

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, 2015 through December 31, 2016)**

One-year (i.e., "short-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2015		Credit Ratings as of 12/31/2016 (Percent)															Other Outcomes During 12/31/2015 - 12/31/2016							
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Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	D	Default	Paid Off	Withdrawn (other)
AAA	0																							
AA+	0																							
AA	0																							
AA-	3				33.33%																			66.67%
A+	9				11.11%	44.44%																		44.44%
A	11						27.27%	9.09%																63.64%
A-	14						7.14%	57.14%	7.14%															28.57%
BBB+	12								58.33%															41.67%
BBB	8								12.50%	62.50%														25.00%
BBB-	5									20.00%	20.00%													60.00%
BB+	0																							
BB	0																							
BB-	0																							
B+	0																							
B	0																							
B-	0																							
CCC+	0																							
CCC	0																							
CCC-	0																							
D	0																							
Total	62																							

**Table 2: Financial Institutions, Brokers, or Dealers - 3 Year Transition and Default Rates
(December 31, 2013 through December 31, 2016)**

Three-year (i.e., "mid-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2013		Credit Ratings as of 12/31/2016 (Percent)																Other Outcomes During 12/31/2013 - 12/31/2016						
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Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	D	Default	Paid Off	Withdrawn (other)
AAA	0																							
AA+	0																							
AA	0																							
AA-	4				25.00%																			75.00%
A+	12				8.33%	16.67%	8.33%																	66.67%
A	13						7.69%	15.38%																76.92%
A-	15						6.67%	46.67%	6.67%															40.00%
BBB+	14								35.71%															64.29%
BBB	13								15.38%	30.77%														53.85%
BBB-	4									25.00%	25.00%													50.00%
BB+	1																							100.00%
BB	1																							100.00%
BB-	1																							100.00%
B+	1																							100.00%
B	0																							
B-	0																							
CCC+	0																							
CCC	0																							
CCC-	0																							
D	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: Insurance Company Issuers – 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 5: Insurance Company Issuers – 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 6: Insurance Company 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: Corporate Issuers - 1 Year Transition and Default Rates
(December 31, 2015 through December 31, 2016)**

One-year (i.e., "short-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2015		Credit Ratings as of 12/31/2016 (Percent)																Other Outcomes During 12/31/2015 - 12/31/2016						
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-	D	Default	Paid Off	Withdrawn (other)
AAA	3	66.67%	33.33%																					
AA+	0																							
AA	12			66.67%	25.00%	8.33%																		
AA-	14				71.43%	21.43%	7.14%																	
A+	19				5.26%	68.42%	5.26%		5.26%	5.26%	5.26%													5.26%
A	41					7.32%	68.29%	7.32%	9.76%															7.32%
A-	46						6.52%	67.39%	8.70%	4.35%	2.17%													10.87%
BBB+	57							3.51%	70.18%	10.53%	3.51%													12.28%
BBB	46							2.17%	4.35%	58.70%	10.87%		2.17%	2.17%										19.57%
BBB-	40								2.50%	10.00%	67.50%	7.50%	2.50%	2.50%										7.50%
BB+	21										9.52%	52.38%	14.29%	9.52%	4.76%									9.52%
BB	15										6.67%	26.67%	40.00%			6.67%	6.67%							13.33%
BB-	11											9.09%	27.27%	54.55%		9.09%								
B+	5											20.00%	20.00%	20.00%	20.00%			20.00%						20.00%
B	4															100.00%								
B-	3													33.33%			66.67%							
CCC+	0																							
CCC	1																100.00%							
CCC-	0																							
D	0																							
Total	338																							

**Table 8: Corporate Issuers - 3 Year Transition and Default Rates
(December 31, 2013 through December 31, 2016)**

Three-year (i.e., "mid-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2013			Credit Ratings as of 12/31/2016 (Percent)																	Other Outcomes During 12/31/2013 - 12/31/2016				
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-	D	Default	Paid Off	Withdrawn (other)
AAA	3	66.67%	33.33%																					
AA+	1			100.00%																				
AA	15			40.00%		13.33%			6.67%															
AA-	22			4.55%		18.18%	22.73%	4.55%	4.55%															13.64%
A+	26					42.31%	11.54%	7.69%	11.54%	3.85%	3.85%													15.38%
A	59					5.08%	30.51%	18.64%	11.86%		1.69%													32.20%
A-	64						9.38%	31.25%	15.63%	7.81%	4.69%													31.25%
BBB+	86							2.33%	27.91%	8.14%	5.81%		2.33%											53.49%
BBB	66							1.52%	3.03%	30.30%	4.55%		1.52%	3.03%										56.06%
BBB-	74									6.76%	25.68%	2.70%	2.70%	1.35%	1.35%		1.35%							55.41%
BB+	43								2.70%			6.98%	23.26%	6.98%	9.30%	2.33%	2.33%							48.84%
BB	23											13.04%	17.39%	8.70%	4.35%		8.70%							47.83%
BB-	21												9.52%	14.29%	9.52%		14.29%	4.76%						47.62%
B+	8												12.50%	12.50%				12.50%						62.50%
B	8													12.50%			12.50%							62.50%
B-	11													9.09%										90.91%
CCC+	0																							
CCC	4																							100.00%
CCC-	0																							
D	0																							
Total	534																							

Table 9: 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 10: RMBS - 1 Year Transition and Default Rates
(December 31, 2015 through December 31, 2016)**

One-year (i.e., "short-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2015			Credit Ratings as of 12/31/2016 (Percent)															Other Outcomes During 12/31/2015 - 12/31/2016						
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-	D	Default	Paid Off	Withdrawn (other)
AAA	84	92.86%																					7.14%	
AA+	13		100.00%																					
AA	21		4.76%	47.62%																			47.62%	
AA-	2				100.00%																			
A+	13					100.00%																		
A	30			3.33%			53.33%	100.00%															43.33%	
A-	2																							
BBB+	23								100.00%															
BBB	34							2.94%		44.12%														52.94%
BBB-	16										100.00%													
BB+	7											100.00%												
BB	4											25.00%	75.00%											
BB-	3													100.00%										
B+	0																							
B	0																							
B-	3																							
CCC+	0																100.00%							
CCC	0																							
CCC-	0																							
D	0																							
Total	255																							

**Table 11: RMBS - 3 Year Transition and Default Rates
(December 31, 2013 through December 31, 2016)**

Three-year (i.e., "mid-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2013		Credit Ratings as of 12/31/2016 (Percent)																Other Outcomes During 12/31/2013 - 12/31/2016						
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-	D	Default	Paid Off	Withdrawn (other)
AAA	1	100.00%																						
AA+	0																							
AA	1			100.00%																				
AA-	0																							
A+	0																							
A	1						100.00%																	
A-	0																							
BBB+	1							100.00%																
BBB	0																							
BBB-	1													100.00%										
BB+	0																							
BB	0																							
BB-	0																							
B+	0																							
B	0																							
B-	0																							
CCC+	0																							
CCC	0																							
CCC-	0																							
D	0																							
Total	5																							

Table 12: 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 13: CMBS - 1 Year Transition and Default Rates
(December 31, 2015 through December 31, 2016)**

One-year (i.e., "short-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2015			Credit Ratings as of 12/31/2016 (Percent)																Other Outcomes During 12/31/2015 - 12/31/2016					
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-	D	Default	Paid Off	Withdrawn (other)
AAA	1,457	95.13%																					4.80%	0.07%
AA+	40	15.00%	85.00%																					
AA	101	8.91%	9.90%	79.21%	0.99%																		0.99%	
AA-	138	2.17%		5.07%	89.86%																		2.90%	
A+	40		2.50%	5.00%	7.50%	85.00%																		
A	117	2.56%	2.56%	0.85%	2.56%	10.26%	80.34%	0.85%																
A-	215	0.93%		0.47%		0.93%	3.72%	91.63%	0.47%														1.86%	
BBB+	58			1.72%	1.72%	1.72%	5.17%	12.07%	77.59%															
BBB	85	1.18%				1.18%	1.18%	2.35%	5.88%	87.06%														
BBB-	204	0.98%			0.49%		0.49%		2.45%	3.92%	89.22%	0.49%											1.47%	
BB+	42									2.38%	4.76%	88.10%										2.38%	2.38%	
BB	122	1.64%					0.82%			0.82%	0.82%	8.20%	85.25%	0.82%							0.82%		0.82%	
BB-	102												0.98%	98.04%									0.98%	
B+	46								2.17%				2.17%	4.35%	89.13%								2.17%	
B	96	1.04%											1.04%		5.21%	90.63%	1.04%				1.04%			
B-	57												1.75%			3.51%	89.47%	1.75%			1.75%		1.75%	
CCC+	0																							
CCC	0																							
CCC-	1																							
D	2																					100.00%		
Total	2,923																					100.00%		

**Table 14: CMBS - 3 Year Transition and Default Rates
(December 31, 2013 through December 31, 2016)**

Three-year (i.e., "mid-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2013		Credit Ratings as of 12/31/2016 (Percent)																Other Outcomes During 12/31/2013 - 12/31/2016						
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-	D	Default	Paid Off	Withdrawn (other)
AAA	1,597	19.04%																					47.09%	33.88%
AA+	112	1.79%	12.50%																				23.21%	62.50%
AA	143	9.79%	6.29%	15.38%																			13.99%	54.55%
AA-	103	0.97%	0.97%	0.97%	11.65%																		24.27%	61.17%
A+	79				2.53%	18.99%																	26.58%	51.90%
A	115	3.48%	3.48%	1.74%	3.48%	7.83%	22.61%																10.43%	46.96%
A-	109	0.92%		0.92%			1.83%	19.27%	0.92%														18.35%	57.80%
BBB+	129				0.78%	0.78%	1.55%	4.65%	14.73%														10.08%	66.67%
BBB	111	0.90%		0.90%		0.90%	1.14%	0.57%	3.98%	13.51%										0.90%			12.61%	68.47%
BBB-	176	1.14%		0.57%	0.57%		1.14%	0.57%	2.27%	20.45%										0.57%			5.68%	63.07%
BB+	135								0.74%	1.48%	2.96%												6.67%	88.15%
BB	125	0.80%					0.80%			1.60%	0.80%	8.00%	17.60%	1.96%							0.80%		1.60%	67.20%
BB-	51													15.69%									5.88%	76.47%
B+	66								1.52%					1.52%	6.06%							1.52%	1.52%	87.88%
B	62												3.23%	1.61%	8.06%	33.87%				1.61%				50.00%
B-	87												1.15%			2.30%	5.75%				2.30%		1.15%	87.36%
CCC+	47																						2.13%	97.87%
CCC	20																							100.00%
CCC-	513																							
D	1,075																					3.12%	0.78%	96.10%
total	4,855																					39.63%		60.37%

Table 15: 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 16: CLOs - 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: 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 18: 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 19: 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 20: 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 21: CD0s - 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: 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 23: 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 24: 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 25: Other ABS - 1 Year Transition and Default Rates
(December 31, 2015 through December 31, 2016)**

One-year (i.e., "short-term") credit ratings transition matrix:

Credit Ratings as of 12/31/2015		Credit Ratings as of 12/31/2016 (Percent)																Other Outcomes During 12/31/2015 - 12/31/2016						
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-	D	Default	Paid Off	Withdrawn (other)
AAA	0																							
AA+	0																							
AA	0																							
AA-	0																							
A+	1					100.00%																		
A	0																							
A-	0																							
BBB+	1								100.00%															
BBB	0																							
BBB-	0																							
BB+	1											100.00%												
BB	0																							
BB-	1													100.00%										
B+	0																							
B	0																							
B-	0																							
CCC+	0																							
CCC	0																							
CCC-	0																							
D	0																							
Total	4																							

Table 26: 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 27: 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 28: 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 29: 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 30: 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 Matrix.

Table 31: Sovereign Issuers – 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 32: Sovereign Issuers – 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 33: Sovereign 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 34: U.S. Public Finance – 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 35: U.S. Public Finance – 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 36: U.S. Public Finance – 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 37: International Public Finance – 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 38: International Public Finance – 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 39: International Public Finance – 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.

Types of Rating Opinions

Letter-Grade Credit Rating: A Morningstar credit rating is only an opinion on the ability of the collateral or obligor to support timely interest payments and to repay principal by the rated final distribution date according to the terms of the transaction and subject to the various qualifications, caveats and considerations enumerated in its respective ratings letters, ratings reports, and Morningstar's website, www.morningstarcreditratings.com.

Morningstar utilizes a set of letter ratings ranging from AAA to D to express its opinion on the credit quality of a security based on Morningstar's policies and procedures. Morningstar also provides finer gradations 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 Morningstar's credit ratings are as follows:

AAA

A rating of AAA is the highest credit rating assigned by Morningstar. A rating of AAA indicates 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

A rating of AA indicates 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 rating of A indicates 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

A rating of BBB indicates 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

A rating of BB indicates 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 is greater than that of higher rated securities or issuers.

B

A rating of B indicates a default has not yet occurred but the issuer or securities are vulnerable to adverse changes in the business or economic environment. Securities rated B are more vulnerable to nonpayment of timely interest and ultimate payment of principal on or prior to a rated final distribution date than higher rated securities.

CCC

A rating of CCC indicates 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 indicates a default has not yet occurred but the issuer or security is extremely dependent on favorable business conditions to avoid default or significant capital restructuring. This rating does not apply to structured finance securities.

C

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

SD

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

D

A rating of D indicates that a default has 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 shall have the following meanings:

Default shall generally include one or more of the below:

- (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 is the repayment of a debt instrument for any consideration other than the par value of the debt, in cash, at its contracted maturity date in order to avoid a payment default or bankruptcy. Execution of a distressed debt exchange 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 Morningstar's reasonable judgment, an interest or principal shortfall on a structured finance security may not be deemed a default. Factors that would affect Morningstar's decision include the magnitude of the shortfall, likelihood of recurrence, certainty and timing of a repayment, and the current rating of the security.

"Forecasted losses" generally include 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.

The "default (other)" category refers to withdrawals that have been done due to zero balance and previously classified as defaulted.

"Rated final distribution date" typically is the rated final distribution date or term of similar import used in the related offering documents for the respective transaction or otherwise enumerated in the related Morningstar ratings report for such transaction.

NR (non-rated)

In situations where Morningstar rates certain classes of securities from an issuer or a transaction but does not rate other classes, a NR designation is applied by Morningstar to those securities it does not rate.

Credit Rating History

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