

Exhibit 1 – Transition/Default Rates

Form NRSRO – Annual Certification

March 2024



This Exhibit includes the 2023 transition and default rates for the Morningstar DBRS Group of Companies¹ (Morningstar DBRS) for a 1-year, 3-year, and 10-year time period in each class of ratings for which Morningstar DBRS was registered as an NRSRO through the most recent calendar year end.

Following the transition and default rates are: (1) descriptions of each symbol, number, or score in the rating scale used to denote a credit rating category and notches within a category for each class and subclass of credit ratings in the Morningstar DBRS transition/default matrices, as applicable, (2) an explanation of the conditions under which Morningstar DBRS classifies obligors, securities, or money market instruments as being in default, and (3) the uniform resource locator (URL) of Morningstar DBRS' corporate Internet website where Morningstar DBRS' credit rating history is required to be disclosed pursuant to 17 CFR 17g-7(b).

¹ The Morningstar DBRS Group of Companies is comprised of DBRS, Inc., DBRS Limited, DBRS Ratings Limited and DBRS Ratings GmbH.

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

RMBS - 1-Year Transition and Default Rates (December 31, 2022 through December 31, 2023)

[illegible]

RMBS - 3-Year Transition and Default Rates (December 31, 2020 through December 31, 2023)

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2023 (Percent)																				Other Outcomes During 12/31/2020-12/31/2023 (Percent)							
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)
AAA	4940	82.59%																											
AA (high)	366	42.90%	21.86%																									37.39%	0.02%
AA	540	43.70%	17.22%	9.07%		0.18%																						35.25%	
AA (low)	167	23.35%	20.96%	10.18%	2.99%																							29.63%	0.18%
A (high)	263	14.07%	16.35%	18.25%	5.32%	14.03%																						42.52%	
A	543	10.50%	16.02%	29.83%	6.45%	2.76%	9.39%																					34.98%	
A (low)	197	4.06%	18.78%	15.23%	3.05%	5.58%	6.60%	0.55%					0.51%														0.51%	42.13%	
BBB (high)	334	7.49%	4.49%	14.67%	7.49%	7.49%	9.28%	2.99%	6.29%	0.30%			0.30%															39.22%	
BBB	558	3.05%	3.58%	17.20%	12.72%	9.68%	20.79%	6.45%	0.72%	4.84%	0.36%		0.18%															27.52%	
BBB (low)	322	1.55%	1.86%	9.01%	12.42%	4.35%	4.04%	2.79%	0.93%	4.66%	0.31%	0.62%														0.62%	52.48%		
BB (high)	277	0.36%	1.08%	7.94%	2.89%	9.03%	23.47%	5.05%	4.33%	8.30%	5.42%	8.60%	0.72%															22.02%	
BB	528	0.19%	3.79%	6.25%	13.81%	3.41%	10.42%	14.02%	14.02%	3.22%	4.36%	4.82%	0.19%	0.57%														20.46%	
B (low)	112		1.52%	0.76%	0.3%	3.79%	1.03%	15.15%	20.46%	2.79%	6.37%	8.06%	0.76%															15.74%	
B (high)	194					2.06%	1.55%	3.09%	6.70%	11.34%	3.61%	18.56%	4.12%	5.67%	15.40%													27.37%	
B	324		0.31%			0.62%	1.73%	0.93%	4.63%	5.56%	2.47%	20.68%	21.30%	6.17%	4.94%	10.49%	1.54%											15.74%	
B (low)	91					1.10%			2.20%	12.09%	14.29%	2.20%	2.20%	7.69%	9.89%	9.89%	13.19%	7.69%										17.58%	
CCC (high)	0																												
CCC	5										20.00%	20.00%																	60.00%
CCC (low)	0																												
CC (high)	0																												
CC	3																												
CC (low)	0																												
C (high)	0																												
C	678		0	0.15%	0.15%		0.15%		0.29%	1.03%	0.59%	1.03%	1.03%	2.07%	0.74%	3.69%											0.44%	6.93%	
C (low)	0																												
Total	10462																												

RMBS - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

Credit Ratings as of 12/31/2013		Credit Ratings as of 12/31/2023 (Percent)																							Other Outcomes During 12/31/2013-12/31/2023 (Percent)					
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)	
AAA	1510	18.69%	0.13%																								0.60%	93.32%	0.27%	
AA (high)	51	3.92%																										96.08%		
AA	513	2.92%	0.39%	0.58%			0.19%	0.19%																			0.78%	94.35%	0.58%	
AA (low)	27			18.52%																								77.78%	3.70%	
A (high)	45																											100.00%		
A	544	4.04%		0.37%			1.65%			0.55%	0.18%		0.18%														1.65%	91.15%	0.18%	
A (low)	19	5.26%		5.26%			5.26%																				15.79%	68.42%		
BBB (high)	15						6.67%																		6.67%		86.67%			
BBB	146	8.16%	2.74%	0.69%				0.69%	1.37%	0.69%	0.69%	1.37%	1.37%	0.69%												1.37%	79.45%	1.37%		
BBB (low)	14			7.14%			7.14%										7.14%											78.57%		
BB (high)	21					4.76%																						95.24%		
BB	80			15.00%	2.50%	1.25%			1.25%			1.25%	6.25%	2.50%	1.25%	1.25%	8.33%										2.50%	63.75%	1.25%	
BB (low)	12					8.33%											16.67%	8.33%										66.67%		
B (high)	1																											100.00%		
B	101	2.97%		2.97%	2.97%	0.99%							0.99%															67.33%	0.99%	
B (low)	6																8.91%	0.99%								10.89%		100.00%		
CCC (high)	0																													
CCC	0																													
CCC (low)	0																													
CC (high)	0																													
CC	0																													
CC (low)	0																													
C (high)	0																													
C	1310	1.15%	0.53%	2.14%	0.23%	0.61%	1.15%	0.46%	0.99%	1.76%	0.92%	1.15%	1.68%	1.22%	0.53%	3.05%	0.08%								42.52%	15.88%	23.82%	0.15%		
C (low)	0																													
Total	4415																													

CMBS - 1-Year Transition and Default Rates (December 31, 2022 through December 31, 2023)

[illegible]

CMBS - 3-Year Transition and Default Rates (December 31, 2020 through December 31, 2023)

[illegible]

CMBS - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

[illegible]

CLO - 1-Year Transition and Default Rates (December 31, 2022 through December 31, 2023)

[illegible]

Morningstar DBRS

CLO - 3-Year Transition and Default Rates (December 31, 2020 through December 31, 2023)

[illegible]

CLO - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

[illegible]

[illegible]

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2023 (Percent)																							Other Outcomes During 12/31/2020-12/31/2023 (Percent)					
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)	
AAA (high)	6																											100.00%		
AAA	1																											100.00%		
AA	27			3.70%																									96.30%	
AA (low)	3																											100.00%		
A (high)	0																													
A	0																													
A (low)	29																													
BBB (high)	0																													
BBB	0																													
BBB (low)	1																													
BB (high)	0																													
BB	0																													
BB (low)	0																													
B (high)	0																													
B	0																													
B (low)	0																													
CCC (high)	0																													
CCC	0																													
CCC (low)	0																													
CC (high)	0																													
CC	0																													
CC (low)	0																													
C (high)	0																													
C	0																													
C (low)	0																													
Total	67																													

CDO - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

[illegible]

Morningstar DBRS

ABCP - 1-Year Transition and Default Rates (December 31, 2022 through December 31, 2023)

[illegible]

Morningstar DBRS

ABCP - 3-Year Transition and Default Rates (December 31, 2020 through December 31, 2023)

[illegible]

Morningstar DBRS

ABCP - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

[illegible]

Morningstar DBRS

Other ABS - 1-Year Transition and Default Rates (December 31, 2022 through December 31, 2023)

[illegible]

Other ABS - 3-Year Transition and Default Rates (December 31, 2020 through December 31, 2023)

[illegible]

Other ABS - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

[illegible]

Credit Ratings as of 12/31/2022		Credit Ratings as of 12/31/2023 (Percent)																							Other Outcomes During 12/31/2022-12/31/2023 (Percent)				
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)
AAA	109	99.08%																											0.92%
AA (high)	7	100.00%																											
AA	83	1.21%	80.72%	2.41%																							14.46%	1.21%	
AA (low)	13		7.69%	84.61%																							7.69%		
A (high)	73		24.66%	1.37%	89.80%																						4.11%		
A	126		3.17%	1.59%	3.97%	73.02%																					16.67%	1.59%	
A (low)	64					4.69%	90.62%																				4.69%		
BBB (high)	49				2.04%	2.04%		89.80%																			6.12%		
BBB	100				1.00%	1.00%	1.00%	7.00%	81.00%	1.00%																	9.00%		
BBB (low)	23					13.04%	4.35%	82.61%																					
BB (high)	9					11.11%		11.11%	55.56%	11.11%																	11.11%		
BB	14					7.14%		7.14%	71.43%	7.14%								7.14%											
BB (low)	16					6.25%					87.50%	6.25%																	
B (high)	3																33.33%	33.33%											
B	2																												
B (low)	2																	50.00%		50.00%									
CCC (high)	3																		33.33%	66.67%									
CCC	9																		11.11%	55.56%	11.11%		11.11%				11.11%		
CCC (low)	2																				100.00%								
CC (high)	0																												
CC	3																							66.67%		33.33%			
CC (low)	0																												
C (high)	0																												
C	2																									100.00%			
C (low)	0																												
Total	712																												

Other Structured Finance contains: Insurance Premium Finance, Structured Settlements, Timeshare Loans, Healthcare Receivables, Marine Container Leases, Film Rights, Property Assessed Clean Energy (PACE) Assessments and Aircraft Leases

Morningstar DBRS

Other SFPs - 3-Year Transition and Default Rates (December 31, 2020 through December 31, 2023)

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2023 (Percent)																							Other Outcomes During 12/31/2020-12/31/2023 (Percent)				
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)
AAA	99	92.98%																										4.04%	3.03%
AA (high)	2		100.00%																										
AA	46	2.17%	4.35%	52.17%	4.35%																							34.78%	2.17%
AA (low)	9			33.33%	22.22%																							44.44%	
A (high)	39		2.56%			76.92%	2.56%																					7.69%	7.69%
A	118			8.48%	3.39%	7.63%	38.98%	0.85%																				37.29%	3.39%
A (low)	43				2.33%	6.98%	30.23%	37.21%																				23.26%	
BBB (high)	23					8.70%			47.83%																			39.13%	4.35%
BBB	110			0.91%		0.91%	18.18%		30.00%	30.00%	1.82%			0.91%														17.27%	
BBB (low)	22						13.64%	4.54%	27.27%			4.54%						4.54%	13.64%									31.82%	
BB (high)	8					12.50%						25.00%	12.50%				12.50%											37.50%	
BB	16							6.25%		31.25%		12.50%								6.25%								37.50%	
BB (low)	5											40.00%					20.00%	20.00%										20.00%	
B (high)	4																25.00%												
B	2																												
B (low)	5														20.00%			50.00%										50.00%	
CCC (high)	0																												
CCC	10																	10.00%	20.00%	10.00%								20.00%	
CCC (low)	0																												
CC (high)	0																												
CC	1																												
CC (low)	0																												
C (high)	0																												
C	0																												
C (low)	0																												
Total	562																												

Other Structured Finance contains: Insurance Premium Finance, Structured Settlements, Timeshare Loans, Healthcare Receivables, Marine Container Leases, Film Rights, Property Assessed Clean Energy (PACE) Assessments and Aircraft Leases

Morningstar DBRS

Other SFPs - 10-Year Transition and Default Rates (December 31, 2013 through December 31, 2023)

Credit Ratings as of 12/31/2013		Credit Ratings as of 12/31/2023 (Percent)																							Other Outcomes During 12/31/2013-12/31/2023 (Percent)				
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)
AAA	50	34.00%																									56.00%	10.00%	
AA (high)	3	33.33%																									66.67%		
AA	40																										77.50%	22.50%	
AA (low)	7				14.29%																						85.71%		
A (high)	6	16.67%																									50.00%	33.33%	
A	26	3.85%	3.85%		3.85%			15.38%																			61.54%	11.54%	
A (low)	45			2.22%				17.78%	6.67%																		60.00%	13.33%	
BBB (high)	9		11.11%			22.22%			33.33%	13.04%																	73.91%	13.04%	
BBB	23																										100.00%		
BBB (low)	4																										100.00%		
BB (high)	1																										100.00%		
BB	1																										100.00%		
BB (low)	1																										100.00%		
B (high)	0																												
B	0																												
B (low)	0																												
CCC (high)	0																												
CCC	0																												
CCC (low)	0																												
CC (high)	0																												
CC	0																												
CC (low)	0																												
C (high)	0																												
C	3																										100.00%		
C (low)	0																												
Total	219																												

Other Structured Finance contains: Insurance Premium Finance, Structured Settlements, Timeshare Loans, Healthcare Receivables, Marine Container Leases, Film Rights, Property Assessed Clean Energy (PACE) Assessments and Aircraft Leases

[illegible]

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2023 (Percent)																							Other Outcomes During 12/31/2020-12/31/2023 (Percent)				
Credit Rating	Number of Ratings Outstanding	AAA	AA (high)	AA	AA (low)	A (high)	A	A (low)	BBB (high)	BBB	BBB (low)	BB (high)	BB	BB (low)	B (high)	B	B (low)	CCC (high)	CCC	CCC (low)	CC (high)	CC	CC (low)	C (high)	C	C (low)	Default	Paid Off	Withdrawn (other)
AAA	12	100.00%																											
AA (high)	4		50.00%	50.00%																									
AA	0																												
AA (low)	2				50.00%																							50.00%	
A (high)	6				16.67%	50.00%	33.33%																						
A	3					33.33%	66.67%																						
A (low)	3						33.33%																					66.67%	
BBB (high)	3						33.33%		33.33%																			33.33%	
BBB	3								33.33%	66.67%																			
BBB (low)	2								50.00%	50.00%																			
BB (high)	0																												
BB	0																												
BB (low)	2										50.00%																		
B (high)	0																												
B	0																												
B (low)	0																												
CCC (high)	0																												
CCC	1																			100.00%									
CCC (low)	0																												
CC (high)	0																												
CC	0																												
CC (low)	0																												
C (high)	0																												
C	0																												
C (low)	0																												
Total	41																												

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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March 2024



Categories and notches within a category for each class and subclass of credit ratings in Morningstar DBRS' Transition/Default Matrix:

All rating categories from AA to CCC contain subcategories "(high)" and "(low)". The absence of either a "(high)" or "(low)" designation indicates the credit rating is in the middle of the category. Subcategory "(high)" reflects a lower risk that an issuer will fail to satisfy its financial obligations in accordance with the terms under which an obligations has been issued, while subcategory "(low)" reflects a higher risk.

AAA

Highest credit quality. The capacity for the payment of financial obligations is exceptionally high and unlikely to be adversely affected by future events.

AA

Superior credit quality. The capacity for the payment of financial obligations is considered high. Credit quality differs from AAA only to a small degree. Unlikely to be significantly vulnerable to future events.

A

Good credit quality. The capacity for the payment of financial obligations is substantial, but of lesser credit quality than AA. May be vulnerable to future events, but qualifying negative factors are considered manageable.

BBB

Adequate credit quality. The capacity for the payment of financial obligations is considered acceptable. May be vulnerable to future events.

BB

Speculative, non-investment grade credit quality. The capacity for the payment of financial obligations is uncertain. Vulnerable to future events.

B

Highly speculative credit quality. There is a high level of uncertainty as to the capacity to meet financial obligations.

CCC / CC / C

Very highly speculative credit quality. In danger of defaulting on financial obligations. There is little difference between these three categories, although CC and C ratings are normally applied to obligations that are seen as highly likely to default, or subordinated to obligations rated in the CCC to B range. Obligations in respect of which default has not technically taken place but is considered inevitable may be rated in the C category.

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D

When the issuer has filed under any applicable bankruptcy, insolvency or winding up statute or there is a failure to satisfy an obligation after the exhaustion of grace periods, a downgrade to D may occur. Morningstar DBRS may also use SD (Selective Default) in cases where only some securities are impacted, such as the case of a “distressed exchange”.

Conditions under which Morningstar DBRS classifies obligors, securities, or money market instruments as being in default:

Morningstar DBRS issues a default rating when:

- The issuer has filed under any applicable bankruptcy, insolvency or winding up statute.
- There is failure to pay or satisfy a financial obligation (subject to applicable grace periods and/or waiver of such failure) in accordance with the underlying transaction documents and Morningstar DBRS believes that this default will subsequently be general in nature and include all obligations.
- Independent of the issuer rating, securities described as a “Distressed Exchange” are downgraded to ‘D’.
- Morningstar DBRS also reserves the right to (a) downgrade ratings to ‘D’ when it believes that a general default is imminent and unavoidable, although this is a less frequent and a more subjective decision, or (b) Discontinue-Withdraw ‘D’ ratings at its discretion.

The preceding categories and subcategories are publicly available at:

<https://dbrs.morningstar.com/research/236754/long-term-obligations-rating-scale.pdf>

For completeness, all of Morningstar DBRS’ rating scales are publicly available at:

<https://dbrs.morningstar.com/understanding-ratings/#about-ratings>

URL Page:

Please note below the uniform resource locator (URL) of the website which provides the credit rating history of the Morningstar DBRS credit ratings that are required to be disclosed pursuant to 17 CFR 17g-7(b):

<https://dbrs.morningstar.com/about/historyAgree/>