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Methodology

*Covered Bonds:  
DBRS's Rating Approach*

NOVEMBER 2007



*Insight beyond the rating.*

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# Covered Bonds: DBRS's Rating Approach

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# 1. Executive Summary

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The purpose of this report is to impart a comprehensive overview and understanding of DBRS's methodology and analytical approach for rating Covered Bonds (CBs). This document will cover the DBRS approach to rating CBs that uses country-specific CB legislation as a framework, as well as those issued with reference to no specific CB legislation (Structured Covered Bonds, or SCBs).

The notion that CBs are essentially senior secured bank debt lies at the heart of DBRS's credit risk assessment and rating methodology. These instruments are issued by regulated banking entities – or specialised funding institutions – and for the vast majority of issuing banks, CBs are used as a cost-efficient alternative to traditional bank debt. CB holders have a senior claim on the issuing bank's assets and therefore benefit from the same degree of protection as senior unsecured debt holders, but also enjoy additional protections that minimise the probability of default (PD) of these debt instruments and provide investors with enhanced security. These protections include the following:

- (1) The high quality of the collateral assets (the Cover Pool or CP) backing the CBs, as well as the benefit of conservative legally or internally defined rules relating to the origination and servicing of the CP, asset and liability management (ALM), liquidity, market risk, etc.
- (2) A privileged treatment in case of default, insolvency or liquidation of the issuing bank (or parent), which aims at enhancing the remoteness of default of the CB.

Based on these credit protections, DBRS estimates that, in most cases, the default probability of CBs will be lower, sometimes significantly, than the default probability of the Issuer's other debt instruments (as expressed by the Issuer's long-term rating). This logic also seems to be supported by empirical evidence, as our review of the 175-year history of the European Covered Bond market found these debt instruments have almost never defaulted.

Despite the fact that the default probability of Covered Bonds is generally lower than that of the Issuer's other debts, the credit risk of the Covered Bonds is to a degree always linked to the financial condition of the Issuer. When CBs are issued through a separate subsidiary (as is the case in some jurisdictions), this link is somewhat reduced, but even in this case, financial and operational links will almost always persist between a CB issuance and the rest of the Issuer's operations. These links include the criteria adopted by the Issuer to originate CP assets, the servicing of the CP and the ALM. As such, DBRS will evaluate the level of segregation between the CP and the rest of the bank's operations and how this segregation may sustain the credit protections afforded to CB holders. DBRS will also take into consideration any additional structural protections (e.g., the use of a backup servicer, increase in overcollateralisation (OC) in the case of CP performance deterioration) and evaluate if and when the Issuer has the willingness and the capacity to add such protections.

Key methodological considerations are given below.

- DBRS CB ratings are composed of three building blocks.
  - (1) The rating of the Issuer (Issuer Rating or IR, taking into consideration the Intrinsic Assessment part of it, or IA).
  - (2) The rating of the CP. This rating includes the assessment of the quality and management of the CP and will include both a credit and cash flow analysis. This approach is similar to those routinely used for rating residential or commercial mortgage-backed securities or pools of securitised public finance assets. This ensures consistency in the evaluation of the intrinsic credit risk of the asset CP, irrespective of the nature of the overlying debt obligation. An additional complexity in the analysis



of CP credit quality is the dynamic nature of the pool, in that it can constantly replenish with new assets (although many “Master Trust” RMBS programs also allow for such replenishment).

(3) The assessment of the Legal Framework (LF). This involves the evaluation of the level of “de-correlation” which may exist between the credit risk of the Issuer and those of the CBs and related Cover Pool. This assessment encompasses an in-depth review of the LF that supports a CB issuance. In addition, it measures the level of additional credit protection for CB investors provided by the CP. DBRS classifies the LF into four categories: Very Strong, Strong, Adequate and Modest.

- The DBRS CB rating approach is primarily communicated under the form of rating matrices (see Appendix D). These matrices indicate how the three building blocks – IR, CP and LF – are combined to obtain a CB final rating, and also indicate the evolution of the CB rating as a function of each of the three building blocks. There are two main characteristics of the matrices:
  - (1) CB ratings can be above the ratings of the Issuer and the CP.
  - (2) CB ratings always remain linked to the Issuer Rating in any LF. As a result, CB ratings at AAA are not always maintained, even in Very Strong LFs.
- DBRS's methodology reflects the fact that CB repayment sources are sequential. Therefore, up until an Issuer defaults, the Issuer remains the sole source of repayment, reflected by its long-term senior unsecured rating (note that an exception to this would be regulator intervention prior to Issuer Default). At time of default (or severe stress), there should be a switch towards the CP as source of payments. This sequence of payments also allows DBRS to rate CBs above the ratings of Issuers and CPs as both an Issuer and a CP will need to default for a CB to default.
- In most CB programs, the Issuer is simultaneously the Asset Originator, the Swaps Counterparty, the Servicer and the Liquidity Provider. DBRS considers that a default scenario must incorporate a broad scope of financial and non-financial commitments borne by the Issuer.
- As the credit rating of the Issuer deteriorates (i.e., a default scenario becomes more likely), reflected by the decrease of the IR, but also the evolution of the IA, at some point even the highest quality CP under the strongest LF cannot hold the CB rating at AAA. That point is normally identified at BBB (high) under a Very Strong LF, and occurs at higher rating levels in the Strong, Adequate and Modest LFs.
- As the credit rating of the Issuer continues to deteriorate, the rating of its CB is also assumed to deteriorate, in all four matrices (see Appendix D). Even a CP rating of AAA cannot maintain a AAA CB in Very Strong LF if the Issuer Rating deteriorates past a certain point because of the following:
  - (1) DBRS assumes that the growing uncertainty associated with the Issuer credit deterioration is not compatible with an AAA rating.
  - (2) An Issuer experiencing extreme stress poses uncertainty with respect to flawless, eventless and timely payments from Issuer (including through the eventual use of the Cover Pool cash flows) to the CB bondholders.
- Voluntary OC refers to the portion of collateral provided by the Issuer, which is more than required (mandatory) if applicable under the respective LF.
- DBRS considers that the ALM within a CB program should be evaluated from both the Issuer's standpoint and from the CP standpoint as follows:
  - (1) When the Issuer is not in default, part of its global ALM strategy will be to ensure that all of its debts (including CBs) are fully repaid on a timely basis, in particular through adequate hedging programs and liquidity support. This can be measured somewhat through the Issuer's senior unsecured rating. In addition, liquidity is also often provided through OC (in the form of liquid assets or cash). The Issuer Rating and the OC alone, however, are not sufficient to determine ALM strength. With respect to a CB program, specific attention also needs to be given to the type, nature and content of swap contracts related to the CP (the assets), as well as the credit strength of the counterparties that provide those



swaps. The same is true for the set of swap contracts that relate to the CB (the liabilities). The various counterparties that swap the CP and CB cash-flows may be numerous (particularly at the CP level), and the contracts themselves may be very specific and not necessarily easily replaceable when needed. In addition, the swap contracts on the CP and on the CB may not necessarily provide a full hedging of the risks, and as such, an understanding as to how the un-hedged portion of this risk will be covered is required (i.e., through the Issuer's global ALM, or the CP OC).

(2) In case of an Issuer's default, its CB program will be repaid through the cash flows generated by the segregated pool of cover assets. As such, the existence and quality of the CP ALM protection (including both the segregated hedging contracts and the dedicated OC, if any) needs to be analysed. The net present value (NPV) of the CP and the CB will serve as a key indicator of the consistency of the ALM with the CB rating.

- DBRS will assess the credit risk of Structured CBs on a case-by-case basis, using the same criteria it uses for Covered Bonds issued under specific CB legislations. In particular, this analysis will benchmark the Structured CB contractual structure with the LFs and decide whether the strength of the legal contractual agreements used is comparable to a Very Strong or another LF. In that context, it is possible that Structured CBs could provide the same level of comfort to Investors as Covered Bonds issued in Very Strong LFs, although this is not automatically the case.



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## 2. Introduction

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### COVERED BONDS: FROM A AAA-RATED ASSET CLASS TO A DIVERSIFYING WORLDWIDE ONE

Covered Bonds account for approximately 25% of European financial institutions' debt issuance (total outstanding of approximately EUR 1,860 billion at the end of 2006), and are becoming the backbone of the European fixed-income market. Liquidity, attractive spreads on a risk-adjusted basis and diversification make Covered Bonds a favoured product among investors.

In addition to overall growth in volume and issuance, there is also growing complexity in the European Covered Bond markets. The vast majority of Continental European markets adopted specific CB LFs that allow for a more favourable treatment of Covered Bond investors compared to the Issuer's other creditors in case of the Issuer's Default. In the EU, these markets include Germany, Spain, France, Ireland, Sweden, Italy, Austria, Finland, Luxembourg and Portugal. Although most Issuers issue Covered Bonds using their nation's specific CB LF, it is also possible for an Issuer to issue Covered Bonds in its national market but outside the specific Covered Bond LF. DBRS believes it is important to understand and monitor this trend, as it leads to a CB market with the coexistence of three types of Covered Bonds using different schemes:

- Specific Covered Bond legislation (Germany, France, Spain, Luxembourg and Ireland).
- Purely contractual schemes within the country's general LF when there is no specific Covered Bond legislation in that country (the United Kingdom, The Netherlands, Canada and the United States).
- Some Issuers in countries with a specific Covered Bond legislation may issue Covered Bonds without using their specific CB national legislation, for instance, by benefiting of the national implementation of the EU collateral directive (2002/47).

Understanding those situations and monitoring their evolution and their potential impact on any Covered Bond rating is critical in our view, in particular to avoid opening the door to any possible arbitrage situation. Monitoring the evolution of specific Covered Bond legislation is also very important, as is the ability to offer Investors the opportunity to compare any type of Covered Bonds to structured finance transactions (e.g., RMBS, CMBS, Securitisation of Public Loans Portfolios) based on the same type of asset class but resulting from off-balance-sheet sales of asset portfolios, versus the use of on-balance-sheet portfolio to secure bank borrowings (CB). In addition to this CB Methodology, DBRS will publish a specific separate LF analysis as well as regular updates.

DBRS's general view of the Covered Bond market is that although Covered Bonds clearly remain a traditional form of bank debt instruments in Europe, they are becoming a more complex product with the growing use of different possible issuance schemes. In addition, their growing coexistence with other types of securities instruments based on the same type of underlying assets (such as RMBS and CMBS) results in a growing benchmarking need in the market, within both the Issuer and the Investor communities.

Although investment approaches still largely differ between Covered Bonds and other assets such as securitisation products, a benchmarking need between the two areas is emerging, in particular because some Issuers use Covered Bonds as well as securitisation techniques for financing diversification as well as regulatory purposes. Some also start considering issuing both RMBS and Covered Bonds from the same asset pool. From an investor perspective, there is a growing need to compare the two products, particularly when the Issuer of the Covered Bonds is the same as the originator of the securitised assets. Finally, there is also a growing use of structuring techniques for issuing traditional Covered Bonds in order to enhance Covered Bonds' credit profile and achieve certain target ratings or to produce assets eligible for the Cover Pools (e.g., French senior AAA RMBS serve as Cover Pools). Hence, there is an additional need to compare these two products.

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## 3. Ratings Rationale

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### 3.1 CONCEPTUAL FOUNDATIONS

DBRS's CB analysis is an integrated approach that combines both qualitative and quantitative elements.

CBs are on-balance-sheet, full-recourse debt instruments maintained by the issuing bank as long as the bank is a going concern institution. DBRS believes that only in the unlikely case that a bank issuing CB faces liquidation or serious stress would the second line of defense – the cash-flows from pools of financial assets (the CP) originated by the Issuer to which investors have a preferential claim – kick in. Thus, the rating of the Issuer is a focal point of the analysis, because not only is it the first source of payments on CBs for today's CB universe (as long as the Issuer does not default or fail), it also entails – when the rating moves down the rating scale – information about still-remote closeness to the scenario, where the CB investor might need to rely on the CP for payments.

The likelihood that the cash-flows from the Cover Pool are sufficient to continue making payments of interest and principal on the outstanding CB without disruption depends on the credit quality of the Cover Pool and the smoothness of transition of the Cover Pool from the troubled bank to a third party, whether it be a specific administrator or another bank. Consequently, the second layer of credit enhancement depends on the quality of the assets in the CP (varying by asset class, LTV, geographic location and diversifications), the range of cover asset substitution in the Cover Pool, and the available credit enhancement (OC) and ALM provisions. DBRS captures these elements of the CB analysis in the rating of the Cover Pool through a rating process conducted by both the Structured Finance analysts and Covered Bonds analysts. DBRS expects that in order to provide for recognisable credit enhancement for the CB, the CP has to be rated at least BBB (low.)

DBRS qualitative assessment of LFs captures the likelihood that payment obligations under the CB could be smoothly transferred from a potentially troubled bank to the Cover Pool – administrated by a third party – and provides evaluations on the following criteria: the robustness of the legal provisions with regard to asset segregation; bankruptcy remoteness of the Cover Pool; and potential contingency plans, including the responsibility of the regulator or the Central Bank to facilitate the transfer. DBRS considers that the success of a contingency plan also depends on the liquidity available to the CP at the time when the payments on the CB depend solely on the cover pool. In this context, DBRS looks at the quality and quantity of the OC (enforceability of voluntary and mandatory OC in the CP against claims from unsecured obligors, and allowance for asset substitution of eligible assets in the CP).

DBRS assessment of the above results in differentiating LFs with these criteria into four categories: Very Strong, Strong, Adequate and Modest.<sup>1</sup>

(1) *Very Strong LFs* provide a very high level of comfort that payment obligations under outstanding CBs can be transferred without disruptions to the CP securing the CB. In addition to the sole analysis of the CB ad-hoc Legal Framework, DBRS analysis also takes into account the mechanics of the various markets and regulatory regimes which might facilitate a transfer of the CP and CB in a market faster than in others, specifically in countries where CBs are important funding instruments. For example, DBRS considers that in large CB markets such as Germany, Denmark, France or Ireland, market dynamics will positively contribute to the transfer of the CP/CB with a similar urgency. In addition, some market features provide a favourable environment in terms of liquidity and as a shock absorber such as a prompt reaction from the regulator, even before liquidity problems appear.

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1. See Appendix A.



(2) *Strong LFs* miss some elements or clarity in respect of one of these criteria above, which results in a somewhat weaker certainty and/or a less favourable market environment.

(3) *Adequate LFs* still ensure bankruptcy remoteness, but they lack concrete substance with regard to other important criteria, especially the elements of a contingency plan. They may also have some uncertainty regarding the full segregation of the Cover Pool or the anchorage of the preferential claims for the CB investor.

(4) *Modest LFs* are those left with a preferential claim for CB investors, but, however, they reflect considerable risks of cross-defaults and payment acceleration and have no or limited reference to contingency plans.

In addition, DBRS will consider contractual enhancements that are implemented under any type of LF (i.e., Very Strong, Strong, Adequate or Modest). Those contractual enhancements are essentially of two types: a backup servicer if and when the Issuer goes below certain rating levels and additional OC.

An Issuer may choose to enhance the rating of its CB under a Very Strong LF by essentially substituting its Issuer Rating with a rating of a higher-rated financial institution. When the Issuer implements contractual commitments which ensure that the higher-rated financial institution becomes a committed backup servicer in case the rating of the Issuer deteriorates, DBRS will consider the higher-rated backup servicer in the CB Matrix accordingly. In addition, the Issuer can also choose to add OC in cases where the initially provided OC is insufficient to obtain the targeted CB rating.

In other LFs, an Issuer could elevate its target CB rating under a stronger LF by addressing issues like servicing and quality of the CP or ALM when these elements of the analysis are not covered sufficiently under its existing national LF.

DBRS's rating methodology applies to CBs issued within an LF and CBs issued outside a specific legislation (SCBs). For the latter, specific structures have been created that aim to replicate the key features of specific CB laws and provide the CB bondholders with protections comparable to those provided to CBs issued within a specific legislation.

The existence of two sources of cash flow, one of which is exclusively accessible by CB investors, and the sequential character of the payments obligations under the CB (first the bank and then the CP), allows DBRS to rate CBs above the Issuer Rating and CP rating. While DBRS believes that under a Very Strong LF, the CB of issuers in distress will end up being "taken care of," first by the CP, then most likely by another bank, it is not fully evident to assess the element of timeliness in advance. Evaluating untested LFs to prevent a CB's acceleration and relying on plausible stress scenarios incorporating actions by the management of troubled issuers, regulators and potential legal challenges by unsecured bondholders or liquidators are bound to entail some element of uncertainty, which cannot warrant the CB always maintaining the highest possible rating. As such, DBRS's ratings for CBs are capped even under Very Strong LFs and with CP that has the highest quality when it becomes evident that the Issuer's ratings are BBB (high) or lower. One should also keep in mind that being linked to the evolution of the IR, the CB ratings are by construction linked to the IA of the Issuer, since the IA is one of the two components of the IR (the other one being the Support Assessment, or SA)

The growing uncertainty about the timeliness of payments on CB under even the Very Strong LF, together with the scenario that an Issuer is getting closer to a default also reflects in DBRS's opinion the increasing possibility that the Issuer facing extreme stress is likely to experience staff turnover, decreasing incentives of obligors to pay their obligations and principal and other operational challenges (such as servicing), which could negatively impact the credit quality of the CP, albeit not immediately, but at an accelerating speed as time goes on. DBRS believes that we have to be conservative with regard to the credit characteristics of CP at the point in time it is prudent to be conservative with regard to the credit characteristics of

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2. See Appendix A.



CP, especially at the time CB investors start to depend on the CP for CB payments. These uncertainties, even under a Very Strong LF are not compatible with a AAA rating. Consequently, as the long-term rating of the Issuer keeps deteriorating, so does the rating of the CB.

The ratings of the Issuer and CP become a more constraining rating factor under Strong, Adequate and Modest LFs, as the impact of rating deterioration is magnified by the strength of the LF. In legal jurisdictions where the transfer of the CP is subject to more uncertainty, DBRS believes it will lengthen the time needed to transfer the CP to a new servicer (e.g., another bank or special administrator) or strain the liquidity embedded in the CP, making the rating of CB sensitive to a deterioration of the CP or Issuer Rating.

## 3.2 THE THREE BUILDING BLOCKS

### (1) *Issuer Rating (IR)*

- The Issuer is the primary source of the timely payment and repayment of CB. In addition, in some jurisdictions CB holders have recourse to the Issuer if the CB is not fully repaid (priority of claim over “unsecured assets”).
- DBRS’s Financial Institutions Group (FIG) determines IR based on underwriting standards, business model (e.g., specialist, universal, mortgage or public finance), strategy (e.g., international or domestic, regional or national, price-driven penetration strategy or proximity banking).
- The Issuer Rating is assigned by FIG following the analytical process described in relevant methodologies, which has two components: Intrinsic Assessment (IA) and Support Assessment (SA). As a result, the CB rating will incorporate the support element that may exist in the Issuer Rating.

### (2) *Legal Framework (LF)*<sup>2</sup>

- Legislated CB
- Structured CB

### (3) *Cover Pool (CP) Rating*

- Based on the Structured Finance Group approach to replicate the analysis of similar types of assets in asset-backed deals (e.g., RMBS, CMBS, etc).
- Adjusted when necessary to take into account the fact that Cover Pool assets are dynamic.

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## 4. Appendices

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### APPENDIX A: RANKING LEGAL FRAMEWORKS

#### *Background and Prerequisites*

The European Union framework (article 22.4 of the UCITS<sup>1</sup> and the Capital Requirement Directive)<sup>2</sup> provides a minimum level of standardisation due to the supervision approach with respect to the legislation-based European covered bonds. For instance, the UCITS specifies that Covered Bonds must be issued by a credit institution with a registered office in a member state and must be subject to a special public supervision to protect bondholders. In the event of Issuer Default, the UCITS specifies that Cover Pools must be used on a priority basis for the reimbursement of the principal and payment of the accrued interest.

Therefore, in addition to and above this minimum level of standardisation, in order to rank the European Legal Frameworks, DBRS uses the following elements: (1) the core criteria, (2) the market environment and regulatory criteria and (3) the eligibility criteria.

#### *1. Criteria for Legislation-Based Covered Bonds<sup>3</sup>*

DBRS's LF assessment on any Covered Bonds or Structured Covered Bonds will take into consideration the following:

- (1) Core factors purely linked to the analysis of each CB legislation.
- (2) Market environment and systemic support criteria.
- (3) Eligibility criteria of the Cover Pools imposed by the laws, with a slightly lesser weighting than core factors in DBRS's assessment of the CB LF.

#### **1.1 “Core Criteria”: Bankruptcy Remoteness, Segregation of the Cover Pools and Regulator Involvement and Contingency Plans**

The following factors impact the strength of Covered Bonds and their associated degree of de-correlation from the Issuer's senior unsecured rating.

- (1) **The bankruptcy remoteness** of the Covered Bonds in case of an Issuer Default that avoids any cross-default occurrence.
- (2) **The segregation of the Cover Pools** from the Issuer's bankruptcy estate.

(1) and (2) constitute the “core criteria” for the de jure delinkage. However, DBRS also considers that there are differences within each LF regarding how practical aspects would be treated. The result will result in a more or less potential degree of de-correlation between an Issuer and its CB credit risks. Therefore, DBRS will review if the de facto de-correlation can be obtained. In particular, DBRS will look at the following:

- The degree of CB remoteness from an Issuer's insolvency and the enforceability of the Covered Bonds' preferential treatment.
- In case of an Issuer Default, the existence of provisions against automatic acceleration of Covered Bonds.

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1. Understanding Collective Investment in Transferable Securities (Article 22.4).

2. CRD in *Annex VI, Part 1, par 65 also published in the Official Journal of the European Union* on 30 June 2006 (L177).

3. “Covered Bonds” refer to situations where their issuance is governed by specific CB legislation. “Structured Covered Bonds” refer to situations where contractual arrangements are applied.



- The derivatives' status as to if they were or were not part of the segregated Cover Pool.
- ALM matching requirements and potential cash flow mismatches. DBRS will check if any cash flow delay arising from the Cover Pool would jeopardise the timely payment of interest and principal on Covered Bonds due to insolvency's estate (e.g., moratorium).
- In the case of Issuer Default, the legal protection for enforceability of overcollateralisation (mandatory and voluntary)

### (3) Regulator involvement and contingency plans

- (a) Existence of a Specific Supervisor in charge of the Issuer CB program in normal course in terms of its scope, its independence from the Issuer, the areas of activities and the pre-appointment by the regulator.
  - For example, intensity of a specific supervision, a **Cover Asset Monitor<sup>4</sup> (CAM) involvement**, the scale for an ongoing specific monitoring, supervision of Covered Bonds by a dedicated auditor and/or a dedicated department of the regulator. The Cover Pool administrator can directly administrate the Cover Pools and the Covered Bonds until all claims under Covered Bonds are fully satisfied or until the sale of specific cover assets or the transfer of cover assets and Covered Bonds to another Issuer.
- (b) Quality and content of the contingency plan in case of Issuer's Default: **The soundness and applicability of the contingency plans** include any emergency measures, if any, in a case where the Issuer is in financial crisis such as the appointment of a Cover Pool administrator before an Issuer's insolvency, if necessary, or the nomination of the regulators as standby service providers.

## 1.2 Market Environment and Systemic Support Criteria

(1) CB outstanding volume and proportion of Jumbo issues (benchmarks issues above a minimum size of EUR 1 billion), history and depth of the CB market, liquidity of the secondary market, number of Issuers, efficiency of market-maker system and transparency of the trading systems.

(2) The likelihood of a regulator's systemic support toward the covered bonds, which depends on the size of the Covered Bonds outstanding, the size of the Issuer, the level of the regulator's ongoing involvement, etc.

## 1.3 Cover Pool Eligibility Criteria

Unlike the above core criteria, the Cover Pool eligibility criteria are not core in the sense that they do not reveal how much the Covered Bond rating can be "delinked" from the Issuer Rating. They are, however, important in DBRS's assessment of the Cover Pool credit quality, which, combined with the Issuer Rating, results in the final CB rating (see Rating Tables in Appendix D). The following eligibility criteria, imposed by the specific legislations, if applicable, allow DBRS to determine the qualitative aspects of the Cover Pools and their ability to generate cash flows on a timely basis without any interruption. They are key to assessing the sufficiency or insufficiency of the OC provided to cover the Cover Pool credit risk:

(1) Nature of the eligible assets (e.g., exposures to public sector entities, mortgage loans, exposures to credit institutions, senior tranches of MBS, shipping loans or substitution assets).

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4. Independent trustee/inspector/auditor registered and approved by the regulator. The trustee is in charge of protecting the bondholders' interest by ensuring the Issuers meet the applicable legal and regulatory requisites.



- (2) Geographical scope for Cover Pools (public and mortgage assets).
- (3) Maximum loan-to-value (LTV) levels allowed (ranging from 60% to 80% for residential mortgage loans and 60% for commercial mortgages loans).
- (4) Asset valuation regulation: Basis for valuation, mortgage lending value and valuation check (e.g., legal provisions or contractual principles for property valuation, appraisal of mortgage lending value or prudent market value).
- (5) Treatment of Cover asset substitution.
- (6) Basics of the “cover principle” (e.g., outstanding Covered Bonds must at all times be secured by cover assets at least equal to CB principal amount and accrued interests); the existence of any mandatory over-collateralisation as well as specific liquidity requirements.<sup>5</sup>

#### 1.4 Ranking of the Legislation-Based in European Covered Bonds

DBRS's assessment of the core factors, market environment and Cover Pools' legal eligibility criteria has led us to create a ranking in four LF categories: Very Strong, Strong, Adequate and Modest. DBRS will constantly monitor the evolution of the various Covered Bond laws and will consequently adjust their rankings as necessary.

These elements allow DBRS to decide to what degree the Covered Bond rating can be delinked from the Issuer senior unsecured rating. The higher the delinkage between an Issuer Rating and its CB ratings, the higher the ranking of the LF. However, a linkage between the CB rating and the Issuer senior unsecured rating always exists even in Very Strong LFs. In Modest LFs, minimal or no delinkage at all is feasible because DBRS considers CB would default at the same time as the Issuer senior unsecured debts. Therefore, the security interest in the CP is worthless in terms of reducing the CB PD versus the Issuer PD. There is currently no country ranked in the Modest LF category, but it is important to note that some new countries may decide to implement a Covered Bond ad hoc legislation that could in some cases result in a Modest LF ranking.

##### 1.4.1 The Ranking Process: Using a Sequential Approach

- (1) For any specific country, DBRS reviews the consistency of the CB LF with the core criteria mentioned above.

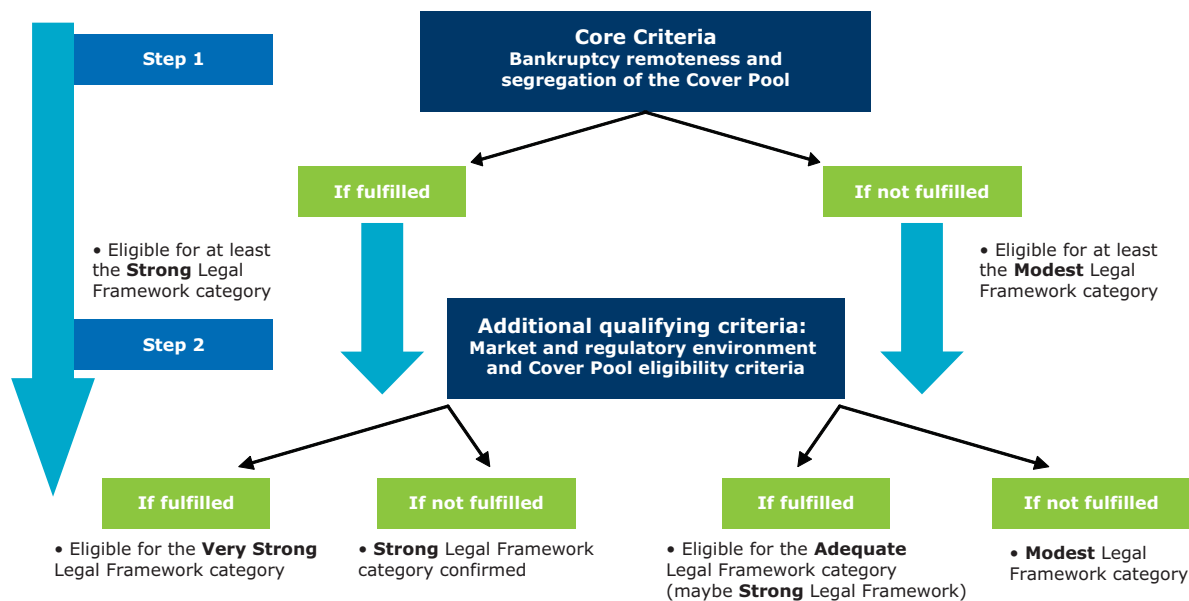
If DBRS is comfortable with the degree of compliance of the specific CB legislation with the core criteria, DBRS considers that at minimum the Legal Framework should be ranked in the Strong LF category. Conversely, if DBRS is uncertain about the core criteria or whether the degree of delinkage between the Issuer senior unsecured rating and the Covered Bond rating is limited, the country's LF will be ranked in the lowest category (i.e., Modest LF).

- (2) In order to reach the highest category (for example, moving from Strong to Very Strong), additional features to the core criteria are required, based either on 1.2 or 1.3 above. These additional features are related to the market environment and the degree of systemic support. From this perspective, it is clear that the countries ranked in the Very Strong category must benefit from a favourable market environment and a strong involvement from the supervisor. The market environment includes elements such as the liquidity of the Covered Bonds' secondary market, the market volume (preferably with a large proportion of Jumbo benchmark issues, the involvement of the market makers, etc.). In addition, if some questions remain in terms of the range of the systemic support, strong mitigants must exist to allow DBRS to move one LF from Strong to Very Strong. For instance, the provision offered in the law in terms of a contingency plan provides the strongest comfort in terms of a smooth transition. Therefore, the insolvency of the Issuer will not cause a loss in or an interruption to the cash flows generated by the underlying assets.

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5. See the ALM section in this document (Appendix B).

**Figure 1: Assessing the Legal Framework – DBRS's Ranking Process**



#### 1.4.2 Definitions

The definitions of the LF categories are as follows:

(1) **Very Strong framework:** Marginal linkage exists between the Issuer and the Covered Bond, so that DBRS is assured with a high degree of comfort of the timely payment of the principal and the interest, even in the case of an Issuer's default.

(2) **Strong framework:** Some linkage exists between the Issuer and the Covered Bonds, specifically in the case of an Issuer's insolvency such as some uncertainties in terms of smooth transition from the Issuer to the Cover Pool as the sole source of repayment of Covered Bonds.

(3) **Adequate framework:** Significant linkage between the Issuer and the Covered Bond exists, arising from uncertainty in the likelihood of Cover Pool segregation in case of insolvency of the Issuer.

(4) **Modest framework:** The segregation principle and bankruptcy remoteness mechanisms are not applicable or enforceable so that the Covered Bond rating is more or less equivalent to the Issuer Rating.

The differences between Very Strong and Strong results from (1) the market environment and systemic support and/or (2) specific features within the core criteria that allow for maximum delinkage.

In the Adequate category, uncertainty remains about complete asset segregation and bankruptcy remoteness of the Issuer with respect to the Covered Bonds. The likelihood of some cash flow interruption on the CB is closely linked to the likelihood of Issuer Default so the CB ratings cannot easily be delinked.

In the Modest category, we conclude that (1) the recourse to the Cover Pool in post-insolvency of the Issuer is too uncertain and (2) the likely cause of cash flow interruption on the CB is that the cash flow post-insolvency of the Issuer is the same cash flow as that of the Issuer and will be extended too far into the future. This means that in DBRS rating tables<sup>6</sup> the potential of delinkage between the Issuer Rating and the Covered Bonds is minimal.

6. See Rating Tables in Appendix D.



### 1.4.3 Ranking Outcome<sup>7</sup>

DBRS ranks the LFs by using the set of core criteria and the other two criteria in 1.2 and 1.3 and compares the various Legal Frameworks based on laws, legal opinions and analytical studies. DBRS rankings do not represent legal opinions, but rather DBRS's credit-based view about the level of potential delinkage, if any, between an Issuer and its Covered Bond ratings.

**Figure 2: Ranking Outcome**

Categories	Very Strong	Strong	Adequate	Modest
Countries	Denmark France Germany Ireland	Austria Finland Italy Luxembourg Norway Portugal Sweden	Spain*	

\* Current Legal Framework before expected update in Q4 2007.

## 2. Countries with No Specific Covered Bond Legislations (SCB)

As outlined in the Introduction, Covered Bond issues have also migrated to countries where no dedicated or specific Covered Bond legislation exists, such as the United Kingdom, The Netherlands, the United States and most recently, Canada. As such, instead of a country-wide assessment of the specific LF to assess the legal protection for Covered Bond investors, legal issues in countries with no dedicated legislation need to be assessed on a transaction-by-transaction basis. To date, originators that have accessed the Covered Bond market within non-legislated countries use structures that follow the general template for the inaugural Covered Bond issuance in that country. In these cases, the existing LF within the country in question is used to mimic the main economic characteristics of the traditional Covered Bond – namely, asset pool identification and segregation – and delinkage between the insolvency of the Issuer and the asset pool, with ultimate recourse to the asset pool upon Issuer Default and to the Issuer and the asset pool upon Covered Bond default.

In order to achieve these features, Covered Bond transactions in non-legislated countries borrow from traditional securitisation techniques. As such, it is DBRS view that most Covered Bonds issued to date in the United Kingdom benefit from a strong legal platform, a fully tested and well-established Trust Law and, as such, should fall into the Strong or the Very Strong category. However, in any event a “case-by-case” analysis will be needed to determine to which LFs such Structured CBs belong in DBRS's view.

New types of Structured Covered Bonds that are starting to be issued in continental Europe (e.g., France and Germany), as well as in North America, will require a case-by-case and transaction-by-transaction analysis in order to address three main questions:

- (1) What is the strength of the LF used, the quality and enforceability of contractual agreements and securities pledged, the anticipated “contingency plan” in case the Issuer defaults?
- (2) To what extent are the preferential rights legally or contractually anchored in the event of an Issuer's bankruptcy?
- (3) What is the quality of assets in the Cover Pool compared with the one imposed through eligibility criteria in legislated countries?

7. As the monitoring of the Legal Framework is an ongoing process that requires frequent updates, the full Legal Framework ranking will be published in Q1 2008 as a separate piece that will be updated regularly.



DBRS's view is that it is possible that, in some cases, a lack of legislative provisions could make it more difficult to achieve a high level of delinkage between the Issuer and its Structured Covered Bonds, which will eventually lead to a more volatile rating on the Structured Covered Bond.

In the United Kingdom there have been a number of originators who have issued Covered Bonds since the initial transaction implemented by HBOS Treasury in the second half of 2003. These issuances have used a Covered Bond structure primarily based on the segregation and true sale of the assets into a special purpose vehicle (SPV) which acts as a guarantor to the Covered Bonds issued by the Issuer. Since the CBs are issued by the asset originator (and not the SPV, as in traditional securitisation structures), they remain the originator's obligations. As such, CB investors have the usual recourse to the originator, in addition to the recourse to the assets segregated in the SPV upon the originator's default. Dutch CB issuers use a very similar structure as in the United Kingdom when both ABN AMRO and Achmea tapped into the Covered Bond market in recent years. Thus, since the inaugural transaction in 2003, one can observe similarities and differences among the contract-based Covered Bond programmes.

Similarities are as follows:

- (1) Cover Pools are essentially composed of residential mortgages.
- (2) The LTV ratio varies between 60% and 80%.
- (3) Adjustments in case of valuation index movements are identical (rise: 85%/fall: 100%).

However, differences exist: (1) focusing on accounting treatment and the valuation of non-performing loans (three months in arrears), which can be partially accounted for collateral, repurchased or replaced; (2) minimum OC requirement varies between 6.5% and 15%; (3) a Covered Bonds swap provider can be external or internal; and (4) pre-maturity test can exist or not exist.

More recently, the market has also seen inaugural Covered Bond issuances from two U.S.-based originators: Washington Mutual Bank and Bank of America. Given the legal environment in the United States, these transactions use a different technique than that employed in the United Kingdom. In the United States, the LF allows a simple pledge of the assets to a bond trustee (as opposed to a true sale into an SPV like the U.K. structure), which can be used as security for the Covered Bonds upon Issuer Default. In addition, the North American market has also seen an inaugural Covered Bond programme in Canada (e.g., Royal Bank of Canada).<sup>8</sup> The structure used here borrows structural features from the U.K. SCB and is subject to specific requirements imposed by the Canadian regulator OFSI (a 4% limit of total assets on the issuance of Covered Bonds in the same way as the U.K. Financial Service Authority's decision in August 2004).

In the case of SCB, while the asset coverage test (ACT) and the pre-maturity test help to ensure that the balance on the Cover Pool loans outstanding is sufficient to cover the notional amount of covered bonds, the limited liability partnership (LLP) structures of an SPV (designed to achieve segregation of the asset pool) have not been tested yet for an Issuer Default or an LLP default. In both situations, there is the need to manage the Cover Pool asset portfolio. This could be in addition to the need to sell all or part of it to repay maturing CB issues. The latter would happen if the pre-maturity test is hit, exposing SCB investors to the risk that the portfolio would have to be sold at a discount, resulting in an insufficient amount of cash raised to repay SCB investors. Contrary to the legislation-based Covered Bonds, where the legislation provides for an administrator to take control of the Cover Pool, there is no pre-established contingency plan designed to take care of servicing and refinancing issues in SCB structures. Consequently, following the Issuer or the LLP default, there could be more volatility on the SCB ratings than on the legislation-based CB, depending on what type of specific contingent plan would be adopted, as well as market conditions and appetite for this type of Cover Pool assets. The recent market crisis (August to September 2007) showed that excess supply can negatively weigh on the assets' price, resulting in important discounts in the sale price of such portfolio.

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8. For more details, see the RBC presale report published 9 August 2007.



## APPENDIX B: ALM – A CROSS-BLOCKS FEATURE

DBRS's credit risk assessment of any legislative Cover Bond takes into consideration the soundness of security provided to the Cover Bond by the Cover Pool and its related ALM.<sup>9</sup>

- The Cover Pool credit risk assessment takes into consideration the risk of default on underlying assets and the level of stress scenario the existing OC can support.
- In addition to OC used to cover the credit risk at the targeted rating level, the Cover Pool needs to produce cash-flows that are aligned with Cover Bond amortisation in order to provide adequate protections against the interest and currency risks, as well as any timing mismatches or duration gaps.

While the Issuer is not in default, it provides the interest rate and currency risks protection as well as the liquidity necessary to ensure timely payments to all of its creditors, including Covered Bond holders.

Therefore, what needs to be assessed is the type and quality of hedging contracts the Issuer has entered into with counterparties in order to swap the cash-flows of the Cover Pool so that the Covered Bonds can be fully and timely repaid. It is also critical to understand what portion of the risks, if any, remains unhedged, and how it is mitigated.

If and when the Issuer defaults, or in case the Cover Pool becomes the sole source of repayment for the Covered Bonds, then the ALM protection against the liquidity risk (e.g., duration mismatches between the Cover Pool and the Covered Bonds) is provided through a combination of hedging contracts (which constitute part of the Covered Bond security) and OC.

ALM is a tool applied to each of the three building blocks (Issuer Rating, Cover Pool and Legal Framework). In analysing the ALM of the Cover Pool and Covered Bonds with the same approach and criteria, DBRS considers the following:

- (1) The non-default situation of the Issuer (majority of cases).
- (2) The default situation of the Issuer: where the CP and the CB would have to survive the Issuer's default and be matched in terms of cashflows and maturities in the absence of the Issuer which can be replaced in some jurisdictions by an insolvency administrator or a Cover Pool administrator which is often entitled to arrange bridge financing.

In both cases, the following analysis is required:

### *(1) Liquidity Risk*

The main liquidity risk is the mismatch between the CP and the CB cash-flows and respective maturities due to the fact that the maturities of the assets (CP) are generally longer than that of the liabilities (CB). DBRS analysis focuses on the sources of liquidity, as well as their sufficiency:

- In most CB programs, the liquidity is provided through Issuer liquidity and OC (in the form of cash or liquid assets). In this case, what matters is the Issuer Rating as a liquidity provider, the nature of the part of the OC that provides liquidity coverage (cash or liquid assets) and the sufficiency of those liquidity sources given the mismatches.
- In other cases, CB programs are organised in a way that the Issuer itself is not implicitly involved in any liquidity support, and either a cash reserve is funded at the inception of the CB program or liquidity lines or facilities are obtained through the Issuer itself as an explicit liquidity provider, through a highly rated third party or both.
- The Cover Pool itself may also provide a source of liquidity, if and when it has to be liquidated to repay part or all of a CB issue.

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9. However, in Structured Covered Bonds, the ALM is analysed on a case-by-case basis.



Depending upon how the liquidity is provided for (through a reserve fund, the Issuer's balance sheet or other sources), its adequacy and the development of sources that provide it (for instance the rating change of the liquidity providers including the Issuer itself), the impact on the CP will be analysed and the CP, and consequently the CB could be downgraded or upgraded.

In any case, DBRS needs to analyse whether the liquidity mechanism provided is sufficient to cover duration gaps, particularly in cases where the CB program matures well ahead the CP. Features like extendible repayment dates may help protect against such risks to a large degree. However, there could be extreme scenarios where, while the Issuer itself is not in default, all or part of the CP needs to be sold or refinanced in order to repay maturing CBs. In such cases, DBRS needs to assess the market value of the CP under various scenarios incorporating factors such as economic environment, size of the market for this type of assets, interest rates environments, etc., in order to determine the sufficiency of the CP sales proceeds for timely and full repayment of the CB. In case of an Issuer Default, DBRS needs to analyse whether the monetization of CP through asset amortisation as well as its eventual sale would be sufficient and timely enough to repay maturing CBs or otherwise a liquidation scenario of the CP will be analyzed.

### ***(2) The Interest Rate Risk and Currency Risk***

Both legal and financial analysis need to be conducted on the following.

- Legal statute of the hedging agreements that swap the CP cash-flows:
  - Are they part of the segregated CP, and would they survive independently in case of an Issuer Default?
  - How adequate are the legal guidelines for avoiding potential market risks and cash-flow mismatches emanating from interest rate or currency gaps?
- Type and nature of specific documentations used in each country such as Master Agreements (German Master Agreements, French FBF Agreement, etc.) between the Issuer and external swap counterparties as well as standard market practice in relation to the posting of collateral (e.g. netting across different derivative types within the CP). Those Master Agreements generally vary from one to the other, and are non-standard, and therefore cannot be easily settled, replaced or switched to other counterparty. DBRS will assess the management of counterparty risk in relation to those Master Agreements and situations where those contracts can be cancelled or amended and any consequences for the Issuer (e.g., the possibility to re-assign its hedge to another counterpart and at what cost). DBRS will review if the CP swaps governed by the Master Agreements are plain vanillas or asymmetric and if the swap contracts are structured in a way that premature termination can not be triggered by an Issuer Default or the counterparty. In addition, DBRS will verify if the swaps are secured with collateral and how.
- Type and nature of the currency swaps, if any, that exchange the CP cash flows into the currency of the CB.
- Level of residual risk: Stress scenarios are used to assess if additional hedges are put in place through liquid assets or it is covered by the Issuer itself.

The counterparty risk: DBRS considers counterparty risks arising from the dedicated Cover Pool swaps and the CB swaps. In respect of the dedicated Cover Pool swaps, the related counterparty risk is embedded in the CP rating as described in Diagram 1 below. As to the CB swap counterparties, their rating directly impacts the CB rating (see Diagram 1).

### ***(3) The Use of the NPV<sup>10</sup> as a Monitoring Tool for the ALM***

A key tool DBRS will focus on to monitor the ALM risk is the Cover Pool and related NPV of CBs. In DBRS's view, an absolute positive NPV must be maintained at all times including a stressed situation where the Cover Pool has to be sold to an alternative servicer or managed by a Cover Pool administrator. On an ongoing basis, DBRS will monitor the following:

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10. The net present value is the sum of all cash flows discounted to the current day using prevailing market yield curves in each case.



- How will the NPV be calculated and stressed?
- Under which scenarios it is calculated?
- How frequently is the NPV calculated and monitored?
- How are NPV and OC linked?
- What remedies are considered if the NPV becomes negative?

## The Assessment of the ALM during the Rating Process

### *Factors Impacting the CP Rating*

It should be noted that DBRS's assessment of the CP addresses three main classes of risk: the Credit Risk, the Counterparty Risk and the Market Risk.

#### (1) Assessing the CP Credit Risk

- (a) Obligors' defaults
- (b) Delinquencies
- (c) Prepayments
- (d) Loss severity given default

Those elements constitute the basis for measuring the sufficiency of the proposed overcollateralisation in respect of the desired rating on the Cover Pool, in consideration that the available OC may cover only the credit risk with any provision for the liquidity risk.

#### (2) Assessing the Counterparty Risk related to the Cover Pool swaps

- (a) Any swaps from a counterparty rated below "A" or R-1 (middle) will have to be replaced by swap counterparties rated at least "A" or R-1 (middle), or their mark-to-market value will be deducted (net of collateral if any) from the Cover Pool NPVs and respective credit enhancement amount.
- (b) For swaps assumed by a counterparty rated at least "A" or R-1 (middle), no re-assessment of the credit enhancement is necessary.

#### (3) Assessing the Markets Risk (i.e., interest rate, currency) through the monitoring of

- (a) available indicators such as NPV
- (b) stressed scenario and/or stressed NPV
- (c) market value at risk (VaR).

### *Other Factors Impacting the CB Rating*

The Residual Liquidity Gap – by assessing the less than one year liquidity coverage of the CB interest and principal maturities as follows:

#### (1) Sizing the duration gap between the CP and the CB.

(2) Analysing the sources of liquidity. Any liquidity provider other than the CP itself (cash and/or liquidity assets) needs to have a rating at least A (low) or R-1 (middle) in order to be commensurate with a AAA-rated CB.

(3) Performing market value analysis if the CP itself needs to be liquidated to repay the CB. Any shortfall in the available cashflows to repay the CB is incompatible with the rating on the CB.

**Figure 1. Summary of the Main Rating Triggers Generally Commensurate with a AAA CB**

Role	Rating Trigger	Rationale	Remedies
Swap Counterparty Risk	At least A or R-1 (middle)	Creditworthiness and execution quality of the Counterparty can be challenged	Collateralisation, third-party guarantee, replacement provider
Liquidity Provider	At least A (low) or R-1 (middle)	A lower short-term rating challenges the resilience of the liquidity provider	Alternative liquidity sources, cash deposits
Servicer	At least A (low) or R-1 (middle)	Operational risk increases below this rating level	Backup servicer, performance guarantor
Account Bank	At least A (low) or R-1 (middle)	The commingling risk increases substantially below this level	Alternative account bank, secured accounts

### *Key Elements of The CP and CB ALM Review*

#### (1) Cover Pool and Covered Bond ALM Requirements: Static or Dynamic

##### (a) Static Matching Tests

- Nominal cover matching test: value of assets (CP) > (1 + x %) \* value of liabilities (CB).
- Revenue matching test: interest received from CP > interest paid on CB.

##### (b) Dynamic Matching Tests

- NPS of assets (CP) > (1 + x %) \* NPV of liabilities (CB).
- Duration gap between assets and liabilities.
- NPV stress tested on yield curve shift, historic interest rate volatility and time horizon.
- Mismatch between NPV and calculated overcollateralisation requirements.
- Consequence of failure of any of the above tests, assuming Issuer Default?

#### (2) Cover Pool and Covered Bonds ALM Risks

##### (a) The types and the magnitude of mismatch between the Cover Pool and the Covered Bond, including the following:

- amplitude of the maturity gap (CB vs. CP).
- the way taking into account the coverage of large proportion of non-domestic CP assets and their respective Covered Bonds.
- the degree to which the Cover Pool prepayment risk is considered, and the probability it can lead to significant risk of maturity gap.

##### (b) The way those potential liquidity shortfalls are covered (through OC, global CB issuance ALM by way of liquidity gap requirements and others).

##### (c) Dramatic interest rates changes and the possibility to call or prepay Covered Bonds.

#### (3) Swap Contracts Related to the Cover Pool

##### (a) Number and volume of swap contracts.

##### (b) Type and content.

##### (c) Specific clauses (termination, collateral posting when certain events are triggered).

##### (d) Credit strength of the swap providers.

##### (e) Swap contracts and Credit Support Annex.



## APPENDIX C: OVERCOLLATERALISATION

### (1) *The Components of OC*

In the event of insolvency of the Issuer, the Cover Pool cash flows will become the sole source of repayment of the Covered Bonds (unless the Cover Pool is sold). The Cover Pool overcollateralisation is calculated as Total Outstanding Cover Pool Assets divided by Total Outstanding Covered Bonds.

In simple words, OC represents the excess amount of assets (i.e., loans, cash and/or others) over the Covered Bonds issued that would help to insure the timely payment of Covered Bonds in the situation of deteriorating Cover Pool performance. In many cases, OC also helps with liquidity and mismatch risks.

Depending upon situations and jurisdictions, the sources of cash-flows from the Cover Pool can be composed of the following:

- The ordinary Cover Pool assets and substitute assets.
- The respect of the “cover principal” rule – i.e., that the outstanding CBs must at all times be secured by cover assets of a value at least equal to the nominal amount and accrued interest of CBs.
- The “mandatory” overcollateralisation, which represents the minimum OC level required by a specific CB legislation (for example 2% in Germany).<sup>11</sup>
- The “voluntary” overcollateralisation (also called the “given” OC).

DBRS views OC as a strong form of protection against credit risks of the Cover Pool assets and ALM mismatch risks (such as currency, interest rates and maturity gaps). However, not all types of OCs are of equal value in DBRS's view. For instance, DBRS will determine how much credit can really be given to OC based on the analysis of the regulatory constraints relating to the mandatory OC versus the given OC provided in addition to the mandatory OC in order to enhance the credit quality of the Cover Pool. Voluntary OC could be contested or not enforceable if and when needed.

In addition, depending on the amount of OC given, DBRS will take into consideration the various aspects of the eligibility criteria and the impact they may have on the Cover Pool credit quality, such as the following:

- To what extent the LTV at origination differs from LTV allowed under eligibility criteria.
- To what extent an asset can be viewed as partially eligible or entirely non-eligible.
- The type of valuation method used by the Issuer (e.g., open market value versus sustainable mortgageable value).
- The likelihood that OC can be made up of eligible assets which may become non-eligible or partially eligible in the future due to the decrease in value of the underlying asset, the decrease in LTV to a specific LTV level or other requirement, for example.
- To what extent collateral value tracking can ensure greater dynamic collateral coverage.
- The existence of specific rules for the OC (for example, sum of risk-weighted assets must exceed the total amount for Covered Bonds plus hedging instruments employed) and to what extent these rules can substitute for a mandatory requirement.
- To what extent substitute assets can be used as OC.

### (2) *The Voluntary OC*

In addition to the ALM requirements, many Covered Bonds Issuers enter into contractual commitments in order to (a) strengthen their ALM and risk management to minimise the risks for CBs and (b) achieve an additional margin of Over-Collateralisation above the level required by the law.

In DBRS's view, the benefit of these commitments depends upon the following:

- (a) The robustness of the Issuer's management in order to minimise its risks with regard to the regulations in force.
- (b) Strict respect of the mandatory OC requirements.
- (c) The assurance of a long-term and available voluntary OC above minimum OC.

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11. OC is generally defined as a total Cover Pool volume/total amount of Covered Bonds outstanding – 100%.



In DBRS's view, mandatory OC does not necessarily cope with all the risks arising from ALM or the linkage with the Issuer. This is why the existence of voluntary OC is valuable. In order to appreciate the degree of additional support provided by voluntary OC, DBRS will assess its stability by addressing the following aspects:

- (a) linkage to the credit risk in terms of the credit risk concentration and correlation embedded in the Cover Pool.
- (b) linkage to the interest rate risk that may arise from maturity mismatches between assets and liabilities, fixed and floating exposures, and currency risk.

### *(3) Liquidity Cushion*

DBRS will review the following risks that the voluntary OC could

- (a) Be viewed as unjustified excess cover by the regulators or other creditors of the Issuer.
- (b) Disappear in an Issuer's insolvency situation.
- (c) Not be allocated for the timely payment of Covered Bonds or not replaced upon redemption of the OC.
- (d) Be threatened as new Covered Bonds are issued up to the maximum allowed amount.
- (e) Be affected by the substitution risk as the Cover Pools of the Issuers are of a dynamic nature and the Issuers can potentially remove certain assets from the Cover Pool and replace them with other eligible assets of lower credit quality).

To address these risks, DBRS will first evaluate if voluntary OC is legally binding and its enforceability if and when needed, in particular in a situation of an Issuer's insolvency.. Secondly, in regard to the liquidity risk, DBRS will consider the existence of any liquidity reserves stemming from the Cover Pool. DBRS will give credit to liquidity provided through OC in conjunction with any other liquidity mechanism used to meet the Issuer's CB payment obligations, particularly in the case of difficult market access.



## APPENDIX D: COVERED BONDS RATING TABLES

DBRS's integrated approach to rating Covered Bonds incorporates the following:

- The Issuer's credit quality.
- The strength of the Legal Framework.
- The security interest offered by the Cover Pool.

The application of this approach can be presented through rating tables that combine the Issuer Rating and the Cover Pool rating in each category of Legal Framework, with one rating table for each Legal Framework.

The tables below illustrate DBRS's view that there is always a linkage between a CB rating and the Issuer senior unsecured rating, even in a Very Strong LF. However, this linkage can be significantly reduced depending upon the LFs used, as illustrated in the tables. The tables show in particular the Issuer Rating level at which the linkage starts to materialise. DBRS considers that a linkage always exists for the following reasons:

- The involvement of regulators when needed is not considered sufficient to ensure that a AAA rating on the CBs can be maintained.
- A Covered Bond is a secured bank debt unlike off-balance-sheet transactions; therefore, a linkage remains between the Issuer Rating and the Covered Bond ratings for reasons ranging from origination criteria, business franchise and operational capacities, to financial situation of the Issuer.
- When an Issuer's short-term rating starts to be downgraded to R-1 (low) or below or its long-term rating to A (low) or below, the Issuer is generally no longer considered acceptable as a liquidity provider to the CB with a AAA rating. Only when the Issuer can demonstrate that it has put in place a cash cushion (in the OC, for instance) sufficient to cover for CP and CB mismatches can the AAA rating be maintained on the CB.
- All the cash-flows from the swaps and collections normally transit through the Issuer balance sheet and are deposited with the Issuer. As soon as the Issuer's long-term rating goes below A (low) or short-term rating goes below R-1 (low), it is generally no longer acceptable for a AAA rating on the CBs.
- Concerns of the servicing and requirement for a backup servicer arise when the servicer's long-term rating falls to A (low) or, more certainly, BBB range (operational risk). The resort to a backup servicer at that point can be difficult to execute as the financial weakness of the Issuer may start to affect the operational aspect of the Covered Bond program. In most cases, the AAA CB rating is affected for an Issuer rated BBB (high), even in a Very Strong LF.

The following tables present the outcomes of CB ratings based on Issuer Rating, Cover Pool and Legal Framework. There may be some exceptional situations where the CB ratings could be maintained even when the Issuer Rating drops at the levels indicated in the tables. Or on the contrary, a CB rating review or downgrade could be justified while neither the Issuer nor the CP ratings have changed. For instance, in certain cases, the Covered Bonds AAA rating could be maintained with remedies such as replacement of the servicer or alternative liquidity provider to the Issuer when the rating of an existing servicer or liquidity provider deteriorates. On the other hand, the CB could be downgraded before the Issuer Rating drops to any of the levels indicated in the tables due to an increase in the gap between the final Issuer Rating and its Intrinsic Assessment, which DBRS considers as an early signal of the deterioration in Issuer's capabilities to adequately ensure the proper function of its core roles in regard to the CB programme such as servicer, asset originator or liquidity provider.



## CB Rating Tables

### Very Strong Legal Framework

Issuer Rating	Cover Pool											
	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB
AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
AA (high)	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)
AA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AA	AA	AA	AA	AA
AA (low)	AAA	AAA	AAA	AAA	AAA	AAA	AA (high)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)
A (high)	AAA	AAA	AAA	AAA	AAA	AA (high)	AA	A (high)	A (high)	A (high)	A (high)	A (high)
A	AAA	AAA	AAA	AAA	AA (high)	AA	AA (low)	A	A	A	A	A
A (low)	AAA	AAA	AA (high)	AA	AA	AA (low)	A	A (low)	A (low)	A (low)	A (low)	A (low)
BBB (high)	AA (high)	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)
BBB	AA	AA	A (high)	A	A	A (low)	BBB (high)	BBB	BBB	BBB	BBB	BBB
BBB (low)	AA (low)	AA (low)	A	A (low)	A (low)	BBB (high)	BBB	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)
BB (high)	A	A (low)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)
BB	A (low)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB	BB	BB	BB
BB (low)	BBB (high)	BBB (high)	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB	BB (low)	BB (low)	BB (low)	BB (low)
B (high)	BBB (high)	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB	B (high)	B (high)	B (high)	B (high)
B	BBB (high)	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB (low)	B (high)	B	B	B
B (low)	BBB	BBB	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB (low)	B	B (low)	B (low)	B (low)
CCC (high)	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB	B (high)	B	CCC (high)	CCC (high)	CCC (high)
CCC	BBB	BBB (low)	BB (high)	BB (high)	BB (high)	BB (high)	BB	B (high)	B (low)	CCC (high)	CCC	CCC
CCC (low)	BBB	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB (low)	B (high)	B (low)	CCC (high)	CCC (low)	CCC (low)

### Strong Legal Framework

Issuer Rating	Cover Pool											
	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB
AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
AA (high)	AAA	AAA	AAA	AAA	AAA	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)
AA	AAA	AAA	AAA	AAA	AA (high)	AA	AA	AA	AA	AA	AA	AA
AA (low)	AAA	AAA	AA (high)	AA (high)	AA	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)
A (high)	AAA	AAA	AA (high)	AA	AA	AA (low)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)
A	AAA	AA (high)	AA	AA (low)	A (high)	A	A	A	A	A	A	A
A (low)	AA (high)	AA	A (high)	A	A	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)
BBB (high)	AA	A (high)	A	A (low)	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)
BBB	A (high)	A (low)	A (low)	BBB (high)	BBB (high)	BBB	BBB	BBB	BBB	BBB	BBB	BBB
BBB (low)	A	A (low)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)
BB (high)	BBB (high)	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)
BB	BBB	BBB (low)	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB	BB	BB	BB	BB
BB (low)	BBB	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)
B (high)	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)
B	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB (low)	B (high)	B	B	B	B	B
B (low)	BBB (low)	BB (high)	BB (high)	BB	BB	BB (low)	B (high)	B (low)	B (low)	B (low)	B (low)	B (low)
CCC (high)	BB (high)	BB (high)	BB (high)	BB	BB (low)	BB (low)	B	B (low)	CCC (high)	CCC (high)	CCC (high)	CCC (high)
CCC	BB (high)	BB (high)	BB	BB	BB (low)	B (high)	B	CCC (high)	CCC	CCC	CCC	CCC
CCC (low)	BB (high)	BB (high)	BB	BB (low)	BB (low)	B (high)	B (low)	CCC (high)	CCC	CCC (low)	CCC (low)	CCC (low)



### Adequate Legal Framework

		Cover Pool											
		AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB
Issuer Rating	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
	AA (high)	AAA	AAA	AAA	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)
	AA	AAA	AAA	AA (high)	AA (high)	AA	AA	AA	AA	AA	AA	AA	AA
	AA (low)	AAA	AA (high)	AA	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)
	A (high)	AAA	AA (high)	AA	AA (low)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)
	A	AA (high)	AA	A (high)	A	A	A	A	A	A	A	A	A
	A (low)	AA	A (high)	A	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)
	BBB (high)	A (high)	A (low)	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)
	BBB	A (low)	BBB (high)	BBB (high)	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
	BBB (low)	A (low)	BBB (high)	BBB	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)
	BB (high)	BBB	BBB (low)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)
	BB	BBB (low)	BB (high)	BB (high)	BB (high)	BB	BB	BB	BB	BB	BB	BB	BB
	BB (low)	BBB (low)	BB (high)	BB (high)	BB	BB	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)
	B (high)	BB (high)	BB (high)	BB	BB	BB (low)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)
	B	BB (high)	BB (high)	BB	BB (low)	BB (low)	B (high)	B	B	B	B	B	B
	B (low)	BB (high)	BB (high)	BB	BB (low)	B (high)	B (high)	B (low)	B (low)	B (low)	B (low)	B (low)	B (low)
CCC (high)	BB (high)	BB	BB (low)	BB (low)	B (high)	B	B (low)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	
CCC	BB (high)	BB	BB (low)	B (high)	B (high)	B	CCC (high)	CCC	CCC	CCC	CCC	CCC	
CCC (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CCC (low)	CCC (low)	CCC (low)	

### Modest Legal Framework

		Cover Pool											
		AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB
Issuer Rating	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA	AAA
	AA (high)	AAA	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)	AA (high)
	AA	AA (high)	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
	AA (low)	AA	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)
	A (high)	AA (low)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)	A (high)
	A	A	A	A	A	A	A	A	A	A	A	A	A
	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)	A (low)
	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB (high)
	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB	BBB
	BBB (low)	BBB	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)
	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)	BB (high)
	BB	BB (high)	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB	BB
	BB (low)	BB	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)	BB (low)
	B (high)	BB	BB (low)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)	B (high)
	B	BB (low)	B (high)	B	B	B	B	B	B	B	B	B	B
	B (low)	BB (low)	B (high)	B	B (low)	B (low)	B (low)	B (low)	B (low)	B (low)	B (low)	B (low)	B (low)
CCC (high)	BB (low)	B (high)	B (low)	B (low)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	CCC (high)	
CCC	B (high)	B	B (low)	CCC (high)	CCC (high)	CCC	CCC	CCC	CCC	CCC	CCC	CCC	
CCC (low)	B (high)	B	B (low)	CCC (high)	CCC (high)	CCC	CCC (low)	CCC (low)	CCC (low)	CCC (low)	CCC (low)	CCC (low)	



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## 5. Glossary

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**ACT:** Asset coverage test

**ALM:** Assets and liabilities management

**CAM:** Cover Asset Monitor

**CP:** Cover Pool

**CB:** Covered Bond

**Euribor:** Euro Interbank Offered Rate

**IA:** Intrinsic Assessment

**ID:** Issuer Default

**IR:** Issuer Rating

**Jumbo issues:** Benchmark issues above a minimum size of EUR 1 billion

**LF:** Legal Framework

**LLP:** Limited liability partnership

**LTV:** Loan-to-value

**OC:** Overcollateralisation

**PD:** Probability of default

**NPV:** Net present value

**SA:** Support Assessment

**SCB:** Structured Covered Bonds

**SPV:** Special-purpose vehicle

**VaR:** Value at risk

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