Hedging Adjustable Rate Mortgages (ARMS)

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ARMs have been available to borrowers for decades. They have achieved unprecedented popularity in the past year. The favorable initial interest rate and monthly payment have been the historic point of attraction. The thorns lie with the adjustment feature of the product. This is the one exposure that stands to make the family budget resemble Uncle Sam's.

This product has matured along with the consuming public. Today a family of ARMS known as Hybrids exists. These offer a period of up to 10 years before the first rate adjustment would occur. Today, borrowers exist in significant numbers who consider the duration they believe they will reside in a home and the contractual annual and life rate change limits of the ARM. These astute consumers compare the possible debt stream for the Hybrid ARM mortgage to the classic fixed rate mortgage alternatives. What they see is a high probability that the ARM represents a better fit for their situation.

An endorsement of ARM products by Chairman Greenspan serves to bring further comfort to many borrowers who might not otherwise consider ARMs.

The cynic might be led to believe these people are consumer junkies looking for the one payment that will qualify them for that home they desperately seek. The alarmist in us might connect the dots to see a future where rising rates and households with minimal budgeting restraint set the stage for a default epidemic and home value crisis of national proportion.

It is what it is and regardless of the merits of ARM lending, the job of the pipeline risk manager is to manage the value of the product's that come through the door. The ARM has long been favored by commercial banks and thrifts. Traditionally, it has represented a better cash flow match to the short term deposits that fund their operations than longer term fixed rate mortgages.

However, the surge in hybrid ARM product has in some cases outstripped the appetite or ability to consume by these investors. Also, the longer fixed rate horizon of the hybrids makes them less attractive that the 1 year and 6 month ARMS that had previously dominated this segment.

For mortgage bankers who wish to be competitive in this arena the challenges are considerable. If you do not have a reliable portfolio investment partner, pricing and volume quality and consistency (elasticity) are issues. Thus, marketing and hedging hybrid ARMs is difficult.

To be in the most competitive pricing situation (in lieu of a valid investment partner or consortium) you must be able to cross-hedge. When you cross-hedge you are using an instrument into which you could not deliver your loans. Why would you do this? A cross-market instrument may be more liquid and more efficient than the secondary market for your loan products. It will allow you to aggregate sufficient loan volume and defer your marketing decision until an appropriate market window appears. In other words, you can wait to commit the loans until the price is right for you to sell. This tends to lead to more competitive rate sheets and higher portfolio profit levels.

The catches here are basis risk and systemic risk. Basis risk is the adverse mismatch in the reference rates for the hedge and the loan. Thus, losses exceed gains. Systemic risk (closely related to basis risk) is the degree to which price sensitivity for a given move in interest rates cannot be predicted.

Our studies have noted that agency hybrid ARM pricing conforms well to predicting price sensitivity for a given rate shift to the complex (note / price / window grids). Each investor would need to be tested to determine their systemic risk.

The basis risk for one seeking to cross-hedge the agency ARM product seems significant. Yield volatility of a given complex does not reveal consistently high correlation to any single cross-market candidate.

In seeking out a cross-hedge partner, we reviewed 30 year and 15 year mortgage backed securities (MBS), 2 year, 5 year and 10 year U.S. Treasury Securities and futures contracts on Eurodollar CDs.

We then tested market combinations and bundling deliveries (ala Euro CD curve bundles). The results improved but were inconsistent over time.

The take-away for us is that there is no rule of thumb, auto-pilot, persistent answer to cross-hedging ARMs. Basis risk must be managed and understood. Software systems that provide both research capabilities and what if profiling are mandatory to staying on top of this bumpy ride. Pricing margins need to be higher to provide a structural hedge contribution.