

# **MORNINGSTAR CREDIT RATINGS**

Form NRSRO Annual Certification

## **EXHIBIT 1:**

Performance Measurement Statistics

**Table 1: Financial Institutions, Brokers, or Dealers - 1 Year Transition and Default Rates  
(December 31, 2016 through December 31, 2017)**

Credit Ratings as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017			
Credit Rating	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of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)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-	2				100.00%																				
A+	4				25.00%	75.00%																			
A	4						100.00%																		
A-	9						22.22%	77.78%																	
BBB+	9							11.11%	88.89%																
BBB	6								33.33%	50.00%															16.67%
BBB-	1									100.00%															
BB+	0																								
BB	0																								
BB-	0																								
B+	0																								
B	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	35																								

**Table 2: Financial Institutions, Brokers, or Dealers - 3 Year Transition and Default Rates  
(December 31, 2014 through December 31, 2017)**

Credit Ratings as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2014 - 12/31/2017			
Credit Rating	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of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)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				33.33%																				66.67%
A+	11				18.18%	18.18%	9.09%	9.09%																	45.45%
A	11						9.09%	9.09%																	81.82%
A-	18						16.67%	33.33%	5.56%	5.56%															38.89%
BBB+	20							5.00%	35.00%		5.00%														55.00%
BBB	12								25.00%	25.00%															50.00%
BBB-	4										25.00%														75.00%
BB+	0																								
BB	0																								
BB-	0																								
B+	0																								
B	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	79																								

**Table 3: Financial Institutions, Brokers, or Dealers - 10 Year Transition and Default Rates**

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

**Table 4: Corporate Issuers - 1 Year Transition and Default Rates  
(December 31, 2016 through December 31, 2017)**

Credit Ratings as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017			
Credit Rating	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	2	50.00%	50.00%																						
AA+	1		100.00%																						
AA	8			87.50%	12.50%																				
AA-	14				92.86%		7.14%																		
A+	20					80.00%	10.00%		5.00%																5.00%
A	33						81.82%	9.09%	6.06%																3.03%
A-	37						2.70%	83.78%	2.70%	2.70%															8.11%
BBB+	52						1.92%	3.85%	78.85%	3.85%	3.85%														7.69%
BBB	40								10.00%	70.00%	5.00%		2.50%												12.50%
BBB-	41									21.95%	73.17%														4.88%
BB+	19									21.05%	73.68%														5.26%
BB	15									6.67%	13.33%	60.00%	6.67%												13.33%
BB-	12										8.33%	16.67%	33.33%	16.67%	8.33%										16.67%
B+	3											33.33%		33.33%											
B	6														50.00%	33.33%									16.67%
B-	4													25.00%		75.00%									
CCC+	0																								
CCC	1																								100.00%
CCC-	0																								
CC	0																								
C	0																								
<b>Total</b>	<b>308</b>																								

**Table 5: Corporate Issuers - 3 Year Transition and Default Rates  
(December 31, 2014 through December 31, 2017)**

Credit Ratings as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2014 - 12/31/2017			
Credit Rating	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	3	33.33%	66.67%																						
AA+	0																								
AA	13			53.85%	38.46%	7.69%																			
AA-	20				40.00%	20.00%	15.00%	10.00%	5.00%																10.00%
A+	25				4.00%	32.00%	16.00%	8.00%	12.00%	4.00%															24.00%
A	56					5.36%	35.71%	17.86%	10.71%																30.36%
A-	55						7.27%	32.73%	18.18%	3.64%	7.27%														30.91%
BBB+	72						1.39%	4.17%	30.56%	11.11%	5.56%		2.78%												44.44%
BBB	61							1.64%	8.20%	24.59%	11.48%	1.64%													52.46%
BBB-	59								3.39%	18.64%	25.42%	6.78%	3.39%		1.69%										40.68%
BB+	34										8.82%	23.53%	5.88%	8.82%	2.94%		2.94%								47.06%
BB	23									4.35%	13.04%	8.70%	8.70%			8.70%	4.35%								52.17%
BB-	16										6.25%	12.50%	18.75%	6.25%	6.25%	6.25%	12.50%								31.25%
B+	4												25.00%												75.00%
B	6												16.67%			16.67%	33.33%								33.33%
B-	6													16.67%											83.33%
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	453																								

**Table 6: Corporate Issuers - 10 Year Transition and Default Rates**

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

**Table 7: RMBS - 1 Year Transition and Default Rates  
(December 31, 2016 through December 31, 2017)**

Credit Ratings as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																		Other Outcomes During 12/31/2016 - 12/31/2017			
Credit Rating	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	87	93.10%																				6.90%	
AA+	12	58.33%	41.67%																				
AA	26	3.85%	7.69%	50.00%																		38.46%	
AA-	3		33.33%		66.67%																		
A+	9	44.44%		11.11%		44.44%																	
A	40		5.00%	5.00%		2.50%	40.00%															47.50%	
A-	3							66.67%														33.33%	
BBB+	24	16.67%					12.50%	4.17%	66.67%														
BBB	33				12.12%	3.03%				24.24%												60.61%	
BBB-	22				4.55%					4.55%	72.73%											18.18%	
BB+	3					33.33%					33.33%	33.33%											
BB	6								33.33%				66.67%										
BB-	7												28.57%	71.43%									
B+	0																						
B	6									16.67%						83.33%							
B-	3																100.00%						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	284																						



**Table 8: RMBS - 3 Year Transition and Default Rates  
(December 31, 2014 through December 31, 2017)**

Credit Ratings as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																		Other Outcomes During 12/31/2014 - 12/31/2017			
Credit Rating	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	3	100.00%																					
AA+	2	100.00%																					
AA	1		100.00%																				
AA-	0																						
A+	2	100.00%																					
A	1			100.00%																			
A-	0																						
BBB+	3	66.67%						33.33%															
BBB	1				100.00%																		
BBB-	1				100.00%																		
BB+	1					100.00%																	
BB	0																						
BB-	0																						
B+	0																						
B	0																						
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	15																						

**Table 9: RMBS - 10 Year Transition and Default Rates**

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

**Table 10: CMBS - 1 Year Transition and Default Rates  
(December 31, 2016 through December 31, 2017)**

Credit Ratings as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																			Other Outcomes During 12/31/2016 - 12/31/2017		
Credit Rating	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	1,604	61.22%																				1.75%	37.03%
AA+	52	1.92%	48.08%																			7.69%	42.31%
AA	98	1.02%	1.02%	48.98%																			48.98%
AA-	148	0.68%	0.68%	0.68%	58.11%																	2.70%	37.16%
A+	58	1.72%		1.72%	1.72%	46.55%			1.72%														46.55%
A	119				0.84%	1.68%	35.29%															0.84%	61.34%
A-	231	0.43%				0.43%	0.87%	63.20%														1.30%	33.77%
BBB+	67							2.99%	55.22%														41.79%
BBB	100	1.00%								68.00%												1.00%	30.00%
BBB-	212	0.47%									56.60%											1.42%	41.51%
BB+	55											32.73%										1.82%	65.45%
BB	108												36.11%	0.93%									62.96%
BB-	116													69.83%		0.86%						2.59%	26.72%
B+	49														30.61%							2.04%	67.35%
B	93															45.16%	1.08%		1.08%			2.15%	50.54%
B-	58																79.31%						20.69%
CCC+	1																						100.00%
CCC	0																						
CCC-	2																						50.00%
Total	3,171																						

**Table 11: CMBS - 3 Year Transition and Default Rates  
(December 31, 2014 through December 31, 2017)**

Credit Ratings as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																		Other Outcomes During 12/31/2014 - 12/31/2017			
Credit Rating	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	1,841	20.70%																				21.89%	57.41%
AA+	104	1.92%	15.38%																			14.42%	68.27%
AA	146	1.37%	2.05%	13.70%																		7.53%	75.34%
AA-	144	0.69%	0.69%		14.58%																	10.42%	73.61%
A+	75	1.33%		1.33%	2.67%	20.00%			1.33%													12.00%	61.33%
A	140			0.71%	1.43%	2.86%	13.57%	0.71%														6.43%	74.29%
A-	162	1.23%					1.85%	27.78%														3.70%	65.43%
BBB+	126					0.79%	0.79%	2.38%	14.29%													7.14%	74.60%
BBB	108	0.93%							1.85%	21.30%												8.33%	67.59%
BBB-	211	0.47%							0.47%	0.47%	14.69%										0.47%	2.84%	80.57%
BB+	105										0.95%	3.81%									0.95%	2.86%	91.43%
BB	156	0.64%											13.46%	1.28%							0.64%	1.28%	82.69%
BB-	72													22.22%		1.39%						4.17%	72.22%
B+	77														5.19%							3.90%	90.91%
B	105	0.95%														13.33%	1.90%		0.95%		0.95%	4.76%	77.14%
B-	71																8.45%				1.41%		90.14%
CCC+	36																						100.00%
CCC	18																						100.00%
CCC-	281																				0.71%	1.42%	97.86%
Total	3,978																						

**Table 12: CMBS - 10 Year Transition and Default Rates**

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

**Table 13: CLOs - 1 Year Transition and Default Rates  
(December 31, 2016 through December 31, 2017)**

Credit Ratings as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																			Other Outcomes During 12/31/2016 - 12/31/2017		
Credit Rating	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	3	100.00%																					
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	3																						

**Table 14: CLOs - 3 Year Transition and Default Rates**

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

**Table 15: CLOs - 10 Year Transition and Default Rates**

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



**Table 16: CDOs - 1 Year Transition and Default Rates**

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

**Table 17: CDOs - 3 Year Transition and Default Rates**

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

**Table 18: CDOs - 10 Year Transition and Default Rates**

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

**Table 19: ABCP - 1 Year Transition and Default Rates**

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

**Table 20: ABCP - 3 Year Transition and Default Rates**

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

**Table 21: ABCP - 10 Year Transition and Default Rates**

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

**Table 22: Other ABS - 1 Year Transition and Default Rates  
(December 31, 2016 through December 31, 2017)**

Credit Ratings as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																		Other Outcomes During 12/31/2016 - 12/31/2017			
Credit Rating	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	100.00%																					
AA+	0																						
AA	1			100.00%																			
AA-	0																						
A+	2			50.00%																		50.00%	
A	2						100.00%																
A-	2							100.00%															
BBB+	2						50.00%															50.00%	
BBB	2									100.00%													
BBB-	0																						
BB+	2									50.00%												50.00%	
BB	0																						
BB-	1																					100.00%	
B+	0																						
B	0																						
B-	0																						
CCC+	0																						
CCC	0																						
CCC-	0																						
Total	15																						

**Table 23: Other ABS - 3 Year Transition and Default Rates**

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



**Table 24: Other ABS - 10 Year Transition and Default Rates**

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

**Table 25: SFP – 1 Year Transition and Default Rates**

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

**Table 26: SFP – 3 Year Transition and Default Rates**

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

**Table 27: SFP – 10 Year Transition and Default Rates**

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

**Ratings Definitions**

<https://ratingagency.morningstar.com/PublicDocDisplay.aspx?i=x%2buNr86YXI0%3d&m=i0Pyc%2bx7qZZ4%2bsXnymazBA%3d%3d&s=LviRtUKXqs8kml5dHt7FTE2SZmY0Fvqd4iX49Mk%2f9UapyiFTE06TA%3d%3d>

The above URL represents the location of the Ratings Definitions page on the Morningstar Credit Ratings Internet website. The Ratings Definitions page describes each symbol in the rating scale that is used to denote a credit rating category and notches within a category for each class and subclass of credit ratings in the tables presented in Exhibit 1. The Ratings Definitions page also explains the conditions under which Morningstar Credit Ratings classifies obligors, securities, or money market instruments as being in default.

**Credit Rating History**

To access Morningstar Credit Ratings credit rating history, please go to [www.morningstarcreditratings.com](http://www.morningstarcreditratings.com) and click on the Regulatory Affairs tab.