

Exhibit 1 – Transition/Default Rates

Form NRSRO – Annual Certification

March 2022



On July 2, 2019, Morningstar, Inc., the parent of Morningstar Credit Ratings, LLC (“MCR”), completed its acquisition of DBRS, Inc. (“DBRS”). Following the acquisition, DBRS and MCR took steps to integrate their credit rating operations under the brand name DBRS Morningstar. As of November 5, 2020, DBRS and MCR announced completion of analytical integration.¹ As of that day, MCR had no outstanding credit ratings and MCR no longer issues or monitors credit ratings.

At the time of the acquisition, each of DBRS and MCR was registered with the U.S. Securities and Exchange Commission (SEC) as a nationally recognized statistical rating organization (NRSRO). On November 15, 2019, MCR filed an amendment to its Form NRSRO with the SEC withdrawing its NRSRO registration effective December 30, 2019. Also on that date, DBRS filed an amendment to its Form NRSRO with the SEC to identify MCR as a credit rating affiliate of DBRS. Effective November 23, 2020, MCR ceased to operate as a credit rating affiliate of DBRS and further to an amendment to DBRS’s Form NRSRO on the same day, DBRS no longer identifies MCR as a credit rating affiliate.

Previous credit ratings determined and/or monitored by MCR on financial institutions (e.g., banks), corporate issuers and asset-backed securities, as applicable, between December 30, 2019 and November 23, 2020 were deemed issued by DBRS in accordance with DBRS’s Form NRSRO and, thereby, retained their status as NRSRO ratings.

DBRS (as well as the other DBRS Morningstar Group of Companies²) assigns and monitors credit ratings in accordance with the applicable DBRS Morningstar policies, procedures and rating methodologies using DBRS Morningstar’s rating scales.

This Exhibit includes the 2020 transition and default rates for the DBRS Morningstar Group of Companies for a 1-year, 3-year, and 10-year time period in each class of ratings for which DBRS was registered as an NRSRO through the most recent calendar year end. Following those transition and default rate tables are the tables for MCR’s transition and default rates for the same period, as applicable.

¹ For information on the analytical integration of DBRS and MCR, please see Annex A to Exhibit 2 and the related press release of DBRS Morningstar at <https://www.dbrsmorningstar.com/research/369707/dbrs-and-morningstar-credit-ratings-conclude-analytical-integration-process>

² The DBRS Morningstar Group of Companies includes DBRS, DBRS Limited, DBRS Ratings Limited and DBRS Ratings GmbH.

Exhibit 1 – Transition/Default Rates

Form NRSRO – Annual Certification

March 2022



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 DBRS Morningstar and MCR transition/default matrices, as applicable, (2) an explanation of the conditions under which (a) DBRS Morningstar classifies obligors, securities, or money market instruments as being in default and (b) MCR classified obligors, securities or money market instructions as being in default (while previous MCR credit ratings were outstanding), and (3) (a) the uniform resource locator (URL) of DBRS Morningstar's corporate Internet website where DBRS Morningstar's credit rating history is required to be disclosed pursuant to 17 CFR 17g-7(b) is located and (b) the URL of the website where MCR's rating history is required to be disclosed pursuant to 17 CFR 17g-7(b) is also located (and for greater clarity the website where the rating history of previous MCR ratings is disclosed is incorporated by reference into DBRS Morningstar's corporate Internet website).

Financial Institutions - 1-Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	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																														
AA (high)	6		100.00%																											
AA	16			93.75%	6.25%																									
AA (low)	21				100.00%																									
A (high)	31					100.00%																								
A	16					25.00%	75.00%																							
A (low)	26						3.85%	96.15%																						
BBB (high)	21								90.48%																				9.52%	
BBB	11								9.09%	90.91%																				
BBB (low)	21										71.43%	4.76%																	23.81%	
BB (high)	9					11.11%						77.78%																	11.11%	
BB	3												100.00%																	
BB (low)	4													75.00%															25.00%	
B (high)	2														100.00%															
B	7															42.86%	28.57%												28.57%	
B (low)	1																100.00%													
CCC (high)																														
CCC	1																													
CCC (low)																														
CC (high)																														
CC																														
CC (low)																														
C (high)																														
C																														
C (low)																														
Total	196																													

Financial Institutions - 3-Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	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																														
AA (high)	1		100.00%																											
AA	17		29.41%	64.71%	5.88%																									
AA (low)	21			19.05%	80.95%																									
A (high)	26				15.38%	84.62%																								
A	27					40.74%	37.04%	3.70%	3.70%																				14.81%	
A (low)	25						12.00%	76.00%	4.00%																				8.00%	
BBB (high)	17							11.76%	82.35%																				5.88%	
BBB	8								25.00%	50.00%		12.50%																	12.50%	
BBB (low)	24									25.00%	45.83%	8.33%																	20.83%	
BB (high)	8									25.00%	62.50%																		12.50%	
BB	10					10.00%						20.00%	10.00%			30.00%	20.00%												10.00%	
BB (low)	5										20.00%			60.00%															20.00%	
B (high)	1														100.00%															
B	1														100.00%															
B (low)	2																50.00%												50.00%	
CCC (high)																														
CCC	1																			100.00%										
CCC (low)																														
CC (high)																														
CC																														
CC (low)																														
C (high)																														
C																														
C (low)																														
Total	194																													

Financial Institutions - 10-Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	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	2				50.00%																							50.00%		
AA (high)	2				50.00%		50.00%																							
AA	11		18.18%	27.27%	18.18%	9.09%		9.09%																					18.18%	
AA (low)	20			20.00%	40.00%	30.00%																							10.00%	
A (high)	21				19.05%	42.86%	4.76%	4.76%																				4.76%	23.81%	
A	17					23.53%	5.88%	5.88%	5.88%																			11.76%	47.06%	
A (low)	16					6.25%	25.00%	12.50%	6.25%	6.25%																			43.75%	
BBB (high)	11						9.09%	18.18%	9.09%																				63.64%	
BBB	11						9.09%	9.09%		9.09%	9.09%																9.09%		54.55%	
BBB (low)	5							40.00%	20.00%							20.00%													20.00%	
BB (high)	1										100.00%																			
BB	1																										100.00%			
BB (low)	3										66.67%																		33.33%	
B (high)	6															33.33%													66.67%	
B																														
B (low)																														
CCC (high)																														
CCC	1																										100.00%			
CCC (low)																														
CC (high)																														
CC																														
CC (low)																														
C (high)																														
C	1																										100.00%			
C (low)																														
Total	129																													

Insurance Companies - 1-Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020 -12/31/2021 (Percent)		
Credit Rating Scale	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	3	100.00%																												
AA (high)	0																													
AA	4			100.00%																										
AA (low)	4				100.00%																									
A (high)	9		88.89%		11.11%																									
A	12						100.00%																							
A (low)	7						14.29%	85.71%																						
BBB (high)	2								100.00%																					
BBB	2									100.00%																				
BBB (low)	0																													
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	43																													

Insurance Companies - 3-Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018 -12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	2			100.00%																										
AA (low)	4			25.00%	75.00%																									
A (high)	5					80.00%																							20.00%	
A	7					14.29%	85.71%																							
A (low)	2							100.00%																						
BBB (high)	1								100.00%																					
BBB	2									100.00%																				
BBB (low)	0																													
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	23																													

Insurance Companies - 10-Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	1			100.00%																										
AA (low)	3				100.00%																									
A (high)	1					100.00%																								
A	1						100.00%																							
A (low)	1							100.00%																						
BBB (high)	0																													
BBB	0																													
BBB (low)	0																													
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	7																													

Corporate Issuers - 1-Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	3			100.00%																										
AA (low)	10				100.00%																									
A (high)	11					100.00%																								
A	25						96.00%																						4.00%	
A (low)	44						2.27%	95.45%	2.27%																					
BBB (high)	48							12.50%	79.17%	4.17%																			4.17%	
BBB	64								4.69%	84.38%	6.25%																		4.69%	
BBB (low)	55									10.91%	78.18%	1.82%																	9.09%	
BB (high)	9											100.00%																		
BB	6												100.00%																	
BB (low)	6												16.67%	66.67%															16.67%	
B (high)	19														73.68%	10.53%									16.67%				15.79%	
B	37														29.73%	54.05%													16.22%	
B (low)	27															11.11%	66.67%	3.70%											18.52%	
CCC (high)	4																50.00%	25.00%	25.00%											
CCC	4																25.00%	50.00%	25.00%											
CCC (low)	1																			100.00%										
CC (high)	1																												100.00%	
CC	2																			50.00%									50.00%	
CC (low)	0																													
C (high)	0																													
C	0																													
C (low)	0																													
Total	376																													

Corporate Issuers - 3-Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	3			100.00%																										
AA (low)	7			14.29%	85.71%																									
A (high)	12					100.00%																								
A	28						78.57%	3.57%																					17.86%	
A (low)	49						4.08%	89.80%	6.12%																					
BBB (high)	34					2.94%			82.35%	5.88%	2.94%																2.94%	2.94%		
BBB	51								11.76%	80.39%	1.96%																1.96%	3.92%		
BBB (low)	53									15.09%	73.58%																1.89%	9.43%		
BB (high)	7								14.29%	42.86%	42.86%																			
BB	6												66.67%																33.33%	
BB (low)	4												25.00%	50.00%															25.00%	
B (high)	7														85.71%														14.29%	
B	18															66.67%	5.56%											5.56%	22.22%	
B (low)	3																33.33%		33.33%									33.33%		
CCC (high)	6																	16.67%									16.67%		66.67%	
CCC	0																													
CCC (low)	0																													
CC (high)	0																													
CC	0																													
CC (low)	0																													
C (high)	0																													
C	0																													
C (low)	0																													
Total	288																													

Corporate Issuers - 10-Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	2			50.00%	50.00%																									
AA	5			80.00%																									20.00%	
AA (low)	4				75.00%																								25.00%	
A (high)	18					77.78%	5.56%																						16.67%	
A	27					3.70%	59.26%	11.11%																					25.93%	
A (low)	53						3.77%	62.26%	13.21%	5.66%																			15.09%	
BBB (high)	33							6.06%	33.33%	12.12%	15.15%	3.03%																	30.30%	
BBB	41								21.95%	43.90%	9.76%																		24.39%	
BBB (low)	21									9.52%	28.57%	4.76%	4.76%																52.38%	
BB (high)	14									21.43%	64.29%	7.14%																	7.14%	
BB	6									16.67%		50.00%																	33.33%	
BB (low)	6											16.67%	50.00%	16.67%															16.67%	
B (high)	3													66.67%	33.33%															
B	2														100.00%															
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	235																													

RMBS - One Year Transition and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	5160	94%																										6%		
AA(high)	360	19%	75%																									6%		
AA	532	12%	10%	74%																								3%	1%	
AA(low)	159	6%	4%	18%	70%																							1%	1%	
A(high)	254	3%	2%	7%	9%	75%																						4%		
A	549	2%	1%	3%	2%	12%	76%																					3%	1%	
A(low)	199	2%			2%	3%	5%	84%					1%															1%	2%	
BBB(high)	330					3%	5%	13%	77%																			2%		
BBB	568				1%	1%	3%	2%	10%	82%																		1%		
BBB(low)	319						2%	7%	6%	78%																	1%			
BB(high)	286							1%	10%	5%	4%	74%													1%		1%	3%	1%	
BB	523							1%		1%	11%	21%	64%														2%			
BB(low)	141									1%	4%	16%	3%	62%											1%		3%	3%	7%	
B(high)	200											1%	19%	8%	67%										1%		1%	1%	2%	
B	327											1%	6%	5%	12%	67%	1%								2%		5%	1%		
B(low)	99			1%									1%	5%	17%	1%	62%										2%		11%	
CCC(high)	0																													
CCC	4			25%														25%	25%	25%										
CCC(low)	0																													
CC(high)	0																													
CC	3																													
CC(low)	0																													
C(high)	0																													
C	3222															1%											2%	1%		
C(low)	0																													
Total	13235																													

RMBS - Three Year Transition and Default Rates
(December 31, 2018 - December 31 ,2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	3864	73%																										27%	
AA(high)	276	54%	15%																									31%	
AA	444	27%	37%	23%																								13%	
AA(low)	79	47%	4%	13%	7%			1%																				28%	
A(high)	149	29%	4%	17%	13%	17%							1%															19%	
A	321	7%	4%	16%	9%	26%	26%																					10%	2%
A(low)	46	9%		7%	2%	15%	20%	34%		2%																		11%	
BBB(high)	87	5%		3%	18%	15%	16%	15%	13%				3%													3%		9%	
BBB	274	2%		1%	4%	5%	19%	5%	28%	28%			1%															7%	
BBB(low)	76	7%		1%	13%	4%	29%	1%	22%	3%	8%	1%																11%	
BB(high)	86	1%			1%	14%	7%	8%	8%	14%	16%	14%													2%	1%		14%	
BB	289				1%		7%	12%	9%	20%	4%	22%	19%													3%		3%	
BB(low)	38						3%	3%	5%	26%	11%	5%	11%	6%											3%	11%		16%	
B(high)	147								1%	26%	23%	16%	18%	8%	3%										1%	2%		2%	
B	224								1%		2%	3%	8%	4%	39%	27%									2%	6%		8%	
B(low)	14									7%				7%		36%	43%										7%		
CCC(high)	0																												
CCC	3														33%	33%				34%									
CCC(low)	0																												
CC(high)	0																												
CC	1																												
CC(low)	0																												
C(high)	0																												
C	3346															1%										94%	2%	2%	1%
C(low)	0																												
Total	9764																												

RMBS - Ten Year Transition and Default Rates
(December 31, 2011 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	1202	5%																										90%	5%
AA(high)	29										3%					3%												94%	
AA	509															1%									1%			95%	3%
AA(low)	15			7%																								80%	13%
A(high)	10															10%												90%	
A	715	3%																							1%			93%	3%
A(low)	6									17%																		83%	
BBB(high)	19			5%					5%	5%						32%									5%		11%	37%	
BBB	280	4%		1%			1%	2%	3%		1%	1%		1%	1%										1%	1%	79%	4%	
BBB(low)	27	4%					4%						6%			4%									4%	4%	74%		
BB(high)	4												25%															75%	
BB	135	4%	4%	2%	1%	2%	4%	4%	1%	1%	1%	1%	8%		1%	2%									10%	1%	52%	1%	
BB(low)	5																								20%		80%		
B(high)	8						12%																		25%		63%		
B	121	5%			1%	3%	1%	2%	2%	2%	2%	4%	8%	1%	2%	1%	1%								12%	2%	50%	1%	
B(low)	0																												
CCC(high)	0																												
CCC	33																											100%	
CCC(low)	0																												
CC(high)	0																												
CC	0																												
CC(low)	0																												
C(high)	0																												
C	3666	1%											1%	1%		1%									86%	2%	7%	1%	
C(low)	0																												
Total	6784																												

CMBS - One Year Transition and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	2449	93%																										6%	1%
AA(high)	189	6%	85%	1%	1%	1%													1%									3%	2%
AA	340	3%	3%	88%	1%		1%																					3%	1%
AA(low)	295	3%		2%	87%	2%		2%																				3%	1%
A(high)	191		2%	2%	1%	83%	1%	1%					1%															5%	4%
A	234			2%	1%	1%	90%		1%		1%														1%			2%	2%
A(low)	365	1%		1%	1%	1%	1%	87%	2%		1%								1%									2%	2%
BBB(high)	184	1%		1%	1%	2%	1%	1%	83%	1%	1%	1%		1%	1%										1%			3%	1%
BBB	276							1%	1%	90%	1%	3%	2%				1%											1%	
BBB(low)	402						1%		1%	89%	1%	2%			1%				1%						1%			2%	
BB(high)	123								1%			80%	3%	3%	3%	2%			5%						1%			2%	
BB	194										1%		77%	3%	6%	5%	2%		1%						4%			1%	
BB(low)	258					1%							1%	81%	3%	5%	3%		1%						2%			2%	1%
B(high)	135														82%	6%	5%		4%						2%			1%	
B	178								1%						1%	74%	7%		7%						7%			3%	
B(low)	204														1%	1%	82%		11%						5%				
CCC(high)	0																												
CCC	28																4%		42%						54%				
CCC(low)	0																												
CC(high)	0																												
CC	0																												
CC(low)	0																												
C(high)	0																												
C	27																								82%		7%		11%
C(low)	0																												
Total	6072																												

CMBS - Three Year Transition and Default Rates
(December 31, 2018 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	1367	79%																									20%	1%	
AA(high)	84	12%	71%		2%	1%	1%																				8%	5%	
AA	157	7%		7%	64%	1%	1%					1%															15%	4%	
AA(low)	151	5%	2%	10%	54%	4%	1%	3%																1%			17%	3%	
A(high)	120	3%	2%	4%	7%	55%	2%	2%	1%																		17%	7%	
A	160	2%	1%	6%	3%	4%	57%	3%	1%	1%	2%					1%											12%	7%	
A(low)	184	1%		3%		4%	4%	62%	4%		2%								2%								14%	4%	
BBB(high)	76	1%	1%				3%	3%	67%	4%															1%		13%	7%	
BBB	163	1%			1%	2%	1%	2%	6%	66%	2%	3%	1%				1%		1%							1%	9%	3%	
BBB(low)	228						1%	1%	2%	4%	61%	4%	4%	1%	2%				2%					1%			15%	2%	
BB(high)	68								1%	3%	3%	52%	4%	7%	6%	4%			1%					4%			12%	3%	
BB	141									1%	2%	3%	54%	3%	9%	4%	4%		1%					4%		1%	13%	1%	
BB(low)	129			1%								2%	2%	58%	4%	9%	2%		5%					3%		2%	11%	1%	
B(high)	74													4%	60%	9%	9%		4%					7%			7%		
B	131												1%	2%	4%	53%	14%		7%					6%			13%		
B(low)	87														1%	1%	60%		18%					10%		1%	8%	1%	
CCC(high)	0																												
CCC	6									17%									17%						33%			33%	
CCC(low)	0																												
CC(high)	0																												
CC	0																												
CC(low)	0																												
C(high)	0																												
C	20																								50%		15%	35%	
C(low)	0																												
Total	3346																												

CMBS - Ten Year Transition and Default Rates
(December 31, 2011 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	580	5%																										89%	6%
AA(high)	16	6%																										94%	
AA	53	8%		3%		2%																						87%	
AA(low)	15																											100%	
A(high)	20	15%																										80%	5%
A	59	3%	2%	2%			3%	3%				2%																83%	2%
A(low)	25																											100%	
BBB(high)	32				3%				4%							3%									3%			84%	3%
BBB	56	5%						2%	2%	2%															2%			80%	7%
BBB(low)	50			2%				2%		4%	18%														4%			64%	6%
BB(high)	24																											100%	
BB	36						3%																		6%	3%		82%	6%
BB(low)	27												7%												4%			85%	
B(high)	23														5%													91%	4%
B	42										2%														12%	2%		72%	12%
B(low)	37															3%	3%								5%			67%	22%
CCC(high)	0																												
CCC	45									2%										2%					7%			20%	69%
CCC(low)	0																												
CC(high)	0																												
CC	0																												
CC(low)	0																												
C(high)	0																												
C	68																												100%
C(low)	0																												
Total	1208																												

CLO - One Year Transition and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	1	100%																												
AA(high)	0																													
AA	2			100%																										
AA(low)	0																													
A(high)	3				33%	67%																								
A	0																													
A(low)	0																													
BBB(high)	0																													
BBB	0																													
BBB(low)	0																													
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	6																													

CLO - Three Year Transition and Default Rates
(December 31, 2018 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	7																											100%	
AA(high)	0																												
AA	3			67%																								33%	
AA(low)	0																												
A(high)	6				17%	33%																						50%	
A	3																											100%	
A(low)	0																												
BBB(high)	1																											100%	
BBB	0																												
BBB(low)	0																												
BB(high)	1																											100%	
BB	0																												
BB(low)	0																												
B(high)	0																												
B	1																											100%	
B(low)	0																												
CCC(high)	1																											100%	
CCC	0																												
CCC(low)	0																												
CC(high)	0																												
CC	0																												
CC(low)	0																												
C(high)	0																												
C	1																											100%	
C(low)	0																												
Total	24																												

CLO - Ten Year Transition and Default Rates
(December 31, 2011 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	45																											100%		
AA(high)	6																											100%		
AA	6																											100%		
AA(low)	6																											67%	33%	
A(high)	4																											100%		
A	0																													
A(low)	1																												100%	
BBB(high)	1																											100%		
BBB	0																													
BBB(low)	5																											100%		
BB(high)	2																											100%		
BB	0																													
BB(low)	1																												100%	
B(high)	2																											100%		
B	5																											100%		
B(low)	5																											100%		
CCC(high)	2																											100%		
CCC	4																											50%	50%	
CCC(low)	0																													
CC(high)	0																													
CC	0																													
CC(low)	0																													
C(high)	0																													
C	4																												100%	
C(low)	0																													
Total	99																													

CDO - One Year Transition and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	6	100%																												
AA(high)	5		20%																									80%		
AA	39			69%																								31%		
AA(low)	4			75%	25%																									
A(high)	0																													
A	0																													
A(low)	23			100%																										
BBB(high)	0																													
BBB	2									100%																				
BBB(low)	0																													
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	1																										100%			
CC(low)	0																													
C(high)	0																													
C	2																										100%			
C(low)	0																													
Total	82																													

CDO - Three Year Transition and Default Rates
(December 31, 2018 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	15	40%																										60%		
AA(high)	6		17%																									83%		
AA	52			71%																								29%		
AA(low)	4			75%	25%																									
A(high)	0																													
A	3			33%																								67%		
A(low)	8			38%																								62%		
BBB(high)	0																													
BBB	2									100%																				
BBB(low)	0																													
BB(high)	1																											100%		
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	1																											100%		
CC(low)	0																													
C(high)	0																													
C	2																											100%		
C(low)	0																													
Total	94																													

CDO - Ten Year Transition and Default Rates
(December 31, 2011 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	28																											89%	11%	
AA(high)	17																											100%		
AA	41		2%	2%																								91%	5%	
AA(low)	14																											93%	7%	
A(high)	12																											100%		
A	8																											100%		
A(low)	8		12%																									76%	12%	
BBB(high)	8							12%																				76%	12%	
BBB	9								22%																			56%	22%	
BBB(low)	11																											64%	36%	
BB(high)	3																											100%		
BB	4									25%																		75%		
BB(low)	4																											75%	25%	
B(high)	4																											50%	50%	
B	3																											100%		
B(low)	0																													
CCC(high)	2																											50%	50%	
CCC	0																													
CCC(low)	0																													
CC(high)	0																													
CC	1																											100%		
CC(low)	0																													
C(high)	0																													
C	11																											18%	37%	45%
C(low)	0																													
Total	188																													

ABCP - One Year Transition and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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 (high)	C(high)	C	C(low)	Default	Paid Off	Withdrawn-Other	
AAA	15	60%																										7%	33%	
AA(high)	0																													
AA	16			94%																								6%		
AA(low)	0																													
A(high)	3					34%	33%																						33%	
A	10						60%																					40%		
A(low)	1							100%																						
BBB(high)	0																													
BBB	1									100%																				
BBB(low)	0																													
BB(high)	0																													
BB	1												100%																	
BB(low)	0																													
B(high)	0																													
B	1															100%														
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	48																													

ABCP - Three Year Transition and Default Rates
(December 31, 2018 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	26	27%																										15%	58%	
AA(high)	0																													
AA	31			26%			3%																					52%	19%	
AA(low)	1																												100%	
A(high)	3					67%																							33%	
A	18			17%			16%																					39%	28%	
A(low)	1							100%																						
BBB(high)	0																													
BBB	1									100%																				
BBB(low)	0																													
BB(high)	0																													
BB	1												100%																	
BB(low)	0																													
B(high)	0																													
B	1															100%														
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	83																													

ABCP - Ten Year Transition and Default Rates
(December 31, 2011 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	5	20%																										80%		
AA(high)	2																											100%		
AA	21			19%																								57%	24%	
AA(low)	1																											100%		
A(high)	5																											100%		
A	3						33%																					67%		
A(low)	2																											100%		
BBB(high)	1																											100%		
BBB	3									33%																		34%	33%	
BBB(low)	0																													
BB(high)	1																											100%		
BB	1													100%																
BB(low)	0																													
B(high)	0																													
B	1															100%														
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	46																													

Other - ABS One Year Transition and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	780	72%																										27%	1%	
AA(high)	79	24%	67%																									9%		
AA	164	24%	5%	60%	1%																							10%		
AA(low)	39	18%	5%	31%	38%																							8%		
A(high)	60	25%	5%	3%	2%	50%																						13%	2%	
A	117	15%	3%	11%	3%	6%	42%																					20%		
A(low)	21	19%	5%	5%	10%	14%	5%	32%																				10%		
BBB(high)	31	16%	3%	3%		19%		6%	44%																			6%		
BBB	100	10%	1%	8%	1%	5%	9%		12%	41%																		13%		
BBB(low)	16	6%			6%			6%	6%	58%																			12%	
BB(high)	23			4%	4%			4%	4%	43%		37%																4%		
BB	68	4%		4%		1%	13%		3%	15%	1%	18%	38%															3%		
BB(low)	6					17%					17%	17%		32%				17%												
B(high)	6								17%				33%	17%	33%															
B	16								6%	19%		6%	19%	6%	12%	32%														
B(low)	9								11%						44%	11%	34%													
CCC(high)	10														10%	50%	10%	30%												
CCC	0																													
CCC(low)	0																													
CC(high)	0																													
CC	10																													
CC(low)	0																													
C(high)	0																													
C	2																													
C(low)	0																													
Total	1557																													

Other ABS - Three Year Transition and Default Rates
(December 31, 2018 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	762	35%		1%																								62%	2%
AA(high)	64	22%	5%																									45%	28%
AA	167	16%	16%	23%			1%																					43%	1%
AA(low)	19	21%			26%																							53%	
A(high)	92	16%	1%	12%	2%	17%																						39%	13%
A	142	17%	9%	7%	2%	1%	16%			4%		1%	1%															37%	5%
A(low)	12	25%					8%	9%																				58%	
BBB(high)	29	21%	3%	3%		7%			7%																			59%	
BBB	110	25%	3%	3%	2%	4%	8%	2%		19%					2%	4%	1%	2%										24%	1%
BBB(low)	13	8%				8%		8%		7%																		54%	15%
BB(high)	10	10%	10%			10%		10%				10%																50%	
BB	59	19%	3%	7%	2%	3%	7%		3%	12%	2%	5%	6%									12%						17%	2%
BB(low)	5								20%					20%					20%									20%	20%
B(high)	0																												
B	10			10%	10%					20%			20%		10%			10%										10%	10%
B(low)	0																												
CCC(high)	0																												
CCC	0																												
CCC(low)	0																												
CC(high)	0																												
CC	0																												
CC(low)	0																												
C(high)	0																												
C	1																								100%				
C(low)	0																												
Total	1495																												

Other ABS - Ten Year Transition and Default Rates
(December 31, 2011 -- December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	322	7%																										91%	1%	
AA(high)	9		11%																									89%		
AA	82			2%																								78%	20%	
AA(low)	2																											50%	50%	
A(high)	15																											93%	7%	
A	103			7%																								88%	5%	
A(low)	3																											100%		
BBB(high)	15																											100%		
BBB	52																											96%	4%	
BBB(low)	3																											100%		
BB(high)	2																											100%		
BB	18																											94%	6%	
BB(low)	0																													
B(high)	0																													
B	1																												100%	
B(low)	3																											100%		
CCC(high)	0																													
CCC	0																													
CCC(low)	0																													
CC(high)	0																													
CC	0																													
CC(low)	0																													
C(high)	0																													
C	3																											67%	33%	
C(low)	0																													
Total	633																													

Other SFPs - One Year Transitio and Default Rates
(December 31, 2020 - December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	83	82%																										6%	12%	
AA(high)	19		26%																									11%	63%	
AA	57	2%	11%	52%																								21%	14%	
AA(low)	19			21%	37%																							5%	37%	
A(high)	30		3%	20%	10%	27%																						7%	33%	
A	80		1%	6%	1%	7%	62%																					12%	11%	
A(low)	34	3%		6%			3%	37%																			18%	9%	24%	
BBB(high)	23				4%	4%		4%	40%																				48%	
BBB	50						4%		10%	58%																		10%	18%	
BBB(low)	32	3%			6%			6%		12%	42%																	6%	25%	
BB(high)	16											31%																19%	50%	
BB	13						8%					23%	46%															15%	8%	
BB(low)	4		25%											75%																
B(high)	2										50%				50%															
B	6														33%	50%													17%	
B(low)	2														50%															
CCC(high)	2																	100%												
CCC	1																		100%											
CCC(low)	2																			100%										
CC(high)	0																													
CC	1																													
CC(low)	0																													
C(high)	0																													
C	2																								100%					
C(low)	0																													
Total	478																													

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

Other SFPs - Three Year Transition and Default Rates
(December 31, 2018 -- December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	60	60%																										18%	22%
AA(high)	13	8%	7%																										85%
AA	44	7%	7%	13%																						11%	32%	30%	
AA(low)	17	6%	12%	6%	11%																						6%	59%	
A(high)	20	5%	10%	10%	5%	5%																					15%	50%	
A	105	3%		6%	2%	1%	27%																				46%	15%	
A(low)	29			7%			3%	28%																			24%	38%	
BBB(high)	23			4%	4%				23%	4%																	13%	52%	
BBB	49		6%	2%	2%	4%		2%	4%	29%	2%																27%	22%	
BBB(low)	50			2%			4%			4%	12%																54%	24%	
BB(high)	15				13%				7%			13%															7%	60%	
BB	11				9%		9%					18%	19%	9%													36%		
BB(low)	3																										67%	33%	
B(high)	0																												
B	1														100%														
B(low)	0																												
CCC(high)	1								100%																				
CCC	2																	50%	50%										
CCC(low)	1										100%																		
CC(high)	0																												
CC	3																					33%				33%			
CC(low)	0																												
C(high)	0																												
C	2																								50%			50%	
C(low)	0																												
Total	449																												

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

Other SFPs - Ten Year Transition and Default Rates
(December 31, 2011 -- December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	Number of Outstanding Ratings	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	13	31%																										69%		
AA(high)	0																													
AA	4																											100%		
AA(low)	0																													
A(high)	2																											50%	50%	
A	12						17%																					75%	8%	
A(low)	5							40%																					60%	
BBB(high)	3																											67%	33%	
BBB	10									20%																		70%	10%	
BBB(low)	0																													
BB(high)	0																													
BB	2																											50%	50%	
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	51																													

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

Sovereign Issuers - 1-Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	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		100.00%																											
AA	0																													
AA (low)	2				100.00%																									
A (high)	6					100.00%																								
A	3					33.33%	66.67%																							
A (low)	2						50.00%	50.00%																						
BBB (high)	3								100.00%																					
BBB	3									33.33%	66.67%																			
BBB (low)	2										100.00%																			
BB (high)	0																													
BB	0																													
BB (low)	2												50.00%	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	40																													

Sovereign Issuers - 3-Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	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	14	85.71%	14.29%																											
AA (high)	2		100.00%																											
AA	0																													
AA (low)	1				100.00%																									
A (high)	4					100.00%																								
A	4					50.00%	50.00%																							
A (low)	2					50.00%	50.00%																							
BBB (high)	2								50.00%	50.00%																				
BBB	3								66.67%		33.33%																			
BBB (low)	2										100.00%																			
BB (high)	0																													
BB	0																													
BB (low)	1														100.00%															
B (high)	1												100.00%																	
B	1																		100.00%											
B (low)																														
CCC (high)	0																													
CCC																														
CCC (low)																														
CC (high)																														
CC																														
CC (low)																														
C (high)																														
C																														
C (low)																														
Total	37																													

Sovereign Issuers - 10-Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																									Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	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	8	75.00%	25.00%																										
AA (high)	1		100.00%																										
AA	0																												
AA (low)	1						100.00%																						
A (high)	2								50.00%																			50.00%	
A	0																												
A (low)	1					100.00%																							
BBB (high)	0																												
BBB	3								33.33%	33.33%				33.33%															
BBB (low)	3										66.67%																	25.00%	
BB (high)	0																												
BB	1																												
BB (low)	0																												
B (high)	0																												
B	1																		100.00%										
B (low)																													
CCC (high)																													
CCC																													
CCC (low)																													
CC (high)																													
CC																													
CC (low)																													
C (high)																													
C																													
C (low)																													
Total	21																												

United States Public Finance - 1-Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	0																													
AA (low)	0																													
A (high)	0																													
A	0																													
A (low)	1					100.00%																								
BBB (high)	0																													
BBB	3									66.67%	33.33%																			
BBB (low)	1									100.00%																				
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	5																													

United States Public Finance - 3-Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	0																													
AA (low)	0																													
A (high)	0																													
A	0																													
A (low)	1							100.00%																						
BBB (high)	0																													
BBB	2									100.00%																				
BBB (low)	2									50.00%	50.00%																			
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	5																													

United States Public Finance - 10-Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	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	0																													
AA (high)	0																													
AA	0																													
AA (low)	0																													
A (high)	0																													
A	0																													
A (low)	0																													
BBB (high)	0																													
BBB	0																													
BBB (low)	0																													
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	0																													

International Public Finance - 1-Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2020-12/31/2021 (Percent)		
Credit Rating Scale	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	7	100.00%																												
AA (high)	4		100.00%																											
AA	5			100.00%																										
AA (low)	8				100.00%																									
A (high)	12					91.67%	8.33%																							
A	10						100.00%																							
A (low)	13							100.00%																						
BBB (high)	7							14.29%	85.71%																					
BBB	3									100.00%																				
BBB (low)	4										100.00%																			
BB (high)	1											100.00%																		
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	74																													

International Public Finance - 3-Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2018-12/31/2021 (Percent)		
Credit Rating Scale	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	8	87.50%																											12.50%	
AA (high)	4	100.00%																												
AA	8			87.50%																									12.50%	
AA (low)	5				100.00%																									
A (high)	14				7.14%	92.86%																								
A	9						100.00%																							
A (low)	17						11.76%	88.24%																						
BBB (high)	9								88.89%																				11.11%	
BBB	4								100.00%																					
BBB (low)	2									100.00%																				
BB (high)	0																													
BB	1												100.00%																	
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	81																													

International Public Finance - 10-Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

DBRS Morningstar

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																										Other Outcomes During 12/31/2011-12/31/2021 (Percent)		
Credit Rating Scale	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	5	100.00%																												
AA (high)	0																													
AA	0																													
AA (low)	0																													
A (high)	2					100.00%																								
A	6						100.00%																							
A (low)	8							87.50%																					12.50%	
BBB (high)	2								100.00%																					
BBB	0																													
BBB (low)	1										100.00%																			
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	24																													

MORNINGSTAR CREDIT RATINGS

Form NRSRO Annual Certification

EXHIBIT 1:

Performance Measurement Statistics

MCR

Financial Institutions - 1 Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																					Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	0																								
AA	0																								
AA-	0																								
A+	0																								
A	0																								
A-	0																								
BBB+	0																								
BBB	0																								
BBB-	0																								
BB+	0																								
BB	0																								
BB-	0																								
B+	0																								
B	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	0																								

MCR

Financial Institutions - 3 Year Transition and Default
Rates (December 31, 2018 through December 31, 2021)

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																					Other Outcomes During 12/31/2018 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	0																								
AA	0																								
AA-	3																							100.00%	
A+	1																							100.00%	
A	4																							100.00%	
A-	2																							100.00%	
BBB+	5																							100.00%	
BBB	3																							100.00%	
BBB-	0																								
BB+	0																								
BB	0																								
BB-	0																								
B+	0																								
B	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	18																								

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

MCR

Corporates - 1 Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																					Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	0																								
AA	0																								
AA-	0																								
A+	0																								
A	0																								
A-	0																								
BBB+	0																								
BBB	0																								
BBB-	0																								
BB+	0																								
BB	0																								
BB-	0																								
B+	0																								
B	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	0																								

Corporates - 3 Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																					Other Outcomes During 12/31/2018 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	1																							100.00%	
AA+	2																							100.00%	
AA	4																							100.00%	
AA-	12																							100.00%	
A+	10																							100.00%	
A	18																							100.00%	
A-	22																							100.00%	
BBB+	36																							100.00%	
BBB	31																							100.00%	
BBB-	19																							100.00%	
BB+	8																							100.00%	
BB	6																							100.00%	
BB-	3																							100.00%	
B+	2																							100.00%	
B	2																							100.00%	
B-	1																							100.00%	
CCC+	1																							100.00%	
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	178																								

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

RMBS - 1 Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	0																						
AA+	0																						
AA	0																						
AA-	0																						
A+	0																						
A	0																						
A-	0																						
BBB+	0																						
BBB	0																						
BBB-	0																						
BB+	0																						
BB	0																						
BB-	0																						
B+	0																						
B	0																						
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	0																						

RMBS - 3 Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2018 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	216																					9.26%	90.74%
AA+	32																					15.63%	84.38%
AA	23																					8.70%	91.30%
AA-	24																					16.67%	83.33%
A+	23																					4.35%	95.65%
A	38																					7.89%	92.11%
A-	54																					5.56%	94.44%
BBB+	40																					7.50%	92.50%
BBB	79																					5.06%	94.94%
BBB-	66																					7.58%	92.42%
BB+	94																					2.13%	97.87%
BB	29																					3.45%	96.55%
BB-	20																					5.00%	95.00%
B+	13																						100.00%
B	10																						100.00%
B-	8																					12.50%	87.50%
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	769																						

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

CMBS - 1 Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	0																						
AA+	0																						
AA	0																						
AA-	0																						
A+	0																						
A	0																						
A-	0																						
BBB+	0																						
BBB	0																						
BBB-	0																						
BB+	0																						
BB	0																						
BB-	0																						
B+	0																						
B	0																						
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	2																						

CMBS - 3 Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2018 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	1,018																					11.47%	88.33%
AA+	45																					17.78%	82.22%
AA	61																					9.84%	90.16%
AA-	99																					14.14%	85.86%
A+	38																					13.16%	86.84%
A	57																					21.05%	78.95%
A-	151																					9.27%	90.73%
BBB+	46																					6.52%	93.48%
BBB	77																					10.39%	89.61%
BBB-	135																					11.11%	88.89%
BB+	18																					5.56%	94.44%
BB	42																					11.90%	88.10%
BB-	92																					14.13%	85.87%
B+	13																					7.69%	92.31%
B	47																				2.13%	12.77%	85.11%
B-	57																					22.81%	77.19%
CCC+	0																						
CCC	3																				33.33%		66.67%
CCC-	0																						
Total	2,001																						

CMBS - 10 Year Transition and Default Rates
(December 31, 2011 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2011		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2011 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	2,170																					76.82%	23.18%
AA+	200																					58.00%	42.00%
AA	198																					62.63%	37.37%
AA-	137																				1.46%	61.31%	37.23%
A+	140																					56.43%	43.57%
A	174																				1.15%	54.60%	44.25%
A-	158																					51.27%	48.73%
BBB+	187																				0.53%	42.78%	56.68%
BBB	206																				1.94%	36.89%	61.17%
BBB-	240																				2.50%	27.92%	69.58%
BB+	236																				1.69%	22.46%	75.85%
BB	151																				3.31%	23.18%	73.51%
BB-	99																				1.01%	24.24%	74.75%
B+	112																				2.68%	20.54%	76.79%
B	70																				4.29%	15.71%	80.00%
B-	197																				5.08%	10.66%	84.26%
CCC+	99																				11.11%	13.13%	75.76%
CCC	82																				12.20%	6.10%	81.71%
CCC-	825																				21.09%	2.91%	76.00%
Total	5,681																						

CLO - 1 Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	0																						
AA+	0																						
AA	0																						
AA-	0																						
A+	0																						
A	0																						
A-	0																						
BBB+	0																						
BBB	0																						
BBB-	0																						
BB+	0																						
BB	0																						
BB-	0																						
B+	0																						
B	0																						
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	0																						

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

MCR

ABCP - 10 Year Transition and Default Rates

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Other ABS - 1 Year Transition and Default Rates
(December 31, 2020 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2020		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	0																						
AA+	0																						
AA	0																						
AA-	0																						
A+	0																						
A	0																						
A-	0																						
BBB+	0																						
BBB	0																						
BBB-	0																						
BB+	0																						
BB	0																						
BB-	0																						
B+	0																						
B	0																						
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	0																						

Other ABS - 3 Year Transition and Default Rates
(December 31, 2018 through December 31, 2021)

MCR

Credit Ratings as of 12/31/2018		Credit Ratings as of 12/31/2021 (Percent)																			Other Outcomes During 12/31/2018 - 12/31/2021 (Percent)		
Credit Rating Scale	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	Default	Paid Off	Withdrawn (other)
AAA	16																						100.00%
AA+	1																					100.00%	
AA	6																						100.00%
AA-	1																						100.00%
A+	5																					40.00%	60.00%
A	19																						100.00%
A-	11																					9.09%	90.91%
BBB+	2																						100.00%
BBB	13																						100.00%
BBB-	1																						100.00%
BB+	0																						
BB	2																						100.00%
BB-	0																						
B+	0																						
B	1																					100.00%	
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	78																						

MCR

Other ABS - 10 Year Transition and Default Rates

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

MCR

Other SFP s- 1 Year Transition and Default Rates

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Morningstar Credit Ratings has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix

Exhibit 1 – Transition/Default Rates

Form NRSRO – Annual Certification

March 2022



Categories and notches within a category for each class and subclass of credit ratings in DBRS Morningstar Group of Company's¹ Transition/Default Matrix:

All rating categories below, other than AAA and D, also contain subcategories "(high)" and "(low)". The absence of either a "(high)" or "(low)" designation indicates the 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

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

Exhibit 1 – Transition/Default Rates

Form NRSRO – Annual Certification

March 2022



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.

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. 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 DBRS classifies obligors, securities, or money market instruments as being in default:

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 an obligation (subject to applicable grace periods and/or waiver of such failure) in accordance with the underlying transaction documents and 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’.
- DBRS also reserves the right to 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.

The preceding categories and subcategories are publicly available at:

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

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

<https://www.dbrsmorningstar.com/understanding-ratings/#about-ratings>

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

MCR no longer operates as a credit rating agency or issues or monitors credit ratings.

So long as operated as a credit rating agency, MCR utilized a set of letter ratings ranging from AAA to D to express its opinion on the credit quality of a security based on MCR's then in effect policies and procedures. MCR also provided finer gradations (notches) of the ratings ranging from AA to CCC by adding a plus or minus sign to indicate relative strength within the rating categories. The definitions for previous MCR credit ratings were as follows:

AAA

A rating of AAA was the highest credit rating assigned by MCR. A rating of AAA indicated an extremely strong ability to make timely interest payments and ultimate principal payments on or prior to a rated final distribution or maturity date.

AA+, AA, AA-

A rating in the AA category indicated a very strong ability to make timely interest and ultimate principal payments on or prior to a rated final distribution or maturity date.

A+, A, A-

A rating in the A category indicated a strong ability to make timely interest and ultimate principal payments on or prior to a rated final distribution or maturity date, but that ability could be influenced by adverse changes in circumstances or conditions, such as adverse business or economic conditions.

BBB+, BBB, BBB-

A rating in the BBB category indicated the ability to make timely payments of interest and ultimate principal payments on or prior to a rated final distribution or maturity date, but that ability could be impacted by adverse changes in circumstances or conditions, such as adverse business or economic conditions.

BB+, BB, BB-

A rating in the BB category indicated the ability to make timely payments of interest and ultimate payment of principal on or prior to a rated final distribution or maturity date in the absence of various adverse circumstances or conditions such as adverse business or economic conditions. The vulnerability of securities rated BB to the previously mentioned conditions was greater than that of higher rated securities or issuers.

B+, B, B-

A rating in the B category indicated a default had not yet occurred, but the issuer or securities were vulnerable to adverse changes in the business or economic environment. Securities rated in the B category were more vulnerable to nonpayment of timely interest and ultimate payment of principal

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on or prior to a rated final distribution date than higher rated securities.

CCC+, CCC, CCC

A rating in the CCC category indicated a material likelihood of default, and for corporate and financial institution obligations, significant dependence on favorable business conditions to avoid default or capital restructuring. For structured finance securities, forecasted or actual losses may have eroded but not yet eliminated available credit support.

CC

A rating of CC on a corporate or financial institution issuer or security indicated a default had not yet occurred but the issuer or security was extremely dependent on favorable business conditions to avoid default or significant capital restructuring. This rating did not apply to structured finance securities.

C

A rating of C on a corporate or financial institution issuer or security indicated a default was expected in the very near term. Corporate and financial institution issuers or securities would be rated C and placed on Under Review Negative during a cure period for payments of interest and principal. This rating did not apply to structured finance securities.

SD

A rating of SD indicated a selective default when an issuer had defaulted on one or more but not all its debt obligations without entering bankruptcy. Selective Default was not applicable to individual issues and therefore was not applicable to structured finance securities.

D

A rating of 'D' indicated that a default had occurred; or, for structured finance securities, (1) actual losses have reduced the principal balance of the security; or (2) actual losses have eliminated available credit support.

Additionally, forecasted losses that would reduce the principal balance of the security or eliminate the available credit support, subject to our reasonable judgment, may be indicative of a D rating.

For purposes of the above, the following terms had the following meanings:

“Default” generally included one or more of the following:

(i) Failure to pay (1) timely interest and/or (2) principal. (ii) Any bankruptcy, administration, receivership, winding up, liquidation or other termination of the business of the issuer. (iii) Execution of a distressed debt exchange. A distressed debt exchange was the repayment of a debt instrument for any consideration other than the par value of the debt, in cash, at its contracted maturity date to avoid a payment default or bankruptcy. Execution of a distressed debt exchange

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for some, but not all, of an obligor's debt obligations would result in a rating of SD. (iv) Failure to meet non-debt obligations such as trade payables would not be considered a default or selective default. (v) Under certain circumstances, subject to MCR's reasonable judgment, an interest or principal shortfall on a structured finance security may not be deemed a default. Factors that would affect MCR's decision included the magnitude of the shortfall, likelihood of recurrence, certainty and timing of a repayment, and the current rating of the security.

"Forecasted losses" generally included one or more of the following: (i) Projected losses resulting from specially serviced loans, and/or (ii) Projected losses due to a decline in current appraisal values, and/or (iii) Projected losses due to anticipated payment defaults on any loans.

URL Page:

Please note below the uniform resource locators (URLs) of the websites which provide the credit rating histories of the DBRS Morningstar credit ratings and previous MCR credit ratings that are required to be disclosed pursuant to 17 CFR 17g-7(b) :

DBRS:

<https://www.dbrsmorningstar.com/about/historyAgree/>

MCR:

The rating history of previous MCR ratings is available at:

<https://ratingagency.morningstar.com/MCR/regulatory/Credit-Ratings-History> (which is incorporated by reference into DBRS Morningstar's corporate Internet website).