LOAN PREPAYMENTS

by Steve Brown

We recently went back to the campus of UC Berkeley and found out a couple of things. One was that we are old. Seeing signs about helping Darfur and stopping the practice of children soldiers made us think back to the time when we were full of energy to take on social issues. Now, our life's goal tends to be along the lines of just getting home on time.

The other thing that we realized is the fact that all current loan prepayment models are flawed. It was in Northern CA during the early 1990's, where a group of UC professors and ex-students (when they weren't reading Mother Jones), came up with one of the first loan prepayment models for single family housing based on a large pool of FNMA loans. This research highlighted the fact that optionality plays a large part in the value of the loan and by predicting prepayments, banks can increase profitability.

Since that time, the models have evolved to include multiple classes of loans both in the residential and on the commercial side. The problem is that most of these models assume a fairly liquid market to refinance and loan-to-value of less than 100%, neither of which are valid today. As a result, a loan's value no longer exhibits as much negative convexity (the act of prepaying when rates go down and extending when rates go up) which is a positive for performing loans and a negative for stressed loans.

Over the past 9 months, we have been hard at work in trying to figure out the propensity to prepay and the correlation between interest rates and value in order to update our Loan Pricing Model. On Monday, we are proud to announce that our new prepayment model goes live and while not perfect, we believe it is the most accurate model available to community bankers. One major addition is the model associated with hybrid loans (both fixed and floating over their life).

If you are a user of the model, you will have full benefit of its predictive power, as it takes into account actual prepayment experience for more than 14 classes of loans over the past 18 months. If you are not a user, then it is important to understand a couple of highlights in order to help drive loan value in the age of lower prepayments.

For starters, the obvious change is that prepayment speeds are about 70% slower than pre-2008 experiences. This figure is a little less on single family loans and a little more in some classes of commercial loans. This means the average life is materially longer and the value of prepayment protection is therefore markedly less. If you are talking fixed rate loans, duration (or interest rate sensitivity), has also increased. In fact, because property values are so depressed, fixed rate loans presently on the books will most likely go to full maturity (and in many cases past), as rates begin to rise. This will increase most banks interest rate sensitivity (due to extended duration).

Floating rate loans on the other hand, are rife with problems. Here, quality floating rate loans will refinance to fixed when rates rise, leaving banks with a group of adversely selected loans. This problem is further exacerbated, as risk increases on these loans the higher interest rates go, placing more strain on debt service coverage. This occurs when rates rise faster than rents, a situation that occurred with every recovery we reviewed.

A couple of other interesting points to highlight - hybrid loans tend to pay off much more quickly in a rising rate environment compared to their pure floating brethren. This fact is most likely caused by the characteristic that a hybrid user tends to be more sophisticated and interest rate sensitive to begin with. Further, when you look at a CRE vs. a C&I loan in a falling rate environment, CRE tends to be 75% longer than C&I (as the C&I borrower hasn't taken as large as credit hit in this economic downturn and thus tends to have more refinance options). The opposite is also true in that C&I extends faster than CRE in a rising rate environment. That means next year, C&I loans are predicted to be 55% shorter than their stated maturities when compared to CRE. This again highlights the growing concern that CRE, because of its current economics, will present banks with the largest interest rate risk over the next 3Ys.

From 1995 to 2007, prepayment risk made up the largest risk to banks, surpassing credit, liquidity and interest rate. These days, optionality is the least of the "Big 4" risks; however it has placed pressure on the others. Contact us if we can help with prepayment issues, just don't do it after 5pm, as we really need to be home on time for dinner.

BANK NEWS

CU Closure

Second Baptist Church Credit Union ($920K, CA) was closed and liquidated by the NCUA yesterday. Prosperity Federal Credit Union ($14mm, CA) will acquire Second Baptist's loans and shares.

Small Business

The House passed a bill supporting small businesses. Key aspects of the bill: extends through 2011 increased 7(a) SBA program loan guarantees; requires SBA to pay promptly on repurchase applications and decide whether to approve or deny repurchase applications within 45 days; establishes an ombudsman to resolve disputes; increases ARCP loan size from $35k to $50k; and provides for a single-page application for ARCP loans.