Anthony Lembke
(212)783-6637
tlembke@sbi.com

Peter DiMartino
(212)783-7871
pdimartino@sbi.com

Credit Enhancing High LTV Mortgages in Nonagency MBS

The percentage of nonagency mortgage collateral with high loan-to-value (LTV) ratios (greater than 80%) has been increasing over the past year, with recent percentages ranging from 20%-50% of total principal balance. This type of collateral can be credit enhanced in one of two ways: 1) with primary mortgage insurance (MI) plus subordination or 2) with subordination alone. In the first form of credit enhancement, a third party mortgage insurer will cover losses down to a 65% LTV, with subordination covering any additional loss. In the second type of enhancement, losses are covered entirely by subordination, which is sized-up to provide the same amount of protection as the MI. In this article, we present the pros and cons of high LTV loans with and without MI, including an empirical performance analysis.

Typically, high LTV mortgage loans require additional protection against losses resulting from defaults. In most cases, these loans will have a MI policy, with premiums paid by the borrower. In other cases, however, borrowers may be given the option to pay an above-market mortgage rate — a so-called premium-priced loan.

Among the major nonagency issuers, only Pru Home (including its SASI shelf) securitizes high LTV loans without MI, and even then the percentage of these loans is limited to only about 15% of the pool balance. The rate

premium on these loans is usually 1/4-5/8 above prevailing mortgage rates (depending on the actual LTV ratio and loan amount) for a 30-year loan. The resulting increase in the monthly mortgage payment, after taxes, is approximately the same as a mortgage with MI.

From the lender's perspective, a premium-priced loan facilitates a faster underwriting process, because MI requires that the loan be re-underwritten before it can be approved by the mortgage insurer. From the investor's perspective, this second layer of underwriting is a positive. With or without MI, however, investors should take comfort from the fact that lenders typically underwrite high LTV borrowers with full documentation.

Rating agencies require additional subordination for loans without MI coverage. Generally, loans are protected down to the same LTV.

When high LTV loans are included in nonagency MBS, the rating agencies determine the required subordination, recognizing that the loans without MI will need additional subordination relative to loans with MI. For example, if the LTV ratio is 90% and MI would normally protect down to a 65% LTV, then the rating agencies would require loans without MI to have additional subordination equivalent to that 25% MI coverage (90-65). Otherwise, the rating agencies assume that, all else equal, loans with the same LTV will have the same propensity to default, regardless of MI coverage. In fact, if two 30-year pools were identical, except in one pool 10% of the pool balance did not have MI, the difference in total subordination would be approximately 50bp. This extra credit enhancement provides an additional $1 million of loss protection to the senior classes in a $200 million pool.

MI companies diversify investor's risk exposure, but are themselves subject to event risk.

Investors should understand the risks and benefits of having MI companies as their first line of defense against loss. The major risk of MI companies is that, like any corporate entity, they are subject to event risk. Companies can go bankrupt, be acquired or exit the business altogether. In contrast, pure subordination is not subject to third party event risk. On the other hand, MI companies allow investors to diversify their exposure beyond one pool's borrowers. For example, MI companies underwrite conforming mortgages, securitized by FNMA and FHLMC, and thus, are more diversified with respect to borrower type and geography. As mentioned above, MI companies also re-underwrite the loan (or at least perform an independent review), giving investors greater confidence in high LTV borrowers' ability to repay.

As mentioned, Pru Home is the most prominent issuer of nonagency MBS with premium-priced, high LTV loans. In the early 1990's, Pru Home's high LTV loans without MI averaged just under 4% of pool balance. In 1995, that percentage increased to over 12%. Because of the available history, we can analyze the performance of Pru Home's high LTV loans with and without MI. Figure 34 shows losses (by original pool balance) and current loan performance (by current pool balance) for the four years of origination from 1990 to 1993.

Figure 34. Pru Home 30-Year, High LTV Loan Performance: MI Versus No MI by Origination Year, October 1995

	Origination Year							
	1990		1991		1992		1993	
	MI	NO MI	MI	NO MI	MI	NO MI	MI	NO MI
Gross WAC	10.6%	10.8%	10.1%	10.4%	8.4%	8.6%	7.6%	7.8%
Losses[a]	1.5	2.2	2.2	0.6	0.4	0.2	0.4	0.0
90+, Forcl., REO[b]	9.7	19.0	14.8	7.2	2.3	1.1	0.9	0.6

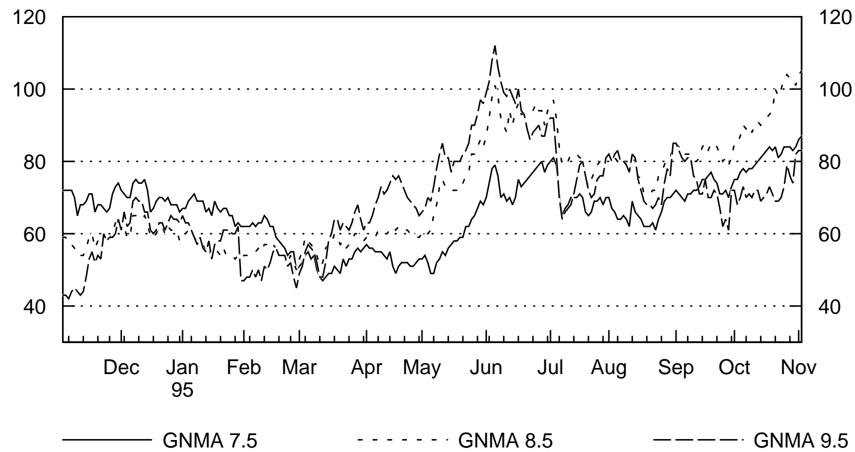
[a]Percent of Original Pool balance [b]Percent of Current Pool Balance
Source: Prudential Home Mortgage Securities Inc., Salomon Brothers Inc.

Pru Home's '91-'93 vintage high LTV loans without MI have lower losses and better credit performance than those loans with MI.

In general, Pru Home's high LTV loans without MI have had lower loss percentages and better credit performance than loans with MI. As shown in Figure 34, losses on loans without MI range from 0.0%-2.2%, while the losses on loans with MI range from 0.4%-2.2%. However, only the 1990 vintage shows higher losses for the loans without MI. For the other three years of origination, the loans with MI have consistently higher losses. We observe the same pattern for delinquencies, foreclosures, and REO. With the exception of 1990, the loans without MI have had better performance.

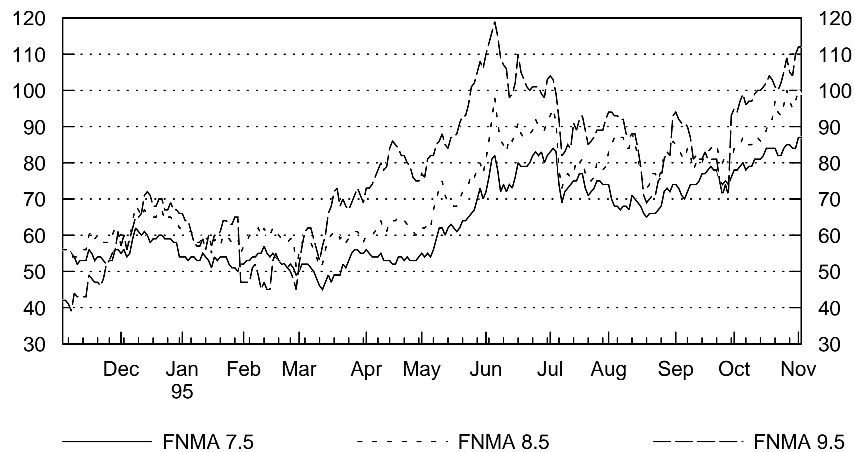
In conclusion, investors have to weigh the relative merits of third party enhancement combined with less subordination versus larger subordination, which has a greater likelihood of sustaining losses. In highly-rated tranches (single-A to triple-A), we do not see the trade-off as that significant to the value decision. But as investors move down in credit rating to low- or below-investment grade, these factors take on increased relevance. As with other credit characteristics, however, we discourage focusing on any one characteristic in isolation. Other factors such as subordination percentage, the average LTV, total percentage of high LTVs, documentation types, and quality of information should always be considered in evaluating a given tranche's credit quality.

Figure 35. Option-Adjusted Spreads of GNMA 30-Year Pass-Throughs



Source: Salomon Brothers Inc.

Figure 36. Option-Adjusted Spreads of FNMA 30-Year Pass-Throughs



Source: Salomon Brothers Inc.