RATELAB

MERRILL LYNCH US RATES STRATEGY

Rational Ideas for an Irrational World

Introduction:

Notwithstanding the uncertainty of what will be the "next shoe to drop", today's market is fundamentally different than that of 1998 (LTCM/Russian Crisis). This RateLab will focus on ideas that can rationally reduce your risk. That does not mean they will produce significant positive returns (alpha) on a stand alone basis. What it does mean is that they will reduce the variance risk of a position that is already overly exposed to credit risk and needs to be controlled. Most critical, the transactions below will not make your situation worse than it currently might be by introducing additional vectors of variance. As such, most of these trades will involve some sort of long options position to create a limited loss/unlimited return profile. Moreover, it will focus on correlations that are reasonable in today's environment.

First and foremost, unlike 1998, most market participants are NOT short Treasuries versus MBS, CMBS, Corporates or Swaps. As such, buying T10s (or some other form or duration) is adding risk (i.e., line items) to portfolios, not reducing risk. Second, buying the curve in the cash, futures or swaps markets as a proxy for the FED coming to the rescue sooner than expected is also a suspect strategy since the balanced payoff profile does not offset the asymmetric risk profile of a long credit position. Finally, hedges that rely on the "greater fool" theory should be avoided if they do not "foot" to the fundamental risks of your positions. Consequently, we do not recommend shorting high grade credit index products where the underlying asset is "money good" while your exposure is in lower grade credit products that may be "money bad".

You can summarize our recommendations below via the not quite accurate but nonetheless commonly accepted Hippocratic Oath: "First, do no harm." We believe these ideas will allow you to ride out this most recent version of the "Hundred Years Flood".....that just seems to occur every four to seven years !

Rational Ideas:

The FED will ease ideas:

1) *Buy calls on the FED Funds contracts*

December 2007 Fed Funds contract at 95.06 (4.94%)
Mid-market on the 12/31/07 expiry 95.00 (5.00%) calls @ 17bp
That is an 11.35% Yvol or a 56bp Nvol
Breakeven: Average December Fed Funds rate of 4.83%
Bloomberg symbol: FFZ7 commodity OHT12

2) *Buy calls on EDZ8, the December 2008 Eurodollar future*

December 2008 Eurodollar contract at 95.15 (4.85%)
Mid Market on the 12/15/08 expiry 95.00 (5.00%) call @ 48.5bps
That is a 18.8% Yvol or a 92.6bp Nvol
Breakeven: 3m-Libor at 4.515% for December 15, 2008 setting
Bloomberg symbol: EDZ8 commodity OHT12

Comments: For the record, we do not believe the FED will ease before the First Quarter of 2008 unless there is a precipitous decline in the economy. This would include: a) the Dow/S&P setting new calendar year lows of below 12,000/1400; b) an unemployment rate above 5.0% or non-farm payroll negative for at least two consecutive months; c) ISM below 50 for three consecutive months; d) a major financial firm seeking bankruptcy protection. All of these seem quite unlikely given the most recent data on the economy and corporate profits/balance sheets. Nonetheless, <u>further losses in credit products will certainly have a real correlation with the economy doing worse.</u> As such, these trades make sense. The critical concept is utilizing options to create a limited loss situation if the worst does not occur. Short rates have declined by over 60bps; a patient FED and stable equity market will create losses greater than your credit gains for those who are "straight long" the front-end of the rates market. **Although Implied Volatility is certainly much higher now than a month ago, it is still below the ten year average for similarly structured options.** These trades are the most direct way to use the rates market to hedge credit risk; all other transactions are just secondary effect transactions to the FED easing in response to a financial markets seizure.

The Curve will steepen ideas:

3) *Buy cap options on the Yield Curve*

CMS 10s minus CMS2s, Two year expiry; single look; $10,000 per bp payout
Spot spread = +39.7bps; Forward Strike = +44.9bps
Price = 24bps; Implied Spread Vol = 47bp;
Breakeven: +68.9bps

4) *Buy straddles on the 2 year rates vs. Sell straddles on the 30 year rate*

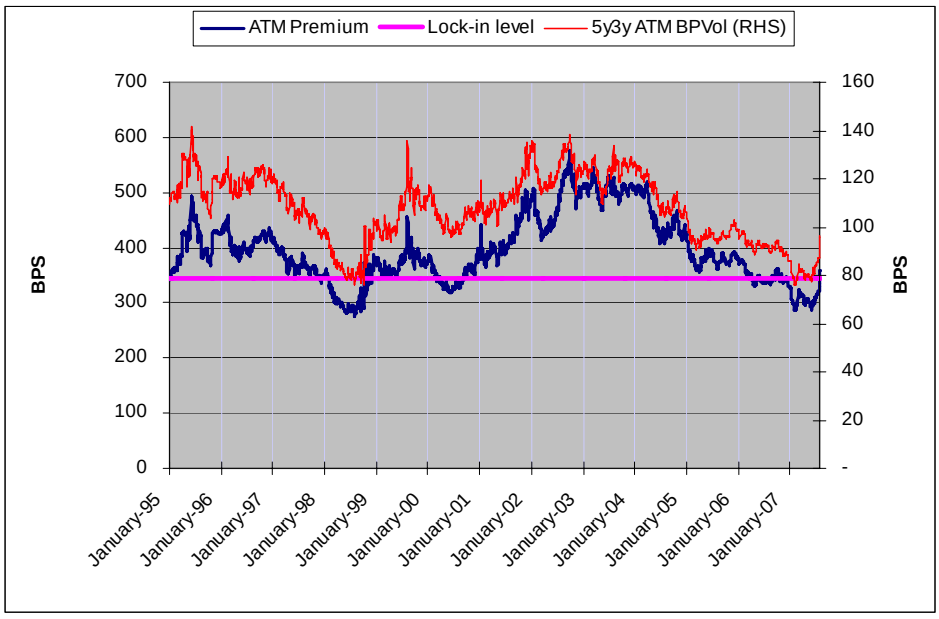
Buy 759mm 2yr into 2yr atm straddles at 184.5bp; 96.5 Nvol; k = 5.248%
Sell 100mm 2yr into 30yr atm straddles at 1100.0bp; 75.7 Nvol; k = 5.721%
Nvol ratio of 127.5%

Comments: Similar to the previous ideas, if financial conditions significantly worsen, the market will lead the FED to an ease and the Yield Curve should steepen. Our preferred strategy is to use options to gain this exposure. Yield Curve options are still quite inexpensive due to the massive supply via the Structured Note market. With a terminal breakeven barely 29bps steeper than current spot levels, this trade provides a tremendous risk/return profile. The second trade is a tad more complicated. As highlighted in the chart above, the Implied Volatility of 2year tails is usually much higher than that of 30year tails. Massive Structured Note issuance in 2004 and 2005 combined with a transparent and measured FED pressed this ratio to its all-time low. The uncertainty that current conditions have introduced to the market will expand this ratio no matter what happens. Over the past month alone, the Actual Volatility ratio has realized 142%, almost 13% greater than the current entry level. Moreover, if this does prove to be a false alarm, the Curve Gamma profits created from a large flattening will offset much of the Vega losses that would accompany it.

Volatility as an Asset Class trades:

5) *Buy the Merrill Lynch Implied Volatility Swap on 5yr into 3yr*

Ten year term; Semi annual pay; (details in RateLab April 10, 2007)
Spot price of 348bps or 92.9Nvol; Fixing of 344bps

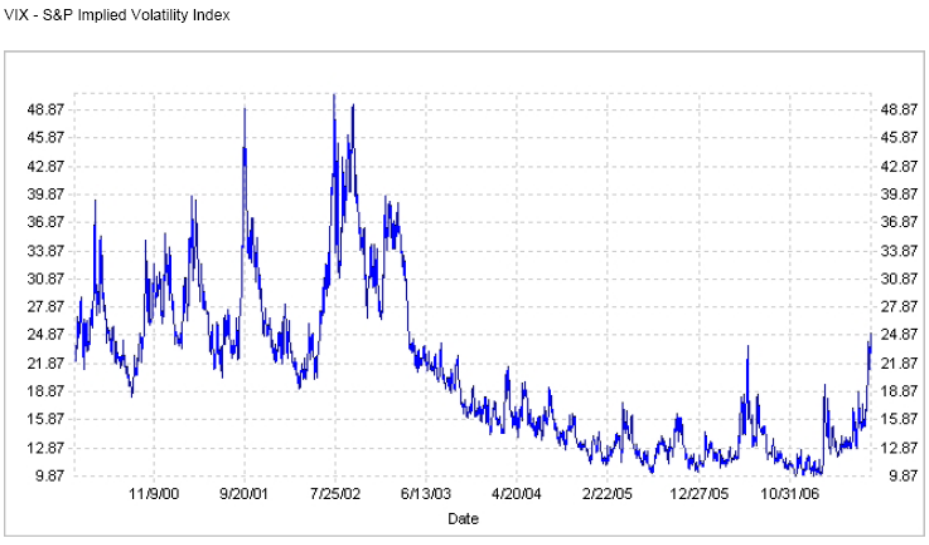


5y3y Statistics		
MAX	576	141.7
95th %le	512	128.7
84th %le	467	123.1
Average	396	107.8
16th %le	340	92.8
5th %le	301	81.3
Min	275	75.8
Std Dev	62	14.2
Current %	18.36%	14.14%
Correl		93.3%

Comments: Not much to add beyond our April 10, 2007 *RateLab: "Building a Superior Volatility Mousetrap".* The only difference now is that we are recommending the 5yr-3yr point on the grid instead of 5yr-5yr. This "box" is still below the 20th Percentile. (See charts above) Moreover, the shorter-tail will outperform in a financial panic.

6) *Buy a Forward Starting Variance Swap on the S&P*

Similar in construct to the above, except driven by Implied Volatility on the S&P; Five months forward (Dec 2007 CME date) for Three months (Mar 2008 CME date). Offered at a 21.2% volatility.

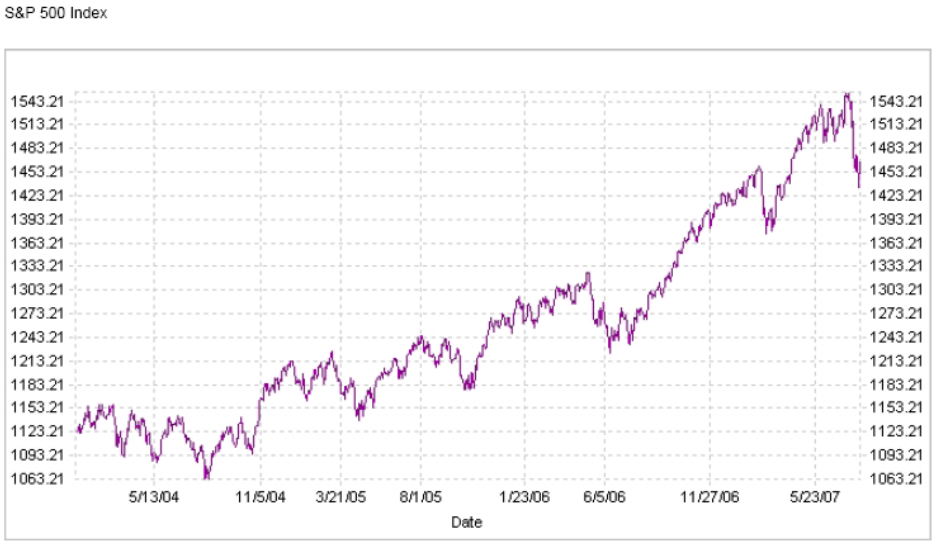


Comments: Similar to the ML Implied Volatility Swap above. You are NOT buying the Realized Volatility of the S&P via the standard variance swap format; you are buying the Implied Volatility forward. As such, there will be no gamma, theta, delta, or skew maintenance. You are basically buying the three month VIX starting at year end. As such, Realized Volatility may be below your level but if financial panic has not abated, Implied Volatility could be much higher.

Contagion into the Domestic Economy trades:

7) *Buy puts on the S&P equity futures*

December 2007 S&P contract at 1479.6
Mid Market on the 12/21/07 expiry 1475 put is 67.5 dollars
That is a 19.7% Implied Volatility
Breakeven: 1407.5
Bloomberg symbol: SPZ7 commodity OHT12

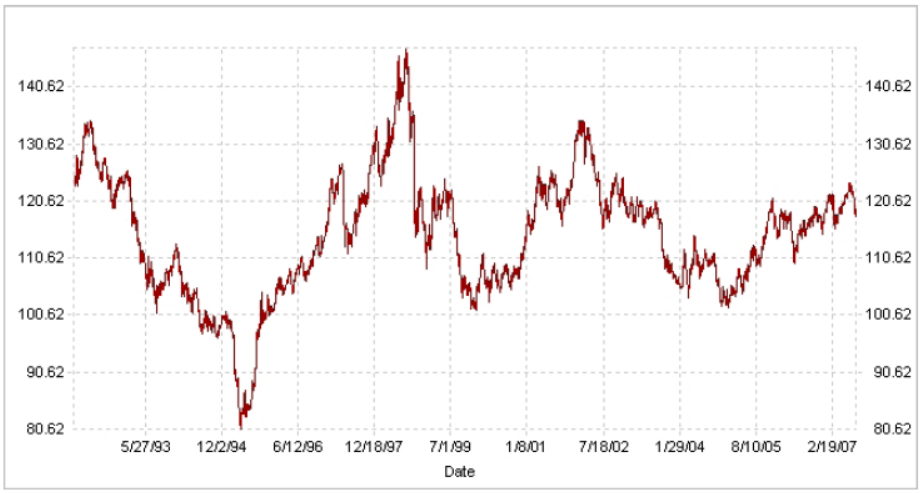


Comments: No reason to belabor this idea. If the credit market risk spreads to the general economy, the Equity markets have tremendous downside. Volatility is still relatively low and your terminal breakeven is reasonably high.

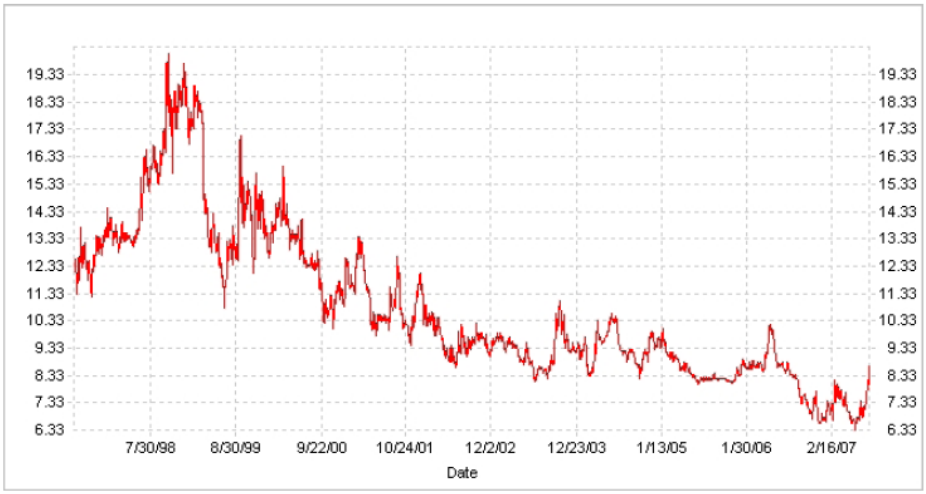
8) *Buy puts on the USD vs. JPY currencies*

March 2008 Japanese Yen futures at 86.73 (115.30 per USD)
Mid market on the March 07/08 expiry 87.00 (114.94) call is 2.10
That is an 8.65% Implied Volatility
Breakeven: 89.10 or 112.23 per USD

USD vs JPY Currency



USD vs JPY 6 month Implied Volatility



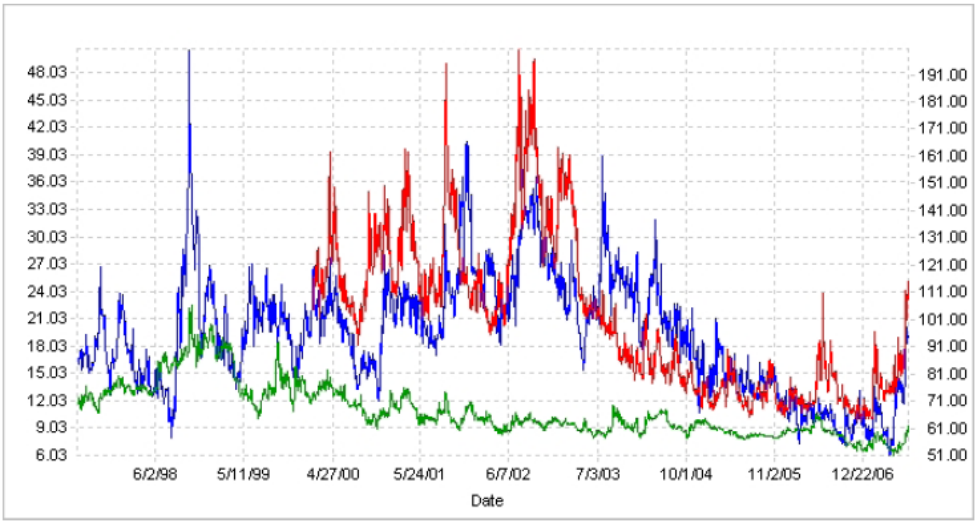
Comments: Similar in concept to above, a general contagion to overall domestic economy will hurt the dollar, and the cheapest currency with the lowest Implied Volatility is the Japanese Yen. We also like buying puts on the USD versus the other major G-7 currencies.

Conclusions:

Despite our FED views, we do not want to downplay the potential for greater problems to occur in the financial markets. As such, we do NOT advocate a "ride it out" strategy. However, in the early stages of a market sea change, all products tend to rise or fall in unison and only later is the wheat separated from the chafe. The purpose of this RateLab is to identify those risk vectors that will highly correlate to the key drivers of the market's instability.

As noted, most of our suggestions involve buying Implied Volatility. This may seem a tad late, but the reality is that Implied Volatility in Rates, Equities and FX are all only now reaching their long-term averages. If the financial situation indeed deteriorates further, there is still huge upside for Implied and Realized Volatility in all asset classes.

Blue - right - MOVE Index
Red - left - VIX Index
Gren - left - USD/JPY Implied Volatility



ML US Rates Strategy
August 7, 2007