

# Option Basics

## Lesson 1

Beginner Options Teaching Lessons

**An Introduction to Options**

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# Topics for this Lesson:

Defining Options

Understanding the Options

Trading Instrument

Option Terms

Understanding the Options Chain

Assignment and Exercise primer

## Options? What Are They?

An option is a legal contract between two parties that provides for the an ability to transfer equity ownership between the a buyer (owner) and a seller if the owner of the option exercises their rights.

There are only two types of options:

1. The Call Option
2. The Put Option

Options are “**derivatives**”

- A **derivative** is a financial contract that gets its value, risk and basic term structure from an underlying asset. **Options** comprise one category of **derivatives** while other types include futures contracts, swaps and forward contracts.. Common underlying instruments include: bonds, commodities, currencies, interest rates, market indexes and stocks
- The value of an option will change as the price of the underlying equity changes
  - As an analogy, if I purchase a coupon that allows me to buy chicken for \$2.50/pound, and the price of chicken rises above \$2.50/pound, my coupon becomes more valuable. If it remains at or below \$2.50/pound, there is no reason to use the coupon and it would eventually expire worthless

Options differ from equities in several ways:

- Unlike equities, there are no limits on the number of contracts that may be open and outstanding.
- Companies themselves do not issue options, they are created in the marketplace.
- Options have a limited time horizon before they expire.
- Not all equities or securities have options.
- Not all options are created equal either.
- Most option pricing is determined by market conditions within the confines of known formulations used to determine fair valuation.

An Option as a legal, binding contract requires BOTH a buyer (“Long”) & a seller (“Short”) to exist

### The Call option:

- The **CALL** option buyer carries the Right to Buy the underlying equity for the dollar value of the strike price within a set time frame.
- The **CALL** option seller (writer) carries the Obligation to Sell the underlying equity for the dollar value of the strike price within a set time frame if assigned.

### The Put option:

- The **Put** option buyer carries the Right to Sell the underlying equity for the dollar value of the strike price within a set time frame
- The **Put** option seller (writer) carries the Obligation to buy the underlying equity for the dollar value of the strike price within a set time frame if assigned

# Option Flavors:

(nothing to do with geography)

## American



- Underlying: stocks and ETFs  
e.g., AAPL, NFLX, SPY, etc.
- Exercise: anytime up to expiration
- Expiration: Friday, after market close
- Settlement: shares
- Settlement Price: Price of equity, determined after market

## European



- Underlying: cash settled indices  
e.g., SPX, DJX, NDX, etc.
- Exercise: only at expiration
- Expiration: Thursday and now Friday, after market close
- Settlement: cash – not shares
- Settlement: Prices of index components, determined Friday, after market opens
- Taxes: Maybe different – consult your tax professional

# Options Terms

- **Bid** – The value at which you sell an option to either open a new position or to close an existing position– wholesale
- **Ask** – The value at which you buy an option to either open a new position or to close an existing position– retail
- **Volume** – The number of contracts that have exchanged hands for the day. This value is generated by option activity at each of the member exchanges (CBOE, etc.)
- **Open Interest** – The total number of outstanding contracts for a particular equity, month and strike price. This value is maintained by the Options Clearing Corporation (OCC) and does NOT change during the trading day. It is recalculated before Market Open and reflects the NET changes from the prior trading day



# Options Terms

## part 2

- **Expiration Series** – This refers to the cycle (typically the month) options can belong to. **Monthly** only listings are on one of three expiration cycles - the JAO - January, April, July, October; FMAN - February, May, August, November ;MJSD - March, June, September and December. Every optionable stock has at least four expiration months in its listing. **Weeklies** expand the monthly only listing by filling in the weeks between months. The number of weekly series options may vary by security and mainly based on activity.
- **Expiration date** – The date on which the option expires. Expiration day for monthly equity and index options is the third Friday of the expiration month. Weekly and quarterly options expire on their respective Friday
- **Strike price** – A dollar value that the equity will be bought/sold for if the option is exercised. It is also known as the exercise price

There are only two types of options:

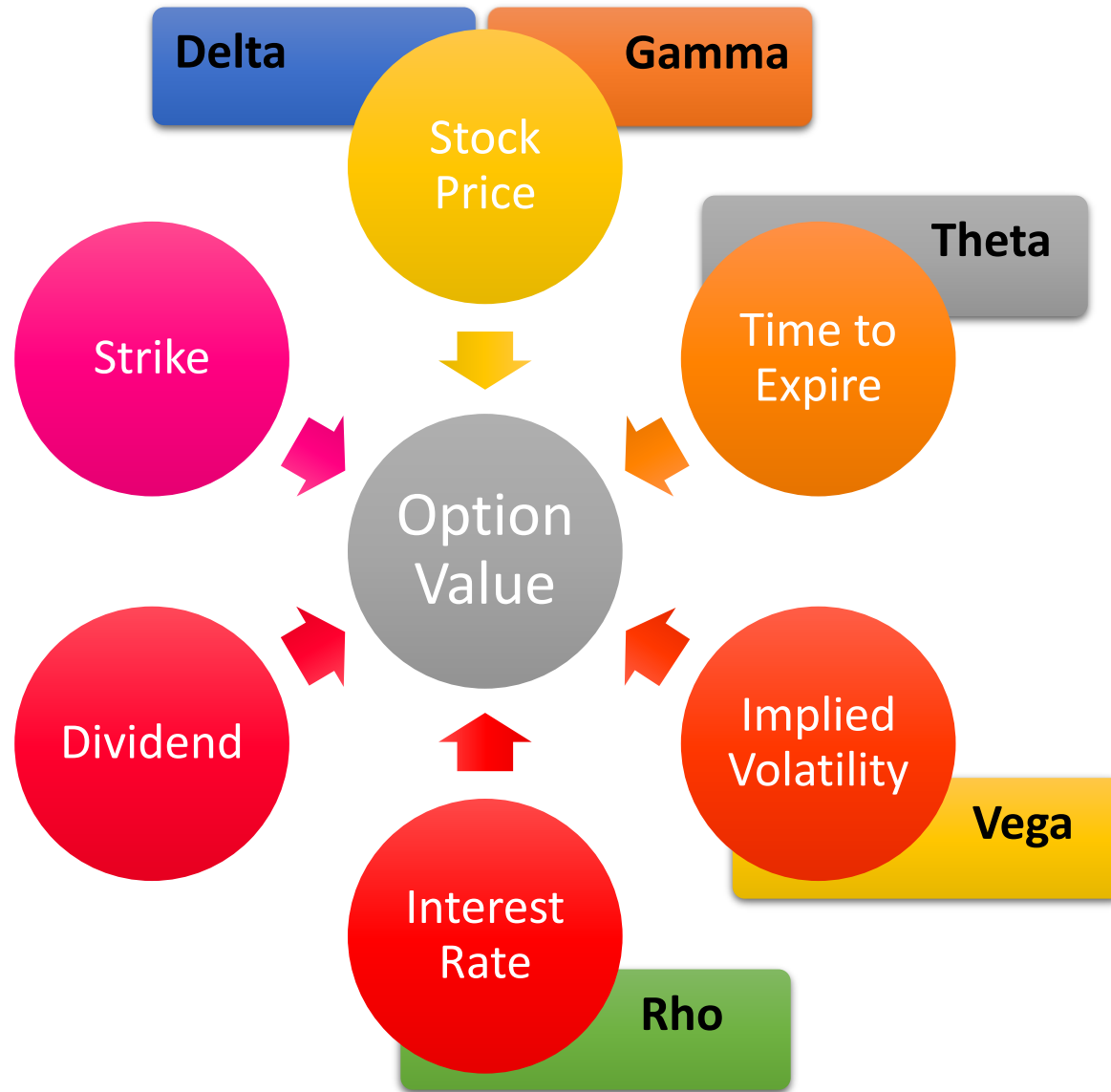
## The Call option and The Put option:

- How are they displayed and what do the typical columns mean?

Below is a look at an option “chain” as shown on the ThinkorSwim platform

|  |                    |               |                 |                          |        |                             |
|--|--------------------|---------------|-----------------|--------------------------|--------|-----------------------------|
| AMZN   | AMAZON COM INC COM | 1843.06       | -1.01<br>-0.05% | B: 1842.56<br>A: 1843.00 | NASDAQ | Company Profile             |
| Underlying   |                    |               |                 |                          |        |                             |
| Trade Grid   |                    |               |                 |                          |        |                             |
| Option Chain   |                    |               |                 |                          |        |                             |
| Filter: Off Spread: Single Layout: Volume, Open Interest |                    |               |                 |                          |        |                             |
| CALLS  |                    |               |                 |                          |        |                             |
| Strikes: 14  |                    |               |                 |                          |        |                             |
| PUTS   |                    |               |                 |                          |        |                             |
| Volume   | Open.Int           | Bid X         | Ask X           | Exp                      | Strike | Bid X Ask X Volume Open.Int |
| 18 APR 19  | (4)                | 100           |                 |                          |        | 20.03% (±33.656)            |
| 102  | 266                | 24.80 N       | 26.10 N         | 18 APR 19                | 1827.5 | 9.10 Z 9.35 Z 138 85        |
| 709  | 779                | 23.20 N       | 24.25 P         | 18 APR 19                | 1830   | 9.80 N 10.20 Z 584 550      |
| 169  | 211                | 21.60 N       | 22.55 Q         | 18 APR 19                | 1832.5 | 10.45 N 11.10 H 159 155     |
| 288  | 340                | 20.05 N       | 21.10 Z         | 18 APR 19                | 1835   | 11.55 M 12.15 N 426 229     |
| 167  | 106                | 18.65 N       | 19.65 N         | 18 APR 19                | 1837.5 | 12.40 N 13.10 H 303 140     |
| 1,631  | 1,236              | 17.20 N       | 18.10 Z         | 18 APR 19                | 1840   | 13.55 Z 14.30 N 1,225 604   |
| 432  | 223                | 15.95 N       | 16.65 Q         | 18 APR 19                | 1842.5 | 14.80 P 15.50 N 359 131     |
| 1,830  | 800                | 14.65 N       | 15.35 M         | 18 APR 19                | 1845   | 15.85 N 16.70 N 800 314     |
| 1,186  | 361                | 13.50 N       | 13.90 Z         | 18 APR 19                | 1847.5 | 17.10 N 18.05 N 495 159     |
| 4,187  | 2,176              | 12.35 N       | 12.95 X         | 18 APR 19                | 1850   | 18.55 Z 19.45 N 1,494 958   |
| 257  | 153                | 11.30 N       | 12.10 X         | 18 APR 19                | 1852.5 | 20.05 Q 20.80 N 77 68       |
| 471  | 540                | 10.25 N       | 10.85 X         | 18 APR 19                | 1855   | 21.35 N 22.35 N 186 86      |
| 93   | 47                 | 9.35 N        | 10.00 N         | 18 APR 19                | 1857.5 | 22.85 N 23.95 N 38 37       |
| 827  | 1,011              | 8.50 N        | 8.80 P          | 18 APR 19                | 1860   | 24.45 N 25.60 N 198 211     |
| 26 APR 19  | (12)               | 100 (Weeklys) |                 |                          |        | 36.99% (±101.882)           |
| 3 MAY 19   | (19)               | 100 (Weeklys) |                 |                          |        | 33.88% (±116.174)           |
| 10 MAY 19  | (26)               | 100 (Weeklys) |                 |                          |        | 31.77% (±126.822)           |
| 17 MAY 19  | (33)               | 100           |                 |                          |        | 30.48% (±136.715)           |

# Brief look at the Options Price Determinants



Forces determining an option's price?

# Options Terms

part 3 –

a bit advanced but common for option “speak”

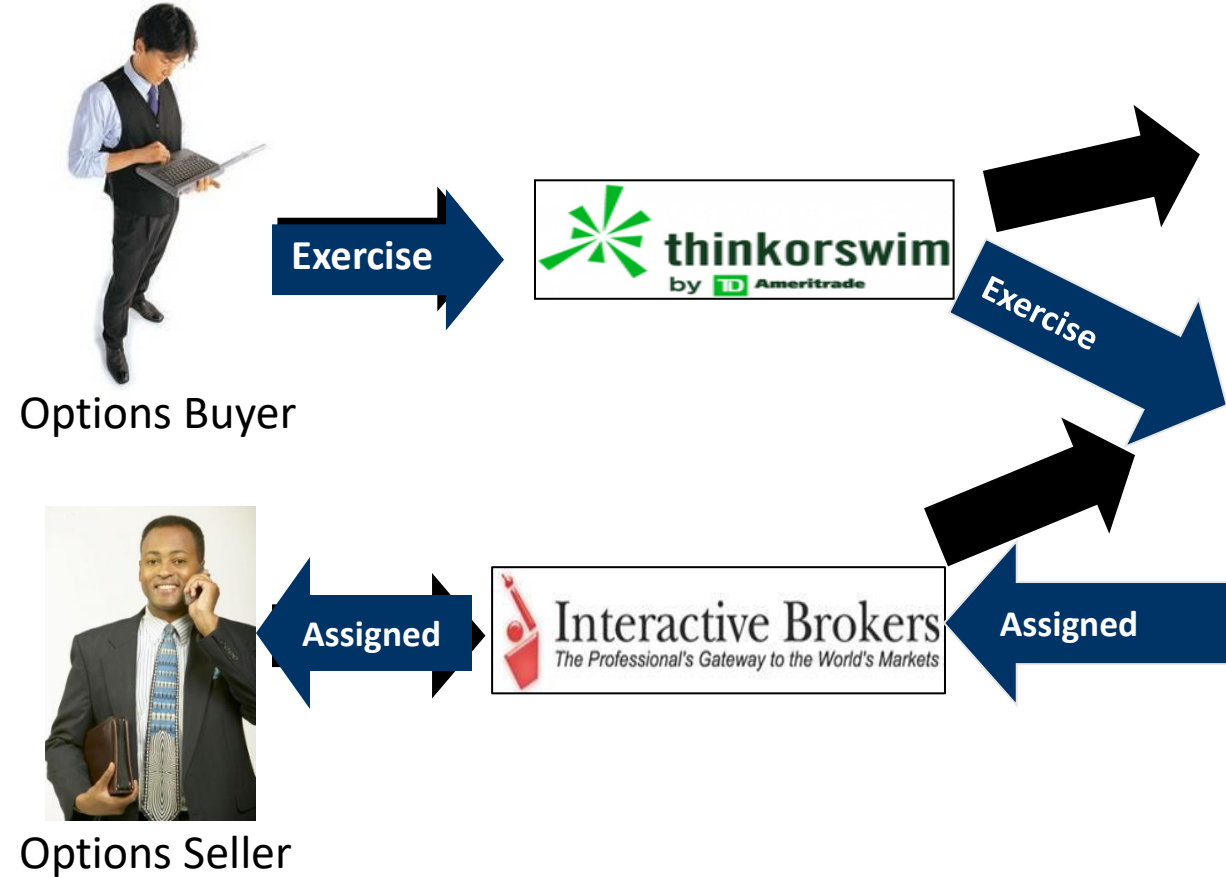
- **“In the Money”** - A Call Option is “ITM” if the current market value of the equity is above the strike price of the option. A Put Option is “ITM” if the current market value of the equity is below the strike price of the option. For example: If the current market price of xyz stock is \$50, an xyz 45 call would be “in the money” by \$5
- **“At the Money”** – When the current market value of the stock is the same as the strike price of the option. This term is a “relative term” as an option that is truly at the money, is in fact, an in the money option
- **“Out of the Money”**- When the strike price of a call is above the current market value of the equity, or if the strike price of a put is below the current market value of the equity, the option is “out of the money” by that amount. For example: The current market price of xyz stock is at \$50, a call with a strike price of \$55 would be “out of the money” by \$5 and a put would be “out of the money” by \$5 with a strike price of \$45

## Why Would You Choose to Use Options?

- Options allow you to profit from equity movements without equity ownership.
- Options allow you to use leverage of trading capital.
- Options can generate a greater ROI than the equity itself.
- By combining option trading instruments, we can create what are called “spread trades ” that can significantly reduces risk and/or improve results.
- Option ownership once purchased is active 24 / 7 and can be acted upon by the owner, regardless of time and up to and until expiration.

- Long options **may** be exercised by their owner. This means that the holder of the long option is exercising their rights to buy or sell the underlying equity
  - A long call being exercised allows the holder to buy the underlying equity for the dollar value of the strike price per share
  - A long put being exercised allows the holder to sell the underlying equity for the dollar value of the strike price per share
- Short options will only be assigned as the result of a long option being exercised. Once assigned, the short option holder is obligated to follow through
  - A short call once assigned obligates the writer of the short call to sell the underlying equity for the dollar value of the strike price per share
  - A short put once assigned obligates the writer to buy the underlying equity for the dollar value of the strike price per share

Opening of an options contract:  
Exercising of an options contract:



The Assignment Process

- An option is a legal contract between two parties designed for the transfer
- Option contracts are “**opened**” and “**closed**”. They are **not** “traded” between parties
- “Long” options are bought to open (bto) and sold to close (stc)
- “Short” options are sold to open (sto) and bought to close (btc)
- Long options have **rights**, short options carry **obligations**
- The long call provides the buyer the RIGHT to buy the equity for the dollar value of the strike price of the option for the life of that option
- The short call is OBLIGATED to sell the equity for the dollar value of the strike price of the option sold for the life of that option
- The long put provides the buyer the RIGHT to sell the equity for the dollar value of the strike price of the option for the life of that option
- The short put is OBLIGATED to buy the equity for the dollar value of the strike price of the option sold for the life of the option
- Please review the option terminology as become familiar with “option speak”