Profitable Options Strategies

By J.W. Jones

INTRODUCTION

In recent years, options have become more popular and seemingly every year option volumes increase dramatically. Options offer market participants opportunities to hedge underlying positions, create portfolio income, and provide an alternative to equity and futures trading. Options traders have the unique ability to construct trades which profit from the passage of time and/or volatility expansion and contraction. Options are powerful tools that when traded appropriately offer insane risk/reward opportunities; however options can be lethal to a trader's capital position if they abuse their inherent leverage or fail to recognize risks beyond price action.

Many traders and private investors are enamored with options as they are a lower priced alternative to stock ownership. Initially most option traders make the mistake that options trade just like stocks with the primary focus being on price. This perception causes most option beginners to lose money, and in many cases they literally "blow up" their entire trading accounts through poor risk management. Options are quite different from equities in that there are various forces which directly impact their price. Forces such as implied volatility, time decay (Theta), and the rate of change of an option's value versus the rate of change in price of the underlying (Delta), changes of extrinsic value, and changes of intrinsic value.

The various forces mentioned above are known as the option "Greeks." Trading options without doing your homework on these forces is a recipe for disaster and the reason so many novice option traders fail in their attempt to trade options successfully. Ignoring these forces and the inherent risks that accompany them is akin to trading blind. Even if options were in the hands of experienced equity traders, if they ignored the option "Greeks" and volatility, over time they would likely lose capital.

The following information is a brief summary of the various risks associated with trading options. While at times the material may come across in a rather technical format, it is absolutely critical for your success as an option trader to learn the various risks associated with trading options. Novice option traders should spend time

learning and familiarizing themselves with the option "Greeks" and their application throughout the trading process from the entry, trade management, and eventual close of a trade.

Keep in mind that there are outstanding resources all over the internet to further your understanding of option pricing principles and the risk associated with trading options. I would implore new option traders to become familiar with these principles and begin trading options in a paper trading account which most online brokers offer for free. Through these real-time paper trading applications, novice option traders can watch in real time how various forces interact with an options price.

OPTION BASICS

Market technicians believe they operate in a world that few people truly understand. It is as if they believe they are working in some sort of secretive financial construct that only a few lucky souls away from Wall Street can access. The truth is that technical analysis should only be used as one metric to help a trader navigate financial markets.

There are a variety of research methodologies which all shed light and offer clues where the market may be heading. Market internals, the volatility index, Fed speak, and even fundamental analysis can be helpful to traders. It would not make sense to ignore market information that provides greater insight and additional clues that can help give a trader an edge. After all, the edge is what all traders seek. The sweet spot in trading is having a trading system that gives you an edge and offers a variety of way to quantify, mitigate, and define risk.

The same traders that only look to use purely technical analysis in their trading also fail to recognize other investment vehicles which might offer advantageous returns. The best kept secrets are always kept in the open, right beneath the public's proverbial nose. People will travel the world in search of secrets or to prove theories, but in many cases the Holy Grail is lying right beneath their noses.

The greatest secret financial markets offer are the unbelievable potential returns that options can offer. Options offer a variety of ways to profit in a multitude of market conditions. Options offer unique profit engines that are not available or even possible when trading stocks or bonds. Most traders overlook options or are simply unwilling to put in the time or effort to learn how to trade them appropriately. In doing so, they are walking away from huge opportunities.

Most novice traders are quick to spurn options as they consistently lose money when trading them. The most common reason novice option traders experience losses is that they do not do their homework beforehand. New option traders fail to recognize the importance of "The Greeks." Option traders not only have to be cognizant of the volatility index, but they have to be proficient in the dynamic factors that impact option prices such as implied volatility.

Traders that utilize a trading system or that look for low risk entries find themselves sitting idle when market conditions are not favorable for their trading system or when prudent entries have not presented themselves. The ability to trade options gives a trader another investment vehicle that can offer potential profits. In most situations, options can offer attractive returns while taking significantly less risk than trading stocks, ETF's or bonds.

In order to illustrate a situation where options can present a better risk versus reward scenario, we need to look no further than intraday market action in the S&P 500 on August 2nd. The market rallied from the previous close and was bumping up against significant resistance. Traders could have been looking to get long or short based on recent price action. The market had been consolidating, and a significant move was likely coming.

Clearly the market was at a crossroads and a breakout could be right around the corner, or the market could test recent highs only to turn down to retest recent support. Stock traders have to make a decision about direction or sit on the sidelines

and let others do the heavy lifting. Option traders could put on positions that have a directional bias, or they could utilize time decay (Theta) as a profit engine.

Through the use of spreads such as an iron condor or a butterfly spread, option traders can actually put on a position that has the ability to be profitable regardless of which direction SPY goes. In order for a spread to work, SPY's price must stay within the confines of the spread which is also determined by the specific option strike prices selected by the option trader. Similar to the mechanism that drives asset pricing, the more risk an option trader takes the greater their return. If a spread is written that is extremely wide and thus less risky, potential returns diminish.

Ultimately, this is an example of how options can offer more than just leverage, but a totally different methodology that can produce outsized profits. In the future, we will dissect the various spreads and the profit engines that drive them. However, before we begin detailed discussion of various option strategies, option traders must have a sound understanding of various volatility principles as well as the impact that the option Greek's have in the world of options.

THETA

While there are more than ten Greek symbols that directly relate to option pricing, an option trader must be able to clearly articulate and understand 4 of the ancient Greek symbols and one English invention. (Vega is not a true Greek symbol-Look it up!)

The five core Greek symbols which are critical in order to understand are as follows, in no particular order: Delta, Theta, Vega, Gamma, & Rho. Most veteran option traders have a sound understanding of Delta, Theta, Vega, & Gamma. Rho is not nearly as well known, but anyone who has ever studied econometrics, option pricing models, or has studied applied finance know all too well the importance of Rho. For inquiring minds, Rho measures sensitivity to current interest rates.
The technical definition of Theta derived directly from Wikipedia when applied to options is as follows:

THETA – Θ, *measures the sensitivity of the value of the derivative to the passage of time: the "time decay."*

Time decay (Theta decay) is of critical importance when an option trader is attempting to quantify and/or mitigate risk. There are two parts factored into the price of an option contract: extrinsic value (a major component of extrinsic value is Theta; the other is implied volatility) and intrinsic value which would be the amount of money a trader would gain if they exercised an option right away. A great many authors who opine about options get caught up using terminology like intrinsic and extrinsic value which only serves to confuse most novice option traders even more.

According to Investopedia.com, Intrinsic value in options "is the in-the-money portion of the option's premium." For example, if a call option's strike price is $15 and the underlying stock's market price is at $25, then the intrinsic value of the call option is $10. An option is usually never worth less than what an option holder can receive if the option is exercised."

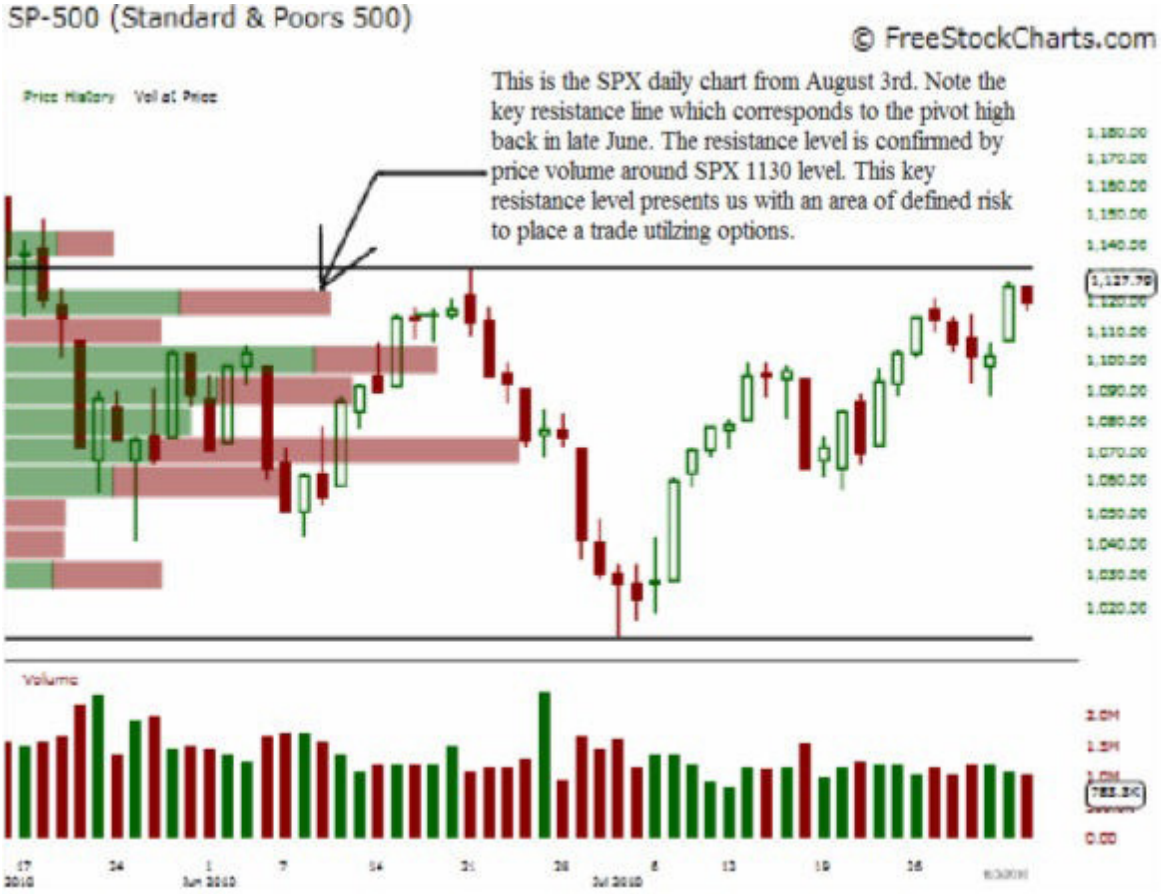
Accordingly, Investopedia.com's definition of Extrinsic values in option is as follows, "The difference between an option's price and the intrinsic value." For example, an option that has a premium of $10 and an intrinsic value of $5 would have an extrinsic value of $5. Denoting the amount by which the option's price is greater than the intrinsic value, the extrinsic value of the option declines as its expiration date draws closer.

Theta and time decay are synonyms when discussing options. An easy way to remember their congruence is that the word time starts with a "T" as does Theta. If a trader owns calls or puts outside of any type of spread, they are totally exposed to time decay (Theta) and as an option contract gets closer to expiration, the time value of the contract diminishes. This accompanied with failure to account for implied volatility (to be discussed in the future) are the fundamental reasons why so many people lose money when trading options.

Just as theta can be an option trader's worst enemy, it can also be used as a profit engine. If an option trader sells an option contract to open the position, that option trader is using Theta as a method to profit or as a way to reduce the cost of a spread. At this point, we are only attempting to understand that Theta represents the time decay priced into an option.

It is also critical to understand that Theta (time decay) is not linear in the time course of the life of an option and accelerates rapidly the final two weeks before an option expires. The rapid time decay the final two weeks before expiration presents a multitude of ways to drive profitability, but it also can represent unparalleled risk.

Since Theta is being discussed, I thought it would make sense to discuss a trade that was taken which utilized Theta as the profit engine. Recently a variety of underlying indices, stocks, and ETF's have options that expire weekly. Weekly expiration expedites Theta and gives option traders additional vehicles to produce profits.



While most equity or futures traders might shy away from a chart like this, an option trader has the unique ability to place a high probability trade. A trader that believed that the market would stall around the SPX 1130 area could potentially utilize the SPX weekly options. The SPX weeklies expire based on the Friday SPX open. With the SPX trading around 1124, assume an option trader put on a call credit spread which used time decay as the primary profit engine.

The setup used involved selling an 1150 SPX call and buying an 1175 SPX call, which is also known as a vertical credit spread. The trader received $100 (1.00) for the 1150 SPX call and purchased the 1175 call for $20 (0.20). The $80 dollar differ-

ence represents the maximum gain per contract sold. As an example, if the trader placed this trade utilizing five contracts per side he/she would have a maximum gain of $400 dollars. The probability of success at the time when this trade was placed was around 78% based on a log normal distribution of the price of the underlying.

Immediately after placing the trade, the trader could implement a contingent stop order that would close the trade entirely if SPX reached the 1135.17 area. Essentially, the maximum loss the trader in this example could sustain not including commissions was limited to around $60 dollars per contract with a maximum gain of around $80 per contract.

Essentially, if the SPX stayed below 1135.17 for two days and opened on Friday below the 1150 level the trade would reach maximum profitability. Assuming this trade was placed on a Tuesday afternoon, a trader might consider closing the position early due to an economic release such as a pending employment report on Friday. In this example, the trader was able to collect over 60% of the premium sold per contract ($80) which comes to about $45-50 per side. At $1,000 dollars risked based on the stop level utilized in this example, the trade would have produced a net gain of around $750 dollars in less than 3 days.

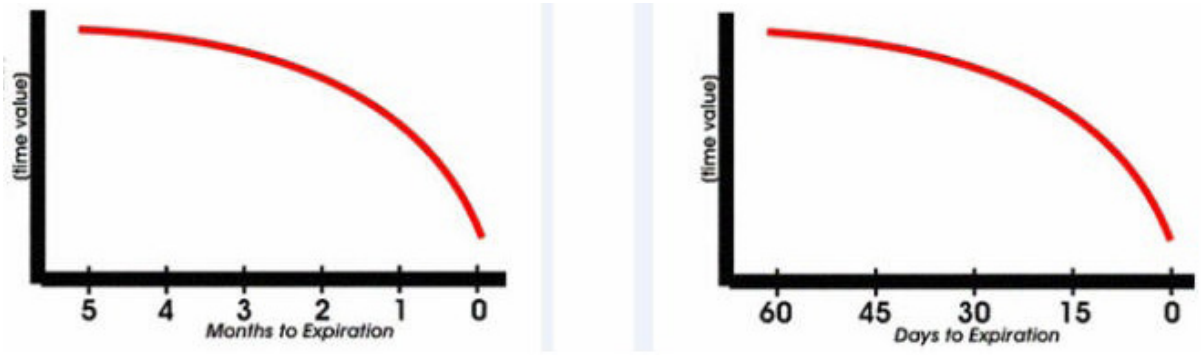
Hopefully this basic example illustrates the potential profits options can produce if they are traded appropriately with risk clearly defined while having hard stops in place. This trade would have produced a nice profit, however it was susceptible to a gap open, thus it would have behooved the trader in our example to employ a small position to mitigate their overall risk profile. As always, a trader must see potential risks from all angles and utilize proper money management principles when determining how much capital to risk.

A fundamental knowledge of Theta is imperative in order to understand the mechanics and construction of option strategies. In many cases, Theta is either the profit engine or the means by which experienced option traders reduce the cost of

opening a new position. Theta can even take an ETF that pays no dividend and create a monthly income stream utilizing a technique known as a covered call write.

The most exciting thing about options is their versatility. You can trade them in so many different ways. A trader can define a positions' risk with unbelievable precision. When traded properly utilizing hard stops, options offer traders opportunities that stocks and futures simply cannot provide. Theta allows option traders to write spreads which generally offer nice returns with very limited risk.

Theta is the fundamental reason behind the slow and relentless deterioration of option values over time. As a series of options gets closer to expiration, Theta becomes a very powerful force. As stated in the previous article, the final two weeks of option expiration put Theta into overdrive. Courtesy of Optionsuniversity, the two charts listed below illustrate the rapid decay of Theta.



These charts illustrate effectively that option contracts which are out of the money and consist entirely of time premium decline rapidly in value on their way to 0 potentially. While Theta must be respected, it is Theta's relationship with implied volatility that really makes it a force that must be monitored closely.

Implied volatility is paramount in every decision that an option trader makes. Ignoring implied volatility and Theta is a recipe for disaster, the kind of disaster where an entire trading account is wiped out in less than 30 days. Most experienced

option traders use Theta regularly as a profit engine in their trades. Experienced option traders rarely purchase options naked, in most option trades that they construct they utilize some form of a spread in order to mitigate the ever present wasting away of time premium. In many cases, Theta is the driving force behind their profitability.

In any other case, Theta decreases the cost to purchase options allowing option traders the unique ability to minimize their risk to an acceptable level. Vertical spreads come in two variations: debit spreads and credit spreads. A vertical spread is a multi-legged option trade which involves more than one strike price. As an example, we will assume that GLD is trading around $119/share. If a trader were to have placed a call credit spread on GLD using the August 120 call strike and simultaneously purchasing the GLD August 121 call strike, the trader would receive a credit in their account.

Based on prices at the time, the August 120 call strike would have resulted in a credit to our trader's trading account of $53 dollars while the August 121 call strike would have resulted in a debit to their account of $29 dollars with a one lot position size. If the trader were to place this trade, they would obviously have a strong feeling that the price of GLD was going to decline. The reason this trade is called a vertical credit spread is because the total trade results in a credit to the trader's account of $24 dollars less commissions. The vertical aspect of the trade is based on the arrangement of the positions on the options board, also called an option chain.

When an option trader places a credit spread, they are relying on time decay, Theta, to provide them with profits. In many cases, option traders will utilize vertical spreads to play a directional bias. In the example above, the bias on GLD would be to the downside. However, the maximum amount the trader could have lost was limited because of the purchase of the 121 call. The most the trader could have lost is $100 dollars minus the credit of $24 dollars. Thus, the worst case scenario for this call credit spread would be a loss of $76 dollars for every contract the trader put on.

If the trader had put on 5 contracts, their total loss would have been limited to $380 dollars plus commissions.

A call debit spread is constructed exactly the opposite direction. If a trader believed that gold was going to increase in value he/she could buy 1 August 120 GLD call for $53 dollars and sell 1 August GLD 121 call for $29 dollars. Notice that the sale of the GLD 121 call reduces the cost of the GLD 120 call. By selling the GLD 121 call, the trader reduces the cost of this spread down to $26 dollars. However, the trader's maximum gain is limited to $74 dollars minus commissions. The point of this illustration is more to focus on the way Theta helps option traders in practical situations.

When an option trader utilizes a credit spread, Theta operates as the profit engine. When an option trader does the exact opposite by placing a debit spread, Theta acts to reduce the overall cost of the spread reducing the overall risk exposure. As one can see, understanding Theta is crucial when trading options. While vertical spreads are very basic, they can provide nice returns while having the unique ability to control risk with an extremely tight leash.

In pages ahead, specific option strategies and their construction for use in different situations will be discussed with regard to the option expiration cycle. While this will conclude the basic overview of Theta, in pages ahead there will be discussion covering the intimate relationship that Theta and implied volatility share.

DELTA

The official definition of Delta as provided by Wikipedia is as follows:

Delta – Δ , *Measures the rate of change of option value with respect to changes in the underlying asset's price.*

Delta has a significant impact on the price of an option contract(s). When a trader is long a call contract, Delta will always be positive. Likewise, if an option trader owns a put contract long, Delta will always be negative. As option contracts get closer to the money their Delta increases causing the option contract to rise in value rapidly as the option gets closer to being in the money.

Clearly Theta has an adverse impact on a trader who is long a single options position (own options long with no hedge or spread), however Delta is extremely dynamic and is one of the major factors directly responsible for option pricing as the price of the underlying changes throughout the trading day.

If an option is deep in the money, the option contract will have a higher Delta and will generally act similarly to actually owning the individual stock. For a deep in-the-money GLD call that has a Delta of +.80, the first dollar GLD rises by then the value of the GLD call option increases by roughly $0.80 or $80.

If the delta is 0.80, this essentially means that the GLD call option will increase in value 0.80 ($80) for every $1 that the GLD ETF increases. As the GLD option goes deeper into the money, the Delta will typically rise until it nearly produces the same gains as the GLD ETF until the delta asymptotically approaches 1.00 and the option moves in lockstep with the underlying. It is critically important to understand how Delta can enhance a trader's return when trading options with a specific directional bias.

While options exist for the gold futures contract, typically if a trader wanted to trade gold they could utilize the GLD ETF. The primary reason is that the ETF offers liquid options, which makes it easier to initiate spreads and multi-legged

orders. If options are thinly traded, the bid ask spread is almost always wide making it more difficult to get a good fill and a good overall price. Most option traders stay away from underlying stocks that have illiquid options.

In order to better illustrate how an options' Delta can create profits, GLD will be used in the following example. Keep in mind, this is not a recommendation for traders to buy or sell options naked. Experienced option traders typically use option strategies that help mitigate various risks to their capital. Theta (time) risk, volatility risk, and market risk are not being considered as this is merely an example to illustrate the power of Delta.

As of the writing of this E-book, Gold and subsequently GLD suffered a pretty significant pullback. GLD broke down through a major horizontal trend line and the

daily chart was extremely bearish. Just when a lot of traders were preparing to get short GLD, buyers stepped in and pushed GLD's price back above the support area. The GLD daily chart listed below illustrates the breakdown and subsequent failure and a powerful rally followed.

Let us assume for contrast that an option trader and an equity trader each want to get long GLD. The equity trader buys 200 shares of GLD at $115/share with a stop loss order at the $112/share price. Assuming the equity trader does not use margin, the total trade would cost around $23,000 not including commissions. The option trader decides to utilize delta and purchases 3 October 107 calls which in our example cost $900 per contract for a grand total of $2,700 not including commissions. The option trader also utilizes a $112/share stop loss order.

We will assume the October 107 calls have a Delta of 1.00. When a call option has a delta of 1.00, it essentially means that the owner of the call is going to get 100% of the move reflected in the premium of the option he/she owns. Thus if GLD increases by $1, the value of the option would increase $1 all things being held constant. This is where Delta really shines; it shines even brighter than gold in this illustration. Both the equity trader and the option trader have a profit target of $118/share. A few days later GLD reaches $118/share and both traders close their trades with profits. The equity trader made $3/share which relates to a total gain of $600, or around 2.60%.

The option trader realized roughly 95% of the move, meaning around $2.85. The option trader had 3 total contracts for a total gain of $855 less commissions. The total gain for the options trader was over 31% less commissions.

Keep in mind, the option trader had over $900 of maximum risk while the equity trader was risking around $600. The option trader made over 50% more money, while risking only 33% more capital. Additionally, the option trader required over 80% less capital to establish this trade versus the equity trader. Behold, the power of Delta!

IMPLIED VOLATILITY

In the real world of option trading, option prices are the subjects of three primal forces: price of the underlying, time to expiration, and implied volatility. Delta and Theta address the first of these two primal forces. The third primal force, implied volatility, is by far the least known by newcomers to the option trading world. However, while it is usually not respected or even known by many new to trading options, it typically is the most frequently unrecognized force resulting in the cause for significant trading capital deterioration.

In order to set the framework within which to understand option pricing, it is essential to understand that the quoted price of each option is in reality the sum of the intrinsic value (if any) and the extrinsic (time) value. The intrinsic value has been discussed previously and consists of the portion of the premium which reflects the extent to which the particular option is "in the money."

Understanding of the various concepts of volatility is essential to grasping one of the defining operational characteristics in the world of options. Volatility can be considered in light of:

1. What ***was*** (SV, statistical volatility; HV historical volatility; & other synonyms of the same)
1. What ***is*****,**
1. What ***shall be*** (IV, implied volatility, and Market Implied Volatility (MIV) They are all confusingly disparate words and acronyms signifying identical concepts)

Of these three time frames within which volatility can be considered, implied volatility is by far the most important. The nexus point is right here, right now, while the future is unclear and will always be that way. For an option trader to sustain profitability over long periods of time, it is essential to understand implied volatility and its various implications.

Let us consider for a moment the variables defining an option's price. Intrinsic value is a crisply defined value that requires the calculation of the relationship of the price

of the underlying to the strike price of the option and can theoretically vary from 0 to infinity. The time value (also termed the extrinsic value) of the option is dependent, in large part, on two distinct variables. These variables are the amount of time to expiration and implied volatility. Time to expiration is easily defined by anyone with access to a calendar and schedule of option expiration dates. Option expiration is easily accessible for option traders, and as such represents a totally transparent variable. Conversely, implied volatility is not as easy to explain, or quantify.

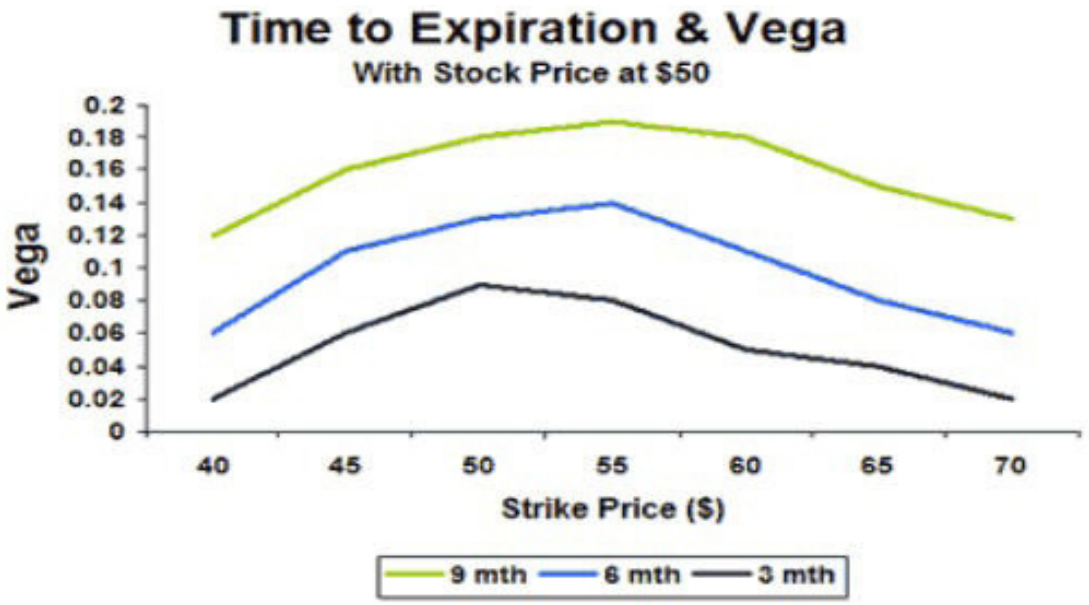
The subjective concept expressed by implied volatility is to be distinguished from the mathematically objective and precise concept of historic volatility. Historical volatility is simply derived from the price action of the underlying and can be calculated in one or more of several iterations. Each calculation is fundamentally derived from historically apparent price action.

Implied volatility is not only arduous to understand, it is even more difficult to quantify. A totally different calculation is required; the computation is reflective of a unique and characteristic point of view with regard to price action. It is technically calculated by an iterative process requiring multiple trial and error calculations; thankfully the robust computational ability of the current generation of computers handles this task easily.

Of the three primal forces impacting option price, implied volatility is the only factor subject to cerebration. As an adaptable and subjective input factor, implied volatility is reflective of both general market sentiment and the subjective evaluation of potential future volatility while simultaneously corresponding with the specific direction of the underlying. As such, it is a forward looking evaluation as opposed to historic volatility which is well, historic.

Implied volatility has a historic and characteristic range for each underlying. A strong historic tendency is the characteristic for implied volatility to revert to the mean for the particular underlying under consideration. This strong mean reverting tendency forms one of the primary fundamental tenets of option trading and represents a major opportunity for potential profit in option trading.

TheOptionsGuide site produced the chart below that illustrates the behavior of Vega at various strike prices that are expiring in 3 months, 6 months and 9 months when the stock is currently trading at $50.



In addition to the historic backdrop in which implied volatility may be considered, there are certain stereotypical patterns of implied volatility expansion and contraction in relation to anticipated events which may lead to unusual volatility of the underlying. Classic examples of these events include earnings, impending FDA announcements, and the release of key economic data by the government or the analyst community. For example, many of the most extreme increases in implied volatility anticipate FDA decisions and routinely revert to the mean immediately following the anticipated announcement. Potentially substantial profit opportunities are borne from such situations for the adept and knowledgeable option trader.

Failure to consider the current position of implied volatility in a historic framework for the particular underlying in which you are contemplating a trade is the single

most frequent hallmark of an inexperienced trader. Lack of attention to this important factor in trade planning is the most frequent cause of paradoxical option behavior and failure to profit from correctly predicting anticipated price movements of the underlying.

While most equity traders focus their attention on the SP-500 for broad market clues, option traders always have a watchful eye on the volatility index, commonly known as the VIX. While the VIX is the most common volatility measurement in the option trading world, there are several volatility indices which can be monitored, followed, and even traded if one is so inclined. While it is not always necessarily the case, recently when the VIX rises, the broad markets are selling off.

While this has been a basic overview of implied volatility and Vega, it will conclude our discussion on the option Greeks. If you are interested in furthering your education regarding options the best recommendation is to do some serious homework. Due to the availability of data via the Internet, those wishing to further their knowledge should have no problem finding quality, accurate information. Before trading real capital, it would behoove would-be option traders to familiarize themselves with these somewhat arcane and confusing topics before jumping into the world of option trading.

SYNTHETIC STOCK POSITIONS

For most equity traders, the S&P and/or the Dow are watched quite closely. While these indices are usually just as important to option traders, the volatility index is generally closely monitored as well. There are a variety of volatility indices to watch, but most traders look at the S&P volatility index which is commonly referred to as "The VIX."

Experienced option traders spend a lot of time watching and monitoring the VIX. Through the use of options, a competent trader can sustain similar returns with far less capital than what would be required to own stock outright, even if the equity trader was using a margin account. These types of option trades are referred to as synthetic equity positions.

The traditional structure of a synthetic long stock position involves buying a call and selling a put at the same strike price and expiration date. If an option trader is leaning long, he/she would buy a call and sell the put, likewise if the option trader is leaning short then the put is purchased and the call is sold. Typically, the trade utilizes options that are near-the-money or slightly in-the money.

For those who remember high school algebra, the mathematical expression of this relationship is S=C-P. The variables are defined as S=stock, C=call, and P=put. Using tenth grade algebraic rearrangements of this equation, the various equivalency relationships can easily be determined.

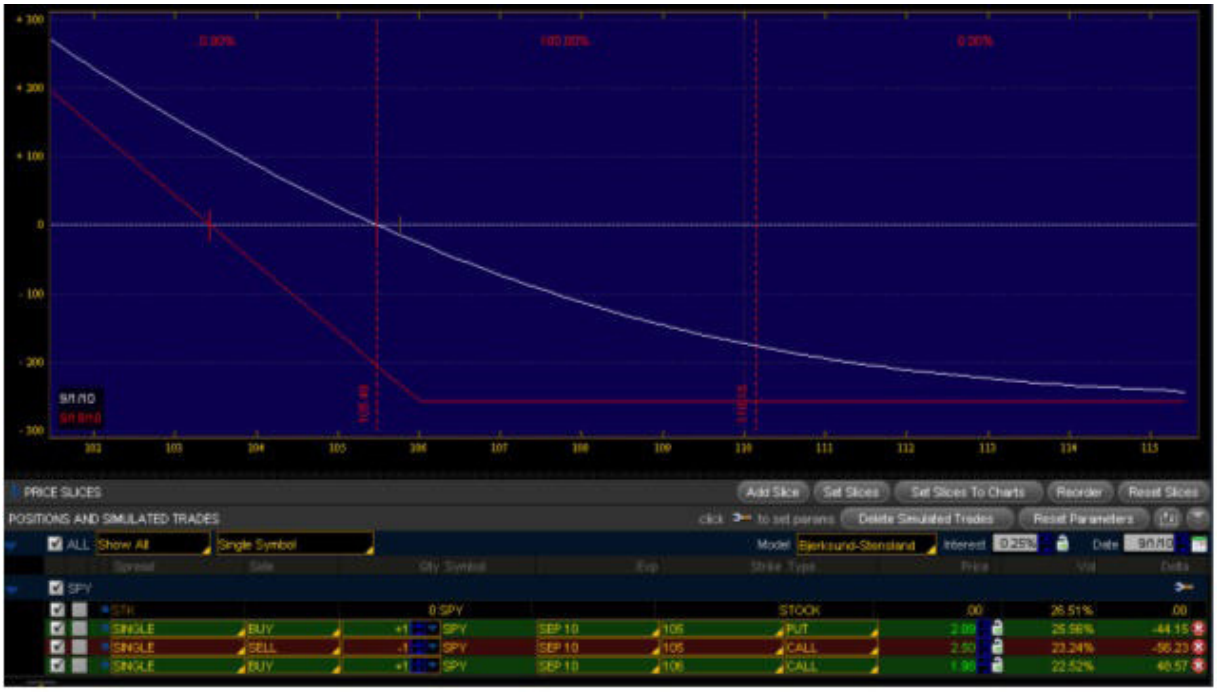
Before going any further, naysayers will point out that selling a naked call offers unlimited risk to an option trader as stocks theoretically can rise to infinity. It is true, the naked call position is extremely risky and a naked put position carries significant risk as well, but alas, there are ways to mitigate that risk. So before you become concerned about how much risk a trade like this is undertaking, please continue reading.

Remember that the risk of option positions is appropriately gauged against the yardstick of equivalent equity positions. Many traders have made the logical error

of considering option positions constructed with the same capital against what they think is the same equity position. This is a fundamental error in logic. The appropriate yardstick by which risk is gauged is Delta equivalent positions.

For many who are beginning to trade options or those that do not have enough capital, option brokers will not allow option traders to sell naked calls or puts. There is a way around this little issue; the answer lies within a credit spread which will mitigate the risk of selling a call or put naked. A credit spread is an option strategy where a trader sells a call or put, and then purchases a call or put that expires the same month/week that is further out of the money. The difference represents a credit to the traders account and the maximum gain they can achieve on the position.

For traders that are relatively risk averse, a structure that could be used to get long involves buying a call, selling a put at the same strike, and then purchasing an out-of-the-money put a few strikes lower. The purchase of the put a few strikes lower



reduces the risk that is borne by selling the put naked. Below is an example of this trade using the September SPY options. In the example, let us assume that the trader in the example has a short bias and that they are basing this trade off of the SPY's previous closing price of $105.30/share.

Option trading is unique due to the complex nature that operates behind the scenes mathematically which incorporates the effects of not only price, but also time and implied volatility. Options can be extremely technical, so in response to that most option traders utilize charting software that helps visualize how a specific strategy will react to price. The chart above is a visual representation of the example mentioned. The white line represents profit and loss on September 1st. The red line represents profit or loss at option expiration.

In order to illustrate the credit spread portion of the trade, note that the SPY 105 call would be sold for $250 ($2.50 per option) and the 106 SPY call was purchased for $198 ($1.98). The $52 difference represents a credit to the trader. Instead of $52 dollars hitting a trader's account, option brokers utilize the $52 to reduce the cost of the total trade. In this case, the SPY 105 put was purchased for $209 ($2.09). Thus the $52 credit reduces the cost of the SPY 105 put by $52, meaning that the 105 put was essentially purchased for $157 ($1.57).

The reason the maximum risk is $257 dollars on this trade is due to the fact that if price closes at option expiration above $106/share, the trader would lose an additional $100 dollars as the spread would be upside down. $1.57 + $1.00 = $2.57 – Thus $257 is the maximum risk on this particular trade. Regardless of how high SPY climbs, at option expiration the most the option trader will lose is $257 on this specific trade, commissions not included.

The position becomes profitable around $105.15 so the options trader in our example was not perfectly aligned as a trader that shorted the SPY using common stock. The equity trader will capture more profit overall, but the option position will act quite similar to owning the actual stock. This is not to say that the synthetic stock

position does not have risk, the risk it is exposed to is different from the equity trader. The biggest threat that a synthetic stock position like this has is Theta risk, or time decay risk. As time passes, SPY would have to move further and further to the downside to create profit for the option trader. In order to illustrate this risk, for this trade to be profitable at option expiration SPY would have to be below $103.44 just to break even.

This strategy is not new nor is it revolutionary. It is susceptible to market risk, Theta risk, and volatility risk should volatility spike or decline rapidly. This is not a trade that should be utilized for an extended period of time. This type of trade should be used similarly to a swing trade. It works well for traders who do not have the capital to trade the SPY ETF or are unable to control enough stock to make trading it worthwhile. Through the use of the inherent leverage built into options, one could achieve a return similar to an equity trader that owned 350 shares of SPY while having roughly $1,028 of maximum risk. This is not a strategy for beginners nor is it a strategy that should be employed for long periods of time, but in the right circumstances it can produce outsized profits with a fixed amount of risk.

VERTICAL & BUTTERFLY SPREADS

Remember that Theta (Time Decay) has the potential to cause option prices to decline dramatically, particularly in the final weeks leading up to option expiration. As it turns out, during the final few weeks leading up to option expiration, option strategies that utilize Theta (time) decay as their profit engine can produce some outstanding risk/reward opportunities. Vertical spreads, butterflies, and iron condors can all be utilized to create profits in this environment, with a crisply defined amount of risk. When risk can be accurately defined, option traders can shape their expected perception of price action around their own unique time frame and risk profile.

The example below focuses on gold ETF GLD. While futures and equity traders are forced to wait for a breakout or a selloff, option traders have the unique ability to profit from the passage of time. The chart below is the GLD weekly chart.

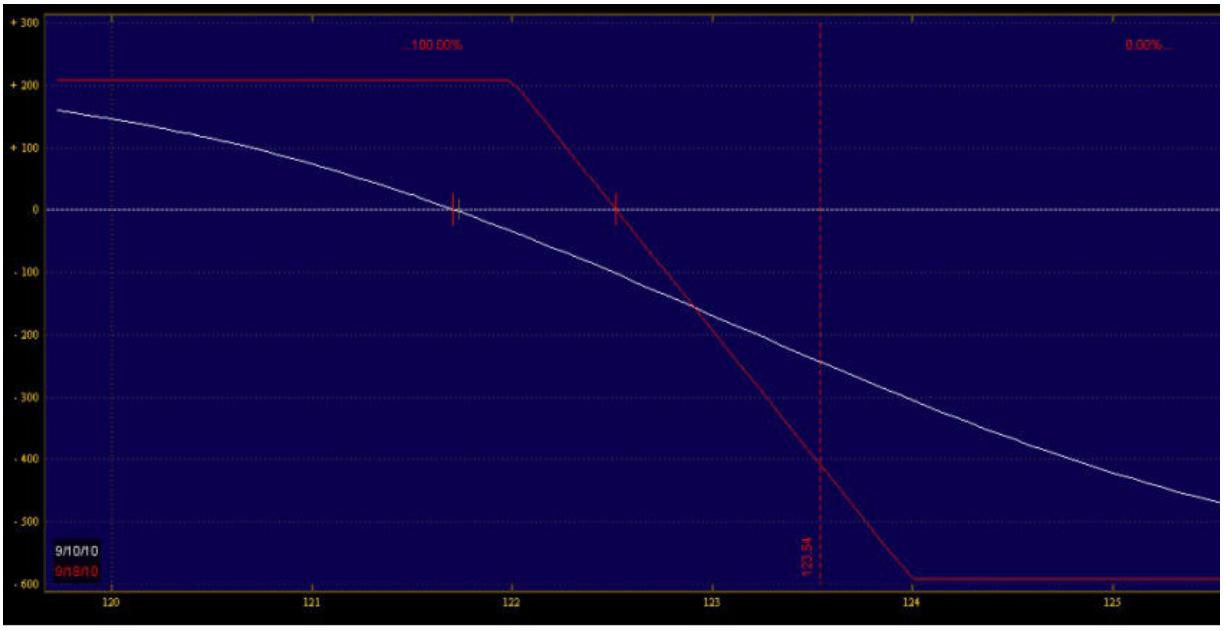
The chart above shows that GLD has formed a wedge and it is likely at this point in time that opinions range far and wide which direction price is headed. As an option

trader, it really does not matter too much which direction price goes as long as price will stay within a predictable range. Below is the daily chart of the gold ETF, GLD.

This example took place with only six days until expiration. Regardless of what gold does over the next year, the trader's focus on this trade should be based on what gold will do in the next six days. One of the unique characteristics of options is the ability to truncate the market exposure to a sharply defined time window. In cases where these wedges present themselves, it usually takes several days before the underlying will tip its hand as to which direction price will ultimately go.

As stated above, we know that this series of options will expire in six trading sessions and we also realize that the chart pattern lends itself for gold to stay within the wedge at least for the next few days. When experienced option traders look at a chart like this at this point in the option expiration cycle, they are thinking about one thing – THETA DECAY! They focus their attention on building a trade that will utilize Theta Decay while providing them with a significant opportunity to realize a solid profit while taking a finite amount of risk.

Typically in these types of situations experienced option traders have no real directional bias, but they likely anticipate that GLD will consolidate for the next several days before making a break in either direction (the first move is often times the false move.) A basic strategy would be to utilize a call/put credit spread. Based on the chart above, the 124 price level represents some relatively significant overhead resistance. At the same time, the 50 period simple moving average represents a key support level. The chart below illustrates the risk/reward of a call credit spread. The terminology can be confusing since the same trade can often be designated by the same name; in this case, this could also be termed "selling a call vertical" or a "bear call spread."



The trade setup involves selling 4 Sept. 122 GLD Calls and simultaneously purchasing 4 Sept. 124 GLD Calls. Obviously the trade would change based on intraday market conditions. The maximum risk on this trade is $592 not including commissions. The maximum gain at expiration is around $208 not including commissions. A similar trade could be used for traders expecting gold to rally. The trade would utilize puts instead of calls and would be setup selling the SEPT 121 Puts and buying the SEPT 119 puts.

For our short biased trader, if GLD were to close below $122/share or lower at option expiration, the trader would make the maximum gain of $208 which represents over a 30% gain based on risk. Keep in mind, this trade has a maximum gain of $208, thus if price were to collapse totally the trader would only earn $208. On the flip side, if GLD were to close at $124/share or higher, the trader would lose the entire $592 that they risked. The trader with a long bias would collect the maximum profit if GLD's price at option expiration closed above $121/share and he/she would sustain the maximum loss if GLD's price at option expiration was below $119/share.

For those of you new to options, butterflies are the nickname of a multi-legged option strategy that traditionally uses Theta Decay (time decay) as its primary profit engine. A butterfly gets its name from the way it is constructed. A traditional butterfly involves purchasing two option contracts at different strike prices with the same option expiration while selling like contracts evenly spaced between the contracts purchased in a combination of 1 /-2/ 1.

Since we are nearing option expiration in the example above, butterflies become a very popular choice for experienced option traders because they offer limited risk and give option traders the opportunity to potentially profit from the inevitable time decay that is right around the corner. Theta decay is as inevitable as the passage of the tides; the time value of options goes to 0 at option expiration. This decay is not negotiable and occurs each and every options cycle. As you will see shortly, the close proximity to option expiration presents incredible risk/reward setups when butterflies are utilized appropriately.

The following setup constructed is a Put butterfly that will profit if price continues to decline or consolidates over the next few days. The setup consists of September GLD puts in the following setup: Long 1 SEPT GLD 116 Put / Short (Sell) 2 SEPT GLD 119 Puts / Long 1 SEPT 122 Put. The trade's multiple legs are placed simultaneously and a trader's account would be debited a total of $86 dollars to place this trade. For educational purposes, if a trader wanted to take on more risk he/she could increase the size of the butterfly, however to maintain a standard butterfly

they must be increased in the ratio of 1 /-2 / 1. So if a trader wanted to risk a total of $860 (10x bigger), they would put the trade on in the ratio 10/-20/10.

Keep in mind that an option butterfly could be constructed using calls with the exact same strikes in the same setup for a similar profit. However, it usually behooves an option trader to chart both contract types to see which contract offers the most profit. Implied volatility can have slight differences based on the broad markets expected price direction of the underlying. For option traders using relatively small butterfly orders this is not a huge difference, for option traders that swing big and wide the slight difference can really add up, particularly for those trading more than 100 contracts per side.

The maximum loss the put butterfly can sustain is $86 per side. So, the original trade of 1/-2 /1 has a maximum loss of $86. The trade will be profitable at option expiration if GLD's price closes between $116.90/share and $121.10/share. The maximum gain this trade could earn would be an expiration that closed exactly at $119/share. The maximum gain on this trade is around $218. While it is unlikely that GLD will close at exactly $119/share, if it closed near that price level, the trader would realize well over a 100% return based on the capital they risked.

It is critical to keep in mind that the trade could be exited for gains before option expiration. Contingent stop orders could be placed to prevent maximum losses from occurring, and the initial range where profitability resides will be wider than $116.90 – $121.10, however every day that passes the gap will close until option expiration. There is an additional risk to this strategy besides just GLD's price action and that is implied volatility. If GLD's implied volatility increased dramatically causing the underlying option premiums to extend higher in price, this has the potential to dampen returns. However, as long as price cooperates and stays within the profitability bands, at option expiration the trade will be profitable since volatility impacts only the time value portion of the premium and we know that goes to 0 at expiration.

Butterflies are scary for beginners, but once an option trader understands how they work and additional ways to manipulate them to enhance or protect profits, they become an absolute favorite trading strategy for many. Also notice that by using the butterfly strategy a trader can reduce his/her risk and achieve similar returns to the call/put credit spread illustrated above.

The best part about using a butterfly is that its primary profit engine (Theta Decay) is inevitable. However, option traders that utilize this strategy must monitor implied volatility closely and as always, price action certainly matters regardless of which direction GLD's price goes. In addition, as butterflies approach their inevitable denouement at expiration, they become increasingly sensitive to price as the Theta decay finishes its work. For this reason, price must be monitored carefully and dramatic price movements at expiration must be dealt with decisively.

OUT-OF-THE-MONEY BUTTERFLIES

The following example discusses another butterfly strategy that allows a trader to utilize options to take advantage of an expected move in an underlying stock, ETF, or index. With that in mind, the following example explains an option strategy that would profit from the passage of time while simultaneously benefiting from lower prices on the S&P 500. While the trader in our example clearly does not know that prices are headed lower, let us assume that the S&P 500 is trading at resistance and is relatively overbought. The chart below illustrates this type of setup.

Unfortunately if prices began to fall on the S&P 500 it is likely that volatility would begin to creep higher creating a negative impact on any type of credit trade where Theta (time) decay is the primary profit engine. In this type of trading scenario, an out-of-the-money butterfly spread can offer an outstanding risk versus reward trade. The out of the money butterfly spread would benefit from the passage of

time, it would not be as exposed to a comeuppance in volatility, and it could produce a great potential return for a defined amount of risk.
In most cases utilizing the ETF SPY is a better solution than using SPX options when trading the S&P 500. The bid/ask spreads are quite wide on SPX at times, particularly when volatility is rising. Consequently, it can be arduous to get decent fills from the SPX market makers in whipsaw market conditions which seem to be the norm. Besides the normal option expiration on monthly or quarterly basis, options that expire every week have grown in popularity as of late. A primary reason is that they can offer some unbelievable risk/reward setups, particularly through the utilization of Theta (time) decay trading setups.

At this point in time, the trader in our example utilized options that expired at the end of the quarter (quarterly options). In this example, the quarterly options were due to expire the following week. Since the trader in this example expects prices on the S&P 500 to decline, the trader used an out-of-the- money put butterfly in an attempt to capture profit.

Traditional butterflies are typically written where the current price is straddled by the wings of the butterfly spread. In an out-of-the-money butterfly spread, an option trader places the entire position out of the money. It helps reduce the cost of the butterfly, and because the option contracts are out of the money, they are not impacted as harshly by rising volatility. In addition, these out of the money butterflies usually have very attractive risk/reward characteristics.

In the example on the next page, assume SPY was trading around $114.70/share, thus a trader that wanted to profit from lower prices on the S&P 500 determined that an out-of-the-money butterfly made sense. The trade construction used the following strikes: Long 1 Qtrly. SPY 108 Put / Short 2 Qtrly. SPY 111 Puts / Long 1 Qtrly. SPY 114 Put. Here is a snapshot of the SPY Quarterly option chain:

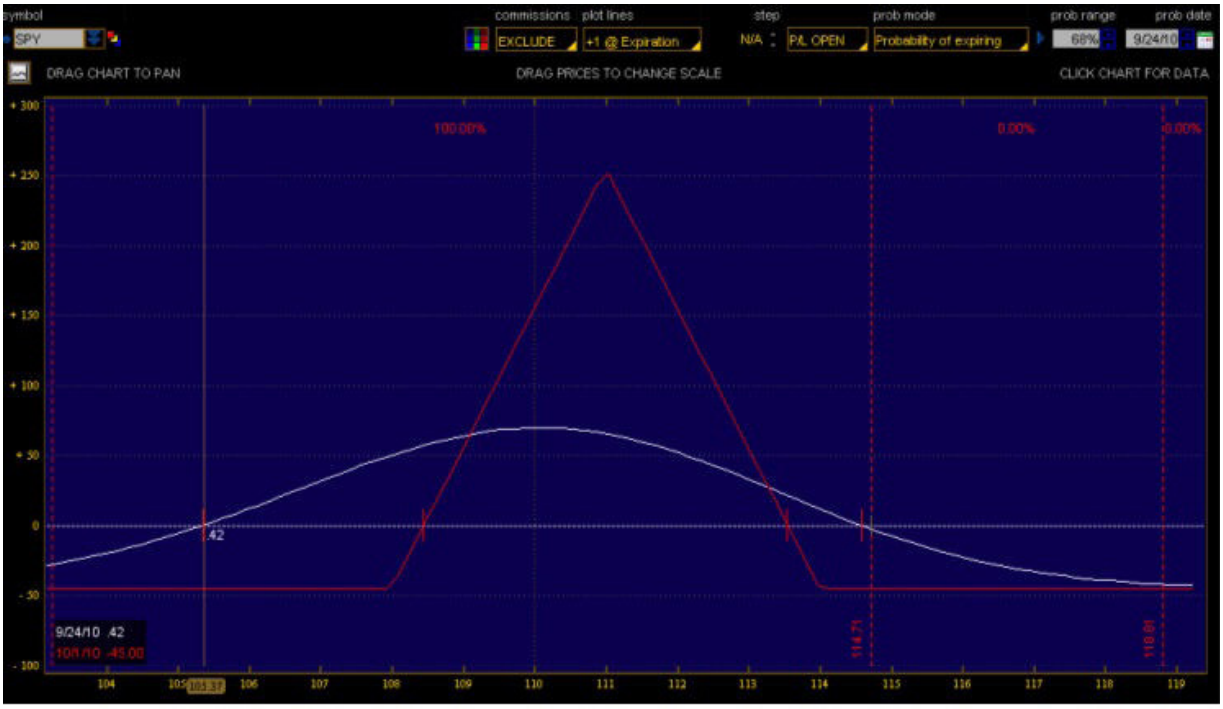
An intraday snapshot of the SPY quarterly option chain are as follows for the butterfly mentioned above: SPY 108 Put = $8/contract; SPY 111 Put = $22/contract; SPY 114 Put = $81/contract. The total cost to place the out of the money SPY

quarterly put butterfly would have been $45 per side (not including commissions). The maximum gain at expiration on this trade would be a close at $111/share on SPY and it would produce a profit around $250 (not including commission).

Clearly the trader would not expect to achieve the maximum gain, but this trade would produce a profit if SPY closed between $108.45/share and $113.56/share at expiration (September 30). The profitability chart is below; keep in mind that the red line is the valuation at expiration and the white line would be the profit based on that particular day in a log normal (Gaussian) distribution.

Obviously market conditions throughout that trading day and the following week will alter the prices and implied volatility of this trade. Hopefully this example of the type of returns that are possible for option traders that want to use out-of-the-money butterflies with a directional bias.

The most constructive characteristic about a trade such as the one in our example is that the trader can crisply define his/her risk. When the maximum risk is a



specified amount, managing risk becomes almost arbitrary. A trader simply determines how much he/she is willing to risk/lose, and simply places the trade. A mere $135 risk could produce a potential profit well over $700! Keep in mind, that should price enter the butterfly, it might make sense to take profits depending on the size of a trader's position. Typically it makes sense to take profits once price action has produced a gain of 10-20% depending on market conditions, time frame, and the strategy being used. After profits have been taken, a trader can initiate contingent stop orders for the remainder of their position and manage it accordingly.

There are additional manipulations the trader in our example could make if price looked like it were going to break below the 108 strike level that would allow this trade to either remain essentially flat or potentially profit even more. The beauty of options is not only their ability to produce setups where risk is clearly defined, but the potential to manipulate a position on the fly to allow for fluctuations in price action or market conditions.

IRON CONDORS

Another trade that is from the same family of setups as the butterfly is the iron condor. The iron condor allows the trader to profit from a wide price range of the underlying and typically uses Theta decay as a profit engine. The butterfly reaches its maximum extent of price accommodation in the specific trade construction of the condor. In keeping with the standard conventions of nomenclature within this family, when a position is constructed in both puts and calls it is termed an "iron condor."

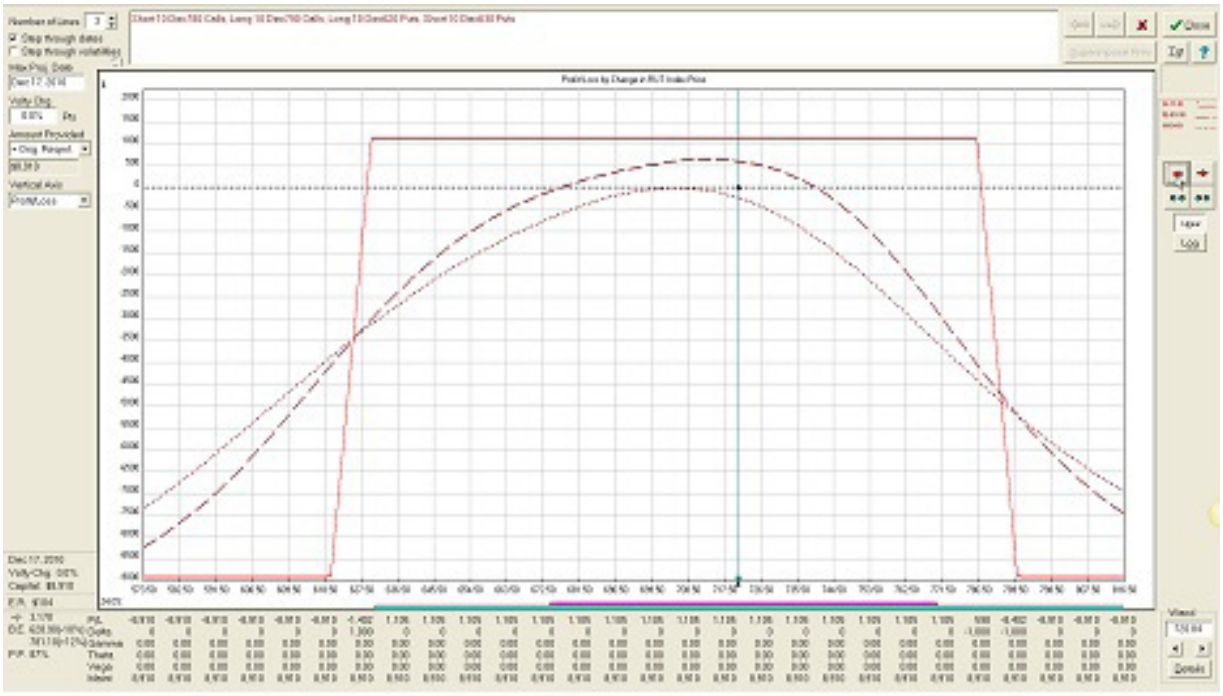
In order to understand this structure, the trader needs to have familiarity with the vertical spread option strategy from which iron condors are constructed. The iron condor consists of both a bear call spread (vertical) and a bull put spread (vertical) established at strike prices expected to remain out-of-the-money (OTM) until expiration. These are both credit trades, have a defined and limited maximum risk, a maximum potential profit of the credit received when the position is initiated, and profit from the inevitable decay of option time premium (Theta decay).

The "big picture" is to surround the hypothesized price range in which the underlying will stay within until expiration. The profit is generated by the inevitable time decay which occurs as the options approach expiration as long as these spreads remain out-of-the-money.

In order to prevent confusion, the condor trading construction also includes both put and call condors which are constructed entirely of either puts or calls. These condor trades are debit trades but otherwise have very similar functional characteristics to the subject of this discussion, the iron condor.

A graphical example of the P&L curve of an iron condor constructed in index options on the RUT is presented on following page:

The iron condor is implemented by selling both a bear call spread (vertical) and a bull put spread (vertical). It is most frequently structured in options on broad based indices in order to reduce the frequency of occurrence of "gap" movements which could move the price of the underlying beyond the bounds of profitability.



The trade is usually structured using options well outside the anticipated price range of the underlying. The probability of profit is calculated by the log normal distribution of prices where price direction is meaningless as long as price stays within the bounds of profitability. In this case, such analysis shows the trade to have an 87% probability of ending profitably.

These are both credit trades, have a defined and limited maximum risk, a maximum potential profit of the credit received when the position is initiated, and profit from the inevitable decay of option time premium. This spread can be opened in either a single trade, or as two separate trades. The trades can be opened either simultaneously or sequentially as price changes in order to capture more premium or give a wider profit range.

One point of critical understanding is the concept that while there is risk exposure of the trade to excursion of price to both ends of the range of profitability, risk is

only generated on one side since it is impossible for the trade to lose money at both the upper and lower boundaries of profitability simultaneously. The corollary of this fact is that brokers should only require margin on one side of the trade.

This point often escapes brokers who are not savvy in option strategies and results in margin encumbrances of double the appropriate amount, thus reducing trade yield. From a risk standpoint, a defining characteristic of this trade is that its high probability of success is accompanied by a typically high maximum risk: maximum reward ratio. In the example above, the maximum potential profit of the trade, an amount equal to the initial credit received when the position is opened, is $1105 and the maximum potential risk is $8910.

This ratio begs the concept that the trade must be managed to avoid incurring the maximum risk. A variety of trade adjustments can be used to mitigate this risk should the break even points be approached.

Such adjustments include:

1. "Rolling" both the offending sides and profitable sides to strikes further from the money thus repositioning the entire position,
2. Buying additional puts or calls to defend the side in danger,
3. Closing the entire position
4. Using other spreads to mitigate the effect of the price approaching or violating the limit of profitability.

While the iron condor trade construction carries with it significant risk, through the use of contingent stop orders and trade adjustments, option traders have the unique ability to adjust this position to adapt to ever changing market conditions in the underlying. As stated above, iron condors are typically setup with 3-4 weeks until expiration and rarely are held until expiration. The final week of option expiration causes potentially damaging impacts to price as increasing volatility and the final thrust of Theta decay occur simultaneously causing valuations and profitability to move violently.

CALENDAR SPREADS

A calendar option trade, also known as a horizontal spread, is constructed using the same underlying, same strike price, but different option expirations. A neutral strategy can be used where the primary profit engine is Theta (time) decay with no real price action expectation. Bull or Bear calendar spreads can be created through the purchase and sale of calls/puts that are out-of-the-money.

Assume that a trader expects the price of gold to decline due to a subsequent bounce in the U.S. dollar, the trader in our example could use a Bear Calendar Spread. The trade construction consists of selling the GLD October Weekly 134 puts (expire 10/22) and the simultaneous purchase of the GLD November 134 puts (expire 11/19).

The GLD October Weekly 134 puts were sold around $130 (bid) per contract (1.30) while the GLD November 134 puts were purchased at $320 (ask) per contract (3.20). The trade would represent a debit of $190 per side (1.90) not including commissions. The chart below illustrates the GLD Put Calendar spread. Please note that the maximum profit for this spread is always at expiration when the price of the underlying is at the strike price selected.
The profitability of the trade based on the Thursday closing price would be a maximum gain of $125 dollars per side assuming GLD's price closed next Friday at exactly $134/share. The profitability range at Friday's close is from $131.14 – $137.08. This trade takes on a maximum risk of $190 per side not including commissions. The profit potential based on risk is over 60% if price should close next Friday around 134.

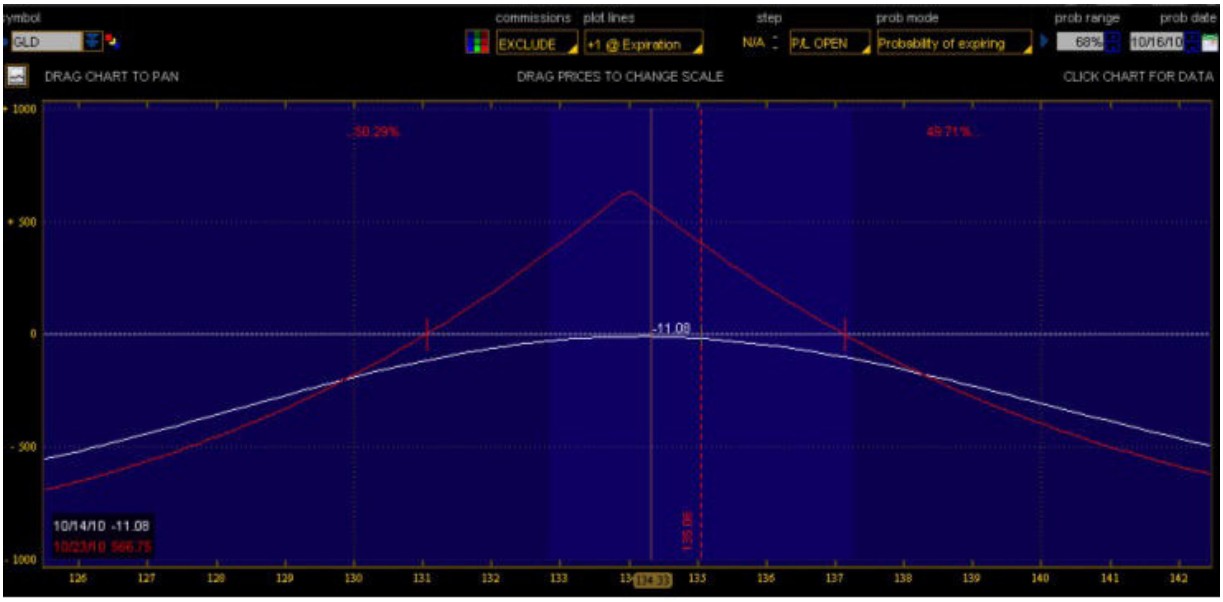
The trader has additional choices after the trade has been placed. If GLD's price stays relatively stable through the October weekly option expiration, the trade could be closed for a profit.

As mentioned above, the expectation is that the price of gold will decline as the dollar has a relief rally to work off the massively oversold condition. With that in mind, the trader could allow the GLD October Weekly 134 to expire next Friday or close

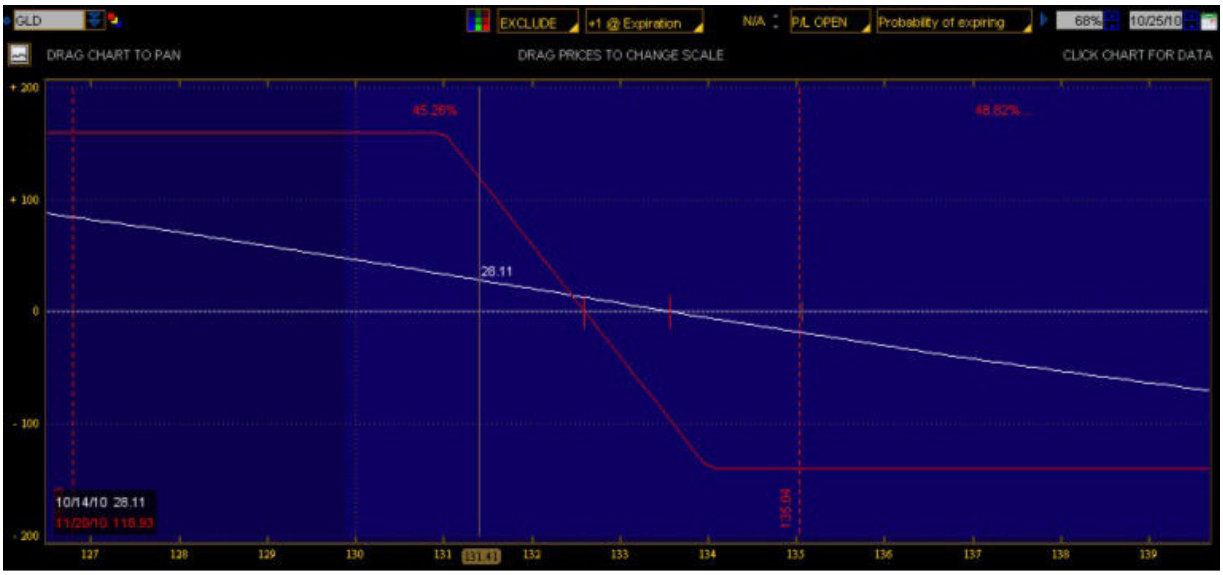
that leg of the option trade keeping the long GLD November 134 put in place. After the October weekly contract is closed, the trader has the ability to put on a vertical spread or another calendar using the next week's options.

In this case, the trader expects price to decline in the short term on GLD, so he/she could sell the GLD November 131 Put and further reduce their overall cost of the GLD November 134 Put the trader purchased. While this may sound a bit confusing, the main idea is that the trader was utilizing Theta (time) decay to reduce the cost of the long put he/she purchased. The further the trader is able to reduce the cost of the put, the more profitable a downward move in the GLD price will become.

As an example, let us assume that the trader was able to close the GLD October weekly 134 put for a profit of $60. The profit reduced the trader's overall cost on the GLD November 134 put by $60 and places the total cost to the trader at $260. Assuming price stays relatively close to the Thursday close on GLD, the trader in our example would likely be able to sell the GLD November 131 put for around $130 (estimate) depending on price action and volatility levels over the following week.



Assuming the trader was able to sell the November 131 Put for $130, the trader would have reduced their cost of the November 134 GLD Put down to only $130 per side. The profitability chart below represents what the trade would look like.



Now the trader has a directionally biased trade on GLD while only risking $140 per side for the exposure. The maximum gain on this trade at the November expiration would be $160 per side assuming GLD's closing price was $131/share or lower at the November expiration.

The primary risk that this trade undertakes in relation to volatility would be a volatility crush, or collapse. If overall market volatility probes lower or the implied volatility declines on the underlying (GLD), it can cause a potentially damaging impact on this trade. With every trade there are inherent risks, but great option traders understand the risk and manage it accordingly through the use of stop orders and proper position sizing (money management).

If GLD does sell off, it is likely that the implied volatility would increase on GLD which would benefit this trade tremendously. However, option traders must always

be aware of implied volatility as it relates to the underlying being utilized in their specific trades. Ignoring implied volatility when trading options is like diving into a swimming pool head first without knowing how deep the water is.

CONCLUSION

While there are more option strategies that can be utilized, these are the basic strategies that nearly all option trades are based upon. While understanding the trade constructions and optimal times to place trades based on option expiration, the option Greeks should be any beginner's starting point. The various strategies discussed in this E-book are useless to an option trader that does not have a sound grasp of the option Greeks.

The reason so many option traders initially fail in their option trading revolves around their disrespect for these primal option pricing functions. Ignoring the option Greeks or having a luke warm understanding of them will likely result in trading losses and potentially complete trading account blowups where nearly all is lost. To avoid this type of scenario, please take the time to familiarize yourself with the option Greeks, focusing the most attention on Theta, Delta, and Vega (volatility).

With regards to Vega, more emphasis should be placed around understanding implied volatility than any other volatility measurement. Implied volatility is critical in order to understand how options are priced, regardless of the type of underlying.

Novice option traders should begin their trading education through the use of an online broker's free paper trading account. In most cases, online brokers offer these programs for free and they are a great way to learn how option prices can change throughout the trading day. In addition, traders can become familiar with the online broker's charting programs and their trading platform making the transition to real money a more simple process. Until a novice option trader has a firm grasp of the option Greeks, a sound understanding of the various option trading strategies, and a firm grasp of an option charting software package they should not begin trading options with real money.

Options are much like life, you get what you put in. If you work hard and improve your understanding of options you will be rewarded. However, if you try to trade options before you are ready it is a near certainty that novice option traders will lose precious trading capital. For those that are willing to put in the time and do

their homework, trading options will likely lead to strong trading results and an overall firmer grasp of risk. Options are one of the best kept secrets in financial markets, and as most people realize the very best place to hide secrets is right out in the open.