

CAPS, FLOORS AND FORWARD LOAN VALUE

by [Steve Brown](#)

As mentioned yesterday, current market conditions have changed the value of loan structuring. Those that use a loan pricing model should hopefully quantitatively see those changes. However, if you are not using one, then we wanted to give readers an update on relative value. Higher volatility has increased the value of options in all areas of the bank, while lower collateral values and a steeper yield curve have dampened the cost of the options. While yesterday we covered the value of prepayment penalties, today we look at caps, floors and forward starting loans.

The most potent example of value destruction is embedded options on floating rate loans. We witness many banks struggle with delivering loan structures in demand by borrowers. Without the use of swaps, banks are challenged to offer long-term, fixed-rate loans. The next closest alternative for the borrower is a cap and floor (also collectively called "a collar"). In this structure the borrower promises the bank a floor and the bank offers the borrower a cap. For example, let's go back to yesterday's loan example and assume a \$3mm, floating rate loan for a 5Y term, based on a 25Y amortization period. In this example, assuming a 2.00% credit spread (Prime less 65bp), an 8.00% cap is worth \$46.5k, an 8.50% cap is worth \$36k, and a 9.00% cap is worth \$29k. To offset the option value given to the borrower, the bank seeks to obtain a floor. There are two problems, however, with this collar. First, for a collar to make sense, the floor must be set at or below today's prevailing interest rates. That's a problem given that rates are very low and expected to go up. That makes a floor below today's rates worth very little. Second, because prepayment penalties on floating rate loans are exceedingly uncommon, the value of the floor is always close to zero regardless of where rates are or where the floor is set. The borrower will refinance if the floor becomes too costly. Collared loans are one of the prime examples of value destruction for community banks - banks give up an expensive option to a borrower (a cap) for cheap option (a floor), that from inception, can never deliver value to the bank. In today's market, caps are relatively expensive given the steepness of the curve.

Of course, the better tactic is to use our BLP structure to take a fixed rate loan and convert to floating (where we take the interest rate risk). Here, the floating rate can match asset-liability needs (for example, you can choose 1 mo. to 12 mo. Libor), and interest rate risk can be mitigated in full (since you don't have to worry about the difference between the floor and the cap).

The other common source of option risk for loans is the forward starting fixed rate. When the yield curve was flat, locking in a rate while the loan was being processed resulted in very little economic value erosion. Now, with a steeper curve and more volatility, guaranteeing a fixed rate for the customer for 30 days results in a 16bp loss in value, while locking the rate in for 60 days cost the bank 20bp.

In this market, banks need to be extremely mindful of permitting the borrower to cement a rate for any length of time before loan closing. While it seems like no big deal for the bank, rates are routinely going up 10bp a day. If you told the customer a rate in early May, yet didn't close until the start of June, the bank could be out an average of 40bp per annum - that is a large hit to future profitability. Banks can build in the cost of locking a rate to the customer, quote the loan on a spread basis or contact a firm like ours to hedge the interest rate exposure. Either way, the risk should be mitigated.

In this market, loan optionality can play a material role in the creation of value. Being mindful of the extent and cost of optionality is the first step to higher loan returns.

BANK NEWS

Countrywide

After 40Ys in the mortgage business, Countrywide is now officially assumed by BofA. The final price was approx. \$2.5B, or 37% less than originally announced.

Mortgage Ruling

A lawsuit alleges Chevy Chase Bank mislead borrowers on mortgage documentation. In a potential nightmare for the industry, if the U.S appeals court rules against the bank, borrowers would be able to cancel loans all together when lenders violate federal lending disclosure laws.

Voice Access

Voice authentication may be the next step for accessing funds. Users enter their cell phone numbers into the ATM, the system calls the phone and verifies the voice to a prerecorded voiceprint allowing for card-less cash withdrawals. The attraction is users can remotely authorize ATM disbursements for others.

Tough Times

After cutting nearly 1,500 jobs, Credit Suisse has sent a memo asking clients to hire the Company's former employees.

Loan Prepayments

In an effort to reduce assets without booking a loss, Wachovia is sending a letter informing borrowers with negative amortization that the Bank will waive prepayment penalties if they refinance.

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