NOVEMBER 2016

COMMENTARY

DBRS Expected Loss Ratings

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Related Research

For a list of the Structured Finance related methodologies for our principal Structured Finance asset class methodologies that may be used during the rating process, please see the DBRS Global Structured Finance Related Methodologies document on www.dbrs.com. Please note that not every related methodology listed under a principal Structured Finance asset class methodology may be used to rate or monitor an individual structured finance or debt obligation.

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Scope and Limitation

DBRS's Expected Loss Ratings Scale defines how DBRS rates loan portfolios and untranched debt or equity instruments whose performance depends predominantly on the credit performance of a loan portfolio backing such investments. DBRS Expected Loss Ratings (EL Ratings) do not address the timeliness of expected portfolio interest and principal payments nor do they address market price volatility of the loan portfolio, liquidity, foreign exchange, leverage, regulatory risks, or other erosion of the portfolio's market value. The ratings do not consider the investors' liabilities. Like other DBRS ratings, every DBRS EL Rating is based on quantitative and qualitative considerations relevant to the loan portfolio.

Introduction

DBRS Expected Loss Ratings give an indication of the expected loss of a loan portfolio. The portfolio expected loss is thus defined as the reduction of the portfolio present value as a result of adverse credit performance in terms of amount due on the loans not being paid and/or the delayed payments of amounts due on loans. Loan portfolios to which DBRS assigns EL Ratings typically could be securitised. In this commentary, DBRS outlines the different situations in which it assigns EL Ratings as opposed to Long-Term Obligation Ratings and Short-Term Debt Ratings, which provide an opinion on an obligation's default risk[1].

For many structured finance asset classes, DBRS determines the nominal expected loss of the securitised portfolio in the course of the process to assign a Long-Term Obligation Rating to the securitisation bonds. In this commentary, DBRS describes how such nominal expected loss is converted into the aforementioned reduction of the portfolio present value and how DBRS's Expected Loss Ratings Scale is used to translate the portfolio's present value expected loss into an EL Rating, while also considering the average life of the loan portfolio.

DBRS Expected Loss Rating Scale

DBRS EL Ratings can be public or private. EL Ratings are clearly indicated by the suffix "(el)". As explained in more detail in this commentary, DBRS does not assign EL Ratings to securitisation bonds. As such, EL Ratings do not typically have the "(sf)" suffix. Like other DBRS ratings, DBRS EL Ratings are based on quantitative and qualitative considerations relevant to the loan portfolio. Apart from the "AAA (el)" rating category, each other rating category is denoted by the subcategories "high" and "low". The absence of either a "high" or "low" designation indicates the rating is in the middle of the category.

AAA (el)	The loan portfolio is considered to be of highest credit quality.
AA (el)	The loan portfolio is considered to be of a superior credit quality.
A (el)	The loan portfolio is considered to be of a good credit quality.
BBB (el)	The loan portfolio is considered to be of an adequate credit quality.
BB (el)	The loan portfolio is considered to be of a speculative credit quality.
B (el)	The loan portfolio is considered to be of a highly speculative credit quality.
CCC (el)	The loan portfolio is considered to be of a very highly speculative credit quality.
CC (el)	The loan portfolio is considered to be of a very highly speculative credit quality with low recovery prospects.
C (el)	The loan portfolio is considered to be of a very highly speculative credit quality with very low recovery prospects.

As outlined in more detail in this commentary, DBRS assigns EL Ratings based on the portfolio's expected loss and its average life, using the DBRS Idealised Expected Loss Table shown in Appendix B. As noted, while delayed payments can have an impact on the expected loss due to the present value effect, EL Ratings do not address the *timeliness* of loan portfolio interest or principal payments.

1. See http://www.dbrs.com/research/236754/long-term-obligations-rating-scale.pdf and http://www.dbrs.com/research/236749/commercial-paper-and-short-term-debt.pdf

Application of DBRS Expected Loss Ratings

Default ratings versus expected loss ratings for loan portfolios
DBRS rates sovereign debt, corporate debt and securitisation bonds under its Long-Term Obligations and/or its Short-Term Debt Rating Scales, which provide an opinion on the risk of default. In relation to the Long-Term Obligations Rating Scale, this is the risk that an issuer fails to satisfy its financial obligations in accordance with the terms under which an obligation has been issued. When looking at portfolios of loans, the Long-Term Obligations Rating Scale is typically less relevant for a number of reasons, including:

- There is most often no issuer that issues financial obligations; instead, market participants are interested in the credit risk posed to them by investing in the portfolio;
- While it would be theoretically possible to assign a Long-Term Obligations Rating to each loan, market participants are interested in the credit risk of the portfolio as a whole. However, when considering portfolio diversity and correlations, the likelihood of at least one borrower in the portfolio defaulting on their financial obligations is typically very high and not very sensitive to the average loan credit risk. As a result, the theoretical Long-Term Obligations Ratings of different loan portfolios would not differ substantially, reducing the meaningfulness of the rating.

For these reasons DBRS's rating approach for loan portfolios is based on the expected loss of the portfolio (EL Ratings). DBRS assigns EL Ratings to the following investments (referred to as "loan portfolios" below):

- Granular portfolios of loans (residential mortgage loans, loans to small- and medium-sized enterprises, commercial real estate loans, etc.);
- Untranched debt or equity instruments whose performance depends predominantly on the credit performance of a loan portfolio backing such investments;
- Untranched guarantees against losses of granular loan portfolios.

EL Ratings address the expected loss of a debt portfolio, including the aggregate amount of payments due on loans not being paid (credit loss) and the aggregate amount of loss due to scheduled interest and/or principal payments due on loans being paid delayed (present value loss). As such, EL Ratings do not address the risk of at least one loss occurring in the portfolio (i.e., at least one of the loans defaulting and suffering a loss).

Untranched debt or equity instruments backed by loan portfolios
DBRS assigns EL Ratings to loan portfolios. However, to make loan portfolios or investors' participations in loan portfolios more liquid and easier to trade, market participants sometimes revert to issuing bonds that mirror the performance of such portfolios (pass-through bonds) or to issuing equity participations in entities owning such portfolios (for example, funds). DBRS assigns EL ratings to such debt or equity instruments if their credit performance is predominantly dependent on the credit performance of the loan portfolio backing them; i.e., if the credit risk of such instruments is not materially dependent on other factors. The latter could be the case if the investment was an obligation of a financial institution, for example.

It is important to note that if the terms and conditions of the debt or equity instrument contemplate that non-payment of aggregate interest due on the loans in the portfolio constitutes a default under the instrument itself, DBRS does not assign an EL Rating to the investment, but reverts to its Long-Term Obligations Rating Scale. Similarly, if the investment involves a derivative transaction (for example, interest rate swaps), DBRS may not be able to apply the EL Rating framework, as non-payment of periodic payment obligations to the swap counterparty could constitute an event of default.

Tranching and leverage
It is generally possible to reduce the expected loss of a bond backed by a loan portfolio. As is common in securitisation, an issuer can create bonds of different seniorities that are backed by the same portfolio, whereas the subordination of lower-ranking bonds provides credit enhancement for senior-ranking bonds (tranching). Other forms of credit enhancement include credit reserve funds and loss guarantees. DBRS does not apply EL Ratings to loan portfolio transactions that incorporate non-negligible credit enhancement techniques. For such transactions and structures, which typically fall under the definition of securitisation, DBRS applies its Long-Term Obligations Rating Scale, as it does for securitisations.

A loan portfolio investor could use leverage to finance the purchase. Leverage is equivalent to tranching and increases the expected loss posed to investors, as does investing into mezzanine or junior bonds of a securitisation. As mentioned above, DBRS EL Ratings do not address the leverage of the loan portfolio investor.

The same logic that applies to debt or equity investments that are backed by loan portfolios also applies to guarantees provided for loan portfolios: DBRS assigns EL Ratings to guarantees that cover the whole portfolio, but applies its Long-Term Obligations Rating Scale for guarantees under which the guarantor only covers additional losses after a certain loss threshold has been reached (for example, senior credit default swaps). Likewise, EL Ratings for loan portfolio guarantees do not address the guarantor's leverage (for example, mezzanine or junior credit default swaps).

EL Ratings in securitisations and covered bonds
In summary, DBRS EL Ratings address the expected credit loss of a loan portfolio itself without considering tranching, other non-negligible forms of credit enhancement and return-enhancing measures (leverage).

Based on the above, DBRS does not assign EL Ratings to a number of financial instruments that are generally related to loan portfolios, including securitisation bonds and covered bonds. For covered bonds, the performance does not depend predominantly on the credit performance of the loan portfolio securing the bond.

For several securitisation asset classes or covered bonds, DBRS determines the nominal expected loss of the relevant loan portfolio, however. If this is the case and such nominal expected loss can be converted into a loss of the portfolio's present value, EL Ratings of the portfolio can be included in transaction or issuance research (press releases, presale reports or rating reports) in order to allow investors to benchmark and monitor the credit risk of the underlying portfolio. In these instances, the EL Rating is not addressing the credit risk of the bonds but rather the credit risk of the portfolio without considering the specifics of the securitisation bonds or the covered bond issuance.

Determination of the expected loss

Typically, DBRS assigns EL Ratings to loan portfolios that could be securitised in an asset class for which DBRS has a rating methodology. Often, in the rating process for securitisations DBRS determines the nominal expected loss of the securitised portfolio in accordance with the relevant rating methodology. DBRS notes that the nominal expected loss typically also includes expected loss due to operational risk considerations. The expected loss is defined as the loss DBRS expects for a loan portfolio in its base case at the time of the analysis. As such, the portfolio's expected loss and by extension the EL Rating do not consider "rating stresses" in terms of defaults, recoveries or other relevant credit risk factors.

The nominal expected loss for the loan portfolio is the starting point for the determination of the EL Rating, together with the expected timing of defaults and losses. Default and loss timing is typically also derived by applying the relevant rating methodology for the analysed portfolio. Based on these inputs DBRS follows a three-step approach to assess the loan portfolio's expected loss that determines the EL Rating:

Step 1: Present value of loan portfolio's payments in a no-loss scenario
Using a cash-flow model, DBRS determines the present value of the loan portfolio assuming all loans are paid on time (no-loss scenario). DBRS thus considers the portfolio target yield, which is typically the initial weighted-average interest rate of the loans. In terms of loan principal payments, DBRS models the loans' scheduled principal payments as well as an expected portfolio constant prepayment rate (CPR). As a cash outflow, the rating agency considers servicing costs. The discount rate used to determine the present value is the loan portfolio target yield, which is typically the initial weighted-average interest rate of the loans. Considering that the discount rate is equal to the portfolio interest payments used in the cash-flow model, the loan portfolio's present value in the no-loss scenario is close to par, depending on the level of servicing costs.

Step 2: Present value of loan portfolio's payments in the expected loss scenario
Using a cash-flow model, DBRS determines the present value of the loan portfolio considering loan defaults, recoveries, recovery timing and portfolio nominal losses as determined by the relevant rating methodology (expected-loss scenario). Because part of the portfolio is underperforming in the expected-loss scenario, DBRS typically assumes higher servicing costs than in the no-loss scenario. Compared with the no-loss scenario, DBRS keeps its CPR assumption constant and uses the same discount rate.

Step 3: Expected loss and average life
The reduction of the portfolio present value as a result of adverse credit performance is the difference between the present values that were determined in the no-loss and in the expected-loss scenarios. The relevant average life of the portfolio is the average life determined in the no-loss scenario. The expected loss and average life of the loan portfolio are used to assign the EL Rating using DBRS's Idealised Expected Loss Table described below.

Drivers of expected loss
The most prominent driver of a portfolio's expected loss is DBRS's assessment of the credit quality of the portfolio, as described in the relevant rating methodology. The reduction of the portfolio present value as a result of adverse credit performance is also sensitive to the timing of defaults and losses as well as to the discount rate. All else being equal, back-loaded defaults and losses or higher discount rates reduce the present value reduction. The effect of a higher discount rate is typically at least partially offset by a higher nominal expected loss, however.

DBRS Idealised Expected Loss Table

The loan portfolio's present value reduction amid expected adverse credit performance and the loan portfolio's average life determine its EL Rating, based on DBRS's Idealised Expected Loss Table. This table depicts the maximum expected loss over a certain average life for the respective EL Rating (expected loss benchmark). For example, if the portfolio's present value reduction were 2.1% and the average life seven years, the EL Rating would be BBB (el).

DBRS Expected Loss Rating	Average Life in years									
	1	2	3	4	5	6	7	8	9	10
AAA (el)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
AA (high) (el)	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
AA (el)	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%	0.3%
AA (low) (el)	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%	0.3%	0.4%	0.5%	0.6%
A (high) (el)	0.0%	0.1%	0.1%	0.2%	0.3%	0.4%	0.5%	0.7%	0.8%	1.0%
A (el)	0.0%	0.1%	0.1%	0.2%	0.3%	0.5%	0.6%	0.8%	1.0%	1.2%
A (low) (el)	0.1%	0.1%	0.3%	0.4%	0.6%	0.8%	1.0%	1.2%	1.4%	1.7%
BBB (high) (el)	0.1%	0.3%	0.5%	0.8%	1.1%	1.4%	1.7%	2.1%	2.4%	2.8%
BBB (el)	0.1%	0.4%	0.6%	1.0%	1.3%	1.7%	2.1%	2.5%	2.9%	3.4%
BBB (low) (el)	0.2%	0.5%	0.9%	1.4%	1.8%	2.3%	2.8%	3.2%	3.7%	4.2%
BB (high) (el)	0.7%	1.5%	2.4%	3.4%	4.3%	5.3%	6.1%	6.9%	7.7%	8.4%
BB (el)	0.8%	1.9%	3.0%	4.2%	5.4%	6.4%	7.4%	8.4%	9.3%	10.1%
BB (low) (el)	1.4%	2.9%	4.5%	6.0%	7.4%	8.7%	9.9%	11.0%	12.0%	12.9%
B (high) (el)	2.3%	4.6%	6.9%	8.9%	10.8%	12.4%	13.9%	15.2%	16.3%	17.4%
B (el)	3.0%	6.1%	8.9%	11.5%	13.7%	15.7%	17.4%	18.9%	20.1%	21.3%
B (low) (el)	6.3%	11.0%	14.6%	17.5%	19.8%	21.7%	23.3%	24.7%	25.8%	26.8%
CCC (high) (el)	11.7%	19.2%	24.2%	27.6%	30.0%	31.8%	33.2%	34.4%	35.3%	36.1%
CCC (el)	13.9%	22.5%	28.0%	31.6%	34.1%	35.9%	37.2%	38.2%	39.1%	39.7%
CCC (low) (el)	38.0%	42.3%	45.1%	46.9%	48.2%	49.1%	49.7%	50.2%	50.6%	51.0%
C (el)	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%

DBRS's Idealised Expected Loss Table was derived using DBRS's Idealised Default Table as a starting point and incorporating average recovery rates. The nominal recovery rates used for rating levels of A (high) and below were derived from historically observed corporate bond recoveries (on average 45% for bonds rated A (high) or below). To derive the expected loss benchmarks, DBRS discounted such nominal recoveries to the point of default, taking into account a three-year recovery lag.

Exhibit 1: DBRS Expected Loss Benchmarks

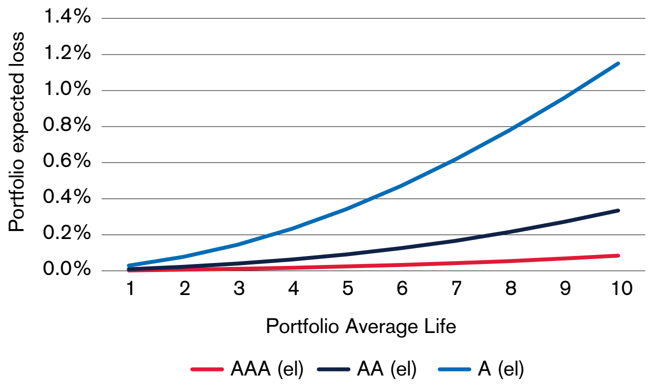
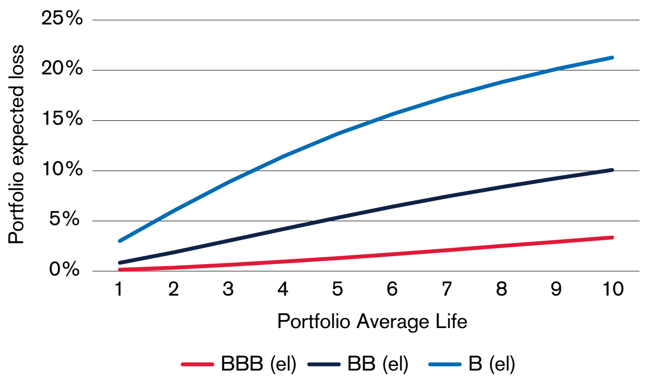


Exhibit 2: DBRS Expected Loss Benchmarks



Considering historical observations, DBRS used higher nominal recovery assumptions for higher rating levels (AA (low) and above). Using higher recovery rate assumptions results in lower expected loss benchmarks, which means that a loan portfolio needs to be of a higher credit quality to be assigned such ratings. Because the expected loss benchmarks for higher ratings were derived using higher nominal recovery assumptions, loan portfolios of highly-rated loans do not necessarily get assigned an EL Rating at the same level as the average Long-Term Obligations Rating of the portfolio's assets.

Appendix A – DBRS Idealised Default Table (cumulative)

DBRS Rating	Average Life in years									
	1	2	3	4	5	6	7	8	9	10
AAA	0.01%	0.03%	0.05%	0.07%	0.10%	0.13%	0.17%	0.22%	0.28%	0.34%
AA (high)	0.02%	0.04%	0.07%	0.11%	0.15%	0.21%	0.28%	0.36%	0.45%	0.56%
AA	0.02%	0.05%	0.09%	0.14%	0.21%	0.29%	0.38%	0.49%	0.62%	0.77%
AA (low)	0.03%	0.07%	0.13%	0.21%	0.30%	0.41%	0.54%	0.70%	0.87%	1.06%
A (high)	0.04%	0.11%	0.20%	0.33%	0.48%	0.66%	0.87%	1.10%	1.35%	1.63%
A	0.05%	0.13%	0.24%	0.39%	0.57%	0.78%	1.03%	1.30%	1.60%	1.92%
A (low)	0.09%	0.24%	0.44%	0.68%	0.96%	1.28%	1.63%	2.00%	2.40%	2.81%
BBB (high)	0.19%	0.47%	0.83%	1.27%	1.75%	2.28%	2.84%	3.41%	4.00%	4.60%
BBB	0.23%	0.58%	1.03%	1.56%	2.15%	2.78%	3.44%	4.12%	4.80%	5.49%
BBB (low)	0.37%	0.89%	1.51%	2.21%	2.95%	3.72%	4.51%	5.29%	6.06%	6.83%
BB (high)	1.08%	2.44%	3.93%	5.47%	6.99%	8.45%	9.84%	11.15%	12.37%	13.51%
BB	1.36%	3.06%	4.90%	6.77%	8.60%	10.34%	11.97%	13.49%	14.89%	16.18%
BB (low)	2.23%	4.73%	7.25%	9.68%	11.96%	14.05%	15.96%	17.69%	19.26%	20.69%
B (high)	3.63%	7.41%	11.02%	14.34%	17.33%	19.99%	22.34%	24.42%	26.26%	27.89%
B	4.85%	9.75%	14.32%	18.42%	22.03%	25.18%	27.92%	30.30%	32.38%	34.20%
B (low)	10.08%	17.66%	23.51%	28.14%	31.87%	34.93%	37.49%	39.65%	41.50%	43.10%
CCC (high)	18.79%	30.85%	38.84%	44.34%	48.26%	51.18%	53.44%	55.24%	56.71%	57.95%
CCC	22.27%	36.13%	44.97%	50.82%	54.82%	57.68%	59.82%	61.47%	62.79%	63.89%
CCC (low)	61.14%	68.06%	72.49%	75.41%	77.41%	78.84%	79.91%	80.73%	81.40%	81.94%
C	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Appendix B – DBRS Idealised Expected Loss Table (cumulative)

DBRS Expected Loss Rating	Average Life in years									
	1	2	3	4	5	6	7	8	9	10
AAA (el)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
AA (high) (el)	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
AA (el)	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%	0.3%
AA (low) (el)	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%	0.3%	0.4%	0.5%	0.6%
A (high) (el)	0.0%	0.1%	0.1%	0.2%	0.3%	0.4%	0.5%	0.7%	0.8%	1.0%
A (el)	0.0%	0.1%	0.1%	0.2%	0.3%	0.5%	0.6%	0.8%	1.0%	1.2%
A (low) (el)	0.1%	0.1%	0.3%	0.4%	0.6%	0.8%	1.0%	1.2%	1.4%	1.7%
BBB (high) (el)	0.1%	0.3%	0.5%	0.8%	1.1%	1.4%	1.7%	2.1%	2.4%	2.8%
BBB (el)	0.1%	0.4%	0.6%	1.0%	1.3%	1.7%	2.1%	2.5%	2.9%	3.4%
BBB (low) (el)	0.2%	0.5%	0.9%	1.4%	1.8%	2.3%	2.8%	3.2%	3.7%	4.2%
BB (high) (el)	0.7%	1.5%	2.4%	3.4%	4.3%	5.3%	6.1%	6.9%	7.7%	8.4%
BB (el)	0.8%	1.9%	3.0%	4.2%	5.4%	6.4%	7.4%	8.4%	9.3%	10.1%
BB (low) (el)	1.4%	2.9%	4.5%	6.0%	7.4%	8.7%	9.9%	11.0%	12.0%	12.9%
B (high) (el)	2.3%	4.6%	6.9%	8.9%	10.8%	12.4%	13.9%	15.2%	16.3%	17.4%
B (el)	3.0%	6.1%	8.9%	11.5%	13.7%	15.7%	17.4%	18.9%	20.1%	21.3%
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C (el)	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%	62.2%

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