# "Learn To Trade Stock Options" 

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Table of contents:

- WHAT TO EXPECT FROM THIS MANUAL
- WHAT IS AN OPTION
- BASICS OF HOW AN OPTION WORKS
- RECOMMENDED PLATFORM (TOS)
- THE GREEKS
- IMPLIED VOLATILITY (IV)
- IMPLIED VOLATILITY RANK (IV RANK)
- CALLS
- PUTS
- COVERED CALLS
- CALENDAR SPREADS
- VERTICAL SPREADS
- BUTTERFLY
- IRON CONDORS
- STRADDLES
- STRANGLES
- COLLARS
- OPTION TERMS \& VOCABULARY


## Chapter 1

What to expect from this book, What is an option, Basics of an option, Recommended trading platform (TOS) Thinkorswim

## WHAT TO EXPECT FROM THIS BOOK:

Let me first personally say thank you for taking the time to read this book on how to trade options. Our goal is that after reading this book you will have the basic understanding of what an option is, how option work and the different strategies that you can use with options and for you to put live trades on and become a profitable trader using options. We will go over in the most basic form what an option is and how options works, you will also learn what a call and put are and how they are the building blocks to all the different option strategies offered. Options are a great resource for leveraging your capital, hedging a stock position or portfolio, putting defined risk trades on and not needing to use stop losses, put trades on where you can be wrong on the direction of the stock move and still make many and so much more. Options give people with a small dollar account size the ability to trade high dollar stocks with using very little capital and defined risk. You will also learn how you can place trade if you think a stock will go up, down or sideways and be able to profit if you are correct.
Please understand that just reading any book will not make you an expert on options as you will need screen time and put live trades on and watch how they work and are affected by things such as IV, the greeks, time decay, the vix, news, strategies used and stock price movement. I hope you enjoy this option manual and I hope it will get you started on your new journey in option trading open your eyes to a new and smart way to trading and investing.

## WHAT IS AN OPTION:

An option is a contract between two people where one person is long an option (the buyer) or short (the seller) and the other person is taking the other side of the trade. When you buy a call or put option you have the right to buy or short the stock at a specific price in the future at the options expiration. When you sell (short) a call or put option you have the obligation to buy (sell the puts) or short the stock (sell a call) at a specific price in the future at the options expiration. One option contract equals 100 shares of the underlying stock. An example would be if you go long one XYZ call at $\$ 20.00$ then you have the right to buy 100 shares of that stock at expiration at $\$ 20.00$, now you will pay a premium of $\$ 1.00$ to have the right to buy that stock at $\$ 20.00$, you will need the stock to move higher by $\$ 1.00$ to breakeven at options expiration. Now if the stock is trading $\$ 30.00$ at options expiration then the option you bought for $\$ 1.00$ is now worth $\$ 10.00$ and you have made a profit of $+\$ 9.00$, you also have the right to exercise the $\$ 20.00$ calls and now be long 100 shares of stock at a cost basis of $\$ 20.00$ but the stock is currently trading at $\$ 30.00$ so you would have made a profit of $\$ 900$ so far on the trade and you would currently be long 100 shares of the stock. With options you can buy and sell them any time before the expiration date.
FYI- When you see $\$ 1.00$ in this eBook as an option value it is equivalent to $\$ 100$ dollars.

## BASICS OF HOW AN OPTION WORKS:

Here is a quick basic story of how an option works in simple terms. You are selling your house for $\$ 100 \mathrm{k}$ and I would like to buy it but I do not have the $\$ 100 k$ to buy it today, but I will in 30 days. So you tell me that you will give me 30 days to come up with the $\$ 100 \mathrm{k}$ and you will not sell the house to anyone else but I need to pay you a $\$ 10 \mathrm{k}$ premium for the right to buy your house at $\$ 100 \mathrm{k}$, I will pay a total of $\$ 110 \mathrm{~K}$ for your house. What this means is I have the right and not the obligation to buy your house for $\$ 100 \mathrm{k}+\$ 10 \mathrm{~K}$ premium $=\$ 110 \mathrm{k}$ and I can back out of the deal at any time and I will just lose the $\$ 10 \mathrm{k}$ premium I paid you. Now you Do Not have the right but you do have the obligation to sell me the house for $\$ 100 \mathrm{k}$ no matter what and you are not able to back out of the deal what's so ever. Let's now say on day 29, your in your backyard digging and you strike what appears to be oil. You start jumping up and down thinking you are rich and that you just struck oil. While at the sometime this happens I just happen to stop by with the $\$ 100 \mathrm{~K}$, I see oil all over the house and backyard. I ask what happened and you tell me you're rich because you struck oil, but I stop you, and remind you that I have the right to buy your house for $\$ 110 \mathrm{k}$ and you have the obligation to sell me the house no matter what. You then stop jumping up and down and fall to your knees and start crying and I start jumping up and down with joy yelling "I am rich, I am rich". At that same time a gentleman walks into the back yard and says he is from the city and says that the oil pouring up from the ground is the city's underground oil pipeline and that you punctured a hole in it. At that time I tell you to keep the $\$ 10 \mathrm{~K}$ premium I paid you and walk away from the deal and take a $\$ 10 \mathrm{~K}$ loss.

## RECOMMENDED TRADING PLATFORM (TOS) Thinkorswim:

We recommend that you use Thinkorswim by TD Ameritrade (TOS) as your trading platform. I have used them for trading ever since I started trading back in 2002 and hands down they are the best in my personal opinion. The very rarely have any issues and they are always doing updates about every 4-6 weeks to keep the platform up to date. You also will get trading tools and features that nobody else has been able to duplicate. Some of the great features that TOS offers is IV rank, Multiple charts with linking feature on one screen, Zero fee's for all stock, option, forex and future quotes (the only fees are commissions on trades), Custom scans and so much more. If you need a platform or looking for a platform that is the best in the industry then I would suggest that you open an account with Thinkorswim by TD Ameritrade.

## Chapter 2

## The Greeks

Implied Volatility, Implied Volatility Rank, The Greeks- (Delta, Gamma, Theta, Vega, Rho):

The Greeks are going to determine the rate of change in the option price by the change in the underlying stock's price movement.

## Delta - (The rate of change of the option vs the stock's price)

Is the rate of change in the option price for every $\$ 1.00$ dollar move higher or lower of the stock price. Example: If the option is at $\$ 2.00$ and has a Delta of .40 and the stock price moves from $\$ 20$ to $\$ 21$ then the option value will rise to $\$ 2.40$.

## Gamma - (The change of the delta's delta)

Is the change in the Delta's price for every $\$ 1.00$ dollar move higher or lower of the stock price. Example: If the option Delta is 40 and the Gamma is .03 and the stock price moves from $\$ 20$ to $\$ 21$ then the option delta will move up .03 to a Delta of .43

## Theta - (The amount an option will decay over time)

Is the change in the options value of time decay (Time decay is the loss of premium or value on a daily basis). Let's say that the Theta is at .02 . If the stock price does not move that day you will lose $\$ 0.02$ worth of option value.

## Vega - (Volatility changes)

Is the change in the options value based on the change of the stock's volatility.

## Rho - (Interest rate changes)

Is the change in the options value based on the movements of interest rates.

## Implied Volatility (IV):

Implied Volatility (IV) is a big part of options, think of IV as premium that is either added to or taken away from the fair price of an option. An example is XYZ stock is trading at $\$ 20.00$ and the Oct $\$ 20.00$ call options with 30 days left are trading for $\$ 1.00$ and the implied volatility is currently at $25 \%$. Now XYZ just came out and said they will be making a news announcement after the market closes today, nobody knows if the news is going to be good or bad so the option makers raise the implied volatility of the options which in return raises the price of the options, (aka - adds premium to the option price). AS IV has spiked due to the news the stock is still trading at $\$ 20.00$ but the Oct $\$ 20.00$ call options with 30 days left are now trading for $\$ 2.25$ and the IV has moved from $25 \%$ to $70 \%$. Now once the news has come out the stock price did not move as anticipated and has remained at $\$ 20.00$, the price of the call options has gone back down to $\$ 1.00$ while the IV went back to $25 \%$
The VIX, which is also known as the fear gauge is a product that tracks the S\&P 500 (SPX). When traders start buying puts that will move the VIX higher which in return make IV start to rise which then makes options more expensive. A simple guideline for tracking the VIX is that a low VIX is between 10-15 and a high VIX will be around 25-40. Just type in VIX on your platform to see where the VIX is currently trading. As you see the VIX rise or fall you will know that option pricing should follow the same direction and also rise or fall with the VIX. When the S\&P 500 moves the VIX should move inverse to it.
(Think of IV as a fear gauge, when there is uncertainty the IV will rise and when the news is out, good or bad, the IV will go lower)

## Implied Volatility Rank (IV RANK):

Implied Volatility Rank (IV Rank) in simple terms is the implied volatility percentile of implied volatility over the past 52 weeks. An example of this is the stock XYZ Oct expiration options current implied volatility is currently at $85 \%$ and within the past 52 weeks the high of implied volatility was at $100 \%$ and the low of implied volatility was at $0 \%$ and implied volatility of the option is currently trading at $85 \%$, then the IV Rank over the past 52 weeks is at the $85 \%$ percentile. So how do we use this information and how does it help us in our trading of options. Each stock has its own IV which means AAPL may have an IV of $50 \%$ while XYZ may have an IV of $85 \%$. Now is this IV considered high or low on AAPL? There is not a way to know unless we chart the IV on a chart over the past 52 weeks. AAPL may have had a high IV of $120 \%$ while the low IV was $45 \%$ the past 52 weeks, so the current IV Rank of AAPL is around $2 \%$ which means the options are very cheap and there is almost no extra premium pumped into the options. While the XYZ options IV Rank is at $85 \%$ which is letting us know the XYZ options IV are at the high end of the past 52 week range and there is a lot of extra premium pumped into the options (options are expensive). A good way to use the IV Rank is when options have a high IV Rank (70\% or higher) you want to be a seller of options and when the IV Rank (below $30 \%$ ) is low you want to be a buyer of options. The Thinkorswim platform will show you the current IV and also the current IV Rank of all stocks with options and you can also do live scans for stocks with options with the highest IV Rank to help you decide what the best option strategy to use is.

## Chapter 3

## Basics - Calls, Puts \& Covered Calls

## LONG CALL

## Market Opinion = Bullish (Debit)

A call option gives the buyer of the call the right, but not the obligation, to buy the underlying stock at the option's strike price. The seller of the call is obligated to deliver (sell) the underlying stock at the option's strike price to the buyer of the call when the buyer exercises his right. You will want to buy a call if you think the stock price will go higher.
**Buy 1 XYZ Oct $\$ 20$ Call for $\$ 1.00$
Max Loss $=\$ 1.00$ debit you pay
Max Profit = unlimited
Breakeven is if the stock closes at $\$ 21.00$

Example: Stock XYZ is trading at $\$ 20.00$ and you think in the next 2 months the stock will trade well above $\$ 21.00$. So you can buy the Oct $\$ 20$ call strike for $\$ 1.00$ which means that your maximum loss is $\$ 1.00$ and you will need the stock at Oct expiration to be above $\$ 21.00$ to breakeven and also have the right to own the stock long at $\$ 20.00$. If by Oct expiration the stock is at $\$ 25.00$ then you can close out the option with a $\$ 4.00$ profit. The difference from your breakeven to your closing price of the option $\$ 21-\$ 25=$ $\$ 4.00$ profit.

## LONG PUT

## Market Opinion = Bearish (Debit)

A put option gives the buyer of the put the right, but not the obligation, to short the underlying stock at the option's strike price. The seller of the put is obligated to take delivery of (buy) the underlying stock at the option's strike price to the buyer of the put when the buyer exercises his right. You will want to buy a put if you think the stock price will go lower.
**Buy 1 XYZ Oct $\$ 20$ Put
Max Loss $=\$ 1.00$ debit you pay
Max Profit = \$19.00 if stock goes to zero
Breakeven is if the stock closes at $\$ 19.00$

Example: Stock XYZ is trading at $\$ 20.00$ and you think in the next 2 months the stock will trade well below $\$ 19.00$. So you can buy the Oct $\$ 20$ put strike for $\$ 1.00$ which means that your maximum loss is $\$ 1.00$ and you will need the stock at Oct expiration to be below $\$ 19.00$ to breakeven and you also have the right to sell the stock short at $\$ 20.00$. If by Oct expiration the stock is at $\$ 15.00$ then you can close out the option with a $\$ 4.00$ profit. The difference from your breakeven to your closing price of the option \$19-\$15= \$4.00 profit.

## NAKED SHORT CALL

## Market Opinion = Neutral to Bearish (Credit)

Refers to selling a call without owning the underlying stock which will give you unlimited risk (because there is no limit to how high a stock can go). You will want to sell a call if you think the stock will go sideways or lower.
**Sell 1 XYZ Oct $\$ 20$ Call
Max Loss = unlimited
Max Profit = \$1.00
Breakeven is if the stock closes at $\$ 21.00$

Example: Stock XYZ is trading at $\$ 20.00$ and you think in the next 2 months the stock will trade sideways or below $\$ 20.00$. So you can sell a $\$ 20.00$ call and collect $\$ 1.00$ of premium and as long as the stock stays below $\$ 20.00$ by expiration you will collect the full $\$ 1.00$ of premium and the option will expire worthless. Your break even on this trade would be $\$ 21.00$ and will start to lose money if the stock trades above $\$ 21.00$.

## NAKED SHORT PUT

## Opinion = Neutral to Bullish (Credit)

Refers to selling a put without owning the underlying stock which will give you limited risk (which would be the full amount of the stock price minus the premium you collected for selling the put as the stock can only fall to zero). You will want to sell a put if you think the stock will go sideways or higher. You also can sell a put if you want to own a stock at a lower price and bring your cost basis down if the stock is put to you.

```
**Sell 1 XYZ Oct $20 Put
Max Loss = $19.00
Max Profit = $1.00
```

Breakeven is if the stock closes at $\$ 19.00$

Example: Stock XYZ is trading at $\$ 20.00$ and you think in the next 2 months the stock will trade sideways or above $\$ 20.00$. So you can sell a $\$ 20.00$ Put and collect $\$ 1.00$ of premium and as long as the stock stays above $\$ 20.00$ by expiration you will collect the full $\$ 1.00$ of premium and the option will expire worthless. Your break even on this trade is $\$ 19.00$ and will start to lose money if the stock trades below $\$ 19.00$ at expiration.

## CASH SECURED PUT

## Market Opinion = Neutral to Bullish

Cash-secured puts are basically the sale of a put with the cash to cover the full stock price if it went to zero. (Usually done in a cash or IRA account). **Put up \$1900 In Cash to Cover Stock
**Sell 1 XYZ Oct $\$ 20$ Put
Max Loss = \$19.00
Max Profit = \$1.00
Breakeven is if the stock closes at $\$ 19.00$

Example: XYZ is trading at $\$ 20.00$ and you sell an Oct $\$ 20.00$ put and collect $\$ 1.00$ of premium. You also will put up the full value in cash of the stock price ( $\$ 2000-\$ 100$ you collect $=\$ 1900$ ). Your breakeven would be $\$ 19.00$ with a maximum profit of $\$ 1.00$ and maximum loss would be $\$ 19.00$ if the stock went to zero.

## PROTECTIVE CALL

## Market Opinion $=$ Bearish

A Protective call is a position where you are short the stock and long calls. This is a position that you think the stock will head lower (short stock) but are protected if you are wrong and will be hedged by the long calls.
**Short 100 Shares of XYZ Stock at $\$ 20$
**Buy 1 XYZ Oct $\$ 20$ Call
Max Loss = \$1.00
Max Profit = \$19.00
Breakeven is if the stock closes at $\$ 19.00$

Example: Stock XYZ is at $\$ 20.00$ and you will be short 100 shares, you also will buy 1 Oct 20 strike Call for $\$ 1.00$. Your breakeven is $\$ 19.00$ because you paid $\$ 1.00$ for the call. The call you bought acts as insurance because if the stock runs to $\$ 25.00$ then you have lost $\$ 5.00$ on the short stock but the Oct $\$ 20.00$ call you bought has made $\$ 4.00$ because you have paid $\$ 1.00$ to have the right to buy the stock at $\$ 20.00$. This type of trade also gives you a limited risk of $\$ 1.00$ and a maximum profit of $\$ 19.00$ if the stock went to zero.

## PROTECTIVE PUT

## Opinion = Neutral to Bullish

A Protective put is a position where you are long the stock and buy a put. This is a position that you think the stock will head higher (long stock) but are protected if you are wrong and will be hedged by the long put
**Buy 100 Shares of XYZ Stock at $\$ 20$
**Buy 1 XYZ Oct \$20 Put
Max Loss = \$1.00
Max Profit = unlimited
Breakeven is if the stock closes at $\$ 21.00$

Example: Stock XYZ is at $\$ 20.00$ and you will be long 100 shares, you also will buy 1 Oct 20 strike put for $\$ 1.00$. Your breakeven is $\$ 21.00$ because you paid $\$ 1.00$ for the put. The put you bought acts as insurance because if the stock goes down to $\$ 15.00$ then you have lost $\$ 5.00$ on the long stock but the Oct $\$ 20.00$ put you bought has made $\$ 4.00$ because you have paid $\$ 1.00$ to have the right to be short the stock at $\$ 20.00$. This type of trade also gives you a limited risk of $\$ 1.00$ and a unlimited profit potential.

## COVERED CALL

## Opinion = Neutral to Bullish on the Underlying Stock

The covered call is a strategy in which you sell a call option while at the same time owning the same number of shares of the underlying stock. You are long stock while you sell an upside call to collect premium while you wait for the stock to move higher and at the same time you are reducing your cost basis on the stock with the premium that you collect from the call you sell. This strategy is the most basic and most widely used strategy.

## **Buy 100 Shares of XYZ Stock at $\$ 19$

**Sell 1 XYZ Oct \$20 Call
Max Loss $=\$ 18.00$
Max Profit = \$2.00
Breakeven is if the stock closes at $\$ 18.00$

Example: You will buy 100 shares of stock at $\$ 19.00$ and then sell 1 Oct $\$ 20.00$ call; you will collect $\$ 1.00$ of premium for selling the call which brings your cost basis of the stock down to $\$ 18.00$. If the stock stays below $\$ 20.00$ then you will collect the whole $\$ 1.00$ in premium. If the stock closes above $\$ 20.00$ then the stock will be called away from you but you keep the full premium of $\$ 1.00$ and have made $\$ 1.00$ profit on the stock ( $\$ 19.00$ to $\$ 20.00=\$ 1.00$ ) which $=\$ 2.00$ profit on the entire trade. Your break even on the trade to the downside is $\$ 18.00$.

# Chapter 4 <br> Intermediate - Calendar Spreads, Vertical Spreads 

## CALENDAR SPREADS

Opinion = Bullish, Bearish or Neutral

A calendar spread is a spread that uses calls or puts and can be a short-term neutral trade or a longer-term bullish or bearish trade. The position is created by purchasing a longer-term option (a back month option like the October expiration) and simultaneously selling a shorter-term option (a front month option like the July expiration) with the same strike price. You will typically use a slightly out-of -the-money strike price in anticipation of a sideways move in the underlying stock through options expiration of the option that you are short and keep the full premium that you collected. If the short option expires worthless and if you are still neutral on the stock then you can sell another near term option with the same strike price (this is called rolling your position). Finally, you can simply remain long the further out option if your outlook is more bullish or bearish at that time.

## **Current Stock Price \$20

**Buy 1 XYZ Jan $\$ 20$ Call for \$1.75
**Sell 1 XYZ Oct $\$ 20$ Call \& Collect a $\$ 1.00$ Credit

Example: You will buy 1 XYZ Dec $\$ 20.00$ call and sell 1 XYZ Oct $\$ 20.00$ call. You will want the stock to trade sideways and close just below the $\$ 20.00$ so the near month Oct $\$ 20$ call you sold will expire worthless and you keep the full $\$ 1.00$ of premium you collected. At Oct expiration you will only be long the Jan $\$ 20.00$ Call and you then can sell a Nov $\$ 20.00$ to collect more premium if you think the stock will still trade sideways (this is called rolling the position) or you can stay long the Dec $\$ 20$ call if you think the stock will make a move higher.

## BULL CALL SPREAD

## Market Opinion = Moderately Bullish to Bullish (DEBIT)

A Bull Call spread is also called a vertical spread. It contains two calls with the same expiration but different strikes. The strike price of the short call is higher than the strike price of the long call. This is a bullish spread where you are long a lower call and sell a higher call at the same time which will limit your upside profits but also limit your downside losses. You will pay a debit for this trade and want the stock price to go above the call that you sell by expiration.
**Current Stock Price $\$ 20$
**Buy 1 XYZ Oct $\$ 20$ Call
**Sell 1 XYZ Oct $\$ 25$ Call
Cost $=\$ 2.00$
Max Loss $=\$ 2.00$ debit you pay
Max Profit $=\$ 3.00$
Breakeven is if the stock closes at $\$ 22.00$

Example: You will buy 1 XYZ Oct $\$ 20.00$ call and sell 1 XYZ Oct $\$ 25.00$ call which is a 5 point spread and the spread will cost you $\$ 2.00$ with a $\$ 3.00$ profit potential. (The difference of the 2 strike prices) The current stock price is at $\$ 20.00$ and you will need the stock to trade at $\$ 22.00$ on Oct expiration for this trade to break even. Your max profit of $\$ 3.00$ would be if the stock closes above $\$ 25.00$ Oct expiration and your max loss of $\$ 2.00$ will be if the stock closes below $\$ 20.00$ at Oct expiration. This is a Bullish spread where you want the stock to move higher and trade above $\$ 25.00$.

## BEAR CALL SPREAD

## Market Opinion = Neutral to Bearish (Credit)

A Bear Call Spread is also called a vertical spread. It contains two calls with the same expiration but different strikes. The strike price of the long call is higher than the strike of the short call; this strategy will give you a credit when you put the trade on. This is a bearish spread where you sell a lower call and buy a higher call. This spread will limit your downside profits but also limit your upside losses. You will collect a credit for this trade and want the stock price to go below the call that you sell by expiration.
**Current Stock Price \$20
**Sell 1 XYZ Oct $\$ 20$ Call
**Buy 1 XYZ Oct $\$ 25$ Call
Cost = you will collect a $\$ 2.00$ premium (Credit)
Max Loss = \$3.00
Max Profit = $\$ 2.00$ premium you collected
Breakeven is if the stock closes at $\$ 22.00$

Example: You will sell 1 XYZ Oct $\$ 20.00$ call and buy 1 XYZ Oct $\$ 25.00$ call which is a 5 point spread; you will collect a $\$ 2.00$ credit with a $\$ 3.00$ loss potential. (The difference of the 2 strike prices) The current stock price is at $\$ 20.00$ and you will need the stock to trade at $\$ 22.00$ on Oct expiration for this trade to break even. Your max profit of $\$ 2.00$ would be if the stock closes below $\$ 20.00$ Oct expiration and your max loss of $\$ 3.00$ will be if the stock closes above $\$ 25.00$ at Oct expiration. This is a bearish spread where you want the stock to move lower and trade below $\$ 20.00$ for max profit. Also this trade you can be wrong on direction and still make money.

## BULL PUT SPREAD

## Opinion = Neutral to Bearish (Debit)

A Bear Put Spread is also called a vertical spread. It contains two puts with the same expiration but different strikes. The strike price of the long put is higher than the strike of the short put, which means this strategy will always be a debit. This is a bearish spread where you sell a lower put and buy a higher put which will limit your downside profits but also limit your upside losses. You will pay a debit for this trade and want the stock price to go below the put that you sell by expiration.
**Current Stock Price \$20
**Buy 1 XYZ Oct \$20 Put
**Sell 1 XYZ Oct \$15 Put
Cost = you will pay a $\$ 2.00$ (Debit)
Max Loss $=\$ 2.00$ debit you pay
Max Profit = \$3.00
Breakeven is if the stock closes at $\$ 18.00$

Example: You will buy 1 XYZ Oct $\$ 20.00$ put and sell 1 XYZ Oct $\$ 15.00$ put which is a 5 point spread; you will pay a $\$ 2.00$ debit with a $\$ 3.00$ profit potential. (The difference of the 2 strike prices) The current stock price is at $\$ 20.00$ and you will need the stock to trade at $\$ 18.00$ by Oct expiration for this trade to break even. Your max profit of $\$ 3.00$ would be if the stock closes below $\$ 15.00$ by Oct expiration and your max loss of $\$ 2.00$ will be if the stock closes above $\$ 20.00$ at Oct expiration. This is a bearish spread where you want the stock to move lower and trade below $\$ 15.00$ by Oct expiration.

## BEAR PUT SPREAD

## Market Opinion = Bullish (Credit)

A Bull Put spread is also called a vertical spread. It contains two puts with the same expiration but different strikes. The strike price of the long put is lower than the strike of the short put. This strategy will give you a credit when you put the trade on. This is a bullish spread where you sell a higher put and buy a lower put which will limit your upside profits but also limit your downside losses. You will collect a credit for this trade and want the stock price to go above the put that you sell by expiration.
**Current Stock Price \$20
**Sell 1 XYZ Oct $\$ 20$ Put
**Buy 1 XYZ Oct $\$ 15$ Put
Cost = you will collect a $\$ 2.00$ premium (Credit)
Max Loss = \$3.00
Max Profit = $\$ 2.00$ premium you collected
Breakeven is if the stock closes at $\$ 18.00$

Example: You will sell 1 XYZ Oct $\$ 20.00$ put and buy 1 XYZ Oct $\$ 15.00$ put which is a 5 point spread; you will collect a $\$ 2.00$ credit with a $\$ 3.00$ loss potential. (The difference of the 2 strike prices) The current stock price is at $\$ 20.00$ and you will need the stock to trade at $\$ 18.00$ on Oct expiration for this trade to break even. Your max profit of $\$ 2.00$ would be if the stock closes above $\$ 20.00$ by Oct expiration and your max loss of $\$ 3.00$ will be if the stock closes below $\$ 15.00$ by Oct expiration. This is a bullish spread where you want the stock to move higher and trade above $\$ 20.00$. Also this trade you can be wrong on direction and still make money.

## Chapter 5

ADVANCED - Butterfly's, Iron Condors, Straddles, Strangles \& Collars

## LONG CALL BUTTERFLY

## Market Opinion=Bullish, Bearish or Neutral (Debit)

Short two calls at the middle strike and long one call at the lower and upper strike price. The upper and lower strikes (wings) must both be equal strikes distances from the middle strike (body), if they are not then this is called a (Broken Wing Butterfly) and all the options must be the same expiration. You will pay a debit for this trade.
**Current Stock Price $\$ 20$
**Buy1 XYZ Oct \$22 Call
**Sell 2 XYZ Oct $\$ 20$ Call
**Buy 1 XYZ Oct $\$ 18$ Call
Cost = you will pay a $\$ 0.50$ (Debit)
Max Loss $=\$ 0.50$ debit you pay
Max Profit = \$1.50
Breakeven is if the stock closes above $\$ 18.50$ \& below $\$ 21.50$

Example: Yow will want to sell 2 Oct $\$ 20$ calls (the body of a butterfly) to collect premium and buy 1 Oct $\$ 22$ call and 1 Oct $\$ 18$ call (the wings of a butterfly) and you will pay a debit for this trade. As long as the stock is trading at $\$ 20.00$ by Oct expiration you will collect max profit potential. Your break even on this trade is above $\$ 18.50$ \& below $\$ 21.50$.

## SHORT CALL BUTTERFLY

## Market Opinion = Bullish, Bearish (Credit)

Long two calls at the middle strike and short one call at the lower and upper strike price. The upper and lower strikes (wings) must both be equal strikes distances from the middle strike (body), if they are not then this is called a (Broken Wing Butterfly) and all the options must be the same expiration.
You will collect a credit for this trade.
**Current Stock Price \$20
**Sell1 XYZ Oct $\$ 22$ Call
**Buy 2 XYZ Oct $\$ 20$ Call
**Sell 1 XYZ Oct $\$ 18$ Call
Cost = you will collect a $\$ 0.50$ premium (Credit)
Max Loss = \$1.50
Max Profit $=\$ 0.50$ premium you collect
Breakeven is if the stock closes below $\$ 18.50$ \& above $\$ 21.50$

Example: Yow will want to buy 2 Oct $\$ 20$ calls (The body of a butterfly) and you will pay a debit for this and Sell 1 Oct $\$ 22$ call and 1 Oct $\$ 18$ call (The wings of a butterfly) and you will collect a credit for this trade. As long as the stock is trading below $\$ 18.00$ or above $\$ 22.00$ by Oct expiration you will keep the whole premium that you collected. Your break even on this trade is below $\$ 18.50$ and above $\$ 21.50$. You will want the stock to make a big move and close outside the calls you sell by Oct expiration.

## LONG PUT BUTTERFLY

## Market Opinion= Bullish, Bearish or Neutral (Debit)

Short two puts at the middle strike and long one put at the lower and upper strike price. The upper and lower strikes (wings) must both be equal strikes distances from the middle strike (body), if they are not then this is called a (Broken Wing Butterfly) and all the options must be the same expiration. You will pay a debit for this trade.
**Current Stock Price \$20
**Buy1 XYZ Oct $\$ 22$ Put
**Sell 2 XYZ Oct $\$ 20$ Put
**Buy 1 XYZ Oct $\$ 18$ Put
Cost = you will pay a $\$ 0.50$ (Debit)
Max Loss $=\$ 0.50$ debit you pay
Max Profit = \$1.50
Breakeven is if the stock closes above $\$ 18.50$ \& below $\$ 21.50$

Example: Yow will want to sell 2 Oct $\$ 20$ puts (The body of a butterfly) to collect premium and buy 1 Oct $\$ 22$ put and 1 Oct $\$ 18$ put (The wings of a butterfly) and you will pay a debit for this trade. As long as the stock is trading at $\$ 20.00$ by Oct expiration you will collect max profit potential. Your break even on this trade is above $\$ 18.50$ \& below $\$ 21.50$. You will want the stock to close at a specific stock price of the 2 puts you sell by expiration.

## SHORT PUT BUTTERFLY

## Market Opinion = Bullish or Bearish (Credit)

Long two puts at the middle strike, and short one put at the lower and upper strike price. The upper and lower strikes (wings) must both be equal strikes distances from the middle strike (body), if they are not then this is called a (Broken Wing Butterfly) and all the options must be the same expiration. You will collect a credit for this trade.
**Current Stock Price \$20
**Sell1 XYZ Oct $\$ 22$ Call
**Buy 2 XYZ Oct $\$ 20$ Call
**Sell 1 XYZ Oct \$18 Call
Cost = you will collect a $\$ 0.50$ premium (Credit)
Max Loss = \$1.50
Max Profit $=\$ 0.50$ premium you collect
Breakeven is if the stock closes below $\$ 18.50$ \& above $\$ 21.50$

Example: Yow will want to buy 2 Oct $\$ 20$ puts (The body of a butterfly) and you will pay a debit for this and sell 1 Oct $\$ 22$ put and 1 Oct $\$ 18$ put (The wings of a butterfly) and you will collect a credit for this trade. As long as the stock is trading below $\$ 18.00$ or above $\$ 22.00$ by Oct expiration you will keep the whole premium that you collected. Your break even on this trade is below $\$ 18.50$ \& above $\$ 21.50$. You will want the stock to make a big move and close outside the puts you sell by expiration.

## LONG IRON CONDOR

## Opinion = Bullish or Bearish (DEBIT)

Long one call and short another call with a higher strike, also long one put and short another put with a lower strike. The call strikes are above and the put strikes are below the current level of the underlying stock price, and the distance between the call strikes equals the distance between the put strikes. All the options must be of the same expiration. An alternative way to think about this strategy is you buy a Bull Call spread and buy a Bear Put spread at the same time. You will pay a debit of this trade.
**Current Stock Price \$20
**Buy 1 XYZ Oct $\$ 22$ Call
**Sell 1 XYZ Oct $\$ 23$ Call
**Buy 1 XYZ Oct $\$ 18$ Put
**Sell 1 XYZ Oct \$17 Put
Cost = you will pay a $\$ 0.30$ (Debit)
Max Loss $=\$ 0.30$ debit you pay
Max Profit = \$0.70
Breakeven is if the stock closes below $\$ 17.70$ \& above $\$ 22.30$

Example: This trade is a Bull Call spread above the current stock price and a Bear Put spread below the current stock price. You will want the stock price to close above the $\$ 23$ calls you sell or below the $\$ 17$ puts you sell at Oct expiration. Your breakeven is at the $\$ 18$ put you buy minus the debit you pay of $\$ 0.30$ ( $\$ 17.70$ ) or the $\$ 22$ call you buy plus the debit you pay of $\$ 0.30$ ( $\$ 22.30$ ). Because they are $\$ 1.00$ strikes between the 2 call strikes and 2 put strikes then your max profit is $\$ 1.00$ minus the debit for the trade of $\$ 0.30$. You are looking for this trade to make a sharp move higher or lower with defined risk.

## SHORT IRON CONDOR

## Opinion = Neutral (Credit)

Short one call and long another call with a higher strike, also short one put and long another put with a lower strike. The call strikes are above and the put strikes below the current level of the underlying stock price, and the distance between the call strikes equals the distance between the put strikes. All the options must be of the same expiration. An alternative way to think about this strategy is you sell a Bear Call spread and sell a Bull Put spread. You will collect a Premium for this trade.
**Current Stock Price $\$ 20$
**Sell 1 XYZ Oct $\$ 22$ Call
**Buy 1 XYZ Oct $\$ 23$ Call
**Sell 1 XYZ Oct \$18 Put
**Buy 1 XYZ Oct \$17 Put
Cost = you will collect a $\$ 0.30$ premium (Credit)
Max Loss = \$0.70
Max Profit = $\$ 0.30$ premium you collected
Breakeven is if the stock closes above $\$ 17.70$ \& below $\$ 22.30$

Example: This trade is a Bear Call spread above the current stock price and a Bull Put spread below the current stock price. You will want the stock price to close below the $\$ 22$ calls you sell or above the $\$ 18$ puts you sell for your max profit. Your breakeven is at the $\$ 22.00$ calls you sell plus the premium you collect of $\$ 0.30$. ( $\$ 22.30$ ) or the $\$ 18$ put you sell minus the premium you collect of $\$ 0.30$ ( $\$ 17.70$ ). Because they are $\$ 1.00$ strikes between the 2 calls strikes and puts strikes then your max profit is $\$ 1.00$ minus the debit for the trade of $\$ 0.30$. You will want the stock to trade sideways in a range.

## LONG STRADDLE

## Opinion = Bullish or Bearish (Debit)

A Long Straddle is a combination of buying a call and buying a put with the same strike price and expiration month. Together they produce a position that should profit if the stock makes a large move either up or down. You will buy the straddle because you are expecting a large price move and/or a great deal of volatility in the foreseeable future. For example, you might be expecting a large move in the company's earnings report and the outcome of which will be either very good news or very bad news for the stock.
**Current Stock Price $\$ 20$
**Buy 1 XYZ Oct $\$ 20$ Call for $\$ 1.00$
**Buy 1 XYZ Oct $\$ 20$ Put for $\$ 1.00$
Cost = you will pay a $\$ 2.00$ (Debit)
Max Loss = \$2.00
Max Profit = unlimited on the call option and $\$ 18.00$ on the put Breakeven is if the stock closes below $\$ 18.00$ \& above $\$ 22.00$

Example: You will buy 1 Oct $\$ 20$ call and buy 1 Oct $\$ 20$ put option for $\$ 1.00$ each, total of $\$ 2.00$ for the trade. You are looking for the stock to make a very large move up or down and your breakeven points are the combined prices of the two options you buy. Your max profit will be unlimited on the calls you buy and will be limited to $\$ 18.00$ on the puts you buy because a stock can only go to zero. You will need the stock to make a large move in either direction.

## SHORT STRADDLE

## Opinion = Neutral (Credit)

A Short Straddle is a combination of selling a call and selling a put with the same strike price and expiration month. Together they produce a position that should profit if the stock stays within a narrow range. You will sell a straddle because you think the stock will not move very much. For example, you might be expecting a company's earnings report to be inline and will not have an impact on the stock's price. What will happen is before the news report implied volatility is very high and the option prices are inflated so you will want to sell the options since they are pumped up with premium and because once the company reports the implied volatility will collapse which will take the inflated premium out of the options.

## **Current Stock Price \$20

**Sell 1 XYZ Oct $\$ 20$ Call for $\$ 1.00$
**Sell 1 XYZ Oct $\$ 20$ Put for $\$ 1.00$
Cost = you will collect a $\$ 2.00$ premium (Credit)
Max Loss = unlimited on the call and $\$ 18.00$ on the put
Max Profit = \$2.00
Breakeven is if the stock closes above $\$ 18.00$ \& below $\$ 22.00$

Example: You will sell 1 Oct $\$ 20$ call and sell 1 Oct $\$ 20$ put option for $\$ 1.00$ each, total of $\$ 2.00$ for the trade. You are looking for the stock to stay in a range and collect the premium on a collapse of implied volatility and a sideways move after news comes out. Your breakeven points are at $\$ 18.00$ \& below $\$ 22.00$. Your max profit will be limited to the calls and puts you sell of $\$ 2.00$. You will need the stock to trade in a range.

## LONG STRANGLE

## Opinion = Bullish or Bearish (Debit)

A Long Strangle is a combination of a long call option and long a put option with the same expiration but different strike prices, you will want the call strike you buy above the current stock price and the put strike you buy below the current stock price. Both options are going to be out-of-the-money. This trade is just like a long straddle and you think the stock will make a large move up or down and do not want to pay as much as you would for a straddle so you will make your strike prices farther away from the current stock price.
**Current Stock Price $\$ 20$
**Buy 1 XYZ Oct $\$ 25$ Call for $\$ 0.50$
**Buy 1 XYZ Oct $\$ 15$ Put for $\$ 0.50$
Cost = you will pay a $\$ 1.00$ (Debit)
Max Loss = \$1.00
Max Profit = unlimited on the calls and $\$ 14.00$ on the puts
Breakeven is if the stock closes below $\$ 14.00$ \& above $\$ 26.00$

Example: You will buy 1 Oct $\$ 25$ call and buy 1 Oct $\$ 15$ put option for $\$ 0.50$ each, total of $\$ 1.00$ for the trade. You are looking for the stock to make a very large move up or down and your breakeven points are the combined prices of the two options you buy. Your max profit will be unlimited on the call you buy and will be limited to $\$ 14.00$ on the put you buy because a stock can only go to zero. You will need the stock to make a very large move in either direction.

## SHORT STRANGLE

## Opinion = NEUTRAL (Credit)

A Short Strangle is a combination of selling a call option and selling a put option with the same expiration but a different strike price, you will want the call strike price you sell above the current stock price and the put strike price you sell below the current stock price. This is just like selling a straddle just with your strike prices farther away and you will not collect as much premium, but you do have more of a cushion if you are wrong on the trade. Both options are going to be out-of-the-money. This trade you think the stock will stay in a range.
**Current Stock Price \$20
**sell 1 XYZ Oct $\$ 25$ Call for $\$ 0.50$
**Sell 1 XYZ Oct $\$ 15$ Put for $\$ 0.50$
Cost = you will collect a $\$ 1.00$ premium (Credit)
Max Loss = unlimited on the calls and $\$ 14.00$ on the puts
Max Profit = \$1.00
Breakeven is if the stock closes above $\$ 14.00$ \& below $\$ 26.00$

Example: You will sell 1 Oct $\$ 25$ call and sell 1 Oct $\$ 15$ put option for $\$ 0.50$ each, total of $\$ 1.00$ for the trade. You are looking for the stock to stay in a range and collect the premium. Your breakeven points are at $\$ 14.00$ \& below $\$ 26.00$. Your max profit will be limited to the calls and puts you sell of $\$ 1.00$. You will need the stock to trade in a range.

## COLLAR

## Opinion = Neutral to Bullish

This trade you currently should be long the underlying stock with a nice profit and then will sell a call option and buy a put option with the same expiration, as a means to hedge the long position in the underlying stock that you own. You will sell a call above the current stock price and buy a put below the current stock price. This is a trade where you are long the stock and have made profits and do not want to sell the stock but be able to hedge the trade and lock in profits. These strikes are referred to as the floor and the ceiling of the position and the stock is collared between the two strikes. You may want to put this trade on during earnings or a upcoming news event that may move the stock big in either direction.
**Long the stock price from $\$ 10.00$
**Current stock price $\$ 22.00$
**Sell 1 XYZ Oct $\$ 25$ call for $\$ 1.00$
**Buy 1 XYZ Oct $\$ 20$ put for $\$ 1.00$

Example: You are already long 100 shares of stock from $\$ 10.00$ and have a $\$ 12.00$ profit; you now want to protect your profits and are willing to have the stock taken away at a higher price buy selling a call above the current stock price. You will want to sell an Oct $\$ 25$ call and collect $\$ 1.00$ of premium. Now you are obligated to sell the stock if the stock price is above $\$ 25$ at Oct expiration (think of a covered call). You then will want to buy a put below the current stock price. You will want to buy the Oct $\$ 20$ puts for a $\$ 1.00$ debit. The put you buy is going to protect your profits and act like insurance in the event the stock reverses and heads lower. In the case the stock dose moves lower the stock price loses money while the puts increase in value and will and act as a hedge. This is a trade that you would put on to lock in profits due to a possible earnings account or upcoming news event.

## Chapter 6

## OPTION TERMS \& VOCABULARY

## CALL OPTION:

A Call option gives the buyer of the call the right, but not the obligation, to buy the underlying stock at the option's strike price. The seller of the call is obligated to deliver (sell) the underlying stock at the option's strike price to the buyer of the call when the buyer exercises his right.

## PUT OPTION:

A Put option gives the buyer of the put the right, but not the obligation, to sell the underlying stock at the option's strike price. The seller of the put is obligated to take delivery of (buy) the underlying stock at the option's strike price to the buyer of the put when the buyer exercises his right.

## AT-THE-MONEY (ATM):

A Call or Put option is At-The-Money when the price of the stock is at or near the strike price of the option.

## IN-THE-MONEY (ITM):

A Call or Put option is In-The-money when the price of the underlying stock is greater than the call strike price. Conversely, a put option is In-The-Money when the price of the underlying stock is lower than the puts strike price. At expiration, options that are 1 penny or more ITM than they are automatically exercised.

## OUT-OF-THE-MONEY (OTM):

A Call or Put option is Out-Of-the-Money when the price of the underlying stock is lower than the calls strike price. A put is Out-Of-The-Money when the price of the underlying stock is higher than the puts strike price. Out-Of-The-Money options have zero intrinsic value.

## STRIKE PRICE:

The pre-determined price at which an underlying stock is purchased (in the case of a call) or sold (in the case of a put) when an option is exercised

## NAKED CALL OR PUT:

When you sell a call or put without owning the underlying stock to protect you.

## SHORT SELLER:

Someone who sells stock or options without owning them first. The short seller looks to profit from buying the stock or options back later at a price lower than where he sold it.

## LEAPS:

An acronym for Long-term Equity Anticipation Securities. LEAPS are call or put options with expiration dates set as far as two years into the future. They function exactly like other options.

## SYNTHETIC:

Creating a position that emulates another by combining at least two calls, puts or stock that acts very much like a position of outright stock, calls or puts.

## TO ROLL:

Adjusting or changing a position by closing out an existing option position and substituting it with an option on the same stock but with a different strike price or expiration date.

## EXERCISE:

To exercise an option, a person who is long an option must give his broker instructions to exercise a particular option (or if the option is 1 penny or more In-The-Money at expiration it will be automatically exercised for a customer) Someone who sells an option positions must be aware of the possibility of being assigned if his short options In-The-Money, and he must make sure he has adequate buying power available in his account to cover any such potential assignment.

## EXPIRATION:

Every option contract becomes null and void after its expiration date. For stock options, this date is the Saturday following the third Friday of the expiration month.

## EARLY EXERCISE:

A feature of American-style options that allows the buyer to exercise a call or put at any time prior to its expiration date.

## DELIVERY:

When referring to stock options, delivery is the process of delivering stock after an option is exercised. If a trader is long a call and he exercises that call, the person who is short that call must deliver the underlying stock to the trader who is long the call. If a trader is long a put, and he exercises that put, the trader will deliver the underlying stock to the person who is short that put. Actually, the delivery of the stock takes place through clearing firms.

## LAST TRADING DAY:

The last business day prior to the option's expiration date during which options can be traded. For equity options, this is the third Friday of the expiration month. Note: If the third Friday of the month is an exchange holiday, the last trading day will be the Thursday immediately preceding the third Friday.

## LEG(S) LEGGING:

A term describing one option of a spread position. When someone "legs" into a Vertical Call, for example, he might do the long call trade first and does the short call trade later, hoping for a favorable price movement so the short side can be executed at a better price. Legging is a higher-risk method of establishing a spread position.

## TIME DECAY:

Option price erosion over time. Another name for theta.

## THEORETICAL VALUE:

An estimated price of a call or put derived from a mathematical model, such as the black-scholes or binomial models.

## INTRINSIC VALUE:

Any positive value resulting from the stock price minus the strike price (for calls) or strike price minus the stock price (for puts). Only In-The-Money options have intrinsic value, and intrinsic value can never be zero or less. For example, if a call option with a strike price of $\$ 50$ has a price of $\$ 2.75$, with the stock price at $\$ 52$, the intrinsic value is $\$ 2.00$. If a put option with a strike price of $\$ 15$ has a price of $\$ 1.50$, with the stock price at $\$ 14$, the intrinsic value is $\$ 1.00$. Compare to extrinsic value.

## EXTRINSIC VALUE:

The difference between the entire price of an option and its intrinsic value. For example, if a call option with a strike price of $\$ 50$ has a price of $\$ 2.75$, with the stock price at $\$ 52$, the extrinsic value is $\$ .75$. The price of an Out-Of-The-Money (OTM) option is made up entirely of extrinsic value.

## IMPLIED VOLATILITY (IV):

An estimate of the volatility of the underlying stock that is derived from the market value of an option. Implied volatility is the volatility number that, if plugged into a theoretical pricing model along with all the other inputs, would yield a theoretical value of an option equal to the market price of the same option. Compare to historical volatility

## IMPLIED VOLATILITY RANK (IV Rank):

The rank of where implied volatility has been the past 52 weeks, an example is if the options IV high was at $100 \%$ and the options low IV was at $0 \%$ in the past 52 weeks and the option IV is currently at $85 \%$ then the IV Rank is at the $85 \%$ percentile and is considered high relative to the past 52 weeks of the options IV. (Aka- option premium is high)

## CASH SETTLED OPTION:

An option that delivers a cash amount, as opposed to the underlying stock or futures contracts such as with options on stocks or futures when exercised. The amount of cash delivered is determined by the difference between the option strike price and the value of the underlying index or security. In the U.S., stock index options like the OEX and SPX are cash settled options.

## GREEKS: (How option pricing is affected):

The theoretical values that help us to quantify an options risk characteristics and therefore its price movement are referred to as the Greeks, Delta, Gamma, Theta, Vega and Rho.

## DELTA: (The rate of change of the option vs the stock price):

An approximation of the change in the price of an option relative to a change in the price of the underlying stock when all other factors are held constant. For example, if a call has a price of $\$ 1.50$ and a delta of .33 and if the underlying stock moves up $\$ 1$ then the option price would be $\$ 1.83$ ( $\$ 0.33+\$ 1.50$ ). Generated by a mathematical model, the delta depends on the stock price, strike price, volatility, interest rates, dividends and time to expiration. Delta also changes as the underlying stock fluctuates. See gamma.

## GAMMA: (The change of the delta's delta):

An approximation of the change in the Delta of an option relative to a change in the price of the underlying stock when all other factors are held constant. Gamma is accurate for small changes in the price of the underlying stock, but is expressed in terms of a change in Delta for a 1 point move in the stock. For example, if a Call has a Delta of .49 and a gamma of .03 then if the stock moves down 1 point then the Call's Delta would move down by 03 to 46 (.49- $.03=.46$ ).

## THETA: (Time Decay- The amount the option will decay over time):

 An approximation of the decrease in the price of an option over a period of time when all other factors are held constant. Theta is generally expressed on a daily basis. For example, if a call has a price of $\$ 3.00$ and a theta of 0.10 , one day later with all else unchanged the call options would have a price of $\$ 2.90$ (\$3.00-\$0.10). Generated by a mathematical model, theta depends on the stock price, strike price, volatility, interest rates, dividends, and time to expiration.
## VEGA: (Volatility changes):

An approximation of the change in the price of an option relative to a change in the volatility of the underlying stock when all other factors are held constant. This is typically expressed for a one-percent change in volatility. For example, if a call options have a price of $\$ 2.00$ and a vega of .65 , if volatility rises $1 \%$, the call option would have a price of $\$ 2.65$ ( $\$ 2.00$ $+.65)$. Generated by a mathematical model, vega depends on the stock price, strike price, volatility, interest rates, dividends, and time to expiration.

## RHO: (Interest rate changes):

An approximation of the change in the price of an option relative to a change in interest rates when all other factors are held constant. This is typically expressed for a one-percent (100 basis point) change in interest rates. For example, if a call option has a price of $\$ 4.00$ and a rho of 0.20 and if interest rates rise $1 \%$, the call option would have a price of $\$ 3.80$ (\$4.00-.20). Generated by a mathematical model, rho depends on the stock price, strike price, volatility, interest rates, dividends, and time to expiration.

## LISTED OPTIONS:

An exchange-approved call or put options traded on an exchange with standardized terms.

## CONTRACT:

The basic unit of trading for options. An option whether it's a put or a call is an agreement between two parties (the buyer and the seller) to abide by the terms of the option contract as defined by an exchange. 1 option contract represents 100 shares of stock.

## BETA:

A measure of the return (in percentage terms) on a stock relative to the return (in percentage terms) of an index. For example a stock with a beta of .80 should have a percentage net change equal to $80 \%$ of the percentage net change of the index. Therefore if the index is down $2 \%$ the stock in question should be down $1.6 \%$ (.80x2\%).

## CONTRACT MONTH:

Generally used to describe the month in which an option contract expires.

## CONTRACT SIZE:

The number of shares of the underlying stock that an options contract would deliver if exercised. Contract sizes for equity options in the U.S. are generally 100 shares, unless the contract size has been adjusted for a split, merger or spin-off. For example, if you are long 1 XYZ 50 Oct. call option and you exercise that call you will get 100 shares of XYZ for a price of $\$ 50$ per share.

## MARKET ARBITRAGE:

The simultaneous purchase and sale of the same security in different markets to take advantage of price disparity between the two markets. For example, purchasing a call or put on the CBOE subsequently selling the contract at the PHLX at a higher price.

## PREMIUM:

The amount you pay or collect for buying or selling an option.

## CREDIT:

An increase in the cash balance of an account resulting from either a deposit or a transaction. As it relates to option orders, a credit is how much the premium collected from selling an option or how much you pay for an option.

## CREDIT SPREAD:

Any option spread where you collect a credit when you execute the spread.

## DEBIT SPREAD:

Any option spread where you pay money for the spread.

## SPREAD:

A position or order involving two or more different options or stock and options.

## COVERED WRITE OR COVERED CALL:

An option strategy composed of selling a call option and being long the stock.

## VOLATILITY:

In its simplest form think of Volatility as a fear indicator. Volatility can be presented as either historical or implied.

## VIX (VOLATILITY INDEX):

Created by the CBOE, the VIX is a variance swap that measures volatility from the extrinsic value of the non-zero bid, out-of-the-money options on the SPX. An easier way to look at the Vix is how much risk there is in the markets, a low Vix around 11 means a bullish market and little fear in the markets and a high Vix above 25 means a bearish market and a lot of fear in the markets.

## IMPLIED VOLATILITY:

An estimate of the volatility of the underlying stock that is derived from the market value of an option. Implied volatility is the volatility number that, if plugged into a theoretical pricing model along with all the other inputs, would yield a theoretical value of an option equal to the market price of the same option.

## HISTORICAL VOLATILITY:

The annualized standard deviation of percent changes in the price of a stock over a specific period.

## BACK MONTHS:

Options with expiration months that are further dated than the options with the nearest expiration month.

## MODEL:

Any one of the various option pricing models used to value options and calculate the "Greeks". Models typically use six factors in their calculations: the underlying stock price, the strike price, the time until expiration, dividends, interest rates, and the volatility of the stock.

## AMERICAN-STYLE OPTION:

An option contract that can be exercised at any time from the time the option is purchased to the expiration date of the option.

## EUROPEAN-STYLE OPTIONS:

An option contract that can only be exercised upon its expiration date.

## INDEX OPTION:

An option that has a stock index as the underlying security. The value of an index option is based on the value of the index. Typically, index options are cash settled options.

## MULTIPLE LISTED:

When the same stock or option is listed on two or more different exchanges. For example, IBM options are traded on the CBOE, PHLX and AMEX.

## MULTIPLIER:

Refers to the number, typically $\$ 100$, used to calculate 1 option contract represents 100 shares of stock.

## OPEN INTEREST:

The number of outstanding option contracts in a particular month. Each opening transaction (as opposed to a closing transaction) has a buyer and a seller, but for the calculation of open interest, only one side of the transaction is counted.

## VOLUME:

The total number of shares of stock or option contracts traded on a given day.

## OPEN OUTCRY:

A public auction, using verbal bids and offers, for stocks or options on the floor of an exchange.

## OPEN POSITION:

A long or short position in stock or options.

## OPTION CHAIN:

A list of all options on a particular stock.

## OPTIONS CLEARING CORPORATION, THE (OCC):

The issuer and registered clearing facility of all options contracts traded on the AMEX, CBOE, PCX, and PHLX. It supervises the listing of options and guarantees performance on option contracts.

## OTC OPTION:

Options traded in the OTC market. OTC options (Over the Counter) are not listed on or guaranteed on an options exchange and do not have standardized terms, such as standard strike prices or expiration dates.

## POSITION LIMIT:

For a single trader, customer, or firm, the maximum number of allowable open option contracts on the same underlying stock or futures contract. The limits are established by the exchanges.

## REVERSE SPLIT:

An action taken by a corporation in which the number of outstanding shares is reduced and the price per share increases. For example, if a trader were long 100 shares of stock of a company with a price of $\$ 80$, and that company instituted a 1-for-4 reverse split, the trader would see his position become long 25 shares of stock with a price of $\$ 320$. The value of the trader's position does not change (unless the price of the stock subsequently changes) and his proportionate ownership in the company remains the same.

## SETTLEMENT DATE:

Date on which a transaction must be settled. Buyers pay for securities with cash and sellers deliver securities.

## TIME SPREAD:

Another name for calendar spread.

## TIME VALUE:

Another name for extrinsic value.

## WRITE/WRITER:

An individual who sells an option short.

