

# EXPLORING OPTION SKEW

A Sit-Down with Noted Educator

33 31 29 27 25 23 IV 21 19 17 15 13 11 9 67 76 85 94 103 112 121 130 139 OTM puts OTM calls Strike

# Jim Bittman

# **Plus, Market Insight & Commentary**

From Five of the Top Option Trading Bloggers



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# Editor's **Notes**

Bill Luby



Thanks to all who encouraged us to launch *Expiring Monthly:The Option Traders Journal*. Based on feedback from subscribers, the first issue was a big hit. While the accolades are encouraging, I am even more excited about the room left for improvement.

In this issue, there are several articles which focus on volatility skew. Steve Meizinger of the International Securities Exchange (ISE) examines volatility skew in detail, offers some thoughts on trading with or against the skew and includes some enticing graphics to illustrate his points. Mark Sebastian picks up on this theme in his article on using skew to trade direction and I have a related piece on selling vertical spreads which is tangential Mark's article, but geared toward the beginning options trader.

We are also delighted to have an interview with noted educator and author Jim Bittman of the CBOE. Mark Sebastian probes Jim's thinking on a wide range of issues, including fat tails, skew and time decay.

Jared Woodard strays from the equity options world to begin the first in a series of articles on commodity options. On a related note, Jared tackles a double diagonal gold ETF (GLD) options trade in Follow that Trade. Some new features this month are a book review (The Complete Guide to Option Strategies by Michael Mullaney) and a Pro vs. Con article in which Jared Woodard and Mark Wolfinger debate whether traders should pay for specific options advice.

Elsewhere, Adam Warner talks about what you can learn about volatility in a bar, Jim Binder of the Options Industry Council (OIC) recounts the role of options in the recent financial crisis and the EM team answers reader questions.

All things considered, I am pleased that the second issue has improved breadth and depth of content, incorporates more third party perspectives and spices up some of the graphics.

Readers are encouraged to send questions and comments to editor@expiringmonthly.com.

Have a good expiration cycle,

Bill Luby Contributing Editor







The Expiring Monthly Team

## Dear Expiring Monthly

Still working my way through the first issue, there's a lot of great content. My question is for Mark W in Follow that Trade. I understand the iron condor, but why did you think that was a good trade, at those levels, on the day you put it on? Was it simply that the index was near a strike price? Or did you see something in the chart, or in the IVs that made it attractive?

Thanks. Robert

## Hi Robert,

My investment style currently seeks to own some iron condor positions - almost all the time. Thus, at the time I want to enter into a trade, I seek the most suitable one I can find. By that, I mean a trade that fits snugly within my comfort zone.

I) I do not use technical analysis, so no charts...
When I am ready to trade an iron condor, my selection is not quite random, but there is some randomness to it, in that I do not wait for ideal situations. If it's time for me to open a new position, I'll do it – as long as I find a good, suitable candidate. I do not force trades.

2) I choose my preferred expiration date. Currently, that's about 2 months prior to expiration, so I would be looking at June options (as this goes to press). I prefer to trade 3-month options, but implied volatility must be higher before I do that - because iron condors are short volatility (vega), and I want a better price when selling longer-term options. Right now I'll settle for 8- or 9-week options.

3) Next, I sell option spreads that are as far out of the money as possible - as long as my criteria are met. I want to collect a \$3 premium for 3-month iron condors and at least \$2.50 for 2-month positions.



I may bend and take \$2.35 or \$2.40 for 2-month options. I will not move one strike closer to the stock price just to collect that minimum premium. But, if I find nothing attractive, I'll sit on the sidelines. I have no rigid entry rules. They are guidelines.

I tend to be an early adjuster and prefer positions to be within my comfort zone at all times. We each can recognize when a position feels good to own, and when it makes us nervous.

### -Mark W

## Dear Expiring Monthly

I finished Options Volatility Trading last week and wanted to thank you for writing such a cogent, readable book about such an arcane topic. Rather glad it was so readable since I'll be starting it again next week to make sure that I've got some of the harder topics clear in my head. It was also interesting that its composition is similar to blog entries, in that you culled information from different sources, quoted it and gave your take on things. But wasn't just "here are a bunch of blog entries printed and bound." First book I've read in with that style and I quite enjoyed it.

I have a question about iron condors. I sold my first yesterday, a baby position in March SPX. In a position like this - trending higher and close to expiration - is it common to unwind the puts to cover some of the exposure you have in the calls? For example, the 1145 puts I own are trading right now at \$0.87, the 1150 puts I'm short are at \$1.10. Would selling the 1145's and waiting for the 1150's to drift below \$0.87be a chump move, given that I no longer have downside protection? Or is that type of fiddling normal for this type of situation?

-reader



# Ask the X perts

The Expiring Monthly Team

With an iron condor, it's damned if you do, damned if you don't. I sometimes tweak like that, other times I just let nature take its course. I've really never found one route or the other works more than just randomly. In a way, that's part of what I find appealing about condors. No mistake proves fatal, since they stop themselves out. In your particular case I'd be inclined to not bother, and risk getting whipsawed if we actually decline one of these years. But that's totally just opinion.

### -Adam W.

#### **Dear Expiring Monthly**

Could you explain how you calculate the delta bias of a position?

- L.C.

### L.C.

The delta of a given multi-legged option spread is the sum of the deltas of the individual legs. It's always helpful to monitor option greeks, including deltas, on a position and a portfolio basis to ensure that you're comfortable with your current levels of risk. If you find that you have more delta exposure in your total portfolio, you could reduce that risk by closing some positions, by opening new positions with offsetting directional exposure, or by hedging those deltas with some index options. When calculating portfolio greeks, watch out for the relationships among the underlying assets. One thousand deltas in a biotech stock are not the same as a thousand deltas in a company that makes consumer staples. One way to account for these differences is to weight different underlying assets according to their beta, which is a measurement of how an asset moves with the market. But that's still an historical approximation, and if at all possible it's better to hedge deltas in assets that are very different using options on the assets themselves.

Jared

#### **Dear Expiring Monthly**

How do you determine when market makers are taking or have taken the weekend decay out of prices? What exactly do you look at or calculate? Thanks,

#### Chuck

Chuck,

To borrow from a famed Supreme Court justice, "I can't tell you exactly how to quantify weekend decay, but I know it when I see it." Basically, there is no clear way to tell exactly when the weekend has come out.

However, I can tell you a few things: I. it doesn't come out over Saturday and Sunday;

2. it doesn't happen all at once but it can happen very quickly;

3. it typically doesn't happen on a Friday, unless the market is waiting on news, e.g. employment reports;

4. if it is a slow week traders will take it out as early as possible.

The most tell-tale sign of weekend decay coming out of the indexes is that there will be very little happening in the market and a trader will see that the VIX is down around an extra .60-.80% more than the trader would have expected. That is weekend decay coming out.

Thanks for the questions, Mark S.

# ETFreplay.com Enhance Return Reduce Risk Backtest Ideas

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# **The New Option Trader Can You Earn Money with Options?**

Mark Wolfinger

# **An Overview**



The title of this column represents the key question – not only for beginners, but for seasoned traders as well: can you earn more money with options? The experienced trader who may be relatively new to options wants to know if the game is rigged and whether he/she has any chance to make money when trading in the same arena as the professional traders and market makers. This trader/investor understands that the first requirement is to acquire an education, and thus learn how to use options. The naïve beginner asks no questions, places a wager by buying calls and/or puts, and usually walks away poorer, but none the wiser.

There is something about the investment world that convinces intelligent people that they are entitled to profits with no effort on their part. During bull markets they brag about their profits, when they did none of the research that went into constructing the portfolio. When the bear market arrives, they whine that their stockbroker or financial planner failed them. If you are serious about trading options, it's necessary to understand their special properties. If you make the effort, and have what it takes, you can earn money with options.

Options are unique in the investment world. One obvious difference is that options have a limited lifetime and cease to exist (expire) on a specified date. Options are also derivative investments. That means they have no value of their own. Instead their value is derived from the value of

another asset. A call option has value because its owner has the right to buy stock at a specific (strike) price. That right has value, which changes as market conditions and the price of the specific stock moves up and down. Similarly put owners have the right to sell specific stocks. It's those rights that have value.

The property of options that truly sets them apart is the ability to measure specific risk characteristics present in a single option, a collection of options such as a spread, or an entire portfolio. When risk can be measured or quantified, it can be managed. You can control risk by reducing or eliminating specific risks. No other investment allows you to do that. Have you heard of the "Greeks"? In the options world, those Greek letters are used to represent specific risks. When you learn about delta, gamma, theta, vega, and rho (there are others, but these are sufficient for most individual investors), then you have the ability to estimate how much money the position will earn or lose if specific changes occur in the marketplace. Knowing what to expect allows you to keep risk under control because you can hedge (reduce) any risk factor that is outside your comfort zone.

That brings us back to the key questions:

- What does it take to earn money when trading options?
- · Can anyone learn to develop the necessary skills?
- · Should a rookie expect to make money, or do most traders lose?



# The New Option Trader Can You Earn Money with Options? An Overview

Mark Wolfinger

The truth is that most traders, as opposed to investors, lose money and never earn profits. This is true for forex, stocks, futures etc. It is not unique to options. The reasons are not that complicated. Believing it is easy to prosper, people do not bother to learn the basics and they ignore statistics and the probability of going broke. In short, they pay no attention to risk. Dreams of becoming a professional trader vanish as, one after the other, new traders blow their trading accounts. However, among the ruins, successful traders blossom and flourish. Yes, you can make money with options. There are no handouts and it is essential to devote time and effort. Once you believe you understand the basics, then it is time to practice. Practice can be defined as trading with play money in a paper-trading account, or trading one - or two-lots when the money invested is very small for the size of your account. With a quarter-million dollar account, practicing with one-lots makes sense. With a \$5,000 account, it is far better to learn to trade using play money.

The new option trader continues their education with books, blogs, webinars, and Expiring Monthly. Ask questions and do not be afraid to ask for clarification. As you practice trading, experiment with a few option strategies. The strategy is merely the method of entering into the arena. It determines which options you buy and sell. I do not want to suggest that strategy selection is not important. It is. But it is not the deciding factor in the success or failure of your trading career.

#### The key to success

It may not be easy to believe, but your ability to manage money and risk are the key skills that determine the success/failure of a trader. If you prevent large losses by keeping a sharp eye on risk at all times and never allow it to become large enough to result in a loss that hurts, then you are way ahead of the game and a likely winner. Its not as easy as it sounds. Traders believe they understand risk, but lack the discipline to manage it well. Even more troublesome is the fact that few understand statistics and almost none grasp the concept of 'risk of ruin' (going broke).

Understand how an option gains or loses value. Adopt a strategy that makes sense to you. Size trades properly (not too many contracts). Quantify and manage risk. Have the discipline to create a good trading plan, and follow it (but, not blindly). If you do all that, then you have an excellent chance to earn money with options.

Keep in mind that options are not magic tools. If you are not a good trader, if you lack the ability to manage risk, your chances of success are not good. You have the rest of your lifetime to trade, so please take the time, learn, and then practice before using real money.





# The Case for Commodity Options Part 1: Diversification

Jared Woodard

A quick editorial note: it is my intention to use this monthly column for two purposes. First, I plan to survey current academic research in options trading and related areas – last month's column ("Predicting Stock Returns with Implied Volatility") was representative of that purpose. Second, I want to discuss the world of options on assets other than equities, including precious metals, energy, interest rates, and other futures markets. This month's column is the first effort in that direction.

I don't have any evidence for this, but my supposition is that most traders come to options by way of stocks. One could certainly occupy oneself exclusively with equity options and never lack issues of interest to trade. But in this two-part column, I will present some reasons why traders should consider options on assets other than equities, if they aren't already doing so. First, commodity and other futures markets offer genuine opportunities for diversification; second, they possess distinct historical volatility profiles of interest to any options trader; third, the implied volatility surfaces of non-equity options also deserve attention. Let's start by considering the argument from diversification.

### **Diversification and Non-correlation**

A conventional argument in favor of commodities and other assets is that they provide genuine diversification for the long-term equity investor. For someone looking to smooth the overall returns of an equity portfolio, the expected returns on commodities can offer a nice complement. This point is becoming more generally accepted: university endowments, for example, have received attention in recent years in part because of their success at investing in a wide range of assets.[1]

Active traders - including, of course, options traders should look beyond the portfolio-level effects of allocations to commodities and think instead about the time series of a given commodity as a chance to escape the market correlation that hovers menacingly over individual stocks. Think of correlation to an index as a measurement of how much informational value there is in individual stock selections: when correlations are low. successful stock or sector selection is more important than when correlations are high. High realized correlation, in other words, is the enemy of any smart trader: it makes every lucky guess look like the product of genius during a rising market, even as it condemns fundamentally sound ideas to the vicissitudes of the next sell-off. Why bother conducting research to find successful companies or viable technical patterns if the result of any given trade depends primarily on the behavior of the broader market?

The matrix below shows the correlations of several key futures products over the last ten years, using daily closing prices. As you can see, popular commodities like gold, oil, and sugar have exhibited little or no correlation to equities over the period.

	ES	CL	NG	GC	SI	SB	ZB
S&P 500 (ES)	1.000						
Crude Oil (CL)	0.324	1.000					
Natural Gas (NG)	0.333	0.634	1.000				
Gold (GC)	-0.018	0.795	0.281	1.000			
Silver (SI)	0.214	0.872	0.388	0.954	1.000		
Sugar (SB)	-0.003	0.564	0.175	0.776	0.726	1.000	
30-Year Bond (ZB)	-0.524	0.069	-0.190	0.395	0.098	0.094	1.000

## Table 1. Correlation matrix of key futures, 2000-2010. Source: Condor Options



# The Case for Commodity Options Part 1: Diversification

Jared Woodard

### Futures or ETFs?

You might be persuaded of the need to diversify beyond equities, and yet wonder whether engaging with the idiosyncrasies of options on futures is worth the trouble. In my view, the only way to gain pure exposure to the price and volatility fluctuations in assets like crude oil and natural gas is to trade options on their futures. Exchange-traded funds (ETFs) that track these assets have typically adopted a fixed rolling methodology that amounts to locking in a negative roll yield. See Bill's article in the previous issue on the problems this poses for the ETNs that track VIX futures ("The VIX ETNs:VXX and VXZ") – the same tracking error and roll yield issues arise with popular ETFs like USO and UNG. One effect that may not be obvious is that options on these ETFs may not provide the same risks and rewards from a volatility trading perspective as their counterparts that are tied to the futures. Imagine that the spot price of natural gas rises dramatically. The change will be reflected in the front-month futures contract, but the response will be somewhat muted the further out we move along the futures term structure. Options on the active futures will register a sizable change in price and implied volatility, but because UNG maintains positions in several futures, forwards, and over-the-counter (OTC) swaps, options on the ETF would not be expected to register the same changes. Much of the appeal of commodity ETFs and their options has undoubtedly been their apparent simplicity: any retail stock investor can trade them. But since an option on a given commodity ETF is often an option whose underlying is a weighted ratio of at least two commodity futures plus other OTC instruments, it is ironically enough - the futures market that is actually easier to understand.

## Opportunity

At this moment, stocks have recovered a substantial portion of their losses from the financial crisis, and implied volatility is at multi-year lows. One metric of investor concern that has not returned to pre-crisis levels, however, is the correlation implied by options on representative S&P 500 component stocks. After spiking to levels in the low 70s during the financial crisis, the long-term continuous index has remained in a range between 55 and 70. One reason that investors expect equities to remain highly correlated in the future is, no doubt, the fact that the reflationary rally has lifted the stocks of healthy and troubled companies alike.

# Figure 1. Chart of S&P 500 and Implied Correlation Index, 2007-2010.



But no matter whether we look at implied correlations and see evidence of persistent concern or signs of indiscriminate complacency, we can draw the same conclusion. If high correlation is the enemy of the smart trader, and equity correlations are expected to remain high, smart traders will take that as a sign to diversify away from individual stocks. The lower the informational value of stock/sector selection, the more attractive non-correlated, non-equity assets begin to look. Less active investors might be able to use implied correlations as a factor driving rotational models that include precious metals, energy, and interest rate products; this would, at least, be an interesting area for further research.

In my next column, I will discuss those aspects of the historical and implied volatility profiles of non-equity options that are of particular interest.

[1] See Mebane Faber and Eric Richardson, The Ivy Portfolio: How to Invest Like the Top Endowments and Avoid Bear Markets (Wiley: 2009).



# EXPIRINGMONTHLY FEATURE Trading WITH OR AGAINST the Skew

Steve Meizinger

## WHAT IS IMPLIED VOLATILITY?

The options market provides a fascinating outlook on future expectations of the value or performance of an underlying asset. Option prices are disseminated by aggregating these expectations from market participants for any given underlying instrument. This market provides more than just the bullish or bearish view, but also the magnitude (how far) and timing (how fast). All of this information (and more) is captured in what is termed the implied volatility.

Implied volatility can be used to forecast market direction and make trading decisions. It changes as investor sentiment changes. (The precise forecasting value is subject to debate for many experienced option traders). Implied volatility is derived from an options pricing model, such as the Black-Scholes model. A basic options pricing model uses six inputs to calculate the theoretical price of an option: asset value, strike price, time left until expiration, dividends (if applicable), risk-free interest rates, and, arguably, the most important factor, the volatility of the asset. When the volatility input increases, the theoretical option premiums go up. When the volatility input decreases, the theoretical option premiums go down. Volatility is a huge factor in an option's price. Traders should always consider the pricing implications for changing volatilities.

All options pricing models make many assumptions, as do all mathematical models. I will concentrate on the volatility "assumption" in the options pricing model. The underlying assumption is that volatility is constant throughout each respective strike price, regardless of duration.We all know those conditions do not exist!

However, it is possible to calculate the implied volatility of an option. Implied volatility allows traders to compare various strike prices over different months. Using the well-known six pricing inputs, but with some simple algebraic modifications, the implied volatility can be solved for if we use the current options price as a given, rather than solving for the theoretical price of an option as in the original model. The implied volatility allows traders to gain a very different perspective of the options markets. In general, options based on the same underlying security but with different strike values and expiration times will yield different implied volatilities. Since supply and demand ultimately drive prices, traders can learn which options are "cheap" or "expensive," relativeto others, as measured by the implied volatility of each option. This relative value is defined as options skewness, or skew. Volatility skew can be used to identify trading opportunities.

### **FINDING THE SKEW**

How can traders find skew? One way is to peruse the option chains using a pricing model with implied volatility and finding relatively high or low implied volatilities. That seems rather laborious. There is an alternative. Recently, Livevol (www.livevol.com) released advanced functionality that allows traders to view the options skew on any options class. The "volatility skew" can be graphically viewed by charting the implied volatility across various strike prices and months. Another volatility shape that differs from the original pricing assumption that all volatilities are identical is termed the "volatility smile." Viewing "skews" and "smiles" is as easy as just clicking on the respective asset you wish to study. Livevol allows traders to view all option classes so that they can be fully informed on the volatility expectations for each underlying asset.

How can understanding the implications of "skews" and "smiles" help someone make better trading decisions? The graphic representation of all the premium information (think volatility or just "vols") allows traders to recognize where and when the market is expecting more movement (variance) in the underlying instrument. A trader can then either trade with or against the "skew" or "smile." There are different explanations for the skew; one of the most straightforward is leverage. Skew is priced to reflect the market's assessment of future risk, which takes into account an asset's current price, pricing trends, and the potential for a sudden price "jump" in either direction.

The basis of skew is that even though options are founded on a risk-neutral concept, market participants have risk profiles that affect the supply-demand relationship of the options market. For example, many equity and ETF option traders tend to sell upside calls and purchase downside puts (termed an "options collar") to reduce their overall risk exposure. Given that many participants have predetermined preferences, options with lower strikes tend to have higher implied volatilities relative to options with higher strikes. This supply-demand scenario is manifested in many skew charts.

# **EXPIRING**MONTHLY FEATURE **Trading WITH OR AGAINST the Skew**

Steve Meizinger

Without specific preferences, all strike prices and expiration months would trade at the same implied volatility. Skew is created by differences in supply and demand in the options marketplace and is best identified using skew charts. If you believe the skew is "wrong," the market is either underestimating or overestimating the probability of a large upside or downside move in the underlying instrument. An assessment of the relative risk/reward tradeoff should always be considered prior to implementing any options strategy.

## **EXAMPLES OF STRIKE SKEW**

Let me share a few examples of volatility skew using the Livevol.com skew tool. As a personal preference, when I am looking to analyze the U.S. equity market, I use the S&P 500 ETF (symbol SPY) as a proxy for the market. In the example below, SPY is exhibiting significant negative strike skew. This means that the lower the option strike price, the greater both the implied volatility and the perceived volatility of the market. The negative skew has traditionally been normal for equity markets, although not nearly as steep as in this example. Interestingly enough, the shortest dated options had the lowest volatilities (red and yellow), predicting less movement in the short-term relative to the intermediate-term.

The second example is Apple (symbol AAPL). In this instance, the strike skew is evident but not nearly as extreme (the slope of the line is less). In fact, the longest dated options (shown in purple) have a moderate negative strike skew. Again, shorter dated options were predicting less variance than intermediate-term options. If you compare AAPL to SPY, AAPL was expected to have more "upside" volatility relative to SPY.

In the third example – a gold ETF (GLD) – the strike skew was not evident. In this case, GLD is a good example of an option "smile." The "smile" is apparent when both the higher strikes and the lower strikes have nearly identical implied volatilities. Depending on the time horizon, the smile is either nearly perfect or a bit towards a negative skew, with the upside calls having a slightly lower implied volatility relative to the downside puts. Generally, GLD was more of an option "smile" graph of implied volatilities.



SIGNIFICANT NEGATIVE STRIKE SKEW - SPY



MODERATE NEGATIVE STRIKE SKEW - AAPL



**OPTION SMILE - GLD** 



# **EXPIRING**MONTHLY FEATURE **Trading WITH OR AGAINST the Skew**

Steve Meizinger

The fourth example is a EUR/USD currency pair value (symbol EUU). Currencies price money in relative terms as equities price future earnings capabilities. In this example, the strike skew is negative, especially in the second and third months (yellow and green lines). Intermediateterm options have just a slight negative skew, meaning that in the shorter term the EUR/USD might be more volatile to the downside. However, over the intermediate term there is just a slight preference to more variance if EUR weakened in value relative to USD.

The final example is a bio-tech company, Dendreon Corp. (symbol DNDN). The short-term months (red and yellow) had very low implied volatilities relative to intermediateterm options. Can you believe the gap? This is truly a unique situation that manifests itself when the options market is expecting news that is likely to move the stock in a dramatic way in a few months' time, but not in the shorter term. One potential explanation for this behavior might be an FDA ruling about a certain drug/product that would significantly hurt the company if the drug/product were not approved. The greater negative skew in the longer-dated options illustrates this market perspective

# DECIDING TO TRADE WITH OR AGAINST THE SKEW

Your trading tactics should be based on your prediction for market movement, or lack thereof, relative to market expectations (in the time period you select). Understanding market skewness, or variance from symmetrical pricing models, can help you select the best options strategy. In order to manage options positions effectively, it is very important to recognize the conditions where a strategy might fail.

How does a trader decide to trade with the skew or against it? Trading with the skew is defined as buying higher valuation options and selling lower valuation options. Trading against the skew is defined as buying lower valuation options and selling higher valuation options. Instinctively, many traders believe that to take advantage of skew opportunities they should plan to buy "undervalued" options and sell"overvalued" options. What does it mean to say that an option is undervalued or overvalued? The valuation of most assets is normally approached on a relative basis. Recall the Black-Scholes assumption for options pricing, that volatility is assumed to be constant throughout various strike prices and expiration terms.



SKEW - EUU



SIGNIFICANT NEGATIVE STRIKE SKEW - DNDN



# EXPIRINGMONTHLY FEATURE

Steve Meizinger

That's a nice assumption, but it is rarely (if ever) true. Assuming there is a trading skew in most options classes, is it better (more effective) to buy options with lower implied volatilities versus options with higher implied volatilities? Though volatility differentials tend to expand or contract over different strike prices and expirations months, these movements are actually trading opportunities where you can implement your views in the marketplace. Traders should be wary of making blind assumptions about options being "undervalued" or "overvalued." Your trading tactics should never be based solely on the implied volatilities, but also on your forecast for the underlying asset considering the risk and reward tradeoffs offered by the marketplace.

What are the trading implications for trading "with" the skew? In this scenario, the market is willing to "overpay" for a certain strike price or time frame. A trader can purchase the higher implied volatility and sell a different strike price or month at a lower implied volatility. Why would you want to purchase higher-valued options and sell lower-valued options? Your market forecast could mirror the options market (more demand relative to supply creates the skew) where you "give away theoretical edge." Alternatively, you can trade "against" the skew, assuming you forecasted a symmetric event and wanted to "gain theoretical edge" by selling higher-valued options and buying lower-valued options. Trading against the skew is a "reversion to the mean" strategy, meaning that you are implementing an options strategy that benefits from a more normalized trading scenario (think of symmetrical rather than asymmetric underlying moves).

Remember, "cheap" or "expensive" attributions are based on a symmetric mathematical options model. For example, if you believe the market will remain calm in the near-term but that, in the coming months, it's going to become more volatile, you can implement a long calendar position. This is considered trading with the skew if the shorter-dated options are priced much cheaper than the longer-dated options. There are many variations of trading with the skew. The only requirement is that the option you sold has a lower implied volatility than the option you purchased.

### **TRADING ADVANTAGES OF THE SKEW**

If traders have an understanding of current market sentiment, better trading decisions can be made. With insight into market expectations, traders can choose to trade "with" the skew/smile or "against" it. Options traders need to be cognizant of the important function implied volatility plays, not only in pricing, but also as an indicator of potential outcomes for an underlying asset. The options skew is priced to reflect the market's assessment of future risk. Skew is the impact of leverage on an options portfolio. Traders should draw their own conclusions based on their financial goals and risk tolerance, and should learn how to be as efficient as possible in selecting not only assets to trade, but also their strategies. Livevol's skew charts are one tool traders can use to manage their options portfolios more effectively.





# Options Graphics and Data **Charting the Market**

Bill Luby

News of the SEC charging Goldman Sachs (GS) with fraud helped to give the bears a boost on Friday's expiration, as the S&P 500 Index (SPX) registered its largest loss in over ten weeks and helped to spike the VIX up 15.5%.

While it certainly felt like a volatility earthquake, part of the reason the earthquake felt larger than it was is due to the fact that Friday was the first time in six weeks the SPX has fallen more than 1% in a single session.

The graphics below capture Friday's most active options names, which includes more financial and technology names this month than during the last expiration. Not only has the VIX increased (+7.6%) from the last expiration, but so also has the implied volatility of the highest IV stocks.

Even after Friday's spike with the jump in the VIX and implied volatility, 20-day historical volatility for the S&P 500 Index remains depressed. Note that from a sector perspective, the only key sector with spiking historical volatility is the financials (XLF) – and even after today's spike, volatility is still in the bottom half of the sector's 2010 range.

One of the big stories of the last week was record high call volume in equities, as shown in the CBOE equity put to call (CPCE) ratio chart for the last two years and in individual equity put and call volumes for 2010. Of interest to market sentiment watchers, the CPCE ratio 10-day exponential moving average made a new all-time low on Thursday.

Looking ahead to earnings options plays, next week is the heart of the QI earnings reporting season. There are many companies to keep an eye on, but we think Apple (AAPL), Goldman Sachs (GS), Wells Fargo (WFC) and Amazon (AMZN) are likely to be the biggest stories of the week.

		Most active of	ptions (4/16/10)	
Rank	Prev	Underlying	Close	Opt Vol (1000s)
1	1	SPY	119.44	3,040
2	2	С	4.57	3,038
3	5	BAC	18.37	1,227
4	11	XLF	16.32	879
5	4	QQQQ	49.47	855
6	-	GS	161.77	785
7	-	IWM	71.45	714
8	14	GE	18.99	458
9	-	JPM	45.56	438
10	10	AAPL	247.47	322
11	15	GOOG	550.44	302
12	8	EEM	42.48	277
13	7	GLD	111.30	273
14	6	F	13.43	262
15	-	WFC	32.55	211
16	-	FXI	32.34	207
17	12	INTC	23.92	205
18	-	MS	29.16	185
19	22	FAS	103.79	177
20	-	FAZ	12.24	167
21	-	AIG	39.00	160
22	-	CSCO	26.97	143
23	25	MSFT	30.67	131
24	20	DIA	111.20	131
25	-	LVS	22.90	112

Options with highest IV (4/16/10)							
Rank	Prev	Underlying	Close (>5)	IV			
1	-	POZN	10.19	137.11			
2	-	ITMN	45.62	132.88			
3	-	MTSN	5.04	129.45			
4	20	DNDN	38.65	129.01			
5	-	AFFY	23.95	121.61			
6	5	MNKD	6.63	110.43			
7	-	PALM	5.59	105.74			
8	-	MBI	8.87	104.45			
9	-	PMI	7.07	99.60			
10	-	CPE	5.87	98.16			
11	-	CLDX	6.93	94.12			
12	7	CAGC	17.95	90.28			
13	-	VHC	5.52	86.68			
14	9	SQNM	5.80	84.72			
15	-	CCRT	6.05	84.32			
16	-	BANR	6.62	83.91			
17	16	IRE	9.22	83.20			
18	10	WNC	8.27	83.13			
19	-	DRN	183.00	82.16			
20	-	MDTH	10.71	81.86			
21	-	STEC	13.39	81.80			
22	-	INFI	6.53	80.32			
23	-	RDN	17.91	80.01			
24	-	ISSC	5.65	79.51			
25	-	EK	7.37	79.26			



# **Options Graphics and Data Charting the Market**

Bill Luby



SPX 30 day IV to 20 day HV







Select Sectors 20 day HV



2 Year History CBOE Equity Put-Call Ratio



# **Options Graphics and Data Charting the Market**

Bill Luby



**AAPL Earnings Preview** 





**GS Earnings Preview** 

**AMZN Earnings Preview** 



**WFC Earnings Preview** 



# Using **Skew to Trade Direction**

Mark Sebastian

As a floor trader, I always tried to use skew (sometimes called option smile risk) to my advantage. If I sold an option at a relatively high implied volatility (IV) along the skew curve, I would try to buy something that had a lower implied volatility along the skew curve. If I bought something that was relatively cheap along the curve I would try to find something to sell that was relatively expensive along the curve. Trading this way does not make much sense for the average off-floor trader. This style requires lots of margin, cheap execution and top quality analytics. However, this does not mean that traders should ignore smile risk. There are many ways that small and intermediate traders c an use skew to their advantage. One of the simplest concepts that almost any trader can understand is that of using skew to structure directional spreads.

The first step in using skew to trade directional spreads is to get a brief understanding of how to evaluate the skew. Here is an easy way to do so:

Suppose XYZ is trading at 20.00 and has a smile that looks like this: (see table 1)

In a vacuum, this information is not that useful to us. However, for a trader who has become familiar with the product or who has access to historical skew implied volatilities, there is a wealth of information available. The first thing I would do would be to add a new column to the information - % of at-the-money (ATM) implied volatility:

Stocks move around frequently, and this makes evaluating a given strike almost impossible without having some way to evaluate it relative to the price of the underlying. The simplest and easiest way is to use delta to evaluate skew instead of using the actual strikes. It hard to know what the 25 strike IV should be because the stock could be at any price when traders look back at historical data. However, if I look at the second table I can see that the 25 delta call is 88% of the IV of the ATM call, and the 75 delta call is 120% the IV of the ATM call, etc. Now, if the stock moves around I have a basis on which to judge the skew. No matter where the stock price is, if the 25 delta call is anything other than 88% of the ATM IV I will know that the skew has moved. (see table 2)

Let's say that the XYZ stock drops from \$20.00 to \$15.00, creating this skew curve: (see table 3)

Strike	Deita	IV
25	25	22
20	50	25
15	75	30
10	95	39

Table I

Strike	Deita	IV	% of ATM IV
25	25	22	88%
20	50	25	100%
15	75	30	I 20%
10	95	39	I 56%

Table 2

Strike	Delta	IV	% of ATM IV
25	25	26	<b>76</b> %
20	50	30	88%
15	75	34	100%
10	95	45	132%
Table 3	-		-



# **Using Skew to Trade Direction**

Mark Sebastian





Looking at this XYZ option chain, I can now see that the skew has shifted. The 25 delta call is still 88% of the ATM IV, but the 75 delta call is now I32% of the IV. The skew got much sharper on the downside of the curve. Traders now have a way to evaluate the curve. If over a set period of time, say several months - or even several years - the 25 delta call is always around 88% of the ATM IV and the 75 delta call is always around 120% of the ATM IV, I have usable information to help me evaluate the skew.

Looking at the skew in figure 3, if I want to take a bearish position on XYZ, how could I use my knowledge of skew to pick the credit spread to sell? The most common approach for credit spread traders is to sell the ATM call and buy an OTM call for protection. In this case it would be selling the 15 call and buying the 20 call. Is that the best trade in this situation? The 25 delta call is at its typical skew relative to the ATM option. While this spread will make money if XYZ drops in price, there may be a better trade. What about selling the in-the-money call spread? The 75 delta call's IV is normally 120% of the ATM IV. Currently it is 132%. If I put on the 15/10 credit spread, I am selling the 75 delta call at a relatively higher IV than I normally can. This means I am also getting a bigger credit for selling the option. If I can sell the 10 calls at a higher than normal price, while buying the 15 calls at their normal relative IV, I put myself in a better position to win on this trade. In fact, it is possible to make money on this spread even if XYZ does not drop, i.e., if the skews quickly return to normal levels. In this case, traders would see that the 75 delta call is overpriced and would put selling pressure on the strike.

Understanding skew is not a simple matter. Traders could spend a lifetime gaining an understanding of smile risk. Smile has so many forms and functions across the volatility sphere, it is easy to get lost. But by pulling out small pieces of this available knowledge and applying it to an existing bias or opinion, a trader can improve her performance.



# The Monthly Option Report

Adam Warner



So I'm in this geeky AL Fantasy league, and we get together at some bar in New York each year for our annual auction. I'd regale you with tales of exciting moments, like the bidding for Curtis Granderson, but I imagine you're here more for the options scoop. And yes, there's an angle here. I'm sitting next to a guy I knew from my AMEX market-making days and we're talking volatility. Seriously.

He reminded me of a point we all inherently knew as market makers but that requires constant reinforcing out here in the fields. You don't "buy" falling volatility, you buy rising volatility. I don't care how cheap an option looks in volatility terms relative to where it's been. I don't even care whether I bottom tick the implied volatility. All I care about is whether I can justify the volatility I paid for the option by the volatility going forward in the underlying instrument.

As we know all too well, if the market in 2010 has proven one thing, it's that you just can't always get options cheap enough fast enough.

Now, let's get something clear. This discussion refers to the general concept of owning volatility as a play on ......volatility. As a market maker, you trade the opposite side of order flow. So many's a time you say you will not buy another option, then 10 seconds later they sell you more below your posted bid. As a trader/investor you have no such issues, though, so you can position yourselves any way you choose and that your capital allows.

But there are other reasons to own options besides the volatility bet. Let's say you sit on a nice gain in a particular name. And suppose you want to lock some of that in while still standing to gain if it keeps rallying. Well, even though option volatility has not gotten low enough, it's certainly on the cheaper end of the spectrum. The stock's probably near a local high as well. You certainly can't go wrong replacing a stock long with a call long. Or, if tax considerations make that an expensive proposition, you can hold the stock and buy puts instead and turn your position into a synthetic long call. Another thought? Buying index puts to protect a whole portfolio.

What I would avoid like a Toyota rental, though, is buying "cheap" volatility products. Buying VIX futures or VIX calls or VXX makes zero sense for anything other than a very short-term trade. Here's what you have going against you:

• You're fighting a broader trend in volatility which is simply down, down, down. There's no "value" angle here like in, say, a battered stock. Options are only worth what the stock action bears. And there's no "right" volatility level.

• You're overpaying for options volatility relative to stock volatility, even at the low levels you see on the board now. Yes, there are positional reasons to buy options, as we noted just above. But that's the extent to which I would go with it.

• You're overpaying with VIX products relative to actual implied volatility. Remember always that you can't buy "spot" VIX anything, only futures, and an ETN based on the futures (VXX). They've traded at essentially a permanent premium for all but a few days over the past 9-10 month's. With the VIX in the mid 16's recently, for example, you could buy April VIX for 18ish or so, which sounds fine except all that did was give you a soon-to-expire bet on where the VIX will close on one specific day a couple weeks later. For a longer play, in say May, you had to pay a nearly 4 point premium.

The bottom line point I'd like to make here? By all means, buy options when you want or need them, but avoid trying to catch a falling volatility knife, especially in actual volatility products.



# Follow That Trade

Jared Woodard

On February 3, the SPDR Gold Trust (GLD) closed at \$108.70. The commodity looked relatively range-bound based on recent price action, such that a net sale of short-term options was worth considering. At about 20%, implied volatility in gold options was at middling levels, but not high enough relative to recent historical volatility that I wanted to be short vega, so I opened the following double diagonal:

QTY	Underlying	Expiration	Strike	Right	Price	Implied Volatility
+40	GLD	March	116	Call	\$0.88	21.22%
-40	GLD	February	114	Call	\$0.35	20.48%
-40	GLD	February	105	Put	\$0.47	20.30%
+40	GLD	March	103	Put	\$1.05	20.92%
Delta: 109.08 Gamma: -14		19.69 Theta: 63.27			Vega: 412.65	
2/3/10 Net Debit \$1.11			GLD at \$108.70			Open P/L: 0

The risk profile for the position is below.



Source: thinkorswim.

GLD dropped almost 4% the following day. Consider the resulting changes in the position:

QTY	Underlying	Expiration	Strike	Right	Price	Implied Volatility
+40	GLD	March	116	Call	\$0.59	25.95%
-40	GLD	February	114	Call	\$0.17	27.32%
-40	GLD	February	105	Put	\$2.43	24.22%
+40	GLD	March	103	Put	\$2.86	24.51%
Delta: 724.50 Gamma: -		Gamma: - I I	18.92 Theta: 105.70		0	Vega: 415.43
2/4/10 Positi	ion Value \$0.8	5	GLD at \$104.37			Open P/L: (\$1040)



# **Follow That Trade**

Jared Woodard

As you can see, implied volatilities rose across the board by 4-7 points, with bigger IV gains in the front-month options. This is a good example why it is important to recognize the horizontal skew present in any position involving multiple expiration cycles: implied volatility does not rise and fall uniformly across each cycle, so it is necessary to have an accurate estimate of how changes will be reflected in different months. In this instance, the position clearly was not structured in anticipation of a large single-day move. I'm not a big believer in "adjustments," since they usually function as a way of letting in discretionary and psychological biases to influence otherwise sound and carefully-planned trades. Had the underlying not rebounded promptly, I would have hedged the deltas or perhaps closed the position entirely.

By February expiration, gold had recovered to close at \$109.74 – meaning that the February options expired worthless. The \$3280 credit from the expired February options was partially offset by losses in the long March options: with the 116 calls valued at \$0.72 and the 103 puts priced at \$0.62, the total position profit at February expiration was \$920. Since GLD was basically unchanged since the position was opened and the range-bound price thesis had played out well, I sold the 114 calls and 105 puts in the March cycle to turn the position into an iron condor:

QTY	Underlying	Expiration	Strike	Right	Price	Implied Volatility
+40	GLD	March	116	Call	\$0.53	22.46%
-40	GLD	March	114	Call	\$0.82	21.62%
-40	GLD	March	105	Put	\$0.9 l	21.27%
+40	GLD	March	103	Put	\$0.54	22.05%
Delta: 51.30 Gamma: - I		8.92 Theta: 105.70		0	Vega:-154.34	
2/22/10 Posi	tion Value -\$0	).65	GLD at \$109.07			Open P/L: (\$160)

Gold behaved even more agreeably in the March cycle, and closed at \$108.28 at expiration. Since all four legs of the position expired worthless, no closing trades were necessary, and the final profit on the trade was \$2480.



# Options 102 Selling Vertical Spreads

Bill Luby

Why does the options trading world have such a small middle class? For whatever reason, I seem to come across quite a few beginners and advanced practitioners, but a relatively small number of options traders who I would describe as somewhere in the middle. How does a beginning options trader grow his or her skills and expertise? What are the important obstacles to overcome? How does one make the transition from a wide-eyed beginner to a successful veteran?

While there are many ways to answer this question, I am going to risk oversimplifying the options universe by highlighting one strategy which I believe is essential to transforming a beginner into an intermediate options trader: selling vertical spreads.

I have chosen to hone in on selling vertical spreads because I believe that for many who are relatively new to trading options, the most difficult jump to make is leaving the comfort zone of buying puts and calls and moving on to strategies that include the purchase and sale of multiple options legs. In this context, acquiring comfort and expertise in selling vertical spreads accomplishes three important objectives:

- I) involves multiple options legs
- 2) encompasses short options positions, with limited risk
- 3) provides a foundation for more complex and sophisticated options strategies

A vertical spread is simply the sale of an option and the purchase of the same number of options - either puts or calls – that have the same expiration date, but a different strike. In terms of nomenclature, when this is done with calls, the more expensive option will be the one with the lower strike, so if the short option is the lower strike, this is considered a short vertical spread (or call credit spread); if the short option is the higher strike, the position is a long vertical spread (or call debit spread.) Alternatively, if puts are used, the more expensive option is the higher strike. If the higher strike is short, this is a short vertical spread (put credit spread); if the lower strike is short, the position becomes a long vertical spread (put debit spread.) An easy way to keep track of the terminology is to consider that the higher priced option will always be closest to the money; if the leg that is closest to the money is short, then whether the transaction makes use of puts or calls it will be a net credit and the resulting position will be a short vertical spread. If the leg closest to the money is long, the transaction will be a debit and the position will be known as a long vertical spread.

A succinct way to think about short vertical spreads is as the sale of a naked put (call), with the purchase of a another put (call) farther out of the money as insurance in the event the underlying does not move in the anticipated direction. In other words, short vertical spreads are simply short puts or calls with training wheels.



# **Options 102 Selling Vertical Spreads**

Bill Luby

In addition to the reasons cited earlier, beginning options traders should be attracted to short vertical spreads because these positions capitalize on the predisposition most beginning options traders have for trading with a directional bias.

An example may help to illustrate one way to approach short vertical spreads. The chart on the previous page captures the price action in Intel (INTC) following its after hours earnings report on April 13 and subsequent gap up on April 14.

A trader who anticipates Intel will maintain its bullish momentum might prefer to sell some puts rather than buy calls in order to have time decay working in their favor. With Intel closing at 23.52 on the day following the earnings report, the May 23 puts were last quoted at 0.47 -0.49 and the May 22 puts, were quoted at 0.20 - 0.22. Ignoring commissions, the options trader would receive a 0.27 credit for the simultaneous sale of a May 23 put and purchase of a May 22 put. For 10 contracts, this works out to a \$270 credit. At expiration, four weeks and two days later, if INTC is still above 23.00, the trader keeps the \$270 premium and both the short May 23 puts and long May 22 calls expire worthless. In fact, the \$270 credit means that Intel can drop 0.27 below the 23 strike level to 22.73 before the trade breaks even. This means the position can withstand a 3.4% drop in the price of INTC at expiration before the short vertical spread begins to lose money. The maximum loss for this position is \$1000 minus the initial credit of \$270 or \$730 and would be incurred if INTC was at or below 22.00 at expiration. The maximum loss is calculated as the difference between the strikes (1.00) multiplied by the number of contracts (10) and the options multiplier (100 shares for each INTC options contract), minus the initial credit.

Short vertical spreads can have a bullish bias – as was the case above – or a bearish bias. Returning to the Intel example, should a trader believe that INTC is running out of momentum as it approaches previous highs of May and August 2008 (not shown in chart), he or she could sell a vertical call spread instead. As traders tend to favor selling strikes that are slightly out of the money in order to maxi-

mize the net premium collected, in the bearish case the trader would likely target the first strike above the most recent price and sell the May 24 calls, offsetting this with a purchase of the May 25 calls. At the closing prices as of April 14, this trade would generate a credit of 0.23 or 0.24 per contract.

Once the short vertical spread position has been opened, traders should manage the trade primarily by monitoring the price action in the underlying. In the first Intel example, the trader is bullish and would look to cover the short puts or close out both legs should INTC start to sell off. Looking at areas of technical support on the chart, the technical trader would likely exit the short vertical spread should INTC break critical resistance levels with the closing of the recent gap at 22.80 or at prior March and April support at 22.25.

In addition to monitoring the price of the underlying, the short vertical spread can also be negatively impacted by an increase in volatility. The is due to the fact that the short position is the larger one and is closer to the money, so an increase in volatility will have a larger impact on the price of the short leg than the long leg.

Once a trader becomes familiar with trading short (and long) vertical spreads profitably, he or she can easily graduate to iron condors, which are simply simultaneous short vertical call spreads and short vertical put spreads. Eventually, traders will be tempted to dabble with the sale of naked puts and calls, without the training wheels. Here the approach is largely the same as it is with a short vertical spread position, but the consequences for being on the wrong side of the trade are much more severe.

In sum, short vertical spreads are excellent strategies for beginners and seasoned professionals. They can be employed as directional trades, take advantage of time decay and have limited risk. For the beginning trader, short vertical spreads provide an opportunity to become comfortable with short options positions and multiple options legs. Better yet, they help to lay an excellent foundation for more sophisticated strategies, such as iron condors and the sale of naked puts and calls.

# An Interview with **Jim Bittman**

Mark Sebastian

I first met Jim Bittman in 2006 as a market maker at Group I Trading - he had asked me to give a small discussion on the role of market making. As I have gotten to know Jim personally, I have found him to not only be interesting and insightful on the market, but a great writer as well. I was delighted when he agreed to sit down with me for a few minutes and talk shop. In our discussion, he highlighted some concepts that are important to all traders, not just the newer traders that Jim typically teaches at the Options Institute.

# How did you get into options? How did you get into the education business?

Back in the late 70's, the options industry was a new and growing business, and a lot of young people left the corporate world to go trade their own account. It was a very different time; it was before computers. Conversions and reversals had just been discovered.

I was trading on the floor very happily when someone asked me to give a tour of the floor, and one tour led to another and so on. This lead to presentations after the bell at the CBOE. This lead to presentations in Chicago, which lead to presentations in New York and Atlanta. The need for education grew and grew. Finally, in the 90s, I had to make a decision. I had two full time jobs: trading and teaching. I enjoyed trading, and I enjoyed talking to people. I liked trading as an individual investor, but I made the choice to teach and trade as an individual as opposed to being a market maker.

# You have written four books - briefly tell us about them.

I have written 3 books in the stock options world. <u>Options for the Stock Investor</u> is a basic book for the beginner in options. It assumes the reader knows about stocks and wants to advance into options. My second book is called <u>Trading Index Options</u>, although a better title would have been "intermediate to advanced option strategies" (but that probably wouldn't have sold many books). That book was designed for the speculative option trader who wants to understand all the different types of spreads that traders may enter. My third book is <u>Trading Options as a Professional</u>. It is designed to explain what professional traders do and how they operate. Even though things are computerized, professionals need to



understand box spreads, conversions, reversals, and how volatility functions in the trading world. My fourth book was on Agriculture Futures.

In Trading Options as a Professional, you make some very interesting observations about selling premium. There are a lot of misconceptions you point out about time decay. One of your most interesting arguments is that the front 30 days is not always the best time to sell premium. Give us a brief synopsis of your argument.

There are too many people saying that time decay is simple and that all options decay in that well known time decay curve. In that curve there is relatively little time decay from 90 to 30 days, and massive amounts of time decay from day 30 on in. That graph is true for at-themoney (ATM) options, but, the further a trader gets out of the money, the more linear time decay is. Inside of 30 days to expiration, when a traders position is 10% or more out-of-the-money (OTM) for normal volatility levels, the trader will find that decay is more convex than concave. The most optimal time decay for 10% out of the money options in normal times is actually in the 60 day to 30 day time period.

Now, there is always a trade off; if one sells a 30-day option 10% out of the money and the stock gradually runs near the strike price, that option will still likely end up worthless at expiration. At 60 days, if the market gradually runs toward a given strike price, it is possible that the delta will equal the time decay. The fact is that trading is an art and not a science.



# An Interview with **Jim Bittman**

Mark Sebastian

# Expand on the convexity of options in the final days of a cycle.

The option pricing model would have a trader believe that a five to seven standard deviation event is virtually impossible. Therefore, an OTM worth three cents should trade there. The reality is that there are far more of these unusual events than the model would indicate. In a major event, these options with two or three cents in value can explode to be worth five dollars or more. This happens more often than people realize. That is why these options don't trade for free; they can easily turn into ten or twenty dollars. Professional market makers realize this and thus are almost always willing to buy these options back. There are a lot of hidden risks in trading. Unless you have experienced them, you would not imagine that they exist. Just in the first decade of this millennium, look at how many stocks lost 95% of their value, not once, but twice! From 2000-2002 we had numerous tech stocks just crash and burn. Several recovered only to crash and burn in 2008-2009. Stocks that survived 2000-2002 unscathed like the banks and industrials ended up crashing in 2008-2009. It can happen to you and probably will happen to you, so traders have to be careful.

### You traded on the floor in 1987. Tell us about that.

Prior to 1987, it is somewhat safe to say there was no volatility skew in options on stocks. If the implied volatility (IV) of a stock was 20, the OTM put and OTM call would have an IV of 20 as well. The crash of 1987 brought us skew.

# If traders didn't know Skew existed, could a trader have made a killing trading ratios and collars prior in 1987?

If the market assumes skew is not there, then it is not. No one is bigger than the market. If you made trades assuming that skew would be there, or attempting to profit from skew that should be there when it wasn't, you wouldn't have made any money. If a trader would have said "the 10% out of the money has the same implied volatility as the 5% out of the money so I am going to sell the 5% out and buy the 10%," thinking that IV would go up in the 10% out of the money option, the trader wouldn't have made money because the 10% OTM option never would go up in value.

### Even if skew wasn't priced into the option market, why does skew exist? Wouldn't the tendency of stocks to gap down and run up made skew profitable?

There are several reasons why skew exists. The main

cause seems to be demand for cheap out of the money options. To the investor, a dollar option seems cheap. To the market maker that might seem expensive. The market maker is spreading the option that has the high implied volatility against a lower volatility option, hoping that as expiration approaches he can make money. The next reason is as you said. But that isn't a theoretical thin - it has more to do with historical evidence. The problem is that from 1980-1987 we were in a big bull market. Traders wouldn't have noticed the skew. People thought stocks only went up. That was one of the contributing factors to the crash: everyone thought the market only went up. So if a trader was aggressive, he or she sold options 5% out of the money, and if the trader was conservative, the trader sold options 10% out of the money. How does the market solve this misconception? It drops 20%!

### What do you think is going to come out of 2008?

The lesson of 2008 was the same as 1987: a bear market brings all stocks down a lot farther than a trader thinks will happen. It's the classic case of "*it can get worse than you can imagine*". Traders have to take losses and have to buy protection.

# What would you say are a few misconceptions out there for retail traders?

One of the big misconceptions is that retail traders should trade the market leaders. The idea is that the more volume - the more activity there is in a stock - the more efficient the stock is and the market is. But traders should really do their own research and trade stocks that they find. If I am following a chart of a stock that isn't on the front page of newspaper, I have a much better chance of catching a trend early or recognizing an opportunity that many do not see. If the stock is a top mover over the last six weeks, there is no advantage because I am just one of thousands of people trading it.

The second point to emphasize is that there is no such thing as a free lunch. Traders have to know what their risks are and decide to take those risks. In that process, the trader must know his or her risk limits.

## Any closing thoughts?

The most important thing in trading is to work steadily. It doesn't matter if you spend a few hours a week or a few hours a day, the most important thing is consistency. Spend a little bit of time regularly, don't just do some research and then come back a month later and do a little more. Don't let things go for too long in between work.



# Pro and Con Paying for Specific Investment Advice

Jared Woodard & Mark Wolfinger



## Mark

Everyone wants to make money in the stock market. I'm a strong believer in investor education, but too many novice investors are impatient to learn, and want money now. At some point, those beginners realize that money is consistently being lost.

Recognizing the difficulty of earning profits, many investors seek 'expert' advice. That raises the question: Who is an expert? Who is qualified to sell stock market selections to others? To the person seeking that advice, too often the answer is 'that guy on the Internet; the one who has made so much money for his clients.'

Because most people (professional money managers included) cannot outperform the stock market averages, the question is: Why believe that someone who claims the ability to 'pick winners' is credible?

The Internet makes it far too easy for anyone to establish a web presence, claim success in the markets, and sell 'picks' – charging substantial fees. True, caveat emptor applies, but few people do their homework.

I've always felt (no proof, just a feeling) that anyone who has an excellent track record of making winning trades would never sell that valuable information. There's too much money to be made by keeping it secret.

When subscribing to a service that recommends option purchases, the chances of success become even more difficult. Buying options only works when the buyer can correctly predict market direction, market timing, and the size of the move. Anyone who has those skills is not going to be offering them to the public investor. Those skills are too valuable.

Don't pay someone to choose your trades.

## Jared

At the risk of being insufficiently contrarian for this exercise, I'll agree with almost everything Mark says. Unqualified vendors have been overcharging credulous customers long before the Internet came along, and it's an even bigger problem now. I think every trader should be skeptical of advisory services and newsletters by default, and should assume that, without some really good contrary evidence, any given advisory service isn't worth the cost (or, worse, will actually lose them money). But there are two kinds of information worth paying for: advanced education and strategy access.

## **Education:**

No one should pay substantial fees to learn the basics of options trading – there are too many good books available – and if a trader doesn't have the discipline to teach herself the basics, quite by definition she doesn't have the discipline required to be consistently profitable. However, paying for an advisory service or newsletter to learn about advanced topics or complex strategies can be worthwhile, especially if that education is likely to save you time and money. For topics like delta hedging, gamma scalping, multi-legged option spreads, etc., there's definitely nothing wrong with finding someone to help make difficult concepts clearer.



# Pro and Con Paying for Specific Investment Advice

Jared Woodard & Mark Wolfinger

### Strategy:

I don't agree that someone with a successful strategy won't sell the signals produced by that strategy. That's just another way, after all, of describing what every money manager in the world is doing – providing, for a fee, the signals produced by whatever strategy the manager employs. And unless the advisory service or money manager distributes their information too widely, there's no plausible negative effect from giving customers access to the information. Jim Simons (founder of Renaissance Technologies, one of the most successful hedge funds) and some humble strategy provider are different in degree, not in kind: they both provide information to customers. Where retail customers get into trouble is when they pay for strategy access without first confirming the value of the strategy. Long-term risk-adjusted performance is the only thing that matters. When evaluating performance,

traders should have enough basic knowledge of statistics to differentiate worthwhile strategies from the rest.

Here's a key that'll save you a lot of time: the tone of a service provider's marketing will tell you a lot about them. Absurd performance claims, pushy or artificially folksy sales copy, and the absence of hard data are usually indicative of a worthless service.

I should disclose for anyone who doesn't know that I publish an educational newsletter that includes some live trades among the content – that is, I aim to offer both advanced education and strategy access. Whether my service can meet the standards I've laid out above is for others to judge. What matters, really, are the standards: mastery of the relevant content and demonstrated performance are essential, whether you're evaluating a service provider or your own trading.





# The Complete Guide to Option Strategies by Michael D. Mullaney" BOOK REVIEW

Mark Wolfinger

John Wiley & Sons, Inc., Hoboken NJ, 2009, \$95

This book caught me by surprise.

When I first picked it up, my initial impression was extremely favorable. From my notes: 'Here is a writer I can admire. I agree with his way of teaching the novice about options. He mentions that options are probably the most versatile trading tool today.'

He had my complete attention, and I was still reading the preface. Alas, the book did not end there. The Complete Guide began with so much promise, but made a complete turn-around only a few pages later.

Quoting from the book; "this book avoids shortcuts when describing options strategies, so it gives you a full and complete understanding."

Despite that statement, the book is filled with shortcuts. In fact, the author goes out of his way to avoid details. Readers come away from this \$95 book with nothing more than the most rudimentary idea of how to use options.

Simplification is not bad – as long as shortcuts or inaccuracies are later clarified. Mullaney never gets there. One example of gross oversimplification: Both the 10-point out of the money (OTM) call and put (same underlying stock) trade at the same price, and have the same Greeks. Writing an entire book based on this misconception does a disservice to readers. There is no justification for teaching novices when providing incorrect information.

## Unique

Mullaney's approach is unique. He divides options into four basic strategies: buy calls, but puts, sell calls, and sell puts. When discussing 'spread strategies,' once again each strategy is subdivided into those same four categories.

For example, when discussing vertical spreads (buy one call and sell another; same expiration date), he provides four (of what he calls) complete descriptions: the 'call debit spread' (his preferred terminology), call credit spread, put debit spread and put credit spread. That's four separate discussions. Four sets of data, tables and graphs. To coin a term, that's 'quadruplication,' and one way to produce a 556 page book.

# THE COMPLETE GUIDE TO OPTION STRATEGIES

Advanced and Basic Strategies on Stocks, ETFs, Indexes, and Stock Index Futures

Michael D. Mullaney

Some tarnish could have been removed had he mentioned that some spreads are equivalent to others (call debit spread and put credit spread). But his thought process requires that these are four distinct strategies.

This procedure is continued for each spread strategy. I admire the number of spread strategies covered. That's one positive element and the reader can learn how specific strategies can be used to make money.

## **Author's Preferences**

Included in the text are the author's suggestions for traders. Those include: use technical analysis to determine entry points, and always open positions with a minimum 75% probability of success.

He ignores the fact that learning to use technical analysis is an arduous task. He doesn't grasp that handling risk when selling OTM options (the 75% probability trade) is beyond the capability of new traders.

Despite every other flaw in the book, this is the one that stands out from the rest:

"If you are confident in your ability to predict direction, timing, and magnitude, you may prefer to buy a call or put. If you are uncomfortable with being so precise, you may want to sell options."

In other words, if you have the skill to know where the market is going to move next, and if you know when that



## **Book Review**

Mark Wolfinger

move will occur, and if you are confident you know how large this move will be, then buy calls or puts.

Never mind that there are almost zero people in the world who have this skill on a consistent basis. No matter that the vast majority of highly paid, professional money managers (such as those who manage mutual funds) lack those skills. He expects his (novice) readers to believe they have those skills.

And for those who recognize they lack that ability, the advice is to sell options.

In other words, if you can predict well, then buy options. If you cannot predict, then sell. There's no mention of risk. This advice is offered on page six and the remainder of the book is based on the assumption that you accept Mullaney's thesis. This is not oversimplification. It's bad advice.

When writing a negative review, there's no need to provide all the details. But this book presents so many incorrect ideas to readers, that I believe it's important to correct the record.

 Referring to spreads: "If both strike prices are in the money, you may be assigned on your short option." Apparently he is unaware of the automatic exercise of ITM options.

2) Mullaney sells far out of the money (FOTM) options – defined as any option with a delta less than 25. Those are not FOTM by anyone else's definition. Selling such options (naked or as part of a spread) is far riskier than described in this guide.

3) Selling FOTM options "offers a statistical advantage." Why? Selling an option with a 2-point premium means the stock must move above the strike by 2 points for the seller to break even. That extra 2 points is the 'statistical edge.' He overlooks the fact that selling options at their fair value offers no edge. He ignores the fact that a seller may be forced out of the trade prior to expiration (due to increasing risk). In the quest for simplicity, he doesn't respect the fact that selling OTM options can quickly wipe out a brokerage account.

3) "A diagonal spread can consist of the *purchase of a call* (or put) option and the simultaneous sale of a call (or put) option with different strike prices and expiration dates."

"Likewise, a diagonal spread can consist of the sale of a call (or put) option and the simultaneous purchase of a call (or put) option with different strike prices and expiration dates."

Talk about redundancy! He tells readers that buying one call and selling another is the same as selling one call and buying another. Buy and sell equals sell and buy. Amazing.

#### Conclusion

I appreciate original thought, and Mullaney offers a great deal of that. However, originality is not sufficient by itself. The original thoughts must have merit.

Here's my simplified review of this book. Do not buy it. It's not even heavy enough (despite the number of pages) to use as a doorstop.



# After the Financial Crisis, OptionsProving Their Worth

Jim Binder

Periods of economic stress can spur changes in the way different market participants act, and the recent financial crisis is no exception. Investors of all types were left wondering what they could have done and how they could protect themselves in the future. From our vantage point at The Options Industry Council (OIC), it appears many of those investors are looking to options to answer those questions.

There have only been two cases where a significant bear market didn't cause a reduction in options trading. The first case barely qualifies, since it was at the inception of the exchange-listed equity options market in the spring of 1973. Trading volume rose every year after that until 1988. The second case was the financial crisis of 2008. Unprecedented trading volumes in September and October 2008 helped drive a new annual options volume record - 25 percent higher than the previous record set in 2007. This occurred despite trading in November and December dropping to levels not seen in years. January 2009 continued that trend, with volume falling 28 percent below that of January 2008, prompting predictions that options trading activity could fall nearly 20 percent for the year. However, as investors began to come back to the market particularly as equities bottomed in March - options trading began to recover. Ultimately, 2009 set a new annual volume record. The new record was only 0.8 percent higher than 2008, but it was achieved without the volume spikes that characterized the previous period.

## **Evolution of the Marketplace**

A key reason trading levels held up this time was a changed environment, in which options have become a much more mainstream investment tool than during past market breaks. As investors coming out of 2008 asked what they could have done and how they could protect themselves in the future, many realized that options could be the answer—and that the answer wasn't entirely unfamiliar.

Following the 1987 Crash and the recession of the early 1990s, the options exchanges and The Options Clearing Corporation pooled their resources to form OIC to educate investors in the responsible use of equity options, including information on the benefits and the risks involved. OIC began educating investors in 1992. CBOE's Options Institute began operation well before that. Since then, many brokerage firms have put together very good



options education programs for their clients. Even the less reputable educators were still part of an overall environment where investors had some sense for options and what they can do.

### Awareness to Action

Demand for options education has been at heightened levels the last couple of years. OIC instructor Joe Burgoyne noted that there is a real hunger for education as people look to have greater control over their finances. An example of this was a recent OIC Investor Education Day in California that saw around 350 people spend an entire Saturday learning how to incorporate the responsible use of options into their investment strategies. These day-long options education programs provide instruction at a number of skill levels and include OIC partners that bring a real-world view of the options marketplace. Burgoyne added that he is finding investors are putting the education to use more than has been the case in the past.

If the financial crisis spurred individual investors to seek out more education to take advantage of the versatility options can offer and assume more control of their financial future, a large segment of financial advisors was right there with them. Eric Cott, OIC's Director of Financial Advisor Education, talks regularly with advisors who want to learn more about options. The last couple of years have been difficult for these advisors and they understand there are ways they can better protect their clients using options. They also understand that in the post-crisis environment, knowledge of options can help them differentiate their business in order to retain and gain clients. Advisors' professional organizations have also seen the value options can bring and several have or are looking at increasing options continuing education efforts.

# After the Financial Crisis Options **Proving Their Worth**

Jim Binder

## Institutional Wake-Up Call

The segment of investors whose view of options was perhaps most impacted by the 2008 crisis was the institutional investor. Phil Gocke, OIC Managing Director, said many institutions had thought diversification was all they needed. During the financial crisis, however, all of these diversified instruments became highly correlated. He said this was a wake-up call for institutional investors to use techniques to protect their portfolios that they had avoided before because they didn't fit into a traditional stylebox.

Long-only funds did not use options in the past because it was not permitted by their charter, though this is now beginning to change. Foundations, endowments and pension funds are all starting to understand that options, properly used, allow them to protect on the downside and participate on the upside. Gocke said that institutional investors are also gaining greater appreciation for the versatility of options. In the current low interest rate environment, he noted a move toward the yield enhancement found in buy-writes.

Still, much of the focus for institutional investors remains on risk management, and the move toward using exchange-traded derivatives for this purpose by investment professionals has only begun. Gocke said these professionals have had a massive amount of money at risk and they're seeking new ways to protect that principal. This points to steady growth in the options market in the future.

Jim Binder is the Director of Public Relations at The Options Industry Council. Previously he was Managing Editor for the Standard & Poor's newsletter Securities Week.

# Back Page Don't Let the RNC Be Your Guide

Mark Sebastian

If a trader listened to FOX News exclusively, what would be his or her market sentiment? The trader would be the biggest bear on Wall Street! If a trader only watched MSNBC, the trader would likely be a strong bull. Shockingly, this is one common problem that has plagued many an independent trader over the last year. I cannot count how many of my mentees and students have said things like: "There is no way the rally can continue with what is going on politics!" Or: "With the direction our country is headed, how can this bull market possibly continue?" Yet the market indexes have rallied in these traders' faces for over a year now. Why? Here is a bit of information for the traders out there that don't like the current administration: the RNC and the DNC do not dictate which direction the SPX is heading.

### Politics and trading are a terrible combination.

Political parties are centered on one thing, namely, getting and keeping as much power as they possibly can. News reporters are focused on one thing, namely, getting the highest ratings possible. Hilariously, the 24-hour news networks and the political parties are almost a team. The political parties stir up panic and fear, the news networks report it: both sides get attention and ratings because fear and doom have a strong ability to pull in viewers. It is irresponsible of both our political leaders and the networks to act this way, but I don't think being responsible is a high priority on either side's list.

The facts are that much of what is done in Congress takes years to affect the economy. The economic stimulus package, approved via a bill that was supposed to be 'fast acting', still has not been entirely allocated. Those funds will take even longer to affect the real economy. An even better example is the health care bill: this bill has many convinced of the impending doom of the American economy. Yet it doesn't have any major provisions that affect health care until 2014. Whether the bill itself is effective or not will not be known for many years. We can know for certain that its true economic impact will have nothing to do with non-farm payrolls, durable goods orders or initial jobless claims for at least a few years. Essentially, political leaders want the American public to worry about the present, despite the impact of policies not being felt for years.

One widely-held assumption about the market (the weak-form Efficient Market Hypothesis) holds that all



the available public information is priced into the stock market. What does this really mean? For investors, some of what political parties do matters. For example, an investor that holds a large amount of United Health Care (UNH) may decide to adjust his or her position based on what is happening in the political landscape. While the market has priced in what it knows currently, there could be some uncertainty based on how new laws can affect business. Investors think long-term and hold positions long-term, and they need to take into account the long-term effects of policy changes on a position.

Traders, on the other hand, do not hold positions for extended periods of time. Option traders are likely even shorter term traders than the average trader. In my experience, the longest term trades most option traders have is in the 60-day range. If traders assume that the market immediately digests all known information - if all of the known long-term effects of a policy are priced into the market - then there is zero advantage to taking political opinions into account when trading. Even if a trader is certain that a policy will kill the American economy, by the time he has won that war, the intermediate battles may drain his trading account to nothing. Long term policy decisions should not be taken into account when putting on a position. Even if the country is heading for disaster, or heading for an economic boom, there can be factors happening now that can send the market heading higher or lower in the short term. It is so easy to get wrapped up in politics that traders forget about what they are doing: trading, not investing. If traders remember that long term sentiment has little to nothing to do with short term trading, they will quickly see an increase in their ability to trade both directionally and non-directionally. It also may help the trader make proper adjustments.

There are many lessons to be learned from successful traders, but the last time I checked, Keith Olbermann and Glenn Beck have never managed money, worn a badge, or adorned a trading jacket.



# About the **Expiring Monthly Team**



## Adam Warner

Adam is the author of *Options Volatility Trading: Strategies for Profiting from Market Swings* released in October 2009 from McGraw Hill. He co-wrote the options column on Street Insight from spring 2003 to spring 2005, and is currently Options Editor at Minyanville.com.

When not writing, Adam is a proprietary option trader with Addormar Co, Inc. He traded as a member of the American Stock Exchange from 1988-2001, and in several off-floor locations since then.

Adam Warner graduated Johns Hopkins University with a degree in Economics.

## **Bill Luby**

Bill is a private investor whose research and trading interests focus on volatility, market sentiment, technical analysis, and ETFs. His work has been has been quoted in the Wall Street Journal, Financial Times, Barron's and other publications. A contributor to Barron's and Minyanville, Bill also authors the VIX and More blog and an investment newsletter from just north of San Francisco. He has been trading options since 1998.

His first book, *Trading with the VIX*, is scheduled to be published by John Wiley & Sons in 2010.

Prior to becoming a full-time investor, Bill was a business strategy consultant for two decades and advised clients across a broad range of industries on issues such as strategy formulation, strategy implementation, and metrics. When not trading or blogging, he can often be found running, hiking, and kayaking in Northern California.

Bill has a BA from Stanford University and an MBA from Carnegie-Mellon University.





## Jared Woodard

Jared is the principal of Condor Options. With over a decade of experience trading options, equities, and futures, he publishes the Condor Options newsletter (iron condors) and associated blog.

Jared has been quoted in various media outlets including The Wall Street Journal, Bloomberg, Financial Times Alphaville, and The Chicago Sun-Times.

In 2008 he was profiled as a top options mentor in *Stocks, Futures, and Options Magazine*. He is also an associate member of the National Futures Association and registered principal of Clinamen Financial Group LLC, a commodity trading advisor.

# About the Expiring Monthly Team



### **Mark Sebastian**

Mark is a professional option trader and option mentor. He graduated from Villanova University in 2001 with a degree in finance. He was hired into an option trader training program by Group I Trading. He spent two years in New York trading options on the American Stock Exchange before moving back to Chicago to trade SPX and DJX options For the next five years, he traded a variety of option products successfully, both on and off the CBOE floor.

In December 2008 he started working as a mentor at *Sheridan Option Mentoring*. Currently, Mark writes a daily blog on all things option trading at Option911.com and works part time as risk manager for a hedge fund. In March 2010 he became Director of Education for a new education firm OptionPit.com.

## **Mark Wolfinger**

Mark grew up in Brooklyn and holds a BS degree from Brooklyn College and a PhD (chemistry) from Northwestern University. After working as a research chemist for Monsanto Company, in December 1976 he packed his belongings, left a career as a research chemist behind, and headed to Chicago to become a market maker on the trading floor of the Chicago Board Options Exchange (CBOE).

Over the next 23 years, he worked primarily as a market maker, and also held a variety of positions in the industry.

After leaving the CBOE (2000), he became an options educator and stresses conservative methods, as detailed in his newest book (*The Rookie's Guide to Options*).

He currently resides in Evanston IL with his life-partner, Penny.



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