MORE YIELD MAINTENANCE

by Steve Brown

A bulldozer is specifically designed to move dirt from one place to the next. As any builder will tell you, sometimes one has to move quite a lot of dirt before a job site can be ready for construction. That is why we introduced some preliminary discussion points on yield maintenance in Friday's BID. We began by discussing yield maintenance in loan agreements, compared it to declining balance prepayment penalties, focused on how it generally works and pointed out that large banks use yield maintenance in about 95% of their loan documents. Today we move even more dirt, as we dig into a real life example. Our hedging desk recently priced up a $1.5mm, 10Y fixed rate CRE loan (25Y amortization) for an independent bank customer at a 5.63% swap rate. The bank was able to originate the loan itself, with a corresponding 7.53% fixed rate. On the overall transaction (loan and swap), the bank netted the 7.53% fixed rate it receives each month from its customer, less the 5.63% it pays Pacific Coast Bankers' Bank (PCBB) each month, plus 1M Libor (which is set at 5.13% for the current month), less the bank's funding cost (of 2.40%). On this loan, since the bank's funding cost is 97.7% correlated to 1M Libor, we can calculate with a degree of certainty that the bank's NIM will be 4.63%. That is good to know, but our discussion today is focused on yield maintenance, so let's look at what happens in this real-life example if the customer comes back to the bank in 2Y and wants to pay off this loan. We begin by assuming rates have climbed 50bp from when the bank originally issued the loan. Recall that in this instance, the bank conceptually would like customers to prepay, since it can now originate new loans (of similar credit) at coupons that are 50bp higher. For example, a new fixed rate loan would carry a coupon of 8.03% (7.53%+50bp), while a corresponding fixed rate swap could be entered into for an expected 6.13% (5.63%+50bp). What then would be the impact on the customer if they prepaid this loan when rates were higher? To figure that out, we will need to do some light math. In this example, we know that 2Y of a 10Y loan have already come and gone, so the note is now carrying an 8Y remaining maturity. To determine the impact on the customer, we will calculate the net present value of the remaining cashflows (recall that the note is amortizing down) that are being lost by the bank, using the new 6.13% discounting rate. This produces a gain of $42,924 (on the swap), which will be paid by PCBB to the bank (and then from the bank to the customer), in order to unwind the remaining term from the original transaction. So far, things look rosy, the customer is happy, as they have been allowed to refinance without penalty and have received this perceived windfall. Remember, the reason the customer wanted the 10Y fixed rate term to begin with, is because they were concerned rates were heading higher and were trying to protect themselves. In fact, the customer received the protection for the full 10Y, even if they prepay 2Y (as in this case). What happens if rates fall? Using the same methodology, we calculate the customer would need to pay a penalty of $44,496. However, prevailing market rates are 50bp lower, so the customer that refinances would now have a lower note rate of 7.03%. While it is never fun from the customer's point of view to pay a penalty, the lower note rate mathematically offsets the cost of prepayment. In fact, the customer realizes the same 7.53% rate for 10Y, whether they refinance or not. Big banks do not waive these penalties, since it is always the customer's option whether or not to prepay. For interested independent banks, we have a simple Excel prepayment calculation spreadsheet you can use, as you begin to push the dirt around this loan concept.

BANK NEWS

Acquisition

First Charter Corp. ($4.2B, NC) will acquire GBC Bancorp ($418mm, GA) in a transaction valued at nearly $102mm or 2.6x book.

Declining

The FHLB Seattle indicates 14 member institutions recently applied to withdraw from membership. The FHLB has seen its membership drop to 371, suspended dividend payments for 3Y, and restricted early redemption of stock.

Customers

Bank of America has launched a new web-based cash management product for corporate customers. The site allows companies to view cash flow position and liquidity information from different financial institutions in one location.

Banking

As of the end of 2005, the top 10 banks controlled 49% of U.S. banking assets, up from 29% 10Y ago.

Booming

Banks should take note that online advertising, currently estimated to be worth about $13B, is expected to double in the next 4Y.

Business Lending

Large banks are increasingly using FICO scores of owners, when making lending decisions regarding their underlying businesses, according to a recent analysis.

Fraud Detection

Visa announced that it will expand fraud detection capabilities to include ATM transactions, as they try to stay one step ahead of tech-savvy criminals.