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Deep Mortgage Insurance in the Subprime Market

Deep mortgage insurance (deep MI) has grown rapidly in the subprime market over the past year. In the first quarter of 2000, for example, few subprime mortgage deals included loans protected by deep MI.[19] By contrast, of the deals done in the first four months of this year, at least 16, totaling over $7.5 billion in volume, had exposure to deep MI. In almost all of the cases, deep MI covered a significant majority of loans in the pool.

Deep MI differs from standard MI.

Deep mortgage insurance developed out of standard primary mortgage insurance, which has been used for years by agencies to limit their credit exposure to loans with LTVs above 80%. The new product, however, differs in several key features from the standard MI:

- Deep MI is paid by the lender. Standard MI is typically paid by the borrower.
- Deep MI provides insurance coverage down to an LTV of 60% or lower. Standard coverage for agency pools is down to an LTV of 75%.
- Deep MI cannot be canceled after the loan has amortized part of the way. For agency pools, the borrower has the right to terminate insurance once the LTV has reached 80%.

Like standard MI, deep MI is an insurance policy that covers individual loans. It is distinct from pool insurance, where the insurer covers aggregate losses in a pool of mortgages, up to a specified liability amount. The largest providers of deep MI for subprime mortgages are Radian (rated AA), MGIC (AA+), Triad (AA), and PMI (AA+).

Coverage Percentage

The amount of insurance coverage on a loan is typically expressed in terms of "covered LTV." This LTV is lower than the actual original LTV of the loan and represents the effective LTV that the insured loan carries, *before adding any cost incurred in the foreclosure.* A more direct measure of the insurer's liability is the coverage percentage, defined as:

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[19] ARC 2000-BC1 issued in February 2000 is an example of an early deal with deep MI.

Coverage Percentage = (Actual Original LTV-Covered LTV)/Actual Original LTV.

Coverage percentage is applied to the total insurance claim to determine the dollar amount of the insurer's liability. The total insurance claim includes the defaulted loan balance, delinquent interest, and expenses incurred in the foreclosure.

Claim Payment Options

Once an insurance claim has been submitted, the insurer has several options:

1. Pay the coverage percentage of the total insurance claim.
2. Pay the full claim amount and take title to the property.
3. Approve the sale of the property and pay the difference between the claim amount and the net sale proceeds. Other loss mitigation procedures, such as deed in lieu, may also be followed.

Mortgage insurers have an excellent record of honoring claims.

Mortgage insurers have an excellent record of honoring claims. For example, MGIC, a leading provider of mortgage insurance, has denied 0.1% of the claims in the 1999-2000 period and adjusted (lowered) 0.9% of the claims. The large majority of claim adjustments were interest adjustments, arising from late foreclosure, late sale closing, and servicing errors. Although most of the claims in the past were made on prime loans, Moody's estimates that in the last two years between 5% and 15% of the claims were made on loans issued to subprime borrowers.

Policy Exclusions and Underwriting Criteria

Adjustments of interest payments reflect the servicing requirements typically enforced by providers of deep MI: all steps in the management of delinquency have to adhere to a timetable specified by the insurer. In addition to a timetable, the insurer generally specifies the maximum allowed fees associated with foreclosure and sale of the property. For example, the legal fees are capped at 3% of the unpaid principal balance plus accrued interest.[20]

Outright denials of insurance claims are rare. Two most common reasons for denial are physical damage to the property beyond normal wear and tear (typically covered by hazard policies) and loans that were obtained through fraud, misrepresentation, or the lender's negligence. According to Radian's experience, the most common type of fraud is representations and warranties fraud. It is concentrated in a very small number of sellers. Appraisal or servicing fraud is rare.

Deep MI policies carry a number of policy exclusions, in addition to the limitations mentioned above. Exclusions include: (1) balloon loans, (2) negative amortization loans, (3) high-cost (Section 32) loans, (4) loans that are not first liens, (5) loans originated without downpayment, (6) loans that are more than 30 days delinquent at the time the policy was purchased, (7) servicing performed by a non-approved servicer, (8) insurance claims submitted before the effective date of the policy, (9) claims arising from preexisting environmental conditions, and (10) loans collateralized by property that is only partially constructed.

[20] In many geographical areas the insurers have shown willingness to pay legal fees above the cap, as dictated by the local legal market.

Deep MI providers apply stringent criteria to subprime loans.

A loan that satisfies all of the policy exclusions does not automatically qualify for coverage. Mortgage insurers also apply stringent selection criteria to the subprime loans they insure. Typically, the loan has to fall above specified cutoffs on a grid of FICO scores and LTVs, and the borrower's credit history and mortgage payment history have to satisfy precise conditions. For example, a minimum FICO score of 575 is commonly required for a loan with an LTV in the 90% to 95% range. Under general credit terms, only loans to borrowers with a credit rating of subprime B or higher can be insured. Other common criteria include maximum LTVs for a cashout loan, limits on the debt-to-income ratio (commonly at 55%), and restrictions on the type of residential property collateralizing the loan (typically, only one-to-four unit residential properties are eligible). Most insurers also cap the maximum loan amount, at a level that is substantially higher than the average loan amount in the deal. The purpose of the cap is to limit the insurer's exposure to any single loan.

To limit the risk of inflated original appraisal of the property, insurers either request broker price opinions (BPOs) for a representative sample of the collateral, or check the appraisal against the output of an automatic valuation model (AVM).

Benefits and Risks of Deep MI

Benefits of deep MI include diversification and additional due diligence.

Benefits to bondholders provided by deep MI include the following:

- Diversification with respect to insurer. Deep MI providers are different from monoline bond insurers, providing diversification in a portfolio that has significant holdings of wrapped subprime mortgage deals.
- Diversification of credit enhancement in a deal. In a senior/sub deal a downgrade of the MI insurer is less onerous than the downgrade of a bond insurer in a wrapped deal. On the other hand, if the collateral default performance is worse than expected, deep MI that covers a large fraction of loans in a deal offers a welcome independent layer of protection compared to a senior/sub deal without deep MI. In a wrapped deal, deep MI offers investors exposure to two different insurers, rather than only one.
- Additional due diligence of the loans. Deep MI providers typically apply statistical sampling techniques to review individual loan files, perform borrower credit analysis, review legal documentation, and perform property appraisal.
- Additional due diligence of the lender and servicer.

Risks of deep MI include concentration of credit risk, variance of loss severities, and nonperformance by the servicer.

Most risks associated with deep MI can be offset by properly sizing structural credit enhancements in a deal. Therefore, the relevant question is whether such structural enhancements are in place. Risks that cannot be offset include a downgrade of the insurer and nonperformance of the servicer. The key risks of deep MI are the following:

- Concentration of credit risk in a small number of uninsured loans. Because of stringent underwriting practices, most insurers avoid the riskiest loans. The main risk for the bondholder is the failure of the rating agencies to recognize the full magnitude of potential losses of the uninsured loans.

- Variance of loss severities. Even if deep MI covers all the loans in a pool, and is sized such that the resulting *average* loss severity is zero, the variation of loss severities from loan to loan will degrade the effectiveness of the insurance. Loans with severities lower than the average will not use the full amount of insurance available. Those with higher-than-average loss severities will incur a loss to the structure. Standard deviation of loss severities can be substantial, easily exceeding 10% in a subprime portfolio.[21]

- Failure of the trustee to pay insurance premiums can result in cancellation of insurance.

- Failure of servicer to follow the insurance company guidelines can result in reduction of coverage. As we discussed previously, this has not been a serious problem with insurance claims in the past. We do not expect that it will be a major issue for subprime servicers either. Most subprime deals are serviced by highly competent servicers, who are well aware of the value of active management of delinquent loans. Most of the servicers also have an equity interest in the collateral, typically in the form of first-loss pieces, providing an additional incentive for high-quality servicing. Finally, insurers generally provide training to servicers' employees to explain the form filing procedures and the expected timelines.

- Double-A ratings of deep MI providers. Only one rating agency has so far stated that they discount the double-A coverage of the insurers when sizing the required credit enhancement for a triple-A rated bond. The other two agencies do not appear to discount the insurers' double-A ratings. (In that case an *upgrade* of the insurer would have no effect on the subordination levels.) Although obvious, this risk is small, as the probability of downgrade for a double-A or double-A+ rated company is not significantly higher than for a triple-A rated company.[22]

Effect of Deep MI on Subordination Levels — Examples

Deep MI has led to a significant reduction of structural credit enhancements.

Deep MI on a large number of loans in a subprime mortgage deal allows for a significant reduction of structural credit enhancements. We compare the credit enhancements for two deals issued by Long Beach and two deals issued by Countrywide. For each issuer, the collateral in the two deals is similar, but the earlier deal does not contain loans with deep MI.

Long Beach: SBMS VII 2000-LB1 Versus LBMLT 2001-1

SBMS VII 2000-LB1 and LBMLT 2001-1 were done about one year apart. Their collateral characteristics are similar, as Figure 43 shows. However, the credit enhancements of the securities are significantly different.

The 2000 deal does not contain any loans with deep MI, while in the 2001 deal about 70% of the loans are insured to the LTV of 60% by MGIC. As a result of deep

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[21] See *Bond Market Roundup: Strategy*, Salomon Smith Barney, June 23, 2000.

[22] See *Downgrade Risk in the Financial Guaranty Industry*, Moody's Investors Service, January 2001, and *The Evolving Meaning of Moody's Bond Ratings*, Moody's Investors Service, August 1999.

MI, the subordination levels in the 2001 deal are lower. For example, initial overcollateralization (OC) in LBMLT 01-1 is 75bp lower than in SBMS VII 00-LB1, while target OC is 1.5% lower. In the case of triple-As, the overall initial subordination in the 2001 deal is 12.75%, down from 18.00% in the 2000 deal. For single-As, the initial subordination is lower by 2.5%. In addition to lower subordination levels, LBMLT 01-1 also contains a NAS IO bond, which reduces the available excess spread over the first three years of deal age. SBMSVII 00-LB1 does not contain an IO. Figure 44 provides a detailed comparison of credit enhancements for the two Long Beach deals.

Figure 43. Original Characteristics of SBMSVII 00-LB1 and LBMLT 01-1

								ARMs	
Deal	Issue Date	Fixed/ Floating (%)	WAM (%)	WAC (%)	LTV (%)	Balance (000$)	Prepayment Penalty (%)	WA Gross Margin (%)	WA First Reset (mos)
SBMSVII 00-LB1	2/23/00	22/78	354	9.73	78	120	89	6.63	24
LBMLT 01-1	3/14/01	14/86	355	10.73	79	120	85	6.07	24

Source: Salomon Smith Barney.

Figure 44. Comparison of Credit Enhancements for SBMVII 00-LB1 and LBMLT 01-1

	OC + Rated Classes Below				OC		Deep MI	
Deal	AAA (%)	AA (%)	A (%)	Available Initial Excess Spread (bp)	Initial (%)	Target (%)	Percent of Pool (%)	LTV Level (%)
SBMSVII 00-LB1	18.00	12.00	6.75	292	2.75	5.50	None	
LBMLT 01-1	12.75	8.50	4.25	52 yr1 152 yr2 252 yr3 402 yr4 and later	2.00	4.00	70	60

OC: Overcollateralization.
Source: Salomon Smith Barney.

Countrywide (CWABS): 2000-1 Versus 2001-1

Both CWABS 00-1 and CWABS 01-1 are backed by two pools of mortgages, one floating and one fixed. Each collateral group has its own senior/sub structure, but the deal allows for cross-collateralization under certain conditions. The collateral characteristics of the two deals are similar, although the average fixed-rate loan balance in the 2001 deal is higher than the corresponding balance in the 2000 deal. A comparison of loan features is provided in Figure 45.

Figure 45. Original Collateral Characteristics of CWABS 00-1 and 01-1

						ARMs	
Deal/Pool	Issue/ Date	WAM (mos)	WAC (%)	LTV (%)	Balance (000$)	WA Gross Margin	WA First Rate
CWABS 00-1 Fixed	2/8/00	329	10.48	73	74		
CWABS 00-1 Floating		360	9.72	77	117	6.42	26
CWABS 01-1 Fixed	2/2/01	335	10.05	77	94-115[a]		
CWABS 01-1 Floating		360	10.16	74	103	6.29	24

[a] Reported in the prospectus.
Source: Salomon Smith Barney.

The credit enhancements in the two deals are significantly different. First, the 2001 deal has very high levels of deep MI, while the 2000 deal has none. Eighty-five percent of fixed-rate loans in CWABS 01-1 and 94% of floating rate loans are insured down to 50% LTV by MGIC. Second, the subordination levels underneath the rated classes and excess spread available to cover losses are very different. For example, the 2001 deal does not use overcollatreralization for credit support, and provides only 5.60% of subordination below the floating-rate triple-A classes. In the 2000 deal, subordination below the triple-A floaters is 14.25%. Also, the 2001 deal has no excess spread available to cover losses, because the IO strips have been securitized as triple-A rated securities. Third, Countrywide has provided a corporate guarantee of 1.25% of the deal balance to cover losses on the triple-B rated bonds in CWABS 01-1. No corporate guarantee is available in CWABS 00-1. Figure 46 provides a comparison of credit enhancements.

Figure 46. Comparison of Credit Enhancements for CWAS 001 and 01-1

	OC + Rated Classes Below				OC		Deep MI	
Deal/Pool	AAA (%)	AA (%)	A (%)	Available Initial Excess Spread (bp)	Initial (%)	Target (%)	Percent of Pool (%)	LTV Level (%)
CWABS 00-1 Fixed	9.00	6.00	3.00	305	0	1.75	None	
CWABS 00-1 Floating	14.25	7.75	4.00	397	0	1.50	None	
CWABS 01-1Fixed	5.00	2.00	1.25	0	0	0	85	50
CWABS 01-1 Floating	5.60	2.10	1.25	0	0	0	94	50

Source: Salomon Smith Barney.