

THE STRADDLE

Making Time **STOP**

Short Sellers & Option Traders as MARKET PREDICTORS The FOMC 3 + 3 Trade

Hard to Borrow OPPORTUNITY?

EXPIRING OPTION TRADERS IOURNAL

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Andrew Giovinazzi



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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. He is also a contributor to TheStreet's Options Profits service.

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.

Jared has master's degrees from Fordham University and the University of Edinburgh.

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 1 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.

Andrew Giovinazzi



Andrew Giovinazzi started his career in the financial markets after graduating from the University of California, Santa Cruz with a B.A. in Economics in 1989. He joined Group One, Ltd. and guickly became a member of the Pacific Stock Exchange (and later the CBOE), where he traded both equity and index options over a 15 year span. During that period he never had a down year.

At the same time, Andrew started and ran the Designated Primary Market Marker post for GroupOne on the floor of the CBOE. It became one of the highest-grossing posts for the company in 1992 and 1993. While actively trading, Andrew was instrumental in creating and managing an option trader training program for Group One.

He left Group One, Ltd. to co-found Henry Capital Management in 2001. Andrew then joined Aqumin LLC (2008-2011) to help bring 3D quoting and analysis to financial data. He is Chief Options Strategist at Option Pit.







Editor's Notes

Bill Luby



What a difference a little central bank intervention makes. With the central banks in the United States, euro zone, China and Japan all doing their best to stimulate the global economy, liquidity is high and volatility is low. It is indeed a different landscape for the financial markets in general and options traders in particular. Let's be blunt: many investors are now having a great deal of difficulty determining how much macro risk to price into options. While it may seem like a contradiction of sorts, some even see more uncertainty and less risk in the current environment.

For the September edition, Expiring Monthly seeks to cover a broad range of topics, from options as a market predictor, to long and short straddle trades, to the interplay between hard to borrow securities and implied volatility.

In Short Sellers and Option Traders as Market Predictors, Jared Woodard examines a recent paper by R. Jared DeLisle, Bong Soo Lee, and Nathan Mauck which attempts to determine whether short sellers or options traders have better informed opinions about the market.

Three articles in this month's magazine address straddles. In Making Time Stop, Mark Sebastian discusses the accuracy of theta and implied volatility inputs into options pricing models and talks about the implications for a Google long straddle position. Elsewhere, I look at a trade I call the FOMC 3 + 3 Trade that attempts to capitalize on increasing implied volatility in advance of FOMC announcements and falling IV after the announcements. In one article I discuss some of the historical VIX data in the context of FOMC announcements and in a follow-up I translate some of this thinking into long and short SPX straddle trades for the September FOMC meeting.

Last but not least, Andrew Giovinazzi has a thought-provoking look at how hard to borrow securities distort some of the Greeks in Facebook options in When Does a Hard to Borrow Situation Present a Volatility Buying Opportunity?

As always, readers are encouraged to send feedback or guest article contribution ideas to editor@ expiringmonthly.com.

Have a good expiration cycle,

Bill Luby Contributing Editor

Short Sellers and Option Traders as Market Predictors

lared Woodard

THE RESEARCH literature suggests that both short selling and options trading activity serve to predict future market returns. Short sellers may be industry insiders or other informed market participants who are positioning themselves based on information that has not yet been discounted by the market. The addition of listed options to the market for an asset has generally been found to provide additional, non-redundant information about future returns over and above the information contained in the equity order flow. A recent study evaluates which type of trading activity-short selling or options trading-is more predictive and whether the two are complementary.

In "Who are more informed, short sellers or option traders?" R. Jared DeLisle, Bong Soo Lee, and Nathan Mauck attempt to confirm whether information from options markets actually is non-redundant and to determine which group of traders is more informed. One of the challenges for any comparison of short sellers and options traders is that there is likely significant overlap between the participants in those two groups. Additionally, the introduction of liquid listed options affects the amount and the efficiency of short selling: some short sellers buy puts or write calls instead, while some researchers have found that options reduce short selling costs. Disentangling the two groups



in order to analyze their respective effects is not easy, and the conclusions in the prior literature reviewed by the authors vary widely.

To test for a relationship, the authors hypothesize that:

"if option traders act independently of or before short sellers, this would indicate informed traders engaging in the options market and supports the theory of non-redundancy. On the other hand, if option traders simply follow the lead of short sellers, then the short sellers are the more informed traders acting in the equities market, and this suggests the options market is not adding any completeness to the equities market and rejects non-redundancy."

The methodology of the test is composed of a regression of option open interest against stock short interest to check for complementarity and a time series regression model against equity returns to examine which type of activity is more informative. The authors use monthly short interest ratios on U.S. stocks from 1996 to 2009 and monthly aggregate option open interest on the same underlyings.

Their conclusions run contrary to much of the existing literature. First, they find that monthly option open interest does not contain information about future equity returns and that options

markets generally "follow" short traders. So short sellers are relatively more informed; however, they also find that since short sellers react more intensely to past negative performance, short sellers are also not especially informed.

We can think of two ways to refine the analysis of this study. By aggregating all option open interest and by doing so at a monthly horizon, the authors include a lot of necessarily "uninformed" activity that may obscure the relevant horizon of informed trading. First, they could consider working with data at a weekly or daily timeframe-including short ratios, open interest, and asset returns-to determine whether the presence of informed trading is detectable in the short term. Second, they could try to filter option open interest to focus on abnormal levels as a potential indicator of informed trading, e.g. regressing





equity returns against open open interest when it is at various percentage thresholds above or below normal.

Other recent studies of option open interest (Kehrle and Puhan (2012) and Fodor, Krieger and Doran (2011)—neither are cited in this paper) have pursued both of these routes, and have found economically significant returns for strategies trading on the information from option open interest. We will follow up on some of these more detailed studies in a future note.

References

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Changes Foreshadow Future Equity Returns? (July 12, 2011). Financial Markets and Portfolio Management, Vol. 25, No. 3, pp. 265-280, 2011. Available at SSRN: http://ssrn.com/abstract=1918778

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Making Time Stop





IT IS INTERESTING that many institutional investors have a deep understanding how high implied volatility in an option can make them money in an option that has been sold, but few truly understand how to make money traders premium from the long side. Today, we are going to walk through a classic example of how a straddle actually makes money from the long side.

When asked how to make money trading a straddle in low volatility, most traders will say either from gamma scalping or from implied volatility going up. In truth the answer is either or both. While in this example we are not going to walk through gamma scalping, it would have worked very well in this example. We are going to walk through IV going up, but in the traditional way most trader look at IV going up. The options we are going to look at are, until the very end, not going to increase in value. In fact, until they end they will not make any money at all.

Let's walk through:

On August 16th a trader notices that GOOG 30 day IV is at an all time low. One could also use VXGOG, but in this case we are looking at LiveVolPro analytics.



FIGURE 1

The trader should note that every time the IV gets this low it quickly increases. The trader intends to trade that pattern, looking for mean reversion.

Now before moving on a quick note on mean reversion. Mean reversion can be tricky, as IV can always go lower or higher in the immediate, if it is executed at extremes, it is rare that the trader will get caught badly by volatility. That said, it is important to be aware that mean reversion is not a 1 or 2 day concept, it is not even a 1 or 2 year concept, it is a lifetime of the stock concept. The VIX goes through 4-5 year periods of being well above and well below the mean. Traders must be aware of cyclicality in IV to set expectations of an IV rebound.

Looking at GOOG there are several ways to play IV, if one has a directional opinion, one can buy or sell a put of call. In this case we are going to look at a straddle. We execute a straddle on Aug 16th.





FIGURE 2

We want traders to notice the Greeks being put out by this pricing model, notice that the high theta that is being produced by the pricing model. Remember, a model is only as good as the inputs, volatility being one of them. If we have a slowly rising IV, that theta number is going to be very wrong. Which is exactly what happens?



FIGURE 3

This is taken a full week later, when according to our model at onset we should have been down close to three thousand dollars. Yet, the position is essentially flat. What happened?

Implied volatility actually increased. While we aren't up money on the position, we are not down money on the GOOG straddle. The slow increase in IV stops theta from actually occurring. When working with institutions, I usually describe this occurrences' 'free gamma.' While not actually free, the trader does have to buy the straddle, because the trader doesn't lose theta over the holding period, the trader has gotten a free look at stock movement. While in this case the GOOG position does not make money, what if GOOG had made a 30 or 40 dollar move over the week. The trader would have had exposure to the move, without having to pay the theta for is.

In this case, while the trader does not make money, the trader is also not 'choking on premium." This allows the trader to stay in the trade for a longer period of time than he or she initially likely planned for. If a trader has proper risk managed the trader should be able to sit in a long premium trade for only so long before he or she is forced to sell out.



FIGURE 4

Our ability to wait ends up paying off. By being able to be in the trade through Labor Day without completely bleeding to death from theta the trader is able to play the 'free gamma.' By the week after Labor Day GOOG has begun to move quickly again, and by expiration the underlying has completely taken off. A trader would have ended up doubling the straddle because of the trader's ability to stay in the trade.

The FOMC 3 + 3 Trade

Bill Luby

EIGHT TIMES every year, the Federal Open Market Committee (FOMC) meets to discuss the monetary policy of the United States and makes various policy changes, as appropriate, in order to fulfill the Fed's "dual mandate" to encourage both price stability and maximum employment.

In formal terms, the dual mandate dates from a 1977 amendment to the Federal Reserve Act of 1913 and specifies:

"The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates."

In practical terms, this has historically meant that the Fed has focused its activities on managing the federal funds rate, which is an uncollateralized overnight interbank lending rate. Simply stated, lower rates make more money available to fund new economic activity while higher rates restrict the amount of money available for financing purposes.

Given the potentially large economic impact of Fed policy changes to the fed funds rate, the eight annual FOMC meetings are highly anticipated

by the financial markets. Depending upon market conditions and investor expectations,

the outcomes of these meetings have the potential to dramatically move the markets.

The heightened anticipation associated with FOMC meetings typically pushes implied volatility higher in advance of the meeting and more often than not, is responsible for a substantial drop in implied volatility immediately following the FOMC policy statement. This change in implied volatility expectations is reasonably predictable and sets up some trading opportunities, including one strategy I call the FOMC 3 + 3 Trade, which I outline below in general terms and discuss in the context of the most recent



FOMC meeting in The September 2012 FOMC 3 + 3 Trade.

Strategy and Rationale

To put the FOMC 3 + 3 trade in historical context, I examined the last 182 FOMC meetings and looked at the movements in the CBOE Volatility Index (VIX) in the ten days leading up and following the policy announcement, with data going back to 1990.

In Figure 1 below, I have normalized the data and set the average close on the date of the FOMC policy statement to 100. Note that the data show a pattern of a rising VIX leading up to the FOMC announcement, fol-



FIGURE 1 Normalized VIX, +/- Ten Days from FOMC Meetings, 1990-Present



lowed by a sharp decline in the VIX after the announcement and a subsequent increase in the VIX that begins several days after the announcement. In other words, investors have a tendency to expect a big surprise and be disappointed, then upon reflection, begin to reconsider the magnitude of the uncertainty and risks in the period leading up to the next FOMC meeting, typically about six weeks hence.

In the graphic, I have used a green arrow and a green box to highlight the mean 2.5% increase in the VIX from four days prior to the FOMC meeting to one day prior to the meeting. Similarly, I have used a red arrow and red box to highlight the mean 3.0% decrease in the VIX from one day prior to the meeting to two days after the meeting. Each arrow and box combo spans three days; the "3 + 3" label refers to three days of increasing volatility premeeting and three days of decreasing volatility post-meeting.

Of course it is always dangerous to deal with averages. When I think of averages I often chuckle at the thought of the apocryphal statistician who drowned crossing a stream that was, on average, six inches deep. In the case of the VIX data, the percentage of winning trades (i.e., a rising VIX) from day -4 to day -1 is only 52%. For day -1 to day +2, the historical data are more favorable, with 69% winning trades. One can combine the two trades and get a 60% win rate, with a mean combined return of 5.4%. With eight meetings per year, this type of expected return provides a fertile environment for creating successful options trading strategies.

Structuring the FOMC 3 + 3 Trade

Investors may choose the historical FOMC-related VIX data as a jumping off point for additional research or may conclude that the data presented above are sufficient to implement an options trading strategy to take advantage of that pattern.

I trade the FOMC meetings on a regular basis and generally prefer to keep things simple, opening up a long SPX or SPY straddle position at the close four days prior to the FOMC pol-

The general principles of **rising** implied volatility expectations leading up to an event and declining implied volatility following that event are important to keep in mind for all options trades.

icy statement and closing that position one day prior to the announcement. At that point, I typically transition to a short SPX or SPY straddle and hold that position until the close two days following the announcement.

One of challenges of this type of defined duration trade is whether investors should automatically exit the trade in three days after it is opened or whether one can optimize exits to limit losses or enhance profits. I touch on some risk management approaches to this trade below in The September 2012 FOMC 3 + 3 Trade.

Of course there is a potential third leg to this trade, not discussed above, which calls for a six day holding period from day +3 to day +9 and, on average, has seen a historical return of approximately 3.0%.

Conclusion

The FOMC 3 + 3 Trade strategy outlined above is a specific instance of a broader type of opportunity that is often presented around a scheduled event for which investors anticipate a potential increase in volatility. Other examples include everything from the nonfarm payroll and GDP reports to key euro zone meetings, elections, etc. The fact that these are scheduled in advance and receive a great deal of attention in the media leading up to the event make it easier for investors to become overly emotional about the potential outcomes and attach more significance to the ability of the outcome to move the markets than is



warranted by the historical data. One can easily extend the same line of thinking to corporate earnings reports for some of the most popular stocks, such as Apple, Facebook or whatever stock happens to capture the imagination of the retail investor during the guarter.

In a related vein, there is nothing magic about the three day holding period either. During the last five years, for instance, a five year holding period for the short straddle portion of the FOMC 3 + 3 Trade has significantly outperformed all other holding periods.

Investors should also keep in mind that every FOMC meeting is different (expectations and surprise potential are always in flux) and the FOMC membership changes every year. By the same token, each Fed Chairman employs a different approach to transparency and with respect to setting expectations in advance about policy changes. In some cases the signaling is overt and in other cases it is more subtle.

Whether or not one looks at trading options around FOMC meetings, investors should keep in mind that each

volatility event has its own unique set of opportunities. Some can be more easily highlighted with the use of historical data, but the general principles of rising implied volatility expectations leading up to an event and declining implied volatility following that event are important to keep in mind for all options trades.

Further Reading

"The September 2012 FOMC 3 + 3 Trade" Expiring Monthly, September 2012





The September 2012 **FOMC 3 + 3**

Bill Luby

THE RESPONSE TO the recent reader survey indicated a strong interest in what I call my "proof-of-concept trades," which are essentially trade ideas that are more exploratory than fully formed and seek additional information before they can be deployed with a reasonable expectation that they might be profitable over an extended period. With that in mind, it is my intention going forward to try to link more proof-of-concept trades to various research and analysis articles that I publish in the same issue.

Today I take my first step in that direction by using this space to translate the general thinking presented in The FOMC 3 + 3 Trade to the September 13th FOMC policy statement and subsequent press conference by Ben Bernanke.

Background and Rationale

The rationale for this trade is simple. I hope to use a long straddle to capitalize on increasing implied volatility expectations from four days prior to the FOMC announcement to one day prior to the announcement. I then wish to turn around and use a short straddle to benefit from an anticipated decline in implied volatility from the day before the FOMC announcement to two days following the announcement. Per data presented in The FOMC 3 + 3 Trade above, I hope to be able to capture the mean 2.5% gain (52% win rate) with the rising volatility leg over the course

of three days and then add another 3.0% gain (69% win rate) with the falling volatility leg.

Setup and Entry

This trade can be executed using weekly options, but with the September expiration just one week after the FOMC announcement, I elected to use SPX options from the standard month September expiration cycle, which ended on September 22nd.

The historical data suggest an optimum entry four days prior to the FOMC announcement, so with the FOMC announcement due on September 13th, I opened the long straddle at the close on Friday, September 7th. The SPX closed at 1437.92 on that day and with the index almost at the midpoint of two strikes, I elected to go with the 1435, given that there was a great deal of volume at that strike going into the close. Long one put and one call cost a total of 14.30. (See Figure 1 below for full data chronology.)

Position Management

The parameters of the this proofof-concept trade called for passive



monitoring and an exit three days after the open, followed by an immediate entry into a SPX ATM short straddle. Of course, part of the rationale for a proof-of-concept trade is to risk a limited amount of capital with the expectation that there are often unseen risks that appear only after the position has been initiated.

What happened to the long straddle was that the VIX did indeed increase, but the SPX remained in a very tight range, so the uptick in volatility was not enough to offset the time decay and the long straddle lost 1.30 over the course of the three days.

When it came time to enter the short straddle position, the SPX was even closer to 1435, so I kept the same September 1435 strike, selling the straddle for 13.00 at the close.

As it turns out, stocks spiked higher on the QE3 announcement and the VIX fell sharply. The trend of rising stock prices and a falling VIX persisted throughout the three day holding period for the short straddle and in a nutshell, the short position got killed. I eventually settled with a loss of 12.70 on the second leg and a cumulative

Day Ref	Date	VIX	SPX	ATM strike	Close	Long Pos	Long P/L	Short Pos	Short P/L	Cum P/L
d -4	9/7/12	14.38	1437.92	Sep 1435	14.30	Long				
d -3	9/10/12	16.28	1429.08		10.00	Long	-4.30			-4.30
d -2	9/11/12	16.41	1433.56		12.00	Long	-2.30			-2.30
d -1	9/12/12	15.80	1436.56	Sep 1435	13.00	Long	-1.30	Short	0.00	-1.30
FOMC	9/13/12	14.05	1459.99		27.87			Short	-14.87	-16.17
d +1	9/14/12	14.51	1465.77		32.46			Short	-19.46	-20.76
d +2	9/17/12	14.59	1461.19		25.70			Short	-12.70	-14.00
d +3	9/18/12	14.18	1459.33		26.30					
d +4	9/19/12	13.88	1461.05		28.50					

FIGURE 1 Table of Values for September 2012 FOMC 3 + 3 Trade



loss of 14.00 for both legs. As Figure 1 above shows, the VIX declined sharply, as had been anticipated, but the large move in the SPX negated any gains that might have been realized due to a declining VIX.

Epilogue and Takeaways

As it turns out, the 11.1% decline in the VIX on the FOMC announcement day was the sixth largest decline over the course of 182 observations. For those thinking just about the VIX part of the equation, one would have expected a profitable outcome, but the more complex relationship between the VIX and the SPX around major volatility events made the formulaic trade unprofitable.

The outcome of this particular trade raises many more question than it answers. For starters, how valid is it to use VIX historical data to set expectations for SPX straddle trading strategy outcomes? Further, are VIX historical data better suited to developing strategies for VIX futures trades

or trades involving VIX exchangetraded products than SPX trades? In terms of risk management, what sort of 'soft optimization' should be explored? Specifically, what sort of ways are there to limit losses by exiting early instead of holding losing positions for three full days? Additionally,

that break even or result in small profits and losses, these types of trades should provide a great deal of fodder for additional research and analysis. In the context of a proof-of-concept trade, I have to consider this trade a success. While it lost a large amount of money in percentage terms, the proof-of-con-

How valid is it to use VIX historical data to set expectations for SPX straddle trading strategy outcomes?

how might success or failure in the long volatility leg provide information about the desirability of initiating the short leg or passing on that trade? Last but not least, how can one incorporate information about expected FOMC outcomes into setups with higher mathematical expectations?

The questions above should merely be thought starters. Trades that are big losers are never fun, but unlike trades

cept context minimized the amount trading capital exposed to losses and maximized information value in terms of questions raised and potential lessons learned. **EM**

Further Reading



[&]quot;The FOMC 3 + 3 Trade" Expiring Monthly, September 2012

When Does a Hard To Borrow **Situation Present a Volatility Buying Opportunity?**

Andrew Giovinazzi

IN A LOT OF WAYS, the hard to borrow is one of the least understood mechanical actions in the market place. We spend a fair amount of time at Option Pit dissecting hard to borrow situations to see if there are any opportunities in the forced actions that could happen to the shortsellers. I wrote a few months back on the mechanics of the hard to borrow for Expiring Monthly (March 2012). This time I want to dig more into a combination of factors by putting together mechanics, market volatility and the earnings cycle simultaneously to see if that will produce a tradable event.

The stock that comes to mind is Facebook (FB). As I write this, the name is making a comeback from the high teens to around \$23. For this article, I will focus on the action before, during and after the inaugural FB earnings report. First thing I do is get acquainted with the volatility history (albeit short) of FB. The one nice thing about the name is that it came out of the IPO hot. Lots of early volume helped established some reliable volatility numbers.

Looking at the red line below, FB produced a low 30-day implied volatility of around 42% just after the earnings cycle. Remember, when using a volatility of constant duration, the number is trying to keep a view of volatility 30 days ahead. The options volatilities' just before the 30-day and after the 30-day mark can be different. In general, most option classes are in contango, so the front month and

weeklys trade cheaper relative to the back months. FB is no different.

The volatility chart right after FB earnings shows a big drop in 30-day implied volatility (Figure 1). That in and of itself is no real surprise, since implied volatility tends to collapse after earnings. However, FB was going



through something else at the time. One of the early lockups for FB was coming, and the stock was suffering from a post IPO meltdown. The shorts started piling in. How can you tell? The slide below shows the marks on the close on July 19th, 2012. The FB Sep 29 combination closed at a .20 credit.







FIGURE 1



:hinkorsw

For the simple synthetic combo calculation (Figure 2):

Take the call bid (2.45), subtract the put offer (2.65), and add the resulting debit or credit (-.20) to the strike (29). That leaves a 28.75 long combo price, which is .25 below the price for the common.

The idea is to use the bid/ask the same way a liquidity provider would, so use the prices they would trade on.

Going into earnings, FB was already hard to borrow. In general, a hard to borrow will boost the implied volatility of the class, since the possibility of covering adds an extra layer of uncertainty (puts get pricier too).

Right after the earnings, note how the implied volatility dropped close to the lows of the year, even though the markets were showing continued pressure from short selling (Figure 1). The FB Sep 23 combo was trading for a .45 credit (remember reduce the purchase price by the credit), which puts the synthetic stock around \$23.55. Even with the stock dropping by a large amount, the volatility came in very hard and the borrow rate stayed about where it was before earnings.

By August 2nd (Figure 4), things started to change a bit. The implied volatility started to mark up very hard. Implied volatilities hit the higher 60s by early August, outside of the earnings cycle. Note that the borrow rate dropped around a .01 from the Figure 3. Which is not that significant in money terms, but it started a pattern of continued decline in the rate the shorts were charged to keep on the position.

The pattern that was most impressive during this time was the 30 day volatility, because it remained under the 10 day realized volatility during the whole squeeze. Normally, the implied volatility shoots way above the realized volatility, because the borrow rates drive up the put values. FB never got that bad, but this is the first hint of the trading idea I had for this time period.

By the end of August look at how the borrow picture started to change (Figure 5). As FB traded near the lows since the IPO opened, the at the money combo got down to \$.05. The



FIGURE 3

в		🔁 FA	A FACEBOOK INC COM									20.04	20.04	
JNC	ERLYING													
		Last		Net Chng		Volume		Open					N	
		20.04		- 84		56,374,436		20.77		20.8	34	19.8	2	
PTION CHAIN					Spread: Single			L	OTM, Delta					
			CALLS			Strikes: AL	L 🔻			PUTS				
	Impl	Prob	Delta	Bid	Ask	Exp	Strike	Bid	Ask	Impl	Prob	Delta		
	74.15%	25.54%	.82	4.50	4.60	SEP 12	16	.55	.60	73.08%	74.90%	17		
	70.04%	31.55%	.77	3.70	3.80	SEP 12	17	.80	.85	71.40%	67.95%	23		
	67.92%	39.05%	.70	3.00	3.10	SEP 12	18	1.10	1.15	69.07%	60.61%	30		
	67.73%	47 37%	.62	2.45	2.50	SEP 12	19	1.50	1.55	67.84%	52.61%	- 37		
	65.58%	55.29%	54	1.90	1.95	SEP 12	20	1.95	2.00	65.65%	44 71%	- 45		
	64.21%	63.08%	.46	1.45	1.50	SEP 12	21	2.50	2.55	64.25%	36.92%	53		
	63.63%	70.21%	.38	1.10	1.15	SEP 12	22	3.10	3.30	84.54%	29.93%	61		
	62.37%	76.64%	.31	.80	.85	SEP 12	23	3.80	4.00	63.36%	23.59%	68		
	62.68%	81.77%	.25	.60	.65	SEP 12	24	4.60	4.70	61.64%	17.94%	75		
	61.96%	86.23%	.19	.40	.50	SEP 12	25	5.40	5.60	62.01%	13.79%	80		
	61.68%	89.70%	15	.30	.35	SEP 12	26	6.30	6.50	63.17%	10 74%	- 84		
	60.94%	92.55%	.11	.20	.25	SEP 12	27	7.20	7.40	62.75%	7.96%	88		



chinkorswin

						August 31, 2012	Trading (Day					
FB		🗧 🔩 FA	CEBOOK	INC COM					1	ETB 8	/31/12 😁 🗖	18.05	8 -1.03
UNI	DERLYING												
		Last		Net Chng				Open		Hi			OW
		18.058		-1.0305		58,764,170		18.68		18.	70	18	.03
OPTION CHAIN					Spread: Single				Layout Impl Vol, Probability OT				lta 🥻
						Strikes: ALL	. 🔻			PUTS			
	Impl	Prob	Delta	Bid	Ask			Bid	Ask	Impl	Prob	Delta	
	109.50%	3.53%	.99	10.00	10.20	OCT 12	8	0	.05	102.47%	97.49%	+.01	
	109.58%	6.48%	.97	9.00	9.30	OCT 12	9	0	.05	88.68%	97.50%	01	
	94.93%	6.58%	.97	8.00	8.30	OCT 12	10	0	.05	76.63%	97.40%	01	
	81.62%	6.79%	.96	7.00	7.30	OCT 12	11	0	.10	73.27%	95.49%	02	
	69.33%	7.13%	.96	6.10	6.20	OCT 12	12	.05	.10	67.03%	93.64%	04	
	57.85%	7.64%	.95	5.10	5.20	OCT 12	13	.10	.15	62.75%	90.33%	06	
	57.28%	13.64%	.90	4.20	4.30	OCT 12	14	.15	.20	56.18%	86.91%	09	
	52.43%	19.45%	.85	3.30	3.40	OCT 12	15	.30	.35	54.87%	79.22%	- 15	
	50.20%	28.76%	.77	2.50	2.60	OCT 12	16	.45	.55	50.86%	70.91%	- 23	
	49.29%	40.45%	.66	1.85	1.90	OCT 12	17	.80	.85	49.86%	59.36%	34	
	48.65%	52.80%	.54	1.30	1.35	OCT 12	18	1.20	1.30	48.24%	47.24%	46	
	47.21%	64.67%	.42	.85	.90	OCT 12	19	1.80	1.85	47.78%	35.42%	58	
	47 000/	74.050/	0.1	55	0.0	00T 10	00	0.50	22.0	47.000/	1000 20	0.0	

FIGURE 5

realized volatility dropped too. Actually, everything started to crumble (realized volatility, implied volatility, and borrow rate), and overall, the opportunity changed a bit.

Where did things get interesting? With the borrow rate still firm after earnings and the implied volatilities so low, that was the brew for buying shorter term gamma intensive options. The window to buy the 30-day volatility was short. I used mostly weekly strangles when the weekly IV hit the low 40s. Some of those trades broke even but paid nicely on others. The takeaway is to watch for a volatility drop with a stock that is in the early stages (small combo credit carry) of the hard to borrow phase. What the market misses sometimes on the zest to crush post-earnings volatility is that there are other market forces in place to drive realized volatilities higher. That is the signal to step in and buy a little gamma (or at least don't sell it). The realized volatility premium in this case was extra nice.



