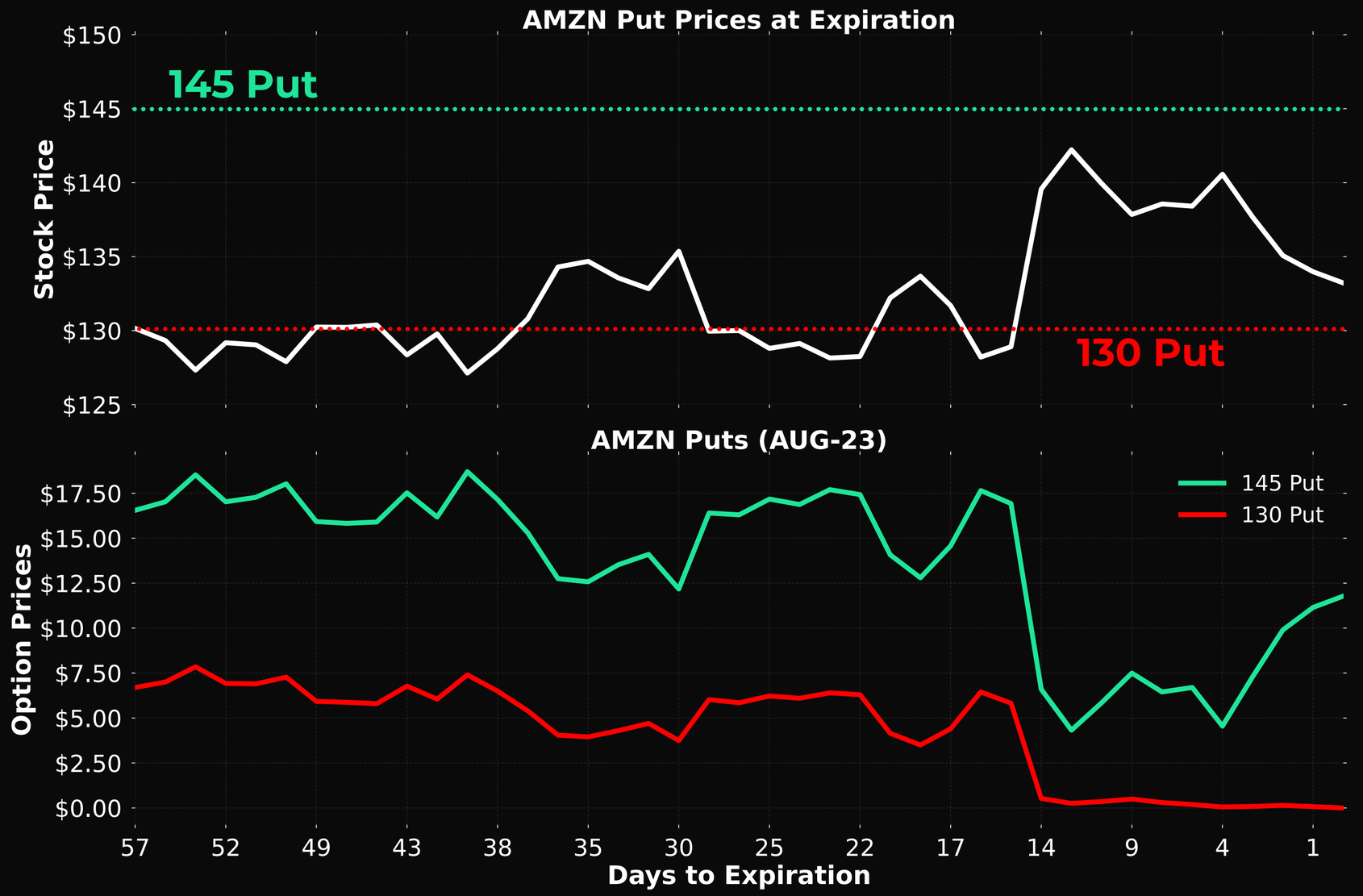



**Example of TSLA Calls**

We can see TSLA's share price ends above the 250 call strike, but below the 280 call strike.

Notice how the 280 call ultimately trends to a price of zero while the 250 call trends to its final intrinsic value of ~$25.

# Put Prices at Expiration

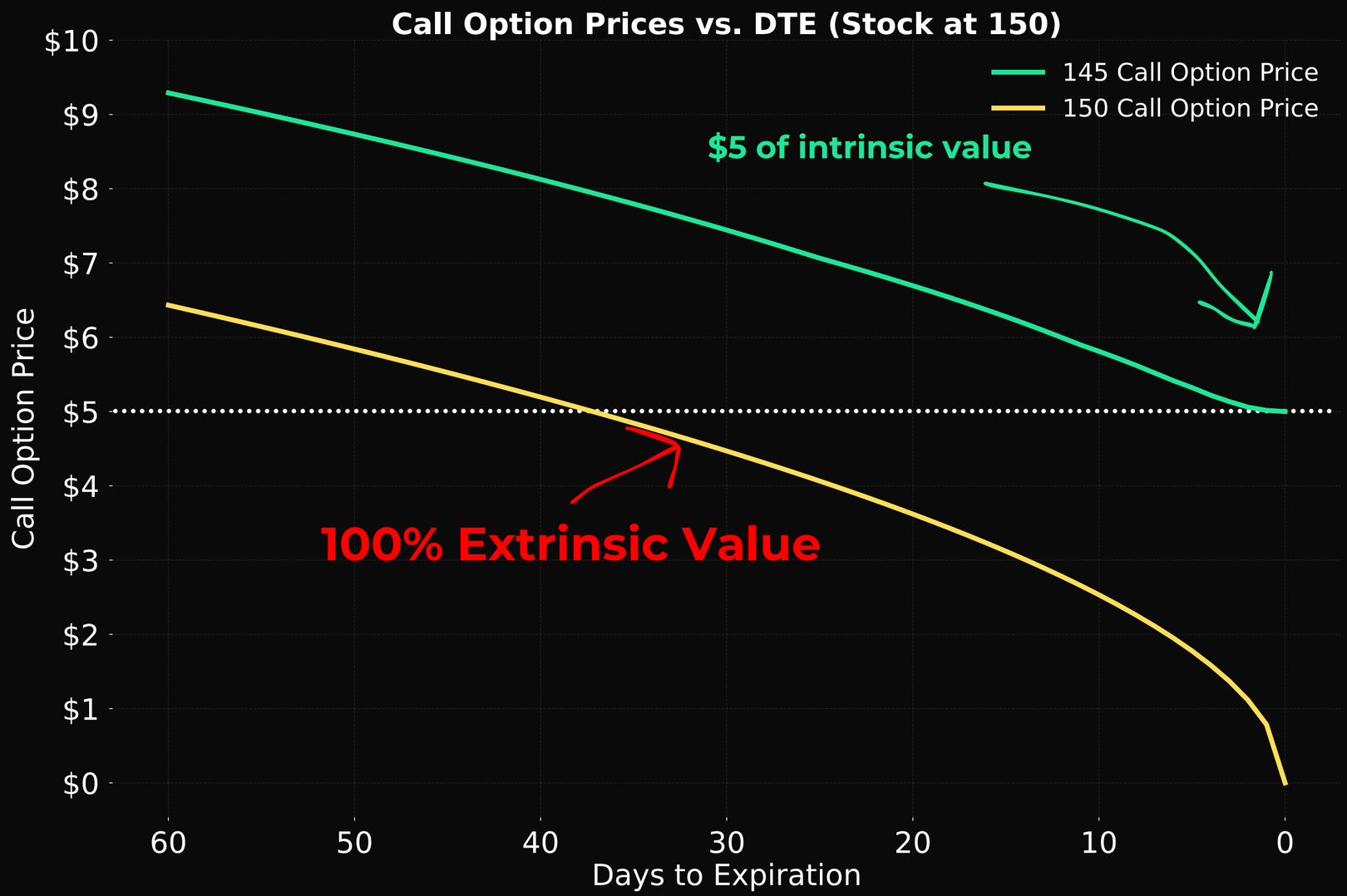



## Example of AMZN Puts

We can see AMZN's share price ends below the 145 put and above the 130 put.

Notice how the 130 put ultimately trends to a price of zero while the 145 put trends to its final intrinsic value of ~$12.

# Intrinsic Value is All That Remains at Expiration



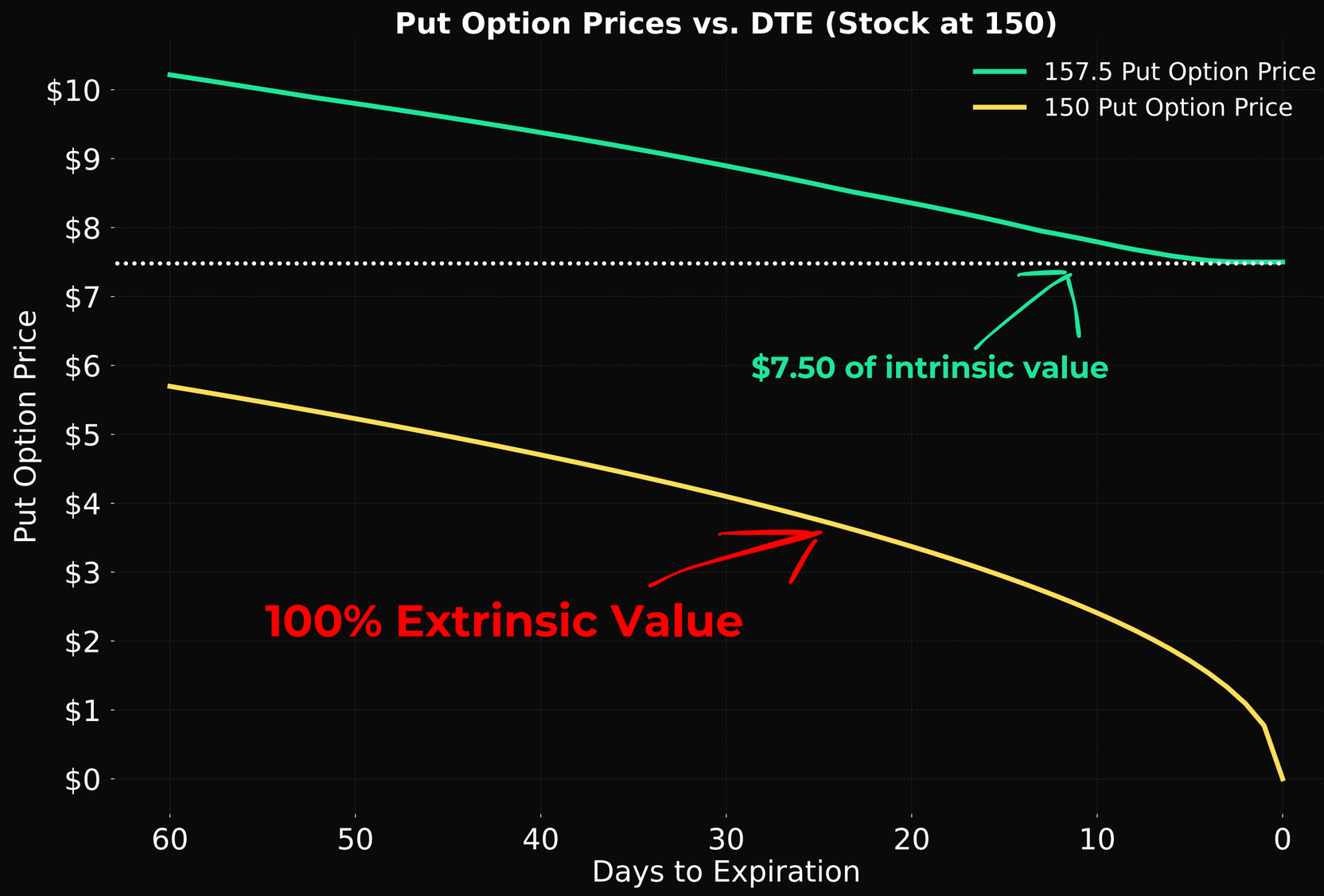

**Stock Price =** $150
**Intrinsic of 145 Call:** $5
**Intrinsic of 150 Call:** $0

The 145-strike call has $5 of intrinsic value with the stock at $150, while the 150 call's price is purely extrinsic.

**As expiration approaches, each call's price trends towards its intrinsic value.**

projectoption

# Intrinsic Value is All That Remains at Expiration




**Stock Price =** $150
**Intrinsic of 157.5 Put** $7.50
**Intrinsic of 150 Put:** $0

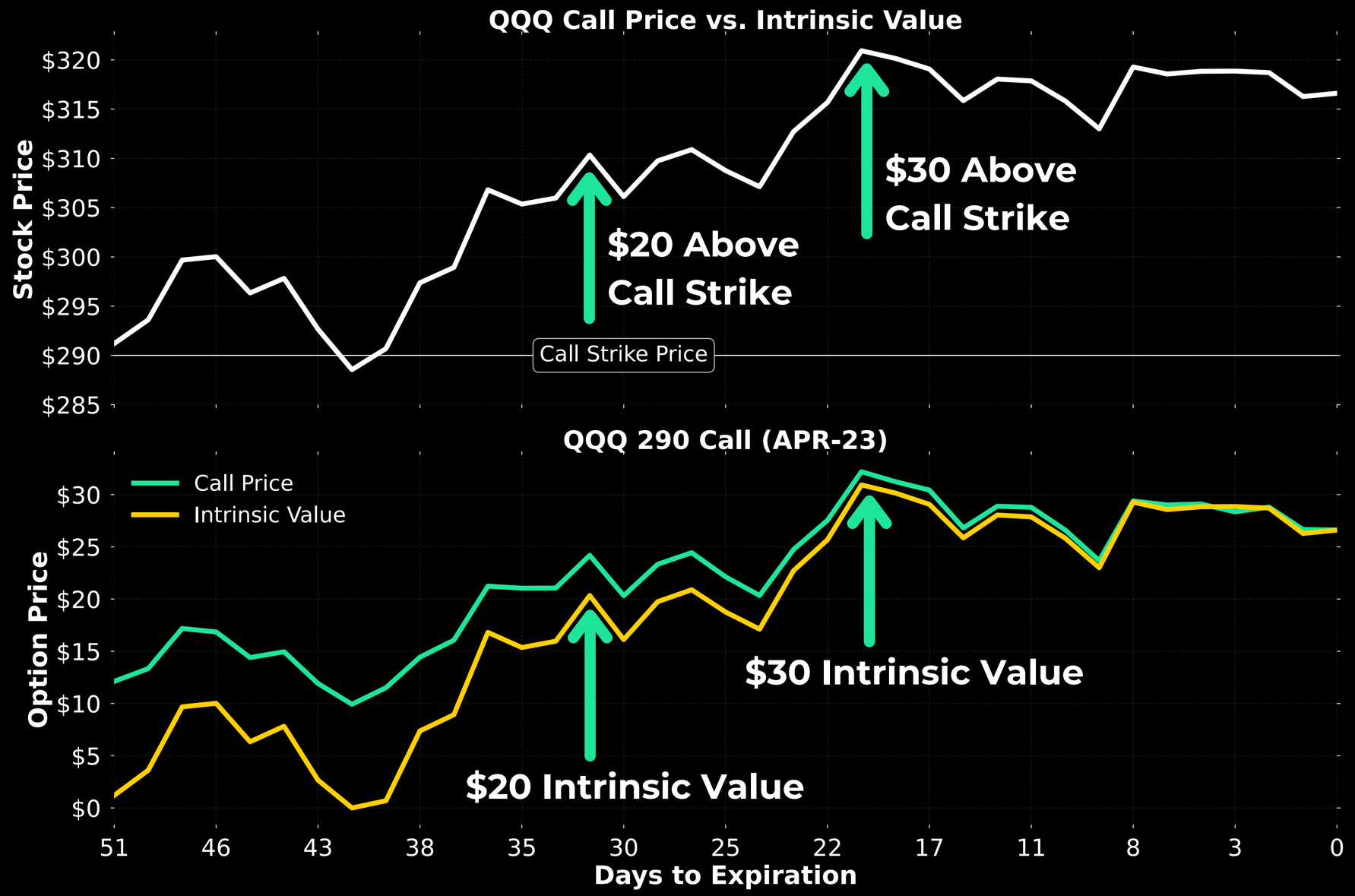
The 157.50-strike put has $7.50 of intrinsic value with the stock at $150, while the 150 put's price is purely extrinsic.

**As expiration approaches, each put's price trends towards its intrinsic value.**

# Intrinsic/Extrinsic Value Takeaways

Intrinsic value is the "tangible" price portion of an option - it represents the gain from exercising the option and closing the resulting stock position at the current stock price.

**Intrinsic value sets the floor price for an option at any given moment:**



# Extrinsic Value Takeaways

**But if an option has no intrinsic value, it can still be valuable via extrinsic value.**

If there's lots of time left until expiration, and/or the stock has high volatility, there's still a *probability* the stock price can make a big move before the option expires and leave the option intrinsically valuable (as we saw in the AAPL call example).

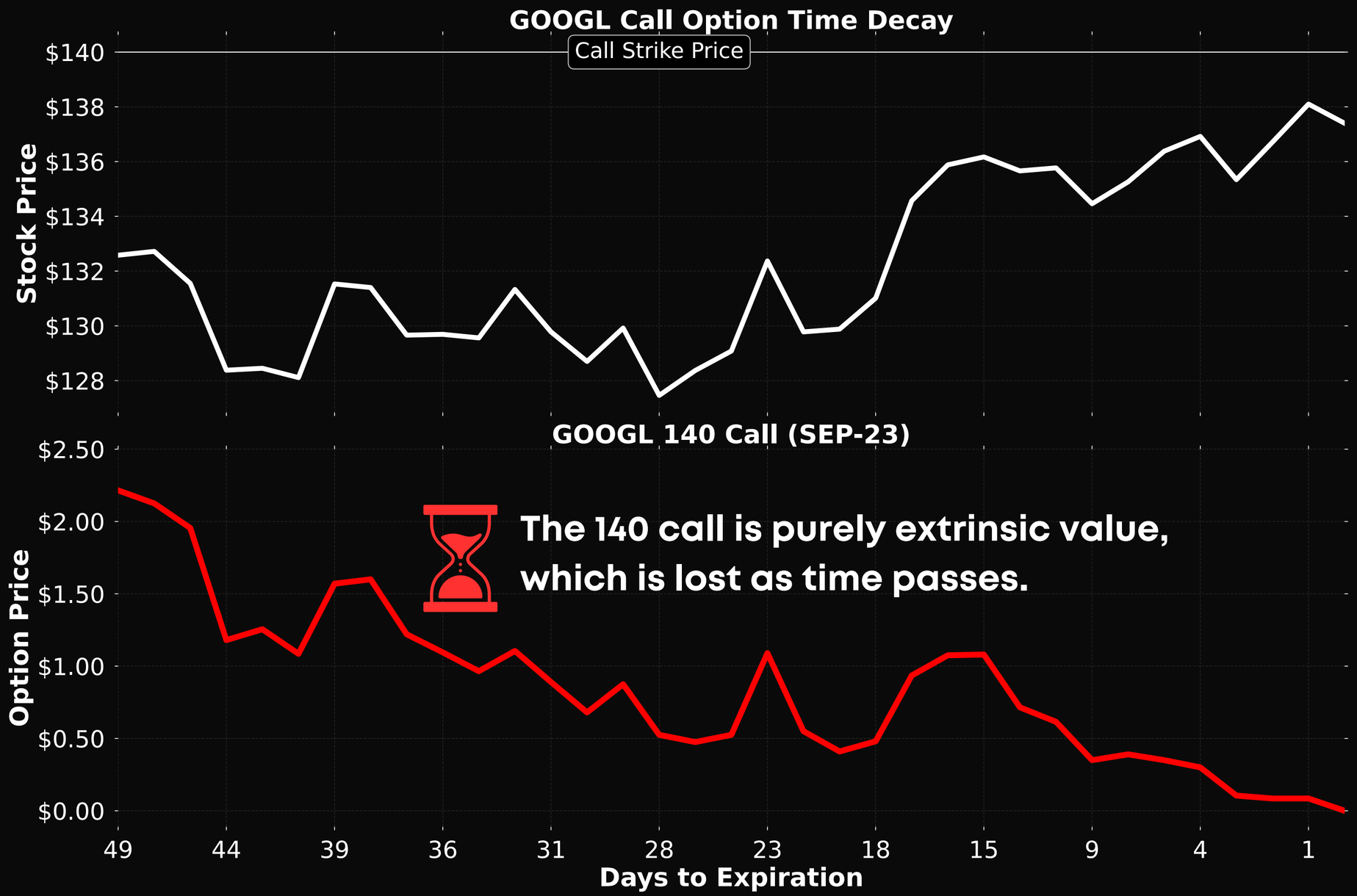

Shorter-term options are cheaper because there's less time for the stock to move, and therefore less time for the option to see a big price change.

As time passes, the extrinsic value of an option trends to zero, which is called **time decay**.

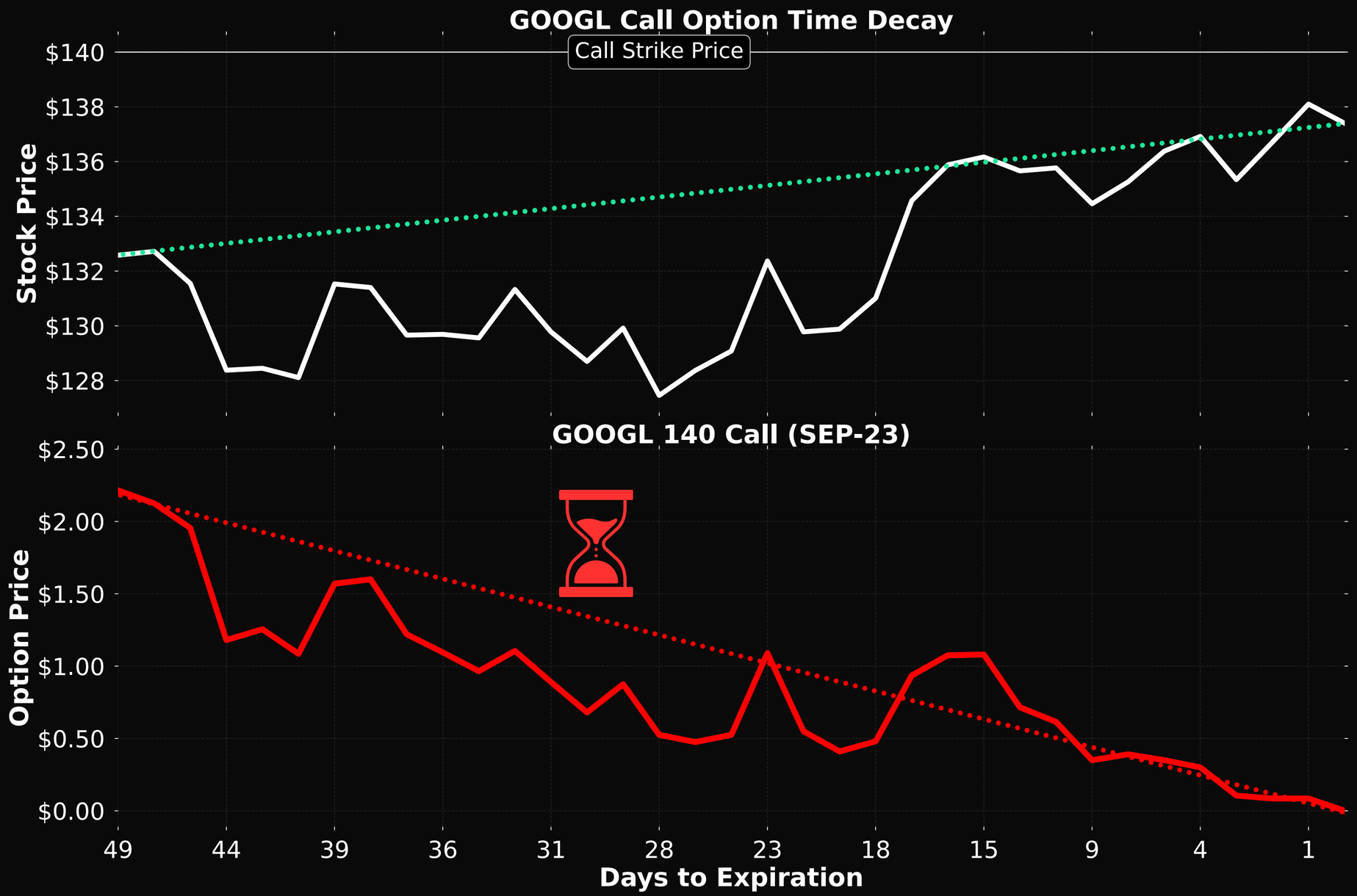
**DTE: 49 Days**
**Cost: $1,073**

**DTE: 448 Days**
**Cost: $4,428**

# Time Decay Visualized

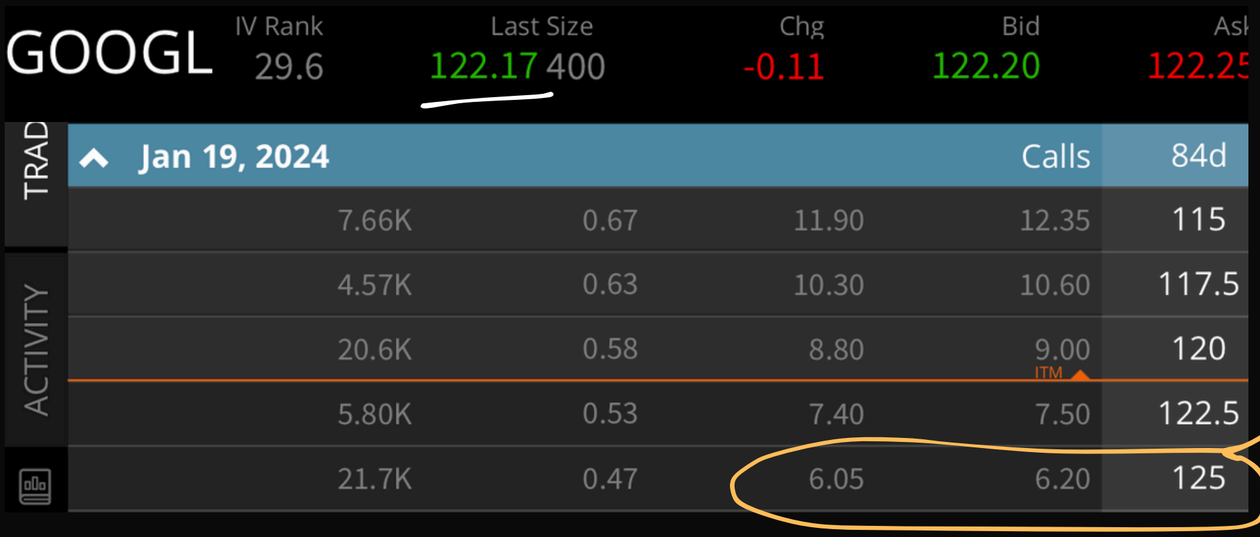


# Time Decay Visualized




Options on high volatility stocks will have more extrinsic value than options on lower volatility stocks.

Options on high volatility stocks will have more extrinsic value than options on lower volatility stocks:




**GOOGL: $122.17**

125 Call (84 DTE)

**$6.10**

Google's higher stock volatility than XLV results in more expensive options when comparing the same DTE and strike price.


**XLV: $123.15**

125 Call (84 DTE)

**$3.30**

# Option Moneyness Explained

# Option "Moneyness" Explained

(ITM, ATM, OTM)

There are three "moneyness" options trading terms that describe an option's strike price in relation to the stock price.

## In-the-Money (ITM)

An option that has intrinsic value. Stock at $120, call option with a strike of $100 has $20 of intrinsic—it can buy shares at $100 with the market price at $120.

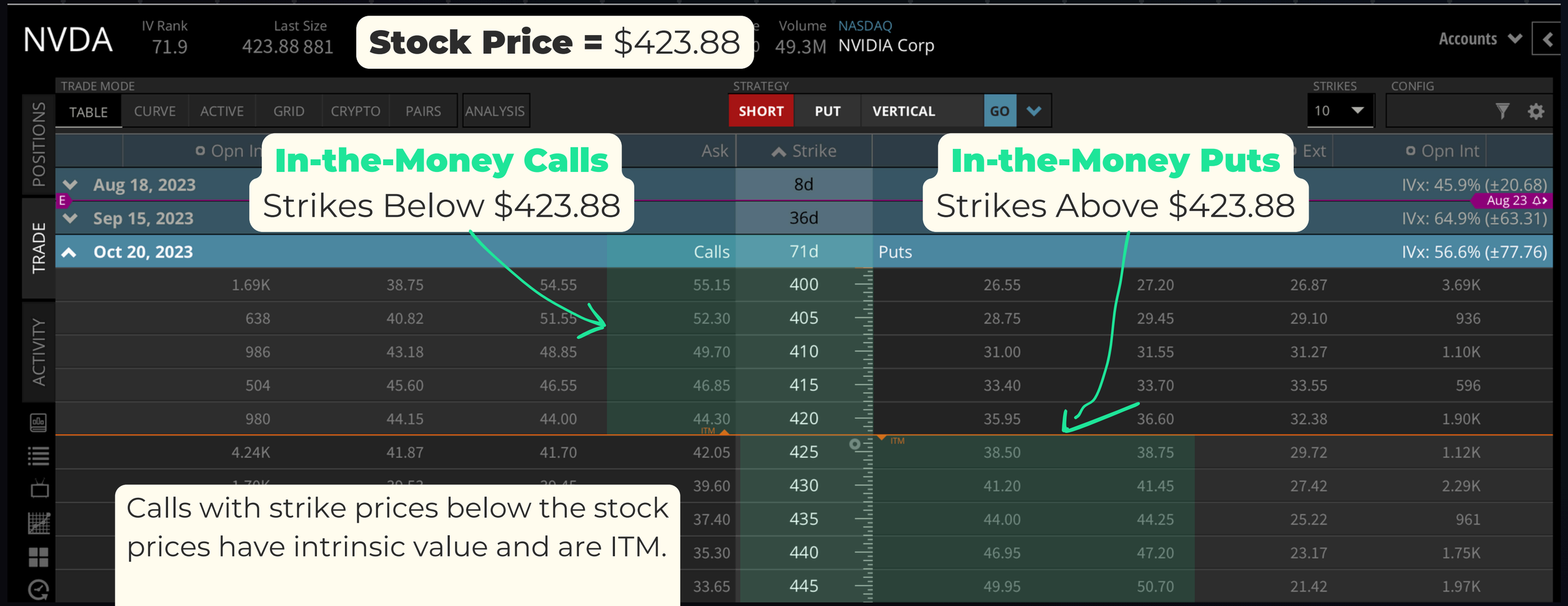
## At-the-Money (ATM)

An option with a strike price at/near the stock price. Little to no intrinsic.

## Out-of-the-Money (OTM)

An option with no intrinsic value. OTM options consist of 100% extrinsic value.

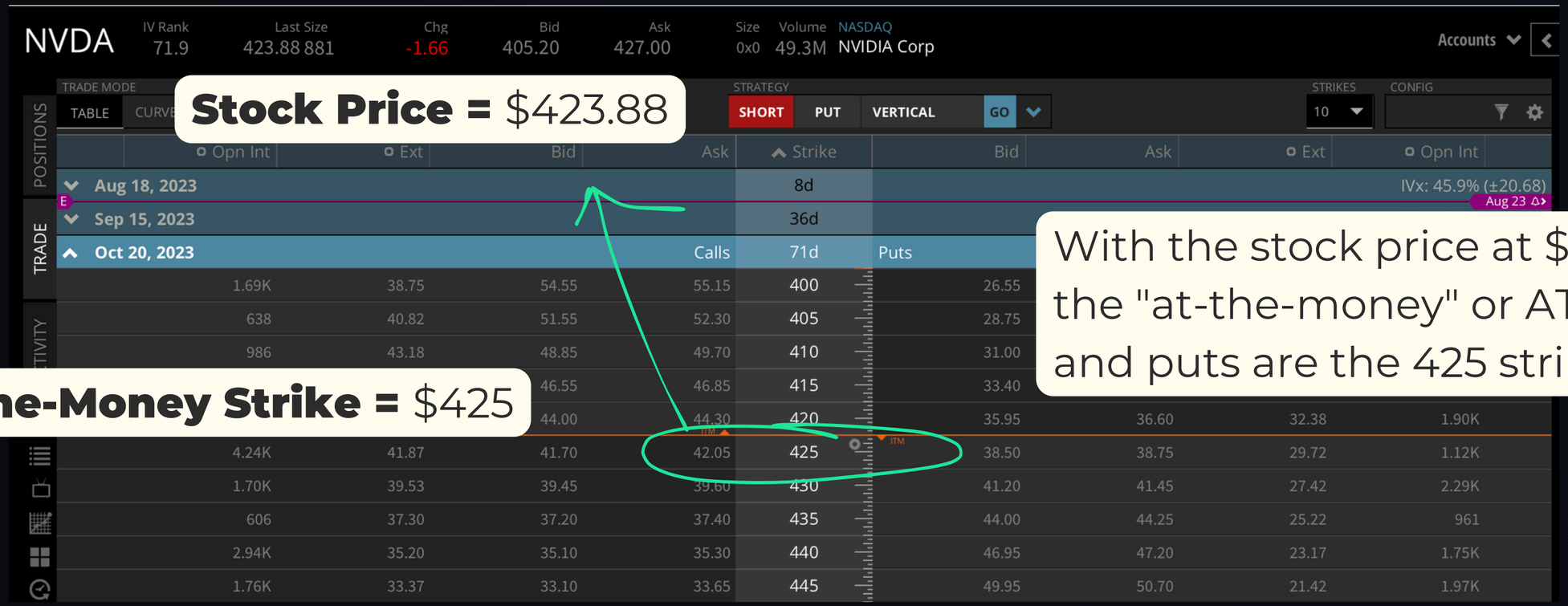
# In-the-Money (ITM) Options




Calls with strike prices below the stock prices have intrinsic value and are ITM.

Puts with strikes above the stock price have intrinsic value and are ITM.

# At-the-Money (ATM) Options

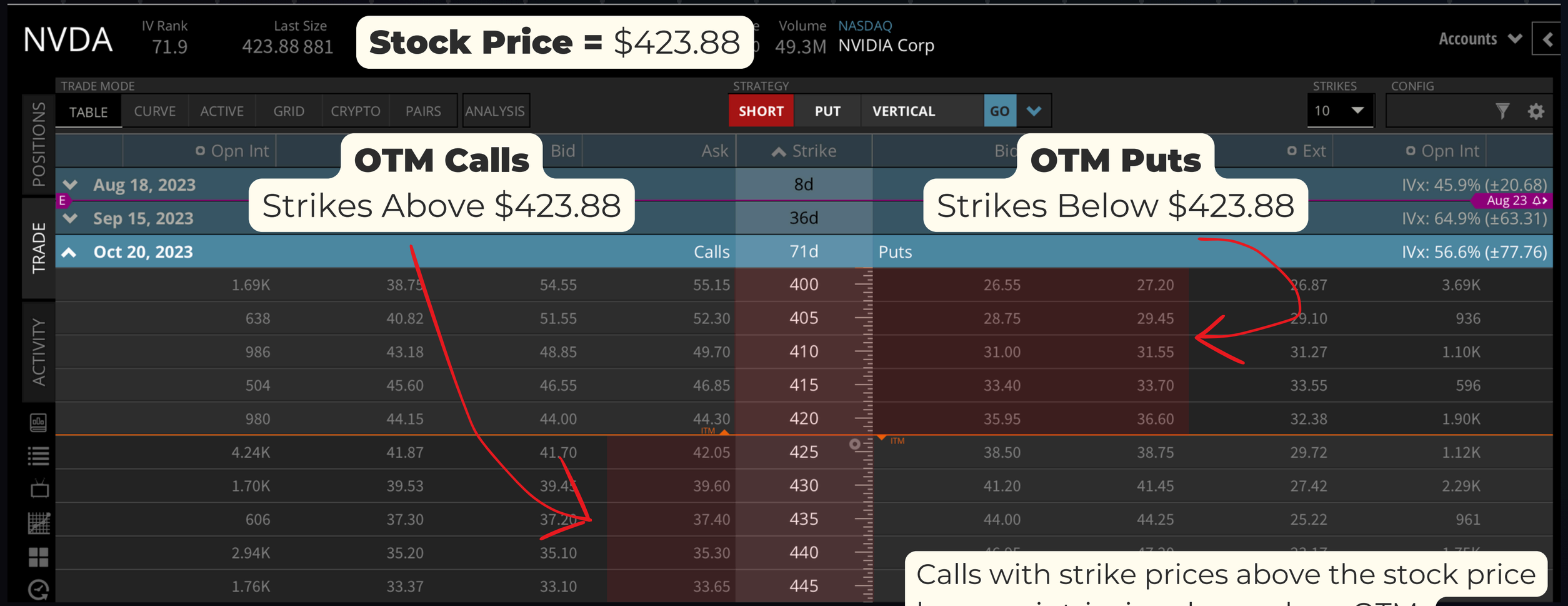



**Stock Price =** $423.88

**At-the-Money Strike =** $425

With the stock price at $423.88, the "at-the-money" or ATM calls and puts are the 425 strike.

# Out-of-the-Money (OTM) Options




Calls with strike prices above the stock price have no intrinsic value and are OTM.

Puts with strikes below the stock price have no intrinsic value and are OTM.

# How Shorting Options Works

# How Shorting Options Works

Thus far, we've talked exclusively about buying calls and puts.

But for every buyer, there is a seller.

Trader can "**short**" stocks, which means to sell shares of stock they don't own.

Traders can "**short**" options, which means to sell an option without owning it first.

Short traders are betting against the price of the asset they short.

If I short a stock, I make money if the stock price falls because I can then buy it back for a lower price.

If I short an option, I make money if the option price falls because I can then buy it back for a lower price (or let it expire worthless).

# Open/Close Order Types

## Buy-to-Open (BTO)

Starting a new position by buying an option (like we've talked about thus far).

## Sell-to-Open (STO)

Starting a new position by selling an option you don't currently own. This is used in strategies like covered calls or call/put spreads.

When I say "shorting" an option, I am referring to a sell-to-open order because it is the primary way traders refer to selling options as opening trades.

# Open/Close Order Types

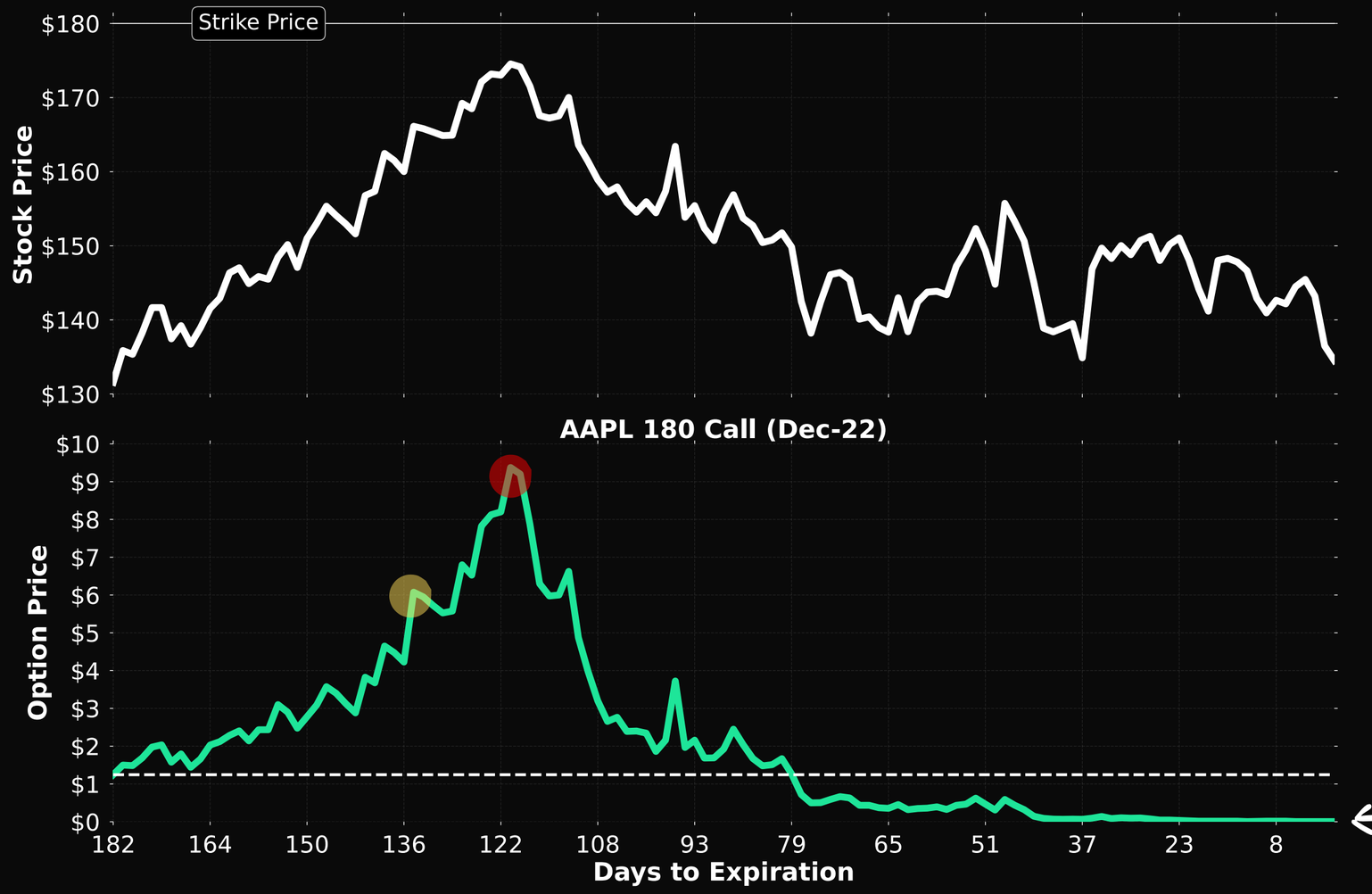
**Sell-to-Close (STC)**

Selling/closing an option you own (previously bought-to-open).

**Buy-to-Close (BTC)**

Buying/closing an option you previously sold-to-open.

# How Shorting Options Works




Imagine a trader who wanted to bet against the AAPL stock price rally in the previous call option example.

The trader could have SHORTED a call option.

Let's say the trader shorted the 180-strike call option at the highlighted entry point.

They would have collected **$600** into their account for shorting the option.

The call's value increase to $9 would have dealt them with an unrealized loss of **$300** per contract.

The call ended up trading towards **$0** in the final months before the expiration, at which point the trader could have bought back the call for pennies on the dollar, making **$600** on the trade.

# How Shorting Options Works

## Short Call Trade Math

**Shorted Call at $6**
+$600 Into Account

**Call Price Rises to $9**
-$300 Unrealized Loss on Position
If I short a call for $600 and I buy it back for $900, **I lose $300**.

**Call Price Falls to $0**
+$600 Unrealized Profit on Position
If I short a call for $600 and I can buy it back for $10, **I make $590**.
If the call expires worthless, I make $600.

# Shorting Calls Explained

# Shorting Call Options Explained

Shorting call options is an options strategy where you sell call options you do not own.

Because call option prices fall as the stock price falls, **shorting a call option is a bearish strategy**.

When shorting calls, you make money over time if the stock price remains below the strike price of the call you sell.

The strategy has **theoretically unlimited risk** to the upside because there is no limit to how high a stock's price can go.

# Buying vs. Shorting: Money Flows

## Buying Options

| Action | Inflow/Outflow |
| --- | --- |
| **Buy Option for $3.00** | -$300 |
| **Sell Option for $3.77** | +$377 |
| **P/L** | **+$77** |

## Shorting Options

| Action | Inflow/Outflow |
| --- | --- |
| **Short Option for $7.32** | +$732 |
| **Buy Option for $5.00** | -$500 |
| **P/L** | **+$232** |

# Buying vs. Shorting: Money Flows

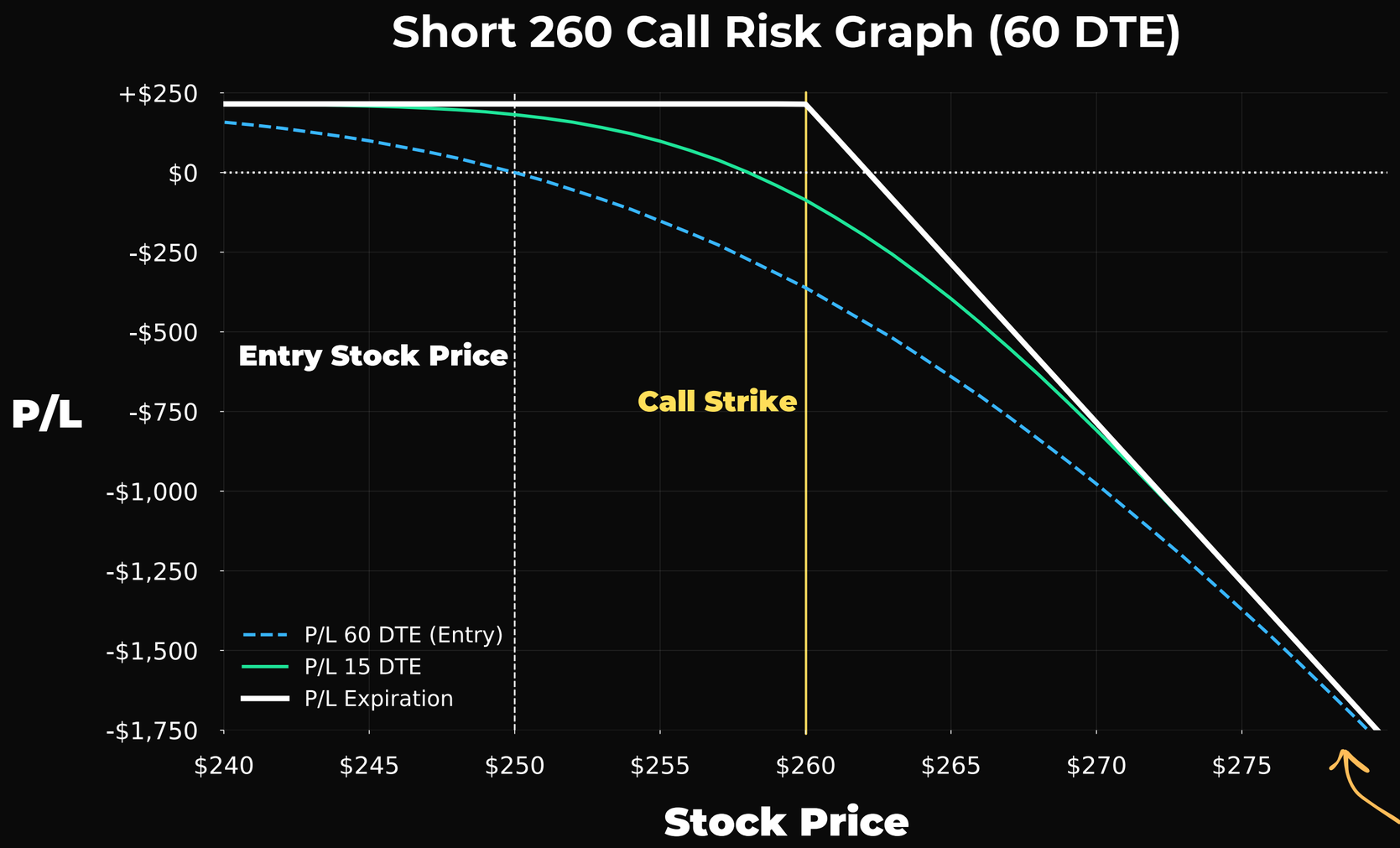
## Buying Options

| Action | Inflow/Outflow |
|---|---|
| **Buy Option for $12** | -$1,200 |
| **Sell Option for $8** | +$800 |
| **P/L** | **-$400** |

## Shorting Options

| Action | Inflow/Outflow |
|---|---|
| **Short Option for $5** | +$500 |
| **Buy Option for $21** | -$2,100 |
| **P/L** | **-$1,600** |

# Short Call Risk Graph Example



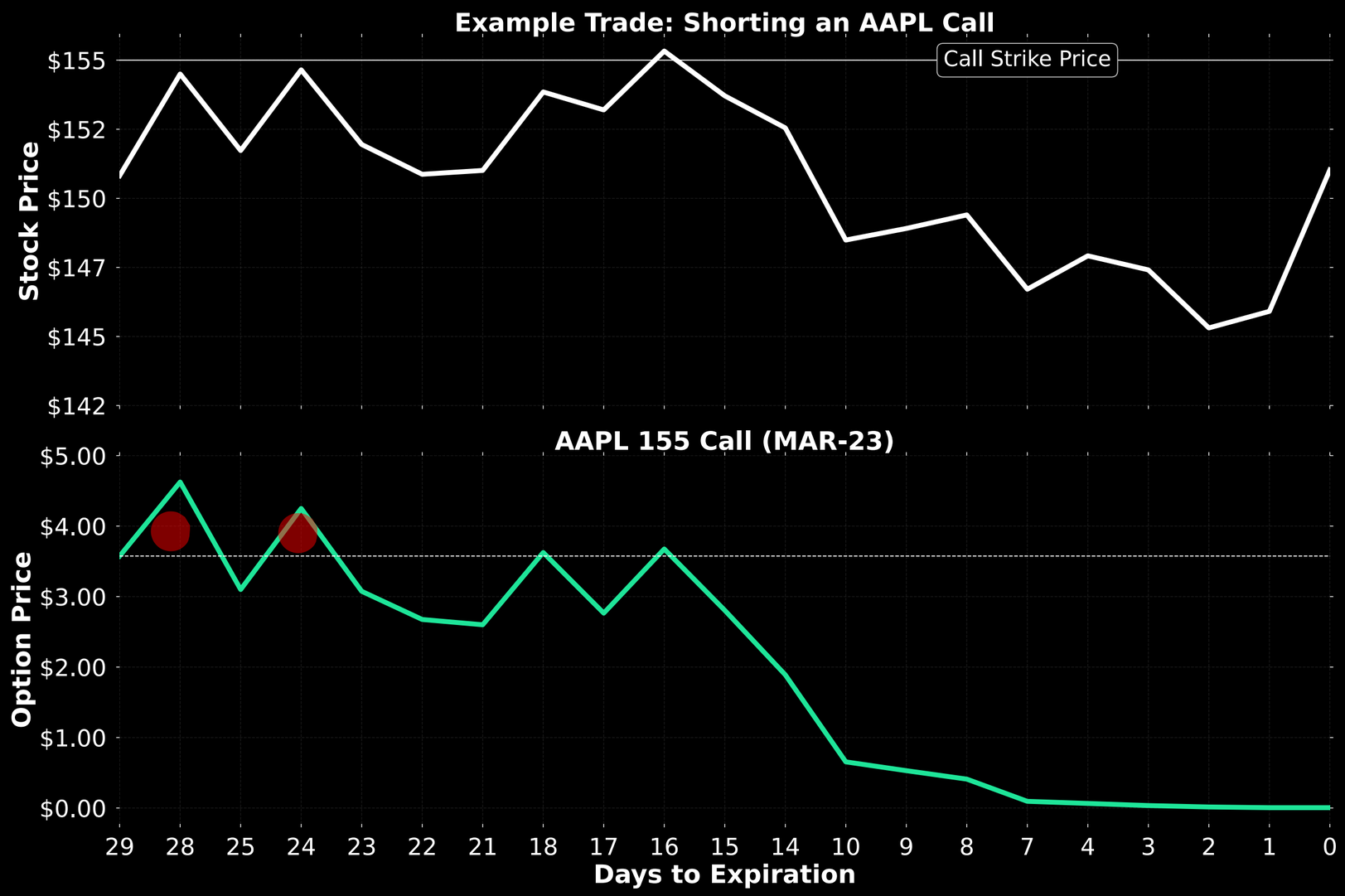

**Entry Stock Price:** $250
**Call Strike:** $260
**Entry Call Price:** $2.15
**Entry DTE:** 60 Days

In this simulation, we're looking at shorting a 60-day, 260-strike call with the stock price at $250.

The position profits when the stock price falls, and/or is below the call's strike of $260 at expiration.

**The short call strategy has theoretically unlimited loss potential to the upside.**

# Short Call Trade Example



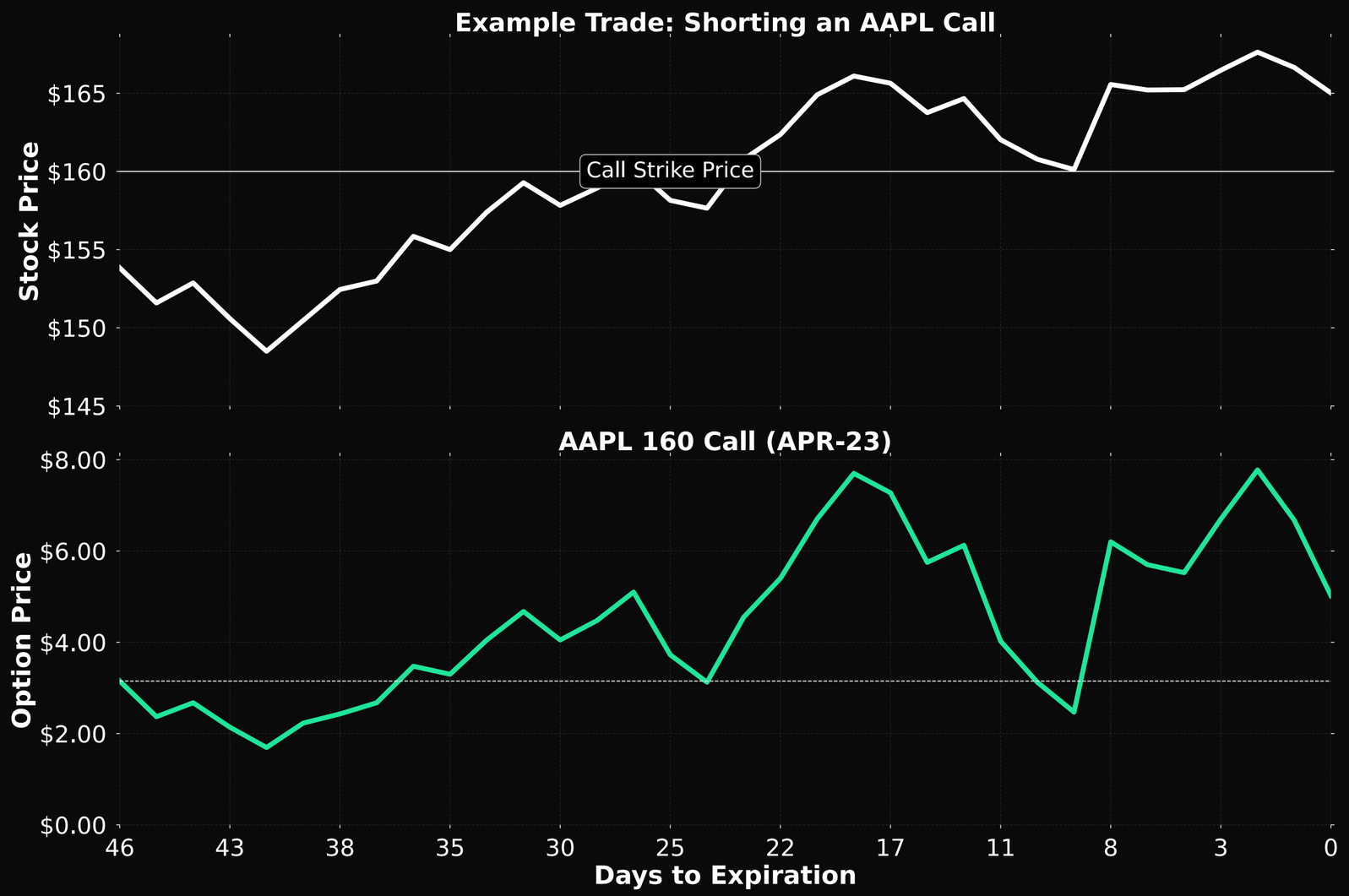

**Entry Stock Price:** $150.82
**Call Strike:** $155
**Entry Call Price:** $3.58
**Entry DTE:** 29 Days

In this simulation, we're looking at shorting a 29-day, 155-strike call with AAPL shares at $150.82.

The short call position loses money initially as the stock heads higher, but ultimately the stock price fails to breach the 155 price level over time.

At expiration, the 155 call expires worthless. The short call trade makes a **final profit of +$358** per call shorted.

# Short Call Trade Example



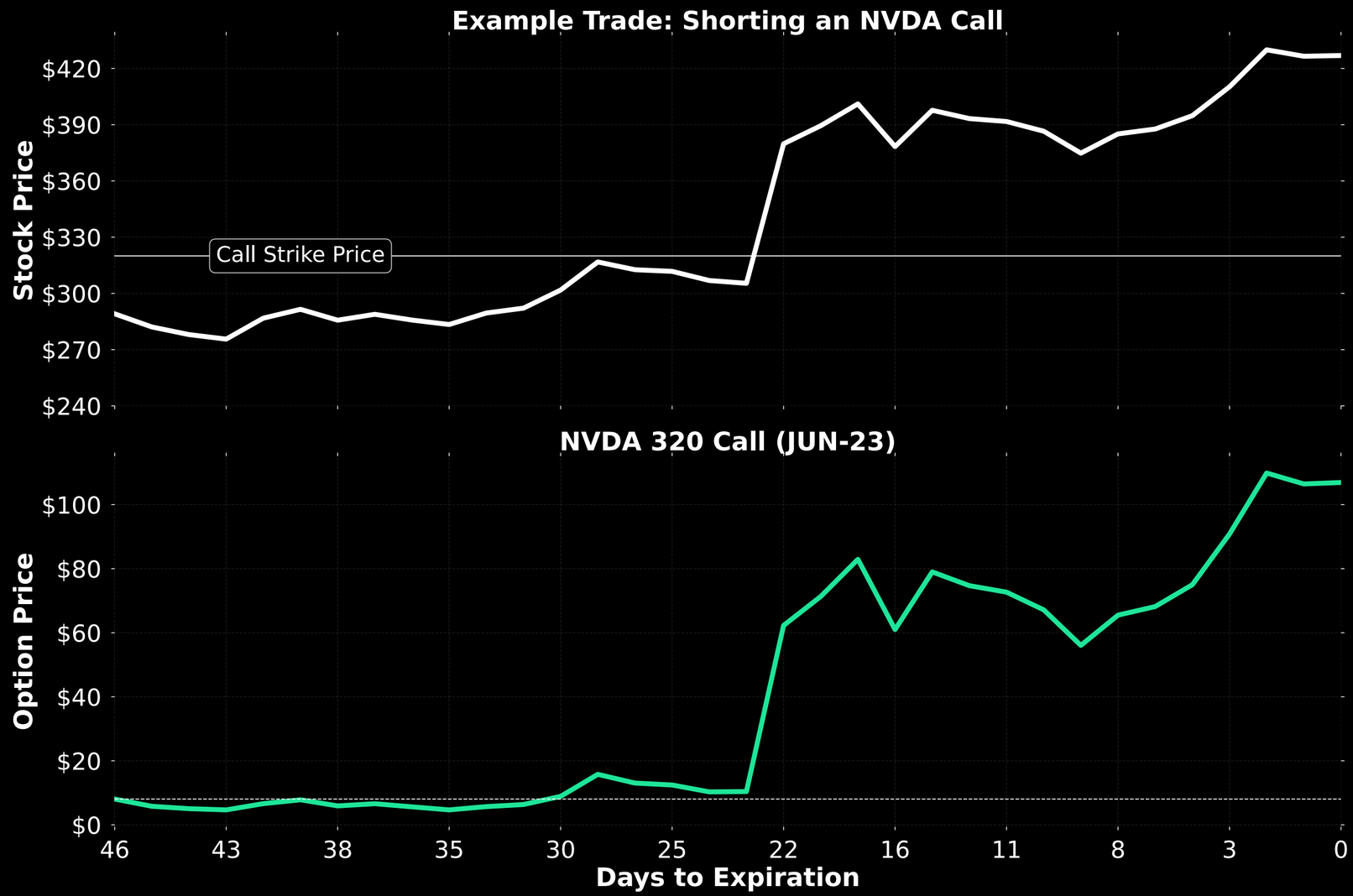

**Entry Stock Price:** $153.83
**Call Strike:** $160
**Entry Call Price:** $3.15
**Entry DTE:** 46 Days

In this simulation, we're looking at shorting a 46-day, 160-strike call with AAPL shares at $153.83.

The short call position profits initially as the stock heads lower, but ultimately the stock price heads higher than the 160 strike.

At expiration, the 160 call is worth its intrinsic value of $5.02. The short call trade makes a **final loss of -$187** per call shorted.

# Short Call Trade Example




**Entry Stock Price:** $289.10
**Call Strike:** $320
**Entry Call Price:** $8.05
**Entry DTE:** 46 Days

The NVDA short call position struggles out of the gates with the stock price trending higher. Halfway through the trade, NVDA shares blast higher and run up to $426.92.

At expiration, the 320 call is worth its intrinsic value of $106.92.

The short call trade experiences a **final loss of -$9,887** per call shorted.

# Shorting Puts Explained

# Shorting Put Options Explained

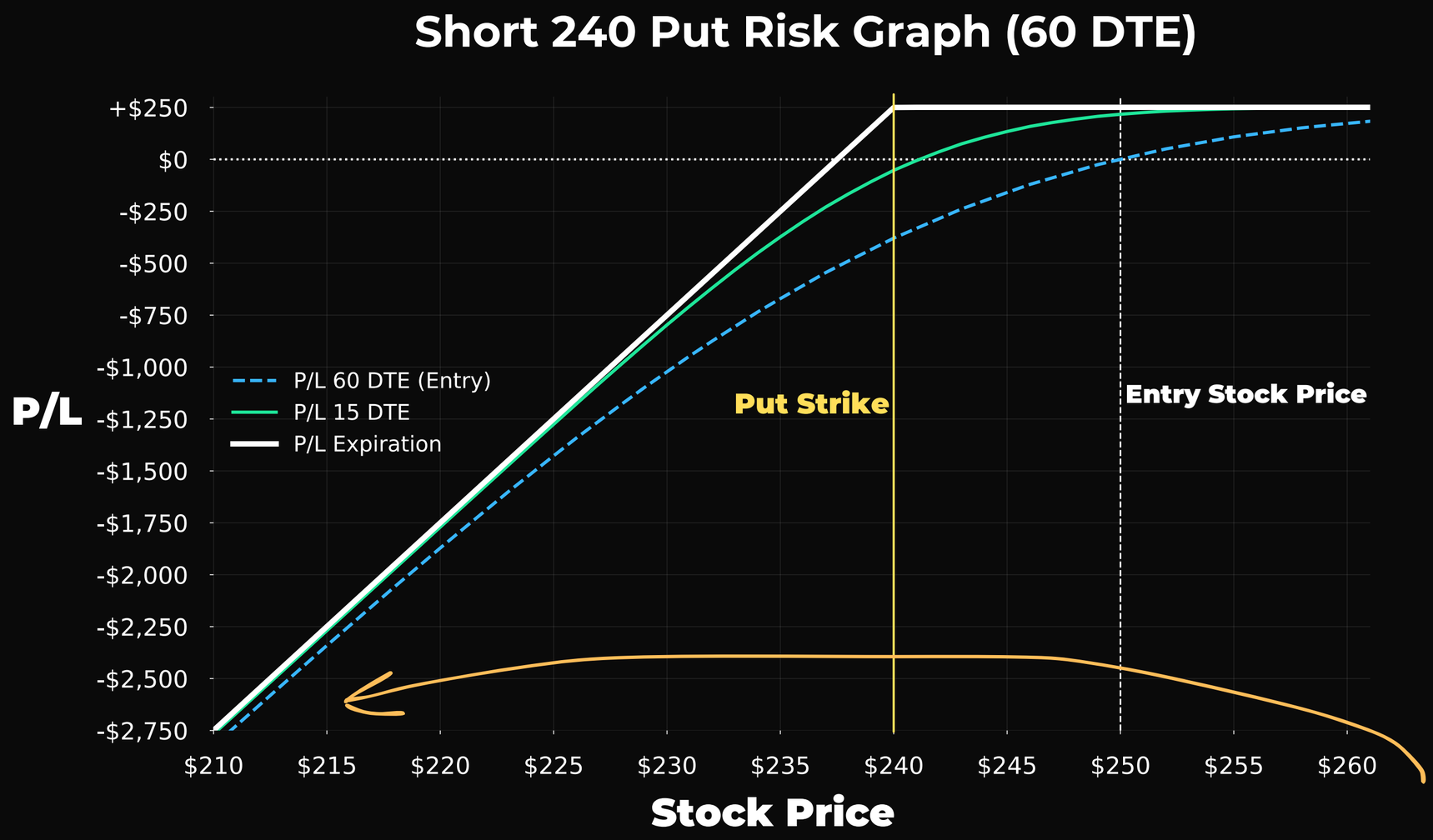
Shorting put options is an options strategy where you sell put options you do not own.

Because put option prices fall as the stock price rises, **shorting a put option is a bullish strategy**.

When shorting puts, you make money over time if the stock price remains above the strike price of the put you sell.

The strategy has **significant loss potential** to the downside.

# Short Put Risk Graph Example



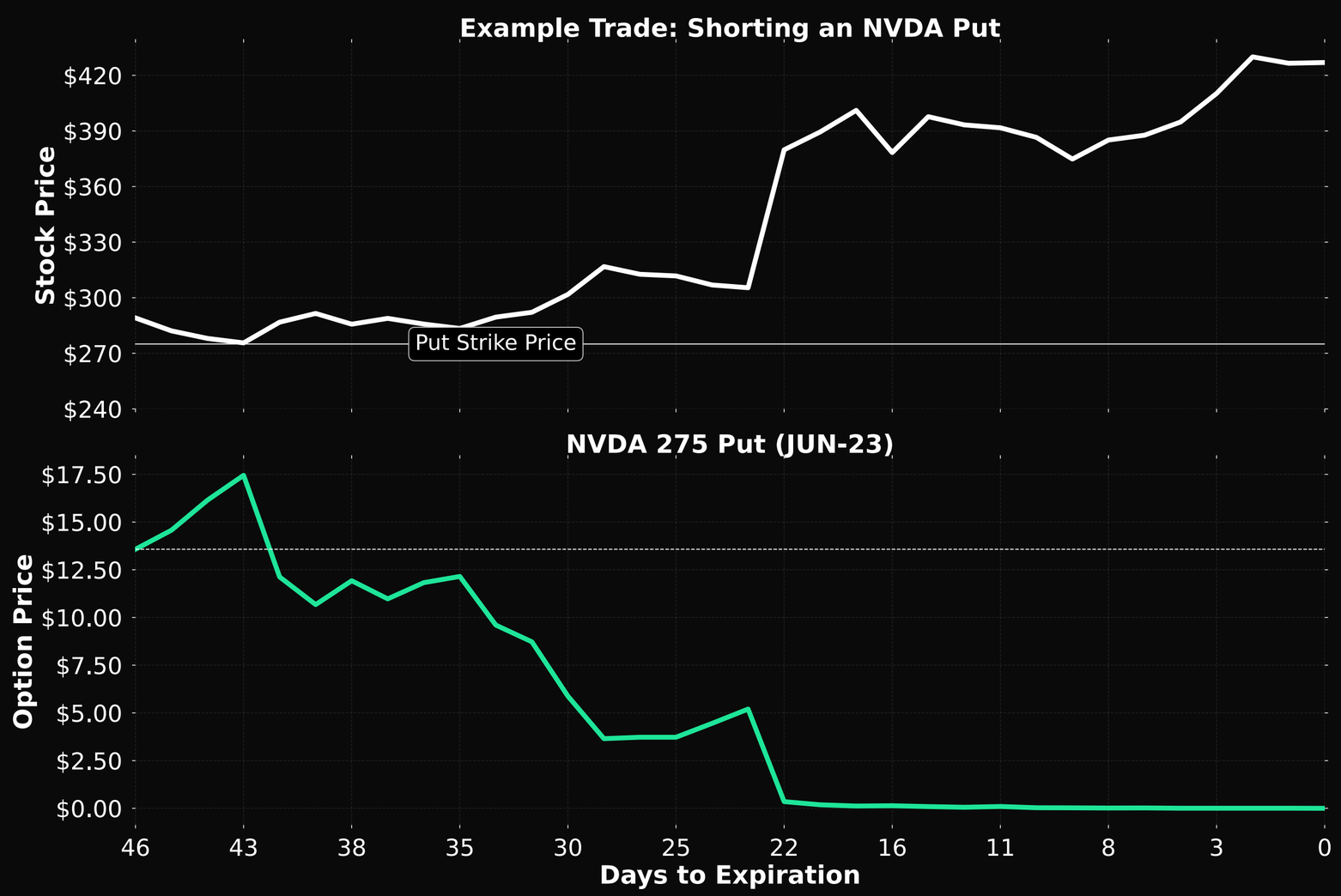

**Entry Stock Price:** $250
**Put Strike:** $240
**Entry Put Price:** $2.50
**Entry DTE:** 60 Days

In this simulation, we're looking at shorting a 60-day, 240-strike put with the stock price at $250.

The position profits when the stock price rises, and/or is above the put's strike of $240 at expiration.

**The short put strategy has significant loss potential to the downside.**

# Short Put Trade Example




**Entry Stock Price:** $289.10
**Put Strike:** $320
**Entry Put Price:** $8.05
**Entry DTE:** 46 Days

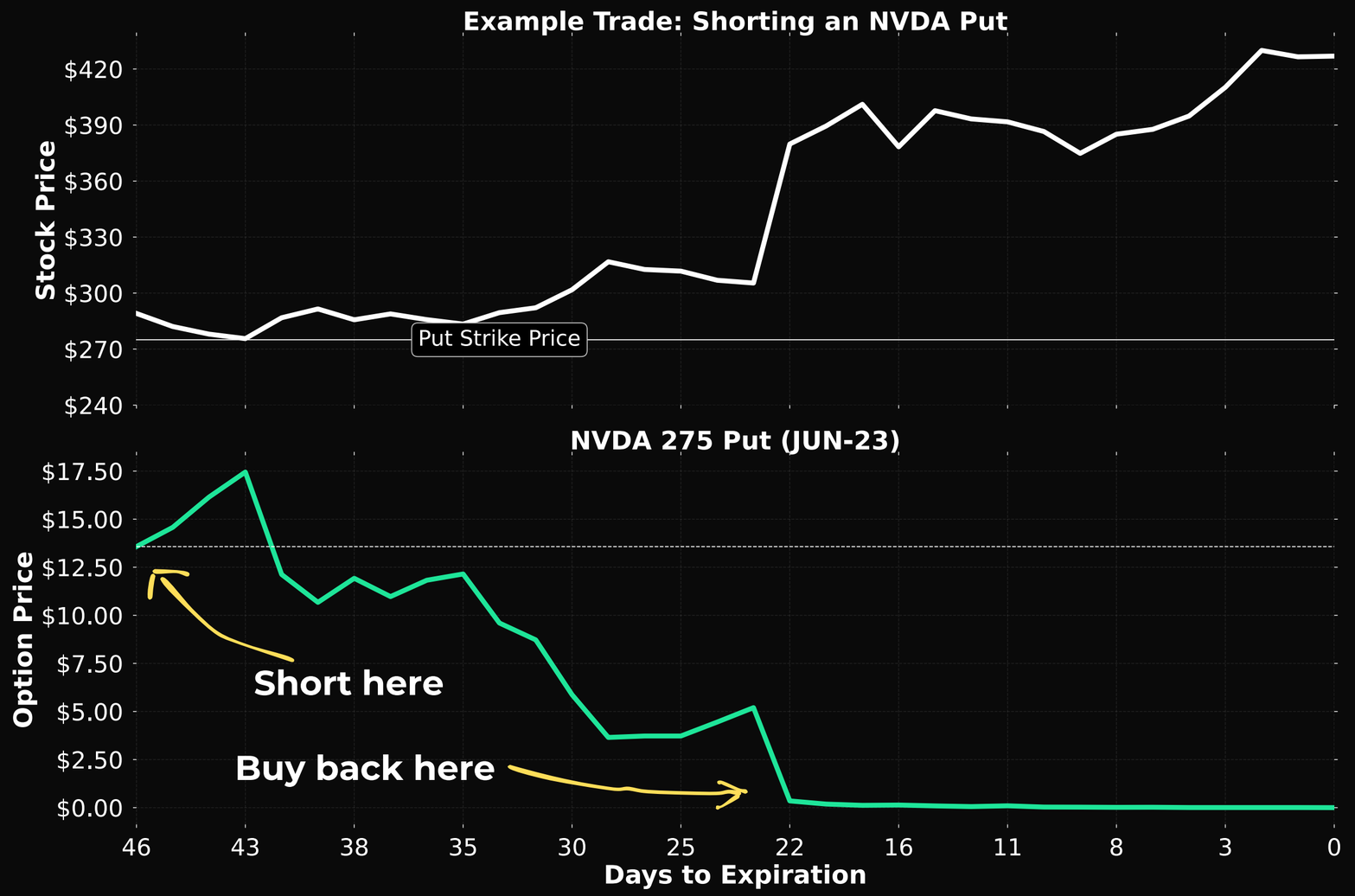
The NVDA short put position experienced some small early losses as the share price fell, but the losses were short-lived.

The stock price rallied hard and the put price collapsed as it became further OTM and time passed.

At expiration, the 275 put was worth its intrinsic value of $0.

The short put trade experienced a **final profit of +$805** per put shorted.

# Short Put Trade Example

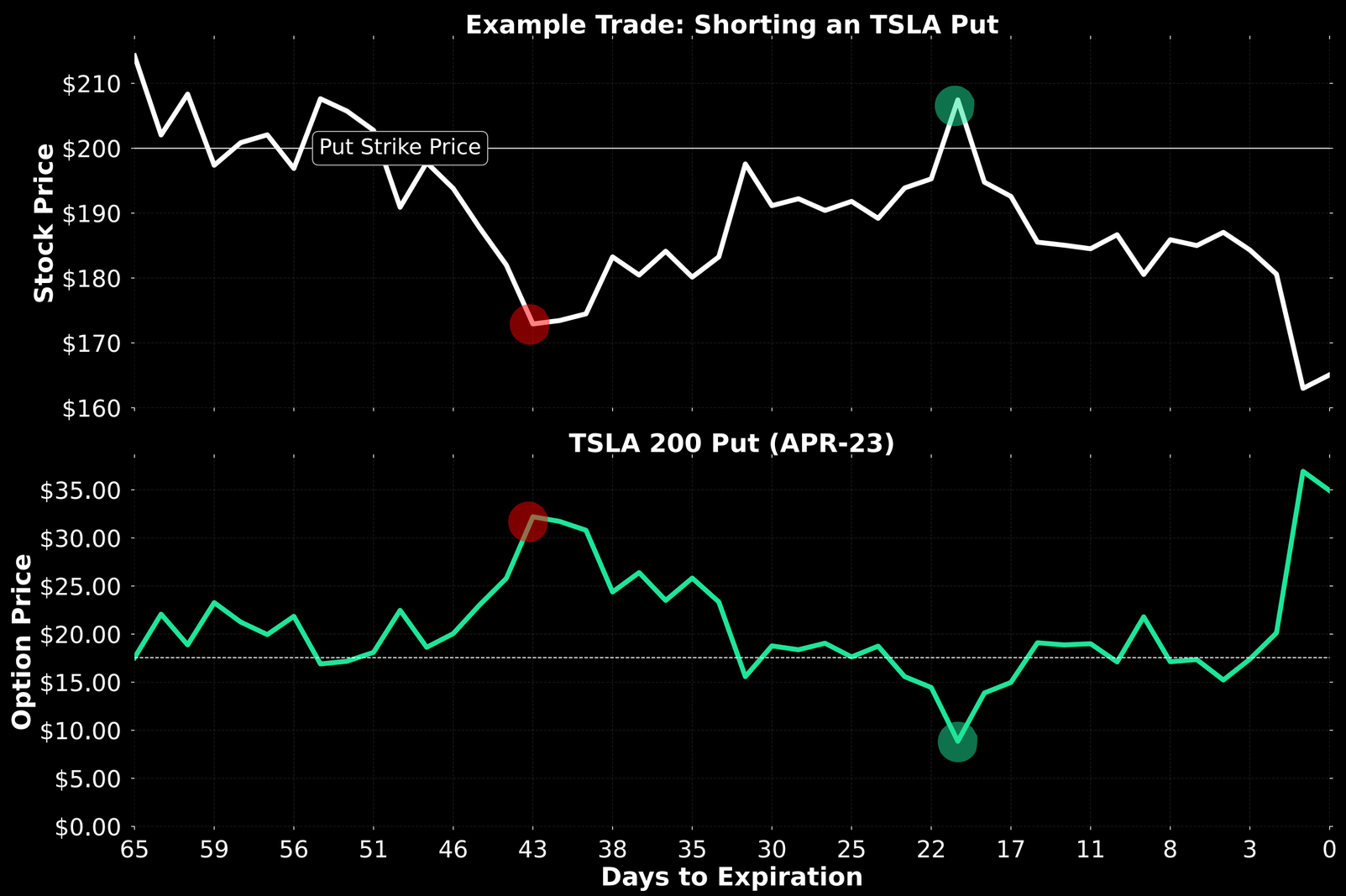



**Keep in mind that option positions can be closed at any time.**

The 275 put was nearly worthless well before expiration.

A trader who shorted the put for $8.05 at entry could have bought the put back (closed) for pennies weeks before expiration, securing a near full profit on the trade.

# Short Put Trade Example




**Entry Stock Price:** $214.24
**Put Strike:** $200
**Entry Put Price:** $17.55
**Entry DTE:** 65 Days

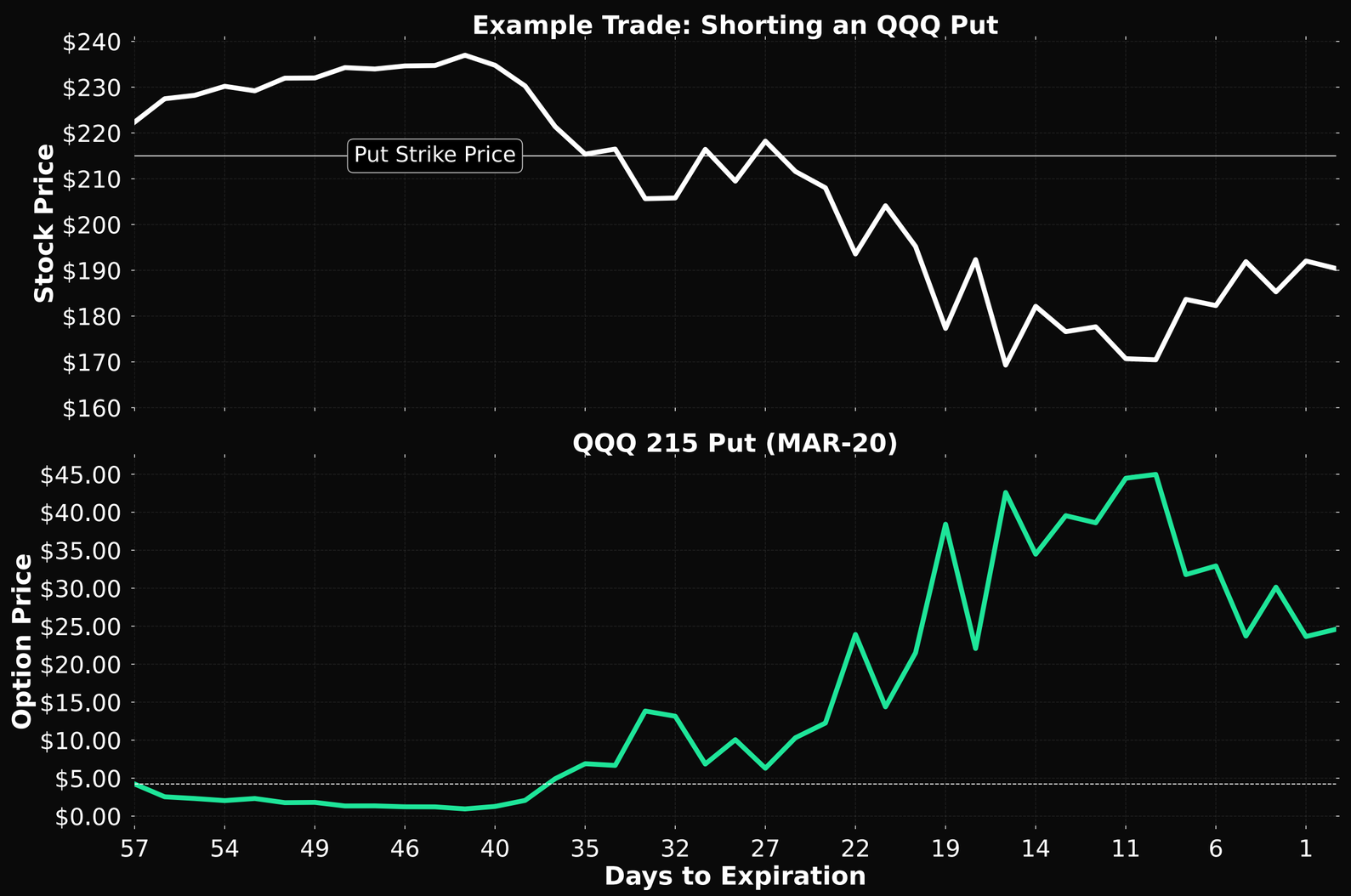
The TSLA short put position experienced losses right away as the share price fell.

The trade recovered as TSLA shares rallied hard, presenting the short put trade with some profits.

At expiration, the stock price was $165.08 and the 200 put was worth its intrinsic value of $34.92.

The short put trade experienced a **final loss of -$1,737** per put shorted.

# Short Put Trade Example




**Entry Stock Price:** $222.38
**Put Strike:** $215
**Entry Put Price:** $4.23
**Entry DTE:** 57 Days

This QQQ short position experienced healthy profits during the initial rally, presenting an opportunity for the short put trade to take big profits.

Unfortunately, QQQ cratered during the 2020 market crash, resulting in a massive increase in the put price. At the high, the put was worth $45, or 10x the put sale price (**unrealized loss of ~$4,100**).

At expiration, the put was worth its intrinsic value of $24.60.

The short put trade experienced a **final loss of -$2,037** per put shorted.

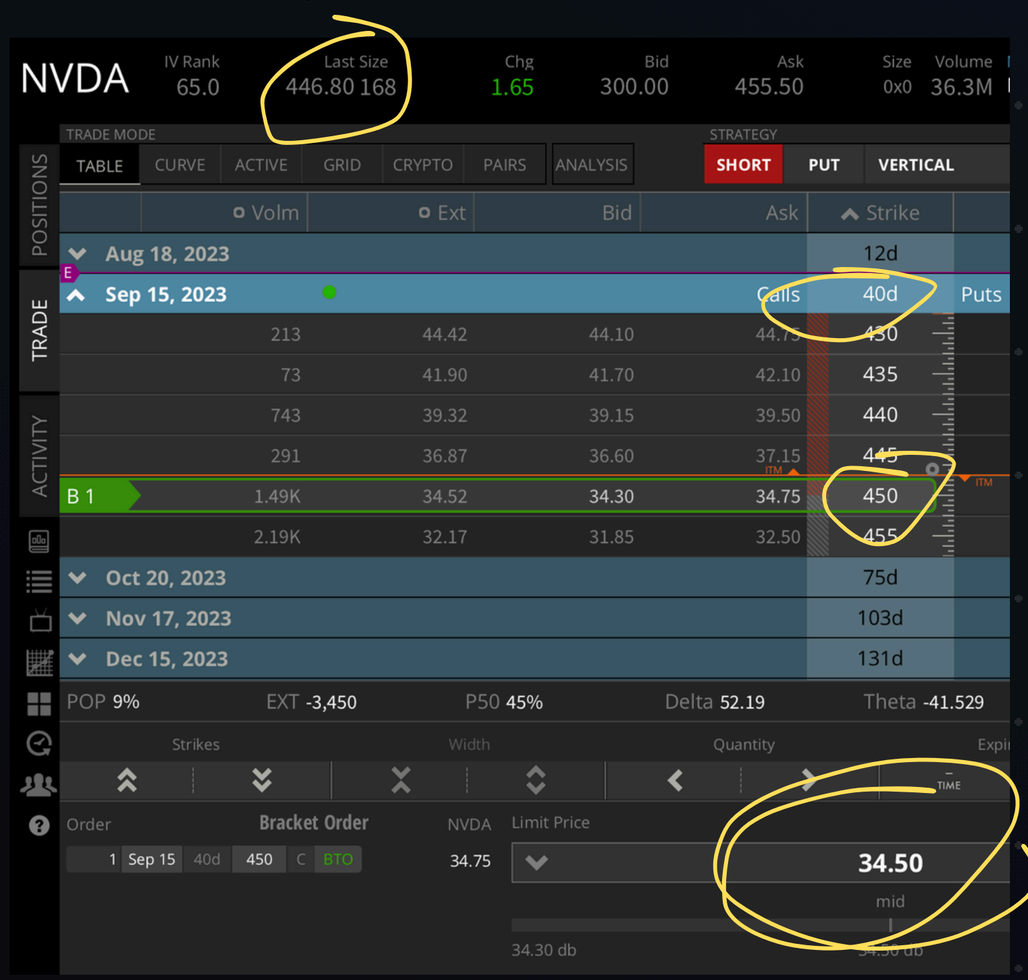
# Implied Volatility & Realized Volatility

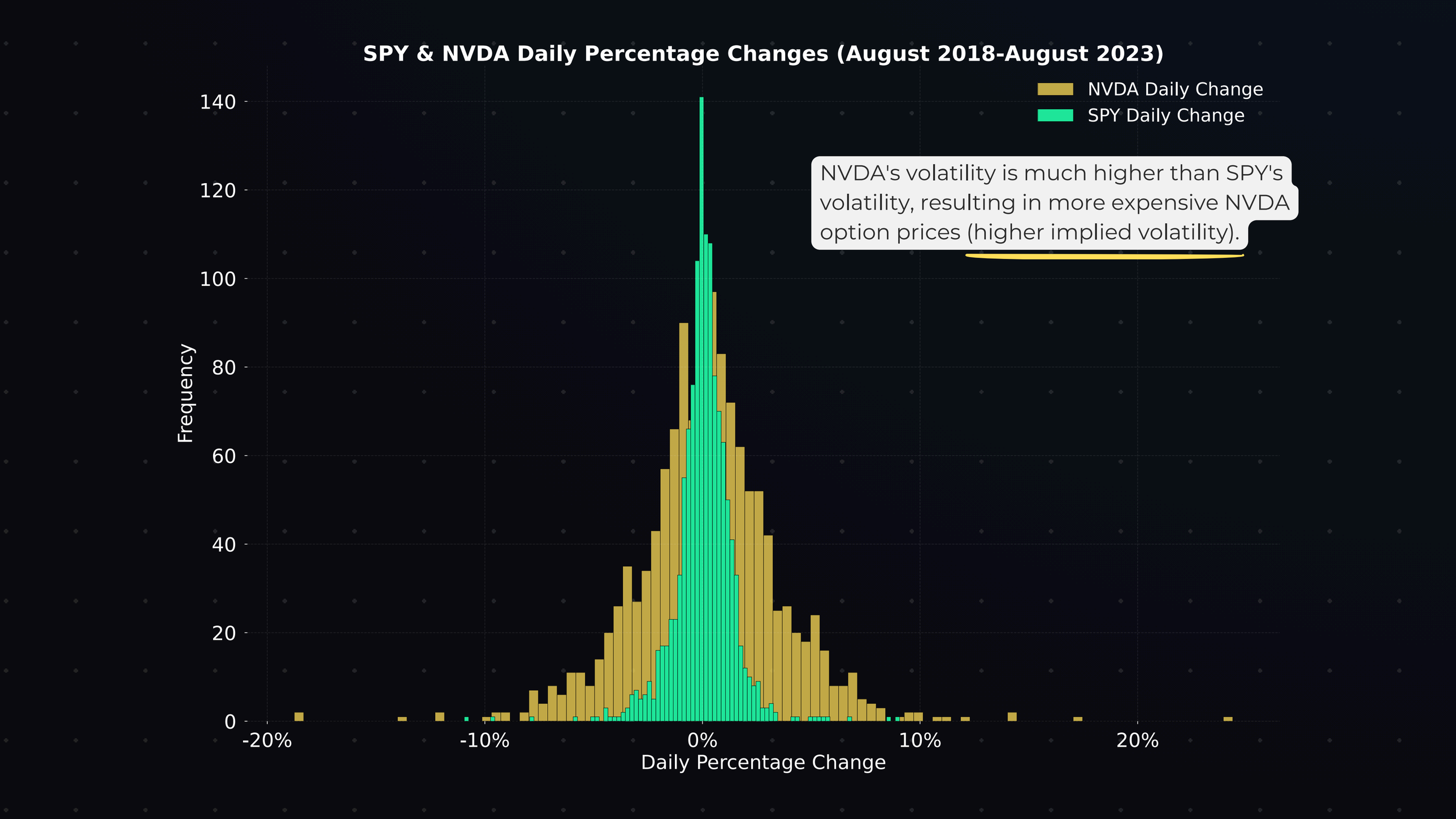
# What is Implied Volatility (IV)?

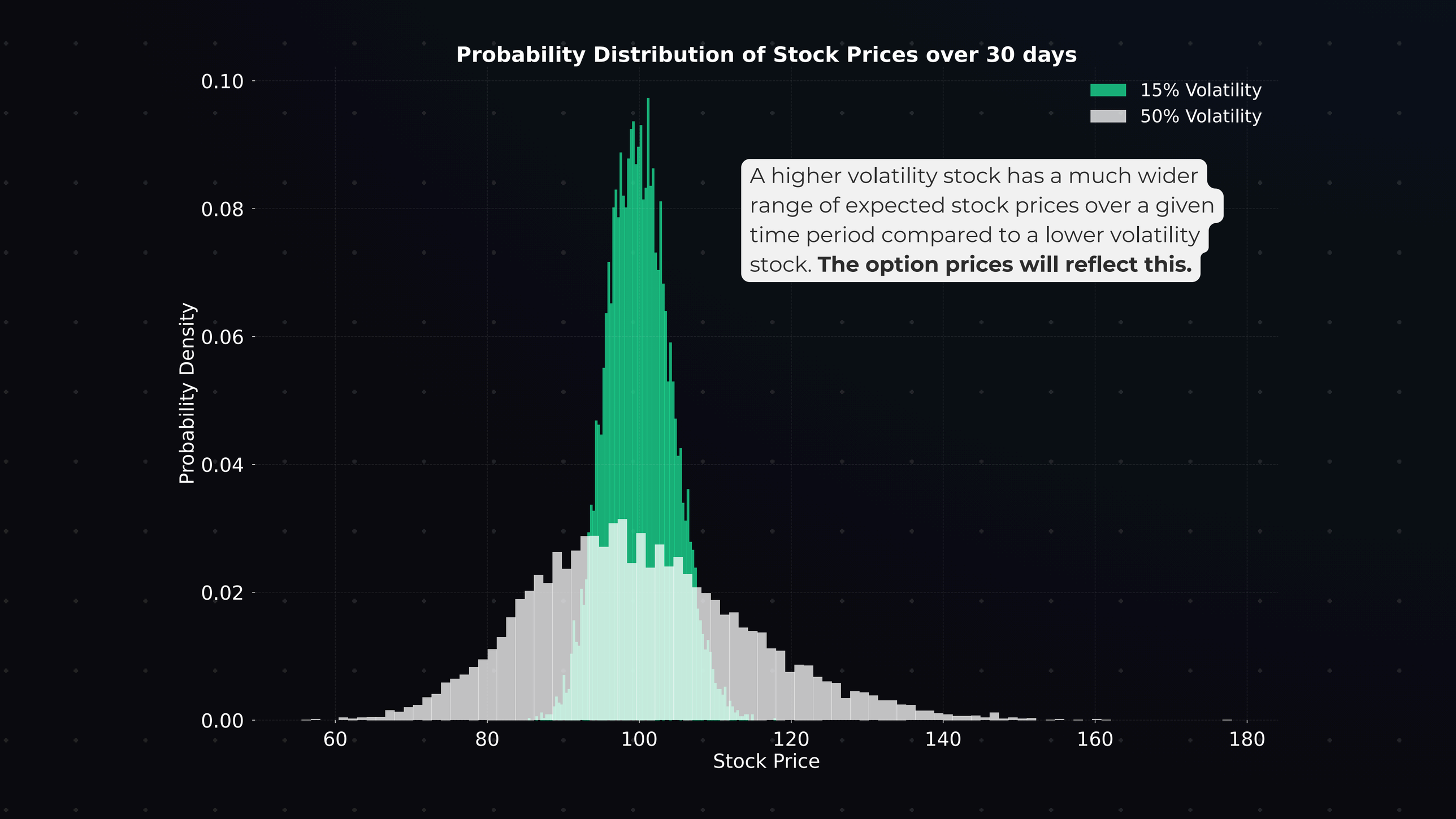
The expected magnitude of a stock's price changes in the future, as ***implied*** by the stock's option prices:

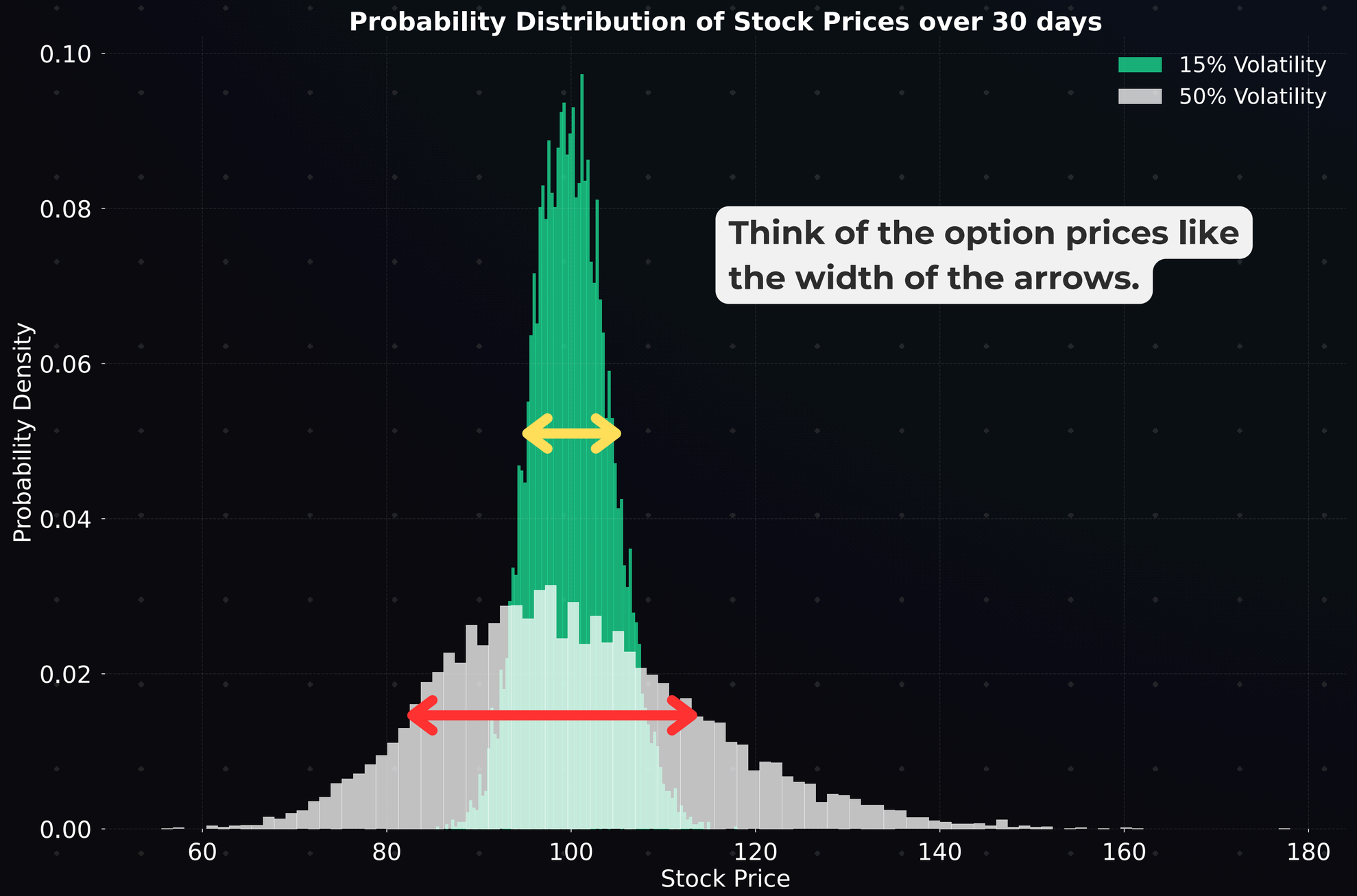
| Stock | 40-Day 450 Call Price | Implied Volatility |
|---|---|---|
| SPY ($447) | $8.00 | 17% |
| NVDA ($447) | $34.50 | 60% |

Same stock price.
Same time to expiration.
Same strike price.
NVDA option = 4x more expensive
**NVDA Implied Volatility > SPY Implied Volatility**


SPY & NVDA Daily Percentage Changes (August 2018-August 2023)
NVDA Daily Change
SPY Daily Change
NVDA's volatility is much higher than SPY's volatility, resulting in more expensive NVDA option prices (higher implied volatility).
Frequency
0
20
40
60
80
100
120
140
-20%
-10%
0%
10%
20%
Daily Percentage Change


Probability Distribution of Stock Prices over 30 days
15% Volatility
50% Volatility
A higher volatility stock has a much wider range of expected stock prices over a given time period compared to a lower volatility stock. The option prices will reflect this.
Probability Density
0.10
0.08
0.06
0.04
0.02
0.00
60
80
100
120
140
160
180
Stock Price


Probability Distribution of Stock Prices over 30 days
15% Volatility
50% Volatility
Think of the option prices like the width of the arrows.
Probability Density
0.10
0.08
0.06
0.04
0.02
0.00
60
80
100
120
140
160
180
Stock Price

# Why Implied Volatility Matters

Changes in expected stock volatility will have an impact on option prices (implied volatility) and therefore trade profitability.

# Option Strategy P/L vs. Implied Volatility Changes

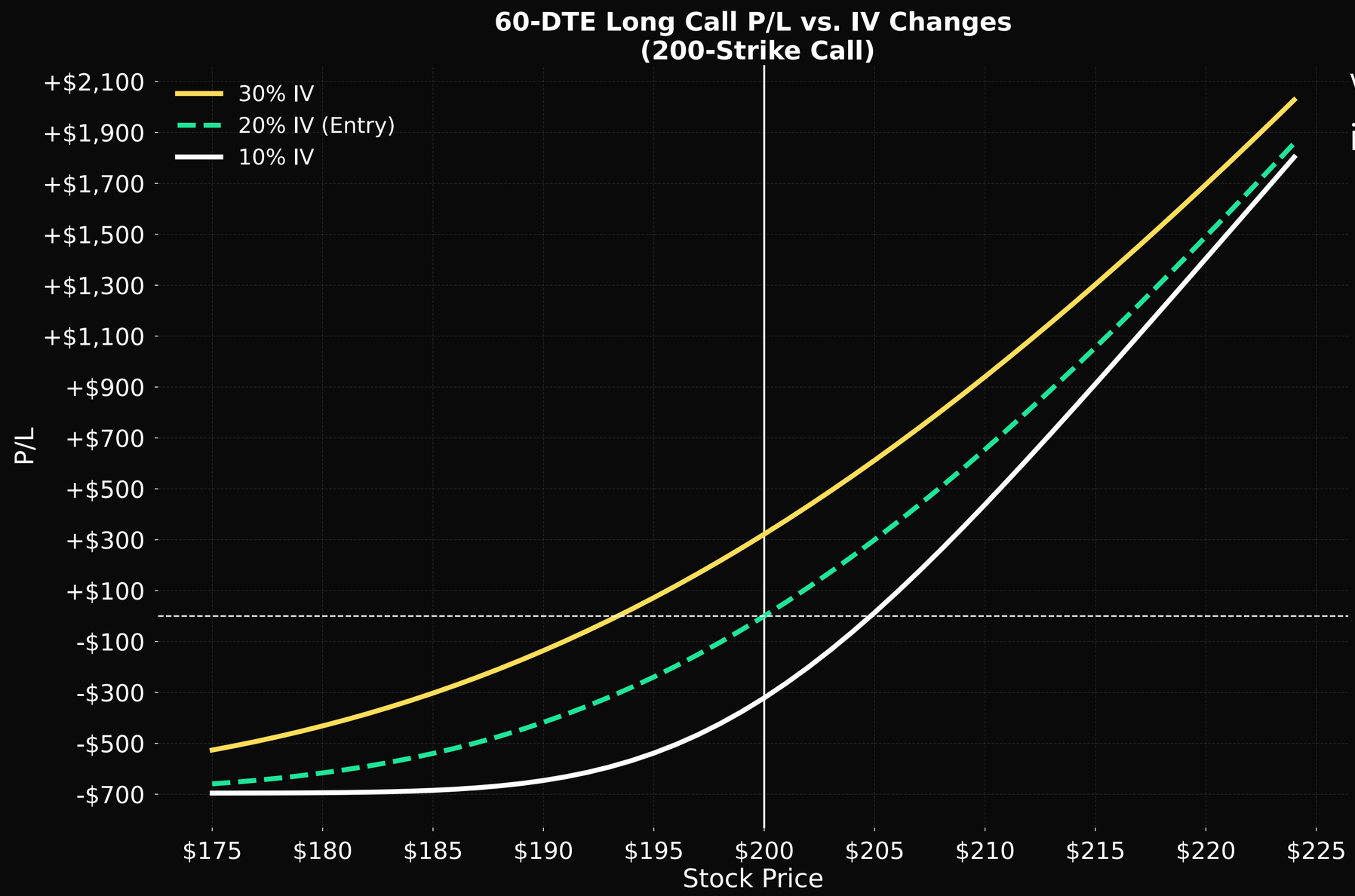
Let's explore how popular options strategies perform when implied volatility changes so we know exactly what we want IV to do when we trade each options strategy.

# Option Strategy P/L vs. Implied Volatility Changes

In the following graphs, we're going to look at simulated option strategy profits/losses based on the following inputs:

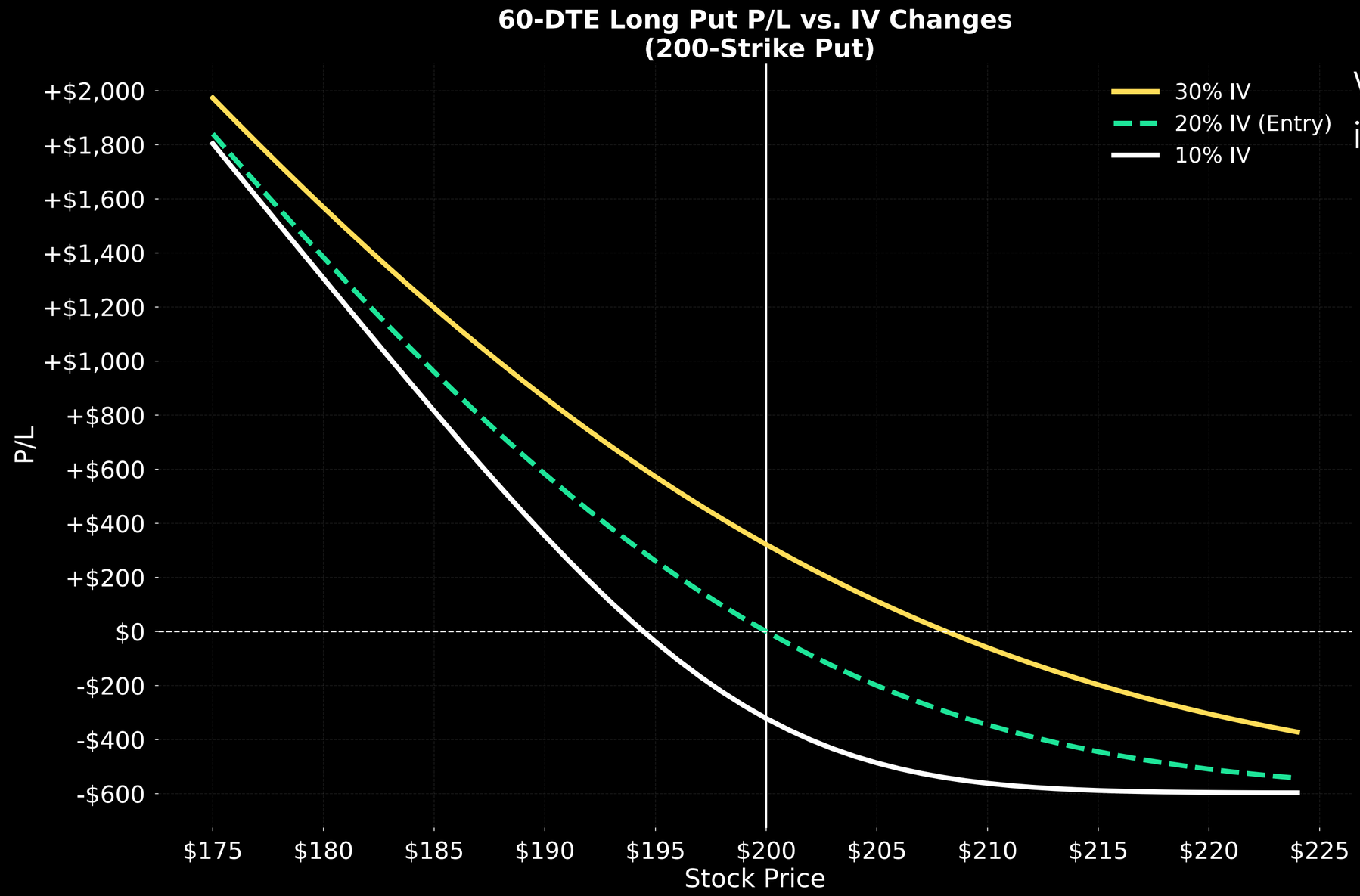
**Entry Implied Volatility:** 20%
**IV Changes:** 10% and 30% (**-10%** and **+10%** IV Changes)
**Days to Expiration:** 60
**Stock Prices:** Varying

# Buying Calls (Long Calls)



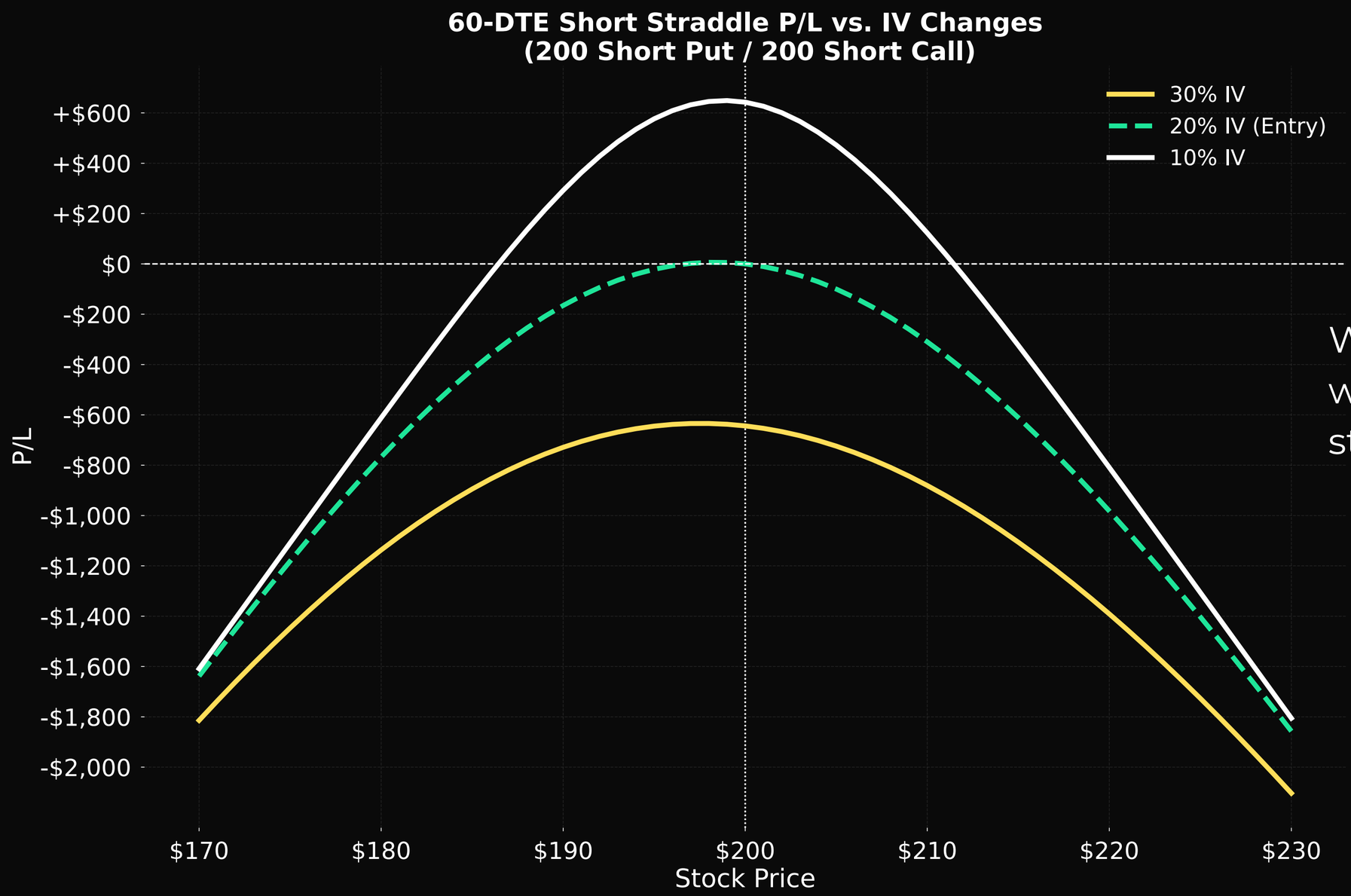

When buying calls, we want implied volatility to increase.

# Buying Puts (Long Puts)




When buying puts, we want implied volatility to increase.

# Short Straddle

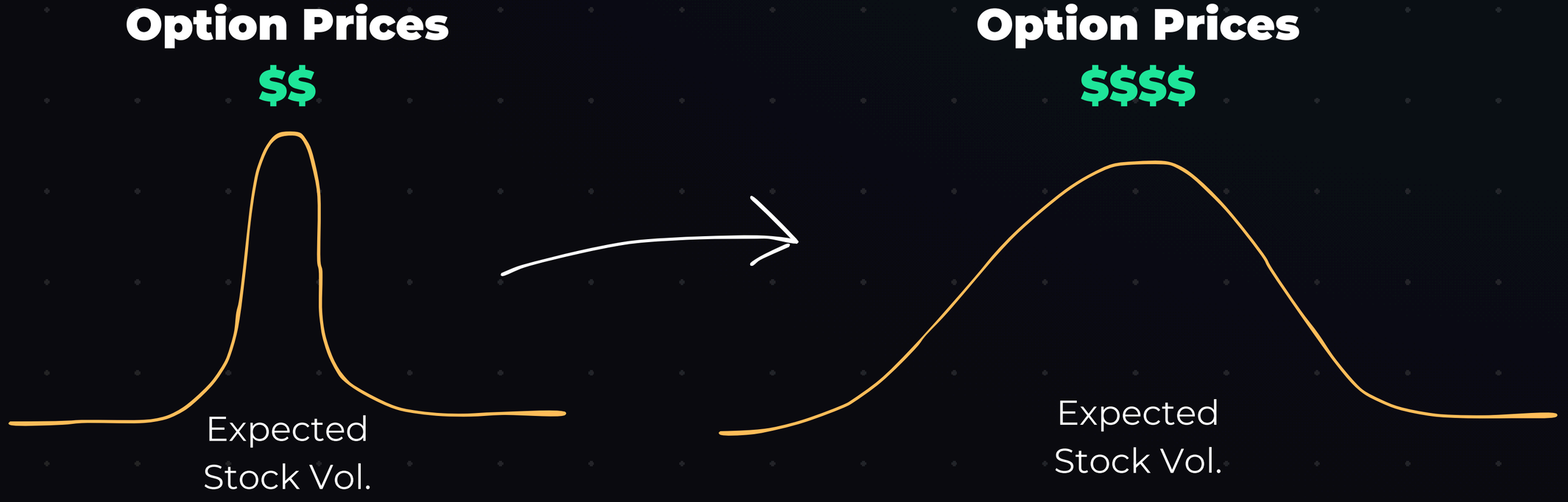



When shorting straddles, we want IV to fall regardless of the stock price movement.

# Understanding IV Changes and Options Strategy Performance

**What does an increase in implied volatility mean?**

It means option prices have risen (all else equal). Option prices inflating means the market expects more volatility going forward.



# Understanding IV Changes and Options Strategy Performance

**What does an increase in implied volatility mean?**

It means there's more uncertainty about the stock's future price movements

**=> A lower probability the stock will be around its current price in the future.**

# Understanding IV Changes and Options Strategy Performance

**What does a decrease in implied volatility mean?**

It means option prices have fallen (all else equal). Option prices deflating means the market expects less volatility going forward.

# Understanding IV Changes and Options Strategy Performance

**What does a decrease in implied volatility mean?**

It means there's less uncertainty about the stock's future price movements

**=> A higher probability the stock will be around its current price in the future.**

# Exercise/Assignment

# Exercise & Assignment Explained Further

## What Happens When an Option is Exercised?


Exercising an option is when the option owner (buyer) "uses" the option and buys/sells 100 shares of stock (per option) at the option's strike price.

Exercising the option effectively converts the option into a stock position with an entry price equal to the strike price.

**150-Strike Call Exercised**
Call converted into +100 shares with a purchase price of $150/share.

**125-Strike Put Exercised**
Put converted into -100 shares with a sale price of $125/share.

| Position Before Exercising | Position After Exercising |
| --- | --- |
| +1 AAPL 150 Call | +100 AAPL Shares @ $150 |

# Exercise & Assignment Explained Further

## What Happens When an Option is Exercised?

When you short an option, you're taking on an obligation. If the person who bought that option decides to exercise it, you are "**assigned**." **This means:**

**Call Owner Exercises** → **Short Call Trader Assigned**

**Buys 100 Shares @ Strike** → **Sells 100 Shares @ Strike**

**Put Owner Exercises** → **Short Put Trader Assigned**

**Sells 100 Shares @ Strike** → **Buys 100 Shares @ Strike**

The specific trader who gets assigned is selected at random by the OCC.

# Exercise & Assignment Explained Further

## What Happens When an Option is Exercised?

It is important to note that **any option that is in-the-money by $0.01 or more and is held through expiration will be automatically exercised**.

**Stock Closing Price at Expiration:** $150.01 or higher
**You Own the 150 Call:** You buy 100 shares (per call) at $150/share
**You're Short the 150 Call:** You sell/short 100 shares (per call) at $150/share

**Stock Closing Price at Expiration:** $149.99 or lower
**You Own the 150 Put:** You sell/short 100 shares (per put) at $150/share
**You're Short the 150 Put:** You buy 100 shares (per put) at $150/share

**Recommendation:** Always close option positions before expiration.

## Position Before Assignment

**-1 AAPL 145 Call**

**-1 AMZN 155 Put**

## Position After Assignment

**-100 AAPL Shares @ $145**

**+100 AMZN Shares @ $155**

## Position Before Assignment

**+100 AAPL Shares**
**-1 AAPL 140 Call**

## Position After Assignment

**None**

## Position Before Assignment

+300 AAPL Shares
-1 AAPL 140 Call

## Position After Assignment

+200 AAPL Shares

# **Early Assignment:** Should You Worry?

Many traders worry about early assignment, or having a short option that gets assigned because a trader on the other side exercised their option before expiration.

In many cases, the worry is unnecessary because option owners forfeit the extrinsic value in an option when they exercise it.

**Stock Price:** $166
**Call Strike:** $160
**Call Price:** $10 ($6 Intrinsic + $4 Extrinsic)
**Call Value:** $1,000 ($600 Intrinsic + $400 Extrinsic)

If the call owner exercises the call, they will forfeit the call option ($1,000 value) and buy 100 shares at $160/share.

They can then sell the shares for $166, making $600 on the transaction, but they gave up the $1,000 option to do so. So by exercising the option, they gave up $400 in value for no reason.

# **Early Assignment:** Should You Worry?

**Stock Price:** $166
**Call Strike:** $160
**Purchase Price:** $5.00
**Call Price:** $10 ($6 Intrinsic + $4 Extrinsic)
**Call Value:** $1,000 ($600 Intrinsic + $400 Extrinsic)

**Exercise Call**

Buy 100 Shares @ $160

Sell 100 Shares @ $166

**+$600 Gain**

**- $500 Cost = +$100**

**Sell Call for $10**

**+$1,000 into Account**

**- $500 Cost = +$500**

A trader who bought this call for $5 initially would rather sell the call instead of exercising, meaning a trader short this call would not get assigned.

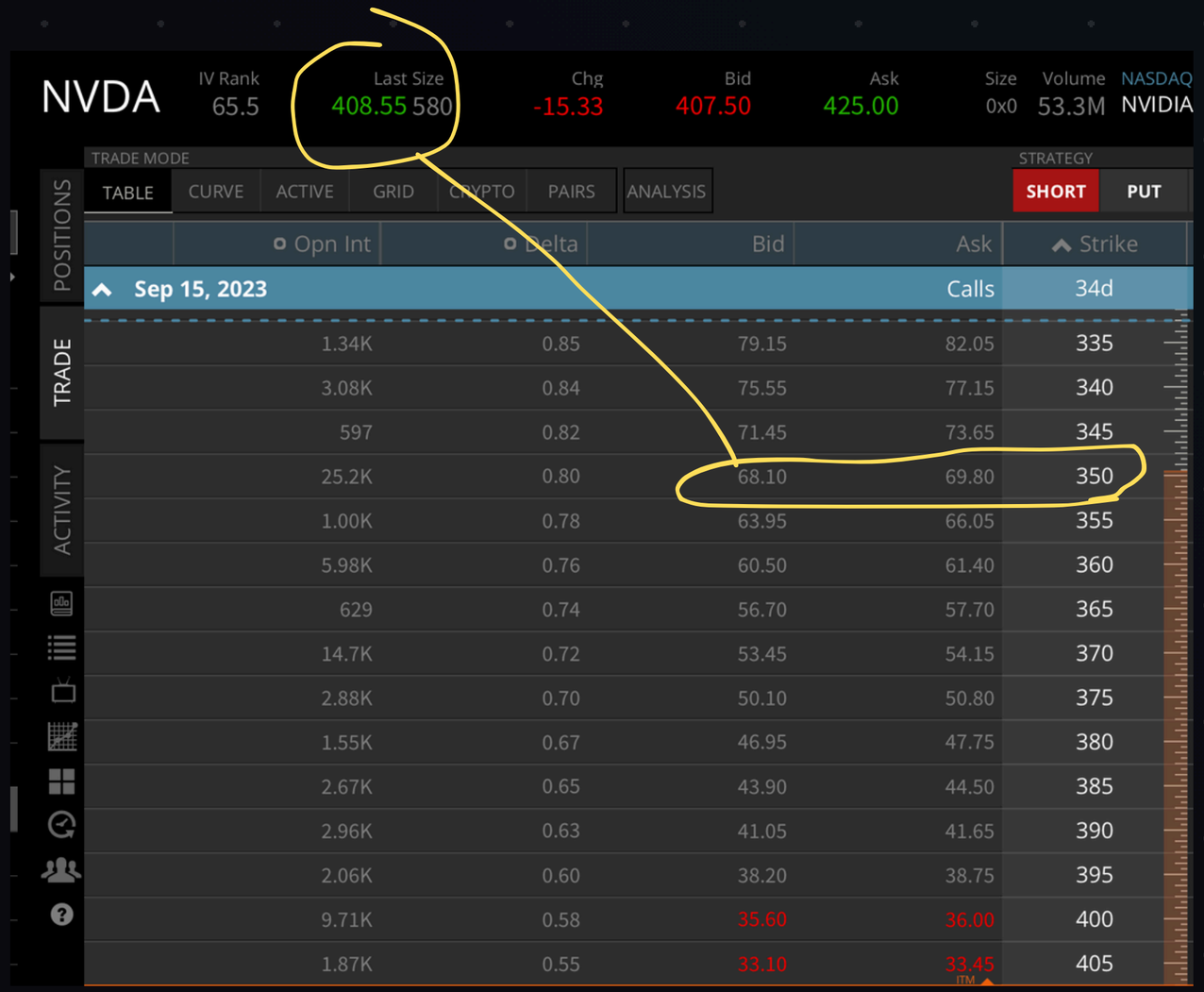
# **Early Assignment:** Should You Worry?

**To gauge early assignment on a short option, look at the extrinsic value.**

An ITM option with little to no extrinsic value is at high risk of assignment since there is little to no loss of value if the owner exercises it.

An ITM option with lots of extrinsic value ($0.50+) is at low risk of assignment since there is a lot of value forfeited unnecessarily if the owner exercises it.

# **Early Assignment:** Should You Worry?




**Stock Price:** $408.55
**350 Call Mid-Price:** $69.00
**350 Call Intrinsic:** $58.55
**350 Call Extrinsic:** $10.45

If a trader exercised the 350 call given these prices, they would sacrifice $1,045 in value for no reason.

A trader short this call has virtually zero risk of assignment despite the call being **$58.55 in-the-money!**

# **Early Assignment:** Should You Worry?

**What conditions result in an option being in-the-money with little to no extrinsic value?**

**1)** The option is **very** deep ITM before expiration (the more time to expiration, the further ITM the option needs to be to reach close to zero extrinsic value).

**2)** The option is ITM with little to no time left before expiration.

# **Early Assignment:** Should You Worry?

The main scenario to beware of early assignment is when you are short an ITM call option on a stock that is paying a dividend before your expiration date.

If the dividend is greater than the extrinsic value in your short ITM call, you are likely to be assigned right before the ex-dividend date.

**Dividend:** $0.58
**Short ITM Call Extrinsic:** $0.30
**Incentive to Exercise:** +$0.28/share

In this scenario, the call owner will exercise the option (giving up $0.30 in extrinsic value) to purchase stock before the ex-dividend date in order to collect the $0.58 dividend.

# **Early Assignment:** Should You Worry?

**Section Summary**

Options are rarely exercised because they often carry a lot of extrinsic value in their prices.

Extrinsic value is sacrificed by the owner when they exercise the option.

The more extrinsic value an ITM short option has, the less likely it is to be exercised (reducing assignment risk).

**From the OIC Website:**

*"Historically, more than 72% of all option contracts are closed out in the market prior to expiration. Additionally, another 22% expire without value while the remaining 6% get exercised."*

# Why Exercise an Option?

**Reasons to Exercise an Option**

**1) Defer taxation**

Say you buy a 150-strike call on AMZN with 60 days to expiration.

On the day of expiration, AMZN trades at $165.

If you sell the call, your gains will be short-term gains (higher taxation).

If you exercise the call and buy the stock, you won't pay any taxes until you eventually sell the shares. If you hold the shares for more than a year, your profits become long-term capital gains (lower taxation).

But this increases your exposure to the stock for a longer period of time, and you could end up losing money if the stock falls.

# Why Exercise an Option?

**Reasons to Exercise an Option**

**2) You can’t sell the option for intrinsic value**

Say you own a 50-strike put and the stock collapses to $20. Your put allows you to sell shares at $50 when they are at $20, which gives your put $30 of intrinsic value.

If you couldn’t sell the put for $30 (for some reason), it would make sense to buy 100 shares of stock at $20 and then exercise your put (selling them at $30). This would *forcefully* claim your put’s $30 of intrinsic value.

This should not be an issue if you are trading liquid (actively traded) options.

# The Greeks

# **Option Greek:** Delta

The option “Greeks“ are estimations of an option‘s price given changes in different variables like the stock price, passage of time, and volatility.

## Delta

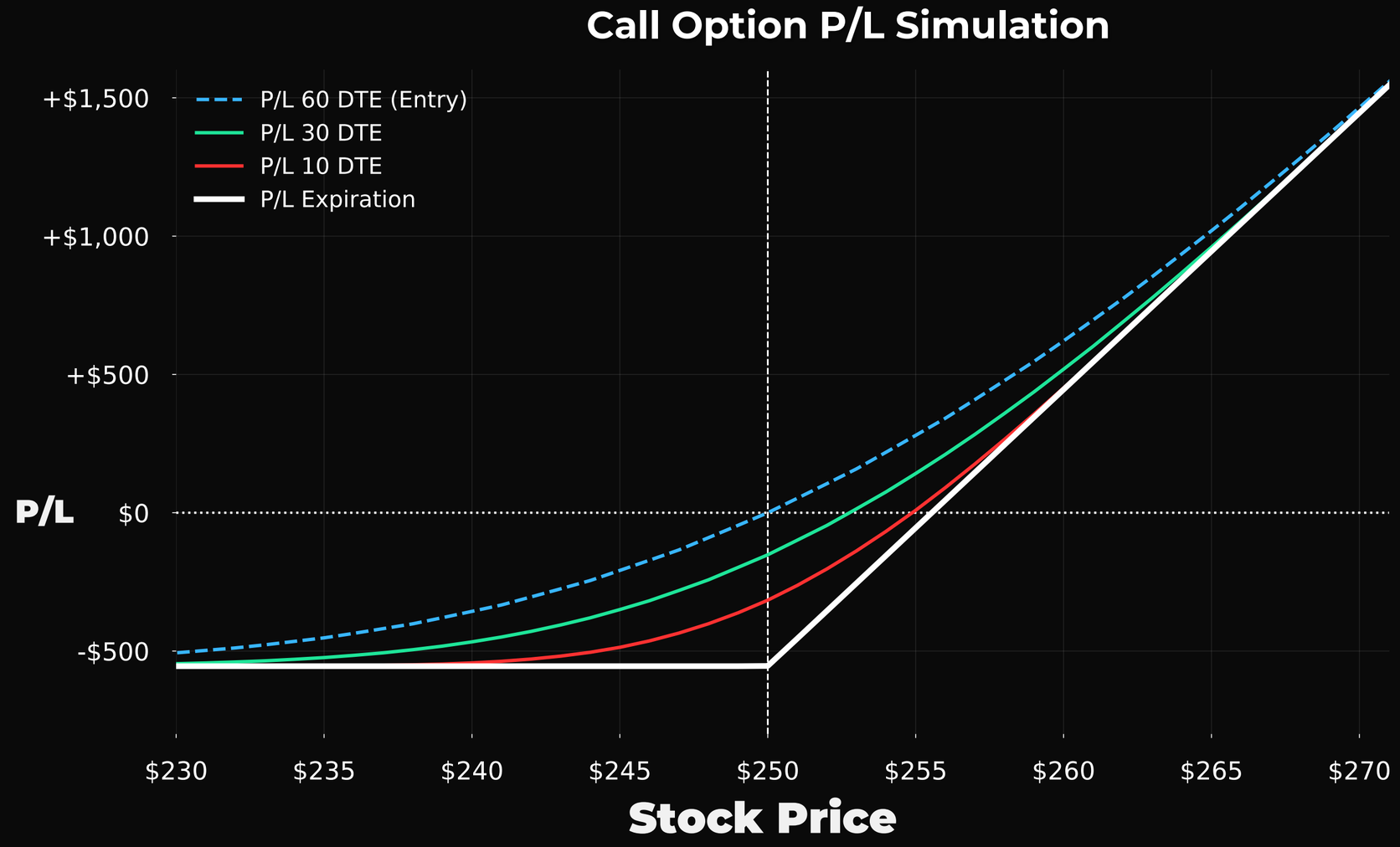
Delta measures an option’s estimated price change given a $1 change in the stock price.

**Call Price:** $5.00
**Call Delta:** +0.50

**Stock Price +$1:** Call price estimated to increase to $5.50
**Stock Price -$1:** Call price estimated to fall to $4.50

# Visualizing Call Delta

We can visualize call options having positive delta by seeing the expected call price following the direction of the stock price:



# **Option Greek:** Delta

The option “Greeks“ are estimations of an option‘s price given changes in different variables like the stock price, passage of time, and volatility.

**Delta**

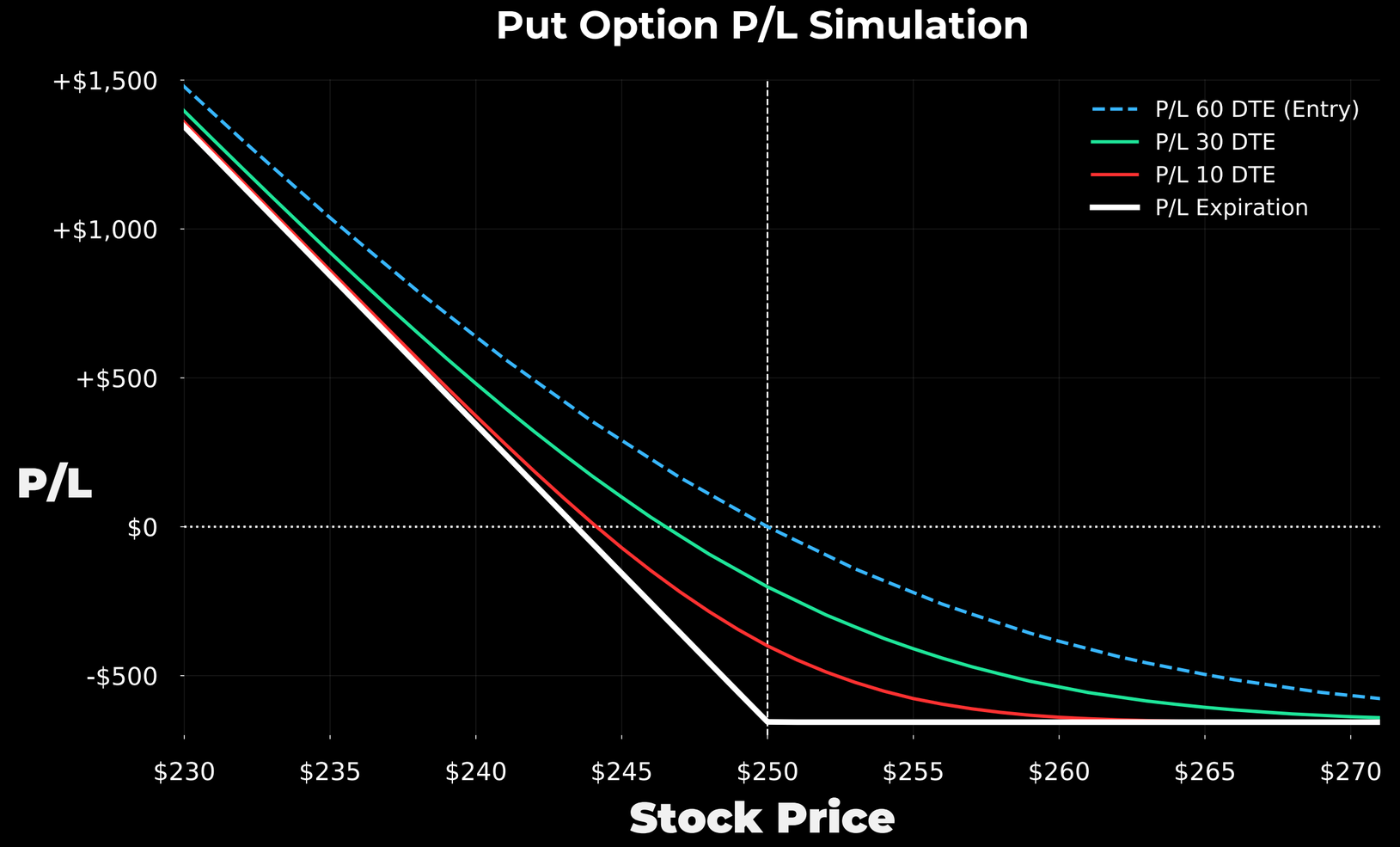
Delta measures an option’s estimated price change given a $1 change in the stock price.

**Put Price:** $5.00
**Put Delta:** -0.30

**Stock Price +$1:** Put price estimated to fall to $4.70
**Stock Price -$1:** Put price estimated to increase to $5.30

# Visualizing Put Delta

We can visualize put options having negative delta by seeing the expected put price change inversely to the stock price direction:



# **Option Greek:** Theta

Theta measures an option's estimated extrinsic value decrease over the passing of one day.

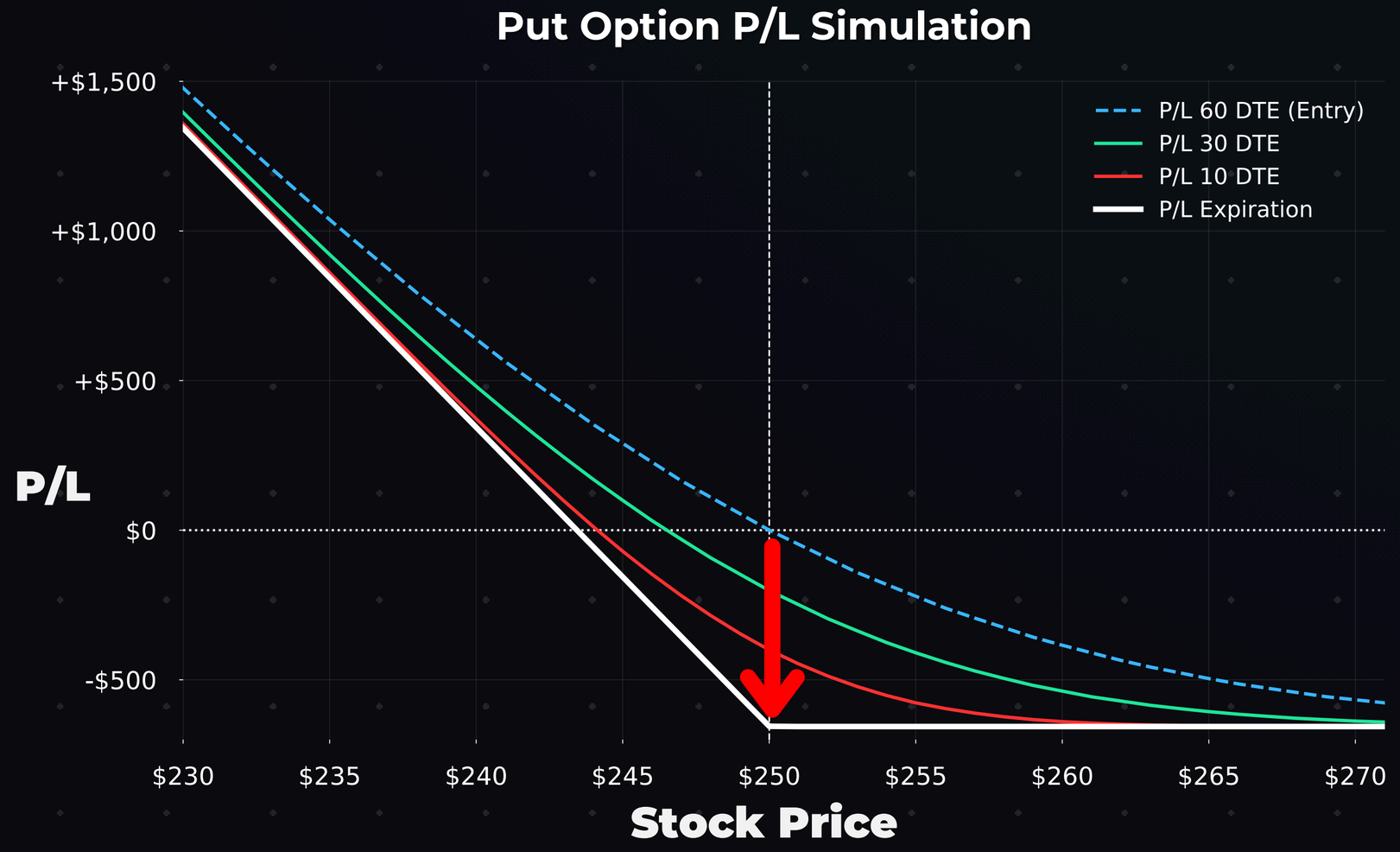
Options ALWAYS have negative theta because an option's extrinsic value decreases as time passes (all else equal). An option's intrinsic value does not decay.

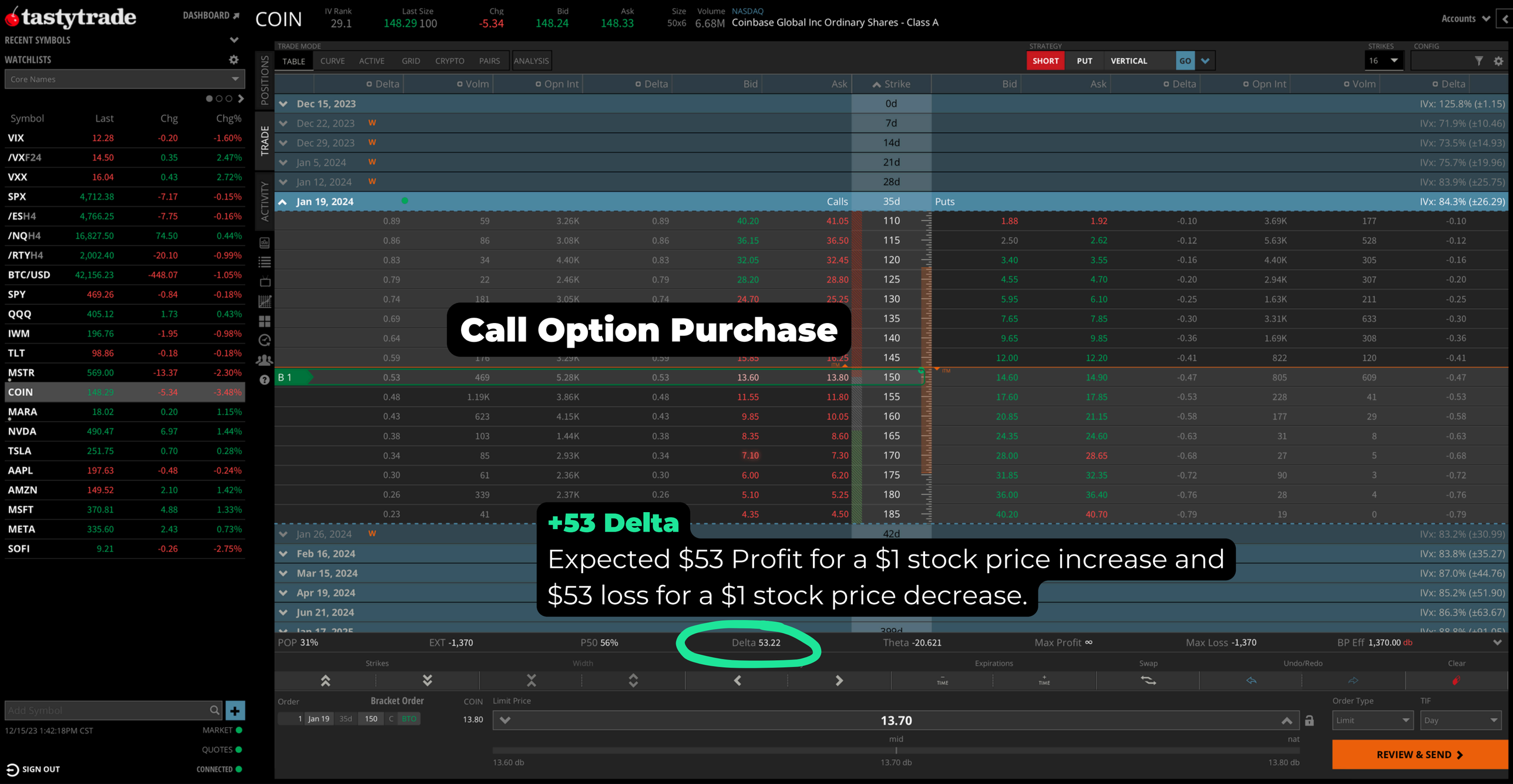
**Call Price:** $5.00
**Call Theta:** -0.10

**+1 Day:** Call price estimated to fall to $4.90 (all else equal)
**+5 Days:** Call price estimated to fall to $4.50 (all else equal)

# Visualizing Theta

We can visualize theta by noting the decrease in trade performance as time passes. The decreasing P/L represents the put option's falling price over time:




tastytrade
DASHBOARD
COIN
IV Rank 29.1
Last Size 148.29 100
Chg -5.34
Bid 148.24
Ask 148.33
Size 50x6
Volume 6.68M
NASDAQ
Coinbase Global Inc Ordinary Shares - Class A
Accounts
RECENT SYMBOLS
WATCHLISTS
Core Names
Symbol Last Chg Chg%
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/VXF24 14.50 0.35 2.47%
VXX 16.04 0.43 2.72%
SPX 4,712.38 -7.17 -0.15%
/ESH4 4,766.25 -7.75 -0.16%
/NQH4 16,827.50 74.50 0.44%
/RTYH4 2,002.40 -20.10 -0.99%
BTC/USD 42,156.23 -448.07 -1.05%
SPY 469.26 -0.84 -0.18%
QQQ 405.12 1.73 0.43%
IWM 196.76 -1.95 -0.98%
TLT 98.86 -0.18 -0.18%
MSTR 569.00 -13.37 -2.30%
COIN 148.29 -5.34 -3.48%
MARA 18.02 0.20 1.15%
NVDA 490.47 6.97 1.44%
TSLA 251.75 0.70 0.28%
AAPL 197.63 -0.48 -0.24%
AMZN 149.52 2.10 1.42%
MSFT 370.81 4.88 1.33%
META 335.60 2.43 0.73%
SOFI 9.21 -0.26 -2.75%
Add Symbol
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MARKET
QUOTES
SIGN OUT
CONNECTED
POSITIONS
TRADE
ACTIVITY
TRADE MODE
TABLE CURVE ACTIVE GRID CRYPTO PAIRS ANALYSIS
STRATEGY
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STRIKES 16
CONFIG
Delta Volm Opn Int Delta Bid Ask Strike Bid Ask Delta Opn Int Volm Delta
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0.48 1.19K 3.86K 0.48 11.55 11.80 155 17.60 17.85 -0.53 228 41 -0.53
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0.38 103 1.44K 0.38 8.35 8.60 165 24.35 24.60 -0.63 31 8 -0.63
0.34 85 2.93K 0.34 7.10 7.30 170 28.00 28.65 -0.68 27 5 -0.68
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Call Option Purchase
+53 Delta
Expected $53 Profit for a $1 stock price increase and $53 loss for a $1 stock price decrease.
POP 31% EXT -1,370 P50 56% Delta 53.22 Theta -20.621 Max Profit ∞ Max Loss -1,370 BP Eff 1,370.00 db
Strikes Width Expirations Swap Undo/Redo Clear
Order Bracket Order COIN Limit Price
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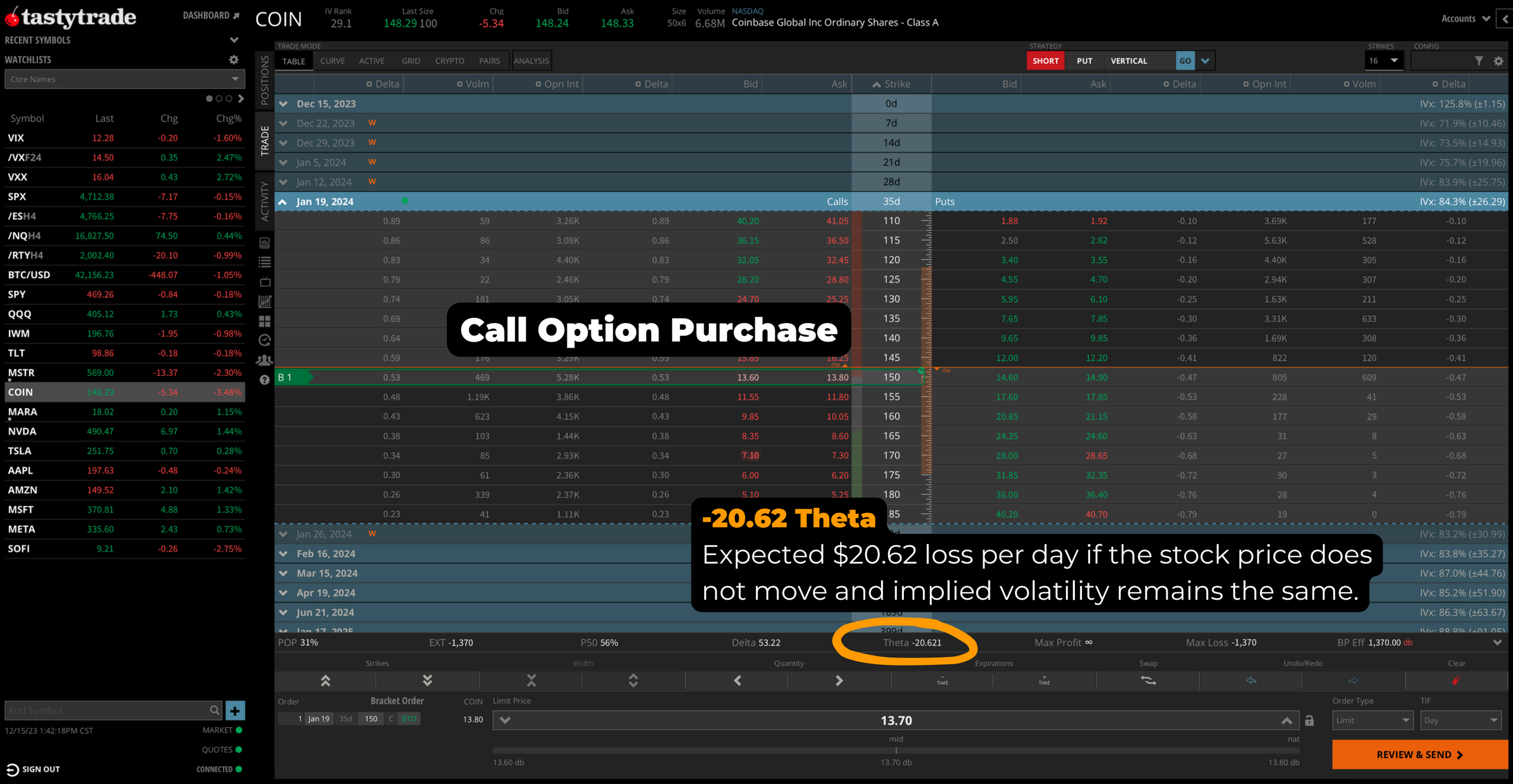
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Last Size 148.29 100
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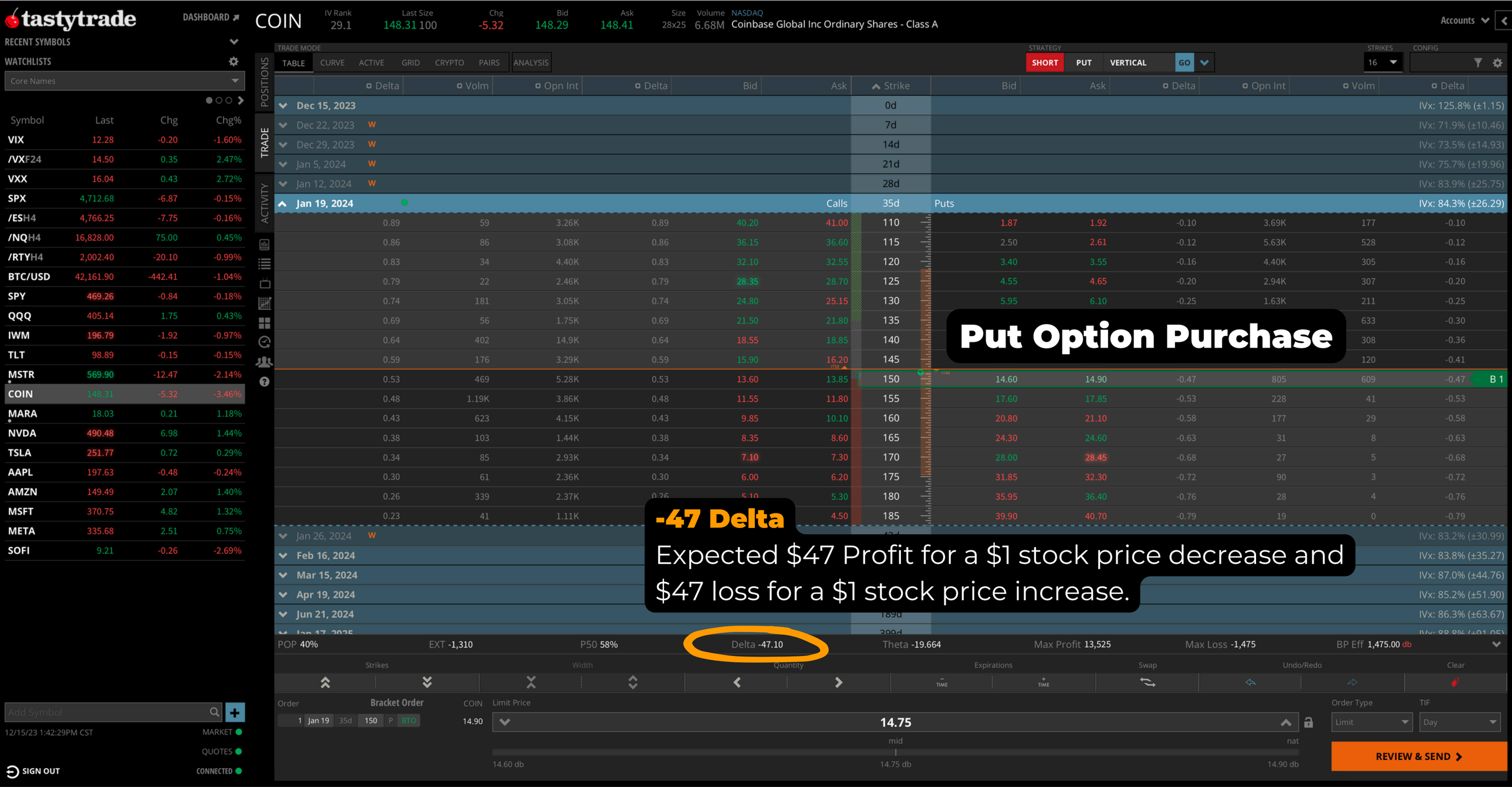
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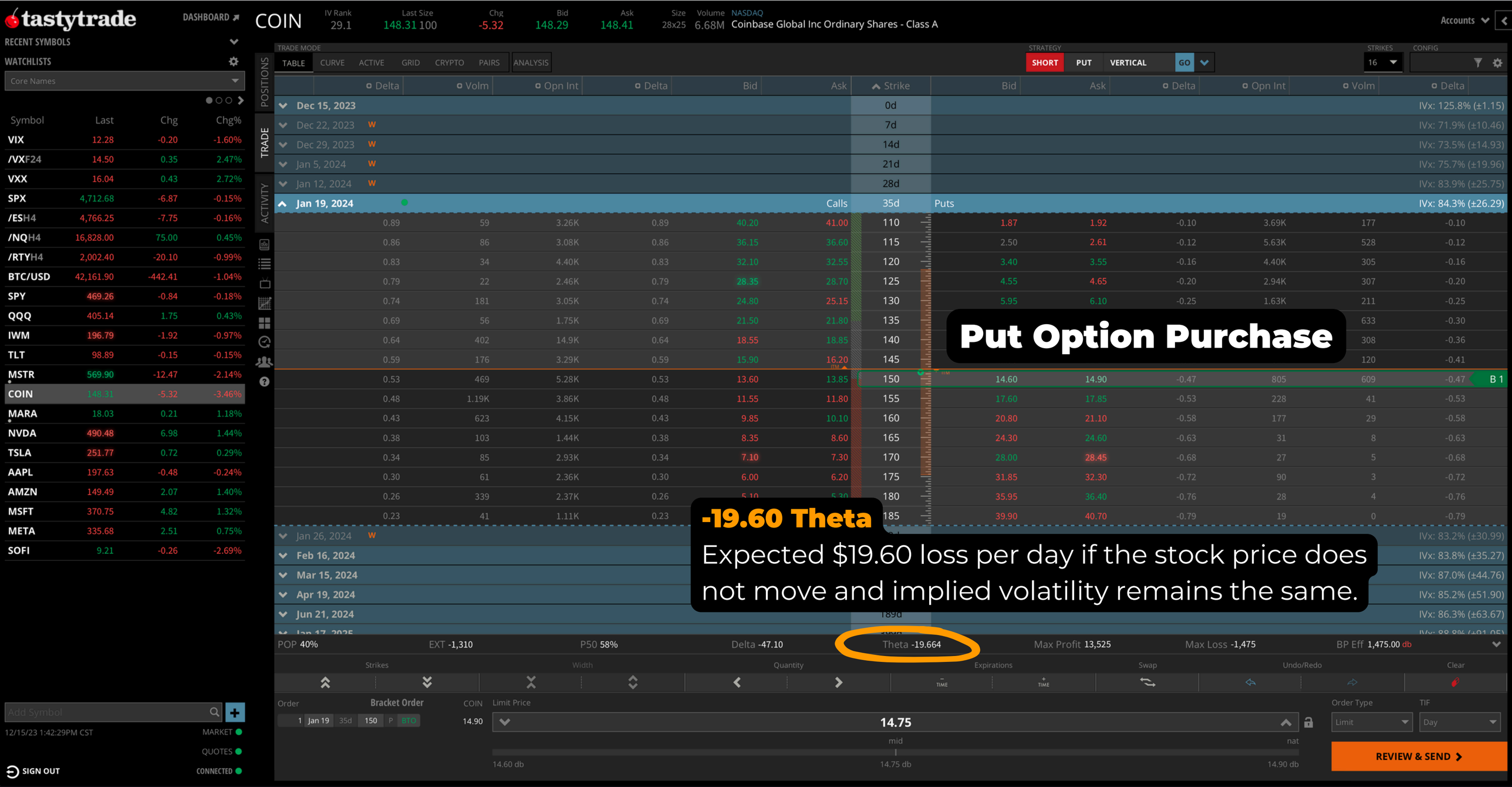
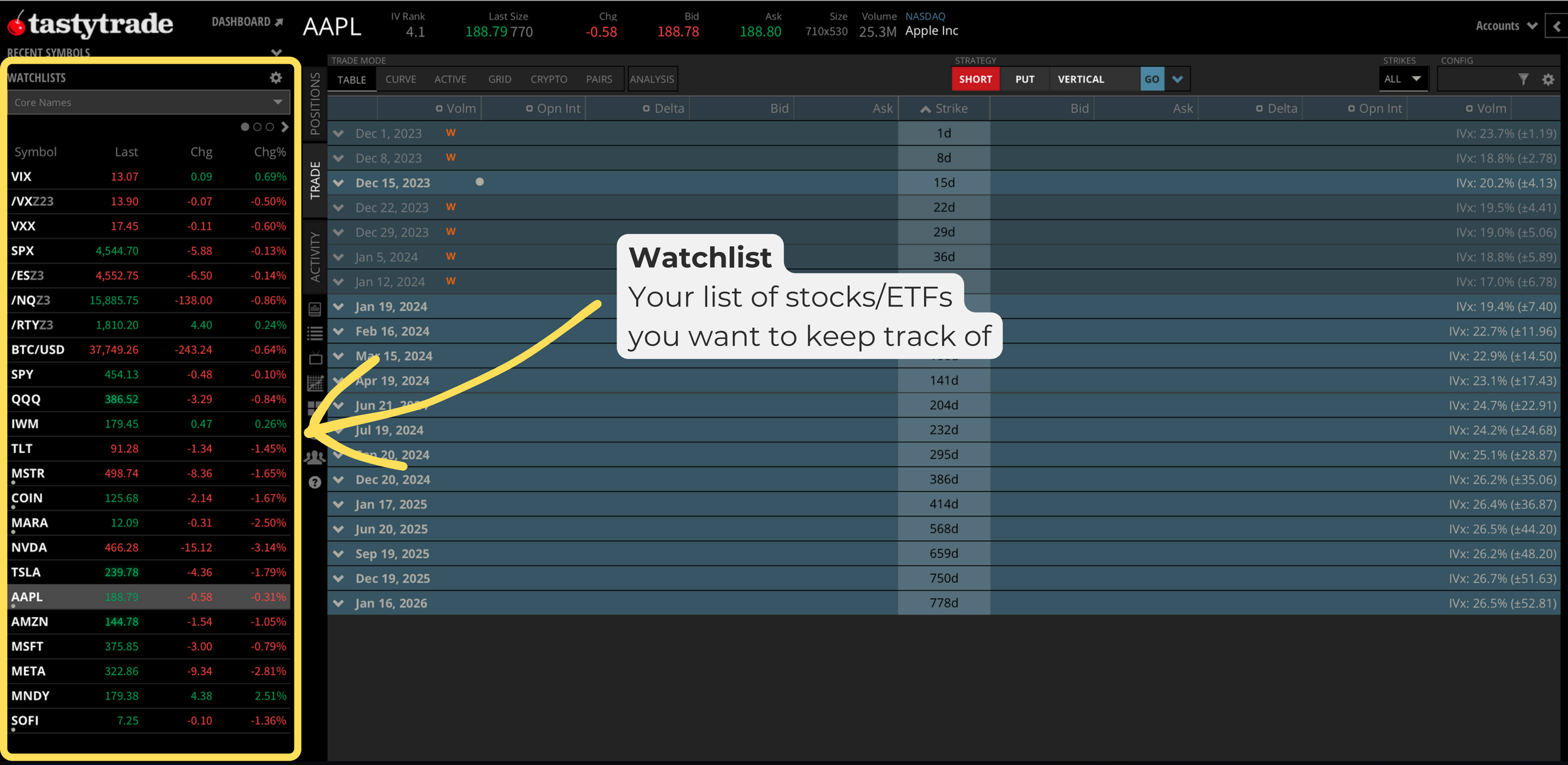
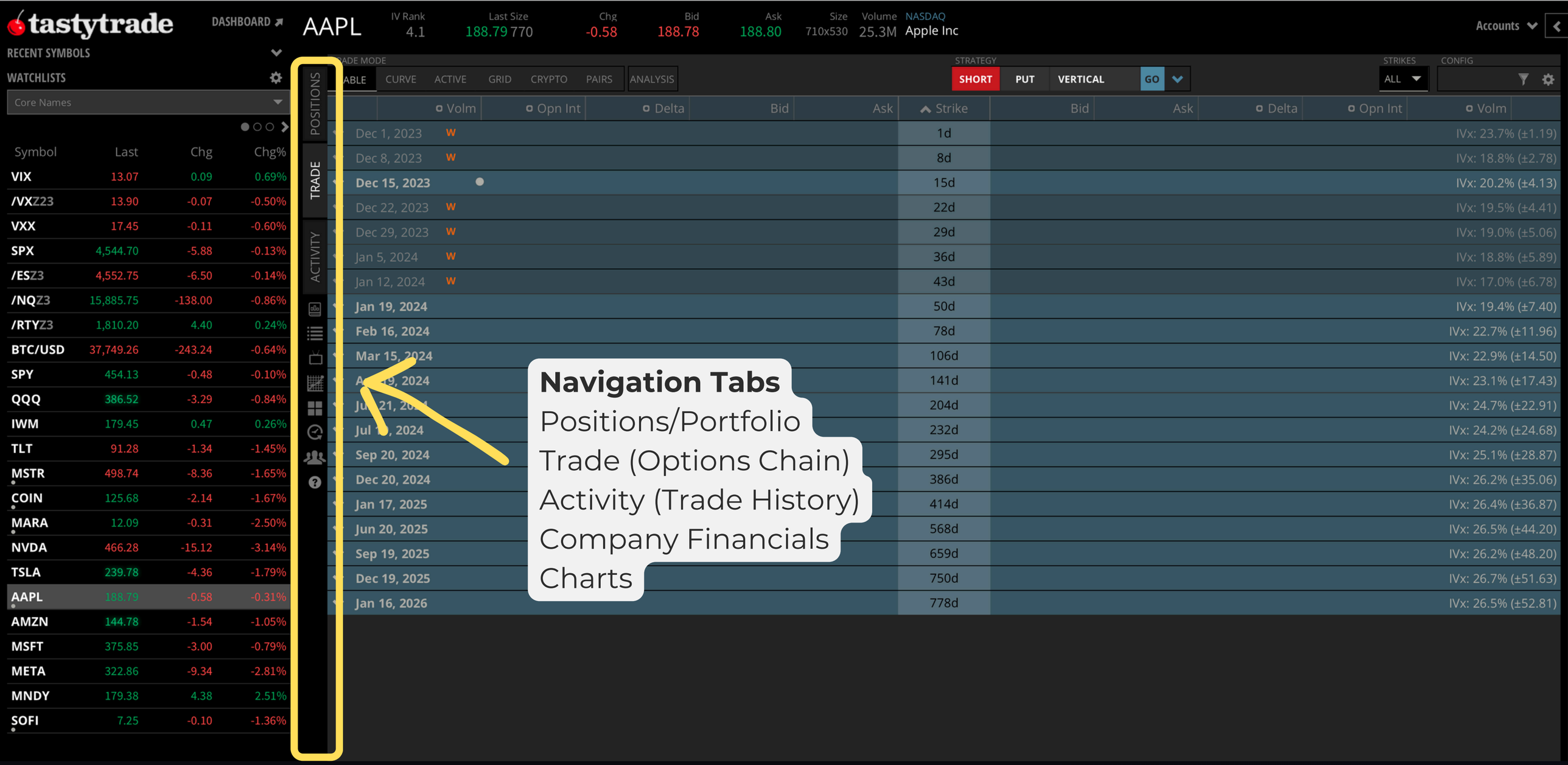
Order Type Limit
TIF Day
REVIEW & SEND


tastytrade
DASHBOARD
COIN
IV Rank 29.1
Last Size 148.31 100
Chg -5.32
Bid 148.29
Ask 148.41
Size 28x25
Volume 6.68M
NASDAQ
Coinbase Global Inc Ordinary Shares - Class A
Accounts
RECENT SYMBOLS
WATCHLISTS
Core Names
Symbol Last Chg Chg%
VIX 12.28 -0.20 -1.60%
/VXF24 14.50 0.35 2.47%
VXX 16.04 0.43 2.72%
SPX 4,712.68 -6.87 -0.15%
/ESH4 4,766.25 -7.75 -0.16%
/NQH4 16,828.00 75.00 0.45%
/RTYH4 2,002.40 -20.10 -0.99%
BTC/USD 42,161.90 -442.41 -1.04%
SPY 469.26 -0.84 -0.18%
QQQ 405.14 1.75 0.43%
IWM 196.79 -1.92 -0.97%
TLT 98.89 -0.15 -0.15%
MSTR 569.90 -12.47 -2.14%
COIN 148.31 -5.32 -3.46%
MARA 18.03 0.21 1.18%
NVDA 490.48 6.98 1.44%
TSLA 251.77 0.72 0.29%
AAPL 197.63 -0.48 -0.24%
AMZN 149.49 2.07 1.40%
MSFT 370.75 4.82 1.32%
META 335.68 2.51 0.75%
SOFI 9.21 -0.26 -2.69%
Add Symbol
12/15/23 1:42:29PM CST
MARKET
QUOTES
CONNECTED
SIGN OUT
POSITIONS
TRADE
ACTIVITY
TRADE MODE
TABLE CURVE ACTIVE GRID CRYPTO PAIRS ANALYSIS
STRATEGY
SHORT PUT VERTICAL GO
STRIKES 16
CONFIG
Delta Volm Opn Int Delta Bid Ask Strike Bid Ask Delta Opn Int Volm Delta
Dec 15, 2023 0d IVx: 125.8% (±1.15)
Dec 22, 2023 W 7d IVx: 71.9% (±10.46)
Dec 29, 2023 W 14d IVx: 73.5% (±14.93)
Jan 5, 2024 W 21d IVx: 75.7% (±19.96)
Jan 12, 2024 W 28d IVx: 83.9% (±25.75)
Jan 19, 2024 Calls 35d Puts IVx: 84.3% (±26.29)
0.89 59 3.26K 0.89 40.20 41.00 110 1.87 1.92 -0.10 3.69K 177 -0.10
0.86 86 3.08K 0.86 36.15 36.60 115 2.50 2.61 -0.12 5.63K 528 -0.12
0.83 34 4.40K 0.83 32.10 32.55 120 3.40 3.55 -0.16 4.40K 305 -0.16
0.79 22 2.46K 0.79 28.35 28.70 125 4.55 4.65 -0.20 2.94K 307 -0.20
0.74 181 3.05K 0.74 24.80 25.15 130 5.95 6.10 -0.25 1.63K 211 -0.25
0.69 56 1.75K 0.69 21.50 21.80 135 633 -0.30
0.64 402 14.9K 0.64 18.55 18.85 140 308 -0.36
0.59 176 3.29K 0.59 15.90 16.20 145 120 -0.41
0.53 469 5.28K 0.53 13.60 13.85 150 14.60 14.90 -0.47 805 609 -0.47 B 1
0.48 1.19K 3.86K 0.48 11.55 11.80 155 17.60 17.85 -0.53 228 41 -0.53
0.43 623 4.15K 0.43 9.85 10.10 160 20.80 21.10 -0.58 177 29 -0.58
0.38 103 1.44K 0.38 8.35 8.60 165 24.30 24.60 -0.63 31 8 -0.63
0.34 85 2.93K 0.34 7.10 7.30 170 28.00 28.45 -0.68 27 5 -0.68
0.30 61 2.36K 0.30 6.00 6.20 175 31.85 32.30 -0.72 90 3 -0.72
0.26 339 2.37K 0.26 180 35.95 36.40 -0.76 28 4 -0.76
0.23 41 1.11K 0.23 185 39.90 40.70 -0.79 19 0 -0.79
Jan 26, 2024 W IVx: 83.2% (±30.99)
Feb 16, 2024 IVx: 83.8% (±35.27)
Mar 15, 2024 IVx: 87.0% (±44.76)
Apr 19, 2024 IVx: 85.2% (±51.90)
Jun 21, 2024 189d IVx: 86.3% (±63.67)
Put Option Purchase
-19.60 Theta
Expected $19.60 loss per day if the stock price does not move and implied volatility remains the same.
POP 40% EXT -1,310 P50 58% Delta -47.10 Theta -19.664 Max Profit 13,525 Max Loss -1,475 BP Eff 1,475.00 db
Strikes Width Quantity Expirations Swap Undo/Redo Clear
Order Bracket Order COIN Limit Price
1 Jan 19 35d 150 P BTO
14.90
14.75
mid
nat
14.60 db 14.75 db 14.90 db
Order Type Limit
TIF Day
REVIEW & SEND

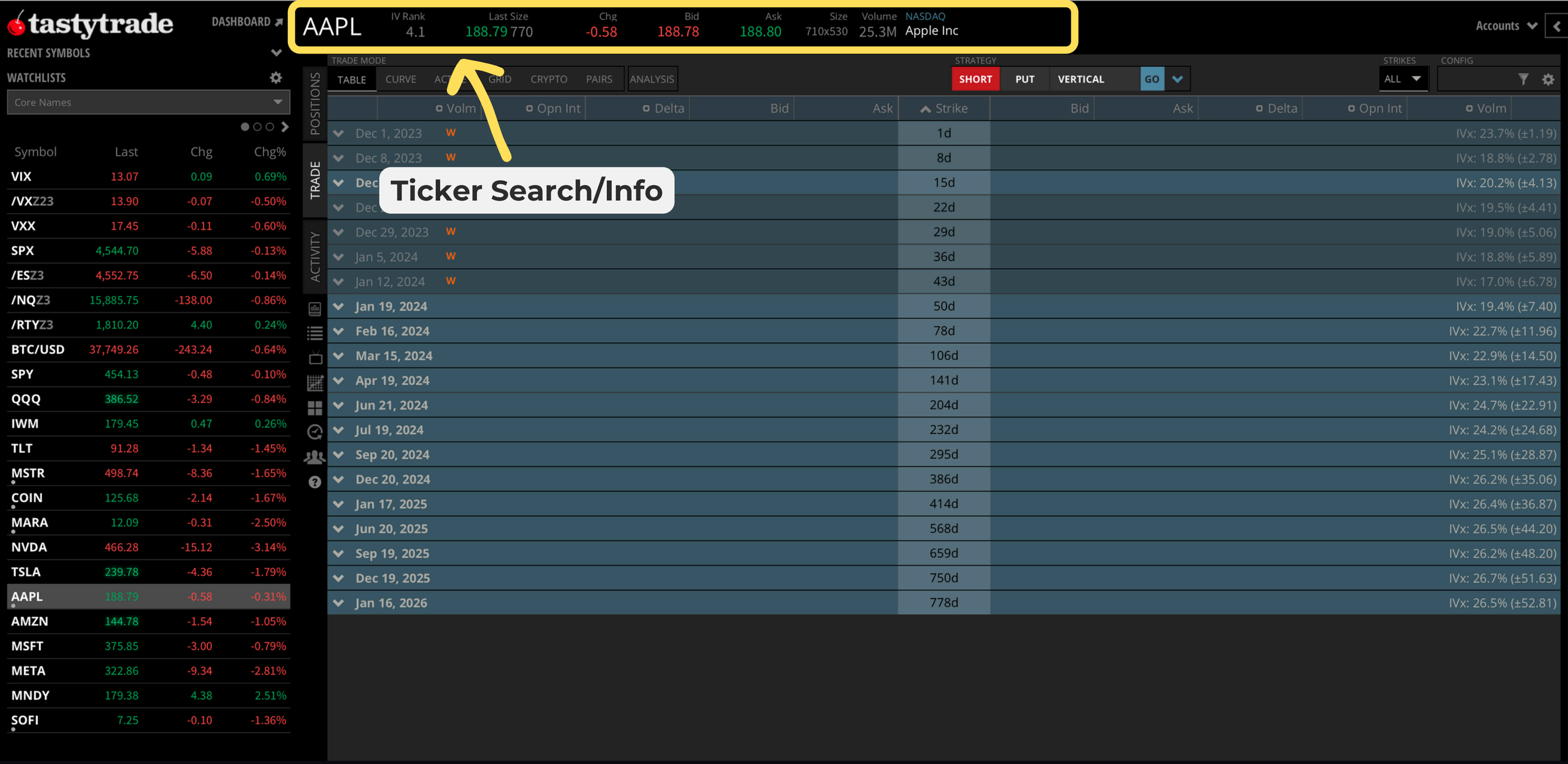
# Trading Platform Basics



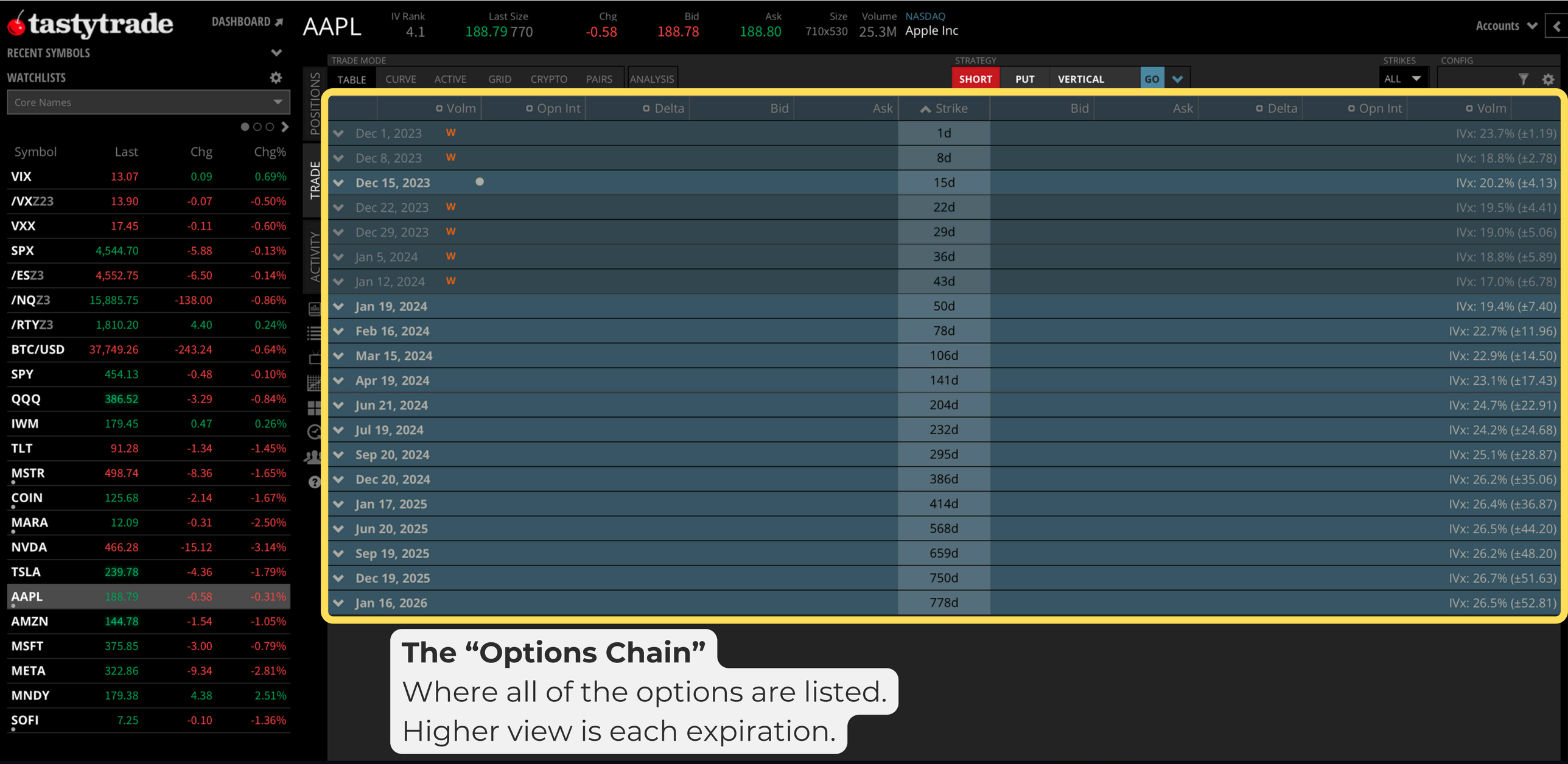

**Platform:** tastytrade




**Platform:** tastytrade



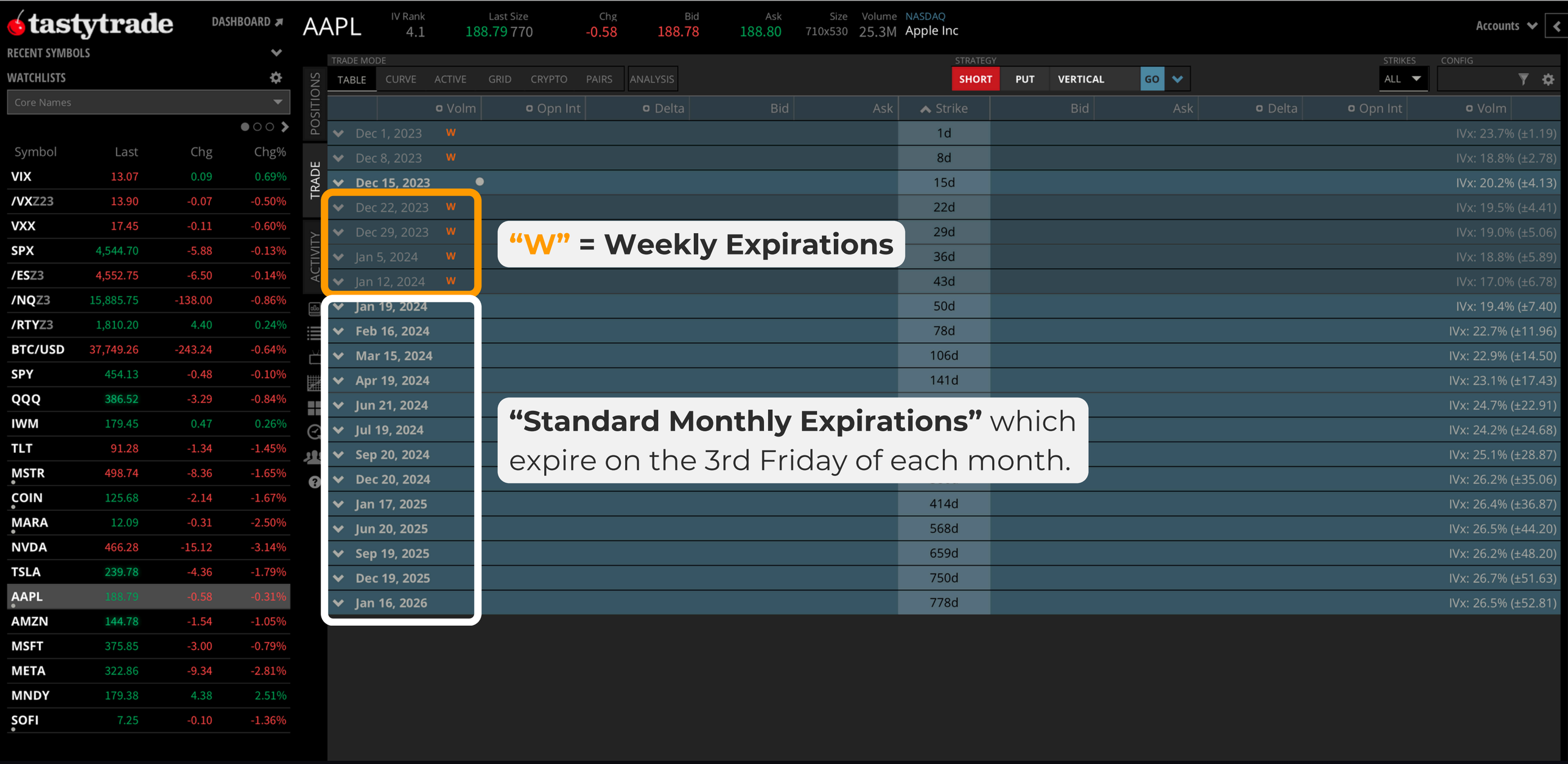

**Platform:** tastytrade



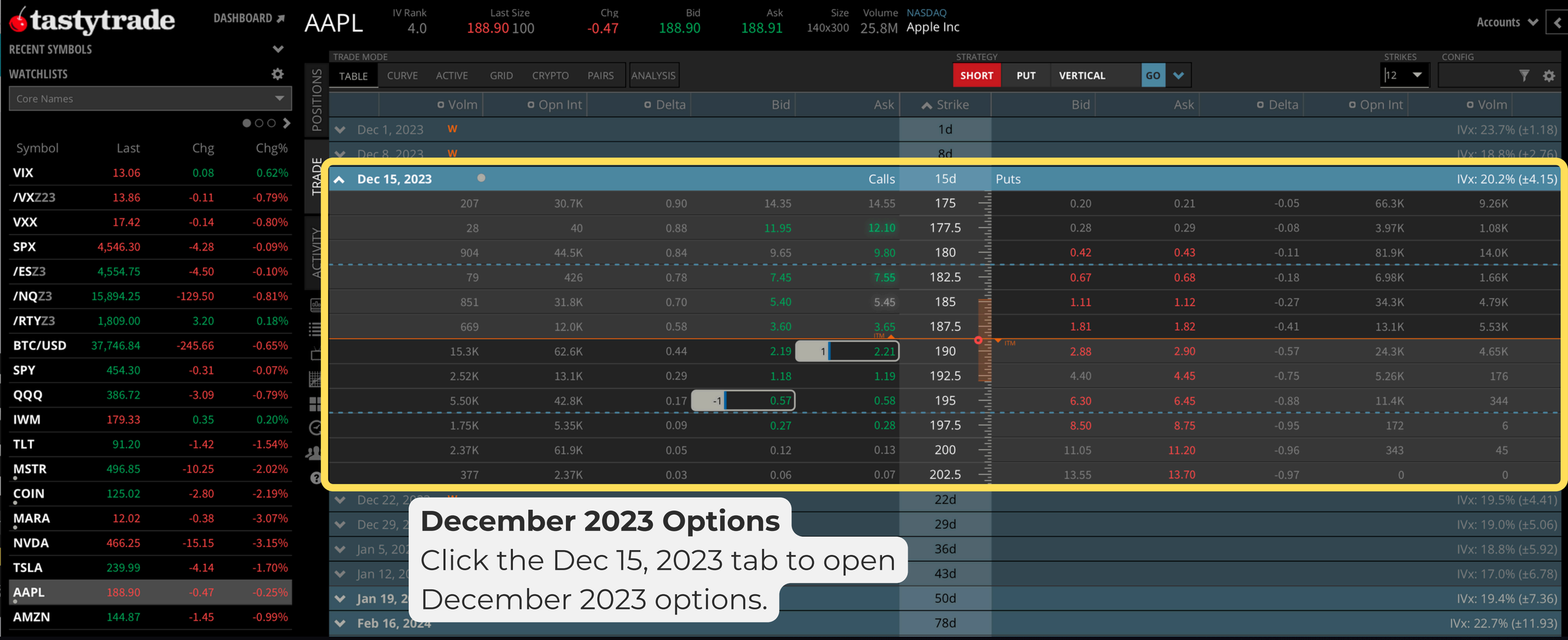

**The “Options Chain”**

Where all of the options are listed.
Higher view is each expiration.

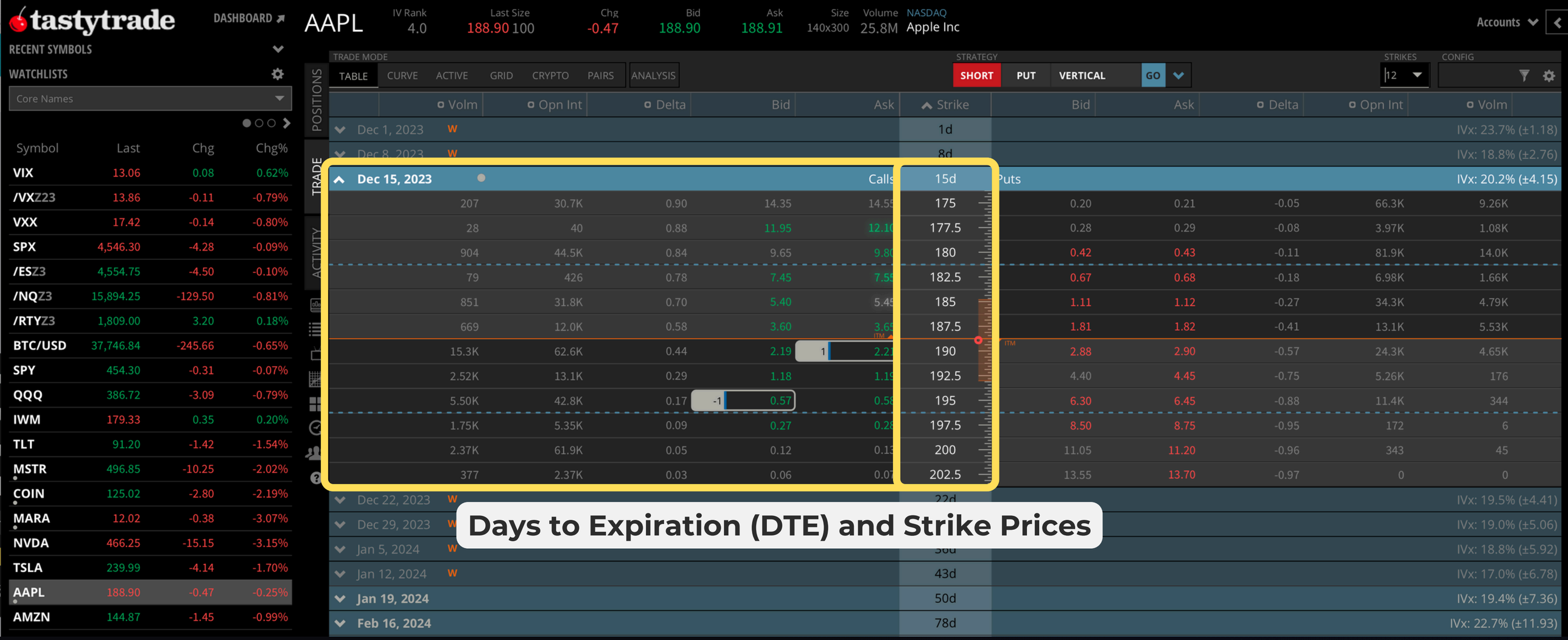
**Platform:** tastytrade



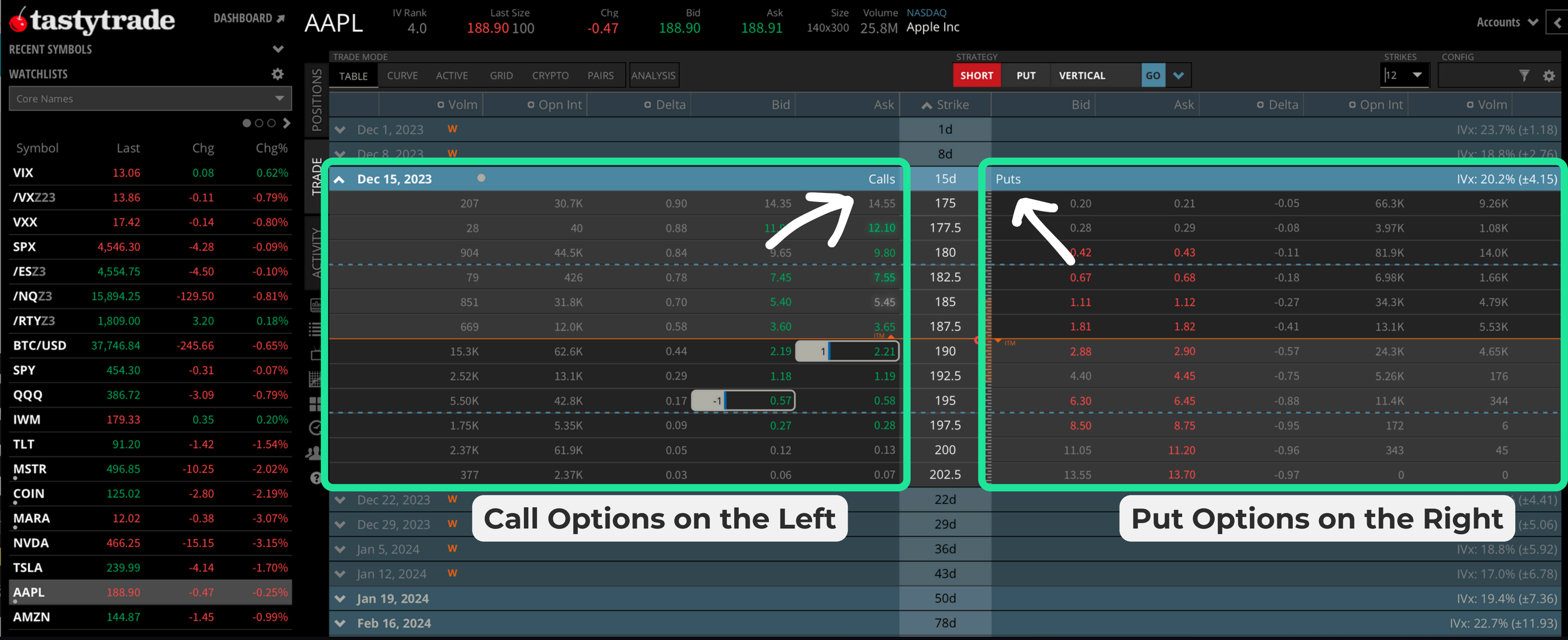

**Platform:** tastytrade



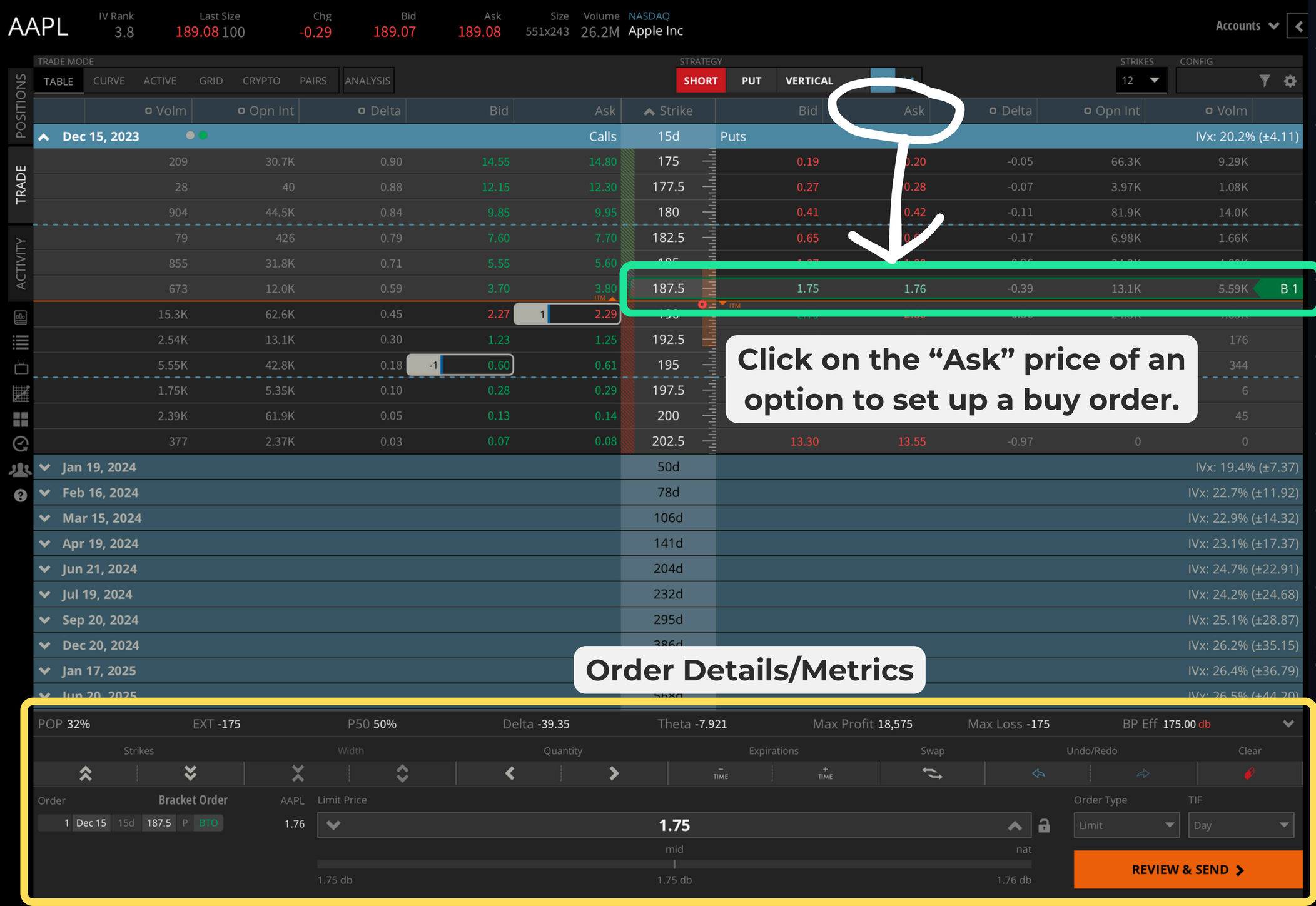

**Platform:** tastytrade

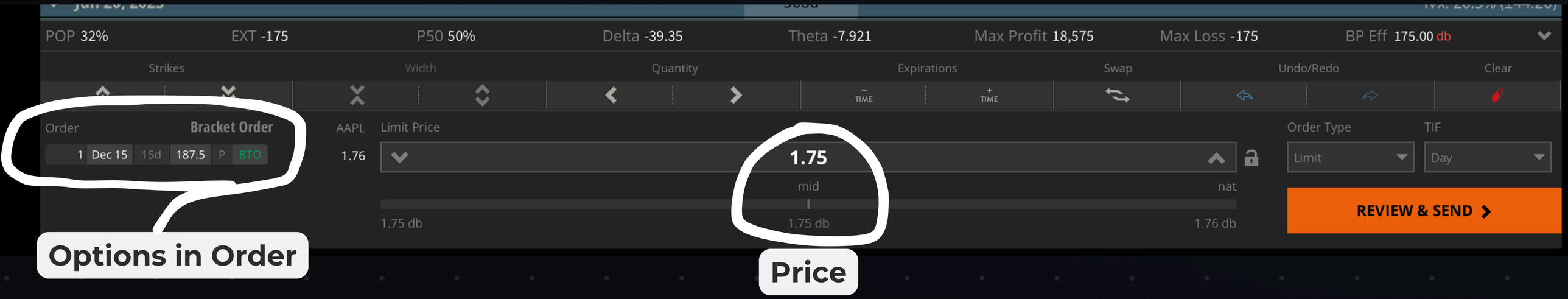



**Platform:** tastytrade

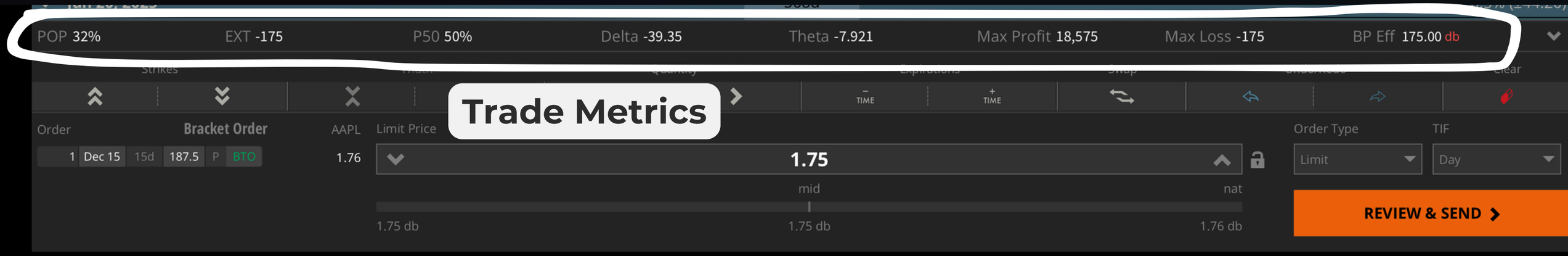



**Platform:** tastytrade

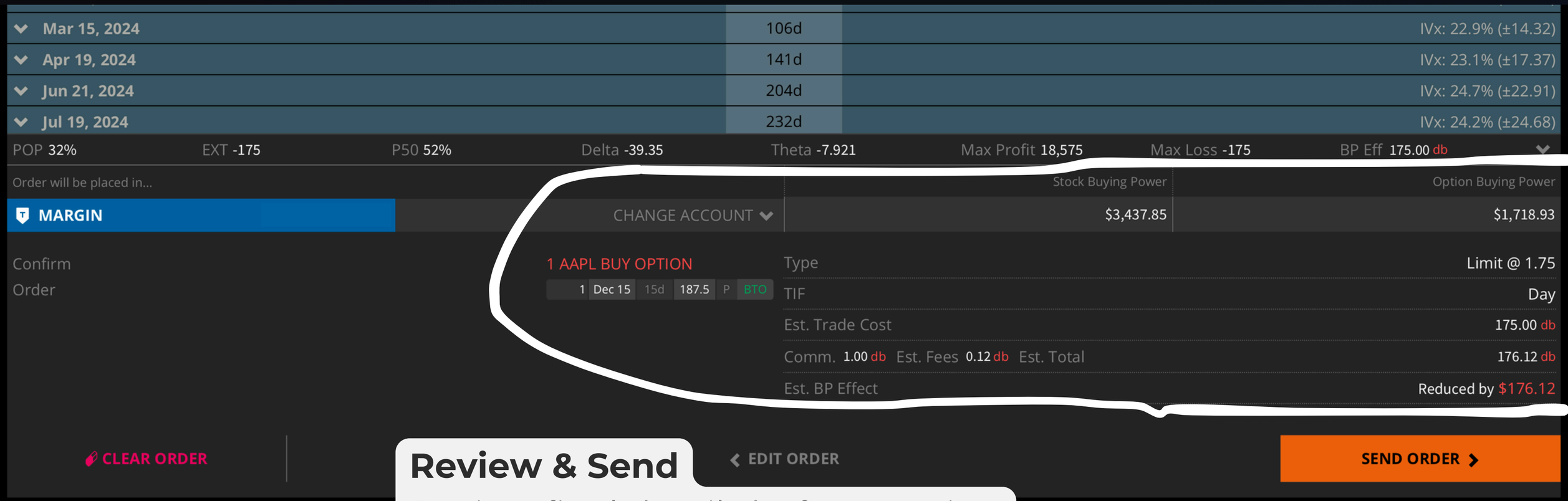

AAPL
IV Rank 3.8
Last Size 189.08 100
Chg -0.29
Bid 189.07
Ask 189.08
Size 551x243
Volume 26.2M
NASDAQ Apple Inc
Accounts
TRADE MODE
TABLE CURVE ACTIVE GRID CRYPTO PAIRS ANALYSIS
STRATEGY
SHORT PUT VERTICAL
STRIKES 12
CONFIG
POSITIONS
TRADE
ACTIVITY
Volm Opn Int Delta Bid Ask Strike Bid Ask Delta Opn Int Volm
Dec 15, 2023 Calls 15d Puts IVx: 20.2% (±4.11)
209 30.7K 0.90 14.55 14.80 175 0.19 0.20 -0.05 66.3K 9.29K
28 40 0.88 12.15 12.30 177.5 0.27 0.28 -0.07 3.97K 1.08K
904 44.5K 0.84 9.85 9.95 180 0.41 0.42 -0.11 81.9K 14.0K
79 426 0.79 7.60 7.70 182.5 0.65 -0.17 6.98K 1.66K
855 31.8K 0.71 5.55 5.60
673 12.0K 0.59 3.70 3.80 187.5 1.75 1.76 -0.39 13.1K 5.59K B 1
ITM
15.3K 62.6K 0.45 2.27 1 2.29
2.54K 13.1K 0.30 1.23 1.25 192.5 176
5.55K 42.8K 0.18 -1 0.60 0.61 195 344
1.75K 5.35K 0.10 0.28 0.29 197.5 6
2.39K 61.9K 0.05 0.13 0.14 200 45
377 2.37K 0.03 0.07 0.08 202.5 13.30 13.55 -0.97 0 0
Jan 19, 2024 50d IVx: 19.4% (±7.37)
Feb 16, 2024 78d IVx: 22.7% (±11.92)
Mar 15, 2024 106d IVx: 22.9% (±14.32)
Apr 19, 2024 141d IVx: 23.1% (±17.37)
Jun 21, 2024 204d IVx: 24.7% (±22.91)
Jul 19, 2024 232d IVx: 24.2% (±24.68)
Sep 20, 2024 295d IVx: 25.1% (±28.87)
Dec 20, 2024 IVx: 26.2% (±35.15)
Jan 17, 2025 IVx: 26.4% (±36.79)
Click on the “Ask” price of an option to set up a buy order.
Order Details/Metrics
POP 32% EXT -175 P50 50% Delta -39.35 Theta -7.921 Max Profit 18,575 Max Loss -175 BP Eff 175.00 db
Strikes Width Quantity Expirations Swap Undo/Redo Clear
Order Bracket Order AAPL Limit Price
1 Dec 15 15d 187.5 P BTO 1.76 1.75
mid nat
1.75 db 1.75 db 1.76 db
Order Type Limit TIF Day
REVIEW & SEND




**Platform:** tastytrade

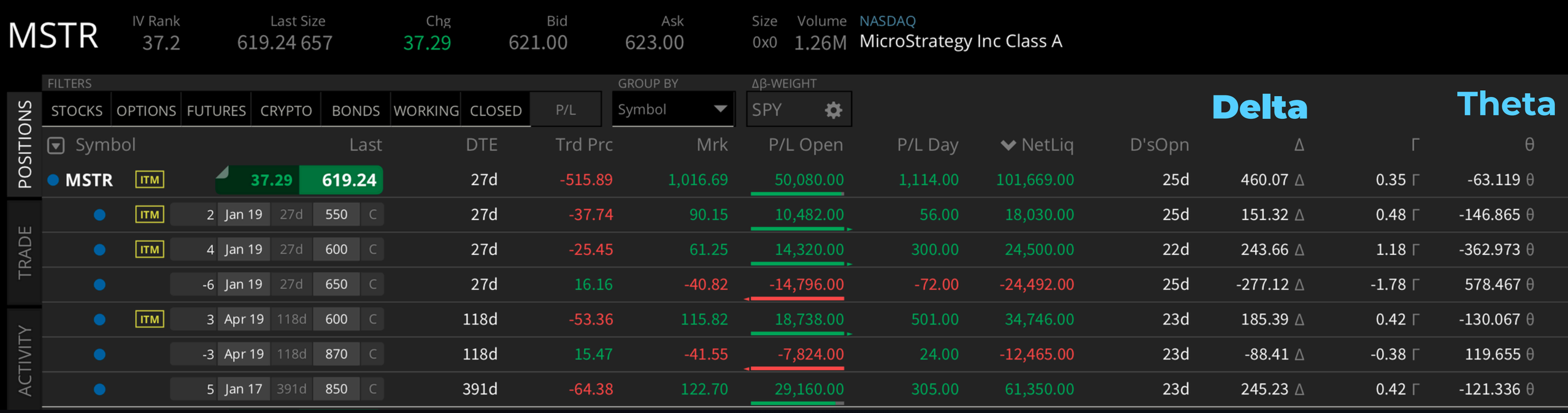



**Platform:** tastytrade




**Review & Send**

Review final details before routing order.




## Positions Tab Columns
## (Shown for Entire Position + Individual Options)

**DTE =** Days to Expiration

**Trd Prc =** Trade Price = Entry Price

**Mrk =** Current Price

**P/L Open =** Profit/Loss Since Entry

**P/L Day =** P/L on Current Day

**Net Liq =** Cash Value of Position if Sold

**D's Opn =** Days Since Opening Trade

**Platform:** tastytrade

# Which Stocks/Options to Trade?

# Stocks With Highly Liquid Options

Just because a stock has options, it does not mean they should be traded.

I recommend only trading options that are highly “liquid,” or have lots of trading volume, open interest, and tight bid/ask spreads.

**Trading liquid options will make it far easier to enter and exit positions *without* losing a lot of money from “slippage.”**

| Bid / Ask | Bid / Ask |
| --- | --- |
| $1.10 / $1.12 | $1.00 / $1.50 |

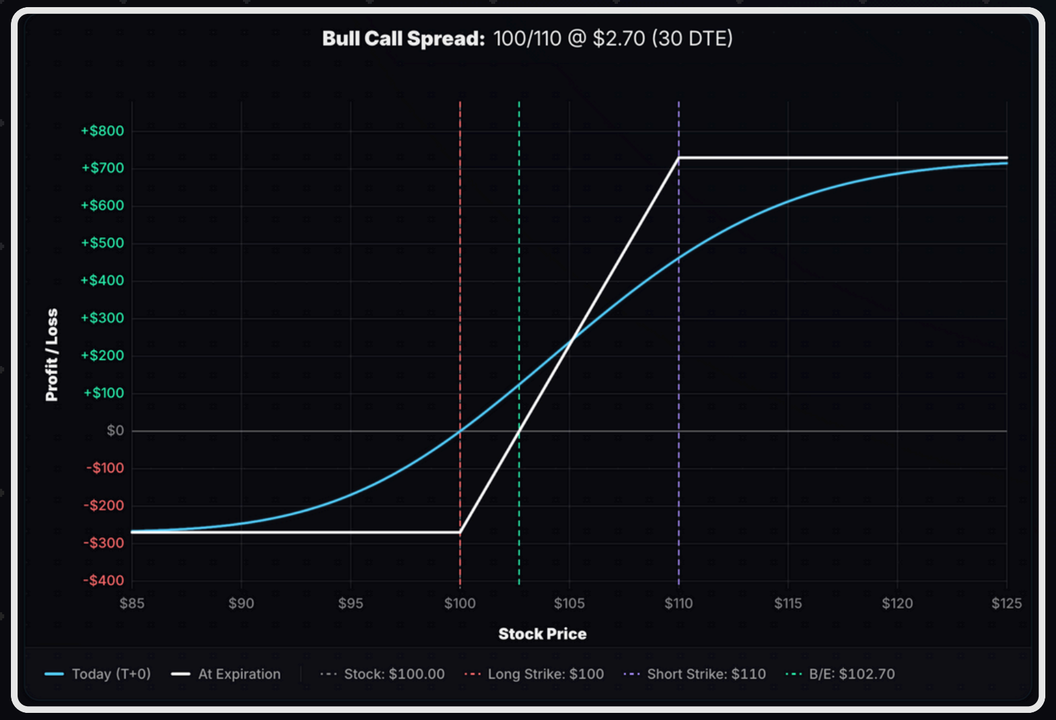
# Stocks With Highly Liquid Options

Here are some stocks/ETFs with liquid option markets (as of January 2026):

| | |
|---|---|
| **ETFs** | SPY and SPX (S&P 500)<br>QQQ (Nasdaq-100)<br>IWM (Russell 2000)<br>IBIT (Bitcoin ETF)<br>TLT (20+ Year U.S. Treasuries)<br>GLD (Gold ETF)<br>SLV (Silver ETF) |
| **Individual Stocks** | AAPL, AMZN, NVDA, GOOGL, SOFI, COIN, META, TSLA, MU, MSTR, MSFT, AMD, SNDK, ORCL, AVGO, NFLX, IBIT, HOOD (to name a few) |

# Options Trading Tools

Visit https://projectoption.com for options trading tools and calculators:

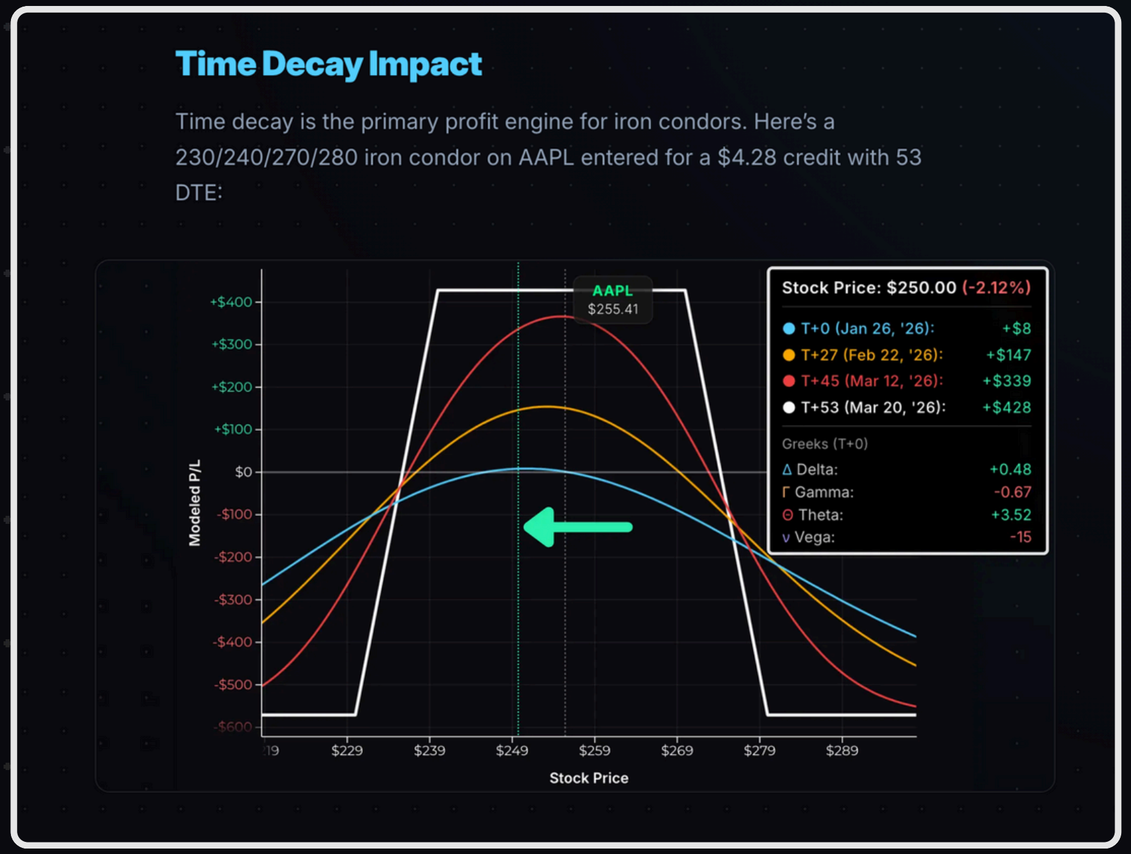



**Free Strategy Calculators →**


**Implied Vol. Statistics →**

# Options Trading Guides

Visit https://projectoption.com/learn for more options trading guides:




**Free Guides →**