

# S&P Global Ratings Ratings Performance for Exhibit 1 Form NRSRO

Page	Table Title	Table Number
3	Financial Institutions, Brokers, or Dealers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 1
4	Financial Institutions, Brokers, or Dealers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 2
5	Financial Institutions, Brokers, or Dealers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 3
6	Insurance Companies Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 4
7	Insurance Companies Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 5
8	Insurance Companies Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 6
9	Corporate Issuers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 7
10	Corporate Issuers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 8
11	Corporate Issuers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 9
12	Issuers of Asset-Backed Securities - Residential Mortgage-Backed Securities Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 10
13	Issuers of Asset-Backed Securities - Residential Mortgage-Backed Securities Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 11
14	Issuers of Asset-Backed Securities - Residential Mortgage-Backed Securities Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 12
15	Issuers of Asset-Backed Securities - Commercial Mortgage-Backed Securities Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 13
16	Issuers of Asset-Backed Securities - Commercial Mortgage-Backed Securities Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 14
17	Issuers of Asset-Backed Securities - Commercial Mortgage-Backed Securities Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 15
18	Issuers of Asset-Backed Securities - Collateralized Loan Obligations Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 16
19	Issuers of Asset-Backed Securities - Collateralized Loan Obligations Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 17
20	Issuers of Asset-Backed Securities - Collateralized Loan Obligations Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 18
21	Issuers of Asset-Backed Securities - Collateralized Debt Obligations Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 19
22	Issuers of Asset-Backed Securities - Collateralized Debt Obligations Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 20
23	Issuers of Asset-Backed Securities - Collateralized Debt Obligations Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 21
24	Issuers of Asset-Backed Securities - Asset-Backed Commercial Paper Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 22
25	Issuers of Asset-Backed Securities - Asset-Backed Commercial Paper Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 23
26	Issuers of Asset-Backed Securities - Asset-Backed Commercial Paper Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 24
27	Issuers of Asset-Backed Securities - Other Asset-Backed Securities Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 25
28	Issuers of Asset-Backed Securities - Other Asset-Backed Securities Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 26
29	Issuers of Asset-Backed Securities - Other Asset-Backed Securities Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 27
30	Issuers of Asset-Backed Securities - Other Structured Finance Products Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 28
31	Issuers of Asset-Backed Securities - Other Structured Finance Products Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 29
32	Issuers of Asset-Backed Securities - Other Structured Finance Products Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 30
33	Sovereign Issuers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 31
34	Sovereign Issuers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 32
35	Sovereign Issuers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 33
36	U.S. Public Finance Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 34
37	U.S. Public Finance Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 35
38	U.S. Public Finance Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 36
39	International Public Finance Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)	Table 37
40	International Public Finance Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)	Table 38
41	International Public Finance Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)	Table 39
42	Appendix	

Table 1	Financial Institutions, Brokers, or Dealers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)		
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	4	75.00%	25.00%																						
AA+	22		100.00%																						
AA	15			100.00%																					
AA-	77				87.01%	3.90%	1.30%																	7.79%	
A+	81				1.23%	81.48%	8.64%			1.23%														7.41%	
A	140					2.86%	87.86%	5.00%																4.29%	
A-	109						8.26%	81.65%	5.50%															4.59%	
BBB+	167						0.60%	10.18%	73.05%	10.78%														5.39%	
BBB	133							0.75%	18.80%	68.42%	6.77%	0.75%												4.51%	
BBB-	114								0.88%	16.67%	61.40%	5.26%	7.02%	0.88%			0.88%							7.02%	
BB+	70										14.29%	64.29%	5.71%		2.86%									12.86%	
BB	80											1.25%	5.00%	63.75%	7.50%									22.50%	
BB-	90											1.11%	2.22%	8.89%	61.11%	10.00%	1.11%							15.56%	
B+	63													1.59%	17.46%	55.56%	7.94%	1.59%						15.87%	
B	65														12.31%	66.15%	9.23%	1.54%	1.54%			1.54%		6.15%	
B-	65														13.85%	4.62%	69.23%	1.54%				1.54%		9.23%	
CCC+	14																21.43%	42.86%				28.57%		7.14%	
CCC	6																50.00%	16.67%	16.67%					16.67%	
CCC-	2																	50.00%						50.00%	
CC																									
C																									
Total	1317																								

Table 2	Financial Institutions, Brokers, or Dealers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)			
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	4	50.00%	25.00%																						25.00%
AA+	24	4.17%	87.50%	4.17%																					4.17%
AA	20		5.00%	65.00%	15.00%	5.00%																			10.00%
AA-	72				77.78%	9.72%																			12.50%
A+	85				4.71%	32.94%	40.00%	1.18%	4.71%	1.18%															15.29%
A	156					16.67%	48.72%	17.31%	2.56%																14.74%
A-	118					1.69%	11.02%	48.31%	22.03%	1.69%			0.85%												14.41%
BBB+	131							12.21%	55.73%	19.08%	2.29%		0.76%	2.29%											7.63%
BBB	106							1.89%	16.04%	53.77%	7.55%	0.94%	0.94%												18.87%
BBB-	139								2.88%	15.83%	33.09%	12.23%	10.79%	0.72%			1.44%								23.02%
BB+	71								4.23%	4.23%	8.45%	26.76%	19.72%	4.23%	2.82%		1.41%								28.17%
BB	59								1.69%			11.86%	8.47%	25.42%	18.64%	3.39%									30.51%
BB-	78										2.56%	2.56%	12.82%	33.33%	11.54%	7.69%	2.56%						1.28%		25.64%
B+	66									1.52%		1.52%	1.52%	30.30%	13.64%	4.55%							10.61%		21.21%
B	83										1.20%	1.20%		3.61%	7.23%	31.33%	21.69%		1.20%				7.23%		25.30%
B-	44															9.09%	43.18%	4.55%					18.18%		25.00%
CCC+	17														41.18%		5.88%						29.41%		23.53%
CCC	3																	33.33%					66.67%		
CCC-	4														25.00%		25.00%								50.00%
CC																									
C																									
Total	1280																								

Table 3	Financial Institutions, Brokers, or Dealers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)			
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	36	8.33%	41.67%	11.11%	2.78%	2.78%	2.78%				2.78%														27.78%
AA+	27		14.81%	7.41%	3.70%	11.11%	11.11%		3.70%																48.15%
AA	89		1.12%	5.62%	12.36%	12.36%	10.11%	6.74%	5.62%	2.25%	1.12%														42.70%
AA-	110		0.91%		15.45%	6.36%	20.91%	6.36%	6.36%	4.55%	0.91%												0.91%		37.27%
A+	117			0.85%	9.40%	8.55%	16.24%	6.84%	8.55%	4.27%	2.56%		0.85%			0.85%							0.85%		40.17%
A	146				1.37%	4.11%	15.07%	11.64%	10.96%	3.42%	3.42%		0.68%	1.37%									2.74%		45.21%
A-	114					2.63%	6.14%	23.68%	5.26%	10.53%	2.63%	2.63%			3.51%								2.63%		40.35%
BBB+	112					0.89%		9.82%	16.96%	8.93%	6.25%	2.68%	1.79%	0.89%									5.36%		46.43%
BBB	77							2.60%	15.58%	20.78%	2.60%	5.19%	1.30%	1.30%	2.60%								10.39%		37.66%
BBB-	75							2.67%	13.33%	8.00%	9.33%	5.33%	5.33%	2.67%			2.67%						9.33%		41.33%
BB+	44								2.27%	4.55%	4.55%	2.27%	18.18%		2.27%	6.82%	4.55%						9.09%		45.45%
BB	35						2.86%		2.86%	2.86%	2.86%	8.57%	8.57%	5.71%	2.86%	5.71%	5.71%						5.71%		45.71%
BB-	57								1.75%	1.75%		3.51%	15.79%	7.02%		3.51%	5.26%						5.26%		56.14%
B+	40									2.50%				5.00%	12.50%	2.50%	2.50%						17.50%		57.50%
B	39									2.56%				2.56%	2.56%	12.82%	2.56%						23.08%		53.85%
B-	20													5.00%	5.00%	15.00%	35.00%						5.00%		35.00%
CCC+	8																						37.50%		62.50%
CCC	4													25.00%									50.00%		25.00%
CCC-																									
CC	1																						100.00%		
C																									
Total	1151																								

Table 4		Insurance Companies Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)			
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																										
AA+	14		100.00%																							
AA	38			100.00%																						
AA-	73				94.52%	1.37%																		4.11%		
A+	150				2.00%	86.67%	6.00%	0.67%																4.67%		
A	155					3.23%	90.32%	3.87%																2.58%		
A-	144						2.78%	85.42%	3.47%															8.33%		
BBB+	82						1.22%	3.66%	76.83%	6.10%	2.44%													9.76%		
BBB	58								12.07%	62.07%	5.17%	12.07%		1.72%										6.90%		
BBB-	26									7.69%	65.38%													26.92%		
BB+	16										6.25%	81.25%		6.25%										6.25%		
BB	19											21.05%	52.63%	5.26%										21.05%		
BB-	11											9.09%	9.09%	45.45%										27.27%		
B+	9													11.11%	33.33%	22.22%								33.33%		
B	39														12.82%	58.97%	15.38%					2.56%		10.26%		
B-	6															33.33%	50.00%							16.67%		
CCC+																										
CCC	1																							100.00%		
CCC-																										
CC																										
C																										
Total	841																									

Table 5		Insurance Companies Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)			
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																										
AA+	15		93.33%	6.67%																						
AA	37			94.59%																				5.41%		
AA-	81				72.84%	17.28%		1.23%																8.64%		
A+	135				5.93%	67.41%	15.56%																	11.11%		
A	149			0.67%		12.75%	62.42%	9.40%	0.67%		0.67%													13.42%		
A-	148				0.68%		15.54%	63.51%	5.41%			0.68%		0.68%										13.51%		
BBB+	87						1.15%	10.34%	47.13%	6.90%	2.30%	4.60%			1.15%									26.44%		
BBB	56						1.79%	1.79%	23.21%	48.21%	7.14%											1.79%		16.07%		
BBB-	39				2.56%			2.56%		12.82%	33.33%	5.13%	2.56%											41.03%		
BB+	19								5.26%		10.53%	31.58%	5.26%			10.53%								36.84%		
BB	19											15.79%	26.32%	15.79%										42.11%		
BB-	12								8.33%			16.67%	8.33%	8.33%		8.33%								50.00%		
B+	8											12.50%	12.50%		25.00%							12.50%		37.50%		
B	23														17.39%	47.83%	17.39%					4.35%		13.04%		
B-	8										12.50%					12.50%								75.00%		
CCC+	2																							100.00%		
CCC																										
CCC-																										
CC																										
C																										
Total	838																									

Table 6		Insurance Companies Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)			
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	38		34.21%	23.68%	2.63%																	2.63%		36.84%		
AA+	9			22.22%	22.22%	11.11%	22.22%																	22.22%		
AA	83		1.20%	14.46%	16.87%	14.46%	9.64%	1.20%	4.82%			1.20%										6.02%		30.12%		
AA-	80			5.00%	23.75%	28.75%	8.75%	1.25%	2.50%	1.25%					1.25%									27.50%		
A+	94			5.32%	5.32%	27.66%	11.70%	8.51%	2.13%	2.13%														37.23%		
A	127			0.79%	3.94%	13.39%	29.92%	11.02%	3.94%			0.79%				0.79%						0.79%		34.65%		
A-	118				2.54%	2.54%	24.58%	28.81%	5.08%	0.85%		0.85%	0.85%									1.69%		32.20%		
BBB+	82					2.44%	8.54%	23.17%	17.07%	4.88%	3.66%	1.22%												39.02%		
BBB	53					1.89%		7.55%	13.21%	15.09%	5.66%	1.89%												54.72%		
BBB-	44							2.27%	11.36%	11.36%	6.82%	4.55%	2.27%			2.27%						4.55%		54.55%		
BB+	22								9.09%	9.09%	4.55%	4.55%										4.55%		68.18%		
BB	13										15.38%	7.69%			7.69%									69.23%		
BB-	10										10.00%		20.00%	10.00%										60.00%		
B+	10											10.00%	10.00%		10.00%	10.00%								60.00%		
B	15														6.67%	13.33%						6.67%		73.33%		
B-	4																					75.00%		25.00%		
CCC+																										
CCC	2																							100.00%		
CCC-	1																							100.00%		
CC	1																							100.00%		
C																										
Total	806																									



Table 7	Corporate Issuers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)			
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	10	60.00%	40.00%																						
AA+	5		100.00%																						
AA	26		3.85%	88.46%	7.69%																				
AA-	66			1.52%	81.82%	12.12%	1.52%																		3.03%
A+	85				2.35%	78.82%	11.76%	4.71%		1.18%	1.18%														
A	178					6.74%	84.27%	5.62%		0.56%															2.81%
A-	313						3.19%	89.14%	4.15%	0.96%	0.32%														2.24%
BBB+	390							4.10%	88.97%	4.36%															2.56%
BBB	437					0.23%		0.23%	7.09%	82.84%	3.89%	1.37%		0.23%											4.12%
BBB-	393					0.25%			1.53%	9.92%	79.13%	2.29%	2.04%		0.25%										4.58%
BB+	287							0.35%		0.35%	10.80%	75.26%	5.57%	0.70%	1.05%										5.92%
BB	356										0.56%	9.83%	71.91%	5.90%	0.84%	0.56%						0.28%			10.11%
BB-	388											1.03%	10.57%	66.75%	7.22%	2.58%	0.52%								11.34%
B+	415											0.24%	1.93%	8.67%	57.11%	12.29%	1.69%	0.72%	0.24%	0.48%		0.48%			16.14%
B	825													0.48%	5.94%	62.55%	10.67%	1.45%	0.48%	0.61%		0.24%			17.58%
B-	347													1.15%	2.02%	12.97%	54.47%	8.36%	2.31%	1.44%	1.15%	3.17%			12.97%
CCC+	127								0.79%							3.15%	15.75%	33.07%	7.09%	3.15%	0.79%	15.75%			20.47%
CCC	56															1.79%	12.50%	8.93%	23.21%	8.93%		32.14%			12.50%
CCC-	24														4.17%		8.33%	4.17%	4.17%	4.17%	4.17%	50.00%			20.83%
CC	14																				7.14%	71.43%			21.43%
C																									
Total	4742																								

Table 8	Corporate Issuers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	12	50.00%	50.00%																						
AA+	5		40.00%	20.00%		20.00%	20.00%																		
AA	28		3.57%	50.00%	28.57%	3.57%																		14.29%	
AA-	61			4.92%	62.30%	22.95%	1.64%	1.64%	1.64%															4.92%	
A+	96			5.21%	6.25%	53.13%	15.63%	7.29%	1.04%	1.04%														9.38%	
A	181					4.42%	56.91%	19.34%	7.73%	1.66%	1.10%		0.55%											8.29%	
A-	271				0.37%	2.95%	7.75%	61.62%	13.65%	5.17%	1.48%				0.37%									6.64%	
BBB+	367						2.18%	14.17%	58.58%	10.90%	3.00%	1.36%	0.82%	0.27%	0.27%									8.45%	
BBB	478					0.21%		5.65%	17.57%	52.51%	7.53%	1.88%	1.26%	1.26%		0.42%		0.21%		0.21%				11.30%	
BBB-	403			0.25%		0.25%		0.25%	3.97%	14.39%	45.16%	9.43%	3.47%	2.48%	0.99%	0.50%	0.25%			0.50%		0.25%		17.87%	
BB+	294								0.34%	4.08%	17.69%	37.41%	12.24%	3.06%	1.70%	1.70%	1.02%	0.34%	0.34%			2.38%		17.69%	
BB	313									0.32%	4.79%	16.61%	37.70%	13.10%	3.51%	3.19%	0.64%	0.32%		0.32%		0.96%		18.53%	
BB-	367										1.09%	0.82%	14.71%	28.88%	10.08%	9.26%	1.63%	0.82%	0.82%			3.81%		28.07%	
B+	494											1.21%	4.45%	12.75%	23.08%	12.75%	4.86%	1.01%	0.61%	0.40%		5.87%		33.00%	
B	931											0.11%	1.07%	2.69%	5.91%	27.39%	10.20%	4.30%	1.29%	0.43%	0.21%	8.59%		37.81%	
B-	346												0.87%	0.29%	2.60%	10.40%	21.39%	4.34%	1.45%	0.87%	0.58%	20.23%		36.99%	
CCC+	82									1.22%		1.22%				2.44%	3.66%	9.76%	2.44%	3.66%	2.44%		40.24%		32.93%
CCC	28															7.14%	10.71%		3.57%			39.29%		39.29%	
CCC-	24													4.17%	8.33%	8.33%	12.50%					37.50%		29.17%	
CC	6																					83.33%		16.67%	
C																									
Total	4787																								

Table 9	Corporate Issuers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)			
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	15	26.67%	13.33%	26.67%	13.33%	6.67%	6.67%																		6.67%
AA+	14		14.29%	7.14%	21.43%	7.14%	7.14%	28.57%																	14.29%
AA	58		5.17%	10.34%	25.86%	12.07%	3.45%	6.90%	3.45%	3.45%															29.31%
AA-	56			5.36%	16.07%	21.43%	7.14%	12.50%	7.14%																30.36%
A+	101				9.90%	20.79%	18.81%	16.83%	0.99%	3.96%	1.98%	2.97%													23.76%
A	204			2.94%	1.96%	6.37%	21.08%	19.61%	10.78%	6.86%	2.45%	0.98%		0.49%		0.49%							0.49%		25.49%
A-	267			0.75%	0.37%	0.75%	12.36%	26.97%	21.72%	8.24%	3.37%	1.50%	0.75%		0.37%	0.37%	0.37%								22.10%
BBB+	323				0.31%	0.93%	4.64%	17.03%	22.29%	18.27%	6.19%	2.17%	0.62%	0.31%	0.62%	0.62%			0.31%	0.31%			0.31%		25.08%
BBB	363					1.65%	1.38%	7.44%	14.05%	20.39%	13.77%	3.31%	3.03%	1.10%	0.83%					0.28%			0.28%		32.51%
BBB-	293					0.34%	0.34%	3.07%	13.65%	20.14%	12.63%	7.51%	2.05%	1.37%	1.02%	0.34%						2.05%			35.49%
BB+	180					0.56%			1.67%	6.11%	13.89%	14.44%	7.22%	6.11%	3.33%	3.89%				0.56%			3.33%		38.89%
BB	255				0.39%			0.78%	2.75%	2.75%	6.67%	10.20%	10.98%	5.49%	2.35%	2.75%	2.35%	0.78%	1.18%				7.45%		43.14%
BB-	374					0.53%	0.80%		1.34%	0.53%	3.21%	5.08%	9.63%	7.22%	6.42%	1.60%	1.34%		0.27%	0.27%			16.04%		45.72%
B+	425								0.47%	0.47%	0.71%	1.65%	3.29%	4.47%	4.71%	6.59%	3.53%	0.94%		0.24%			18.59%		54.35%
B	554									0.54%	0.36%	0.54%	1.81%	2.71%	2.71%	3.79%	1.99%	0.18%					31.95%		53.43%
B-	213										0.47%	1.41%		1.88%	0.94%	3.76%	1.88%	0.47%					38.03%		51.17%
CCC+	52												1.92%										55.77%		42.31%
CCC	22																						81.82%		18.18%
CCC-	4																						50.00%		50.00%
CC	4																						75.00%		25.00%
C																									
Total	3777																								

Table 10	Issuers of Asset-Backed Securities - Residential Mortgage-Backed Securities Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)			
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	3542	81.11%	0.20%	0.28%		0.03%						0.03%	0.03%				0.03%						0.03%	17.96%	0.31%
AA+	1955	3.07%	74.07%	0.26%	0.77%	0.92%	0.36%	0.51%	0.26%	0.46%		0.15%	0.10%		0.51%	0.05%	0.41%		0.05%				0.10%	13.30%	4.65%
AA	866	5.20%	4.73%	72.17%	0.23%	0.92%	0.69%	0.35%			0.35%	0.23%		0.12%	0.12%	0.12%			0.23%				0.35%	13.16%	1.04%
AA-	393	2.80%	7.89%	14.25%	54.96%	1.27%	0.51%	0.76%	0.25%	0.25%	1.02%	0.51%												15.27%	0.25%
A+	1546	1.62%	3.56%	2.46%	1.55%	72.90%	0.06%	0.32%	2.01%	0.71%	0.26%	0.26%	0.26%	0.39%	0.06%				0.06%				0.45%	11.71%	1.36%
A	770	1.30%	1.69%	5.19%	2.47%	9.74%	60.91%	0.26%	1.82%	1.17%	0.65%	0.52%	0.39%		0.13%		0.13%		0.13%				0.39%	11.30%	1.82%
A-	528		0.95%	0.38%	2.46%	1.70%	33.52%	40.15%	1.14%	1.33%	0.57%	0.38%			0.38%	0.19%							0.38%	15.91%	0.57%
BBB+	930	0.65%	2.80%	1.72%	0.22%	5.05%	5.48%	1.61%	61.29%	0.54%	0.97%	2.47%	0.75%	0.11%	0.86%				0.54%				0.75%	12.04%	2.15%
BBB	732	0.55%	1.64%	1.64%	0.68%	1.78%	6.42%	2.46%	2.19%	65.03%	0.82%	0.68%	1.91%	0.14%	0.41%	0.27%	0.41%						0.55%	9.56%	2.87%
BBB-	377		1.06%	1.33%		3.18%	2.12%	2.65%	5.04%	1.33%	62.86%	3.45%	1.59%	2.39%	0.27%	0.53%			0.27%				0.80%	9.55%	1.59%
BB+	918	0.44%	0.54%	0.98%		1.85%	1.20%	0.65%	4.79%	2.61%	0.76%	61.44%	0.65%	1.53%	1.31%	0.98%	2.61%		0.76%				1.74%	12.64%	2.51%
BB	535	0.37%		1.50%	0.19%	1.12%	2.24%	0.37%	2.62%	6.54%	2.24%	1.31%	65.61%	0.37%	0.93%	3.36%	0.56%		0.75%				0.56%	8.04%	1.31%
BB-	356			0.84%		0.56%	1.12%	0.56%	0.56%	2.53%	1.97%	3.65%	2.25%	61.80%	1.12%	3.93%	4.49%		1.40%				2.25%	9.55%	1.40%
B+	444			0.90%		0.68%	0.23%	2.03%	1.80%	1.13%	4.05%	3.15%	0.45%	59.91%	1.80%	6.31%			2.03%				0.23%	7.88%	7.43%
B	574			0.17%		0.70%	0.35%		0.52%	1.74%	0.35%	1.92%	5.23%	1.22%	0.87%	66.72%	2.79%		4.53%				1.74%	9.23%	1.92%
B-	1204	0.08%	0.08%	0.33%		0.42%	0.50%	0.08%	0.33%	0.75%	0.58%	1.58%	2.08%	0.50%	2.57%	0.66%	71.35%		5.90%				0.33%	8.22%	3.65%
CCC+	15																	86.67%					13.33%		
CCC	7445			0.01%			0.04%		0.04%	0.12%	0.03%	0.09%	0.27%	0.07%	0.13%	0.81%	0.44%		85.39%	0.01%	0.31%		5.01%	4.02%	3.21%
CCC-	13																		76.92%	15.38%		7.69%			
CC	1301																0.15%		3.84%		74.87%		17.68%	2.46%	1.00%
C																									
Total	24444																								

Table 11	Issuers of Asset-Backed Securities - Residential Mortgage-Backed Securities Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	3599	57.24%	1.36%	0.44%	0.19%	0.28%	0.11%	0.03%	0.08%		0.06%	0.11%	0.06%	0.03%	0.03%		0.03%		0.22%				0.06%	38.79%	0.89%
AA+	2423	4.46%	46.88%	1.40%	1.82%	2.23%	0.83%	0.95%	0.78%	0.54%	0.37%	0.62%	0.12%	0.12%	0.54%	0.08%	0.45%		0.25%				0.70%	27.40%	9.45%
AA	1033	12.68%	5.91%	26.62%	0.68%	0.97%	0.77%	1.36%	1.16%	0.10%	0.77%	0.58%	0.19%	0.10%	0.19%	0.39%			1.16%				1.74%	42.40%	2.23%
AA-	350	4.86%	7.43%	14.57%	21.71%	4.29%	3.43%	1.71%	1.71%		0.29%	0.86%				0.29%								37.14%	1.71%
A+	2142	2.19%	9.57%	7.05%	2.47%	37.63%	2.33%	1.77%	2.94%	2.19%	1.21%	1.35%	0.61%	0.33%	0.51%	0.14%	0.42%		0.51%				1.03%	23.53%	2.19%
A	1216	4.52%	1.64%	5.02%	2.71%	6.17%	22.04%	3.54%	0.66%	0.49%	0.49%	0.41%	0.41%	0.08%	0.08%	0.66%	0.16%		0.58%				0.49%	46.38%	3.45%
A-	251	0.80%	2.79%	2.39%	7.97%	7.97%	21.12%	4.78%	2.39%	1.59%	1.20%	0.80%	0.40%	0.40%		0.40%			1.99%				1.59%	31.08%	2.79%
BBB+	1415	0.71%	4.17%	2.97%	1.27%	13.22%	8.41%	1.27%	24.03%	2.76%	2.83%	3.67%	1.34%	0.64%	0.92%	1.41%	0.78%		2.40%				1.06%	22.69%	3.46%
BBB	1020	2.65%	3.43%	3.73%	1.57%	4.12%	9.12%	3.63%	2.25%	21.96%	2.06%	1.76%	1.76%	0.69%	0.69%	1.18%	1.08%		0.98%				1.37%	33.24%	2.75%
BBB-	452	0.22%	2.21%	2.43%	0.22%	5.09%	7.52%	3.54%	8.41%	3.76%	18.81%	6.42%	1.11%	3.10%	2.21%	2.43%	4.42%		2.21%				1.77%	22.35%	1.77%
BB+	1161	0.60%	0.95%	1.21%	0.09%	3.19%	3.10%	0.43%	6.20%	4.57%	1.46%	29.20%	2.58%	2.07%	1.89%	2.67%	6.20%		4.82%				2.07%	20.33%	6.37%
BB	711	0.70%	0.42%	2.25%	0.28%	3.09%	3.38%	0.70%	6.89%	8.58%	3.66%	3.94%	22.22%	2.67%	3.23%	3.52%	3.52%		5.34%				0.70%	21.66%	3.23%
BB-	399	1.50%		1.25%		0.75%	2.51%	2.76%	3.01%	4.26%	4.26%	6.27%	3.76%	24.56%	4.01%	2.76%	8.02%		6.77%				1.75%	20.30%	1.50%
B+	524		0.19%	3.05%		0.19%	0.57%	0.57%	4.77%	3.82%	1.91%	4.58%	4.77%	1.34%	25.19%	2.29%	13.36%		7.06%				2.29%	16.98%	7.06%
B	825	0.36%	0.36%	0.73%	0.24%	0.73%	1.33%	0.12%	1.09%	3.64%	1.70%	4.00%	6.18%	2.18%	2.06%	20.73%	7.15%		11.88%		0.36%		2.42%	14.06%	18.67%
B-	1467	0.07%	0.34%	0.55%	0.14%	0.68%	1.16%	0.20%	1.30%	1.36%	0.95%	2.59%	3.61%	2.25%	2.86%	2.45%	34.76%	0.41%	19.22%				3.00%	16.56%	5.52%
CCC+	11																	63.64%	9.09%	9.09%			18.18%		
CCC	8675	0.01%	0.01%	0.07%		0.02%	0.13%	0.02%	0.22%	0.35%	0.02%	0.36%	0.69%	0.30%	0.50%	1.67%	1.66%		63.03%	0.03%	2.21%		19.60%	6.44%	2.65%
CCC-	11																			63.64%	18.18%		18.18%		
CC	3084			0.03%		0.03%	0.06%		0.03%			0.16%	0.06%	0.06%	0.03%	0.23%	0.45%		13.75%		25.88%		50.71%	5.77%	2.72%
C																									
Total	30769																								

Table 12	Issuers of Asset-Backed Securities - Residential Mortgage-Backed Securities Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	45933	1.42%	2.98%	0.96%	0.31%	2.15%	0.84%	0.33%	1.14%	0.67%	0.42%	0.76%	0.53%	0.35%	0.43%	0.52%	1.01%		8.08%		0.86%		30.63%	26.92%	18.64%
AA+	3191	0.50%	1.47%	0.72%	0.16%	1.16%	0.91%	0.34%	0.97%	0.88%	0.63%	1.94%	1.00%	0.72%	1.00%	1.13%	3.20%		11.16%		1.35%		51.36%	14.92%	4.48%
AA	5997	0.63%	0.63%	1.00%	0.27%	1.30%	1.43%	0.38%	1.00%	0.68%	0.40%	2.07%	0.60%	0.50%	0.68%	1.08%	2.15%	0.03%	11.01%		1.37%		49.82%	18.11%	4.84%
AA-	1812	0.39%	0.55%	0.50%	0.22%	1.27%	0.50%	0.33%	0.94%	0.33%	0.44%	1.21%	0.33%	0.28%	0.28%	0.94%	1.66%		10.76%		1.88%		67.27%	7.34%	2.59%
A+	2100	0.29%	0.43%	0.33%	0.10%	0.67%	0.38%	0.52%	0.86%	0.48%	0.24%	0.95%	0.52%	0.29%	0.43%	0.95%	1.57%	0.05%	10.33%		2.00%		69.48%	7.33%	1.81%
A	4748	0.27%	0.11%	0.25%	0.29%	0.84%	1.39%	0.32%	0.57%	0.53%	0.36%	0.70%	0.44%	0.32%	0.51%	0.51%	1.37%	0.02%	10.36%	0.04%	1.66%		62.13%	13.29%	3.73%
A-	2103	0.05%	0.10%	0.14%		0.38%	0.24%	0.29%	0.38%	0.24%	0.14%	0.38%	0.33%	0.10%	0.33%	0.52%	1.09%	0.05%	9.61%		2.95%		71.42%	8.89%	2.38%
BBB+	2245	0.18%				0.36%	0.31%	0.04%	0.27%	0.31%	0.13%	0.45%	0.22%	0.18%	0.09%	0.31%	0.62%		7.08%		2.49%		78.17%	7.48%	1.29%
BBB	4357	0.14%	0.18%		0.11%	0.25%	0.16%	0.21%	0.30%	0.44%	0.21%	0.50%	0.62%	0.18%	0.14%	0.44%	0.99%	0.14%	4.25%	0.02%	1.77%		69.86%	15.06%	4.04%
BBB-	2012		0.05%				0.05%	0.10%	0.25%	0.15%	0.10%	0.20%	0.15%	0.25%	0.20%	0.25%	0.40%		3.13%	0.05%	1.59%		81.26%	9.39%	2.44%
BB+	964						0.21%		0.21%			0.10%				0.21%	0.31%		1.45%		1.24%		87.55%	6.95%	1.76%
BB	3370						0.06%	0.03%	0.06%		0.06%	0.03%	0.12%		0.21%	0.45%	1.19%	0.03%	1.72%	0.09%	1.07%		84.09%	7.66%	3.15%
BB-	447								0.22%	0.22%					0.22%	0.22%	0.89%		0.89%		0.67%		87.70%	7.38%	1.57%
B+	304																0.33%		0.99%		0.99%		92.43%	3.95%	1.32%
B	3226					0.03%						0.03%	0.03%				0.12%		0.71%		0.59%		93.03%	3.87%	1.58%
B-	359																0.28%		0.56%				94.99%	3.62%	0.56%
CCC+																									
CCC	2227																		0.09%		0.22%		96.41%	1.30%	1.98%
CCC-	22																			9.09%			86.36%	4.55%	
CC	3																						66.67%		33.33%
C																									
Total	85420																								

Table 13	Issuers of Asset-Backed Securities - Commercial Mortgage-Backed Securities Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)		
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	713	70.69%	0.98%																					21.88%	6.45%
AA+	133	4.51%	49.62%																					45.86%	
AA	146	1.37%	7.53%	54.79%			0.68%																	35.62%	
AA-	201	2.49%	4.98%	3.98%	66.67%	1.49%		0.50%																18.91%	1.00%
A+	69	1.45%	7.25%		2.90%	52.17%																		36.23%	
A	124	0.81%	4.03%	2.42%	1.61%	2.42%	58.87%			0.81%		1.61%								0.81%				26.61%	
A-	210	1.43%	0.95%	0.48%	2.86%	0.95%	6.19%	65.24%	1.43%	0.48%	0.95%													19.05%	
BBB+	82	1.22%	3.66%		2.44%		2.44%	2.44%	59.76%	1.22%				1.22%										25.61%	
BBB	80		3.75%	2.50%	1.25%	5.00%	5.00%		1.25%	57.50%	1.25%		2.50%											20.00%	
BBB-	251	1.20%	1.99%	1.20%	0.40%	0.40%	1.99%	0.80%	2.79%	1.59%	58.57%	1.20%	1.20%	1.20%	0.40%					0.40%			0.40%	24.30%	
BB+	102		5.88%	0.98%	1.96%		2.94%		0.98%		0.98%	56.86%	1.96%	0.98%						1.96%			1.96%	22.55%	
BB	99	2.02%	3.03%	1.01%	1.01%	1.01%		1.01%		2.02%	4.04%	1.01%	53.54%		2.02%	1.01%	1.01%			2.02%			2.02%	22.22%	
BB-	206		0.97%	0.49%	0.49%	0.49%	0.97%	0.49%	0.49%	0.97%	0.49%	2.91%	0.97%	56.80%	3.88%	2.43%	0.97%	0.49%					1.46%	24.27%	
B+	91		1.10%	1.10%		2.20%	1.10%		3.30%			1.10%	2.20%	2.20%	54.95%		2.20%		1.10%	2.20%			4.40%	20.88%	
B	105			0.95%		0.95%	0.95%		0.95%		2.86%	0.95%	0.95%	0.95%	1.90%	51.43%	3.81%		0.95%	0.95%			5.71%	25.71%	
B-	237		0.84%			0.42%		0.42%	1.27%	0.42%	0.84%	3.80%	1.27%	0.42%	3.38%		52.32%	0.84%	1.27%	3.38%			7.17%	21.94%	
CCC+	20																	60.00%	5.00%	5.00%			20.00%	10.00%	
CCC	59		1.69%										1.69%		1.69%	3.39%			42.37%	5.08%			35.59%	8.47%	
CCC-	81		1.23%									2.47%	1.23%		2.47%		2.47%			37.04%			46.91%	6.17%	
CC	7																				85.71%		14.29%		
C																									
Total	3016																								

Table 14	Issuers of Asset-Backed Securities - Commercial Mortgage-Backed Securities Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)			
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	1131	29.71%	0.80%																					53.23%	16.27%
AA+	94	5.32%	24.47%																				1.06%	65.96%	3.19%
AA	163	4.29%	7.98%	25.15%	0.61%																			61.35%	0.61%
AA-	161	3.73%	4.35%	8.70%	30.43%	1.86%		0.62%															0.62%	49.69%	
A+	105	0.95%	9.52%		3.81%	13.33%	3.81%																2.86%	63.81%	1.90%
A	163	1.84%	1.84%	0.61%	3.68%	3.68%	24.54%			0.61%		1.23%			0.61%					0.61%				58.90%	1.84%
A-	215	1.40%	2.33%	1.86%	3.72%	1.86%	4.19%	25.58%	2.33%	0.47%	0.93%												0.47%	53.95%	0.93%
BBB+	142	2.11%	2.82%	1.41%		0.70%	3.52%	2.11%	17.61%			0.70%		1.41%									3.52%	62.68%	1.41%
BBB	145	1.38%	2.07%	2.07%	1.38%	1.38%	4.83%	0.69%	8.28%	14.48%		1.38%	1.38%			0.69%		0.69%						58.62%	0.69%
BBB-	266	3.01%	1.88%			0.38%	2.26%	0.38%	2.26%	3.76%	23.31%	4.51%	0.75%	1.13%						0.75%			0.75%	53.38%	1.50%
BB+	149	1.34%	6.04%	0.67%		1.34%	0.67%	2.01%		2.01%	0.67%	14.09%	1.34%		1.34%				0.67%	0.67%			3.36%	62.42%	1.34%
BB	170	2.35%	2.94%	2.94%		2.94%	0.59%	0.59%	0.59%	1.18%	2.35%	4.71%	21.18%	0.59%	1.76%		1.18%		0.59%	1.76%			1.76%	48.24%	1.76%
BB-	176	0.57%	3.98%		1.14%	1.70%	0.57%	0.57%	2.84%	2.27%	0.57%	3.41%	1.14%	23.30%	3.41%	2.84%	1.14%	0.57%	0.57%				3.98%	44.89%	0.57%
B+	167	1.80%	4.19%	2.99%	1.80%	1.80%	0.60%	0.60%	1.20%	1.80%	3.59%	1.20%	2.40%	17.96%		1.80%		0.60%	2.40%				14.37%	37.72%	1.20%
B	159		2.52%	1.26%	0.63%	1.26%	0.63%	0.63%	1.26%	0.63%	1.26%	2.52%	1.89%	0.63%	3.14%	14.47%	7.55%	1.26%		2.52%	0.63%		13.21%	40.25%	1.89%
B-	304	0.33%	2.30%	0.33%	0.66%	0.66%	0.99%	1.32%	1.32%	0.33%	0.99%	2.30%	1.32%	0.66%	2.63%	0.66%	20.07%	0.66%	1.32%	3.62%	0.33%		25.33%	30.26%	1.64%
CCC+	65		1.54%		1.54%		4.62%		1.54%			1.54%		1.54%	1.54%	1.54%	3.08%	12.31%	4.62%	3.08%	1.54%		35.38%	21.54%	3.08%
CCC	148		2.70%			0.68%			0.68%	0.68%	0.68%		1.35%		1.35%	1.35%	3.38%		12.84%	4.73%	0.68%		53.38%	12.16%	3.38%
CCC-	220			0.91%		0.45%	0.45%		0.45%			0.91%	0.91%		0.45%	0.45%	2.73%			7.27%	0.91%		61.36%	19.55%	3.18%
CC	9																					88.89%	11.11%		
C																									
Total	4152																								



Table 15	Issuers of Asset-Backed Securities - Commercial Mortgage-Backed Securities Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)			
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	4428	1.42%	0.29%	0.29%	0.07%	0.07%	0.41%	0.02%	0.07%	0.02%	0.05%	0.27%	0.20%		0.29%	0.07%	0.29%	0.05%	0.11%	0.07%	0.02%		3.36%	76.85%	15.70%
AA+	369	0.81%	1.63%		0.27%		0.27%		0.27%			0.81%		0.54%	0.27%	0.81%	1.90%	0.54%	0.27%				12.47%	72.63%	6.23%
AA	723	0.41%	0.83%	2.07%	0.41%	0.14%	0.69%		0.41%		0.55%	0.83%	0.28%	0.28%	0.69%		0.97%	0.55%	1.24%	0.83%	0.14%		18.67%	62.38%	7.61%
AA-	365	1.64%	0.82%	0.55%	0.55%	0.82%	0.55%		1.64%	0.27%	0.55%	0.82%	0.55%	0.27%	0.82%	0.27%	1.92%		0.55%	0.82%			27.12%	55.89%	3.56%
A+	286	0.35%	0.70%	0.70%	0.70%	0.70%			0.35%	1.05%	0.70%	0.35%	0.35%		0.35%	0.35%	1.40%		0.70%				26.92%	56.99%	7.34%
A	671	0.89%	1.19%	0.30%	0.45%	0.60%	1.04%	0.15%	0.15%	0.30%	0.30%	0.45%	0.30%		1.04%	0.45%	0.75%		0.45%	0.89%	0.15%		30.40%	51.42%	8.35%
A-	430	0.70%	1.63%	0.70%	0.70%	0.23%	0.47%	0.23%	0.47%	0.47%	0.47%	0.70%	0.23%		0.47%	0.93%	1.16%	0.23%	0.23%	1.16%			37.91%	46.74%	4.19%
BBB+	482	0.83%	1.66%		0.21%	0.62%	0.62%	0.21%	2.90%		0.62%		0.41%		0.41%	0.21%	0.83%	0.21%		0.62%			42.32%	43.57%	3.73%
BBB	727	0.41%	0.96%	0.28%	0.28%	0.41%	0.14%	0.41%	0.14%	0.55%		0.41%	0.41%	0.14%			0.69%	0.14%	0.69%	1.10%	0.14%		44.29%	43.19%	5.23%
BBB-	606	0.66%	1.16%				0.66%	0.17%	0.17%	0.99%		0.17%	0.17%					0.17%		0.83%	0.17%		52.48%	36.47%	5.78%
BB+	447	0.22%	1.12%	0.45%	0.22%	0.22%			0.22%	0.45%		0.67%		0.22%	0.22%		0.45%		0.22%	0.22%			58.84%	32.66%	3.58%
BB	494	0.20%	0.40%	0.81%		0.20%	0.20%		0.20%	0.20%	0.20%		0.40%		0.20%		0.40%			0.81%	0.20%		69.03%	24.09%	2.43%
BB-	372	0.27%	0.81%	0.54%	0.54%	0.27%	0.27%	0.27%	0.27%	0.27%		0.54%	0.27%	0.27%	0.27%								74.46%	17.74%	2.96%
B+	343		0.58%		0.29%	0.87%			0.29%				0.29%	0.58%	0.58%	0.29%	0.29%						78.72%	16.33%	0.87%
B	370		0.54%	0.27%		0.54%	0.54%			0.27%					0.27%	0.54%	0.54%						82.16%	13.24%	1.08%
B-	341	0.29%	0.29%	0.29%	0.29%			0.29%		0.29%	0.29%	0.29%				0.29%	0.88%	0.29%					84.46%	11.73%	
CCC+	24								4.17%														87.50%	8.33%	
CCC	33																						93.94%	3.03%	3.03%
CCC-	22																						95.45%	4.55%	
CC																									
C																									
Total	11533																								

Table 16		Issuers of Asset-Backed Securities - Collateralized Loan Obligations Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)				
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	1233	29.28%																						68.86%	1.87%	
AA+	286	13.99%	14.34%																					70.63%	1.05%	
AA	587	3.24%	1.02%	36.97%		0.17%																		55.37%	3.24%	
AA-	74	6.76%	2.70%	4.05%	21.62%																			62.16%	2.70%	
A+	195	4.62%	3.59%	2.05%	2.56%	15.38%	0.51%	1.03%	1.03%															69.23%		
A	476		1.47%	0.42%	1.05%	1.47%	38.87%	0.21%																53.57%	2.94%	
A-	37		5.41%			8.11%	2.70%	21.62%	2.70%															59.46%		
BBB+	153		2.61%		0.65%	6.54%	2.61%	0.65%	21.57%		0.65%													64.71%		
BBB	433				0.23%	0.23%	0.46%	0.23%	1.62%	47.58%														47.58%	2.08%	
BBB-	59			1.69%			1.69%	1.69%	5.08%		45.76%						1.69%		1.69%					40.68%		
BB+	126					0.79%		1.59%	11.90%	1.59%	0.79%	19.84%	0.79%	4.76%	3.17%	0.79%	0.79%							51.59%	1.59%	
BB	393								0.25%		0.25%	1.53%	54.20%		0.25%		0.25%							42.24%	1.02%	
BB-	115										0.87%	4.35%	0.87%	57.39%	0.87%									35.65%		
B+	73									1.37%		5.48%	4.11%	2.74%	28.77%	1.37%	4.11%						1.37%	50.68%		
B	162															67.28%	1.23%							31.48%		
B-	73								2.74%						2.74%		58.90%		1.37%					34.25%		
CCC+	19															5.26%	21.05%	21.05%	10.53%	10.53%	5.26%		26.32%			
CCC	12																	8.33%	33.33%	16.67%			41.67%			
CCC-	42														4.76%				4.76%	38.10%	23.81%		9.52%	19.05%		
CC	7																				71.43%		28.57%			
C																										
Total	4555																									

Table 17	Issuers of Asset-Backed Securities - Collateralized Loan Obligations Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	1341	6.71%																						91.42%	1.86%
AA+	465	5.59%	1.29%																					92.90%	0.22%
AA	681	3.38%	2.20%	8.81%		0.15%																		82.23%	3.23%
AA-	87	5.75%	2.30%	3.45%	2.30%																			86.21%	
A+	269	8.18%	3.72%	0.74%	1.86%	2.60%	0.74%	0.37%	0.74%															81.04%	
A	548	1.64%	1.64%	0.36%	1.64%	2.01%	9.49%	0.18%																80.11%	2.92%
A-	78	7.69%	3.85%			1.28%	1.28%	3.85%	1.28%															80.77%	
BBB+	263	2.66%	3.04%	0.76%	1.14%	4.18%	1.14%	0.76%	2.66%															83.65%	
BBB	472	0.42%	0.21%	0.21%	1.48%	0.42%	0.64%	0.21%	2.33%	20.76%	0.21%													70.76%	2.33%
BBB-	88		1.14%	1.14%		5.68%		2.27%	6.82%	1.14%	7.95%								1.14%					72.73%	
BB+	216		0.93%			2.78%	0.46%	0.93%	8.33%	0.46%	0.46%	3.70%		0.46%	0.46%		0.46%							80.09%	0.46%
BB	398				0.25%	0.25%			0.25%	0.75%	1.76%	30.40%	1.01%	0.25%	0.25%	0.25%	0.25%							63.07%	1.51%
BB-	89		1.12%						3.37%		3.37%	2.25%		22.47%	1.12%									66.29%	
B+	166		0.60%		0.60%	0.60%	0.60%		2.41%	2.41%	0.60%	9.04%		2.41%	9.04%	0.60%	1.20%							69.88%	
B	164											1.22%		1.83%	50.00%	4.27%								42.68%	
B-	76								2.63%		1.32%	2.63%		2.63%	2.63%	1.32%	10.53%		1.32%				1.32%	73.68%	
CCC+	78								1.28%		1.28%	2.56%	6.41%		3.85%	1.28%	5.13%	3.85%		2.56%	1.28%		1.28%	69.23%	
CCC	29												3.45%		10.34%		10.34%		13.79%	6.90%			3.45%	51.72%	
CCC-	86								1.16%						2.33%		1.16%	2.33%	4.65%	18.60%	12.79%		19.77%	37.21%	
CC	8																				50.00%		37.50%		12.50%
C																									
Total	5602																								

Table 18	Issuers of Asset-Backed Securities - Collateralized Loan Obligations Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	2018	1.93%	0.10%	0.25%	0.35%	0.35%	0.05%	0.05%	0.35%	0.05%	0.15%	0.05%					0.05%		0.05%				0.35%	87.76%	8.13%
AA+	26																							80.77%	19.23%
AA	776	4.51%	1.16%		0.26%	0.26%		0.13%	0.26%	0.13%					0.13%	0.13%			0.13%	0.13%			0.90%	87.63%	4.25%
AA-	27								3.70%	3.70%								3.70%		3.70%				59.26%	25.93%
A+	47				2.13%	4.26%	2.13%		2.13%											4.26%				76.60%	8.51%
A	844	2.37%	1.90%	0.24%	0.71%	1.18%	0.47%	0.12%	0.47%		0.12%	0.47%			0.12%		0.12%			0.59%	0.24%		1.66%	86.02%	3.20%
A-	111	1.80%	1.80%		1.80%	1.80%		0.90%	0.90%											0.90%	0.90%		3.60%	81.08%	4.50%
BBB+	42				2.38%			2.38%	2.38%						2.38%	2.38%					14.29%		2.38%	59.52%	11.90%
BBB	834	0.12%	0.36%	0.12%		0.36%	0.24%	0.36%	1.80%		0.24%	0.72%		0.12%	0.36%	0.24%	0.12%		0.12%	0.36%	0.60%		1.80%	86.21%	5.76%
BBB-	196		1.02%	0.51%		4.59%		0.51%	5.10%	2.04%	1.02%	1.02%		1.02%	1.02%		0.51%		0.51%				4.59%	67.35%	9.18%
BB+	32																				3.13%		12.50%	62.50%	21.88%
BB	567					0.18%			0.18%		0.53%	1.76%	0.53%	0.53%	1.94%	0.18%	1.06%		0.18%	0.71%			5.29%	83.77%	3.17%
BB-	128								2.34%			6.25%	3.91%	0.78%	6.25%	0.78%	3.91%	1.56%	0.78%	0.78%	0.78%		7.81%	63.28%	0.78%
B+	5																						40.00%	40.00%	20.00%
B	33											6.06%				3.03%		3.03%	6.06%	3.03%			12.12%	51.52%	15.15%
B-	4																							100.00%	
CCC+	3																						100.00%		
CCC																									
CCC-	14																						100.00%		
CC																									
C																									
Total	5707																								

Table 19	Issuers of Asset-Backed Securities - Collateralized Debt Obligations Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)			
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	121	66.94%	3.31%																					29.75%	
AA+	27	3.70%	70.37%																					25.93%	
AA	50			74.00%																				26.00%	
AA-	23		4.35%		60.87%		17.39%																	13.04%	4.35%
A+	27		7.41%	3.70%		48.15%	3.70%																	37.04%	
A	126				0.79%	23.81%	50.79%	0.79%	1.59%															22.22%	
A-	38				2.63%	13.16%	7.89%	44.74%	5.26%															26.32%	
BBB+	101					0.99%	2.97%	2.97%	62.38%	1.98%														27.72%	0.99%
BBB	41							12.20%	9.76%	39.02%	4.88%													34.15%	
BBB-	40							5.00%	20.00%	15.00%	2.50%				2.50%									52.50%	2.50%
BB+	39								7.69%			30.77%		2.56%										56.41%	2.56%
BB	20								5.00%			10.00%	20.00%											60.00%	5.00%
BB-	32											6.25%		12.50%									3.13%	78.13%	
B+	38											7.89%		5.26%	23.68%	2.63%	2.63%		5.26%					52.63%	
B	16					12.50%									6.25%	25.00%	12.50%							43.75%	
B-	34													2.94%			17.65%							50.00%	29.41%
CCC+	29											3.45%			3.45%	3.45%	3.45%	37.93%						48.28%	
CCC	36					2.78%			5.56%								2.78%		33.33%	5.56%	2.78%			27.78%	19.44%
CCC-	162								0.62%						0.62%		0.62%			70.99%	3.70%		4.94%	16.67%	1.85%
CC	66								1.52%			4.55%									72.73%		18.18%	3.03%	
C																									
Total	1066																								

Table 20	Issuers of Asset-Backed Securities - Collateralized Debt Obligations Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)			
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	113	38.05%			4.42%																			55.75%	1.77%
AA+	66	7.58%	16.67%	3.03%		4.55%	7.58%																	59.09%	1.52%
AA	73	9.59%		43.84%		1.37%	1.37%																	39.73%	4.11%
AA-	20		20.00%																					80.00%	
A+	63	3.17%	6.35%			7.94%	1.59%																	61.90%	19.05%
A	154		1.95%		1.30%	11.04%	33.77%	1.95%	1.30%															47.40%	1.30%
A-	72	1.39%		1.39%	2.78%			12.50%	8.33%	9.72%	2.78%	1.39%												41.67%	18.06%
BBB+	126		1.59%		3.97%	5.56%	0.79%	4.76%	13.49%	2.38%														57.94%	9.52%
BBB	70				1.43%	2.86%	1.43%	1.43%	12.86%	7.14%	1.43%	4.29%												42.86%	24.29%
BBB-	71							5.63%	1.41%	7.04%	5.63%		1.41%	4.23%	1.41%				2.82%					52.11%	18.31%
BB+	124					1.61%		2.42%	5.65%	1.61%		3.23%		1.61%		0.81%							0.81%	51.61%	30.65%
BB	53						1.89%		1.89%	1.89%		1.89%			1.89%									71.70%	18.87%
BB-	52						1.92%					3.85%					1.92%						1.92%	75.00%	15.38%
B+	103							0.97%	0.97%	0.97%		3.88%		0.97%		0.97%	1.94%							65.05%	24.27%
B	56					3.57%						1.79%	3.57%	1.79%	3.57%	3.57%	1.79%			5.36%	1.79%			48.21%	25.00%
B-	63											3.17%		1.59%	3.17%	1.59%	3.17%							60.32%	26.98%
CCC+	112											1.79%			1.79%	0.89%	3.57%	4.46%	0.89%	1.79%				61.61%	23.21%
CCC	61					1.64%			3.28%						3.28%		1.64%	3.28%	18.03%	1.64%	3.28%		3.28%	49.18%	11.48%
CCC-	391								0.77%			0.26%			0.77%		0.26%	1.02%		28.39%	4.60%		10.74%	39.13%	14.07%
CC	162								0.62%			1.23%									20.99%		32.10%	5.56%	39.51%
C																									
Total	2005																								

Table 21	Issuers of Asset-Backed Securities - Collateralized Debt Obligations Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	6126	0.69%	0.02%	0.15%	0.02%	0.13%	0.10%	0.11%	0.20%			0.03%	0.03%	0.05%	0.05%	0.05%		0.02%	0.03%	0.18%	0.13%		26.41%	50.24%	21.37%
AA+	377			0.27%	0.53%														0.27%				30.24%	50.66%	18.04%
AA	2020					0.10%			0.15%	0.10%	0.05%	0.15%			0.15%	0.05%	0.15%	0.15%		0.35%	0.54%		36.04%	46.19%	15.84%
AA-	509		0.39%		0.20%		5.50%	0.39%	0.59%										0.20%	0.39%			31.63%	45.19%	15.52%
A+	360					0.28%	0.56%		0.28%	0.83%		0.56%					0.28%	0.56%		1.94%	0.28%		38.33%	40.83%	15.28%
A	940						0.43%	0.11%	0.11%	0.11%		0.32%					0.11%	0.11%	0.11%	1.06%	0.96%		51.38%	31.60%	13.62%
A-	556					0.18%		0.36%	0.36%								0.18%		0.54%	1.08%	1.08%		38.85%	42.27%	15.11%
BBB+	383								1.04%	0.52%	0.26%								0.78%	0.78%	0.26%		44.13%	37.08%	15.14%
BBB	999					0.10%		0.20%	0.30%	0.10%	0.20%	0.40%				0.10%		0.20%	0.10%	1.20%	0.50%		60.76%	24.32%	11.51%
BBB-	499								0.20%					0.40%			0.40%	0.40%		1.60%	0.60%		49.70%	33.87%	12.83%
BB+	260																			1.15%	0.38%		70.00%	17.31%	11.15%
BB	370																0.27%			1.89%	2.16%		55.95%	26.22%	13.51%
BB-	137																			2.19%	0.73%		60.58%	20.44%	16.06%
B+	81																			1.23%			69.14%	19.75%	9.88%
B	106																			0.94%			64.15%	23.58%	11.32%
B-	88								1.14%														79.55%	7.95%	11.36%
CCC+	39																						97.44%	2.56%	
CCC	49																						87.76%	4.08%	8.16%
CCC-	90																						84.44%	10.00%	5.56%
CC	157																						89.81%	8.28%	1.91%
C																									
Total	14146																								

Table 22	Issuers of Asset-Backed Securities - Asset-Backed Commercial Paper Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)									
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)						Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)		
Credit Rating	Number of Ratings Outstanding	A-1+	A-1	A-2	A-3	B	C	Default	Paid Off	Withdrawn (Other)
A-1+	79	35.44%	1.27%						62.03%	1.27%
A-1	149		97.32%						0.67%	2.01%
A-2	19		21.05%	63.16%					10.53%	5.26%
A-3	1			100.00%						
B										
C										
Total	248									



Table 23		Issuers of Asset-Backed Securities - Asset-Backed Commercial Paper Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)						Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
Credit Rating	Number of Ratings Outstanding	A-1+	A-1	A-2	A-3	B	C	Default	Paid Off	Withdrawn (Other)
A-1+	90	22.22%	1.11%						67.78%	8.89%
A-1	167	0.60%	68.26%	2.40%					10.78%	17.96%
A-2	8			50.00%					25.00%	25.00%
A-3	1			100.00%						
B										
C										
Total	266									

Table 24	Issuers of Asset-Backed Securities - Asset-Backed Commercial Paper Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)									
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)						Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
Credit Rating	Number of Ratings Outstanding	A-1+	A-1	A-2	A-3	B	C	Default	Paid Off	Withdrawn (Other)
A-1+	423	0.95%	2.84%	0.71%				2.36%	36.17%	56.97%
A-1	151		21.85%	2.65%				0.66%	25.83%	49.01%
A-2	7							14.29%	71.43%	14.29%
A-3	1									100.00%
B										
C										
Total	582									

Table 25	Issuers of Asset-Backed Securities - Other Asset-Backed Securities Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																									
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)			
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	1653	67.03%					0.06%																	32.37%	0.54%	
AA+	522	13.98%	74.90%				0.96%																	10.15%		
AA	687	7.71%	2.47%	75.84%			1.02%			0.15%														12.81%		
AA-	106	13.21%	6.60%	5.66%	33.02%	0.94%																		38.68%	1.89%	
A+	211	8.53%	4.27%	4.27%	1.90%	65.40%																		15.17%	0.47%	
A	596	5.37%	2.35%	3.52%	1.68%	2.52%	68.79%	2.18%					0.34%											13.09%	0.17%	
A-	130	7.69%	2.31%	3.08%		3.85%	4.62%	62.31%	1.54%		1.54%		0.77%											12.31%		
BBB+	298	0.34%	1.68%	1.68%	1.01%	2.01%	2.01%	21.81%	54.36%	1.01%	1.34%		1.01%											11.74%		
BBB	368	0.27%	0.27%	0.82%	1.63%	1.09%	4.62%	7.07%	2.99%	63.04%	0.82%	1.36%	2.99%											13.04%		
BBB-	65			6.15%				1.54%	3.08%	9.23%	43.08%	1.54%	3.08%											24.62%	7.69%	
BB+	30				6.67%					6.67%	3.33%	66.67%	6.67%											10.00%		
BB	111			0.90%		0.90%	2.70%	0.90%	2.70%	7.21%	1.80%	2.70%	63.96%	1.80%			0.90%				0.90%			10.81%	1.80%	
BB-	26								11.54%				3.85%	65.38%	7.69%									11.54%		
B+	30									3.33%					76.67%								3.33%	16.67%		
B	34								2.94%		2.94%		2.94%	2.94%		61.76%								26.47%		
B-	65												1.54%	1.54%	3.08%	87.69%								6.15%		
CCC+	25														4.00%	4.00%		92.00%								
CCC	62																		77.42%	12.90%	3.23%			6.45%		
CCC-	27																	7.41%	3.70%	81.48%	3.70%		3.70%			
CC	81																				91.36%		7.41%		1.23%	
C																										
Total	5127																									

Table 26	Issuers of Asset-Backed Securities - Other Asset-Backed Securities Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	1360	28.01%	0.15%				0.15%	0.29%																70.88%	0.51%
AA+	695	16.83%	43.60%	0.14%			0.72%						0.14%											38.56%	
AA	626	5.27%	1.44%	44.25%		0.16%	1.12%			0.16%			0.16%											47.28%	0.16%
AA-	151	9.27%	1.32%	6.62%	8.61%																			73.51%	0.66%
A+	310	8.71%	2.90%	15.48%	0.97%	24.19%			0.32%															47.10%	0.32%
A	559	7.51%	3.22%	3.94%	0.89%	2.33%	31.48%	4.47%	0.36%		0.36%													44.54%	0.89%
A-	279	2.51%				1.43%	3.23%	32.26%	0.36%	1.43%														26.16%	0.36%
BBB+	80	17.50%	5.00%			1.25%		2.50%	21.25%	1.25%			2.50%								1.25%			46.25%	1.25%
BBB	373	3.75%	1.61%	1.88%	0.27%	1.07%	2.95%	3.49%	2.68%	27.35%	0.54%	0.27%	1.34%			0.27%								51.47%	1.07%
BBB-	57			7.02%		1.75%	1.75%			3.51%	12.28%	1.75%	5.26%				3.51%							54.39%	8.77%
BB+	52	5.77%	1.92%	5.77%	3.85%	1.92%	3.85%		1.92%	1.92%		26.92%	1.92%	1.92%							1.92%		1.92%	38.46%	
BB	95	1.05%		4.21%		3.16%	4.21%	2.11%	4.21%	6.32%	2.11%	2.11%	17.89%		1.05%	1.05%	1.05%						1.05%	48.42%	
BB-	32							3.13%	12.50%	9.38%		3.13%	6.25%	9.38%	3.13%			25.00%			3.13%			25.00%	
B+	31								3.23%	9.68%	3.23%				48.39%	3.23%							3.23%	29.03%	
B	54	1.85%					1.85%	1.85%	1.85%		1.85%			1.85%	1.85%	1.85%	5.56%		3.70%	14.81%	1.85%			57.41%	1.85%
B-	83									1.20%	2.41%	1.20%		2.41%	3.61%	4.82%	60.24%	1.20%	6.02%		1.20%			15.66%	
CCC+	14																	92.86%						7.14%	
CCC	57															1.75%	3.51%	1.75%	68.42%		10.53%		3.51%	10.53%	
CCC-	55									3.64%					1.82%	1.82%		3.64%	3.64%	40.00%	21.82%		9.09%	3.64%	10.91%
CC	78			1.28%																	69.23%		21.79%	6.41%	1.28%
C																									
Total	5041																								

Table 27	Issuers of Asset-Backed Securities - Other Asset-Backed Securities Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	4768	4.15%	4.59%	0.29%	0.08%	0.27%	0.15%	0.34%	0.15%	0.27%	0.02%	0.10%	0.04%		0.04%	0.04%	0.25%	0.17%	0.38%	0.29%	0.36%		0.10%	80.77%	7.13%
AA+	89	1.12%		49.44%	1.12%	3.37%	3.37%		1.12%														2.25%	38.20%	
AA	374		1.07%	5.88%		0.80%	0.80%		5.35%			0.27%			0.27%	0.27%			0.53%	0.53%	0.27%		2.41%	76.47%	5.08%
AA-	185		1.62%	2.70%			0.54%	3.78%	25.95%	0.54%														63.24%	1.62%
A+	258		0.39%	1.55%				21.32%	0.78%												0.39%		1.16%	71.71%	2.71%
A	765	0.39%	1.70%	4.44%	1.31%	0.65%	0.39%	0.65%	0.39%	0.13%	0.92%		1.05%	0.13%	0.26%		0.78%	0.26%	0.13%		1.05%		3.40%	76.21%	5.75%
A-	51				3.92%	1.96%		3.92%																80.39%	9.80%
BBB+	83			1.20%							2.41%	3.61%	2.41%		1.20%				1.20%		1.20%		7.23%	74.70%	4.82%
BBB	789				0.13%	0.25%	0.63%	0.63%	1.27%	1.65%	0.51%	0.51%	0.63%	0.25%	1.14%	0.38%	3.93%	0.63%	0.76%	0.38%			2.79%	78.96%	4.56%
BBB-	42							7.14%		2.38%		4.76%						4.76%	14.29%		2.38%			52.38%	11.90%
BB+	27														3.70%		3.70%						11.11%	70.37%	3.70%
BB	124								0.81%	0.81%			1.61%						1.61%		1.61%		8.06%	80.65%	4.84%
BB-	40						2.50%									2.50%	2.50%	7.50%	7.50%	2.50%			15.00%	50.00%	10.00%
B+	12									8.33%				8.33%			8.33%					25.00%		50.00%	
B	25								4.00%	4.00%							8.00%	4.00%			8.00%		28.00%	28.00%	16.00%
B-	37									2.70%	2.70%	2.70%		2.70%			2.70%	5.41%	16.22%	16.22%	2.70%		10.81%	29.73%	5.41%
CCC+	10																	20.00%		10.00%	50.00%		20.00%		
CCC	34															2.94%			2.94%	5.88%	29.41%		41.18%	8.82%	8.82%
CCC-	56																			1.79%	35.71%		58.93%	3.57%	
CC	3																				33.33%		33.33%	33.33%	
C																									
Total	7772																								

Table 28	Issuers of Asset-Backed Securities - Other Structured Finance Products Issues Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)			
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	4	75.00%																						25.00%	
AA+	11		90.91%																					9.09%	
AA	27			100.00%																					
AA-	31				67.74%	9.68%	3.23%																	19.35%	
A+	13	7.69%				53.85%																		38.46%	
A	24	8.33%					37.50%																	54.17%	
A-	35						5.71%	42.86%	20.00%															31.43%	
BBB+	101							1.98%	78.22%															19.80%	
BBB	35								5.71%	45.71%	2.86%													45.71%	
BBB-	14								7.14%		71.43%													21.43%	
BB+	12										50.00%	41.67%												8.33%	
BB	20											5.00%	65.00%											30.00%	
BB-	6													50.00%		16.67%								33.33%	
B+	5														40.00%	40.00%								20.00%	
B	5															80.00%								20.00%	
B-	9															88.89%	11.11%								
CCC+	1																		100.00%						
CCC	6																		66.67%				33.33%		
CCC-																									
CC																									
C																									
Total	359																								

Table 29	Issuers of Asset-Backed Securities - Other Structured Finance Products Issues Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	45	2.22%			2.22%																			95.56%	
AA+	21		47.62%																					52.38%	
AA	36			75.00%	19.44%																			5.56%	
AA-	17				29.41%	29.41%	5.88%		11.76%															23.53%	
A+	28	3.57%				14.29%	10.71%		3.57%															67.86%	
A	39	7.69%				2.56%	10.26%	10.26%	7.69%															58.97%	2.56%
A-	71					1.41%	12.68%	43.66%																42.25%	
BBB+	63						1.59%	4.76%	52.38%	1.59%	3.17%													36.51%	
BBB	42								2.38%	30.95%	4.76%	2.38%												52.38%	7.14%
BBB-	29								20.69%		24.14%	3.45%	6.90%											44.83%	
BB+	11								36.36%			36.36%	9.09%											18.18%	
BB	46								8.70%		13.04%		19.57%											58.70%	
BB-	13								7.69%					15.38%		30.77%								46.15%	
B+	3												33.33%	33.33%										33.33%	
B	6																		16.67%						83.33%
B-	6														33.33%	50.00%	16.67%		16.67%						
CCC+	1																		100.00%						
CCC	5																		60.00%			40.00%			
CCC-	11															72.73%								27.27%	
CC	1																							100.00%	
C																									
Total	494																								

Table 30	Issuers of Asset-Backed Securities - Other Structured Finance Products Issues Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	646	0.77%	0.77%	3.25%	0.15%	0.31%	0.46%	0.62%	6.04%			0.31%	0.15%		0.31%	0.46%	0.15%		0.46%				1.39%	61.76%	22.60%
AA+	6																							50.00%	50.00%
AA	72				2.78%	1.39%																	1.39%	62.50%	31.94%
AA-	90						2.22%		2.22%														14.44%	64.44%	16.67%
A+	109				3.67%	1.83%		1.83%	0.92%		3.67%												7.34%	59.63%	21.10%
A	148								16.22%		2.70%		4.73%										4.73%	58.11%	13.51%
A-	49								4.08%	2.04%	8.16%												2.04%	59.18%	24.49%
BBB+	65						3.08%		9.23%							3.08%							4.62%	64.62%	15.38%
BBB	71							2.82%			4.23%	1.41%				1.41%							7.04%	69.01%	14.08%
BBB-	59									6.78%		1.69%		3.39%		13.56%							8.47%	49.15%	16.95%
BB+	27								3.70%				7.41%			3.70%								77.78%	7.41%
BB	25									16.00%									4.00%				32.00%	32.00%	16.00%
BB-	21																							71.43%	28.57%
B+	18											5.56%												83.33%	11.11%
B	13																						30.77%	69.23%	
B-	12																		8.33%				50.00%	41.67%	
CCC+	14																						92.86%	7.14%	
CCC																									
CCC-																									
CC	3																							66.67%	33.33%
C																									
Total	1448																								



Table 31	Sovereign Issuers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)		
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	12	91.67%	8.33%																						
AA+	4		100.00%																						
AA	9			77.78%	22.22%																				
AA-	5				80.00%	20.00%																			
A+	5					100.00%																			
A	5					20.00%	40.00%	20.00%	20.00%																
A-	10							90.00%	10.00%																
BBB+	5						20.00%		60.00%	20.00%															
BBB	4									75.00%		25.00%													
BBB-	10									20.00%	70.00%		10.00%												
BB+	7										42.86%	42.86%	14.29%												
BB	5											20.00%	80.00%												
BB-	9												11.11%	66.67%	22.22%										
B+	11													9.09%	81.82%	9.09%									
B	12															83.33%	16.67%								
B-	15														6.67%	13.33%	60.00%	6.67%	6.67%				6.67%		
CCC+																									
CCC	1																			100.00%					
CCC-																									
CC	1																100.00%								
C																									
Total	130																								

Table 32	Sovereign Issuers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	12	83.33%	8.33%	8.33%																					
AA+	8	12.50%	50.00%		37.50%																				
AA	6			83.33%	16.67%																				
AA-	7			14.29%	28.57%	42.86%		14.29%																	
A+	1					100.00%																			
A	9					22.22%	22.22%	22.22%	22.22%				11.11%												
A-	7					14.29%		85.71%																	
BBB+	8							12.50%	25.00%	25.00%	12.50%	12.50%	12.50%												
BBB	7								14.29%	28.57%	14.29%	28.57%			14.29%										
BBB-	8						12.50%			25.00%	50.00%	12.50%													
BB+	3										66.67%		33.33%												
BB	6										33.33%		50.00%	16.67%											
BB-	10												10.00%	40.00%	10.00%	20.00%	10.00%								
B+	13											7.69%		7.69%	46.15%	7.69%	23.08%					7.69%		10.00%	
B	12													8.33%	16.67%	50.00%	16.67%		8.33%						
B-	9															44.44%	44.44%	11.11%							
CCC+	3														33.33%		33.33%			33.33%					
CCC																									
CCC-																									
CC																									
C																									
Total	129																								

Table 33	Sovereign Issuers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	20	55.00%	20.00%	10.00%		5.00%			5.00%															5.00%	
AA+	1			100.00%																					
AA	8		12.50%	12.50%	12.50%	37.50%	12.50%			12.50%															
AA-	6			16.67%	33.33%	16.67%		16.67%			16.67%														
A+	8			25.00%			12.50%	25.00%	12.50%	12.50%		12.50%													
A	12				8.33%	16.67%		33.33%					8.33%		8.33%								16.67%		8.33%
A-	3										33.33%	33.33%							33.33%						
BBB+	5							20.00%		20.00%	40.00%		20.00%												
BBB	5										60.00%		20.00%		20.00%										
BBB-	5							20.00%			40.00%			20.00%			20.00%								
BB+	7									14.29%	14.29%		14.29%	28.57%	14.29%								14.29%		
BB	7									14.29%		14.29%			14.29%	42.86%	14.29%								
BB-	8												12.50%		37.50%	12.50%	12.50%		12.50%					12.50%	
B+	10									10.00%				20.00%	30.00%	12.50%	12.50%							20.00%	
B	8												12.50%			25.00%	12.50%						25.00%	25.00%	
B-	4												25.00%				25.00%						50.00%		
CCC+																									
CCC																									
CCC-																									
CC																									
C																									
Total	117																								

Table 34	U.S. Public Finance Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)		
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	1148	98.00%	0.52%		0.17%																			0.44%	1.10%
AA+	3022	0.53%	92.00%	0.73%																				0.69%	5.60%
AA	3375	0.03%	2.90%	88.00%	4.00%	0.33%	0.03%	0.03%																0.33%	4.50%
AA-	3947		0.10%	2.90%	90.00%	2.00%	0.30%	0.03%	0.08%															0.61%	3.70%
A+	5095			0.16%	3.40%	90.00%	1.80%	0.33%	0.04%	0.04%														0.71%	3.40%
A	3466			0.12%	0.61%	4.90%	85.00%	1.90%	0.40%	0.06%		0.09%				0.03%								1.20%	5.50%
A-	1486		0.07%		0.13%	1.10%	5.00%	84.00%	2.70%	0.61%	0.27%	0.34%											0.07%	1.50%	4.30%
BBB+	712					0.56%	0.84%	6.00%	83.00%	1.50%	0.42%	0.14%	0.28%		0.14%									1.10%	6.20%
BBB	473						0.21%	0.63%	6.80%	79.00%	3.40%	1.50%	0.63%	0.21%				0.21%	0.42%				0.21%	1.70%	5.30%
BBB-	344				0.29%	0.58%		0.29%	0.87%	6.10%	77.00%	6.10%	0.87%	0.29%		0.29%			0.58%					2.30%	4.40%
BB+	155						5.80%	0.65%		0.65%	3.90%	68.00%	8.40%	1.30%				0.65%						1.90%	8.40%
BB	103								0.97%	0.97%		6.80%	65.00%	11.00%	5.80%									1.90%	7.80%
BB-	34											2.90%	8.80%	53.00%	15.00%	2.90%	2.90%		2.90%				5.90%	2.90%	2.90%
B+	22													9.10%	64.00%	4.50%		14.00%							9.10%
B	24												4.20%		8.30%	75.00%	4.20%								8.30%
B-	24						4.20%				4.20%						67.00%			4.20%					21.00%
CCC+	6												33.00%		17.00%			50.00%							
CCC	4																		75.00%					25.00%	
CCC-																									
CC	25																	4.00%			32.00%		64.00%		
C																									
Total	23465																								

Table 35	U.S. Public Finance Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																									
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																				Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)				
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	1051	89.72%	1.62%	0.48%	0.19%				0.10%			0.10%												1.90%	5.90%	
AA+	3005	2.50%	76.74%	1.73%	0.57%	0.07%						0.03%	0.03%										0.03%	2.30%	16.01%	
AA	3239	0.37%	7.04%	73.66%	4.54%	0.74%	0.15%	0.03%		0.03%														1.57%	11.86%	
AA-	3779		0.82%	8.28%	72.88%	5.29%	0.85%	0.21%	0.08%									0.03%						1.64%	9.92%	
A+	4787		0.08%	0.63%	8.92%	73.05%	3.93%	1.00%	0.25%	0.13%			0.04%			0.02%								1.80%	10.15%	
A	3323			0.24%	1.50%	13.09%	62.71%	3.67%	1.20%	0.30%	0.09%	0.30%	0.12%		0.06%	0.03%	0.03%						0.03%	2.53%	14.08%	
A-	1652		0.12%	0.06%	1.21%	3.09%	16.40%	48.67%	9.44%	1.03%	0.48%	0.30%		0.06%	0.12%									4.78%	14.23%	
BBB+	568				0.53%	1.58%	2.82%	20.25%	46.48%	5.28%	1.23%	1.41%	0.35%	0.18%	0.18%	0.35%		0.88%	0.18%					3.52%	14.79%	
BBB	483				0.41%	1.45%	2.07%	6.00%	17.39%	46.38%	5.18%	2.28%	2.07%	0.21%	0.21%				0.21%					0.83%	6.00%	9.32%
BBB-	373				0.27%	1.34%	1.88%	2.14%	3.49%	12.06%	48.26%	9.12%	2.68%	1.88%	0.54%	0.27%		0.27%						0.54%	6.17%	9.12%
BB+	143						8.39%	1.40%	1.40%	2.10%	8.39%	32.17%	11.89%	2.10%	2.10%				0.70%					0.70%	5.59%	23.08%
BB	81						1.23%	2.47%	3.70%	2.47%	2.47%	8.64%	24.69%	13.58%	4.94%		1.23%	1.23%			4.94%			9.88%	7.41%	11.11%
BB-	56						3.57%			1.79%	1.79%	3.57%	7.14%	8.93%	8.93%	3.57%	3.57%				5.36%			23.21%	14.29%	14.29%
B+	16							6.25%		6.25%				12.50%	25.00%	12.50%		6.25%							12.50%	18.75%
B	27												3.70%	3.70%		37.04%	7.41%							18.52%	18.52%	11.11%
B-	17												11.76%		5.88%		52.94%							5.88%		23.53%
CCC+	3										33.33%						33.33%	33.33%								
CCC	10					10.00%						10.00%							10.00%					20.00%	30.00%	20.00%
CCC-	1																100.00%									
CC	10														10.00%				10.00%		10.00%			50.00%	10.00%	10.00%
C																										
Total	22624																									

Table 36	U.S. Public Finance Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	2609	13.38%	21.20%	0.88%	0.61%	0.04%	0.19%		0.08%			0.08%	0.11%	0.04%	0.11%	0.08%	0.04%				0.04%		0.04%	23.19%	39.90%
AA+	833	16.93%	25.93%	4.08%	0.96%	0.24%						0.12%											9.72%	42.02%	
AA	1761	9.03%	18.85%	21.52%	4.49%	1.93%	0.62%	0.45%	0.28%	0.17%	0.06%	0.06%				0.06%						0.11%	8.57%	33.79%	
AA-	2094	2.39%	9.22%	18.58%	13.18%	2.53%	1.00%	0.29%	1.86%	0.19%		0.05%				0.05%	0.05%		0.05%			0.05%	2.72%	47.80%	
A+	1997	0.75%	6.21%	15.02%	18.38%	14.87%	3.91%	1.25%	0.20%	0.30%	0.10%	0.10%			0.05%							0.10%	5.31%	33.45%	
A	2537	0.12%	2.44%	6.94%	15.25%	19.43%	10.09%	2.13%	0.83%	0.43%	0.20%	0.16%	0.12%	0.24%		0.04%	0.04%	0.04%	0.04%			0.35%	4.97%	36.15%	
A-	1769		0.85%	3.73%	9.50%	18.71%	14.30%	8.14%	2.15%	0.90%	0.62%	0.17%	0.06%	0.11%	0.11%	0.06%	0.06%					0.06%	6.61%	33.86%	
BBB+	870	0.11%	0.57%	1.95%	8.05%	17.93%	14.94%	8.62%	5.06%	1.61%	0.46%	0.11%	0.11%		0.11%				0.23%			0.69%	7.93%	31.49%	
BBB	765		0.26%	1.18%	3.40%	8.37%	16.34%	10.20%	4.05%	6.27%	1.18%	1.05%	0.52%	0.13%	0.26%	0.26%	0.13%	0.13%	0.13%			0.78%	12.55%	32.81%	
BBB-	427		0.23%	0.23%	0.94%	2.81%	3.98%	10.77%	10.07%	8.20%	7.49%	3.28%	1.41%	0.70%	0.94%	0.47%	0.47%	0.23%	0.23%		0.94%	3.51%	13.82%	29.27%	
BB+	52					1.92%	1.92%			5.77%	7.69%		1.92%	3.85%		1.92%						3.85%	21.15%	50.00%	
BB	62			1.61%	3.23%	1.61%		1.61%	1.61%		3.23%	3.23%	4.84%			3.23%	1.61%					4.84%	35.48%	33.87%	
BB-	18									11.11%						5.56%	5.56%					5.56%	27.78%	44.44%	
B+	6																						50.00%	50.00%	
B	28						7.14%	3.57%	3.57%			3.57%		3.57%		3.57%						7.14%	21.43%	46.43%	
B-	9						11.11%							11.11%			11.11%					11.11%	33.33%	22.22%	
CCC+																									
CCC	8																					37.50%	12.50%	50.00%	
CCC-	1																					100.00%			
CC	5																					20.00%		80.00%	
C	6										16.67%							16.67%				33.33%		33.33%	
Total	15857																								

Table 37	International Public Finance Issuers Ratings 1 Year Transition and Default Rates (December 31, 2016 through December 31, 2017)																								
Credit Rating as of 12/31/2016		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2016 - 12/31/2017 (Percent)		
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	28	100.00%																							
AA+	35	2.86%	94.29%	2.86%																					
AA	42		4.76%	88.10%		2.38%																		4.76%	
AA-	26			15.38%	69.23%	3.85%																		11.54%	
A+	25				20.00%	76.00%																		4.00%	
A	12						100.00%																		
A-	8							87.50%	12.50%																
BBB+	17								94.12%															5.88%	
BBB	12								16.67%	58.33%	8.33%													16.67%	
BBB-	24									25.00%	41.67%													33.33%	
BB+	22										22.73%	68.18%	4.55%											4.55%	
BB	16											6.25%	93.75%												
BB-	19												15.79%	57.89%	10.53%									15.79%	
B+	6														83.33%									16.67%	
B	2															100.00%									
B-	12														41.67%	25.00%	25.00%							8.33%	
CCC+	1																	100.00%							
CCC																									
CCC-																									
CC																									
C																									
Total	307																								

Table 38	International Public Finance Issuers Ratings 3 Year Transition and Default Rates (December 31, 2014 through December 31, 2017)																								
Credit Rating as of 12/31/2014		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2014 - 12/31/2017 (Percent)		
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	30	90.00%		3.33%		3.33%																			3.33%
AA+	36	2.78%	83.33%	8.33%	2.78%																				2.78%
AA	40	2.50%	7.50%	67.50%	2.50%	2.50%																			17.50%
AA-	29			24.14%	34.48%	13.79%																			27.59%
A+	33			3.03%	30.30%	36.36%	3.03%																		27.27%
A	7						57.14%																		42.86%
A-	9						55.56%	33.33%	11.11%																
BBB+	5						20.00%		80.00%																
BBB	10								50.00%	20.00%	10.00%		10.00%												10.00%
BBB-	31								3.23%	29.03%	9.68%	9.68%	6.45%		3.23%		3.23%					3.23%			32.26%
BB+	22										27.27%	40.91%	9.09%	4.55%	4.55%										13.64%
BB	14											7.14%	71.43%		7.14%			7.14%							7.14%
BB-	17												23.53%	52.94%	5.88%										17.65%
B+	5														40.00%	20.00%									40.00%
B	5																								80.00%
B-	4															25.00%									75.00%
CCC+																									
CCC																									
CCC-	11														36.36%	18.18%	9.09%					9.09%			27.27%
CC																									
C																									
Total	308																								



Table 39	International Public Finance Issuers Ratings 10 Year Transition and Default Rates (December 31, 2007 through December 31, 2017)																								
Credit Rating as of 12/31/2007		Credit Ratings as of 12/31/2017 (Percent)																					Other Outcomes During 12/31/2007 - 12/31/2017 (Percent)		
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	32	46.88%	18.75%	12.50%		3.13%	6.25%																		12.50%
AA+	34	23.53%	26.47%	11.76%		2.94%			5.88%		2.94%														26.47%
AA	30	3.33%	20.00%	30.00%		6.67%	3.33%		10.00%	3.33%					3.33%										20.00%
AA-	26	3.85%	23.08%	15.38%	7.69%	7.69%							3.85%												38.46%
A+	36			11.11%	13.89%	5.56%				13.89%	2.78%														52.78%
A	16			6.25%	18.75%	6.25%	12.50%																		56.25%
A-	8				25.00%		12.50%	12.50%			12.50%														37.50%
BBB+	11						9.09%		18.18%			9.09%													63.64%
BBB	5								20.00%	20.00%			20.00%												40.00%
BBB-	9										22.22%	33.33%			11.11%										33.33%
BB+	30									10.00%	13.33%	10.00%	16.67%	3.33%									16.67%		30.00%
BB	28										3.57%	10.71%	21.43%	7.14%		3.57%							10.71%		42.86%
BB-	30											3.33%	6.67%	6.67%	3.33%								6.67%		73.33%
B+	20											10.00%	5.00%	10.00%	20.00%	5.00%							15.00%		35.00%
B	5																								100.00%
B-	2																					50.00%			50.00%
CCC+																									
CCC																									
CCC-																									
CC																									
C																									
Total	322																								

**S&P Global Ratings Definitions**

[https://www.standardandpoors.com/en\\_US/web/guest/article/-/view/sourceId/504352](https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceId/504352)

The above URL represents the location of the Ratings Definitions page on S&P Global 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 S&P Global Ratings classifies obligors, securities, or money market instruments as being in default.

# S&P Global Ratings Definitions

June 26, 2017

*(Editor's Note: We republished this article on March 19, 2018, to update the relevant contacts. Previously, on June 26, 2017, we republished this article to revise the definitions of fund credit quality ratings and fund volatility ratings, add the definitions of national scale fund credit quality ratings and national scale fund volatility ratings, remove Canadian fund sensitivity ratings, remove a sentence offering an example of short-term obligations in paragraph 6, and make various minor refinements to wording.)*

## S&P Global Ratings Disclaimers

The analyses, including ratings, of S&P Global Ratings and its affiliates (together, S&P Global Ratings) are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or make any investment decisions. S&P Global Ratings assumes no obligation to update any information following publication. Users of ratings or other analyses should not rely on them in making any investment decision. S&P Global Ratings' opinions and analyses do not address the suitability of any security. S&P Global Ratings does not act as a fiduciary or an investment advisor except where registered as such. While S&P Global Ratings has obtained information from sources it believes to be reliable, it does not perform an audit and undertakes no duty of due diligence or independent verification of any information it receives. Ratings and other opinions may be changed, suspended, or withdrawn at any time.

1. This document contains S&P Global Ratings' credit rating definitions. The definitions are classified into two types: general-purpose credit ratings and special-purpose ratings. S&P Global Ratings uses letters, numbers, words, or combinations of these in each ratings scale to summarize its opinion. The rating definitions provide the meaning of the letters, numbers, and words. Additionally, some ratings feature qualifiers, suffixes, identifiers, prefixes, or a combination of these. Definitions of this supplementary information are included.
2. Section I describes the general-purpose credit rating, both issue and issuer credit ratings, and the long-term and short-term credit ratings. Section II provides information on CreditWatch, rating outlooks and local currency and foreign currency ratings. Special-purpose ratings are detailed in section III. Qualifiers are covered in section IV. Section V details national and regional scale ratings. Other credit-related opinions are described in section VI. Section VII details seven identifiers. Section IX includes a list of contacts for further information.
3. S&P Global Ratings provides other services not covered in this ratings definitions document. Information about other products and services is located on the S&P Global Ratings website at <http://www.standardandpoors.com>.

## I. GENERAL-PURPOSE CREDIT RATINGS

4. The following sets of rating definitions are for long-term and short-term credit ratings for both issuer and issue ratings. These types of credit ratings cover the broadest set of credit risk factors and are not limited in scope. Some refer to these as the "traditional" credit ratings.

### A. Issue Credit Ratings

5. An S&P Global Ratings issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific financial obligation, a specific class of financial obligations, or a specific financial program (including ratings on medium-term note programs and commercial paper programs). It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the obligation and takes into account the currency in which the obligation is denominated. The opinion reflects S&P Global Ratings' view of the obligor's capacity and willingness to meet its financial commitments as they come due, and this opinion may assess terms, such as collateral security and subordination, which could affect ultimate payment in the event of default.
6. Issue credit ratings can be either long-term or short-term. Short-term ratings are generally assigned to those obligations considered short-term in the relevant market. Short-term ratings are also used to indicate the creditworthiness of an obligor with respect to put features on long-term obligations. Medium-term notes are assigned long-term ratings.

### 1. Long-Term Issue Credit Ratings

7. Issue credit ratings are based, in varying degrees, on S&P Global Ratings' analysis of the following considerations:
  - The likelihood of payment--the capacity and willingness of the obligor to meet its financial commitments on an obligation in accordance with the terms of the obligation;
  - The nature and provisions of the financial obligation, and the promise we impute; and
  - The protection afforded by, and relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.
8. Issue ratings are an assessment of default risk but may incorporate an assessment of relative seniority or ultimate recovery in the event of default. Junior obligations are typically rated lower than senior obligations, to reflect the lower priority in bankruptcy, as noted above. (Such differentiation may apply when an entity has both senior and subordinated obligations, secured and unsecured obligations, or operating company and holding company obligations.)

Table 1

### Long-Term Issue Credit Ratings\*

Category	Definition
AAA	An obligation rated 'AAA' has the highest rating assigned by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is extremely strong.
AA	An obligation rated 'AA' differs from the highest-rated obligations only to a small degree. The obligor's capacity to meet its financial commitments on the obligation is very strong.

Table 1

**Long-Term Issue Credit Ratings\* (cont.)**

Category	Definition
A	An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitments on the obligation is still strong.
BBB	An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.
BB, B, CCC, CC, and C	Obligations rated 'BB', 'B', 'CCC', 'CC', and 'C' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'C' the highest. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.
BB	An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments on the obligation.
B	An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB', but the obligor currently has the capacity to meet its financial commitments on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments on the obligation.
CCC	An obligation rated 'CCC' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments on the obligation.
CC	An obligation rated 'CC' is currently highly vulnerable to nonpayment. The 'CC' rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
C	An obligation rated 'C' is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared with obligations that are rated higher.
D	An obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within five business days in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.
NR	This indicates that no rating has been requested, or that there is insufficient information on which to base a rating, or that S&P Global Ratings does not rate a particular obligation as a matter of policy.

\*The ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**2. Short-Term Issue Credit Ratings**

Table 2

**Short-Term Issue Credit Ratings**

Category	Definition
A-1	A short-term obligation rated 'A-1' is rated in the highest category by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations is extremely strong.

Table 2

**Short-Term Issue Credit Ratings (cont.)**

Category	Definition
A-2	A short-term obligation rated 'A-2' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitments on the obligation is satisfactory.
A-3	A short-term obligation rated 'A-3' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken an obligor's capacity to meet its financial commitments on the obligation.
B	A short-term obligation rated 'B' is regarded as vulnerable and has significant speculative characteristics. The obligor currently has the capacity to meet its financial commitments; however, it faces major ongoing uncertainties that could lead to the obligor's inadequate capacity to meet its financial commitments.
C	A short-term obligation rated 'C' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation.
D	A short-term obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

**B. Issuer Credit Ratings**

9. An S&P Global Ratings issuer credit rating is a forward-looking opinion about an obligor's overall creditworthiness. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. It does not apply to any specific financial obligation, as it does not take into account the nature of and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation.
10. Counterparty credit ratings, corporate credit ratings, and sovereign credit ratings are all forms of issuer credit ratings.
11. Issuer credit ratings can be either long-term or short-term.

**1. Long-Term Issuer Credit Ratings**

Table 3

**Long-Term Issuer Credit Ratings\***

Category	Definition
AAA	An obligor rated 'AAA' has extremely strong capacity to meet its financial commitments. 'AAA' is the highest issuer credit rating assigned by S&P Global Ratings.
AA	An obligor rated 'AA' has very strong capacity to meet its financial commitments. It differs from the highest-rated obligors only to a small degree.
A	An obligor rated 'A' has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in higher-rated categories.

Table 3

**Long-Term Issuer Credit Ratings\* (cont.)**

Category	Definition
BBB	An obligor rated 'BBB' has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.
BB, B, CCC, and CC	Obligors rated 'BB', 'B', 'CCC', and 'CC' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'CC' the highest. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.
BB	An obligor rated 'BB' is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments.
B	An obligor rated 'B' is more vulnerable than the obligors rated 'BB', but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.
CCC	An obligor rated 'CCC' is currently vulnerable and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.
CC	An obligor rated 'CC' is currently highly vulnerable. The 'CC' rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' is in default on one or more of its financial obligations including rated and unrated obligations but excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms. An obligor is considered in default unless S&P Global Ratings believes that such payments will be made within five business days of the due date in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.
NR	An issuer designated 'NR' is not rated.

\*The ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**2. Short-Term Issuer Credit Ratings**

Table 4

**Short-Term Issuer Credit Ratings**

Category	Definition
A-1	An obligor rated 'A-1' has strong capacity to meet its financial commitments. It is rated in the highest category by S&P Global Ratings. Within this category, certain obligors are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments is extremely strong.
A-2	An obligor rated 'A-2' has satisfactory capacity to meet its financial commitments. However, it is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in the highest rating category.

Table 4

**Short-Term Issuer Credit Ratings (cont.)**

Category	Definition
A-3	An obligor rated 'A-3' has adequate capacity to meet its financial obligations. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.
B	An obligor rated 'B' is regarded as vulnerable and has significant speculative characteristics. The obligor currently has the capacity to meet its financial commitments; however, it faces major ongoing uncertainties that could lead to the obligor's inadequate capacity to meet its financial commitments.
C	An obligor rated 'C' is currently vulnerable to nonpayment that would result in an 'SD' or 'D' issuer rating and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated), excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms, when it came due. An obligor is considered in default unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations, excluding hybrid instruments classified as regulatory capital, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.
NR	An issuer designated 'NR' is not rated.

## II. CREDITWATCH, RATING OUTLOOKS, LOCAL CURRENCY AND FOREIGN CURRENCY RATINGS

12. The following section explains CreditWatch and rating outlooks and how they are used. Additionally, this section explains local currency and foreign currency ratings.

### A. CreditWatch

13. CreditWatch highlights our opinion regarding the potential direction of a short-term or long-term rating. It focuses on identifiable events and short-term trends that cause ratings to be placed under special surveillance by S&P Global Ratings' analytical staff. Ratings may be placed on CreditWatch under the following circumstances:
- When an event has occurred or, in our view, a deviation from an expected trend has occurred or is expected and when additional information is necessary to evaluate the current rating. Events and short-term trends may include mergers, recapitalizations, voter referendums, regulatory actions, performance deterioration of securitized assets, or anticipated operating developments.
  - When we believe there has been a material change in performance of an issue or issuer, but the magnitude of the rating impact has not been fully determined, and we believe that a rating change is likely in the short-term.



## S&P Global Ratings Definitions

- A change in criteria has been adopted that necessitates a review of an entire sector or multiple transactions and we believe that a rating change is likely in the short-term.

14. A CreditWatch listing, however, does not mean a rating change is inevitable, and when appropriate, a range of potential alternative ratings will be shown. CreditWatch is not intended to include all ratings under review, and rating changes may occur without the ratings having first appeared on CreditWatch. The "positive" designation means that a rating may be raised; "negative" means a rating may be lowered; and "developing" means that a rating may be raised, lowered, or affirmed.

## B. Rating Outlooks

15. An S&P Global Ratings outlook assesses the potential direction of a long-term credit rating over the intermediate term (typically six months to two years). In determining a rating outlook, consideration is given to any changes in economic and/or fundamental business conditions. An outlook is not necessarily a precursor of a rating change or future CreditWatch action.
- Positive means that a rating may be raised.
  - Negative means that a rating may be lowered.
  - Stable means that a rating is not likely to change.
  - Developing means a rating may be raised or lowered.
  - N.M. means not meaningful.

## C. Local Currency and Foreign Currency Ratings

16. S&P Global Ratings' issuer credit ratings make a distinction between foreign currency ratings and local currency ratings. An issuer's foreign currency rating will differ from its local currency rating when the obligor has a different capacity to meet its obligations denominated in its local currency, vs. obligations denominated in a foreign currency.

## III. SPECIAL-PURPOSE RATINGS

17. Section III includes a description of different types of special-purpose ratings. Special-purpose ratings can be for capital market transactions or entities. Such a rating type can cover a specific group of the entities (i.e., insurance companies). Another type of special-purpose rating is a recovery rating, which is very different from a traditional issuer credit rating. Some ratings are limited by the type of credit such as funds or municipal short-term note ratings. Other special-purpose ratings are for the specific types of transaction structures, such as those with embedded put options.

## A. Dual Ratings

18. Dual ratings may be assigned to debt issues that have a put option or demand feature. The first component of the rating addresses the likelihood of repayment of principal and interest as due, and the second component of the rating addresses only the demand feature. The first component of the rating can relate to either a short-term or long-term transaction and accordingly use either short-term or long-term rating symbols. The second component of the rating relates to the put

option and is assigned a short-term rating symbol (for example, 'AAA/A-1+' or 'A-1+/A-1'). With U.S. municipal short-term demand debt, the U.S. municipal short-term note rating symbols are used for the first component of the rating (for example, 'SP-1+/A-1+').

## B. Fund Credit Quality Ratings

19. An S&P Global Ratings fund credit quality rating, also known as a "bond fund rating," is a forward-looking opinion about the overall credit quality of a fixed-income investment fund. Fund credit quality ratings, identified by the 'f' suffix, are assigned to fixed-income funds, actively or passively managed, typically exhibiting variable net asset values. They reflect the credit risks of the fund's portfolio investments, the level of the fund's counterparty risk, and the risk of the fund's management ability and willingness to maintain current fund credit quality. Unlike traditional credit ratings (e.g., issuer credit ratings), a fund credit quality rating does not address a fund's ability to meet payment obligations and is not a commentary on yield levels. Fund credit quality ratings are accompanied by fund volatility ratings (i.e., 'Af/S3')--when fund volatility ratings can be assigned--to communicate our opinion about certain risks not addressed by a fund credit quality rating.

Table 5

### Fund Credit Quality Ratings\*

Category	Definition
AAAf	The credit quality of the fund's portfolio exposure is extremely strong.
AAf	The credit quality of the fund's portfolio exposure is very strong.
Af	The credit quality of the fund's portfolio exposure is strong.
BBBf	The credit quality of the fund's portfolio exposure is adequate.
BBf	The credit quality of the fund's portfolio exposure is weak.
Bf	The credit quality of the fund's portfolio exposure is very weak.
CCCf	The credit quality of the fund's portfolio exposure is extremely weak.
CCf	The fund's portfolio has significant exposure to defaulted or near defaulted assets and/or counterparties.
Df	The fund's portfolio is predominantly exposed to defaulted assets and/or counterparties.

\*The ratings from 'AAf' to 'CCCf' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

## C. Fund Volatility Ratings

20. A fund volatility rating is a forward-looking opinion about a fixed-income investment fund's volatility of returns relative to that of a "reference index" denominated in the base currency of the fund. A reference index is composed of government securities associated with the fund's base currency. Fund volatility ratings are not globally comparable. Fund volatility ratings reflect our expectation of the fund's future volatility of returns to remain consistent with its historical volatility of returns. Fund volatility ratings reflect S&P Global Ratings' view of the fund's sensitivity to interest rate risk, credit risk, and liquidity risk, as well as other factors that may affect returns such as use of derivatives, use of leverage, exposure to foreign currency risk, and investment concentration, and fund management. Different symbology is used to distinguish fund volatility ratings from S&P Global Ratings' traditional issue or issuer credit ratings. We do so because fund

volatility ratings do not reflect creditworthiness but rather our view of a fund's volatility of returns.

Table 6

## Fund Volatility Ratings

Category	Definition
S1	A fund that exhibits low volatility of returns comparable to a portfolio of short-duration government securities, typically maturing within one to three years and denominated in the base currency of the fund, is rated 'S1'. Within this category, a fund may be designated with a plus sign (+). This indicates its extremely low volatility of monthly returns compared with a portfolio of short-duration government securities representing the highest-quality fixed-income instruments available in each country or currency zone with a maturity of 12 months or less. In the absence of short-duration government securities in a given country or currency zone, the volatility of one-year commercial bank deposit rates denominated in the base currency of the fund will be used as a benchmark proxy for an 'S1+' rated fund.
S2	A fund that exhibits low to moderate volatility of returns comparable to a portfolio of short- to medium-duration government securities, typically maturing within three to seven years and denominated in the base currency of the fund, is rated 'S2'.
S3	A fund that exhibits moderate volatility of returns comparable to a portfolio of medium- to long-duration government securities, typically maturing within seven to 10 years and denominated in the base currency of the fund, is rated 'S3'.
S4	A fund that exhibits moderate to high volatility of returns comparable to a portfolio of long-duration government securities, typically maturing beyond 10 years and denominated in the base currency of the fund, is rated 'S4'.
S5	A fund that exhibits high to very high volatility of returns comparable to a portfolio of long-duration government securities, typically maturing beyond 10 years and denominated in the base currency of the fund, is rated 'S5'. A fund rated 'S5' may be exposed to a variety of significant portfolio risks such as high concentration risks, high leverage, and investments in complex structured and/or illiquid securities.

## D. Insurance Financial Enhancement Ratings

21. An S&P Global Ratings insurer financial enhancement rating is a forward-looking opinion about the creditworthiness of an insurer with respect to insurance policies or other financial obligations that are predominantly used as credit enhancement and/or financial guarantees. When assigning an insurer financial enhancement rating, S&P Global Ratings' analysis focuses on capital, liquidity, and company commitment necessary to support a credit enhancement or financial guaranty business.
22. Insurer financial enhancement ratings are based, in varying degrees, on S&P Global Ratings' analysis of the following considerations:
  - The likelihood of payment--capacity and willingness of the insurer to meet its financial commitments on an obligation in accordance with the terms of the obligation;
  - The nature and provisions of the financial obligation;
  - The protection afforded by, and relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

Table 7

**Insurer Financial Enhancement Ratings\***

Category	Definition
AAA	An insurer rated 'AAA' has extremely strong capacity to meet its financial commitments. 'AAA' is the highest insurer financial enhancement rating assigned by S&P Global Ratings.
AA	An insurer rated 'AA' has very strong capacity to meet its financial commitments. It differs from the highest-rated insurers only to a small degree.
A	An insurer rated 'A' has strong capacity to meet its financial commitments but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than insurers in higher-rated categories.
BBB	An insurer rated 'BBB' has adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to weaken the insurer's capacity to meet its financial commitments.
BB, B, CCC, and CC	Insurers rated 'BB', 'B', 'CCC', and 'CC' are regarded as having significant speculative characteristics. 'BB' indicates the least degree of speculation and 'CC' the highest. While such insurers will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.
BB	An insurer rated 'BB' is less vulnerable in the near term than other lower-rated insurers. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the insurer's inadequate capacity to meet its financial commitments.
B	An insurer rated 'B' is more vulnerable than the insurers rated 'BB', but the insurer currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the insurer's capacity or willingness to meet its financial commitments.
CCC	An insurer rated 'CCC' is currently vulnerable and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.
CC	An insurer rated 'CC' is currently highly vulnerable.
R	An insurer rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD	An insurer rated 'SD' (selective default) has failed to pay one or more of its financial obligations when it came due. An 'SD' rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations. An 'SD' includes the completion of a distressed exchange offer.
NR	An issuer designated 'NR' is not rated.

\*Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**E. Insurer Financial Strength Ratings**

23. An S&P Global Ratings insurer financial strength rating is a forward-looking opinion about the financial security characteristics of an insurance organization with respect to its ability to pay under its insurance policies and contracts in accordance with their terms. Insurer financial strength ratings are also assigned to health maintenance organizations and similar health plans with respect to their ability to pay under their policies and contracts in accordance with their terms.
24. This opinion is not specific to any particular policy or contract, nor does it address the suitability of a particular policy or contract for a specific purpose or purchaser. Furthermore, the opinion does not take into account deductibles, surrender or cancellation penalties, timeliness of payment, nor

## S&P Global Ratings Definitions

the likelihood of the use of a defense such as fraud to deny claims.

25. Insurer financial strength ratings do not refer to an organization's ability to meet nonpolicy (i.e., debt) obligations. Assignment of ratings to debt issued by insurers or to debt issues that are fully or partially supported by insurance policies, contracts, or guarantees is a separate process from the determination of insurer financial strength ratings, and it follows procedures consistent with those used to assign an issue credit rating. An insurer financial strength rating is not a recommendation to purchase or discontinue any policy or contract issued by an insurer.

Table 8

### Insurer Financial Strength Ratings\*

Category	Definition
AAA	An insurer rated 'AAA' has extremely strong financial security characteristics. 'AAA' is the highest insurer financial strength rating assigned by S&P Global Ratings.
AA	An insurer rated 'AA' has very strong financial security characteristics, differing only slightly from those rated higher.
A	An insurer rated 'A' has strong financial security characteristics but is somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.
BBB	An insurer rated 'BBB' has good financial security characteristics but is more likely to be affected by adverse business conditions than are higher-rated insurers.
BB, B, CCC, and CC	An insurer rated 'BB' or lower is regarded as having vulnerable characteristics that may outweigh its strengths. 'BB' indicates the least degree of vulnerability within the range; 'CC' the highest.
BB	An insurer rated 'BB' has marginal financial security characteristics. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.
B	An insurer rated 'B' has weak financial security characteristics. Adverse business conditions will likely impair its ability to meet financial commitments.
CCC	An insurer rated 'CCC' has very weak financial security characteristics and is dependent on favorable business conditions to meet financial commitments.
CC	An insurer rated 'CC' has extremely weak financial security characteristics and is likely not to meet some of its financial commitments.
R	An insurer rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. The rating does not apply to insurers subject only to nonfinancial actions such as market conduct violations.
SD or D	An insurer rated 'SD' (selective default) or 'D' is in default on one or more of its insurance policy obligations but is not under regulatory supervision that would involve a rating of 'R'. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action if payments on a policy obligation are at risk. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay substantially all of its obligations in full in accordance with the policy terms. An 'SD' rating is assigned when S&P Global Ratings believes that the insurer has selectively defaulted on a specific class of policies but it will continue to meet its payment obligations on other classes of obligations. An 'SD' includes the completion of a distressed exchange offer. Claim denials due to lack of coverage or other legally permitted defenses are not considered defaults.
NR	An insurer designated 'NR' is not rated.

\*Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

## F. Municipal Short-Term Note Ratings

26. An S&P Global Ratings U.S. municipal note rating reflects S&P Global Ratings' opinion about the liquidity factors and market access risks unique to the notes. Notes due in three years or less will likely receive a note rating. Notes with an original maturity of more than three years will most likely receive a long-term debt rating. In determining which type of rating, if any, to assign, S&P Global Ratings' analysis will review the following considerations:
- Amortization schedule--the larger the final maturity relative to other maturities, the more likely it will be treated as a note; and
  - Source of payment--the more dependent the issue is on the market for its refinancing, the more likely it will be treated as a note.

Table 9

### Municipal Short-Term Note Ratings

Category	Definition
SP-1	Strong capacity to pay principal and interest. An issue determined to possess a very strong capacity to pay debt service is given a plus (+) designation.
SP-2	Satisfactory capacity to pay principal and interest, with some vulnerability to adverse financial and economic changes over the term of the notes.
SP-3	Speculative capacity to pay principal and interest.

## G. Principal Stability Fund Ratings

27. An S&P Global Ratings principal stability fund rating (PSFR), also known as a "money market fund rating," is a forward-looking opinion about a fixed-income fund's capacity to maintain stable principal (net asset value, or NAV) and to limit exposure to principal losses due to credit risk. When assigning a principal stability rating to a fund, S&P Global Ratings' analysis focuses primarily on the creditworthiness of the fund's investments and counterparties, and also its investments' maturity structure and management's ability and policies to maintain the fund's stable net asset value.
28. We generally do not lower ratings to 'Dm' when a fund faces an unanticipated level of redemption requests during periods of high market stress and the fund manager exercises permission under the fund's prospectus to suspend redemptions for up to five business days or meets redemption requests with payments in-kind in lieu of cash.
29. Principal stability fund ratings, or money market fund ratings, are identified by the 'm' suffix (e.g., 'AAAm') to distinguish the principal stability rating from an S&P Global Ratings traditional issue or issuer credit rating. Principal stability fund ratings are neither commentaries on yield levels paid by the fund nor on loss of principal due to negative yields.
30. Market losses arising from negative yields as a consequence of investment in low credit risk, short-duration securities with a negative coupon would not solely result in lowering a PSFR when the fund operating documents permit loss of principal reflected in variable NAV or stable NAV funds with share class reductions or similar mechanisms. These strategies are consistent with the risk mitigants addressed in our analysis of and tolerance for credit and duration risk at each PSFR rating level.

Table 10

**Principal Stability Fund Ratings\***

Category	Definition
AAAm	A fund rated 'AAAm' demonstrates extremely strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. 'AAAm' is the highest principal stability fund rating assigned by S&P Global Ratings.
AAm	A fund rated 'AAm' demonstrates very strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. It differs from the highest-rated funds only to a small degree.
Am	A fund rated 'Am' demonstrates strong capacity to maintain principal stability and to limit exposure to principal losses due to credit risk, but is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than funds in higher-rated categories.
BBBm	A fund rated 'BBBm' demonstrates adequate capacity to maintain principal stability and to limit exposure to principal losses due to credit risk. However, adverse economic conditions or changing circumstances are more likely to lead to a reduced capacity to maintain principal stability.
BBm	A fund rated 'BBm' demonstrates speculative characteristics and uncertain capacity to maintain principal stability. It is vulnerable to principal losses due to credit risk. While such funds will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.
Dm	A fund rated 'Dm' has failed to maintain principal stability, resulting in a realized or unrealized loss of principal.

\*The ratings from 'AAm' to 'BBm' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the rating categories.

**H. Mid-Market Evaluation Ratings**

31. A Mid-Market Evaluation rating (MME rating) is S&P Global Ratings' forward-looking opinion about the creditworthiness of a mid-market company relative to other mid-market companies. It assesses a mid-market company's relative capacity and willingness to meet its financial commitments as they come due. We assign the MME rating at an obligor level but can assign it at a debt instrument level as well. In cases where we assign an MME rating to a particular debt instrument, we may modify the MME rating with the symbols '+' or '-' to indicate our opinion about recovery prospects in case of default (including our opinion of the collateral security and structural or contractual subordination).
32. MME ratings are derived from a specific MME methodology and use a specific credit rating scale ranging from 'MM1' (highest) to 'MM8' and 'MMD' (default). We apply the MME rating scale and definitions to assign an obligor-level MME rating with respect to a company's overall capacity to meet its financial commitments, or to assign an issue-level MME rating with respect to a company's capacity to meet its financial commitments on a debt instrument (see table 11). Use of the MME rating scale on the issue level is only for long-term debt instruments. The symbols '+' and '-' apply only to debt instruments. For instance, a debt instrument could receive an evaluation of 'MM1+' or 'MM1-' according to our expectations of particularly high or low recovery.

Table 11

**Mid-Market Evaluation Rating**

Category	Definition
MM1	The company has a very strong capacity to meet its financial commitments relative to other mid-market companies. Companies rated at this level are less susceptible to the adverse effects of changes in circumstances and economic conditions than other mid-market companies.

Table 11

**Mid-Market Evaluation Rating (cont.)**

Category	Definition
MM2	The company has a strong capacity to meet its financial commitments relative to other mid-market companies. However, the company is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than other mid-market companies in the higher category.
MM3	The company has a good capacity to meet its financial commitments relative to other mid-market companies. However, adverse economic conditions or changing circumstances are more likely to weaken the company's capacity to meet its financial commitments.
MM4	The company has an adequate capacity to meet its financial commitments relative to other mid-market companies. However, it is more exposed to adverse economic conditions or changing circumstances than other mid-market companies with a higher MME rating.
MM5	The company has reasonably adequate capacity to meet its financial commitments relative to other mid-market companies. It faces ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could result in an inadequate capacity on the part of the company to meet its financial commitments.
MM6	The company has a weak capacity to meet financial commitments, although it is less vulnerable relative to other mid-market companies with a lower MME rating. Adverse business, financial, or economic conditions are likely to impair the company's capacity or willingness to meet its financial commitments.
MM7	The company is currently vulnerable to defaulting and is dependent upon favorable business and financial conditions to meet financial commitments. In the event of adverse business, financial, or economic conditions, the company is not likely to have the capacity to meet its financial commitments.
MM8	The company is currently highly vulnerable to defaulting and is dependent upon favorable business and financial conditions to meet its financial commitments. We expect default to be a virtual certainty, either through a missed payment, a distressed exchange, or similar debt restructuring, or a bankruptcy filing.
MMD	The company has either failed to pay one or more of its financial obligations when due, or it has been placed into bankruptcy, or it has completed a distressed exchange or similar debt restructuring.
NR	An issuer designated 'NR' is not rated. For an obligation, an 'NR' designation indicates that no rating has been requested, or that there is insufficient information on which to base a rating, or that S&P Global Ratings does not rate a particular obligation as a matter of policy.

**I. Recovery Ratings**

33. Recovery ratings focus solely on expected recovery in the event of a payment default of a specific issue, and they utilize a numerical scale that runs from 1+ to 6. The recovery rating is not linked to, or limited by, the issuer credit rating or any other rating, and provides a specific opinion about the expected recovery.

Table 12

**Recovery Ratings**

Category	Definition
1+	A recovery rating of '1+' denotes the highest expectation of full recovery in the event of default.
1	A recovery rating of '1' denotes an expectation of very high (i.e., 90%-100%) recovery in the event of default.
2	A recovery rating of '2' denotes an expectation of substantial (i.e., 70%-90%) recovery in the event of default.
3	A recovery rating of '3' denotes an expectation of meaningful (i.e., 50%-70%) recovery in the event of default.
4	A recovery rating of '4' denotes an expectation of average (i.e., 30%-50%) recovery in the event of default.
5	A recovery rating of '5' denotes an expectation of modest (i.e., 10%-30%) recovery in the event of default.



Table 12

**Recovery Ratings (cont.)**

Category	Definition
6	A recovery rating of '6' denotes an expectation of negligible (i.e., 0-10%) recovery in the event of default.

**J. SPUR (S&P Underlying Rating)**

34. A SPUR is an opinion about the stand-alone capacity of an obligor to pay debt service on a credit-enhanced debt issue, without giving effect to the enhancement that applies to it. These ratings are published only at the request of the debt issuer or obligor with the designation SPUR to distinguish them from the credit-enhanced rating that applies to the debt issue. S&P Global Ratings maintains surveillance of an issue with a published SPUR.

**K. Swap Risk Ratings**

35. An S&P Global Ratings swap risk rating is a forward-looking opinion about the likelihood of loss associated with a specific swap transaction (the "swap transaction") entered into by two counterparties.
36. A swap risk rating takes into consideration S&P Global Ratings' view on the terms of the swap transaction including, without limitation, the creditworthiness of one or more reference or underlying obligations or obligors (the "portfolio") above a certain specified threshold percentage or amount, termination events, and potential recovery percentage or amount on the portfolio. All swap risk ratings take into consideration the creditworthiness of the portfolio.
37. A swap risk rating may be modified by the designation "portfolio," "single counterparty--protection buyer" and "single counterparty--protection seller." A swap risk rating (portfolio) takes into consideration only S&P Global Ratings' view on the creditworthiness of the credit default swap portfolio. A swap risk rating (single counterparty--protection buyer) takes into consideration S&P Global Ratings' view on the creditworthiness of the portfolio and the buyer of protection under the swap transaction. A swap risk rating (single counterparty--protection seller) takes into consideration S&P Global Ratings' view on the creditworthiness of the portfolio and the seller of protection under the swap transaction. Because the terms of each swap transaction are highly customized, a swap risk rating may address different risks; therefore, the swap risk ratings should not be viewed as benchmarks related to swap risk across different swap transactions.
38. Swap risk ratings will be modified by a suffix that identifies the type of swap risk rating assigned. The letter ratings will be followed by the designations 'srp,' 'srb,' and 'srs' to correspond with related designations:
- Portfolio ('srp') ratings only take into consideration the creditworthiness of the reference portfolio of the credit default swap;
  - Single counterparty--protection buyer ('srb') ratings take into consideration the creditworthiness of the reference portfolio and the buyer of protection under the swap transaction; and
  - Single counterparty--protection seller ('srs') ratings take into consideration the creditworthiness of the reference portfolio and the seller of protection under the swap transaction.

## S&P Global Ratings Definitions

39. A swap risk rating (portfolio) does not address either counterparty risk (including risk of periodic payments). Each of swap risk ratings (single counterparty--protection buyer) or (single counterparty--protection seller) addresses the counterparty risk of one of the counterparties to the swap transaction, respectively. None of the swap risk ratings address the specific amount of termination payments that would be payable under the swap transaction. The specific risks addressed by each swap risk rating are stated in the rating letter and the terms and conditions issued for each rated swap transaction.

Table 13

### Swap Risk Ratings\* (see paragraph 38 for suffix)

Category	Definition
AAA	A swap transaction with a swap risk rating of 'AAA' has the highest rating assigned by S&P Global Ratings. The likelihood of loss under the swap transaction is extremely low.
AA	A swap transaction with a swap risk rating of 'AA' differs from the highest-rated swap transaction only to a small degree. The likelihood of loss under the swap transaction is very low.
A	A swap transaction with a swap risk rating of 'A' is somewhat more susceptible to the adverse effects or changes in circumstances and economic conditions than swap transactions in higher-rated categories. However, the likelihood of loss under the swap transaction is still low.
BBB	A swap transaction with a swap risk rating of 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to an increased likelihood of loss under the swap transaction.
BB, B, CCC, and CC	A swap transaction with a swap risk rating of 'BB', 'B', 'CCC', and 'CC' is regarded as having significant speculative characteristics.
BB	A swap transaction with a swap risk rating of 'BB' indicates less vulnerability to a risk of loss than other speculative issues. However, major ongoing uncertainties or exposure to adverse business, financial, or economic conditions could lead to a substantial increase in the likelihood of loss under the swap transaction.
B	A swap transaction with a swap risk rating of 'B' is more vulnerable to a risk of loss than a swap transaction with a swap risk rating of 'BB'. However, major ongoing uncertainties or exposure to adverse business, financial, or economic conditions will likely lead to a substantial increase in the likelihood of loss under the swap transaction.
CCC	A swap transaction with a swap risk rating of 'CCC' is currently vulnerable to a risk of loss. In the event of adverse business, financial, or economic conditions, the swap transaction is likely to incur loss.
CC	A swap transaction with a swap risk rating of 'CC' is currently highly vulnerable to loss.
D	A swap transaction with a swap risk rating of 'D' has incurred or experienced loss.
NR	A swap transaction designated 'NR' is not rated, which implies no opinion about its swap risk rating, including without limitation, that a swap risk rating has not been requested or that a swap risk rating has been withdrawn.

\*A swap risk rating from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major swap risk rating categories.

## L. Counterparty Instrument Ratings

40. An S&P Global Ratings counterparty instrument rating is a forward-looking opinion about the creditworthiness of an issuer in a securitization structure with respect to a specific financial obligation to a counterparty (including interest rate swaps, currency swaps, and liquidity facilities) on an ultimate payment basis. It takes into consideration the creditworthiness of guarantors, insurers, or other forms of credit enhancement on the financial obligation to a counterparty and takes into account the currency in which the financial obligation is denominated. The opinion

## S&P Global Ratings Definitions

reflects S&P Global Ratings' view of the issuer's capacity and willingness to meet its financial commitments as funds become available, and this opinion may assess terms, such as collateral security and subordination, which could affect ultimate payment in the event of a default.

41. This opinion does not take into account timeliness of payment. As such, counterparty instrument ratings are long-term ratings only.
42. Counterparty instrument ratings are identified by the 'cir' suffix to distinguish the counterparty instrument rating from S&P Global Ratings' issue or issuer credit rating.
43. Counterparty instrument ratings are based, in varying degrees, on S&P Global Ratings' analysis of the following considerations:
  - The likelihood of ultimate payment--capacity and willingness of the issuer to meet its financial commitments on an obligation to a counterparty on an ultimate payment basis, without regard to a specific repayment date that may be stated in the terms of the contract, as funds become available;
  - The nature and provisions of the financial obligation, not including timeliness of payment;
  - The protection afforded by, and relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.
44. Counterparty instrument ratings are an assessment of default risk, as well as an assessment of relative seniority or ultimate recovery in the event of a default.

Table 14

### Counterparty Instrument Ratings\*

Category	Definition
AAAcir	A counterparty instrument rated 'AAAcir' has the highest rating assigned by S&P Global Ratings. The issuer's capacity to meet its financial commitments on an obligation to a counterparty is extremely strong.
AAAcir	A counterparty instrument rated 'AAAcir' differs from the highest-rated financial obligations only to a small degree. The issuer's capacity to meet its financial commitments on an obligation to a counterparty is very strong.
Acir	A counterparty instrument rated 'Acir' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than financial obligations in higher-rated categories. However, the issuer's capacity to meet its financial commitments on an obligation to a counterparty is still strong.
BBBcir	A counterparty instrument rated 'BBBcir' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the issuer's capacity to meet its financial commitments on an obligation to a counterparty.
BBcir, Bcir, CCCcir, and CCcir	Counterparty instruments rated 'BBcir', 'Bcir', 'CCCcir', and 'CCcir' are regarded as having significant speculative characteristics. 'BBcir' indicates the least degree of speculation and 'CCcir' the highest. While such financial obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions.
BBcir	A counterparty instrument rated 'BBcir' is less vulnerable to nonpayment on an ultimate payment basis than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could lead to the issuer's inadequate capacity to meet its financial commitments on an obligation to a counterparty.
Bcir	A counterparty instrument rated 'Bcir' is more vulnerable to nonpayment on an ultimate payment basis than a counterparty instrument rated 'BBcir', but the issuer currently has the capacity to meet its financial commitments on an obligation to a counterparty. Adverse business, financial, or economic conditions will likely impair the issuer's capacity or willingness to meet its financial commitments on the obligation to a counterparty.

Table 14

**Counterparty Instrument Ratings\* (cont.)**

Category	Definition
CCCcir	A counterparty instrument rated 'CCCcir' is currently vulnerable to nonpayment on an ultimate payment basis and is dependent upon favorable business, financial, and economic conditions for the issuer to meet its financial commitments on an obligation to a counterparty. In the event of adverse business, financial, or economic conditions, the issuer is not likely to have the capacity to meet its financial commitments on the obligation to a counterparty.
CCcir	A counterparty instrument rated 'CCcir' is currently highly vulnerable to nonpayment on an ultimate payment basis. The 'CCcir' rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
Dcir	The 'Dcir' rating category is used when payments on a counterparty instrument are not made in full once funds become available, either due to insufficient funds or failure to pay. The 'Dcir' rating is also used upon the filing of a bankruptcy petition or the taking of similar action if we anticipate that the bankruptcy filing is likely to mean that financial obligations to a counterparty will not be paid in full when funds become available.
NR	This indicates that no rating has been requested, that there is insufficient information on which to base a rating, or that S&P Global Ratings does not rate a particular financial obligation to a counterparty.

\*The ratings from 'AAcir' to 'CCCcir' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**IV. QUALIFIERS**

45. S&P Global Ratings assigns qualifiers to ratings when appropriate. This section details active and inactive qualifiers.

**A. Active Qualifiers**

46. S&P Global Ratings uses the following qualifiers that limit the scope of a rating. The structure of the transaction can require the use of a qualifier such as a 'p' qualifier, which indicates the rating addresses the principal portion of the obligation only. A qualifier appears as a suffix and is part of the rating.

**Federal deposit insurance limit: 'L' qualifier**

47. Ratings qualified with 'L' apply only to amounts invested up to federal deposit insurance limits.

**Principal: 'p' qualifier**

48. This suffix is used for issues in which the credit factors, the terms, or both that determine the likelihood of receipt of payment of principal are different from the credit factors, terms, or both that determine the likelihood of receipt of interest on the obligation. The 'p' suffix indicates that the rating addresses the principal portion of the obligation only and that the interest is not rated.

**Preliminary ratings: 'prelim' qualifier**

49. Preliminary ratings, with the 'prelim' suffix, may be assigned to obligors or obligations, including financial programs, in the circumstances described below. Assignment of a final rating is

## S&P Global Ratings Definitions

conditional on the receipt by S&P Global Ratings of appropriate documentation. S&P Global Ratings reserves the right not to issue a final rating. Moreover, if a final rating is issued, it may differ from the preliminary rating.

- Preliminary ratings may be assigned to obligations, most commonly structured and project finance issues, pending receipt of final documentation and legal opinions.
- Preliminary ratings may be assigned to obligations that will likely be issued upon the obligor's emergence from bankruptcy or similar reorganization, based on late-stage reorganization plans, documentation, and discussions with the obligor. Preliminary ratings may also be assigned to the obligors. These ratings consider the anticipated general credit quality of the reorganized or post-bankruptcy issuer as well as attributes of the anticipated obligation(s).
- Preliminary ratings may be assigned to entities that are being formed or that are in the process of being independently established when, in S&P Global Ratings' opinion, documentation is close to final. Preliminary ratings may also be assigned to the obligations of these entities.
- Preliminary ratings may be assigned when a previously unrated entity is undergoing a well-formulated restructuring, recapitalization, significant financing, or other transformative event, generally at the point that investor or lender commitments are invited. The preliminary rating may be assigned to the entity and to its proposed obligation(s). These preliminary ratings consider the anticipated general credit quality of the obligor, as well as attributes of the anticipated obligation(s), assuming successful completion of the transformative event. Should the transformative event not occur, S&P Global Ratings would likely withdraw these preliminary ratings.
- A preliminary recovery rating may be assigned to an obligation that has a preliminary issue credit rating.

### Termination structures: 't' qualifier

50. This symbol indicates termination structures that are designed to honor their contracts to full maturity or, should certain events occur, to terminate and cash settle all their contracts before their final maturity date.

### Counterparty instrument rating: 'cir' qualifier

51. This symbol indicates a counterparty instrument rating (CIR), which is a forward-looking opinion about the creditworthiness of an issuer in a securitization structure with respect to a specific financial obligation to a counterparty (including interest rate swaps, currency swaps, and liquidity facilities). The CIR is determined on an ultimate payment basis; these opinions do not take into account timeliness of payment.

## B. Inactive Qualifiers

52. Inactive qualifiers are no longer applied or outstanding.

### Contingent upon final documentation: '\*' inactive qualifier

53. This symbol indicated that the rating was contingent upon S&P Global Ratings' receipt of an executed copy of the escrow agreement or closing documentation confirming investments and

cash flows. Discontinued use in August 1998.

### **Termination of obligation to tender: 'c' inactive qualifier**

54. This qualifier was used to provide additional information to investors that the bank may terminate its obligation to purchase tendered bonds if the long-term credit rating of the issuer was lowered to below an investment-grade level and/or the issuer's bonds were deemed taxable. Discontinued use in January 2001.

### **U.S. direct government securities: 'G' inactive qualifier**

55. The letter 'G' followed the rating symbol when a fund's portfolio consisted primarily of direct U.S. government securities.

### **Public information ratings: 'pi' qualifier**

56. This qualifier was used to indicate ratings that were based on an analysis of an issuer's published financial information, as well as additional information in the public domain. Such ratings did not, however, reflect in-depth meetings with an issuer's management and therefore could have been based on less comprehensive information than ratings without a 'pi' suffix. Discontinued use as of December 2014 and as of August 2015 for Lloyd's Syndicate Assessments.

### **Provisional ratings: 'pr' inactive qualifier**

57. The letters 'pr' indicate that the rating was provisional. A provisional rating assumed the successful completion of a project financed by the debt being rated and indicates that payment of debt service requirements was largely or entirely dependent upon the successful, timely completion of the project. This rating, however, while addressing credit quality subsequent to completion of the project, made no comment on the likelihood of or the risk of default upon failure of such completion.

### **Quantitative analysis of public information: 'q' inactive qualifier**

58. A 'q' subscript indicates that the rating is based solely on quantitative analysis of publicly available information. Discontinued use in April 2001.

### **Extraordinary risks: 'r' inactive qualifier**

59. The 'r' modifier was assigned to securities containing extraordinary risks, particularly market risks, that are not covered in the credit rating. The absence of an 'r' modifier should not be taken as an indication that an obligation would not exhibit extraordinary noncredit-related risks. S&P Global Ratings discontinued the use of the 'r' modifier for most obligations in June 2000 and for the balance of obligations (mainly structured finance transactions) in November 2002.

## **V. NATIONAL AND REGIONAL SCALE RATINGS**

60. National and regional scale ratings are special-purpose ratings that only apply to issues/issuers in a specific country or region.

## A. National And Regional Scale Ratings

61. S&P Global Ratings' national scale credit ratings are an opinion of an obligor's creditworthiness (issuer, corporate, or counterparty credit rating) or overall capacity to meet specific financial obligations (issue credit rating), relative to other issuers and issues in a given country or region. National scale credit ratings provide a rank ordering of credit risk within the country. Given the focus on credit quality within a single country, national scale credit ratings are not comparable between countries. S&P Global Ratings also assigns regional scale credit ratings for certain groups of countries. Regional scale credit ratings have the same attributes as national scale credit ratings in that they are not comparable with other national or regional scales and are a relative rank order within the region. The national and regional scale credit ratings use S&P Global Ratings symbols with the addition of a two-letter prefix to denote the country or region. Table 15 notes three countries where prefixes are not used. The regional scale rating definitions are the same as the national scale rating definitions but with the word "national" replaced with the word "regional."
62. Table 15 lists the national or regional scales, the country or regional prefixes, and the associated countries or regions.

Table 15

### National/Regional Scale Credit Rating Prefix

Scale Name	Prefix	Countries
Argentina national scale	ra	Argentina
ASEAN regional scale	ax	Association of South-East Asian Nations (Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar, and Cambodia)
Brazil national scale	br	Brazil
Canada national scale	no prefix	Canada
CaVal (Mexico) national scale	mx	Mexico
Chile national scale	cl	Chile
Greater China regional scale	cn	China, Hong Kong, Macau, and Taiwan
Gulf Cooperation Council regional scale	gc	Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates
Japan SME national scale	no prefix	Japan
Kazakhstan national scale	kz	Kazakhstan
Maalot (Israel) national scale	il	Israel
Nigeria national scale	ng	Nigeria
Nordic regional scale	no prefix	Denmark, Finland, Sweden
Russia national scale	ru	Russia
South Africa national scale	za	South Africa
Taiwan Ratings national scale	tw	Taiwan
Turkey national scale	tr	Turkey
Ukraine national scale	ua	Ukraine
Uruguay national scale	uy	Uruguay

63. Fourteen national and regional scales use an identical set of rating definitions. Tables 16-19 detail the set of definitions applied to the 14 national or regional scales. Canada, Israel, and Japan use different national scales. The Nordic regional short-term scale is also a different scale. In addition, the Taiwan Ratings national scale ratings definitions outlined in tables 32-37 are the same as those in tables 16-21 except they apply to Taiwan Ratings rather than S&P Global Ratings. These five unique scales appear after the general national scale ratings.
64. The national scale credit rating definitions include a country prefix denoted as 'xx'. See table 15 for a list of country prefixes, the scale name, and the associated countries. For example, 'brBBB' is a Brazil national scale 'BBB' rating for entities and obligations in Brazil.

## B. General National And Regional Scale Ratings

### 1. National Scale Issue Credit Ratings

65. An S&P Global Ratings national scale issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific debt, bond, lease, commercial paper program, certificate of deposit, or other financial instrument ("obligation") relative to the creditworthiness of other national obligors with respect to their own financial obligations. National obligors include all active borrowers, guarantors, insurers, and other providers of credit enhancement residing in the country, as well as any foreign obligor active in country's financial markets.
66. S&P Global Ratings' national scale issue credit ratings are based, in varying degrees, on analysis of the following considerations:
- The relative likelihood of payment--the rating assesses the obligor's capacity and willingness to meet its financial commitments in accordance with the terms of an obligation, compared with that of other national obligors;
  - The nature and provisions of the financial obligation; and
  - The protection afforded by, and the relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

### 2. National Scale Long-Term Issue Credit Ratings

Table 16

#### National Scale Long-Term Issue Credit Ratings\*

Category	Definition
xxAAA	An obligation rated 'xxAAA' has the highest credit rating assigned on S&P Global Ratings' national scale. The obligor's capacity to meet its financial commitments on the obligation relative to other national obligors is extremely strong.
xxAA	An obligation rated 'xxAA' differs from the highest-rated debt only to a small degree. The obligor's capacity to meet its financial commitments on the obligation relative to other national obligors is very strong.
xxA	An obligation rated 'xxA' is somewhat more susceptible to adverse effects of changes in circumstances and economic conditions than higher-rated debt. Still, the obligor's capacity to meet its financial commitments on the obligation relative to other national obligors is strong.



Table 16

**National Scale Long-Term Issue Credit Ratings\* (cont.)**

Category	Definition
xxBBB	An obligation rated 'xxBBB' exhibits adequate protection parameters relative to other national obligations. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.
xxBB, xxB, xxCCC, xxCC, and xxC	Obligations rated 'xxBB', 'xxB', 'xxCCC', 'xxCC', and 'xxC' on the S&P Global Ratings national credit rating scale are regarded as having high risk relative to other national obligations. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions relative to other national obligations.
xxBB	An obligation rated 'xxBB' denotes somewhat weak protection parameters relative to other national obligations. The obligor's capacity to meet its financial commitments on the obligation is somewhat weak because of major ongoing uncertainties or exposure to adverse business, financial, or economic conditions.
xxB	An obligation rated 'xxB' is more vulnerable than obligations rated 'xxBB' relative to other national obligations. The obligor currently has a weak capacity to meet its financial obligations. Adverse business, financial, or economic conditions, however, would likely impair capacity or willingness of the obligor to meet its financial commitments on the obligation.
xxCCC	An obligation rated 'xxCCC' is currently vulnerable to nonpayment relative to other national obligations and is dependent upon favorable business and financial conditions for the obligor to meet its financial commitments on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments on the obligation.
xxCC	An obligation rated 'xxCC' is currently highly vulnerable to nonpayment relative to other national obligations. The 'xxCC' rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
xxC	An obligation rated 'xxC' is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared with obligations that are rated higher.
D	An obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within five business days in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

\*The credit ratings from 'xxAA' to 'xxCCC' may be modified by the addition of a plus (+) or minus (-) to show relative strength within the rating category.

**3. National Scale Short-Term Issue Credit Ratings**

Table 17

**National Scale Short-Term Issue Credit Ratings\***

Category	Definition
xxA-1	A short-term obligation rated 'xxA-1' is rated in the highest category on S&P Global Ratings' national scale. The obligor's capacity to meet its commitments on the obligation relative to other national obligors is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations relative to other national obligors is extremely strong.
xxA-2	A short-term obligation rated 'xxA-2' is slightly more susceptible to adverse changes in circumstances and economic conditions than obligations rated 'xxA-1'. The obligor's capacity to meet its financial commitments on the obligation relative to other national obligors is satisfactory.

Table 17

**National Scale Short-Term Issue Credit Ratings\* (cont.)**

Category	Definition
xxA-3	A short-term obligation rated 'xxA-3' denotes adequate protection parameters relative to other short-term national obligations. It is, however, more vulnerable to adverse effects of changes in circumstances than obligations carrying the higher designations.
xxB	A short-term obligation rated 'xxB' denotes weak protection parameters relative to other short-term national obligations. It is vulnerable to adverse business, financial, or economic conditions.
xxC	A short-term obligation rated 'xxC' denotes doubtful capacity for payment.
D	A short-term obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

\*Apply to obligations with an original maturity of less than one year.

**4. National Scale Issuer Credit Ratings**

67. An S&P Global Ratings national scale issuer credit rating is a forward-looking opinion about the overall creditworthiness of a debt issuer, guarantor, insurer, or other provider of credit enhancement ("obligor") to meet its financial obligations as they come due, relative to other national obligors. Such national obligors include all active borrowers, guarantors, insurers, and other providers of credit enhancement residing in the country, as well as foreign obligors active in national financial markets.
68. Issuer credit ratings do not apply to specific obligations, as they do not take into account the nature and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. In addition, they do not take into account the creditworthiness of the guarantors, insurers, or other forms of credit enhancement on the obligation.

**5. National Scale Long-Term Issuer Credit Ratings**

Table 18

**National Scale Long-Term Issuer Credit Ratings\***

Category	Definition
xxAAA	An obligor rated 'xxAAA' has an extremely strong capacity to meet its financial commitments relative to that of other national obligors. 'xxAAA' is the highest issuer credit rating assigned according to the S&P Global Ratings national scale.
xxAA	An obligor rated 'xxAA' differs from the highest-rated obligors only to a small degree and has a very strong capacity to meet its financial commitments relative to that of other national obligors.
xxA	An obligor rated 'xxA' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than higher-rated obligors. Still, the obligor has a strong capacity to meet its financial commitments relative to that of other national obligors.

Table 18

**National Scale Long-Term Issuer Credit Ratings\* (cont.)**

Category	Definition
xxBBB	An obligor rated 'xxBBB' has an adequate capacity to meet its financial commitments relative to that of other national obligors. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.
xxBB, xxB, xxCCC, and xxCC	Obligors rated 'xxBB', 'xxB', 'xxCCC', and 'xxCC' on the S&P Global Ratings national credit rating scale are regarded as having high risk relative to other national obligors. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions relative to other national obligors.
xxBB	An obligor rated 'xxBB' denotes somewhat weak capacity to meet its financial commitments, although it is less vulnerable than other lower-rated national obligors. However, it faces ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could result in an inadequate capacity on the part of the obligor to meet its financial commitments.
xxB	An obligor rated 'xxB' is more vulnerable than obligors rated 'xxBB'. The obligor currently has a weak capacity to meet its financial commitments relative to other national obligors. Adverse business, financial, or economic conditions would likely impair the obligor's capacity or willingness to meet its financial commitments.
xxCCC	An obligor rated 'xxCCC' is currently vulnerable relative to other national obligors and is dependent upon favorable business and financial conditions to meet its financial commitments.
xxCC	An obligor rated 'xxCC' is currently highly vulnerable to defaulting on its financial commitments relative to other national obligors. The 'xxCC' rating is used when a default has not yet occurred but S&P Global Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' is in default on one or more of its financial obligations including rated and unrated financial obligations but excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms. An obligor is considered in default unless S&P Global Ratings believes that such payments will be made within five business days of the due date in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.

\*The credit ratings from 'xxAA' to 'xxCCC' may be modified by the addition of a plus (+) or minus (-) to show relative strength within the rating category.

**6. National Scale Short-Term Issuer Credit Ratings**

Table 19

**National Scale Short-Term Issuer Credit Ratings\***

Category	Definition
xxA-1	An obligor with a 'xxA-1' short-term credit rating has a strong capacity to meet financial commitments relative to that of other national obligors. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations relative to that of other obligors in the national market is extremely strong.
xxA-2	An obligor with a 'xxA-2' short-term credit rating has a satisfactory capacity to meet financial obligations relative to that of other national obligors.

Table 19

**National Scale Short-Term Issuer Credit Ratings\* (cont.)**

Category	Definition
xxA-3	An obligor with a 'xxA-3' short-term credit rating has an adequate capacity to meet financial commitments relative to that of other national obligors. However, the obligor is more vulnerable to adverse changes in business circumstances or economic conditions than higher-rated obligors.
xxB	An obligor with a 'xxB' short-term credit rating has a weak capacity to meet financial commitments relative to that of other national obligors and is vulnerable to adverse business, financial, or economic conditions.
xxC	An obligor with a 'xxC' short-term credit rating has a doubtful capacity to meet financial commitments.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated), excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms, when it came due. An obligor is considered in default unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations, excluding hybrid instruments classified as regulatory capital, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.

\*Apply to an obligor's capacity to meet financial commitments over a time horizon of less than one year.

**C. National Scale Insurer Financial Strength Ratings**

69. A national scale insurer financial strength rating is a forward-looking opinion about the financial security characteristics of an insurance organization with respect to its ability to pay under its insurance policies and contracts in accordance with their terms, relative to other insurers in the national market.
70. This opinion is not specific to any particular policy or contract, nor does it address the suitability of a particular policy or contract for a specific purpose or purchaser. Furthermore, the opinion does not take into account deductibles, surrender or cancellation penalties, timeliness of payment, nor the likelihood of the use of a defense such as fraud to deny claims.
71. Insurer financial strength ratings do not refer to an organization's ability to meet nonpolicy (i.e., debt) obligations. Assignment of ratings to debt issued by insurers or to debt issues that are fully or partially supported by insurance policies, contracts, or guarantees is a separate process from the determination of insurer financial strength ratings, and it follows procedures consistent with those used to assign an issue credit rating.

Table 20

**National Scale Insurer Financial Strength Ratings\***

Category	Definition
nsAAA	An insurer rated 'nsAAA' has extremely strong financial security characteristics relative to other insurers in the national market. 'nsAAA' is the highest insurer financial strength rating assigned by S&P Global Ratings on the national scale.

Table 20

**National Scale Insurer Financial Strength Ratings\* (cont.)**

Category	Definition
nsAA	An insurer rated 'nsAA' has very strong financial security characteristics relative to other insurers in the national market, differing only slightly from those rated higher.
nsA	An insurer rated 'nsA' has strong financial security characteristics relative to other insurers in the national market but is somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.
nsBBB	An insurer rated 'nsBBB' has good financial security characteristics relative to other insurers in the national market but is more likely to be affected by adverse business conditions than are higher-rated insurers.
nsBB, nsB, nsCCC, and nsCC	An insurer rated 'nsBB' or lower is regarded as having vulnerable financial security characteristics relative to other insurers in the national market, and these vulnerabilities may outweigh its strengths. 'nsBB' indicates the least degree of vulnerability within the range; 'nsCC' the highest.
nsBB	An insurer rated 'nsBB' has marginal financial security characteristics relative to other insurers in the national market. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.
nsB	An insurer rated 'nsB' has weak financial security characteristics relative to other insurers in the national market. Adverse business conditions will likely impair its ability to meet financial commitments.
nsCCC	An insurer rated 'nsCCC' has very weak financial security characteristics relative to other insurers in the national market and is dependent on favorable business conditions to meet financial commitments.
nsCC	An insurer rated 'nsCC' has extremely weak financial security characteristics relative to other insurers in the national market and is likely not to meet some of its financial commitments.
R	An insurer rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. The rating does not apply to insurers subject only to nonfinancial actions such as market conduct violations.
SD and D	An insurer rated 'SD' (selective default) or 'D' is in default on one or more of its insurance policy obligations but is not under regulatory supervision that would involve a rating of 'R'. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action if payments on a policy obligation are at risk. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay substantially all of its obligations in full in accordance with the policy terms. An 'SD' rating is assigned when S&P Global Ratings believes that the insurer has selectively defaulted on a specific class of policies but it will continue to meet its payment obligations on other classes of obligations. An 'SD' includes the completion of a distressed exchange offer. Claim denials due to lack of coverage or other legally permitted defenses are not considered defaults.
NR	An insurer designated 'NR' is not rated.

\*Ratings from 'nsAA' to 'nsCCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**D. National Scale Fund Credit Quality Ratings**

72. A national scale fund credit quality rating is a forward-looking opinion about the overall credit quality of a fixed-income investment fund relative to that of other fixed income investment funds in the national market. National scale fund credit quality ratings, identified by the 'f' suffix (as are the global scale fund credit quality ratings), are assigned to fixed-income funds, actively or passively managed, typically exhibiting variable net asset values, and also include a country prefix denoted as 'xx'. National scale fund credit quality ratings reflect the credit risks of the fund's portfolio investments, the level of the fund's counterparty risk, and the risk of the fund's management ability and willingness to maintain current fund credit quality. Unlike traditional

## S&P Global Ratings Definitions

credit ratings (e.g., issuer credit ratings), a national scale fund credit quality rating does not address a fund's ability to meet payment obligations and is not a commentary on yield levels. National scale fund credit quality ratings are accompanied by national scale fund volatility ratings (i.e., 'xxAf/xxS3')--when national scale fund volatility ratings can be assigned--to communicate our opinion about certain risks not addressed by a fund credit quality rating.

Table 21

### National Scale Fund Credit Quality Ratings\*

Category	Definition
xxAAAf	The credit quality of the fund's portfolio exposure is extremely strong relative to that of funds in the national market.
xxAAf	The credit quality of the fund's portfolio exposure is very strong relative to that of funds in the national market.
xxAf	The credit quality of the fund's portfolio exposure is strong relative to that of funds in the national market.
xxBBBf	The credit quality of the fund's portfolio exposure is adequate relative to that of funds in the national market.
xxBBf	The credit quality of the fund's portfolio exposure is weak relative to that of funds in the national market.
xxBf	The credit quality of the fund's portfolio exposure is very weak relative to that of funds in the national market.
xxCCCF	The credit quality of the fund's portfolio exposure is extremely weak relative to that of funds in the national market.
xxCCf	The fund's portfolio has significant exposure to defaulted or near defaulted assets and/or counterparties.
Df	The fund's portfolio is predominantly exposed to defaulted assets and/or counterparties.

\*The ratings from 'xxAAf' to 'xxCCCF' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

## E. National Scale Fund Volatility Ratings

73. A national scale fund volatility rating is a forward-looking opinion about a fixed-income investment fund's volatility of returns relative to that of a "reference index" denominated in the base currency of the fund. A reference index is composed of government securities associated with the fund's base currency. National scale fund volatility ratings are not globally comparable. National scale fund volatility ratings reflect our expectation of the fund's future volatility of returns to remain consistent with its historical volatility of returns. National scale fund volatility ratings reflect S&P Global Ratings' view of the fund's sensitivity to interest rate risk, credit risk, and liquidity risk, as well as other factors that may affect returns such as use of derivatives, use of leverage, exposure to foreign currency risk, and investment concentration, and fund management. Different symbology is used to distinguish fund volatility ratings from S&P Global Ratings' traditional issue or issuer credit ratings. We do so because fund volatility ratings do not reflect creditworthiness but rather our view of a fund's volatility of returns. We also use a country prefix denoted as 'xx'.

Table 22

**National Scale Fund Volatility Ratings**

Category	Definition
xxS1	A fund that exhibits low volatility of returns comparable to a portfolio of short-duration government securities, typically maturing within one to three years and denominated in the base currency of the fund, is rated 'xxS1'. Within this category, a fund may be designated with a plus sign (+). This indicates its extremely low volatility of monthly returns compared with a portfolio of short-duration government securities representing the highest-quality fixed-income instruments available in each country or currency zone with a maturity of 12 months or less. In the absence of short-duration government securities in a given country or currency zone, the volatility of one-year commercial bank deposit rates denominated in the base currency of the fund will be used as a benchmark proxy for an 'xxS1+' rated fund.
xxS2	A fund that exhibits low to moderate volatility of returns comparable to a portfolio of short- to medium-duration government securities, typically maturing within three to seven years and denominated in the base currency of the fund, is rated 'xxS2'.
xxS3	A fund that exhibits moderate volatility of returns comparable to a portfolio of medium- to long-duration government securities, typically maturing within seven to 10 years and denominated in the base currency of the fund, is rated 'xxS3'.
xxS4	A fund that exhibits moderate to high volatility of returns comparable to a portfolio of long-duration government securities, typically maturing beyond 10 years and denominated in the base currency of the fund, is rated 'xxS4'.
xxS5	A fund that exhibits high to very high volatility of returns comparable to a portfolio of long-duration government securities, typically maturing beyond 10 years and denominated in the base currency of the fund, is rated 'xxS5'. A fund rated 'xxS5' may be exposed to a variety of significant portfolio risks such as high concentration risks, high leverage, and investments in complex structured and/or illiquid securities.

**F. Canada National Scale Ratings**

74. Canada national scale ratings use a unique set of rating definitions detailed in paragraphs 75-77 and tables 23-24.

**1. Canadian Commercial Paper Ratings**

75. A Canadian commercial paper rating is a forward-looking opinion about the capacity of an obligor to meet financial commitments associated with a specific commercial paper program or other short-term financial instrument ("obligation") relative to the debt servicing and repayment capacity of other obligors active in the Canadian domestic financial markets ("obligors") with respect to their own financial obligations.

Table 23

**Canada National Scale Commercial Paper Ratings**

Category	Definition
A-1(High)	A short-term obligation rated 'A-1(High)' is rated in the highest category by S&P Global Ratings. The obligor's capacity to meet its financial commitments on the obligation is extremely strong. Obligations would qualify for a rating of 'A-1(High)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'A-1+' on S&P Global Ratings' global short-term rating scale.
A-1(Mid)	Short-term obligations rated 'A-1(Mid)' reflect a strong capacity for the obligor to meet its financial commitments on the obligation. Obligations would qualify for a rating of 'A-1(Mid)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'A-1' on S&P Global Ratings' global short-term rating scale.

Table 23

**Canada National Scale Commercial Paper Ratings (cont.)**

Category	Definition
A-1(Low)	A short-term obligation rated 'A-1(Low)' is slightly more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitments on the obligation is satisfactory. Obligations would qualify for a rating of 'A-1(Low)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'A-2' on S&P Global Ratings' global short-term rating scale and for a long-term issuer credit rating of 'A-' or 'BBB+' on S&P Global Ratings' global long-term rating scale.
A-2(Cdn)	Obligations rated 'A-2(Cdn)' reflect a satisfactory capacity of the obligor to fulfill its financial commitments on the obligation, while exhibiting higher susceptibility to changing circumstances or economic conditions than obligations rated 'A-1(Low)'. Obligations would qualify for a rating of 'A-2(Cdn)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'A-2' on S&P Global Ratings' global short-term rating scale and for a long-term issuer credit rating of 'BBB' on S&P Global Ratings' global long-term rating scale.
A-3(Cdn)	A short-term obligation rated 'A-3(Cdn)' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation. Obligations would qualify for a rating of 'A-3(Cdn)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'A-3' on S&P Global Ratings' global short-term rating scale.
B(Cdn)	A short-term obligation rated 'B(Cdn)' is regarded as having significant speculative characteristics. The obligor currently has the capacity to meet its financial commitments on the obligation; however, it faces major ongoing uncertainties that could lead to the obligor's inadequate capacity to meet its financial commitments on the obligation. Obligations would qualify for a rating of 'B(Cdn)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'B' on S&P Global Ratings' global short-term rating scale.
C(Cdn)	A short-term obligation rated 'C(Cdn)' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitments on the obligation. Obligations would qualify for a rating of 'C(Cdn)' on the Canadian commercial paper rating scale where the issuer qualifies for a rating of 'C' on S&P Global Ratings' global short-term rating scale.
D	A short-term obligation rated 'D' is in payment default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

**2. Canadian Preferred Share Scale Ratings**

76. The S&P Global Ratings Canadian preferred share rating scale serves issuers, investors, and intermediaries in the Canadian financial markets by expressing preferred share ratings (determined in accordance with global rating criteria) in terms of rating symbols that have been actively used in the Canadian market over a number of years. An S&P Global Ratings preferred share rating on the Canadian scale is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific preferred share obligation issued in the Canadian market relative to preferred shares issued by other issuers in the Canadian market. There is a direct correspondence between the specific ratings assigned on the Canadian preferred share scale and the various rating levels on the global debt rating scale of S&P Global Ratings. The Canadian scale rating is fully determined by the applicable global scale rating, and there are no additional analytical criteria associated with the determination of ratings on the Canadian scale. It is the practice of S&P Global Ratings to present an issuer's preferred share ratings on both the global



## S&P Global Ratings Definitions

rating scale and on the Canadian national scale when listing the ratings for a particular issuer.

77. The following table shows the national scale preferred share ratings and the corresponding global scale preferred share ratings:

Table 24

### Canada National Scale Preferred Share Scale Ratings

National scale preferred share rating	Global scale preferred share rating	National scale preferred share rating	Global scale preferred share rating
P-1(High)	AA	P-3(Low)	BB-
P-1	AA-	P-4(High)	B+
P-1	A+	P-4	B
P-1(Low)	A	P-4(Low)	B-
P-1(Low)	A-	P-5(High)	CCC+
P-2(High)	BBB+	P-5	CCC
P-2	BBB	P-5(Low)	CCC-
P-2(Low)	BBB-	CC	CC
P-3(High)	BB+	C	C
P-3	BB	D	D

## G. Nordic Regional Scale Short-Term Ratings

78. Nordic regional scale ratings use a unique set of rating definitions detailed in paragraph 79 and tables 25 and 26.
79. The following is the Nordic regional scale that applies to short-term obligations. The Nordic regional scale that applies to short-term issue credit ratings appears in table 25. The Nordic regional scale that applies to short-term issuer credit ratings appears in table 26.

Table 25

### Nordic Regional Scale Short-Term Issue Credit Ratings

Category	Definition
K-1	A short-term obligation rated 'K-1' exhibits strong protection parameters. This indicates that the obligor's capacity to meet its financial commitments on these obligations is strong.
K-2	A short-term obligation rated 'K-2' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher rating categories. However, the obligor's capacity to meet its financial commitments on the obligation is satisfactory.
K-3	A short-term obligation rated 'K-3' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.
K-4	A short-term obligation rated 'K-4' has speculative characteristics but is less vulnerable in the near term than other lower-rated obligations. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments.
K-5	A short-term obligation rated 'K-5' is regarded as vulnerable and has significant speculative characteristics, but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.

Table 25

**Nordic Regional Scale Short-Term Issue Credit Ratings (cont.)**

Category	Definition
K-6	A short-term obligation rated 'K-6' is currently vulnerable to nonpayment, and the obligor is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.
D	A short-term obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

Table 26

**Nordic Regional Scale Short-Term Issuer Credit Ratings**

Category	Definition
K-1	An obligor rated 'K-1' is regarded as having a strong capacity to meet its financial commitments.
K-2	An obligor rated 'K-2' is regarded as having a satisfactory capacity to meet its financial commitments. However, it is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligors in 'K-1'.
K-3	An obligor rated 'K-3' is regarded as having an adequate capacity to meet its financial commitments. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.
K-4	An obligor rated 'K-4' has speculative characteristics but is less vulnerable in the near term than other lower-rated obligors. However, it faces major ongoing uncertainties and exposure to adverse business, financial, or economic conditions that could lead to the obligor's inadequate capacity to meet its financial commitments.
K-5	An obligor rated 'K-5' is regarded as vulnerable and has significant speculative characteristics, but the obligor currently has the capacity to meet its financial commitments. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitments.
K-6	An obligor rated 'K-6' is currently vulnerable to nonpayment and is dependent upon favorable business, financial, and economic conditions to meet its financial commitments.
D/SD	An obligor rated 'SD' (selective default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated), excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms, when it came due. An obligor is considered in default unless S&P Global Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. A 'D' rating is assigned when S&P Global Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations, excluding hybrid instruments classified as regulatory capital, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.

**H. Maalot (Israel) National Scale Ratings**

80. The S&P Global Ratings Maalot (Israel) national scale uses a unique set of rating definitions detailed in paragraphs 81-91 and tables 27-31.
81. The Maalot national scale serves issuers, insurers, counterparties, intermediaries, and investors

in the financial markets of the State of Israel by providing both issue credit ratings, which apply to a specific debt instrument, and issuer credit ratings, which apply to an obligor (i.e., borrower, guarantor, bank, insurer, or other provider of credit enhancement). The Maalot national scale uses S&P Global Ratings global rating symbols with the addition of an 'il' prefix to denote "Israel" and the scale's focus on Israeli financial markets. For the most part, the criteria employed for determining ratings on the Maalot national scale are similar to those employed on the S&P Global Ratings global scale. The Maalot national scale credit ratings provide a rank ordering of credit risk within the country. As a result, the Maalot national scale is not directly comparable with the S&P Global Ratings global scale or any other national rating scale.

1. Issue Credit Ratings

82. A Maalot national scale issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific debt, bond, lease, commercial paper program, certificate of deposit, or other financial instrument ("obligation") relative to the creditworthiness of other Israeli obligors with respect to their own financial obligations. Israeli obligors include all active borrowers, guarantors, banks, insurers, and other providers of credit enhancement residing in Israel, as well as any foreign obligor active in Israeli financial markets.

2. Long-Term Issue Credit Ratings

83. Maalot national scale issue credit ratings are based, in varying degrees, on analysis of the following considerations:
- The relative likelihood of payment--the rating assesses the obligor's capacity and willingness to meet its financial commitments in accordance with the terms of an obligation, compared with that of other Israeli obligors;
  - The nature and provisions of the financial obligation; and
  - The protection afforded by, and the relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.
84. Obligation ratings are an assessment of default risk but may incorporate an assessment of relative seniority or ultimate recovery in the event of default. Junior obligations are typically rated lower than senior obligations, to reflect the lower priority in bankruptcy, as noted above. (Such differentiation may apply when an entity has both senior and subordinated obligations, secured and unsecured obligations, or operating company and holding company obligations.)

Table 27

Maalot (Israel) National Scale Long-Term Issue Ratings\*

Category	Definition
ilAAA	An obligation rated 'ilAAA' has the highest rating assigned on S&P Global Ratings' Maalot national scale. The obligor's capacity to meet its financial commitments on the obligation relative to other Israeli obligors is very strong.
ilAA	An obligation rated 'ilAA' differs from the highest-rated debt only to a small degree. The obligor's capacity to meet its financial commitments on the obligation relative to other Israeli obligors is strong.
ilA	An obligation rated 'ilA' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than higher-rated obligors. Still, the obligor has a moderately strong capacity to meet its financial commitments on the obligation relative to other Israeli obligors.

Table 27

**Maalot (Israel) National Scale Long-Term Issue Ratings\* (cont.)**

Category	Definition
iLBBB	An obligation rated 'iLBBB' exhibits reasonably adequate protection parameters relative to other Israeli obligations. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.
iLBB, iLB, iLCCC, iLCC, and iLC	Obligations rated 'iLBB', 'iLB', 'iLCCC', 'iLCC', and 'iLC' on the Maalot national rating scale are regarded as having high risk relative to other Israeli obligations. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions relative to other Israeli obligations.
iLBB	An obligation rated 'iLBB' denotes somewhat weak protection parameters relative to other Israeli obligations. The obligor's capacity to meet its financial commitments on the obligation is somewhat weak because of major ongoing uncertainties or exposure to adverse business, financial, or economic conditions.
iLB	An obligation rated 'iLB' is more vulnerable than obligations rated 'iLBB' relative to other Israeli obligations. The obligor currently has a weak capacity to meet its financial obligations. Adverse business, financial, or economic conditions, however, would likely impair capacity or willingness of the obligor to meet its financial commitments on the obligation.
iLCCC	An obligation rated 'iLCCC' is currently vulnerable to nonpayment relative to other Israeli obligations and is dependent upon favorable business and financial conditions for the obligor to meet its financial commitments on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is unlikely to have the capacity to meet its financial commitments on the obligation.
iLCC	An obligation rated 'iLCC' is currently highly vulnerable to nonpayment relative to other Israeli obligations. The 'iLCC' rating is used when a default has not yet occurred but S&P Global Ratings Maalot expects default to be a virtual certainty, regardless of the anticipated time to default.
iLC	An obligation rated 'iLC' is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared with obligations that are rated higher.
D	An obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings Maalot believes that such payments will be made within five business days in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

\*The ratings from 'iLAA' to 'iLCCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative strength within the rating category.

**3. Short-Term Issue Credit Ratings**

85. Apply to obligations with an original maturity of less than one year.

Table 28

**Maalot (Israel) National Scale Short-Term Issue Ratings**

Category	Definition
iLA-1	A short-term obligation rated 'iLA-1' is rated in the highest category on the S&P Global Ratings Maalot national scale. The obligor's capacity to meet its commitments on the obligation relative to other Israeli obligors is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations relative to that of other obligors in the Israeli market is very strong.
iLA-2	A short-term obligation rated 'iLA-2' is slightly more susceptible to adverse changes in circumstances and economic conditions than obligations rated 'iLA-1'. The obligor's capacity to meet its financial commitments on the obligation relative to other Israeli obligors is satisfactory.

Table 28

**Maalot (Israel) National Scale Short-Term Issue Ratings (cont.)**

Category	Definition
iIA-3	A short-term obligation rated 'iIA-3' denotes adequate protection parameters relative to other short-term Israeli obligations. It is, however, more vulnerable to adverse effects of changes in circumstances than obligations carrying the higher designations.
iIB	A short-term obligation rated 'iIB' denotes weak protection parameters relative to other short-term Israeli obligations. It is vulnerable to adverse business, financial, or economic conditions.
iIC	A short-term obligation rated 'iIC' denotes doubtful capacity for payment.
D	A short-term obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid capital instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless S&P Global Ratings Maalot believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

**4. Issuer Credit Ratings**

86. A Maalot national scale issuer credit rating is a forward-looking opinion about the overall creditworthiness of a debt issuer, guarantor, bank, insurer, or other provider of credit enhancement ("obligor") to meet its financial obligations as they come due, relative to other Israeli obligors. Such Israeli obligors include all active borrowers, guarantors, banks, insurers, and other providers of credit enhancement residing in Israel, as well as foreign obligors active in Israeli financial markets. A counterparty credit rating is a form of issuer credit rating.
87. Issuer credit ratings do not apply to specific obligations, as they do not take into account the nature and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. In addition, they do not take into account the creditworthiness of the guarantors, insurers, or other forms of credit enhancement on the obligation.

**5. Long-Term Issuer Credit Ratings**

Table 29

**Maalot (Israel) National Scale Long-Term Issuer Ratings\***

Category	Definition
iIAAA	An obligor rated 'iIAAA' has a very strong capacity to meet its financial commitments relative to that of other Israeli obligors. 'iIAAA' is the highest issuer credit rating assigned according to the S&P Global Ratings Maalot national scale.
iIAA	An obligor rated 'iIAA' differs from the highest-rated obligors only to a small degree and has a strong capacity to meet its financial commitments relative to that of other Israeli obligors.
iIA	An obligor rated 'iIA' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than higher-rated obligors. Still, the obligor has a moderately strong capacity to meet its financial commitments relative to that of other Israeli obligors.
iIBBB	An obligor rated 'iIBBB' has a reasonably adequate capacity to meet its financial commitments relative to that of other Israeli obligors. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.

Table 29

**Maalot (Israel) National Scale Long-Term Issuer Ratings\* (cont.)**

Category	Definition
iBB, iB, iCCC, and iCC	Obligor rated 'iBB', 'iB', 'iCCC', and 'iCC' on the Maalot national rating scale are regarded as having high risk relative to other Israeli obligors. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions relative to other Israeli obligors.
iBB	An obligor rated 'iBB' denotes somewhat weak capacity to meet its financial commitments, although it is less vulnerable than other lower-rated Israeli obligors. However, it faces ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could result in an inadequate capacity on the part of the obligor to meet its financial commitments.
iB	An obligor rated 'iB' is more vulnerable than obligors rated 'iBB'. The obligor currently has a weak capacity to meet its financial commitments relative to other Israeli obligors. Adverse business, financial, or economic conditions would likely impair the obligor's capacity or willingness to meet its financial commitments.
iCCC	An obligor rated 'iCCC' is currently vulnerable relative to other Israeli obligors and is dependent upon favorable business and financial conditions to meet its financial commitments.
iCC	An obligor rated 'iCC' is currently highly vulnerable to defaulting on its financial commitments relative to other Israeli obligors. The 'iCC' rating is used when a default has not yet occurred but S&P Global Ratings Maalot expects default to be a virtual certainty, regardless of the anticipated time to default.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' is in default on one or more of its financial obligations including rated and unrated financial obligations but excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms. An obligor is considered in default unless S&P Global Ratings Maalot believes that such payments will be made within five business days of the due date in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. A 'D' rating is assigned when S&P Global Ratings Maalot believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings Maalot believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.

\*The ratings from 'iIAA' to 'iCCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative strength within the rating category.

**6. Short-Term Issuer Credit Ratings**

88. This applies to an obligors' capacity to meet financial commitments over a time horizon of less than one year.

Table 30

**Maalot (Israel) National Scale Short-Term Issuer Ratings**

Category	Definition
iIA-1	An obligor with an 'iIA-1' short-term rating has a strong capacity to meet financial commitments relative to that of other Israeli obligors. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations relative to that of other obligors in the Israeli market is very strong.
iIA-2	An obligor with an 'iIA-2' short-term rating has a satisfactory capacity to meet financial obligations relative to that of other Israeli obligors.

Table 30

**Maalot (Israel) National Scale Short-Term Issuer Ratings (cont.)**

Category	Definition
iIA-3	An obligor with an 'iIA-3' short-term rating has an adequate capacity to meet financial commitments relative to that of other Israeli obligors. However, the obligor is more vulnerable to adverse changes in business circumstances or economic conditions than higher-rated obligors.
iIB	An obligor with an 'iIB' short-term rating has a weak capacity to meet financial commitments relative to that of other Israeli obligors and is vulnerable to adverse business, financial, or economic conditions.
iIC	An obligor with an 'iIC' short-term rating has a doubtful capacity to meet financial commitments.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated), excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms, when it came due. An obligor is considered in default unless S&P Global Ratings Maalot believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. A 'D' rating is assigned when S&P Global Ratings Maalot believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when S&P Global Ratings Maalot believes that the obligor has selectively defaulted on a specific issue or class of obligations, excluding hybrid instruments classified as regulatory capital, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.

**7. Insurer Financial Strength Ratings**

89. A Maalot national scale insurer financial strength rating is a forward-looking opinion about the financial security characteristics of an insurance organization with respect to its ability to pay under its insurance policies and contracts in accordance with their terms, relative to other insurers in the national market.
90. This opinion is not specific to any particular policy or contract, nor does it address the suitability of a particular policy or contract for a specific purpose or purchaser. Furthermore, the opinion does not take into account deductibles, surrender or cancellation penalties, timeliness of payment, nor the likelihood of the use of a defense such as fraud to deny claims.
91. Insurer financial strength ratings do not refer to an organization's ability to meet nonpolicy (i.e., debt) obligations. Assignment of ratings to debt issued by insurers or to debt issues that are fully or partially supported by insurance policies, contracts, or guarantees is a separate process from the determination of insurer financial strength ratings, and it follows procedures consistent with those used to assign an issue credit rating.

Table 31

**Maalot (Israel) National Scale Insurer Financial Strength Ratings\***

Category	Definition
iIAAA	An insurer rated 'iIAAA' has extremely strong financial security characteristics relative to other insurers in the Israel market. 'iIAAA' is the highest insurer financial strength rating assigned on the Maalot national scale.
iIAA	An insurer rated 'iIAA' has very strong financial security characteristics relative to other insurers in the Israel market, differing only slightly from those rated higher.

Table 31

**Maalot (Israel) National Scale Insurer Financial Strength Ratings\* (cont.)**

Category	Definition
iIA	An insurer rated 'iIA' has strong financial security characteristics relative to other insurers in the Israel market but is somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.
iBBB	An insurer rated 'iBBB' has good financial security characteristics relative to other insurers in the Israel market but is more likely to be affected by adverse business conditions than are higher-rated insurers.
iBB, iIB, iLCCC, and iLCC	An insurer rated 'iBB' or lower is regarded as having vulnerable financial security characteristics relative to other insurers in the Israel market, and these vulnerabilities may outweigh its strengths. 'iBB' indicates the least degree of vulnerability within the range; 'iLCC' the highest.
iBB	An insurer rated 'iBB' has marginal financial security characteristics relative to other insurers in the Israel market. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.
iIB	An insurer rated 'iIB' has weak financial security characteristics relative to other insurers in the Israel market. Adverse business conditions will likely impair its ability to meet financial commitments.
iLCCC	An insurer rated 'iLCCC' has very weak financial security characteristics relative to other insurers in the Israel market and is dependent on favorable business conditions to meet financial commitments.
iLCC	An insurer rated 'iLCC' has extremely weak financial security characteristics relative to other insurers in the Israel market and is likely not to meet some of its financial commitments.
R	An insurer rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. The rating does not apply to insurers subject only to nonfinancial actions such as market conduct violations.
SD and D	An insurer rated 'SD' (selective default) or 'D' is in default on one or more of its insurance policy obligations but is not under regulatory supervision that would involve a rating of 'R'. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action if payments on a policy obligation are at risk. A 'D' rating is assigned when S&P Global Ratings Maalot believes that the default will be a general default and that the obligor will fail to pay substantially all of its obligations in full in accordance with the policy terms. An 'SD' rating is assigned when S&P Global Ratings Maalot believes that the insurer has selectively defaulted on a specific class of policies but will continue to meet its payment obligations on other classes of obligations. An 'SD' includes the completion of a distressed exchange offer. Claim denials due to lack of coverage or other legally permitted defenses are not considered defaults.
NR	An insurer designated 'NR' is not rated.

\*Ratings from 'iIAA' to 'iLCCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**I. Taiwan Ratings National Scale Ratings**

92. Taiwan Ratings Corporation (Taiwan Ratings) is a majority-owned subsidiary of S&P Global Ratings operating as Taiwan Ratings Corporation (Taiwan Ratings). Taiwan Ratings national scale serves issuers, insurers, counterparties, intermediaries, and investors in Taiwan's financial markets, providing:

- Issue credit ratings, which apply to a specific obligation,
- Issuer credit ratings, which apply to an obligor (i.e., borrower, guarantor, bank, insurer, or other provider of credit enhancement),
- Insurer financial strength ratings, which apply to an insurer's ability to pay under its insurance policies and contracts in accordance with their terms, and



## S&P Global Ratings Definitions

- Fixed-income fund credit quality ratings identified with an 'f' suffix to denote funds that exhibit variable net asset values.

93. Taiwan Ratings national scale uses S&P Global Ratings symbols with the addition of a 'tw' prefix to denote "Taiwan" and the scale's focus on the Taiwanese financial markets. The criteria employed for determining ratings on Taiwan Ratings national scale are comparable with those employed on the S&P Global Ratings global scale, and the mapping of Taiwan Ratings national scale ratings to S&P Global Ratings global scale ratings is publicly available and can be found at [www.taiwanratings.com](http://www.taiwanratings.com).
94. Taiwan Ratings national scale ratings definitions outlined in tables 32-37 are the same as those in tables 16-21 except they apply to Taiwan Ratings rather than S&P Global Ratings.

### 1. Taiwan Ratings Issue Credit Ratings

95. A Taiwan Ratings issue credit rating is a forward-looking opinion about the creditworthiness of an obligor with respect to a specific debt, bond, lease, commercial paper program, certificate of deposit, or other financial instrument ("obligation") relative to the creditworthiness of other Taiwanese obligors with respect to their own financial obligations. Taiwanese obligors include all active borrowers, guarantors, insurers, and other providers of credit enhancement residing in Taiwan, as well as any foreign obligor active in Taiwan's financial markets.
96. Taiwan Ratings issue credit ratings are based, in varying degrees, on the analysis of the following considerations:
- The relative likelihood of payment--the rating assesses the obligor's capacity and willingness to meet its financial commitments on an obligation in accordance with the terms of the obligation, compared with that of other Taiwanese obligors;
  - The nature and provisions of the financial obligation; and
  - The protection afforded by, and the relative position of, the financial obligation in the event of a bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

### 2. Taiwan Ratings Long-Term Issue Credit Ratings

Table 32

#### Taiwan Ratings Long-Term Issue Credit Ratings\*

Category	Definition
twAAA	An obligation rated 'twAAA' has the highest credit rating assigned on Taiwan Ratings national scale. The obligor's capacity to meet its financial commitments on the obligation relative to other Taiwanese obligors is extremely strong.
twAA	An obligation rated 'twAA' differs from the highest-rated debt only to a small degree. The obligor's capacity to meet its financial commitments on the obligation relative to other Taiwanese obligors is very strong.
twA	An obligation rated 'twA' is somewhat more susceptible to adverse effects of changes in circumstances and economic conditions than higher-rated debt. Still, the obligor's capacity to meet its financial commitments on the obligation relative to other Taiwanese obligors is strong.
twBBB	An obligation rated 'twBBB' exhibits adequate protection parameters relative to other Taiwanese obligations. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments on the obligation.

Table 32

**Taiwan Ratings Long-Term Issue Credit Ratings\* (cont.)**

Category	Definition
twBB, twB, twCCC, twCC, and twC	Obligations rated 'twBB', 'twB', 'twCCC', 'twCC', and 'twC' on the Taiwan Ratings national credit rating scale are regarded as having high risk relative to other national obligations. While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions relative to other Taiwanese obligations.
twBB	An obligation rated 'twBB' denotes somewhat weak protection parameters relative to other Taiwanese obligations. The obligor's capacity to meet its financial commitments on the obligation is somewhat weak because of major ongoing uncertainties or exposure to adverse business, financial, or economic conditions.
twB	An obligation rated 'twB' is more vulnerable than obligations rated 'twBB' relative to other Taiwanese obligations. The obligor currently has a weak capacity to meet its financial obligations. Adverse business, financial, or economic conditions, however, would likely impair capacity or willingness of the obligor to meet its financial commitments on the obligation.
twCCC	An obligation rated 'twCCC' is currently vulnerable to nonpayment relative to other Taiwanese obligations and is dependent upon favorable business and financial conditions for the obligor to meet its financial commitments on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments on the obligation.
twCC	An obligation rated 'twCC' is currently highly vulnerable to nonpayment relative to other Taiwanese obligations. The 'twCC' rating is used when a default has not yet occurred but Taiwan Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
twC	An obligation rated 'twC' is currently highly vulnerable to nonpayment, and the obligation is expected to have lower relative seniority or lower ultimate recovery compared with obligations that are rated higher.
D	An obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless Taiwan Ratings believes that such payments will be made within five business days, in the absence of a stated grace period or within the earlier of the stated grace period or 30 calendar days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' upon completion of a distressed exchange offer.

\*The credit ratings from 'twAA' to 'twCCC' may be modified by the addition of a plus (+) or minus (-) to show relative strength within the rating category.

**3. Taiwan Ratings Short-Term Issue Credit Ratings**

Table 33

**Taiwan Ratings Short-Term Issue Credit Ratings\***

Category	Definition
twA-1	A short-term obligation rated 'twA-1' is rated in the highest category on Taiwan Ratings national scale. The obligor's capacity to meet its commitments on the obligation relative to other Taiwanese obligors is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations relative to other Taiwanese obligors is extremely strong.
twA-2	A short-term obligation rated 'twA-2' is slightly more susceptible to adverse changes in circumstances and economic conditions than obligations rated 'twA-1'. The obligor's capacity to meet its financial commitments on the obligation relative to other Taiwanese obligors is satisfactory.
twA-3	A short-term obligation rated 'twA-3' denotes adequate protection parameters relative to other short-term Taiwanese obligations. It is, however, more vulnerable to adverse effects of changes in circumstances than obligations carrying the higher designations.

Table 33

**Taiwan Ratings Short-Term Issue Credit Ratings\* (cont.)**

Category	Definition
twB	A short-term obligation rated 'twB' denotes weak protection parameters relative to other short-term Taiwanese obligations. It is vulnerable to adverse business, financial, or economic conditions.
twC	A short-term obligation rated 'twC' denotes doubtful capacity for payment.
D	A short-term obligation rated 'D' is in default or in breach of an imputed promise. For non-hybrid instruments, the 'D' rating category is used when payments on an obligation are not made on the date due, unless Taiwan Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of a similar action and where default on an obligation is a virtual certainty, for example due to automatic stay provisions. An obligation's rating is lowered to 'D' if it is subject to a distressed exchange offer.

\*Apply to obligations with an original maturity of less than one year.

**4. Taiwan Ratings Issuer Credit Ratings**

97. A Taiwan Ratings issuer credit rating is a forward-looking opinion about the overall creditworthiness of a debt issuer, guarantor, insurer, or other provider of credit enhancement ("obligor") to meet its financial obligations as they come due, relative to other Taiwanese obligors. Such Taiwanese obligors include all active borrowers, guarantors, insurers, and other providers of credit enhancement residing in Taiwan, as well as foreign obligors active in Taiwan's financial markets.
98. Issuer credit ratings do not apply to specific obligations, as they do not take into account the nature and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation. In addition, they do not take into account the creditworthiness of the guarantors, insurers, or other forms of credit enhancement on the obligation.
99. Counterparty credit ratings and corporate credit ratings are all forms of issuer credit ratings.

**5. Taiwan Ratings Long-Term Issuer Credit Ratings**

Table 34

**Taiwan Ratings Long-Term Issuer Credit Ratings\***

Category	Definition
twAAA	An obligor rated 'twAAA' has an extremely strong capacity to meet its financial commitments relative to that of other Taiwanese obligors. 'twAAA' is the highest issuer credit rating assigned according to Taiwan Ratings national scale.
twAA	An obligor rated 'twAA' differs from the highest-rated obligors only to a small degree and has a very strong capacity to meet its financial commitments relative to that of other Taiwanese obligors.
twA	An obligor rated 'twA' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than higher-rated obligors. Still, the obligor has a strong capacity to meet its financial commitments relative to that of other Taiwanese obligors.
twBBB	An obligor rated 'twBBB' has an adequate capacity to meet its financial commitments relative to that of other Taiwanese obligors. However, adverse economic conditions or changing circumstances are more likely to weaken the obligor's capacity to meet its financial commitments.

Table 34

**Taiwan Ratings Long-Term Issuer Credit Ratings\* (cont.)**

Category	Definition
twBB, twB, twCCC, and twCC	Obligors rated 'twBB', 'twB', 'twCCC', and 'twCC' on the Taiwan Ratings credit rating scale are regarded as having high risk relative to other Taiwanese obligors. While such obligors will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposure to adverse conditions relative to other Taiwanese obligors.
twBB	An obligor rated 'twBB' denotes somewhat weak capacity to meet its financial commitments, although it is less vulnerable than other lower-rated Taiwanese obligors. However, it faces ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could result in an inadequate capacity on the part of the obligor to meet its financial commitments.
twB	An obligor rated 'twB' is more vulnerable than obligors rated 'twBB'. The obligor currently has a weak capacity to meet its financial commitments relative to other Taiwanese obligors. Adverse business, financial, or economic conditions would likely impair the obligor's capacity or willingness to meet its financial commitments.
twCCC	An obligor rated 'twCCC' is currently vulnerable relative to other Taiwanese obligors and is dependent upon favorable business and financial conditions to meet its financial commitments.
twCC	An obligor rated 'twCC' is currently highly vulnerable to defaulting on its financial commitments relative to other Taiwanese obligors. The 'twCC' rating is used when a default has not yet occurred but Taiwan Ratings expects default to be a virtual certainty, regardless of the anticipated time to default.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' is in default on one or more of its financial obligations including rated and unrated obligations but excluding hybrid instruments classified as regulatory capital or in nonpayment according to terms. An obligor is considered in default unless Taiwan Ratings believes that such payments will be made within five business days or within the earlier of the stated grace period or 30 calendar days. A 'D' rating is assigned when Taiwan Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' rating is assigned when Taiwan Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.
NR	An issuer designated 'NR' is not rated.

\*The credit ratings from 'twAA' to 'twCCC' may be modified by the addition of a plus (+) or minus (-) to show relative strength within the rating category.

**6. Taiwan Ratings Short-Term Issuer Credit Ratings**

Table 35

**Taiwan Ratings Short-Term Issuer Credit Ratings\***

Category	Definition
twA-1	An obligor with a 'twA-1' short-term credit rating has a strong capacity to meet financial commitments relative to that of other Taiwanese obligors. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitments on these obligations relative to that of other obligors in the Taiwanese market is extremely strong.
twA-2	An obligor with a 'twA-2' short-term credit rating has a satisfactory capacity to meet financial obligations relative to that of other Taiwanese obligors.

Table 35

**Taiwan Ratings Short-Term Issuer Credit Ratings\* (cont.)**

Category	Definition
twA-3	An obligor with a 'twA-3' short-term credit rating has an adequate capacity to meet financial commitments relative to that of other Taiwanese obligors. However, the obligor is more vulnerable to adverse changes in business circumstances or economic conditions than higher-rated obligors.
twB	An obligor with a 'twB' short-term credit rating has a weak capacity to meet financial commitments relative to that of other Taiwanese obligors and is vulnerable to adverse business, financial, or economic conditions.
twC	An obligor with a 'twC' short-term credit rating has a doubtful capacity to meet financial commitments.
R	An obligor rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others.
SD and D	An obligor rated 'SD' (selective default) or 'D' has failed to pay one or more of its financial obligations (rated or unrated), excluding hybrid instruments classified as regulatory capital or that are in nonpayment according to terms, when it came due. An obligor is considered in default unless Taiwan Ratings believes that such payments will be made within any stated grace period. However, any stated grace period longer than five business days will be treated as five business days. A 'D' credit rating is assigned when Taiwan Ratings believes that the default will be a general default and that the obligor will fail to pay all or substantially all of its obligations as they come due. An 'SD' credit rating is assigned when Taiwan Ratings believes that the obligor has selectively defaulted on a specific issue or class of obligations, excluding hybrid instruments classified as regulatory capital, but it will continue to meet its payment obligations on other issues or classes of obligations in a timely manner. An obligor's rating is lowered to 'D' or 'SD' if it is conducting a distressed exchange offer.
NR	An issuer designated 'NR' is not rated.

\*Apply to an obligor's capacity to meet financial commitments over a time horizon of less than one year.

**7. Taiwan Ratings Insurer Financial Strength Ratings**

- <sup>100</sup>. A Taiwan Ratings insurer financial strength rating is a forward-looking opinion about the financial security characteristics of an insurance organization with respect to its ability to pay under its insurance policies and contracts in accordance with their terms, relative to other insurers in the Taiwan market.
- <sup>101</sup>. This opinion is not specific to any particular policy or contract, nor does it address the suitability of a particular policy or contract for a specific purpose or purchaser. Furthermore, the opinion does not take into account deductibles, surrender or cancellation penalties, timeliness of payment, nor the likelihood of the use of a defense such as fraud to deny claims.
- <sup>102</sup>. Insurer financial strength ratings do not refer to an organization's ability to meet nonpolicy (i.e., debt) obligations. Assignment of ratings to debt issued by insurers or to debt issues that are fully or partially supported by insurance policies, contracts, or guarantees is a separate process from the determination of insurer financial strength ratings, and it follows procedures consistent with those used to assign an issue credit rating.

Table 36

**Taiwan Ratings Insurer Financial Strength Ratings\***

Category	Definition
twAAA	An insurer rated 'twAAA' has extremely strong financial security characteristics relative to other insurers in the Taiwan market. 'twAAA' is the highest insurer financial strength rating assigned by Taiwan Ratings.

Table 36

**Taiwan Ratings Insurer Financial Strength Ratings\* (cont.)**

Category	Definition
twAA	An insurer rated 'twAA' has very strong financial security characteristics relative to other insurers in the Taiwan market, differing only slightly from those rated higher.
twA	An insurer rated 'twA' has strong financial security characteristics relative to other insurers in the Taiwan market but is somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.
twBBB	An insurer rated 'twBBB' has good financial security characteristics relative to other insurers in the Taiwan market but is more likely to be affected by adverse business conditions than are higher-rated insurers.
twBB, twB, twCCC, and twCC	An insurer rated 'twBB' or lower is regarded as having vulnerable financial security characteristics relative to other insurers in the Taiwan market, and these vulnerabilities may outweigh its strengths. 'twBB' indicates the least degree of vulnerability within the range; 'twCC' the highest.
twBB	An insurer rated 'twBB' has marginal financial security characteristics relative to other insurers in the Taiwan market. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.
twB	An insurer rated 'twB' has weak financial security characteristics relative to other insurers in the Taiwan market. Adverse business conditions will likely impair its ability to meet financial commitments.
twCCC	An insurer rated 'twCCC' has very weak financial security characteristics relative to other insurers in the Taiwan market and is dependent on favorable business conditions to meet financial commitments.
twCC	An insurer rated 'twCC' has extremely weak financial security characteristics relative to other insurers in the Taiwan market and is likely not to meet some of its financial commitments.
R	An insurer rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. The rating does not apply to insurers subject only to nonfinancial actions such as market conduct violations.
SD and D	An insurer rated 'SD' (selective default) or 'D' is in default on one or more of its insurance policy obligations but is not under regulatory supervision that would involve a rating of 'twR'. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action if payments on a policy obligation are at risk. A 'D' rating is assigned when Taiwan Ratings believes that the default will be a general default and that the obligor will fail to pay substantially all of its obligations in full in accordance with the policy terms. An 'SD' rating is assigned when Taiwan Ratings believes that the insurer has selectively defaulted on a specific class of policies but will continue to meet its payment obligations on other classes of obligations. An 'SD' includes the completion of a distressed exchange offer. Claim denials due to lack of coverage or other legally permitted defenses are not considered defaults.
NR	An insurer designated 'NR' is not rated.

\*Ratings from 'twAA' to 'twCCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

**8. Taiwan Ratings Fund Credit Quality Ratings**

103. A Taiwan Ratings fund credit quality rating is a forward-looking opinion about the overall credit quality of a fixed-income investment fund relative to that of other fixed-income investment funds in Taiwan. Taiwan Ratings fund credit quality ratings, identified by the 'f' suffix (as are the global scale fund credit quality ratings), are assigned to fixed-income funds, actively or passively managed, typically exhibiting variable net asset values, and also include a country prefix denoted as 'tw'. Taiwan Ratings fund credit quality ratings reflect the credit risks of the fund's portfolio investments, the level of the fund's counterparty risk, and the risk of the fund's management ability and willingness to maintain current fund credit quality. Unlike traditional credit ratings

## S&P Global Ratings Definitions

(e.g., issuer credit ratings), a Taiwan Ratings fund credit quality rating does not address a fund's ability to meet payment obligations and is not a commentary on yield levels.

Table 37

### Taiwan Ratings Fund Credit Quality Ratings\*

Category	Definition
twAAAf	The credit quality of the fund's portfolio exposure is extremely strong relative to that of funds in the Taiwan market.
twAAf	The credit quality of the fund's portfolio exposure is very strong relative to that of funds in the Taiwan market.
twAf	The credit quality of the fund's portfolio exposure is strong relative to that of funds in the Taiwan market.
twBBBf	The credit quality of the fund's portfolio exposure is adequate relative to that of funds in the Taiwan market.
twBBf	The credit quality of the fund's portfolio exposure is weak relative to that of funds in the Taiwan market.
twBf	The credit quality of the fund's portfolio exposure is very weak relative to that of funds in the Taiwan market.
twCCCF	The credit quality of the fund's portfolio exposure is extremely weak relative to that of funds in the Taiwan market.
twCCf	The fund's portfolio has significant exposure to defaulted or near defaulted assets and/or counterparties.
Df	The fund's portfolio is predominantly exposed to defaulted assets and/or counterparties.

\*The ratings from 'twAAf' to 'twCCCF' can be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

## J. Japan SME National Scale Ratings

104. The S&P Global Ratings Japan Small and Medium-Sized Enterprise (SME) national scale serves Japanese SMEs, lenders, suppliers, and other parties that have an interest in SME creditworthiness by providing enterprise credit ratings. An S&P Global Ratings Japan SME rating reflects S&P Global Ratings' opinion of the overall financial capacity of a Japanese SME to meet its financial obligations as they come due, relative to other Japanese SME obligors. An S&P Global Ratings SME rating is a quantitatively derived indicator of creditworthiness. Calculations differ significantly from S&P Global Ratings rating criteria and do not include subjective assessments or judgments of individual SMEs by analysts. Japan SME ratings are expressed using S&P Global Ratings' traditional credit rating symbols, but in lower case (e.g., 'bbb') to highlight that they are quantitatively derived.
105. S&P Global Ratings' Japan SME national scale is not directly comparable with the S&P Global Ratings global scale, to any other national rating scale, or to scales for any quantitatively derived rating estimates. Japan SME ratings are assigned to small and medium-sized enterprises in Japan. For every rating category, firms with a Japan SME rating are typically smaller than firms with an "equivalent" S&P Global Ratings credit rating on the global scale. S&P Global Ratings analysts do not determine Japan SME ratings and, if S&P Global Ratings criteria were applied, it is unlikely that analysts would rate companies as indicated by the Japan SME ratings.
106. A Japan SME rating does not apply to any specific obligation, as it does not take into account the nature and provisions of the obligation, its standing in bankruptcy or liquidation, statutory

preferences, or the legality and enforceability of the obligation. In addition, it does not take into account the creditworthiness of the guarantors, insurers, or other forms of credit enhancement on the obligation.

Table 38

## Japan SME National Scale Ratings

Category	Definition
aaa	An obligor rated 'aaa' has a very strong capacity to meet its financial commitments relative to that of other Japanese SMEs. 'aaa' is the highest credit rating assigned on the S&P Global Ratings Japan SME rating scale.
aa	An obligor rated 'aa' differs from the highest-rated obligors only to a small degree and has a strong capacity to meet its financial commitments relative to that of other Japanese SMEs.
a	An obligor rated 'a' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than higher-rated obligors. Still, the obligor has a moderately strong capacity to meet its financial commitments relative to that of other Japanese SMEs.
bbb	An obligor rated 'bbb' has a reasonably adequate capacity to meet its financial commitments relative to that of other Japanese SMEs. However, adverse economic conditions or changing circumstances could impair the obligor's capacity to meet its financial commitments.
bb	An obligor rated 'bb' has somewhat weak capacity to meet its financial commitments relative to that of other Japanese SMEs. However, it faces ongoing uncertainties or exposure to adverse business, financial, or economic conditions that could result in an inadequate capacity to meet its financial commitments.
b	An obligor rated 'b' has a weak capacity to meet its financial commitments relative to that of other Japanese SMEs. Adverse business, financial, or economic conditions will likely impair the obligor's capacity to meet its financial commitments.
ccc	An obligor rated 'ccc' is currently vulnerable to nonpayment relative to other Japanese SMEs and is dependent upon favorable business and financial conditions to meet its financial commitments. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitments.

## VI. OTHER CREDIT-RELATED OPINIONS

### A. Credit Estimates

- <sup>107</sup>. A credit estimate is an indication, provided to a third party, of the likely S&P Global Ratings issue or issuer credit rating on an unrated obligation or obligor. The estimate is based on input from a variety of sources including quantitative models, where applicable, and draws on analytical experience and sector knowledge of S&P Global Ratings analysts. These estimates do not involve direct contact with the obligor's management or in-depth insight into operating, financial, or strategic issues that such contact may allow. S&P Global Ratings does not maintain ongoing surveillance on credit estimates, but periodic updates may be provided. A credit estimate is generally confidential. Credit estimates are expressed using S&P Global Ratings' traditional credit rating symbols, but in lower case (e.g., 'bbb').

### B. Credit Assessments

- <sup>108</sup>. A credit assessment is an indicator of S&P Global Ratings' opinion of creditworthiness that may be expressed in descriptive terms, a broad rating category, or with the addition of a plus (+) or minus (-) sign to indicate relative strength within the category. It reflects our view of the general credit



strengths and weaknesses of an issuer, obligor, a proposed financing structure, or elements of such structures. It may also pertain to limited credit matters or carve out certain elements of a credit that would ordinarily be taken into account in a credit rating. A credit assessment usually represents a point-in-time evaluation, and S&P Global Ratings generally does not maintain ongoing surveillance of credit assessments. A credit assessment is generally confidential. Credit assessments are expressed using S&P Global Ratings' traditional credit rating symbols, but in lower case (e.g., 'bbb').

## VII. OTHER IDENTIFIERS

### A. Active Identifiers

- <sup>109</sup>. S&P Global Ratings currently uses seven other identifiers. These words or symbols provide additional information but do not change the definition of a rating or our opinion about the issue's or issuer's creditworthiness. The identifiers are often required by regulation.

#### Unsolicited: 'unsolicited' and 'u' identifier

- <sup>110</sup>. The 'u' identifier and 'unsolicited' designation are assigned to credit ratings initiated by parties other than the issuer or its agents, including those initiated by S&P Global Ratings.

#### Structured finance: 'sf' identifier

- <sup>111</sup>. The 'sf' identifier shall be assigned to ratings on "structured finance instruments" when required to comply with applicable law or regulatory requirement or when S&P Global Ratings believes it appropriate. The addition of the 'sf' identifier to a rating does not change that rating's definition or our opinion about the issue's creditworthiness. For detailed information on the instruments assigned the 'sf' identifier, please see "S&P Announces Changes To The List of Instruments Carrying The Structured Finance Identifier" in Section VIII, under "Related Research."

#### Japan: 'JR' identifier

- <sup>112</sup>. The 'JR' identifier is assigned to all issue and issuer ratings assigned by either S&P Global Ratings Japan Inc. or S&P Global SF Japan Inc., each of which is a registered credit rating agency in Japan, as ratings registered under Japanese regulation. The addition of the identifier does not change the definition of that rating or our opinion about the issue's or issuer's creditworthiness.

#### European Union: 'EU' identifier

- <sup>113</sup>. S&P Global Ratings assigns the 'EU' identifier to global scale ratings assigned by S&P Global Ratings entities (or branches thereof) regulated in the European Union. The addition of the 'EU' identifier to a rating does not change that rating's definition or our opinion about the issue's or issuer's creditworthiness.

#### European Endorsed: 'EE' identifier

- <sup>114</sup>. S&P Global Ratings assigns the 'EE' identifier to global scale ratings assigned by S&P Global

Ratings entities established outside the European Union which are endorsed by an S&P Global Ratings entity regulated in the European Union. The addition of the 'EE' identifier to a rating does not change that rating's definition or our opinion about the issue's or issuer's creditworthiness.

### Nippon KK: 'XN' identifier

115. S&P Global SF Japan Inc. assigns the 'XN' identifier to credit ratings assigned by S&P Global SF Japan Inc. S&P Global SF Japan Inc. is not a Nationally Recognized Statistical Rating Organization. The addition of the 'XN' identifier to a rating does not change that rating's definition or our opinion about the issue's or issuer's creditworthiness.

### Under criteria observation 'UCO' identifier

116. The 'UCO' identifier may (or shall, if an EU regulatory requirement) be assigned to credit ratings under review as a result of a criteria revision. The addition of the 'UCO' identifier to a rating does not change that rating's definition or our opinion about the issue's or issuer's creditworthiness.

## B. Inactive Identifiers

117. Inactive identifiers are no longer applied or outstanding.

### European Endorsement : 'EX' identifier

118. S&P Global Ratings provisionally assigned the 'EX' identifier during a transitional period ending on April 30, 2012, to global scale ratings assigned by S&P Global Ratings entities established in jurisdictions outside the European Union (EU) that were not recognized by EU regulators as endorsable but which nevertheless were recognized for certain EU regulatory purposes. Before the transitional period ended, S&P Global Ratings replaced the 'EX' identifier on certain ratings with 'EE' identifiers following determinations by EU regulators that such ratings were endorsable. However, following the end of the transitional period, any ratings still bearing the 'EX' identifiers are no longer recognized for certain EU regulatory purposes. With certain exceptions, S&P Global Ratings no longer assigns the 'EX' identifier and may remove the 'EX' identifier from existing ratings. The addition, or lack, of the 'EX' identifier to a rating does not change the definition of that rating. Discontinued use in June 2012.

## VIII. RELATED CRITERIA AND RESEARCH

### Related Criteria

- Counterparty Instrument Ratings Methodology And Assumptions, May 3, 2016
- National And Regional Scale Credit Ratings, Sept. 22, 2014
- Principles Of Credit Ratings, Feb. 16, 2011
- Methodology: Credit Stability Criteria, May 3, 2010
- Understanding Standard & Poor's Ratings Definitions, June 3, 2009

## Related Research

- S&P Announces Changes To The List Of Instruments Carrying The Structured Finance Identifier, March 21, 2014
- The Time Dimension of Standard & Poor's Credit Ratings, Sept. 22, 2010

Only a rating committee may determine a rating action and this report does not constitute a rating action.

## IX. CONTACT INFORMATION

Table 39

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**General Criteria:**

# National And Regional Scale Credit Ratings

**September 22, 2014**

*(Editor's Note: We're republishing this article following our periodic review completed on Sept. 12, 2017. See the "Revisions And Updates" section for details.)*

1. This article describes Standard & Poor's Ratings Services criteria for assigning national and regional scale credit ratings. This article seeks to help market participants better understand our approach to assigning issuer and issue credit ratings using our national and regional credit rating scales. This article is related to our criteria article "Principles Of Credit Ratings," which we published on Feb. 16, 2011, and "S&P Global Ratings Definitions," which we update from time to time. These criteria fully supersede the article "Understanding National Rating Scales," published April 14, 2005. Concurrently with this article, we are publishing our mapping tables, which show the correspondence between global scale credit ratings and national scale credit ratings (see "S&P Global Ratings' National And Regional Scale Mapping Tables," published Aug. 14, 2017). These mapping tables are published and updated periodically as necessary, as described in the section, "National Scale Design And Calibration."

## SCOPE OF THE CRITERIA

2. This methodology applies to all national scale credit ratings except Japanese SME ratings (small and medium-size enterprises), and Canadian national scale ratings. These criteria do not supersede country-specific issue rating criteria. See "Related Criteria And Research," which lists the country-specific issue rating criteria. Ratings on in-scope scales are denoted with a market-specific prefix, with the exception of the Nordic regional scale, which has a unique symbology (K-scale).

## SUMMARY OF THE CRITERIA

3. This article updates our criteria for assigning national and regional scale credit ratings (both referred to here as "national scale credit ratings"). We assign national scale credit ratings in a number of jurisdictions and regions. This article describes the principles underpinning such ratings, explains how they are different from global scale credit ratings, details how mapping tables between national and global scale ratings are designed and calibrated, and explains how we determine national scale credit ratings.
4. Standard & Poor's national scale credit ratings are an opinion of an obligor's creditworthiness (issuer, corporate, or counterparty credit rating) or overall capacity to meet specific financial obligations (issue credit rating) relative to other issuers and issues in a given country. National scale credit ratings provide a rank ordering of credit risk within the country. We will refer to both

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## General Criteria: National And Regional Scale Credit Ratings

"country" or "region" as "country" in this context. We may assign national scale ratings to entities residing in the country, as well as non-domestic entities issuing debt in a given national scale market.

5. To determine the national scale credit rating, we use criteria that are identical to, or consistent with, our global scale criteria. We typically first determine our view of creditworthiness on the global scale (see note at the end of this article), and then use mapping tables, which show the relationship between global and national scales, to determine a national scale credit rating. For some countries, we also publish specific criteria for national scale credit ratings. Country-specific national scale criteria provides additional guidance to determine the finer distinctions between credit quality on the national scale.
6. To determine the national scale issue credit rating for corporate and government issuers, we first determine the national scale issuer credit rating (ICR) and then potentially notch up or down for subordination (the relative position in bankruptcy) or for expected recovery (recovery given default). If we also notch down the global scale issue rating for differentiated default risk, such as in the case of equity hybrid capital instruments, we first determine the global scale rating that corresponds to our view of the default risk for the instrument, then we map that preliminary result to the national scale rating, and then we notch down on the national scale for subordination features.
7. For structured finance issues, we determine national scale issue credit ratings by either i) first determining the global scale issue rating and then using the mapping tables, or ii) applying country-specific national scale criteria as per paragraph 5, above.
8. In order for an corporate and government entity, or structured finance issue rating, to be rated above the sovereign on the national scale, the entity/issue should pass the relevant stress test or other constraints in the criteria to be rated above the sovereign, i.e., it should be resilient to the level of stress expected in a sovereign default scenario. Therefore, for cases where we first determine a global scale rating, if we do not rate an entity/issue above the sovereign on the global scale, we will not rate such entity/issue above the sovereign on the national scale. [See Appendix A, and "Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013, and "Rating Above the Sovereign-Structured Finance", August 8, 2016.]
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## METHODOLOGY

### National Scale Credit Rating Principles, Definitions, And Symbols

12. National scale credit ratings are calibrated to provide finer distinction of relative credit risk within a country than is possible with global scale credit ratings. Unlike the latter, which are comparable across all regions, national scale credit ratings provide a rank ordering of credit risk within the country only. Because the focus is on credit quality within a single country, national scale credit ratings are not comparable between countries. In addition, national scale ratings may be changed more often, including multi-notch rating adjustments, and be more volatile than global scale ratings because a one- or two-notch change in a global scale rating may map to a multiple-notch change for the national scale rating.

## General Criteria: National And Regional Scale Credit Ratings

13. Standard & Poor's national scale credit ratings are an opinion of an obligor's creditworthiness (issuer, corporate, or counterparty credit rating) or overall capacity to meet specific financial obligations (issue credit rating) relative to other issuers and issues in a given country. National scale credit ratings provide a rank ordering of credit risk within the country. We may assign national scale ratings to entities residing in the country or to non-domestic entities issuing in a given national scale market.
14. Standard & Poor's also assigns regional scale credit ratings for certain groups of countries, such as the Gulf Cooperation Council region. Regional scale credit ratings have the same attributes as national scale credit ratings in that neither is comparable to other regional or national scales, and they represent a relative rank order of creditworthiness within the region. The definitions also are the same except that "national" is replaced with "regional."
15. National scale credit rating definitions are similar to global scale credit rating definitions but are generally expressed in terms relative to other national scale issuers or obligations, except for three rating levels that are not relative: 'R' (regulatory intervention), 'SD' (selective default), and 'D' (default). For example, the general 'xxAAA' national scale long-term issue rating definition is, "An obligation rated 'xxAAA' has the highest credit rating assigned on Standard & Poor's national scale. The obligor's capacity to meet its financial commitments on the obligation, relative to other national obligors, is extremely strong." Most national scales use an identical set of credit rating definitions. (See "S&P Global Ratings Definitions," updated from time to time, for national scale rating definitions.)
16. National scale credit ratings use Standard & Poor's global credit rating symbols, including pluses and minuses, with the addition of a two-letter, lower-case prefix to denote the country, except for Nordic regional scale credit ratings, which have a unique symbology (K-scale). For example, the Brazil national scale uses the prefix 'br', as in 'brAAA' or 'brBBB'. National scale credit ratings can be assigned for both long- and short-term issues, and we can assign long- and short-term issuer credit ratings. We will use CreditWatch in the same manner as we do for global scale ratings. National scale credit ratings can include the use of outlooks. In addition, national scale credit ratings may use pluses and minuses from 'xxAA' to 'xxCCC'. (See "S&P Global Ratings Definitions" for a list of country prefixes, the scale name, and the associated country [or countries for regional scales].)

## National Scale Design And Calibration

17. The guiding principle for national scale calibration is to provide finer distinctions among issuer and issue credit quality than is possible with the global rating scale. This is because in some countries, sovereign and country risk may constrain credit quality on the global scale to a limited number of rating categories, whereas the national scale allows us to communicate our views on finer distinctions in credit quality. Thus, national scale design begins with an assessment of credit quality within a given country. For example, if we expect almost all of the entities in a country to receive a global scale local currency credit rating of 'BBB-' or lower, we would assign those entities the national scale credit rating of 'xxAAA' along with the global scale credit rating of 'BBB-'. After we have determined the mapping correspondence between the highest national scale credit rating and the global rating scale, we then determine the rest of the rating scale based on our expectations of each entity's credit quality within the country.
18. The highest national scale credit rating is often the sovereign local currency credit rating, but this is not always the case. If some entities' credit ratings exceed the sovereign credit rating on the global scale, the sovereign national scale rating may well be below 'xxAAA', and the non-sovereigns whose credit ratings exceed the sovereign credit rating may be rated up to 'xxAAA'.
- 19.

## General Criteria: National And Regional Scale Credit Ratings

In constructing our mapping tables, we have certain guidelines for the top and bottom of the rating scale. We generally require a minimum global scale rating of 'BB-' to map to a national scale rating of 'xxAAA', although most individual scales have higher global scale "anchor" points for the 'xxAAA' rating. We expect the mapping tables to converge between global and national scale ratings at the low end of the scale, meaning that a 'CCC+' global scale credit rating will generally equal a 'xxBB+' or lower national scale credit rating, a 'CC' global scale credit rating will equal a 'xxCC' national scale credit rating, and a 'D' or 'SD' credit rating indicates default on both global and national scales.

20. We may recalibrate the national scale from time to time to provide credit quality distinctions, such as if a national scale exhibits rating "compression" (a large proportion of ratings clustered among two or three rating levels), indicating changing credit quality. For example, compression at either end of the national rating scale may suggest that the scale does not provide enough credit quality distinction.
21. We may also recalibrate the scale when we change a sovereign credit rating, especially if through a multi-notch adjustment; when general credit conditions change, for example because of changing country risk for non-sovereigns; or if we change the global scale credit rating definitions.

## Using Mapping Tables To Assign National Scale Credit Ratings

22. National scales are designed to provide greater distinction of credit risk within a country than is possible with a global scale. For example, two issuers in the same country may be assigned a global scale 'BB' credit rating, but their national scale credit ratings could be different, indicating their relative credit risk within the country. We express the relationship between global and national scale credit ratings using mapping tables.
23. The mapping defines the relationship between the global and national scale credit ratings. Mapping tables typically map each global scale credit rating to up to four national scale credit rating choices. For example, if an issuer is assigned a 'BB' global scale credit rating, the national scale credit rating options may be 'xxAA', 'xxAA-', or 'xxA+'. If a sovereign credit rating is very low and most or all the non-sovereign global scale ratings are also very low (because of constraints for sovereign and country risk), it may be beneficial to have more notches to better distinguish creditworthiness on the national scale.
24. Each mapping table is specific to a given country (national scales) or region (regional scales), and national scale ratings on different scales cannot be compared to each other without the respective mapping tables. For example, the global scale mapping for a 'brAAA' may be different from that of a 'mxAAA' or 'zaAAA'. (See the section titled "National Scale Design And Calibration," above, for details.)
25. Mapping tables are published and updated as necessary. Please see "National And Regional Scale Mapping Tables," published Aug. 14, 2017, for national scale mapping tables that are current as of the date of this criteria. A hypothetical example of a national scale mapping is shown in the table.

### Hypothetical National Scale Mapping

Global scale long-term local currency rating	National scale long-term rating	National scale short-term rating
BBB and higher	xxAAA	xxA-1
BBB-	xxAAA, xxAA+	xxA-1
BB+	xxAA+, xxAA	xxA-1
BB	xxAA, xxAA-, xxA+	xxA-1



## Hypothetical National Scale Mapping (cont.)

Global scale long-term local currency rating	National scale long-term rating	National scale short-term rating
BB-	xxA+, xxA, xxA-	xxA-1, xxA-2
B+	xxA-, xxBBB+	xxA-2, xxA-3
B	xxBBB+, xxBBB	xxA-3
B-	xxBBB, xxBBB-	xxA-3
CCC+	xxBB+, xxBB, xxBB-	xxB
CCC	xxB+, xxB, xxB-	xxB
CCC-	xxCCC+, xxCCC, xxCCC-	xxC
CC	xxCC	xxC
C	xxC	xxC
R	R	R
SD	SD	SD
D	D	D

Note: For corporate and government entities (except project finance), mappings are for issuer credit ratings, and issue ratings may be notched incrementally on the national scale for subordination (ranking) or our expectations for post-default recovery. As a result, the national scale issue credit rating may not be in line with the global scale issue credit rating. R--Regulatory supervision. SD--Selective default. D--Default.

26. For issuers that have both foreign and local currency ICRs, we use the global scale local currency ICR as the reference point in the mapping tables to determine the national scale ICR. The global scale foreign currency issue credit rating is the reference point for issue-level ratings in foreign currency, as discussed in paragraph 35.

## Assigning the national scale credit rating

27. To determine the national scale credit rating, we use criteria that are identical to, or consistent with, our global scale criteria. For corporate and government ratings, we follow the steps below:
- We first determine the global scale local currency credit rating; and
  - We then use the mapping tables to determine a national scale credit rating. When two or more outcomes are possible, we first consider the outlook on the global scale rating. Additional considerations include: whether the entity is a relatively stronger or weaker credit within its global scale credit rating category, for example, using a rank ordering of entities in the same global scale credit rating category within the entity's sector in the country (i.e., among domestic corporate ratings, or among domestic financial institution ratings); or a rank ordering of entities with the same global scale credit rating globally within the industry (for example, among global rated steel companies, or among global rated sovereigns). For sectors where we use the mappings to assign the national scale ICR, there are further steps to determine the national scale issue credit rating, as explained in "The Impact Of Subordination, Recovery, And Differentiated Default Risk," below.
28. For structured finance, we determine the national scale issue credit rating using one of two methods. We use the country-specific national scale issue criteria, such as "Rating Mexican Residential Mortgage-Backed Securities," published on June 7, 2012, or if we do not have country-specific criteria, we follow the two steps below:

## General Criteria: National And Regional Scale Credit Ratings

- First, we determine the global scale issue credit rating; and
- We then use the mapping tables to determine a national scale issue credit rating. To choose which national scale credit rating when two or more options are available, we consider whether a security is relatively stronger or weaker than others within the global scale credit rating category, for example, by considering the credit enhancements available relative to our loss projections at a particular global scale rating.

## The Impact Of Subordination, Recovery, And Differentiated Default Risk

29. In the absence of country-specific issue rating criteria, we apply the two sections below to determine the national scale issue credit rating.

### Subordination/recovery

30. We use notching to reflect an issue's subordination relative to other debt issues, or to reflect our recovery expectations in the event of a default.
31. The national scale ICR is the starting point for determining such notching. We will typically notch up or down one or two notches from the national scale ICR, according to the number of notches we would notch from the global scale ICR, if we were rating such an issue on the global scale. Therefore, the national scale issue credit rating, when compared with a global scale issue credit rating on the same issue, may not correspond to the rating in the mapping table.
32. For example, if our global scale criteria calls for one notch down for issue credit rating subordination for an issuer with an ICR of 'BBB-' or higher, and two notches down for subordination for an ICR of 'BB+' or lower, we would notch down one from a national scale ICR that corresponds to a global scale ICR of 'BBB-' or higher, and notch down two from a national scale ICR that corresponds to a global scale ICR of 'BB+' or lower.
33. Because we use subordination notching to indicate priority among creditors, national scale issue credit ratings typically remain within one or two notches from the national scale ICR, similar to the typical notching range between global scale issuer and issue credit ratings.

### Notching for hybrid capital instruments: Differentiated default risk

34. We also notch the national scale issue credit rating for differentiated default risk, such as in the case of equity hybrid capital instruments (e.g., preferred stock and certain subordinated instruments). First, we establish on the global scale the rating level that reflects the default risk of the instrument. Second, we use this rating level on the global scale to map to the indicative national scale rating. Third, we apply incremental notches down from the indicative national scale rating for subordination, as determined in paragraphs 30 through 33. In some cases, as per our hybrid capital criteria, the global scale hybrid capital issue credit rating is set to 'CCC', in which case the national scale credit rating would be set at the rating level that maps to a global scale rating of 'CCC'.

## National Scale Issue Credit Ratings: Foreign Currency

35. To rate a foreign currency issue on the national scale, we first establish on the global scale the rating level corresponding to the global scale foreign currency default risk of the instrument. Second, we use this rating level on the global scale to map to the indicative national scale rating.

Third, we notch up or down from the indicative national scale rating if the instrument has subordination or recovery characteristics. In this way, we therefore take into account transfer and convertibility constraints, if any. As a clarification of the reference point for the first step, the "rating level corresponding to the foreign currency default risk" will typically be, for most corporate and government issuers, the foreign currency issuer credit rating. In the case of hybrid capital instruments, there may be a differentiated default risk (as per paragraph 34). We would then apply incremental notching, if relevant, to rate the instrument, as per paragraphs 30 to 33. For project finance and securitizations, the first step will apply to the global scale foreign currency issue credit rating, which is mapped to the national scale as in step two, and the third step (notching for subordination or recovery) is not relevant for those sectors.

## **Note**

36. In this document, we may refer to the determination of creditworthiness on the global scale as a "global scale rating." Such determination includes any rating analysis performed for internal purposes and not released publicly. As described in Standard & Poor's Glossary with respect to Ratings Services' policies, an internal confidential unsolicited credit rating is a credit rating that is used solely for internal purposes as a component of another credit rating and is not made public. An internal confidential unsolicited credit rating is neither a type of Confidential Credit Rating nor an unsolicited credit rating.

## **APPENDIX A: FREQUENTLY ASKED QUESTIONS**

### **Application of Rating Above the Sovereign Criteria to National Scale Ratings**

37. In order for a corporate, financial, or government entity to be rated above the sovereign on the national scale, the entity should pass the relevant stress test or other constraints in the criteria to be rated above the sovereign (see "Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013, "RAS-C&G"), i.e., it should be resilient to the level of stress expected in a sovereign default scenario. Therefore, if we do not rate an entity above the sovereign on the global scale, we will not rate such entity above the sovereign on the national scale. As per these criteria (paragraph 5), in order to determine the national scale rating, we first determine our view of creditworthiness on the global scale, and then apply the mapping tables. As relevant, we would apply RAS-C&G as part of our determination of our view of creditworthiness on the global scale.
38. In order for a structured finance issue to be rated above the sovereign on the national scale, the issue should pass the relevant stress test or other constraints in the criteria to be rated above the sovereign (see "Ratings Above the Sovereign-Structured Finance, August 8, 2016, "RAS-SF"), i.e., it should be resilient to the level of stress expected in a sovereign default scenario.
39. As noted in paragraph 7 of these criteria, for structured finance issues, we determine national scale issue credit ratings by either i) first determining the global scale issue rating and then using the mapping tables, or ii) applying country-specific national scale criteria. As relevant, we would apply RAS-SF as part of our determination of our view of creditworthiness on the global scale.
- Where we first determine a global scale rating and then apply our mapping tables to determine a national scale rating, we apply all aspects of RAS-SF to determine the global scale rating, and then apply mapping tables as we would in order to determine any other national scale rating. Therefore, if we do not rate an issue above the sovereign on the global scale, we will not rate

## General Criteria: National And Regional Scale Credit Ratings

such issue above the sovereign on the national scale.

- Where we have country specific national scale criteria, but these criteria do not contemplate a level of stress commensurate with a severe level of stress, in order to rate above the sovereign we may refer to the most applicable global scale criteria to determine the relevant severe stress scenario, then determine the maximum rating differential above the sovereign (using Table 2 of RAS-SF criteria, which considers the country risk sensitivity for the asset class), and then apply the country specific mapping table to reflect the maximum rating differential in national scale terms.

40. For example, when rating a Brazilian Trade Receivable Transaction, we may apply both national scale criteria ("Methodology And Assumptions For Rating Brazilian Trade Receivables Securitizations," published May 13, 2009, "Brazil Trade Receivable Criteria") and the relevant global scale severe stress from the global trade receivable criteria, such as "Trade Receivables Criteria: Calculating Credit Enhancement For Trade Receivables," Sept. 1, 2004. The maximum potential rating for a transaction on the national scale will be determined by using Table 2 of RAS-SF criteria, in this case a maximum differential of 4 notches above the global scale sovereign foreign currency rating, and mapping such maximum potential rating to the national scale, by using the relevant country (Brazil) mapping table.

## Reverse Application of National And Regional Scale Mapping Tables

41. We can use country or region mapping table in the Mapping Table Criteria (see "S&P Global Ratings' National And Regional Scale Mapping Tables," published Aug. 14, 2017) in reverse to estimate a rating or creditworthiness in the global scale. That is, for limited uses, we may start from a national or regional scale rating, and map such rating back to the corresponding global scale rating, as indicated in that table. Such limited uses may include: i) analyzing potential national scale rating transitions as per our "Credit Stability Criteria," published May 3, 2010; ii) applying our criteria for ratings above the sovereign (see RAS-C&G and RAS-SF) considering the relevant sovereign rating and the relevant number of notches above the rating; or iii) if we are requested to assign a global scale rating on a transaction rated under country specific national scale criteria, for example, Brazil Trade Receivable Criteria, or "Methodology And Assumptions For Rating Mexican Equipment ABS," Dec. 11, 2014
42. In some cases, there may be more than one global scale-equivalent option to choose from for a given national scale rating. In these cases, we follow a similar logic as for assigning national scale ratings starting off from a global scale rating (i.e., consider the outlook if there is one, or relative strength vs. other credits in the same category or industry). Additionally, if we are rating above the sovereign, the entity/issue should pass the relevant stress test or other constraints in the RAS-C&G or RAS-SF; i.e., it should be resilient to the level of stress expected in a sovereign default scenario.
43. For the analysis of historical transitions as presented in the "Credit Stability Criteria," published May 3, 2010, we choose the highest potential global scale rating for the beginning of the period, and the lowest potential global scale rating for the end of the period. If the mapping tables have been updated between the beginning and end of the one and three year horizons, we would use the mapping table in effect at each relevant point in time, to determine the global scale rating equivalents.

## **REVISIONS AND UPDATES**

We originally published this criteria article on Sept. 22, 2014.

These criteria fully superseded the article titled "Understanding National Rating Scales," published April 14, 2005.

Changes introduced after original publication:

- Following our periodic review completed on Sept. 15, 2015, we made minor changes that did not affect the substance of the criteria and updated the authors. We removed outdated sections that appeared in paragraphs 8-11, which were related to the initial publication of our criteria and no longer relevant.
- Following our periodic review completed on Sept. 15, 2016, we added frequently asked questions in Appendix A, made a conforming update to paragraph 8 (with respect to ratings above the sovereign on national and global scales), made minor changes that did not affect the substance of the criteria, updated the authors, and added a revision history section.
- Following our periodic review completed on Sept. 12, 2017, we made minor changes that did not affect the substance of the criteria, updated the authors, and updated the related criteria list.

## **RELATED CRITERIA AND RESEARCH**

### **Related Criteria**

- S&P Global Ratings Definitions, updated from time to time
- Reflecting Subordination Risk In Corporate Issue Ratings, Sept. 21, 2017
- S&P Global Ratings' National And Regional Scale Mapping Tables, Aug. 14, 2017
- Bank Hybrid Capital And Nondeferrable Subordinated Debt Methodology And Assumptions, Jan. 29, 2015
- Methodology For Applying Recovery Ratings To National Scale Issue Ratings, Sept. 22, 2014
- Use Of 'C' And 'D' Issue Credit Ratings For Hybrid Capital And Payment-In-Kind Instruments, Oct. 24, 2013
- Criteria For Determining Transfer And Convertibility Assessments, May 18, 2009
- Hybrid Capital Handbook: September 2008 Edition, Sept. 15, 2008

### **Country-Specific Rating Criteria**

- Methodology And Assumptions For Rating Mexican Tax Participation And Local Revenue Future Flow Transactions, Nov. 6, 2015
- Methodology And Assumptions For Rating Argentine Trade Receivables ABS Transactions, June 11, 2015
- Methodology And Assumptions For Rating Mexican Equipment ABS, Dec. 11, 2014

## General Criteria: National And Regional Scale Credit Ratings

- Standard & Poor's Maalot (Israel) National Scale: Methodology For Nonfinancial Corporate Issue Ratings, Sept. 22, 2014
- Methodology For Deriving Assumptions For Mexican Interest Rate Curves, Dec. 31, 2013
- Methodology And Assumptions For Rating Mexican Trade Receivables ABS Transactions, Dec. 10, 2012
- Rating Mexican Residential Mortgage-Backed Securities, June 7, 2012
- Methodology And Assumptions: Rating Mexican Residential Mortgage-Backed Securities, June 7, 2012
- Methodology And Assumptions For Rating Brazilian Residential Mortgage-Backed Securities, Jan. 14, 2010
- Methodology And Assumptions For Rating Construction Loan Securitizations In Mexico, Oct. 6, 2009
- Methodology And Assumptions For Rating Brazilian Trade Receivables Securitizations, May 13, 2009
- Methodology And Assumptions For Rating Brazilian Electric Power Receivables Future Flow Securitizations, Feb. 5, 2009
- LEVELS Mexico Estimates The Risk Of Defaults And Recoveries For Mexican RMBS, Jan. 20, 2009
- Securitization In Latin America: Rating Criteria For Argentine Mortgage-Backed Securities, Sept. 1, 2004

These criteria represent the specific application of fundamental principles that define credit risk and ratings opinions. Their use is determined by issuer- or issue-specific attributes as well as Standard & Poor's Ratings Services' assessment of the credit and, if applicable, structural risks for a given issuer or issue rating. Methodology and assumptions may change from time to time as a result of market and economic conditions, issuer- or issue-specific factors, or new empirical evidence that would affect our credit judgment.

## General Criteria: National And Regional Scale Credit Ratings

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General Criteria:

# S&P Global Ratings' National And Regional Scale Mapping Tables

August 14, 2017

*(Editor's Note: This article fully supersedes the article with the same title that was published on July 27, 2017. The only change for this update is the revision of the mapping table for Brazil national scale ratings. See the appendix for details.)*

## SUMMARY OF THE CRITERIA

1. S&P Global Ratings is revising the mapping guidelines for our national and regional credit rating scales corresponding to the global rating scale. This article fully supersedes "S&P Global Ratings' National And Regional Scale Mapping Tables," published July 27, 2017, on RatingsDirect.
2. National and regional scale ratings express relative opinions about the creditworthiness of an issuer or the credit quality of an individual debt issue within the universe of credit risk on the national scale. National scale ratings are not directly comparable with our global scale ratings or with national scale ratings for other countries. National scale credit ratings generally include a prefix to denote the country (such as 'mx' for Mexico or 'ru' for Russia) and to distinguish them from global scale ratings and other national scales. On certain national scales, we have only long-term ratings.
3. We may make adjustments to these mapping guidelines at any time in accordance with our criteria. For example, we may make adjustments to mapping guidelines following a material change in sovereign risk so the national scale would continue to provide adequate differentiation of credit risk among local issuers and debt issues.

## IMPACT ON OUTSTANDING RATINGS

4. The revisions to the Brazil national scale mapping table have no impact on global scale ratings in Brazil. However, the changes will affect about half of current national scale long-term issuer and issue ratings in Brazil. We expect approximately one-third of all Brazil national scale issuer and issue long-term ratings to be raised by one notch, and nearly 20% to be raised by two or three notches. We also expect the recalibration to affect the majority of outstanding Brazil national scale short-term ratings, with most ratings subject to a one-notch increase. The raising of national scale issuer and issue credit ratings as a result of this recalibration does not reflect improvements in the creditworthiness of the entity or obligation.

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## EFFECTIVE DATE

5. These mapping tables are effective immediately, except for those markets that require prior notification to and/or registration by the local regulator, where the criteria will become effective when so notified by S&P Global Ratings and/or registered by the regulator.

Table 1

### National- And Regional-Scale Mapping Tables In This Article

Scale Name	Prefix	Countries
Argentina National Scale	ra	Argentina
ASEAN Regional Scale	ax	Association of Southeast Asian Nations: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam
Brazil National Scale	br	Brazil
Chile National Scale	cl	Chile
Greater China Regional Scale	cn	China, Hong Kong, Macau, and Taiwan
Gulf Cooperation Council Regional Scale	gc	Bahrain, Kuwait, Oman, Qatar, Saudia Arabia, United Arab Emirates
Israel (Maalot) National Scale	il	Israel
Kazakhstan National Scale	kz	Kazakhstan
Mexico (CaVal) National Scale	mx	Mexico
Nigeria National Scale	ng	Nigeria
Nordic Regional Scale	None	Denmark, Finland, Sweden
Russia National Scale	ru	Russia
South Africa National Scale	za	South Africa
Taiwan Ratings National Scale	tw	Taiwan
Turkey National Scale	tr	Turkey
Ukraine National Scale	ua	Ukraine
Uruguay National Scale	uy	Uruguay

Table 2

### Argentina Mapping Table

Global-scale long-term local currency rating	National-scale long-term rating	National-scale short-term rating
BB- and above	raAAA	raA-1+
B+	raAA+, raAA	raA-1+
B	raAA-	raA-1+
B	raA+, raA	raA-1
B-	raA-, raBBB+, raBBB	raA-2
B-	raBBB-	raA-3
CCC+	raBB+, raBB, raBB-, raB+	raB
CCC	raB+, raB, raB-	raB

## General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables

Table 2

### Argentina Mapping Table (cont.)

Global-scale long-term local currency rating	National-scale long-term rating	National-scale short-term rating
CCC-	raCCC+, raCCC, raCCC-	raC
CC	raCC	raC
C	raC	raC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 3

### ASEAN Mapping Table

--Global scale--		--Regional scale--	
Long-term local-currency rating	Outlook	Long-term rating	Short-term rating
A+ and above	Any	axAAA	axA-1+
A	Positive, Stable	axAAA	axA-1+
A	Negative, Developing	axAA+	axA-1
A-	Positive	axAA+	axA-1
A-	Stable, Developing	axAA	axA-1
A-	Negative	axAA-	axA-1
BBB+	Positive	axAA-	axA-1
BBB+	Stable, Developing, Negative	axA+	axA-1
BBB	Positive	axA+	axA-1
BBB	Stable, Developing	axA	axA-2
BBB	Negative	axA-	axA-2
BBB-	Positive, Stable, Developing	axA-	axA-2
BBB-	Negative	axBBB+	axA-2
BB+	Positive, Stable, Developing	axBBB+	axA-2
BB+	Negative	axBBB	axA-3
BB	Positive	axBBB	axA-3
BB	Stable, Developing	axBBB-	axA-3
BB	Negative	axBB+	axB
BB-	Positive, Stable, Developing	axBB+	axB
BB-	Negative	axBB	axB
B+	Positive, Stable, Developing	axBB	axB
B+	Negative	axBB-	axB
B	Positive, Stable, Developing	axBB-	axB
B	Negative	axB+	axB

## General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables

Table 3

### ASEAN Mapping Table (cont.)

--Global scale--		--Regional scale--	
Long-term local-currency rating	Outlook	Long-term rating	Short-term rating
B-	Positive	axB+	axB
B-	Stable, Developing	axB	axB
B-	Negative	axB-	axB
CCC+	Any	axCCC+	axC
CCC	Any	axCCC	axC
CCC-	Any	axCCC-	axC
CC	Any	axCC	axC
C	Any	axC	axC
R	--	R	R
SD	--	SD	SD
D	--	D	D

ASEAN--Association of Southeast Asian Nations. R--Regulatory supervision. SD--Selective default. D--Default.

Table 4

### Brazil Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BB+ and above	brAAA	brA-1+
BB	brAA+, brAA, brAA-	brA-1+
BB-	brAA-	brA-1+
BB-	brA+	brA-1
B+	brA	brA-1
B+	brA-, brBBB+	brA-2
B	brBBB	brA-2
B	brBBB-	brA-3
B	brBB+	brB
B-	brBB, brBB-, brB+	brB
CCC+	brB, brB-	brB
CCC	brCCC+, brCCC	brC
CCC-	brCCC-	brC
CC	brCC	brC
C	brC	brC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 5

**Chile Mapping Table**

Global-scale long-term local currency rating	National-scale long-term rating	National-scale short-term rating
A and above	clAAA	clA-1+
A-	clAAA, clAA+	clA-1+
BBB+	clAA+, clAA	clA-1+
BBB	clAA, clAA-	clA-1+
BBB	clA+	clA-1
BBB-	clA+, clA	clA-1
BB+	clA, clA-	clA-2
BB	clA-, clBBB+, clBBB	clA-2
BB-	clBBB	clA-2
BB-	clBBB-	clA-3
B+	clBB+, clBB, clBB-	clB
B	clBB-, clB+, clB	clB
B-	clB, clB-	clB
CCC+	clCCC+	clC
CCC	clCCC	clC
CCC-	clCCC-	clC
CC	clCC	clC
C	clC	clC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 6

**Greater China Mapping Table**

--Global scale--		--Regional scale--	
Long-term local-currency rating	Outlook	Long-term rating	Short-term rating
A+ and above	Any	cnAAA	cnA-1+
A	Positive	cnAAA	cnA-1+
A	Stable, Developing, Negative	cnAA+	cnA-1
A-	Positive	cnAA+	cnA-1
A-	Stable, Developing	cnAA	cnA-1
A-	Negative	cnAA-	cnA-1
BBB+	Positive	cnAA-	cnA-1
BBB+	Stable, Developing, Negative	cnA+	cnA-1
BBB	Positive	cnA+	cnA-1

## General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables

Table 6

### Greater China Mapping Table (cont.)

--Global scale--		--Regional scale--	
Long-term local-currency rating	Outlook	Long-term rating	Short-term rating
BBB	Stable, Developing	cnA	cnA-2
BBB	Negative	cnA-	cnA-2
BBB-	Positive, Stable, Developing	cnA-	cnA-2
BBB-	Negative	cnBBB+	cnA-2
BB+	Positive, Stable, Developing	cnBBB+	cnA-2
BB+	Negative	cnBBB	cnA-3
BB	Positive	cnBBB	cnA-3
BB	Stable, Developing	cnBBB-	cnA-3
BB	Negative	cnBB+	cnB
BB-	Positive, Stable, Developing	cnBB+	cnB
BB-	Negative	cnBB	cnB
B+	Positive, Stable, Developing	cnBB	cnB
B+	Negative	cnBB-	cnB
B	Positive, Stable, Developing	cnBB-	cnB
B	Negative	cnB+	cnB
B-	Positive	cnB+	cnB
B-	Stable, Developing	cnB	cnB
B-	Negative	cnB-	cnB
CCC+	Any	cnCCC+	cnC
CCC	Any	cnCCC	cnC
CCC-	Any	cnCCC-	cnC
CC	Any	cnCC	cnC
C	Any	cnC	cnC
R	--	R	R
SD	--	SD	SD
D	--	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 7

### Gulf Cooperation Council Mapping Table

Global-scale long-term local-currency rating	Regional-scale long-term rating	Regional-scale short-term rating
A- and above	gcAAA	gcA-1+
BBB+	gcAA+	gcA-1+
BBB	gcAA	gcA-1
BBB-	gcAA-	gcA-1

Table 7

**Gulf Cooperation Council Mapping Table (cont.)**

Global-scale long-term local-currency rating	Regional-scale long-term rating	Regional-scale short-term rating
BB+	gcA+, gcA	gcA-2
BB	gcA-, gcBBB+	gcA-2
BB-	gcBBB, gcBBB-	gcA-3
B+	gcBB+, gcBB	gcB
B	gcBB-, gcB+	gcB
B-	gcB, gcB-	gcB
CCC+	gcCCC+	gcC
CCC	gcCCC	gcC
CCC-	gcCCC-	gcC
CC	gcCC	gcC
C	gcC	gcC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 8

**Israel (Maalot) Mapping Table**

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
A- and above	iIAAA	iIA-1+
BBB+	iIAAA, iIAA+	iIA-1+
BBB	iIAA+, iIAA	iIA-1+
BBB-	iIAA	iIA-1+
BBB-	iIAA-	iIA-1
BB+	iIAA-	iIA-1
BB	iIAA-, iIA+	iIA-1
BB-	iIA+, iIA	iIA-1
B+	iIA	iIA-1
B+	iIA-	iIA-2
B	iIA-, iIBBB+, iIBBB	iIA-2
B-	iIBBB, iIBBB-	iIA-3
CCC+	iIBB+, iIBB, iIBB-	iIB
CCC	iIB	iIB
CCC-	iICCC	iIC
CC	iICC	iIC
C	iIC	iIC

Table 8

### Israel (Maalot) Mapping Table (cont.)

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 9

### Kazakhstan Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating
BBB+ and above	kzAAA
BBB	kzAA+
BBB-	kzAA
BB+	kzAA-
BB	kzA+, kzA
BB-	kzA-, kzBBB+
B+	kzBBB, kzBBB-
B	kzBB+, kzBB
B-	kzBB, kzBB-, kB+
CCC+	kzB, kB-
CCC	kzCCC+
CCC-	kzCCC, kzCCC-
CC	kzCC
C	kzC
R	R
SD	SD
D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 10

### Mexico (CaVal) Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BBB+ and above	mxAAA	mxA-1+
BBB	mxAAA, mxAA+	mxA-1+
BBB-	mxAA+, mxAA	mxA-1+
BB+	mxAA	mxA-1+
BB	mxAA-	mxA-1+, mxA-1
BB+	mxA+	mxA-1

Table 10

**Mexico (CaVal) Mapping Table (cont.)**

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BB	mxA+	mxA-1
BB	mxA	mxA-1, mxA-2
BB-	mxA-, mxBBB+	mxA-2
B+	mxBBB	mxA-2, mxA-3
B+	mxBBB-	mxA-3
B	mxBBB-	mxA-3
B	mxBB+	mxB
B-	mxBB+, mxBB, mxBB-	mxB
CCC+	mxB+, mxB, mxB-	mxC
CCC	mxB-, mxCCC	mxC
CCC-	mxCCC	mxC
CC	mxCC	mxC
C	mxC	mxC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 11

**Nigeria Mapping Table**

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BB+ and above	ngAAA	ngA-1
BB	ngAA+	ngA-1
BB-	ngAA, ngAA-	ngA-1
B+	ngA+, ngA, ngA-	ngA-1, ngA-2
B	ngBBB+, ngBBB, ngBBB-	ngA-2, ngA-3
B-	ngBB+, ngBB	ngB
CCC+	ngBB-, ngB+	ngB
CCC	ngB, ngB-, ngCCC+	ngC
CCC-	ngCCC, ngCCC-	ngC
CC	ngCC	ngC
C	ngC	ngC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.



Table 12

## Nordic Mapping Table

Global-scale long-term local-currency rating	Regional-scale short-term rating
BBB+ and above	K-1
BBB	K-2
BBB-	K-3
BB+ to BB-	K-4
B+ to B-	K-5
CCC+ to C	K-6
SD	SD
D	D

SD--Selective default. D--Default.

Table 13

## Russia Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating
BBB- and above	ruAAA
BB+	ruAA+
BB	ruAA
BB-	ruAA-
B+	ruA+, ruA
B	ruA, ruA-, ruBBB+
B-	ruBBB, ruBBB-
CCC+	ruBB+, ruBB, ruBB-
CCC	ruB+, ruB, ruB-
CCC-	ruCCC+, ruCCC, ruCCC-
CC	ruCC
C	ruC
R	R
SD	SD
D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 14

## South Africa Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BBB- and above	zaAAA	zaA-1+
BB+	zaAA+, zaAA	zaA-1+
BB	zaAA-	zaA-1+

Table 14

**South Africa Mapping Table (cont.)**

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BB	zaA+	zaA-1
BB-	zaA	zaA-1
BB-	zaA-	zaA-2
B+	zaBBB+, zaBBB	zaA-2
B	zaBBB-	zaA-3
B	zaBB+	zaB
B-	zaBB, zaBB-	zaB
CCC+	zaB+, zaB	zaB
CCC	zaB-	zaB
CCC	zaCCC+	zaC
CCC-	zaCCC, zaCCC-	zaC
CC	zaCC	zaC
C	zaC	zaC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 15

**Taiwan Mapping Table**

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
A+ and above	twAAA	twA-1+
A	twAAA, twAA+	twA-1+
A-	twAA+, twAA	twA-1+
BBB+	twAA	twA-1+
BBB+	twAA-	twA-1+, twA-1
BBB	twAA-	twA-1+, twA-1
BBB	twA+	twA-1
BBB-	twA+	twA-1
BBB-	twA	twA-1, twA-2
BB+	twA	twA-1, twA-2
BB+	twA-	twA-2
BB+	twBBB+	twA-2, twA-3
BB	twBBB+	twA-2, twA-3
BB	twBBB	twA-3
BB-	twBBB, twBBB-	twA-3

## General Criteria: S&P Global Ratings' National And Regional Scale Mapping Tables

Table 15

### Taiwan Mapping Table (cont.)

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
B+	twBBB-	twA-3
B+	twBB+, twBB	twB
B	twBB, twBB-, twB+	twB
B-	twB+, twB	twB
B-	twB-	twB, twC
CCC+	twCCC+	twC
CCC	twCCC	twC
CCC-	twCCC-	twC
CC	twCC	twC
C	twC	twC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 16

### Turkey Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating	National-scale short-term rating
BBB- and above	trAAA	trA-1
BB+	trAA+	trA-1
BB	trAA, trAA-	trA-1
BB-	trA+, trA	trA-1
B+	trA-, trBBB+	trA-2
B	trBBB, trBBB-	trA-3
B-	trBB+, trBB	trB
CCC+	trBB-, trB+	trB
CCC	trB, trB-, trCCC+	trC
CCC-	trCCC, trCCC-	trC
CC	trCC	trC
C	trC	trC
R	R	R
SD	SD	SD
D	D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 17

## Ukraine Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating
BB and above	uaAAA
BB-	uaAA+, uaAA
B+	uaAA-, uaA+
B	uaA, uaA-, uaBBB+
B-	uaBBB, uaBBB-, uaBB+
CCC+	uaBB, uaBB-, uaB+, uaB
CCC	uaB-, uaCCC+, uaCCC
CCC-	uaCCC-
CC	uaCC
C	uaC
R	R
SD	SD
D	D

R--Regulatory supervision. SD--Selective default. D--Default.

Table 18

## Uruguay Mapping Table

Global-scale long-term local-currency rating	National-scale long-term rating
BBB- and above	uyAAA
BB+	uyAAA, uyAA+
BB	uyAA, uyAA-
BB-	uyA+, uyA, uyA-
B+	uyBBB+, uyBBB, uyBBB-
B	uyBB+, uyBB, uyBB-
B-	uyB+, uyB, uyB-
CCC+	uyCCC+
CCC	uyCCC
CCC-	uyCCC-
CC	uyCC
C	uyC
R	R
SD	SD
D	D

R--Regulatory supervision. SD--Selective default. D--Default.

## APPENDIX

### Summary Of Changes To The Mapping Tables

6. This update follows our "Request for Comment: Brazil National Scale Mapping," published on July 13, 2017. We have adopted the proposed Brazil mapping without changes.
7. On July 27, 2017, we updated this article to incorporate changes to the South Africa mapping table, following our "Request for Comment: South Africa National Scale Mapping Table," published on June 9, 2017. We adopted the proposed mapping for long-term ratings and we modified the short-term rating by introducing the 'zaA-1+' rating, to create greater differentiation at the top end of the table.
8. On June 1, 2016, we updated this article to incorporate the Chile national scale mapping table, as proposed in "Request For Comment: Chile National Scale Mapping Table," published April 12, 2016, on RatingsDirect. We did not make any changes from our proposal.

### RELATED CRITERIA

- Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- S&P Global Ratings Definitions, June 26, 2017
- National And Regional Scale Credit Ratings, Sept. 22, 2014
- Methodology For Applying Recovery Ratings To National Scale Issue Ratings, Sept. 22, 2014
- Standard & Poor's Maalot (Israel) National Scale: Methodology For Nonfinancial Corporate Issue Ratings, Sept. 22, 2014
- Principles Of Credit Ratings, Feb. 16, 2011

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## **Form NRSRO Exhibit 1**

### **History of Rating Actions**

In accordance with the rules of the Securities and Exchange Commission (the "Commission"), the NRSRO makes and keeps publicly available on its internet [website](#) in an interactive data file in XBRL format the ratings action information required pursuant to 17 CFR §240.17g-7(b), at the following URL:  
[https://www.standardandpoors.com/en\\_US/web/quest/regulatory/ratingshistory](https://www.standardandpoors.com/en_US/web/quest/regulatory/ratingshistory).

## **Form NRSRO Exhibit 1**

### **Methodology**

S&P Global Ratings uses the single cohort approach method of calculating the performance measurement statistics in Exhibit 1. The single cohort approach is used to calculate transition and default rates in order to determine the percent of credit ratings at each notch in the rating scale for a given class or subclass and for the applicable time period (1-, 3-, and 10-years) that were rated at the same notch or transitioned to another notch as of the end of the period, and the percent of credit ratings at each notch that were classified as a default or paid off, or had been withdrawn for reasons other than being classified as a default or paid off during the period. For example, a matrix containing 3-year transition and default rates for the class of corporate issuers discloses the number of credit ratings of corporate issuers S&P Global Ratings had outstanding as of the period start date that is three years prior to the most recent calendar year end at each notch in the rating scale used by S&P Global Ratings, the percent of those credit ratings that were rated at the same notch and the percent that transitioned to each other notch in the rating scale as of the end of the 3-year period, and the percent that were classified as a default or paid off, or had been withdrawn at any time during the 3-year period.

Single and average cohort approaches provide different information about rating performance. The single cohort approach uses information from only the most recent 1-, 3-, and 10-year periods and thus presents the rating performance at specific points in time. As such, it is useful for presenting the historical experience of a particular group of ratings under a particular set of circumstances. On the other hand, the average cohort approach uses information from multiple time periods and thus presents the weighted average rating performance across all available 1-, 3-, or 10-year time periods. Both approaches are valid, depending on the needs of the user, but they do not yield comparable information.

S&P Global Ratings uses both single and average cohort approaches in the rating performance measurement statistics it publishes on its Internet website. As noted previously, single and average cohort approaches provide different information about rating performance. S&P Global Ratings uses both approaches to present the rating performance measurement statistics to avoid the pitfalls in estimating default and transition rates using one approach.