Dominion Bond Rating Service

U.S. STRUCTURED FINANCE NEWSLETTER

ISSUE 27. OCTOBER 4, 2004

Michael Nelson
Senior Vice President
(212) 635-3408
mnelson@dbrs.com

Susan Kulakowski
Chief Knowledge Officer, Mortgage-Backed Securities
(212) 635-3411
skulakowski@dbrs.com

Ken Higgins
Vice President
(212) 635-3409
khiggins@dbrs.com

Andrew Jones
Senior Vice President
(212) 635-3412
ajones@dbrs.com

Quincy Tang
Vice President
(212) 635-3410
qtang@dbrs.com

Chris O'Connell
Vice President
(212) 635-3413
coconnell@dbrs.com

Head Office
200 King Street West, Suite 1304
Toronto, ON M5H 3T4
Canada
(416) 593-5577

New York Office
One Exchange Plaza
55 Broadway Suite 1502
New York, NY 10006
U.S.A
(212) 635-3277

Chicago Office
20 North Clark
Suite 803
Chicago, IL 60602
U.S.A.
(312) 332-0889

Default Analysis for a Corporate Reference Multi-Level CDO ("CDO Squared")

In single-level CDO transactions, DBRS runs default simulations on the portfolio of corporate names, generating default and loss distributions. For multi-level CDOs, each underlying CDO tranche has an associated portfolio of corporate names for which simulations will be run. However, referenced obligations that appear in one underlying CDO may also appear in another underlying CDO. If a default were to occur on this particular overlapping reference obligation, it would impact each and every CDO tranche in which it was referenced. Because underlying CDO portfolios are not independent from the others, overlapping names will have a multiplicative impact on the transaction. To correctly model the transaction, DBRS uses a default engine that houses all reference obligations used in the transaction. Names are then referenced from the default engine to each of the CDOs, correctly capturing any name overlap. Simulations are then run on the names that appear in the default engine, using the same assumptions as in the single level CDO case.

For example, there will inevitably be some degree of name overlap among the underlying CDOs if there are between 300 to 500 liquid names in the corporate credit default swap market with ten underlying CDOs, each with 100 names, in a multi-level structure. The overall exposure to each name is a direct function of the number of times it appears in the underlying CDOs. Using the DBRS single default engine, names are referenced into applicable intermediary securities, such that a default or credit migration will be captured across all affected securities. This treatment more closely replicates the real nature of such credit events and their impact to the overall structure.

Name overlap exacerbates any negative events, including defaults and credit migration. As the name overlap between names increases, the independence of each of the underlying CDO securities becomes lessened (i.e. they become more and more closely correlated). An extreme case would be one where all underlying CDO securities are exactly identical, in which case they have 100% correlation. In general, the lower the overlap, the less correlated the pool, which results in a structure with lower potential volatility.

To complete the analysis, the ratings of overlapped names must also be evaluated. The overlap of higher-rated names rather than lower-rated names is perceived as less risky. The risk represented by the inclusion of an AAA-rated security in more than one CDO security is smaller, in DBRS's opinion, than the risk represented by the inclusion of a B-rated security in multiple CDO securities. To help understand the overlap dynamics of a given multi-level CDO transaction, a DBRS overlap chart, based on the rating and the number of times such a name occurs, is used to evaluate the pool. DBRS assesses the overlap and then carries out migration and default sensitivities with respect to these names. The result is that DBRS understands how much of the actual risk of the overall transaction is concentrated on what would otherwise appear to be a very small portion of the transaction (i.e., a small group of corporate names in a small group of CDOs that make up a small amount of the reference obligations in the overall multi-level CDO).

DBRS believes this approach properly identifies and calculates appropriate levels of credit enhancement for multi-level CDOs.