This time a year ago the Portfolio Management column, authored by yours truly, visited a number of topics related to mortgage-backed securities (MBS). The impetus for the column was the nature and volume of questions received from our customers—the investors—of different types of MBS.

This subject is worthy of a number of articles, so I thought it would be time to ask and answer some more recurring questions related to this topic. And, as other recent columns have pointed out (e.g., January 2006), the availability of traditional bank-portfolio items has shifted, so several of the topics discussed this September will address new MBS product offerings.

Before we get started, implicit in all of this is the fact that MBS have some very tangible benefits over non-amortizing securities. The cash flow tends to limit extension risk, and is very beneficial in rate environments such as the current from a reinvestment standpoint. The various ARM products allow a portfolio manager to quickly alter the asset/liability profile of a community bank. Planned Amortization Class (PAC) CMOs provide the opportunity to build very predictable ladders, as an alternative to callable or bullet agencies. And the breadth and depth of MBS markets give the investor the comfort of good liquidity, as quantified by the bid/ask spread (which is smaller than it has ever been for virtually all mortgage products).

For all these reasons, community bank portfolios’ use of these products has gradually expanded over the years. As of the end of March 2006, somewhere around

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Source: Bloomberg
46 percent of all banks’ investments were in some type of amortizing security. The percentage is higher for the top quartile of bank portfolios. This fact alone speaks to the many benefits MBS can offer.

**ARM Queries**

My favorite MBS for the moment is the hybrid ARM. The reader will recall that a hybrid is one that has a fixed coupon for a period of time (three to 10 years), at which time it reverts to a traditional one-year ARM for the remainder of the term. A very popular version has a five-year fixed period known commonly as a “five-one hybrid.”

A hurdle many managers have to clear is the notion of having a fixed rate instrument for what sounds like a long time—five, seven, 10 years. However, in calculating a hybrid’s effective duration, the prepayments play a very heavy role in limiting price volatility. For example, it is normal to assume 15 percent prepayments per year for hybrid ARMs.

When we account for the scheduled principal, prepaid principal and the interest received over that period, the effective duration often comes in under two years. And, the duration will gradually decline as the first reset date approaches. A simple illustration which may be worth noting is that any 30-year MBS will have only 42 percent of its original balance remaining after five years, at 15 CPR.

Another misunderstood variable related to ARMs is the relationship between the two most popular indices: One-year Constant Maturity Treasury (CMT) and 12-month LIBOR. Table II shows that these two are highly correlated, and that LIBOR is usually higher than CMT. This makes perfect sense if one considers that CMT is based on Uncle Sam–quality debt, and LIBOR is based on international bank–quality debt. Since 1990 the difference is about 39 basis points.

What this means to an investor is that, faced with a LIBOR-based or a CMT-based ARM, the LIBOR’s margin should be less than the CMT’s, and by about 40 basis points. If the difference is narrower than 40 basis points, all other things equal, the LIBOR would be the more attractive offering. For a hybrid ARM, however, any difference is less important as the coupon is fixed for a number of years, and the remaining factor at the reset date is often less than 40 percent of the original balance.

**Interest-Only Factoids**

Somewhere around 20 percent of all mortgage originations this year will be of the interest-only (IO) variety. (Virtually all of them are also hybrids, meaning they will pay interest after their first reset date.) Undoubtedly, some of these in securitized form will find their way into bank portfolios. So, before dismissing IOs as too volatile or lacking cash flow, the reader should know that their average lives and prepayment patterns so far seem to mimic more traditional pools, in which the vast majority of cash flow comes through prepayments.

While very few IO pools have actually yet reached the reset dates (when P&I payments could increase substantially), it seems...
reasonable to assume that they’ll continue to behave like coupon-paying hybrids. The fact that there is no scheduled principal for the fixed-rate period has very little impact (we would estimate only about an additional two months at the outset). After the pool converts to an ARM, whatever is left will actually have more cash flow than a coupon-paying pool, due to the higher remaining principal balances.

Reference Note Classification
Reference notes, also known as mandatory redemption notes or Amortizing Prepayment Linked Securities (APLS), are debt securities issued by the traditional agencies including Federal Home Loan Banks (FHLB), in which cash flows are determined by prepayments on designated existing pools, or “reference collateral.” They have monthly P&I, and short stated finals, and as such look and feel much like a balloon, which of course has been a very popular bank investment. They can also have some state tax benefits if the investor is in a state that allows exclusion of FHLB interest from taxable income.

Reference notes are not classified as mortgage-backed securities on the call report because, unlike CMOs, the agency does not own the collateral from which the cash flow is derived. Reference notes simply pay down based on how some other security performs. Consequently, these items should be classified as U.S. Government agency obligations on the call report. Portfolio analyses compiled by most brokers, like our own Performance Profile, should be able to capture the cash flows from such items without difficulty. Finally, these meet the criteria for structured notes, so they should be included on that memo item as well.

‘Busted’ PACs
A busted PAC is a term that is often used and misinterpreted in MBS circles. A busted PAC is one whose band has shrunk to the point that future prepayments are expected to be outside the remaining band. The band is a range of prepay speeds (expressed in PSAs) in which an investor is certain of the average life and payment window. This is not a guarantee, as faster-than-expected prepayments can make the band erode, or even disappear. This is what causes the “bust.”

The fact that a PAC CMO is busted is not inherently bad, however. It can retain many of the qualities of a true PAC, such as tight payment windows and limited extension risk. Table I on page 66 is a prime example of such. The upshot for an investor is that he or she should expect higher yields out of a busted PAC than a true PAC. Most PACs like the one displayed would yield less, however, than a comparable vanilla CMO, because of the tight windows and limited average life fluctuation.

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