

# Option Basics

## What is an option?

In a nutshell, an *option* is a contract that gives its holder the right (but not the obligation) to buy or sell a certain item at a specific price on or before a specific date... and while an option contract can be written for almost any asset class imaginable, our focus here will be on options that are written for specific stocks and/or baskets of stocks (such as those that make up the S&P 500, for example).

Options that give their holder the right to buy a specific stock (or index) are called *call* options, and options that give their holder the right to sell a specific stock (or index) are called *put* options. Whenever stocks are involved, all of the major U.S. exchanges have agreed that each contract represents the right to buy or sell exactly 100 shares of the underlying stock... and trading of partial contracts is never allowed.

In addition to identifying whether it is a right to buy or to sell, each contract also lists the specific price (called the *strike price*) at which the holder of the option can sell the underlying security, as well as the date at which the contract expires (called the *expiration date*).

On the major U.S. option exchanges, strike prices for stocks are usually set at multiples of \$5, though lower priced stocks also have options with strike prices that are multiples of \$2.50. In addition to this standardized practice for strike prices, the exchanges have also uniformly agreed that the expiration dates for stock options will always fall on the third Friday of the month named in the contract. It should be noted that index options usually expire around the same time of the month as stock options; however, each index option has its own set of rules, so be sure to seek clarification from your broker before entering into any index option trades!

## How are option contracts identified?

In the same way that each individual stock has its own unique ticker symbol, each option contract is also identified by a unique combination of five letters. The first three letters of an option symbol always describe which stock the contract associated with, and the next two letters identify the month and strike price of the

contract based on the following system (note that the symbol associated with the month also reveals whether the contract is a put or a call!):

Month	for Calls	for Puts	Code	Strike Prices	
Jan	A	M	A	5	105
Feb	B	N	B	10	110
Mar	C	O	C	15	115
Apr	D	P	D	20	120
May	E	Q	E	25	125
Jun	F	R	F	30	130
Jul	G	S	G	35	135
Aug	H	T	H	40	140
Sep	I	U	I	45	145
Oct	J	V	J	50	150
Nov	K	W	K	55	155
Dec	L	X	L	60	160
			M	65	165
			N	70	170
			O	75	175
			P	80	180
			Q	85	185
			R	90	190
			S	95	195
			T	100	200
			U	7.5	37.5
			V	12.5	42.5
			W	17.5	47.5
			X	22.5	52.5
			Y	27.5	57.5
			Z	32.5	62.5

For example, the three letter symbol for Celgene options is LQH, so the symbol for a “Celgene April 65 Call” is LQHDM (where “D” tells us it is an April call, and “M” tells us the strike price is 65). Similarly, a “Celgene July 45 Put” would be LQHSI.

Occasionally, in addition to their regular option symbol, stocks will also be assigned additional 3-letter codes for their options. This sometimes occurs when there has been a stock split for the company, and it often happens if LEAPS (see below) are available to be traded on the stock (note: given the myriad of symbols sometimes available, it is a good idea to always *triple-check* your entries when placing option trades!).

**Which months can you buy options for?**

Options are always available for the month that contains the next expiration date, the month after that, and then a series of months that are spaced three months apart. When options are first made available on a stock, that stock gets assigned to be on either a January-, February-, or March-cycle... and this designation determines which months will be used for options going forward (a company on the February cycle, for example, will always have the options available for the following months: a) the current month of expiration, b) the next month after that, and 3) some combination of February, May, August, and November).

In addition the short-term options that trade on this cycle, some stocks also have LEAPS traded on them. LEAPS is an acronym for Long-term Equity AnticipatiOn Securities, which is just a fancy way to say “longer-term option.” The life of these contracts is often measured in years rather than months, and they always expire on the third Friday of January in the year specified by the contract.

### **Who sells options, and how are they priced?**

In addition to buying options, it is also possible for both individuals and institutions to sell (write) options; however, much of the writing is done by institutions and professional investors rather than individual investors.

When it comes to option prices, the primary determinant of an option’s price is the perceived likelihood of the option being exercised on or before its expiration date. Of course, there are numerous factors that influence this variable: the amount of time left on the option contract, the distance the stock is from the strike price, and the chance of the stock traveling that distance before the option expires are three of the big ones. In addition to these three primary forces, there is also a dose of supply-and-demand thrown into the mix, and thus option prices also tend to be influenced by the level of demand (or lack thereof) seen for them in the marketplace.

Of these factors, the passage of time is the only one that investors can predict with 100% certainty, and thus it plays one of the largest roles in determining option prices (options with more time left on them will have a higher price than options with similar strike prices but less time remaining). It is important for both sellers and buyers of options alike to realize that *all options lose a portion of their value as time goes by, and this “time decay” accelerates as the option gets closer and closer to expiration.*

Though a discussion of it is beyond the scope of this discussion, investors who are interested learning more about how the pros value options are encouraged to investigate a nifty bit of mathematics called the Black-Scholes Equation.

### **What are the “basic” option trades?**

Though more advanced option traders love to spend their time talking about spreads, butterflies, strangles, naked calls and naked puts (actual things – not porn for option junkies!), collars, condors, and all sorts of other fun and exciting strategies that can be employed when trading options, it is important to gain a basic understanding how options work in their simplest form before tackling some of those more advanced strategies.

The following four actions represent the most common “first option trades” that investors new to options trading often make:

#### *Buying Calls*

*What it is:* Buying a call gives the holder of the contract the right to purchase 100 shares of stock at a certain price on or before a certain date.

*When to use:* Investors would execute this strategy if they were bullish and felt that a stock going to move up towards (and hopefully past) the strike price before the expiration date.

*How money can be made:* money is made if the stock rises quickly enough.

*How money can be lost:* as time goes by, the option loses time value (shorter duration = shorter time premium); if the option is below the strike price at expiration, it results in a 100% loss of capital.

*Potential risk:* limited to 100% of investment.

*Potential reward:* unlimited.

#### *Buying Puts*

*What it is:* Buying a put gives the holder of the contract the right to sell 100 shares of a stock at a certain price on or before a certain date.

*When to use:* Investors would execute this strategy if they were bearish and felt that a stock going to move down towards (and hopefully past) the strike price before the expiration date.

*How money can be made:* money is made if the stock falls quickly enough.

*How money can be lost:* as time goes by, the option loses time value (shorter duration = shorter time premium); if the stock is above the strike price at expiration, it results in a 100% loss of capital.

*Potential risk:* limited to 100% of investment.

*Potential reward:* unlimited\*

\*in reality, the reward is bounded by the magnitude of the strike price itself, since no stock can fall below \$0.

### *Selling (out-of-the-money covered) Calls*

*What it is:* selling a call obligates the writer of the contract to sell 100 shares of stock at a certain price *if* the holder of the contract exercises their right to buy on or before the expiration date.

*When to use:* Investors would execute this strategy if they were bullish enough on a stock to own it but bearish enough to think it was not likely to rise above the strike price before the expiration date.

*How money can be made:* money is made if the stock rises slowly (or not at all), thus causing the option to lose time value; if the stock is below the strike price at expiration, the option expires worthless and the seller keeps 100% of the premium received for writing the contract.

*How money can be lost:* the stock rises quickly; if the stock rises above the strike price, the seller of the contract may have their stock called away from them (thus resulting in a “missed opportunity” cost as the rally in the stock is missed out on).

*Potential risk:* limited to the losses that might be attained through depreciation in stock price (less the premium for writing the contract).

*Potential reward:* limited to the difference between the stock price and the strike price at the time the contract is written, plus the premium received for writing the contract.

### *Selling (out-of-the-money naked) Puts*

*What it is:* selling a put obligates the writer of the contract to purchase 100 shares of stock at a certain price **if** the holder of the contract exercises their right to sell on or before the expiration date.

*When to use:* Investors would execute this strategy if they were interested buying a particular stock at a price lower than the market price but were not sure if the stock would ever drop below that price.

*How money can be made:* the stock stays above the strike price and the option loses value due to time decay; the stock is above the strike price at expiration, the seller keeps 100% of the premium received for writing the contract.

*How money can be lost:* money can be lost if the stock falls too quickly.

*Potential risk:* limited to the difference between the stock price and the strike price at the time of expiration (less the premium received for writing the contract).

*Potential reward:* limited to the premium received from the writing of the contract.