RATELAB

MERRILL LYNCH US RATES STRATEGY

Value Concepts from the BAS/ML Trading Desk
May 27, 2009

An Open Letter to the FED - V

Selling MBS Put Options – A Public Policy Winner

Summary Concept:

The official mandate of the FED is to maintain both full employment (low jobless rate) and relative price stability (moderate inflation). To achieve these twin goals, the FED has broad latitude to enter the public financial markets. We propose that it is a public policy benefit to execute their market activities in a manner that reduces Volatility. As such, selling put options on MBS securities, on a small portion of the bonds that they would otherwise purchase, is a superior strategy.

Sample Execution:

Instead of the FED buying $5bn of FN 4.5% bonds at 100-28 for June settlement, they should Sell $5bn of FN 4.5% put options with a strike price of 100-00 for August settlement and receive an upfront cash payment of 24/32s.

Key Benefits:

1) **Execution introduces less risk into the market.** Because an option transaction has less outright market risk (lower delta), it is easier (less costly) for the market to hedge. In the example above, the executing dealer would only have to source $2.35bn securities (as opposed to the full notional of $5bn) to hedge the trade. There are two additional side benefits. First, the market will be less volatile around execution, and second, the potential risk (cost) of "front running" is reduced.

2) The “one-way” selling of options **reduces the realized market volatility** for that market sector. “One-way” selling means that the seller of the option does not manage the convexity aspect. Since the option buyer must buy the underlying security as prices decline and sell the security as prices rise to manage the convexity component, this hedging action reduces realized market volatility. (Note: If the option seller also hedged the convexity risk, there would be no impact since these actions would off-set)
3) Because of the current term structure of interest rates (a steep curve creating a large “Forward Drop”), the seller of the put option, if exercised, will **purchase the securities at a lower price.** (In our example, you would buy bonds at 100-00/32 instead of 100-28/32)
4) The seller of the put option **takes in a substantial upfront cash payment.** In our example, 24/32s on $5bn put options would create a premium paid to the seller of $37,500,000.
5) A 100-00 strike price **reduces the MBS originator's market risk** by insuring he will not take a principal loss when selling the newly created loans into the securities market. This reduction in risk should increase ReFinance activity via reduction of the “Primary to Secondary” spread.
6) Because the option is a short-term product, if it expires unexercised, **it can be repeated.** Our example above is for a ten week option. As such, it could be repeated five times a year, each time generating a fee. To place pencil to paper, this particular strategy, if repeated five times, would produce $187,500,000 per year of income on only 0.4% of the advertised $1.25 Trillion “buy program”.
7) **The only downside is opportunity cost** since you were going to buy the bonds in any case. By selling put options instead of buying bonds outright, the option seller will miss out on the upside participation if prices rise by more than the option fee. However, this is truly a moot point. The goal of the Program is to support current low rates, not to create a “short squeeze” and drive bond prices dramatically higher. Moreover, because of the call feature in MBS bonds, the upside in price is quite limited. Notice that the price of 5½ % bonds are only 2 ½ points higher than 4 ½% bonds. The implication is that Mortgage rates would need to decline by 100bps to lift these FN 4 ½ by 2 ½ points. Since you are collecting almost a third of that difference in only ten weeks, there is a powerful risk/reward advantage for selling puts instead of buying securities.
8) **Another avenue towards reducing the Mortgage rate to the consumer.** Presently, the spread between the Mortgage rate available to the consumer (the Primary rate) and the MBS (Secondary) rate is near an all-time wide. One of the primary drivers of this spread is the cost of hedging the market risk between the time of application and closure. Mortgage originators frequently use options as a tool to manage this risk.

Supplying the market with this exact option will lower their hedge costs, and as such, should eventually, via competition, lower the cost to the consumer.

9) **Reduced volatility will increase liquidity in the MBS market.** Investors and dealers are fearful of the daily mark-to-market price volatility in the MBS market. Selling options into the market will reduce uncertainty and draw in more investors.

Summary:

The primary goal of the MBS purchase program is to lower the primary Mortgage rate to the consumer as well as to add liquidity to the secondary MBS market. Utilizing the sale of short-term options on bonds, that would otherwise be purchased, is a vastly superior manner of execution. It will simultaneously lift bond prices (lower rates) via dealer hedging as well as dramatically reduce realized market volatility (uncertainty). Moreover, it will create a significant positive cash flow via premium income while lowering the ultimate purchase price. Not only does it advance the stated public policy in a superior fashion, but also it does so at a reduced cost to the Government. We look forward to helping you execute this concept.

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