



Flow Equity Derivatives Desk Commentary

SG Americas Securities, LLC.

January 4, 2009

Jeremy Wien, VIX Trader

VIX 2008 → 2009

What happened...what's changed...and what to expect...

***all pricing and market data in this piece is official as disseminated by Bloomberg

***2008 Review

VIX opened 2008 at 22.50, closed 2008 at exactly 40, and in between, it closed above 80 (with an intra-day high 10 vols above that). This high print in VIX was more than twice the previous all-time high, and we stayed in the elevated range longer than we ever had previously. When the VIX first "spiked" into the mid-30s after the Bear Stearns take-over, it returned back to 25 the following day. The VIX had never expired above 28.40 until Sep 2008 (with a 9.95 settlement in Feb 2007) before expiring over 50 the last 3 months, including a high print of 67.22 in November 2008.

****With those background tidbits in mind, here are (in my opinion) the 5 most important things we learned about trading the VIX in 2008:**

1. There's a lot of "air" once we move out of the perceived range of the VIX

We tested 30 in January, March, and July of this year, and each time we either stayed below that level or crept just above it and for only a brief period of time. But once we blew through the mid-30s in late-September, we shot up to 70 in only 2 weeks. Once we went from trader-panic (concern over this month's pnl) to global human panic (concern over Citigroup's survival), there were ZERO vol sellers, enabling bigger moves in vol more quickly than was previously thought possible.

2. The rules of market liquidity in crises apply to VIX...ten-fold

When there's a global market sell-off (and a subsequent increase in demand for vol), liquidity in all markets will tend to dry up. Because of the natural leverage in VIX options (especially the near-term/low-delta calls), liquidity dried up faster and harsher than in other listed option markets. At the first hint of Bear Stearns possibly going under, front-month 40 delta calls went from .20 wide, 1500 up, to .60 wide, 500 up. The bottom line is that those with the ability to sell at the time were well aware that those buying were doing so because they had to, and they took advantage of that.

3. Never sell a VIX call below .25 (unless it is protected by something)

This may seem incredibly obvious, but when you considered the VIX as a 15-dollar "stock" in 2007, it may have seemed appealing to sell a 1-month 30-strike call that may be "worth" .03 for .15. Yet the "air" that we discussed earlier can drive these .15 options to 15 dollars much more quickly than with a normal stock or index. In late September, with the spot and near-term VIX futures in the mid-20s, we had a customer buy 15k Nov 50 calls for .15. We were over-subscribed on the offer and offered out for 25k immediately after. This was not an unreasonable sale at the time, but going forward, there should be (and likely will be) an aversion to selling any such options.

4. You must manage your VIX positions at least semi-actively (even/especially the ones that are in place as hedges).

Despite the massive and swift rise in VIX in October, there is still a mean-reversion aspect to the VIX (if not in the very short-term, then at least in the medium- and long-term); if you buy VIX calls as a macro hedge, and your 60 cent options become 5 dollar options, it is smart and responsible trading to roll the position up and/or out to take some profits, which can be done while still maintaining a similar position in case the move in your favor continues.

5. For true CRASH protection, there is not a better product to own than a low-delta VIX call.

The Nov 50 calls alluded to above, were bought for .15. If held to expiration, these would have been worth 17.22, for a profit of more than 25 million dollars on the 15k that were bought. While it is quite unlikely that this position would have been held to maturity without being traded around (rolled up in strike, out in maturity, or simply closing part of the position), thus reducing profits below the 25 million dollars, the point remains, that for a premium outlay of only 225k, you had 2-month market crash protection that provided a far better risk/reward than owning a downside put in SPX or even in XLF.



Flow Equity Derivatives Desk Commentary

SG Americas Securities, LLC.

January 4, 2009

VIX 2008→2009

***all pricing and market data in this piece is official as disseminated by Bloomberg

****Given everything that happened in 2008, here are 5 new truths about VIX trading as we enter 2009:**

1. In my effort to win the "most obvious statement of the year" award...we are in a new vol regime.

While the fact that we're in a new regime is obvious, what is not obvious is exactly where that regime will settle in. As it pertains to VIX trading (i.e. what strikes are at or near the lower bound of the range and what strikes are on the upside that you want to own as protection for that 10-20% drop that everyone expects will happen at some point)...25 is the new 10; 60 is the new 30. This is not to say that the VIX cannot or will not go below 25 in this cycle, but selling puts around the 25 level seem fairly low risk, as even if we approach that level, we are not likely to blow through it in the near term. On the upside, the 60 calls may be the most affordable strike that could actually pay off in a market correction without necessarily needing a full-blown crash.

2. The call-wing will always be expensive; it is still worth owning.

This is quite simple--sellers of upside calls in VIX will demand a higher premium for the risk they are selling; however, this added expense can be justified by the protection it provides to you, because in a market meltdown, this may save your book, and in good times, the extra nickel or dime that you pay for this protection will be well worth the sanity (and sleep) that it affords you.

3. While the liquidity in VIX futures has deteriorated with the liquidity in most markets, liquidity in VIX options has actually increased.

VIX futures, especially past the first 2 terms, are trading even wider and more scarcely than they were prior to the market meltdown. But as more people have engaged in trading VIX options, as well as a few banks making a push in building VIX customer business (ahem, Soc Gen), we have seen liquidity in options actually increase from Q1 2008 to Q4 2008. As we enter the new year, the liquidity may continue to increase, as there will be more and more players in the VIX.

4. Traders must finally "wise up" and roll/close their open positions before expiration, creating less uncertainty going into expiry prints.

Every expiration, there are complaints about the print. These complaints are often justified; this was especially true in October, when the VIX expiry print was 10 vols above the previous day's close. In the higher vol regime that we are now in, and given the heightened sensitivity to risk by risk managers, the potential for massive pnl swings on the print should drive traders to roll/close open positions in the days leading up to expiration. This should have the ironic effect of reducing the print swings (although they will certainly still exist and make it difficult to manage whatever positions you leave open).

5. In trying to out-do #1 on this list...the "range" of VIX has widened dramatically.

One thing that hasn't changed this year is the mean-reversion behavior of the VIX; however, that mean has moved, and the "normal" trading range around that mean has widened quite a bit. How this changes things: Instead of where we were earlier in the year, around 23 average in the VIX, with the expected range over a week or two being roughly 20-25, we find ourselves around 40 right now, with the expected range over the next week or two being 35-48(ish). No matter where the VIX goes in 2009, for at least the first half of the year, the "reasonable" near-term range will be wider than it has been in the past, which will also lead to a bid for both call and put wings in VIX options.



Flow Equity Derivatives Desk Commentary

SG Americas Securities, LLC.

January 4, 2009

VIX 2008 → 2009

***all pricing and market data in this piece is official as disseminated by Bloomberg

Looking ahead to 2009, here are 5 predictions/developments about VIX trading that I see happening:

1. VIX trading will increase in all facets--more players, more trades, bigger prints.

As the movements in the VIX have gone from the back pages to the front pages, every trader in the world now knows what the product is and probably has some view on where it is going (the complexity of the product may scare some traders away from actually initiating positions, but there will likely be many who are unfazed). Couple that with a drastic increase in the demand for downside protection that risk managers will put on their traders, and I believe that VIX volumes will continue to soar.

2. Flow will broaden; rather than upside-call-buying being most of the flow, there will be plenty of traders moving in and out of puts as well, as the VIX swings around in a wider trading range.

Given that VIX was sub-20 less than 7 months ago and sub-30 even after Lehman went under, traders realize that it's not at all out of the realm of possibility to see the current VIX level cut in half (or close to it) within the next few months. This will lead to more speculative put-buying on VIX spikes. The majority of flow, however, will remain call-buying hedgers.

3. VIX "minis" (futures that are 1/10 of current futures size, to begin trading in Q1 2009) will over-take the current futures and dramatically increase liquidity by the end of 2009.

There is a major lack of liquidity in VIX futures on the screens at the moment; I believe that just as SPX e-minis increased liquidity dramatically in the futures, so too will the VIX minis. It may take a bit of time for people to get used to, but volumes can be expected to increase as time goes on.

4. More complex structures that provide leverage on the upside (with no tail risk) but are cost effective (such as selling puts or put spreads to finance the purchase of calls or call spreads) will grow in popularity.

Buying 1x2 call spreads as a way to cheapen hedges was extremely common in early 2008. Given how quickly and how far the VIX soared at various points in the last year, the volume on these structures will be near zero (if anything, people will look to sell the 1 and buy the 2 to gain positive exposure to the tails); instead, hedgers will buy calls and call spreads and use the sale of puts and put spreads to make their hedges cheaper.

5. People will forget 2008 as quickly as they always forget "one-off" events...until they happen the next time...

"We'll never see anything like 2008 again" will be a popular refrain for vol sellers in the coming months and years. They're probably right. But at some point in 2008, many traders looked at a specific underlying, a strike, a maturity, or a spread, and said, "why would anyone ever be short that?!" And at some point in 2009, you will find yourself short it...

IMPORTANT DISCLOSURES



New York:
☎: +1 212 278 5218

Paris:
☎: +33 142 13 56 17

London
☎: +44 207 762 5121



Flow Equity Derivatives Desk Commentary

SG Americas Securities, LLC.

Disclaimers and Notices: Nothing in this article should be deemed as investment advice or recommendation by SG Americas Securities, LLC (SGAS) to any single investor or group of investors, and no investor should rely upon or make an investment decision based on the contents of this article. SGAS makes no representation as to the appropriateness of these strategies for any investor. Readers should consult with a recognized and competent investment advisor who is familiar with your particular financial circumstances. Neither SGAS nor CBOE assumes any responsibility for any losses you might suffer by reason of adopting any investment strategy discussed in this article.

CBOE calculates and disseminates the CBOE Volatility Index (VIX). The methodology of the CBOE VIX is owned by CBOE and may be covered by one or more patents or pending patent applications. CBOE, Chicago Board Options Exchange, CBOE Volatility Index, and VIX are registered trademarks of Chicago Board Options Exchange, Incorporated (CBOE).

This document does not constitute an offer, invitation or recommendation to enter into any transaction. This document is provided for informational purposes only. Pricing levels, valuations and other data published herein are indicative and they, and any other information, are subject to change. Supporting documentation for any claims, comparisons, statistics or any other technical data will be supplied upon request.

The products and securities described in this document may not be eligible for sale in all countries and should be sold only to qualified investors. Securities referenced in this document shall not be offered or sold to any persons where such offer or sale is prohibited by the laws of their country or origin or in any other relevant country. The financial instruments discussed in this document may not be suitable for all investors and investors must make their own investment decisions using their own independent advisors as they believe necessary and based upon their specific financial situations and investment objectives.

This document and any of the data herein may be considered by Société Générale and any of its affiliates when deciding to buy or sell proprietary positions in the securities mentioned in this document. Société Générale and any of its affiliates may engage in securities transactions in a manner inconsistent with this document and with respect to the securities covered by this document. Société Générale and any of its affiliates may sell to or buy from customers securities referenced herein on a principal or proprietary basis.

Opinions, estimates and projections in this document constitute the current judgment of the author at the date of this report. They do not necessarily reflect the opinions of Société Générale or any of its affiliates and are subject to change without notice. Société Générale has no obligation to update, modify or amend this document or to otherwise notify a reader in the event that any opinion, projection, forecast, estimate or matter set forth herein, changes or becomes inaccurate. Prices and availability of financial instruments are also subject to change without notice.

Transactions in derivative instruments involve numerous risks including, among others, market, counterparty default and illiquidity risk. Trading in options involves risk and is not suitable for all investors. An option may become completely worthless by its expiration date, as it is a depreciating asset. Options could result in significant investment loss or gain. Options writers of unhedged positions assume significant risk. Assignment risks can be substantial, and the risk involved in writing uncovered call options (that is, selling options on an equity that the seller does not own) may be unlimited. Prior to buying or selling an option investors must review the "Characteristics and Risks of Standardized Options" at <http://www.optionsclearing.com/publications/risks/riskchap1.jsp>. Past results should not be viewed as an indicator of future performance.

Unless governing law provides otherwise, all transactions should be executed through the Société Générale entity in the investor's home jurisdiction. In the U.S., this report is distributed by SG Americas Securities, LLC, a member of the NYSE, NASD, Nasdaq and SIPC. SG Americas Securities is located at 1221 Avenue of the Americas, New York, NY, 10020.

Notice to French Investors: This document is issued in France by or through Société Générale which is regulated by the Autorité des Marchés Financiers (AMF).

Notice to U.K. Investors: This document is issued in the U.K. by or through Société Générale which is a member of the London Stock Exchange.

Notice to Japanese Investors: This document is distributed in Japan Société Générale Securities (North Pacific) Ltd., Tokyo Branch which is regulated by the Financial Services Agency of Japan. The products mentioned in this report may not be eligible for sale in Japan and they may not be suitable for all types of Japanese investors.

Notice to Australian Investors: Société Générale Australia Branch (ABN 71 092 516 286) takes responsibility for publishing this document. Société Générale holds an AFSL no. 236651 issued under the Corporations Act 2001 (Cth) ("Act"). The information contained in this document is only directed to recipients who are aware they are wholesale clients as defined under the Act.

www.sgcib.com

Copyright: The Société Générale Group 2009. All rights reserved.



Flow Equity Derivatives Desk Commentary

SG Americas Securities, LLC.