

Global Methodology for Rating and Monitoring Covered Bonds

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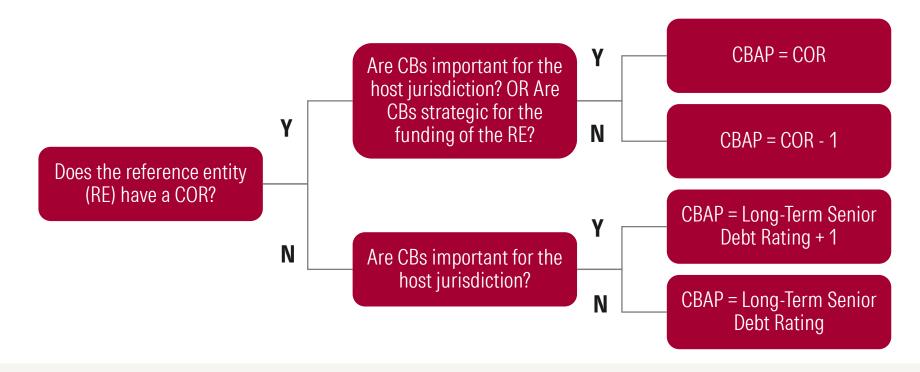
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Introduction to Morningstar DBRS' Approach to Rating Covered Bonds (CBs)

- Step 1 Covered Bond Attachment Point (CBAP)
- Step 2 Legal and Structuring Framework (LSF) Assessment and LSF-Likelihood (LSF-L)
- Step 3 Cover Pool Credit Assessment (CPCA)
- Step 4 Recovery Prospects Provided by the Cover Pool (CP)
- Example
- Proposed Updates



Step 1 – Covered Bond Attachment Point (CBAP) – BRRD countries



COR: Critical Obligations Rating. The COR addresses the risk of default for particular obligations / exposures at certain banks that have a higher probability of being excluded from bail-in and remaining in a continuing bank in the event of a troubled bank's resolution than other senior unsecured obligations.

Step 2 – LSF Assessment and LSF-L

The LSF assessment involves evaluating the level of delinkage that exists between the reference entity and the CBs.

Assessing the LSF entails reviewing the dedicated CB legislation and considering the CB structure and features as well as the related sovereign credit rating.

There are five LSF matrices: Very Strong, Strong, Adequate, Average, and Modest.

Each matrix associates a likelihood of timely payment to the CBs based on the CBAP and CPCA known as the LSF-L, which expresses the likelihood that CB holders will be repaid according to the terms of their investment.

This is an intermediate step in the CB credit rating process.



Very Strong LSF

CP Credit Assessment

	AAA	AA (high)	AA	AA (low)	A (high)	Α	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	88
CBAP		1000000		0	30 (25) 10		767-150	20.000		110000	hillipois	
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	AA (high)	AA	AA	AA	ДД	ДД
AA (low)	AAA	AAA	AAA	AAA	AAA	AA (high)	AA (high)	AA	AA	AA (low)	AA (low)	AA (low)
A (high)	AAA	AAA	AAA	AA (high)	AA (high)	AA (high)	AA	AA (low)	AA (low)	AA (low)	A (high)	A (high
A	AAA	AAA	AAA	AA (high)	AA (high)	AA	AA	AA (low)	AA (low)	A (high)	A	Α
A (low)	AAA	AA (high)	AA (high)	AA	AA	AA	AA (low)	A (high)	A (high)	A	A. (low)	A (low)
BBB (high)	AA (high)	AA	AA	AA (low)	AA (low)	AA (low)	A (high)	А	Α	A (low)	A (low)	A (low)
BBB	AA (high)	AA	AA (low)	AA (low)	AA (low)	A (high)	A (high)	А	Α	A (low)	A (low)	BBB (high
BBB (low)	AA	AA	AA (low)	AA (low)	A (high)	A (high)	Α	A (low)	A (low)	A (low)	BBB (high)	BBB (high
BB (high)	AA (low)	AA (low)	A (high)	A (high)	А	A (low)	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB (low)	BBB (low)
BB	AA (low)	A (high)	A (high)	А	А	A (low)	A (low)	BBB (high)	BBB (high)	BBB (high)	BBB (low)	BBB (low)
BB (low)	A (high)	A (high)	A	А	A (low)	A (low)	A (low)	BBB (high)	BBB	BBB	BBB (low)	BBB (low)
B (high)	A	А	Α	A (low)	A (low)	A (low)	BBB (high)	888	BBB	BBB (low)	BBB (low)	BB (high
В	A. (low)	A (low)	A (low)	A(low)	A (low)	A (low)	B88 (high)	888	888 (low)	BBB (low)	BB (high)	BB (high
В	A	Α	Α	Α	BBB	BBB	BBB	888	BBB	BBB	88	BB
(low)	(low)	(low)	(low)	(low)	(high)	(high)	(high)	(low)	(low)	(low)	(high)	(high
CCC (high)	BBB (high)	888 (high)	BBB (high)	BBB (high)	(high)	BBB	888	888 (low)	BBB (low)	BBB (low)	BB	BB
ccc	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB	BBB	BBB (low)	888 (low)	BBB (iow)	BBB (low)	BB	BB
CCC (low)	888	888	BBB (low)	BBB (low)	BBB (low)	BBB (low)	BBB (low)	888 (low)	BBB (low)	BB (high)	ВВ	BB (low)

Step 3 – Cover Pool Credit Assessment (CPCA)

To determine the LSF-L of a programme, we assess the quality of the CP. This analysis is based on the structured finance credit rating approach that we use to analyse similar types of assets in asset-backed transactions (e.g., RMBS, SME CLOs, PSE).

We determine the CPCA by incorporating the credit analysis of the CP; the expected cash flows from the CP and the swaps; the expected proceeds from the sale of all or part of the CP in case of issuer default; as well as the interest rate stresses, currency stresses, and other stresses into a multi-scenario cash flow analysis aimed at testing the CBs' receipt of timely interest and full principal at the maturity date, as per the applicable terms.

The CPCA level is subject to the condition that there is sufficient overcollateralisation (OC) to which we could give credit (committed OC or minimum observed OC level during the past 12 months).

CB Rating	Scaling Factors (x) to Observed OC
AA (low) and above	0.85x
A (low) to A (high)	0.90x
BBB (low) to BBB (high)	0.93x
Below Investment Grade	0.95x



Step 4 – Recovery Prospects Provided by the CP

In consideration of the essentially senior-secured position of CB holders, we may grant an uplift of up to two notches from the LSF-L if the analysis of the CP shows that it would provide substantial support following a default of the CBs.

We run a wind-down cash flow simulation aimed at covering the cost of funding under a stress scenario in line with the CB rating.

Principal Recovered	Notches Uplift
>= 80%	+2
>= 60% but < 80%	+1
< 60%	0



Example

- 1. CBAP: In this example, an issuer located in an EU country has set up a CB programme under the legal framework. The issuer has a long-term credit rating of BBB and a COR of A (low), which will be its CBAP in this case, as we consider the CB to be an important instrument for the host jurisdiction.
- 2. LSF: After reviewing the robustness of the CP segregation for the benefit of CB holders, the accessibility of CP cash flows on a preferential and timely basis, the need and ability to liquidate the CP and the contingency plans, amongst other factors, we determine the LSF to be Very Strong.
- 3. CPCA: After reviewing the CP quality, the OC level, and the structure of the CB programme, amongst other factors, we determine that the maximum CPCA is 'A'.
- LSF-L: The Very Strong matrix associates a likelihood of timely payment to the CBs. The LSF-L is the intersection between the CBAP and the CPCA, which is AA.
- 4. Recovery Prospects: After running a wind-down cash flow simulation under a stress scenario in line with the CB credit rating, we determine that we can grant an uplift of two notches from the LSF-L.
- Thus, the final CB credit rating in this example would be AAA.



Very Strong LSF (2)

				Cover Pool Credit Assessment (3)						
		AA		AA	Α		A	888		
	AAA	(high)	AA	(low)	(high)	A	(low)	(high)	888	
COAD		000000		315	7.7.20		0.00	2.55		

	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	888	BBB (low)	BB (high)	BB
CBAP		00/2010		0.000			Country	0.65650		51 - 30	A 1-10.	
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	ддд	AAA	AAA	AAA	AAA	AAA	AA (high)	AA	AA	AA	AA	AA
AA (low)	AAA	AAA	AAA	AAA	AAA	AA (high)	AA (high)	AA	AA	AA (low)	AA (low)	AA (law)
A (high)	AAA	AAA	AAA	AA (high)	AA (high)	AA (high)	AA	AA (low)	AA (low)	AA (low)	A (high)	A (high)
A	AAA	AAA	AAA	AA (biob)	AA (high)	AA	AA	AA (Inva)	AA (low)	A (biob)	A	А
A (low)	AAA	AA (high)	AA (high)	AA	AA	АА	AA (low)	A (high)	A (high)	A	A (low)	A (low)
BBB (high)	AA (high)	AA	AA	AA (low)	AA (low)	AA (low)	A (high)	А	А	A (low)	A (low)	A (low)
888	AA (high)	AA	AA (low)	AA (low)	AA (low)	A (high)	A (high)	Α	A	A (low)	A (low)	BBB (high)
BBB (low)	AA	AA	AA (low)	AA (low)	A (high)	A (high)	A	A (low)	A (low)	A (low)	BBP right	BBB (high)
BB (high)	AA (low)	AA (low)	A (high)	A (high)	Α	A (law)	A (low)	BBB (high)	B88	(had)	E/A	BBB (low)
88	AA (low)	A (high)	A (high)	A	Α	A (low)	A (low)	BBB (high)	BLV (high	BBB (high)	BBB	(low)
BB (low)	A (high)	A (high)	А	A	A (low)	A (iw)	A.	RBB VbC V	1.58	888	BBB (low)	BBB (low)
B (high)	A	А	А	A (low)	A (low)	A. WJ	88a agn)	8.8	888	888 (low)	BBB (low)	BB (high)
В	A (low)	A (low)	A (low)	A(low)	A (ow)	A (iw)	(high)	888	BBB (low)	BBB (low)	BB (high)	BB (high)
В	A	А	A.	A	38	888	888	BBB	B88	888	BB	88
(low) CCC (high)	(low) BBB (high)	(low) BBB (high)	(low) BBB (high)	(low) BBB (high)	(high) BBB (high)	(high) BBB	(high) BBB	(low) BBB (low)	(low) BBB (low)	(low) BBB (low)	(high) BB	(high) 88
CCC	BBB (high)	BBB (high)	BBB (high)	BBB (high)	BBB	888	88B (low)	BBB (low)	BBB (low)	888 (lew)	BB	88
CCC (low)	888	888	BBB (low)	BBB (low)	BBB (low)	888 (low)	B8B (low)	BBB (low)	BBB (low)	B8 (high)	88	BB (low)

Proposed Updates

(1) Mortgage Market Value Spreads (MVS)

- The main reference point for the determination of market value spreads in each country for mortgage loans is, where available, CB secondary market spreads as long as the CB market is developed and there are some active CB issuers.
- Historically observed levels are typically stressed to a level of confidence that varies with the credit rating.
- We may also refer to other sources, including but not limited to secondary market RMBS or sovereign spreads.
- MVS are applied fully during the 18 months immediately following RE default and to a reduced extent thereafter.
- Midpoint increased by up to 150-250 bps for nonresidential assets.
- Eight countries (Czech Republic, Estonia, Hungary, Japan, Poland, Romania, Singapore, and Slovakia) are added.

Exhibit 1 Mortgage Loans MVS Range (Midpoints)

	Tier 1A	Tier 1B	Tier 2	Tier 3	Tier 4
AAA	125	225	450	800	1250
AA (high)	111	199	398	706	1100
AA	97	173	345	611	950
AA (low)	87	155	310	547	850
A (high)	78	138	275	484	750
A	68	120	240	421	650
A (low)	61	107	214	374	575
BBB (high)	54	94	187	326	500
BBB	46	81	161	279	425
BBB (low)	39	68	135	231	350
BB (high)	32	55	108	184	275
BB	25	42	82	136	200
BB (low)	20	33	65	105	150
B (high)	15	24	47	73	100
В	10	15	29	41	49
B (low)	8	12	23	33	40

Tier 1A: Canada, Denmark, Finland, Germany, Norway, Sweden

Tier 1B: Australia, Austria, Belgium, France, Luxembourg, the Netherlands, New Zealand, Singapore, Switzerland, UK

Tier 2: Czech Republic, Estonia, Ireland, Italy, Japan, Poland, Slovakia, Spain

Tier 3: Hungary, Portugal, Romania

Tier 4: Cyprus, Greece



Proposed Updates (Continued)

(2) Interest Rate (IR) Projection Curve for Net Present Value (NPV) Calculation

Following an RE's inability to meet payments on the CBs, there may be a need to liquidate a portion of the CP to meet the upcoming maturities on the CBs. We determine the proceeds from liquidation of the cover assets via a NPV formula that discounts forecast inflows from the assets at the sum of an IR and a MVS in line with the credit rating scenario being tested. We may apply a cap to such assumed proceeds.

We derive the IR curve used to calculate the NPV of the forecast inflows from the assets by shifting the corresponding forward curve by a magnitude that depends on the horizon (i.e., period when the assets are liquidated) and the credit rating scenario being tested.

Magnitude Shift Applied to Forward Curve by Horizon at AAA Level

Horizon (months)	Increasing IR Scenario (%)	Decreasing IR Scenario (%)		
1	1.1	-1.5		
12	4.1	-3.6		
36	4.3	-4.2		
60	4.2	-4.6		
120	3.7	-5.5		

For any horizon, the shift is linearly interpolated.

This magnitude (in absolute terms) corresponds with the ratio of the difference between the AAA credit rating and the forward curve and the following factors for each credit rating category: AA: 0.75, 'A': 0.5, BBB: 0.3125, BB: 0.125 and B: 0.



Proposed Updates (Continued)

(3) Reference Entity Default Timing

We may assume that the issuer will continue financing with CBs until we assume the RE's default in our analysis, unless we have evidence this is not possible (e.g., because the programme is in wind-down or because of circumstances concerning the issuer that limit its financing through CBs).

(4) Support in the EU

In the EU, we perceive the likelihood of the EU regulator stepping in to be high based on the history of regulatory intervention and support. Thus, the LSF assessment for European CBs will also consider the EU's credit rating.

(5) Rating CB Swap Payments

The credit rating assigned to swap payments may be the same as our rated CBs when the following considerations apply:

- A. Counterparties of the CB swap rank pari passu with CB investors.
- B. The CB swap is included in the CP, subject to legally binding and enforceable segregation by the CB issuer and protected from any third-party claims.

CB swaps may contain a clause that subordinates potential termination payments after an adverse credit event affecting the swap counterparty. As a result of the ranking, the credit rating on the potential swap payments may be restricted by the credit rating on the derivative counterparty itself.



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