



Methodology

*Master European Granular Corporate  
Securitisations (SME CLOs)*

SEPTEMBER 2010



*Insight beyond the rating.*

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DBRS is a full-service credit rating agency established in 1976. Privately owned and operated without affiliation to any financial institution, DBRS is respected for its independent, third-party evaluations of corporate and government issues, spanning North America, Europe and Asia. DBRS's extensive coverage of securitizations and structured finance transactions solidifies our standing as a leading provider of comprehensive, in-depth credit analysis.

All DBRS ratings and research are available in hard-copy format and electronically on Bloomberg and at DBRS.com, our lead delivery tool for organized, Web-based, up-to-the-minute information. We remain committed to continuously refining our expertise in the analysis of credit quality and are dedicated to maintaining objective and credible opinions within the global financial marketplace.

This methodology replaces and supersedes all related prior methodologies. This methodology may be replaced or amended from time to time and, therefore, DBRS recommends that readers consult [www.dbrs.com](http://www.dbrs.com) for the latest version of its methodologies.



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# Master European Granular Corporate Securitisations (SME CLOs)

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## Introduction

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DBRS is requesting comments on the proposed rating methodology for the Master European Granular Corporate Securitisations (SME CLOs) Methodology. Comments should be received on or before September 30, 2010. Please submit your comments to the following e-mail address: [dbrseusmeclocomments@dbrs.com](mailto:dbrseusmeclocomments@dbrs.com). DBRS will publish a final methodology following the review and evaluation of all submissions.

This report describes the rating methodology that DBRS uses when analysing portfolios of loans to European small to midsize enterprises (SMEs), and forms part of the DBRS criteria for rating new or existing European SME CLOs.

The parts of the DBRS criteria for rating SME CLOs contained in this report are:

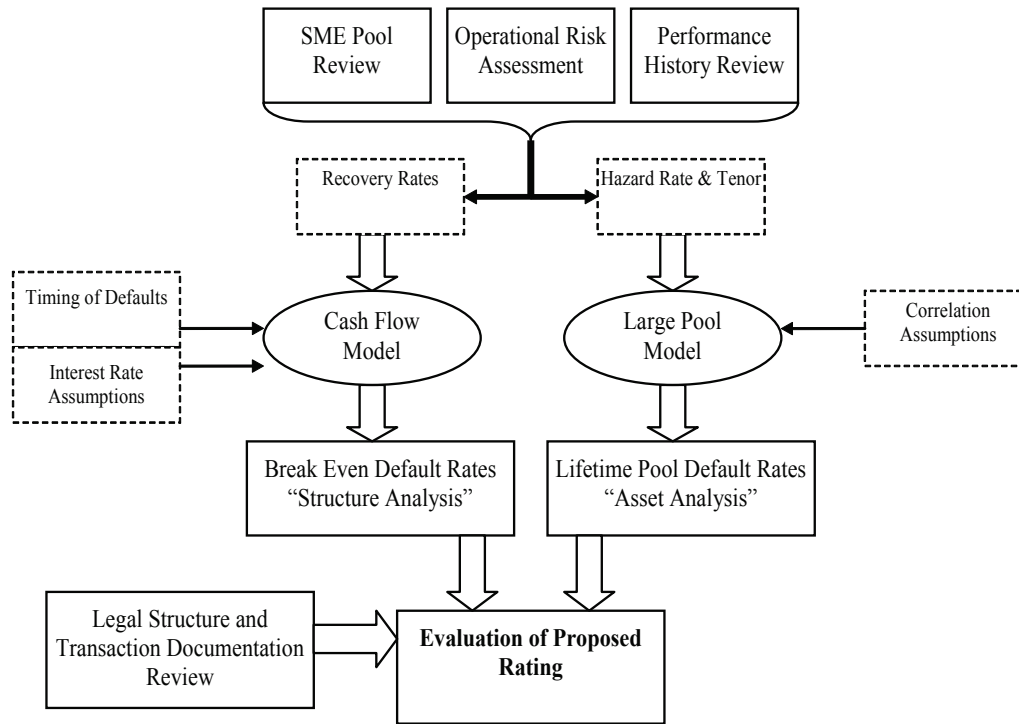
1. how DBRS determines lifetime pool default rates at varying rating levels
2. SME recovery rates
3. SME loan correlations

The legal framework and counterparty criteria used to analyse SME CLOs can be found in “Legal Criteria for European Structured Finance Transactions” (and its associated country-specific addenda), published August 2010. The structural analysis, cash flow modeling framework and process for sizing required subordination for European CLOs in general can be found in “Rating Global High-Yield Loan Securitisations, Structured Loans and Tranched Credit Derivatives”, published March 2009. The surveillance framework used to monitor European SME CLOs can be found in “Master European Structured Finance Surveillance Methodology”, published August 2010. How DBRS considers interest rate and currency risk will be covered in a new methodology that will be published later this year.

While this methodology summarises key modeling assumptions and structural considerations, DBRS ratings are assigned on a transaction-by-transaction basis that considers the circumstances of each proposed rating.

The criteria in this publication should not be seen as static. DBRS continually reviews market developments on an ongoing basis to ensure that its policies and criteria remain relevant. DBRS may publish updates to this criteria, as well as addenda to address country-specific issues. Updates will be publicly available on [www.dbrs.com](http://www.dbrs.com).

## DBRS Rating Process for European SME CLOs



The diagram above describes the following process for analysing a European SME CLO:

- (1) DBRS assesses the operational risk by evaluating the quality of the SME loan originator and servicer.
- (2) DBRS reviews actual performance data of the SME loan originator and servicer with respect to historical defaults and recoveries.
- (3) DBRS reviews the loans in the SME pool to be securitised.
- (4) Using the results from items (1) through (3), DBRS determines a hazard rate for the default probability of the SME pool, as well as stressed recovery rates for various rating levels.
- (5) DBRS generates lifetime pool-wide default rates for each rating level using the DBRS SME default model based on the hazard rate determined in (4), correlation assumptions by rating level, and the tenor of the transaction.
- (6) DBRS performs a cash flow analysis on the structure by incorporating stress assumptions on timing of defaults and interest rates, and stressed recoveries from (4). A break even default level is then calculated for each rated tranche over various scenarios. A break even default rate is the percentage of the pool collateral that can be defaulted without the tranche experiencing a loss of interest or principal.
- (7) DBRS reviews the legal structure of the transaction and the associated legal opinions.
- (8) DBRS determines if the rating of a particular tranche is suitable by comparing the break even default



rate (6) to the projected lifetime pool default rate (5), and ensuring the legal structure of the transaction (7) is adequate.

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## Operational Risk Assessment

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### OVERVIEW

DBRS' operational risk assessment procedures are designed to evaluate the quality of the banks and other financial institutions that originate and service the SME loans being securitised. While DBRS does not assign formal ratings to these processes, it does conduct operational risk reviews and incorporates the results into the rating process. In instances where it is determined that the originator or servicer is below average, certain structural enhancements may be incorporated such as additional credit support, dynamic triggers or the presence of a strong backup servicer in order for DBRS to rate the transaction. In the event that DBRS determines that an originator or servicer is unacceptable, it may refuse to rate the deal.

### ORIGINATOR REVIEW

The originator review process is done to ensure that the loans have been originated in accordance with the seller's underwriting guidelines and that there were no violations of any regulations and laws. It is done on originators that encompass more than one-third of a transaction and can be conducted through an on-site visit or management meeting. The assessment includes a review of the items noted below (among others).

#### *Originator Review Focus*

- Financial condition and ability to provide representations and warranties
- Staffing and training
- Sourcing by product type
- Use and monitoring of brokers or correspondents
- Sales and marketing practices
- Underwriting policies and procedures
- Recent or planned changes to underwriting guidelines
- Use of credit scoring and proprietary technology
- Income, employment and asset verification processes
- Appraisal process and use of automated valuation models
- Appraiser approval process
- Exception process
- Fraud prevention techniques
- Quality control and audit processes
- Risk management
- Legal and regulatory compliance

An originator's appetite for risk and the underlying quality of its underwriting guidelines can have a significant impact on deal performance. Therefore, DBRS uses both a qualitative and quantitative approach to conduct its originator reviews and makes comparisons among originators. Historical loan performance, in addition to the items discussed above, are just some of the components that are incorporated into determining the quality of an originator. DBRS views favorably those originators that have robust guidelines and use reliable means to accurately assess a borrower's income, employment and assets. Furthermore, sophisticated technology and strong fraud-detection procedures can help prevent early payment defaults as well as accurately determine debt-to-income ratios. In addition, the accuracy of appraisals can severely reduce losses to securitisation investors; as a result, DBRS considers a comprehensive property evaluation



process a necessity, particularly in today's environment. Furthermore, DBRS believes the participation of the credit risk management, quality control, legal and compliance departments in all aspects of the origination and underwriting process is important in order to identify and mitigate risk.

## SERVICER REVIEW

DBRS' servicer review process typically involves a comprehensive analysis of the company and management, loan administration, customer service, escrow, collections, loss mitigation, bankruptcy, foreclosure, real estate owned (REO), investor reporting and technology processes. Below are some of the items that are reviewed as part of the servicer evaluation.

### *Company and Management*

- Bank history, ownership and operating experience
- Financial condition
- Management experience
- Competitive position, strategic advantages/disadvantages
- Staffing, training and retention rates
- Securitisation history and strategic plan for future securitisations
- Portfolio size and composition
- Target SME market, and history of how the target market changed over time (if applicable)
- Securitisation history and future plans
- Strategic initiatives
- Litigation (past, present and expected)
- Cause of termination (if applicable)
- Recent or planned mergers or acquisitions
- Recent or planned transfer of servicing
- Runoff rates
- Internal and external audit results
- Outcome of the latest audit by your banking administrator

### *SME Loan Underwriting*

- SME loan underwriting procedures and loan approval authority
- Credit scoring and other models (both internal and external)
- Analytical process in evaluating credit risk in different sectors
- SME loan underwriting procedures and loan approval authority
- What is the bank's guarantee requirement practice
- What is the standard guarantee coverage ratio and how often the pledged collateral is re-evaluated

### *SME Loan Administration*

- Procedures for boarding a new SME loan
- Procedures for boarding accuracy and data integrity
- Reset notification
- Cash management procedures and controls
- Payment processing and controls
- Exception and suspense management
- Account reconciliation and timing
- Post-closing quality reviews

### *Customer Service*

- Procedures for responding to customer inquiries
- Strategy and technology
- Response times for inquiries



### ***Collections***

- Collection strategies for early-, middle- and late-stage collections
- Explanation of call and notice cycles by product type
- Account-to-collector ratio
- Right-party contact rate
- Hold time and abandonment rates
- Use of credit and behavioral scoring and other technology
- Policies regarding modifications, forbearance and deferrals
- Property inspections and current property valuation procedures
- Eviction procedures
- Charge-off process
- Use of technology

### ***Loss Mitigation***

- Significant changes (past or planned) in procedures or emphasis regarding workout strategies or timelines
- Repayment plan, modification and forbearance plan procedures
- Use of deed in lieu, short sales and cash for keys procedures
- Procedures and timelines for property evaluation (condition and value)
- Approach to fraud detection

### ***Bankruptcy***

- Bankruptcy procedures and technology
- Number of loans in bankruptcy
- Percentage of loans performing under the bankruptcy plan
- Attorney selection process
- Number of loans with cram-downs

### ***Foreclosure***

- Foreclosure process and initiation, non-judicial and judicial states
- Compliance with timelines by country/jurisdiction
- Property preservation and valuation
- Bidding instructions
- Property evaluation, maintenance, repairs and inspections
- Percent of foreclosure sold through a third party

### ***Bank Owned Properties***

- Eviction processes
- Broker selection and pricing strategy
- Property evaluation (condition and value)
- Property management
- Liquidation methods and marketing plan and strategy for disposition (e.g., auctions, renting, etc.)
- Insurance-claims processing
- Filing of borrower judgments

### ***Investor Reporting***

- Procedures for dissemination of reports to investors and trustees
- Advancing procedures
- Average number of investors remitted to on a monthly basis (last 12 months)
- Average dollar of monthly remittances (last 12 months)
- Number of late remittances in the last 12 months



### *Technology*

- Core servicing system strengths and weaknesses
- Capacity remaining in the servicing system
- Website availability and usage
- Procedures for vendor selection and oversight
- Disaster recovery plans and success of last test
- Frequency of full-system backup
- Future initiatives

## SERVICING PROCEDURES AND CONTROLS

DBRS' servicer review process incorporates a thorough review of the items noted above in an effort to evaluate the quality of a servicer's platform. The effectiveness of a servicer's operation will have a direct impact on security performance and ultimately losses to European SME CLOs. A servicer's strategy for handling loans in default as well as its ability to closely manage loans in foreclosure and bankruptcy can stabilise or improve pool performance. The marketing of bank owned properties, as well as ultimate disposition timelines and cost containment, can also determine a servicer's capabilities, particularly as many already carry a large number of bank owned properties on their books.

DBRS views favorably those servicers that have predictable performance and strong monitoring procedures for delinquent accounts. Once an account becomes delinquent, effective collection procedures can minimise losses to investors. Accordingly, DBRS evaluates the quality of the collections strategy and staff in order to determine their success rates in contacting borrowers and determining their ability and willingness to pay. Additionally, in certain instances, the servicer may be responsible for the advancing of principal and interest to the trust to the extent it is deemed recoverable. As a result, DBRS will evaluate the servicer's advancing policies and procedures to ensure they are being followed. Lastly, DBRS believes that no servicing operation can be successful without a strong seasoned management team that possesses demonstrated expertise in the product(s) they are servicing.

## INTERNAL CONTROLS

Internal assessments and quality-control reviews are critical in recognising procedural errors that may not be easily detectable. In addition, these reviews can be used to identify trends, training opportunities and exception practices. Frequent checks can assist management in quickly instituting changes to areas needing improvement, as well as benchmarking those results to performance. In addition to the aforementioned reviews, a monitoring process should be in place to ensure that the servicer is in compliance with all applicable laws, rules and regulations and that all employees in customer-facing positions are appropriately trained.

## TECHNOLOGY

Technology resources are an integral component of the servicer review process. While DBRS does not subscribe to specific systems architecture, adequate systems controls, consumer privacy protection and backup procedures, including disaster recovery and business continuity plans, are considered critical processes and should be in place. Furthermore, servicers must ensure that any offshore vendors are monitored and a backup plan is in place to ensure minimal downtime. Over the past few years, leveraging the Internet has enabled many firms to operate effectively in the mortgage business. Servicers have used the Internet for marketing, customer service and the dissemination of pertinent information, such as payment reminders or inquiries relating to refinances, modifications or payoffs. As a result, DBRS expects servicers to have the appropriate staff and controls in place to ensure website availability, account maintenance and enhancements. Sophisticated technology, with robust functionality, is viewed favorably by DBRS as



it often helps bring large efficiencies to the servicing operations in addition to more predictability in terms of loan performance.

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## Probability Distribution of Lifetime Pool Defaults

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Utilising a combination of DBRS' existing CLO methodology with originator-specific historical data DBRS conducts an analysis to project expected lifetime pool defaults for SME pools. Although DBRS utilises Monte Carlo simulation when analysing CLOs, a more simplified closed-form approach is warranted for highly granular SME pools. This approach is simple and intuitive, yet it provides for “out of sample” forecasts to determine tail risk (e.g. AAA) events.

### SME DEFAULT MODEL

DBRS employs a single factor correlation model as the basis for SME default modeling. In addition, the model utilises the common “large pool assumption” given the high level of granularity present in SME pools. The model takes into account 3 parameters:

- |   |           |
|---|-----------|
| 1. Instantaneous hazard rate for the pool           | $\lambda$ |
| 2. Single factor correlation parameter for the pool | $\rho$    |
| 3. Tenor of the pool                                | T         |

In order to simplify the calculation of lifetime portfolio default rates, DBRS uses the large pool assumption on the probability distribution. The conditions necessary are as follows:

1. The portfolio contains an infinite number of credits of a uniform size
2. Each credit within the portfolio has an identical hazard rate  $\lambda$
3. The joint behavior of any two assets within the pool can be explained by a single correlation factor  $\rho$

SME pools must contain a certain minimum level of diversity and homogeneity in order for DBRS to be comfortable modeling the lifetime portfolio default rates under the large pool assumption. DBRS uses the below properties of the pool to ascertain whether or not the large pool model is appropriate:

1. Minimum number of obligors
2. Maximum single obligor concentration
3. Distribution of industry/region concentration
4. Dispersion of obligor credit quality securitisation

### CALIBRATING THE MODEL

The hazard rate  $\lambda$  is determined by reviewing the originator's historical SME default rates, as well as the properties of the SME loans being securitised. Normally this exercise entails a cohort analysis by year of origination, or an overall default rate calculated on the originator's SME book on an annual basis. Once DBRS determines the originator's historical annualised default rate, adjustments are made based on the below properties of the SME pool in order to determine  $\lambda$ .

#### *Collateral Evaluation*

The characteristics of the collateral that comprise the securitisation pool must be definable to allow for the segregation, quantification and minimisation of risk. The collateral pool is typically segregated into sub-pools with common characteristics to allow for stratifications which permit the analysis of common risks. The stratifications are analysed by DBRS to ensure they accurately capture the common charac-



teristics necessary to assist in the risk analysis. Characteristics which are isolated for analysis may vary based on the type of asset and overall composition of the pool, but usually include seasoning, obligor concentrations and geographic concentrations.

### ***Loan Interest***

Loans have interest rates that are based on a fixed or floating rate, plus a premium. The premium is often based on the credit quality of the borrower. Abnormally large premiums may be a sign of borrower weakness.

### ***Borrower Origination Conduit***

Whether the borrower is, for example, a retail or private bank client of the originator.

### ***Collateral***

- Personal guarantee
- Primary residence
- Secondary/investment property
- Physical plant and equipment
  - New or used
  - Unencumbered
  - Location
  - Type of collateral
    - Easy to sell
    - Good location
    - Maintains value

### ***Borrower Concentration***

Concentration by borrower size or concentration to the top borrowers in the pool.

### ***Geographic Concentration***

Concentration by geographic region is another risk that must be examined to ensure an accurate assessment of portfolio risk. Geography poses a risk to a transaction when events like weather and regional economic downturn can affect portfolio performance.

### ***Industry Concentration***

Concentration by industrial sector is another risk that must be examined to ensure an accurate assessment of portfolio risk. Industrial concentration poses a risk to a transaction when events like economic sectors experience a contraction greater than that suffered by the economy as a whole.

### ***Loan Structure***

*Loan Structure (amortising, interest only, balloon, escrow).*

For the most part, bank loans are level-pay installment loans payable over a predetermined loan term. However, there are several other types that can change the risk profile of the portfolio:

- A balloon loan has the advantage of low monthly payments during the term of the loan, requiring substantially lower capital outlay during the term when compared to level-pay. However, balloon loans have a large payment at maturity and therefore have substantial residual value risk.
- Interest only
- Escrow
- Term loan or credit facility

### ***Purpose of Loan***

This can be similar to the industry of the borrower but is often monitored separately. For example, whether the loan is to be used for tourism or commercial investment.



### ***Maturity***

The longer the maturity of a loan, the greater the chance, *ceteris paribus*, of a default.

### ***Seasoning***

When a loan has some measurable period of performance by the borrower, it is deemed to be “seasoned.” History has shown that newly originated leases are statistically more prone to default than those which have experienced some period of performance by a borrower. Seasoning of loans in a collateral pool not only affects the aggregate anticipated loss analysis but the expected timing of those losses. Consequently, the pool’s seasoning is reviewed to ensure that it is comparable to previously originated pools, thus permitting the appropriate application of a loss curve.

### ***Original Term***

The original term to maturity of a loan can range from 12 months to 30 years. The principal paydown of longer loans is slower than for shorter ones, thus increasing the risk of loss born by the originator.

### ***Loan to Value***

For loans, the “loan-to-value” (LTV) is a measure of the leverage the borrower is taking on with the loan. The lower the LTV, the more equity a borrower has in the asset purchased. If the collateral is repossessed, the lender is less likely to suffer a loss when liquidating the asset.

### ***Borrower Creditworthiness***

All originators assess the creditworthiness of their borrowers. Given a particular originator, the borrowers might be better than or worse than those of another lender. This should be demonstrated by the historic loss rates an originator has seen with their portfolio.

### ***Delinquencies/Payments in Arrears***

The ability of borrowers to make timely payments is an integral part of the cash flow analysis. The originator needs to demonstrate that they are capable of tracking these payments, and that they employ procedures to ensure borrower performance. The information provided by the originator is used to approximate anticipated performance variability. Typically, the originator is expected to provide a history of receivable aging for borrower obligations that are past due by 30-60 days, 61-90 days and over 91 days. This information is also often used by issuers to structure the transaction performance triggers which assist in guarding the portfolio against deterioration.

### ***Defaults***

A payment default occurs when the borrower, after any applicable grace period, is either unable or unwilling to make its payment obligation under a loan. Payment default data is one of the most important sets of information used in the quantification of expected losses for a portfolio. DBRS uses the default information to develop its base case expectation for the portfolio’s performance, as well as the starting point for application of stress scenarios of static and annual pool losses. The analysis begins with a review of the originator’s default history to provide clarity as to how and when defaulted obligations have occurred, and when defaulted obligations are deemed uncollectable. The review is needed to determine the reliability of the data and to allow DBRS to ascertain the suitability of using the data as a basis for predicting future pool performance.

### ***Recoveries (Value and Timeframe)***

Following an event of default under a loan, the originator’s obligations do not cease, but become those of recovery. Since servicers are often successful in recovering amounts owed by borrowers under defaulted loans, DBRS analyses the historical recovery data to determine if credit can be given for anticipated recoveries of obligations. If sufficient recovery data exists, the process for recovery is analysed to place the historical information in context and highlight consistency with the transaction documents. We review consistency with the transaction documents to ensure that the servicer has rights under the underlying



documents to effectuate recovery and the transaction has clear rights to amounts recovered. The review also takes into account the timing of recoveries and allow for some anticipated lag time when granting credit to recoveries. To the extent a transaction may include repossession and resale of the equipment as a remedy under a lease, the history and experience of the servicer to perform these duties is evaluated.

To take into account the increased concentration risk inherent in SME pools due to domicile and originator, DBRS uses a rating-based correlation skew. This is also appropriate considering asset correlation is not a static parameter, e.g. correlation among business performance is greatly increased in times of stress. Below are the ranges for the single factor correlations  $\rho$  to be used in the large pool model:

- AAA  $\rho = 20\%$  to  $24\%$
- AA  $\rho = 18\%$  to  $20\%$
- A  $\rho = 16.5\%$  to  $17.5\%$
- BBB  $\rho = 15\%$  to  $16\%$
- BB & below  $\rho = 13.5\%$  to  $14.5\%$

These correlation ranges above are appropriate generally for pools of corporate-type obligors with reasonable granularity and diversification. Based on the extent to which the pool does not conform to these characteristics, DBRS determines appropriate single factor correlation ranges.

The tenor  $T$  is the simplest of the parameters to determine. For static SME pools, it is simply the weighted average life of the assets. For revolving pools, we use the length of the revolving period plus the weighted average life covenant at the end of the reinvestment period. Once the tenor is determined, the lifetime expected default level  $PD$  of the pool is determined as follows:

$$PD = 1 - e^{-\lambda * T}$$

## FORECASTING RATING BASED LIFETIME DEFAULT RATES

Given a probability distribution of outcomes, rating-based percentiles PCT of that distribution are used to calculate lifetime pool default rates at varying rating levels. These percentiles are calculated based on DBRS' idealised corporate default probabilities, which can be found in the CDO Toolbox model. Both the CDO Toolbox and the SME Model assume the same rating based percentiles of a probability distribution. The primary difference is that the CDO Toolbox constructs the distribution via Monte Carlo simulation, while the SME Model uses a closed form approach. For example, if a pool has a tenor of 7 years, DBRS' idealised default probabilities are as follows:

- AAA 0.4%
- A 1.1%
- BBB 3.4%
- BB 13.9%

It follows that the rating-based percentiles of the default distribution are 1 minus the default probability:

- AAA 99.614th percentile
- A 98.944th percentile
- BBB 96.569th percentile
- BB 86.081th percentile

*Note: linear interpolation is used to calculate percentiles between years.*

## DETERMINING LIFETIME POOL DEFAULT LEVELS

Under the large pool assumption, the probability of the lifetime pool defaults being less than or equal to a particular level  $x$  is expressed as follows:

$$P(X \leq x) = \Phi\left(\frac{1}{\sqrt{\rho}}\left(\sqrt{1-\rho} * Z_x - Z_{PD}\right)\right)$$

where

$$Z_x = \Phi^{-1}(x)$$

$$Z_{PD} = \Phi^{-1}(PD)$$

In these equations,  $\Phi$  is the cumulative distribution function of the standard normal distribution.

*Source: Schonbucher, Philipp. Credit Derivatives Pricing Models: Wiley Finance, 2003*

With a few steps of algebra, a particular level of lifetime pool defaults  $x$  given a rating based percentile, PCT, can be determined as follows:

$$Z_{PCT} = \Phi^{-1}(PCT)$$

$$x = \Phi\left(\frac{Z_{PCT}\sqrt{\rho} + Z_{PD}}{\sqrt{1-\rho}}\right)$$

This value of  $x$ , when multiplied by the mean loss severity, is the minimum capital requirement expressed as a percentage of assets.

As an example, assume the following:

- $\lambda$  (hazard rate) = 2.02%
- $T$  = 4.5 years
- Rating level = AAA
- $\rho$  = 21.25%

First, determine PD:

$$PD = 1 - e^{-0.0202*4.5} = 8.69\%$$

Second, determine the AAA PCT:

AAA 4.5 idealised default probability = 0.143%

PCT = 1 - 0.143% = 99.857%



Third, normalize the variables:

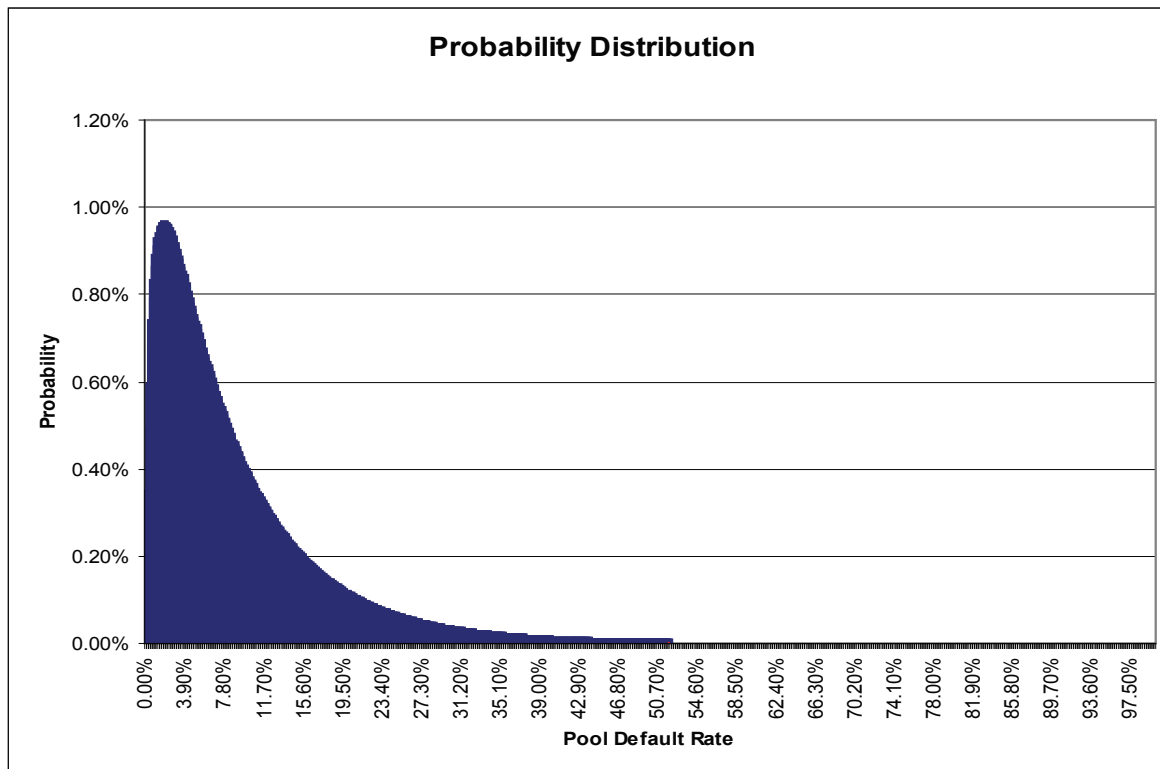
$$Z_{PD} = \Phi^{-1}(8.69\%) = -1.360$$

$$Z_{PCT} = \Phi^{-1}(99.857\%) = 2.981$$

Lastly, determine the 99.857th percentile of the default distribution, which can be thought of as the amount of lifetime pool defaults DBRS projects at the AAA stress level:

$$x = \Phi\left(\frac{2.981\sqrt{.2125} + (-1.360)}{\sqrt{1-.2125}}\right) = 50.65\%$$

For this example, DBRS' criteria for a AAA rated tranche includes the ability to withstand at least 50.25% of the entire pool defaulting without incurring a loss of interest or principal. The amount of defaults that a tranche can withstand is determined either by the DBRS CDO Cash Flow Model (cash flow structures) or through the tranche's legally defined attachment point (synthetic structures).





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## Recovery Rates for Loans to SMEs

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When performing cash flow analysis for CLOs, DBRS uses recovery rates derived from US and European recovery performance history. For SME CLOs, these recovery rates are adjusted to account for the smaller size and bilateral nature of SME loans:

<b>Liability Rating</b>	<b>Secured</b>	<b>Unsecured</b>	<b>Subordinated</b>
AAA	32.00%	22.00%	10.00%
AA (high) through A (low) inclusive	34.50%	24.50%	12.50%
BBB (high) and below	37.00%	27.00%	15.00%

Recovery rates may be further adjusted, based on the historical performance of an originator's SME loan portfolio. Please refer to "Rating Global High-Yield Loan Securitizations, Structured Loans and Tranching Credit Derivatives", published in May 2009, for a more complete discussion on the application of recovery rate analysis for CLOs.

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## Evaluation of a Proposed Rating

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Similar to CLOs, DBRS compares the projected lifetime pool default rates generated by the large pool model to the tranche's break even default rate generated by a cash flow model to determine if the tranche is deserving of a particular rating. For more details on the calculation of a tranche's breakeven default rate, please reference "Rating Global High-Yield Loan Securitizations, Structured Loans and Tranching Credit Derivatives", published March 2009. In addition to quantitative analysis, DBRS reviews the governing legal documentation of the transaction to ensure that it conforms to DBRS' structured finance legal criteria. For more information, please reference "Legal Criteria for European Structured Finance Transactions", published August 2010.

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## Data for Rating SME CLOs

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To conduct analysis, certain key data assumptions are provided to DBRS for the initial rating as well as the ongoing transaction surveillance. Typically, this would include detailed loan level data at closing as well as on a monthly basis thereafter to allow for timely surveillance of key areas of risk such as sector concentration, borrower/company concentration, credit quality of the underlying obligors, and borrower refinancing. In addition to transaction specific data, DBRS also requests default data relating to the originator's internal scoring system to the extent that we use these systems as an input to our analysis.

DBRS requests the following information in order to be able to analyse the prior performance of the originator's SME loan portfolio:

- Default data on a quarterly basis at a minimum.
  - The default data should include the number of loans made per period and then track the number of loans that default from each cohort over time.
  - In addition to looking at the number of loans and the number of defaults, DBRS requests the equivalent default data based on the par amounts of the loans. Therefore, the principal balance of loans



made in the reference period and the notional of loans defaulted over time going forward for each cohort.

- Recovery data over time. As with default data, DBRS requests the defaults that occur on a quarterly basis, at a minimum, and the recoveries that these defaults realise over time.
- The default and recovery data should be broken down into the same categories that the loan data will be presented for the proposed transaction. For example, if the originator bank divides its customers into, say, Micro, Small and Medium sized borrowers, the data provided should also be broken up into these categories.
- The data should cover a period of at least seven (7) years and the latest data should be no more than six months prior to the date of the data.

In addition, for the portfolio of the proposed transaction, DBRS requests:

- Regional distribution data
- Type of guarantee
- Size of enterprise stratification
- Fixed versus floating
- Obligor size distribution

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## Conclusion

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For questions on the application of this methodology, do not hesitate to contact the primary analysts listed at the beginning of this publication.

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