ANDREW DAVIDSON & CO., INC. the Pipeline

Prepayment Update

Model Adjustments in Light of the Credit Crunch

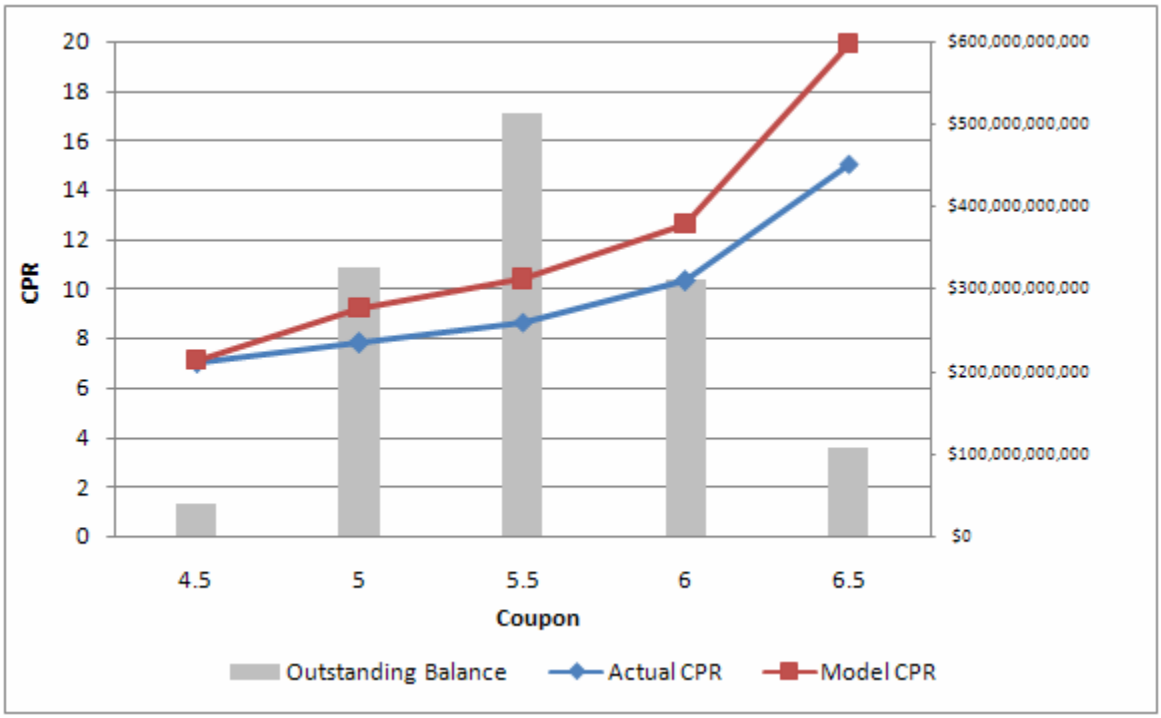
By Dan Szakallas and Sanjeeban Chatterjee

This month we will spend some time discussing the issues that have arisen in the past couple months as a result of the "credit crunch" being felt across the mortgage industry. We have been actively monitoring prepayment and default behavior to ensure that our models are still accurately forecasting this behavior, and if any tuning recommendations are needed. We will address two different issues in this article related to this research.

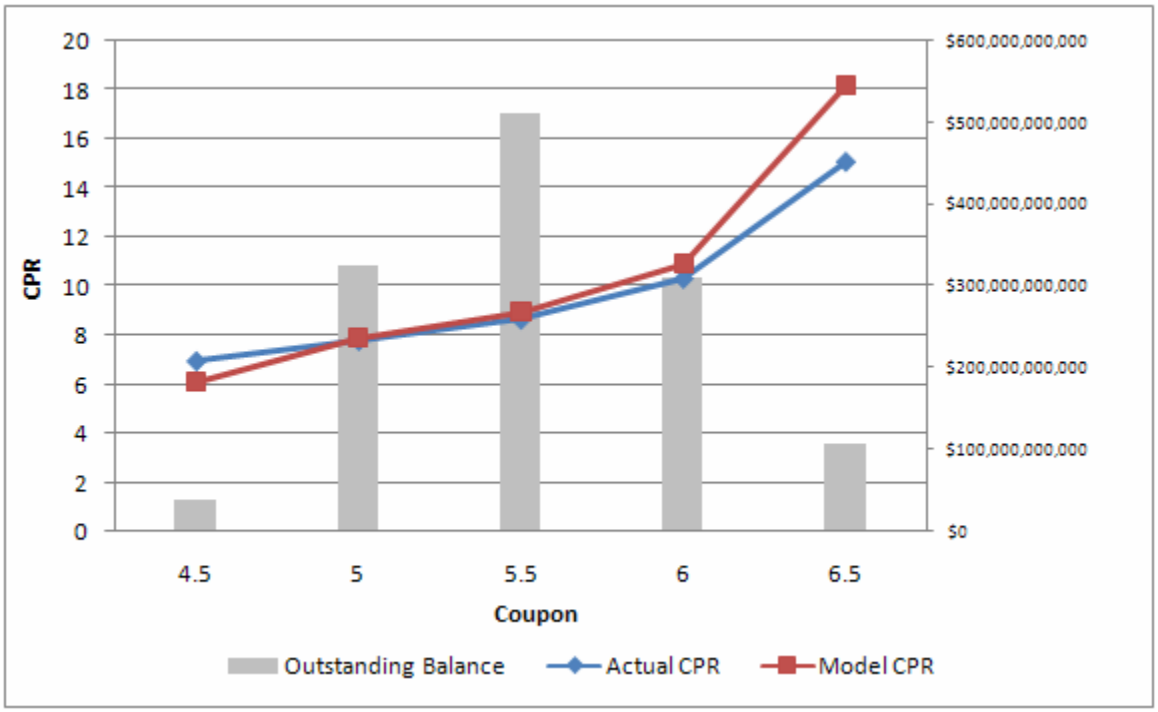
As lenders react to the staggering losses on sub-prime portfolios, one of the changes is much tighter underwriting guidelines when processing new mortgage applications. Borrowers who may have been approved for larger loans or lower rates a year ago are seeing that the amount they can borrow, even with good credit, is less than in the past. Coupling this with very modest home price appreciation over the last year (about 4.5%) has led to a steady decline in existing home sales every month since February. In less volatile market conditions, the months from February to August are when we normally see existing home sales rise. This trend was last seen in 2005 when existing home sales topped out in September at around 7.2 million units. This year, however, we have seen the numbers drop from 6.68 million units in February to 5.75 million as of July, so it seems as though the impact of the tighter underwriting guidelines is being seen. If new borrowers cannot finance the cost of purchasing a home, then houses will remain on the market. Sellers must either decide to sell the home at less than the asking or appraised value, or allow the home to remain on the market much longer than they anticipated.

In the MBS industry, the impact of this situation is causing some to revise their housing turnover models to account for the new market conditions. Models are over-predicting the rate of housing turnover, and it will most likely be a few months before the market corrects itself to return to historical averages. Version 5.2c of the AD&Co. Prepayment Model shows that over the last 3 months, the model has been slightly fast in forecasting CPR's for the discount coupons (4.5's to 6.0's). The graph below shows model performance for FNMA 30 year pools for the month of July.

Model Performance for FNMA 30 year pools - July '07



It is clear that some tuning is needed to account for this noticeable slowdown in turnover. By adjusting the turnover tuning parameter in the model from 1.0 to 0.85, we are able reduce this over-prediction from an average of about 2.0 CPR in the graph above to an average of 0.5 CPR in the graph below.



We are officially recommending that for the foreseeable future, all users should adjust all AD&Co. 30 year FNMA, FHLMC and Jumbo Prime models in v5.1 and later to a turnover tuning setting of 0.85. We will continue to track the turnover component of the model, and will remove the tuning recommendation when we feel it is no longer needed.

Another question that has come up is how current market conditions will affect peak reset speeds for ARMs, especially in the subprime world. Given current market conditions, will the peak speeds around reset reach the same levels as before? The answer is that we do not know for certain. Version 5.2c of the AD&Co Prepayment Model is modeled such that speeds increase around the first through fifth reset periods. The model was developed using data through 2007 and the current model peak speeds correspond to speeds observed in the historical data.
We are closely monitoring all 2002 through 2005 vintage loans to see whether any significant changes can be observed in the peak speeds. As rates have risen and home prices have stabilized, borrowers do not have much of an incentive to refinance to lower rates and/or cash-out some equity. At the same time, rates will go up at reset, increasing payments to levels that might be a stretch for some borrowers (at least in the subprime sector). This could result in an increase in defaults.

The pool-level prepayment model projects total terminations. It does not distinguish between voluntary prepayments and defaults. So even though the peak speeds might not reach the levels seen before, they may be offset somewhat by rising defaults.

We are currently studying these phenomena – peak speed levels and the effects of rising defaults, using the most current data available for agency and non-agency prime and sub-prime loans. We will report on our findings in later editions of *The Pipeline*.