

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

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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of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (Other)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%											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												1.54%		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of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (Other)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%											23.02%
BB+	71								4.23%	4.23%	8.45%	26.76%	19.72%	4.23%	2.82%										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%								25.64%
B+	66												1.52%	1.52%	15.15%	30.30%	13.64%	4.55%							1.28%
B	83												1.52%	1.52%	15.15%	30.30%	13.64%	4.55%							10.61%
B-	44												1.20%	1.20%	3.61%	7.23%	31.33%	21.69%	1.20%						7.23%
CCC+	17																9.09%	43.18%	4.55%						18.18%
CCC	3																								25.00%
CCC-	4																	33.33%							66.67%
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%										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%	9.09%										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%										37.50%	
B	23														17.39%	47.83%	17.39%						12.50%	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%			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%	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%							17.69%
BB	313									0.32%	4.79%	16.61%	37.70%	13.10%	3.51%	3.19%	0.64%	0.32%		0.32%						18.53%
BB-	367										1.09%	0.82%	14.71%	28.88%	10.08%	9.26%	1.63%	0.82%	0.82%							28.07%
B+	494											1.21%	4.45%	12.75%	23.08%	12.75%	4.86%	1.01%	0.61%	0.40%						33.00%
B	931											0.11%	1.07%	2.69%	5.91%	27.39%	10.20%	4.30%	1.29%	0.43%	0.21%					37.81%
B-	346												0.87%	0.29%	2.60%	10.40%	21.39%	4.34%	1.45%	0.87%	0.58%					36.99%
CCC+	82									1.22%		1.22%				2.44%	3.66%	9.76%	2.44%	3.66%	2.44%					32.93%
CCC	28															7.14%	10.71%									39.29%
CCC-	24													4.17%	8.33%	8.33%	12.50%									29.17%
CC	6																									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%	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%	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%									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%	0.54%	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%	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%			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%												26.61%		
A-	210	1.43%	0.95%	0.48%	2.86%	0.95%	6.19%	65.24%	1.43%	0.48%	0.95%									0.81%				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%	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%				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%				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%								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%	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%	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%	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%			0.27%						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%													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%	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%	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%							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%							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%												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%												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%	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%	0.54%		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%		1.60%	0.60%		49.70%	33.87%	12.83%
BB+	260																			1.15%	0.38%		70.00%	17.31%	11.15%
BB	370																			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%	1.01%	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%							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%	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%											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%											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%						25.00%		
B+	31								3.23%	9.68%					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%					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%																				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%										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																								83.33%
B-	6														33.33%	50.00%	16.67%								
CCC+	1																								
CCC	5																								
CCC-	11																						40.00%		
CC	1																								27.27%
C	1																								100.00%
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																								
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%								10.00%
B+	13											7.69%		7.69%	46.15%	7.69%	23.08%								
B	12													8.33%	16.67%	50.00%	16.67%		8.33%					7.69%	
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%														
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%		20.00%									20.00%
B	8												12.50%		25.00%	12.50%							25.00%		25.00%	
B-	4												25.00%				25.00%						50.00%		25.00%	
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%	0.12%	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%							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%							23.21%	14.29%	14.29%
B+	16							6.25%		6.25%				12.50%	25.00%	12.50%										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%	2.53%	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%							4.84%	35.48%	33.87%
BB-	18										11.11%														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													20.00%											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%													30.00%
BB	28									3.57%	10.71%	21.43%	7.14%		3.57%											42.86%
BB-	30										3.33%	6.67%	6.67%	3.33%												73.33%
B+	20										10.00%	5.00%	10.00%	20.00%	5.00%											35.00%
B	5																									100.00%
B-	2																									50.00%
CCC+																										
CCC																										
CCC-																										
CC																										
C																										
Total	322																									

S&P Global Ratings Definitions

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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.