

A. Financial Institutions, Brokers, or Dealers - 1-Year Transition and Default Rates

(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)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	100.0%																							
AA+	7		100.0%																						
AA	33			100.0%																					
AA-	76				100.0%																				
A+	142					4.2%	85.2%	7.0%																3.5%	
A	146					0.7%	1.4%	92.5%	2.1%															3.4%	
A-	170							11.8%	83.5%	2.9%														1.8%	
BBB+	168							0.6%	9.5%	82.1%	3.0%													4.8%	
BBB	144								1.4%	18.8%	72.2%	2.8%												4.9%	
BBB-	164									19.5%	70.7%		1.2%	1.2%										7.3%	
BB+	104									1.0%	11.5%	67.3%	13.5%											6.7%	
BB	94										2.1%	17.0%	66.0%	1.1%										13.8%	
BB-	107											15.9%	79.4%	0.9%	0.9%							1.9%		0.9%	
B+	49												20.4%	67.3%	4.1%							2.0%		6.1%	
B	41													19.5%	61.0%	7.3%	4.9%							7.3%	
B-	50													2.0%	30.0%	54.0%	4.0%	4.0%						6.0%	
CCC+	21																14.3%	71.4%						14.3%	
CCC	23																8.7%	21.7%	56.5%					13.0%	
CCC-	3																	33.3%		33.3%				33.3%	
CC	3																					33.3%		66.7%	
C	1																							100.0%	
TOTAL	1566																								

A. Financial Institutions, Brokers, or Dealers - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022-12/31/2025 (%)			
Credit Rating	# of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)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	26	69.2%	23.1%																						7.7%
AA+																									
AA	31			100.0%																					
AA-	78				79.5%	16.7%																			3.8%
A+	116				12.9%	70.7%	12.1%																		4.3%
A	169				1.2%	10.1%	66.3%	5.9%	1.2%	1.2%															14.2%
A-	147					3.4%	17.0%	66.0%	2.0%	1.4%													0.7%		9.5%
BBB+	180					1.7%	2.8%	19.4%	58.3%	5.6%	0.6%	0.6%											0.6%		10.6%
BBB	132							4.5%	27.3%	54.5%	0.8%		0.8%												12.1%
BBB-	145								5.5%	23.4%	55.2%	3.4%	0.7%												11.7%
BB+	86									2.3%	23.3%	48.8%	16.3%												9.3%
BB	58								1.7%		3.4%	36.2%	34.5%	3.4%		1.7%						1.7%			17.2%
BB-	94									3.2%	8.5%	37.2%	34.0%		1.1%	2.1%		1.1%							12.8%
B+	40									2.5%	7.5%	2.5%	5.0%	15.0%	37.5%	12.5%	5.0%						2.5%		10.0%
B	51										3.9%		5.9%	5.9%	19.6%	15.7%	15.7%						7.8%		25.5%
B-	95										1.1%			33.7%	6.3%	17.9%	13.7%	5.3%	2.1%				3.2%		16.8%
CCC+	11																	63.6%	9.1%				18.2%		9.1%
CCC	1																								100.0%
CCC-	17																11.8%	23.5%	41.2%						23.5%
CC	3																						33.3%		66.7%
C																									
TOTAL	1480																								

A. Financial Institutions, Brokers, or Dealers - 10-Year Transition and Default Rates
(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# 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	14	57.1%	28.6%																					14.3%	
AA+	2	50.0%		50.0%																					
AA	13			53.8%	15.4%	23.1%																		7.7%	
AA-	75			9.3%	49.3%	25.3%	1.3%																	14.7%	
A+	111			2.7%	9.0%	28.8%	25.2%	3.6%	0.9%															29.7%	
A	154			1.9%	1.9%	19.5%	33.1%	12.3%	3.2%	1.9%														26.0%	
A-	138					6.5%	19.6%	36.2%	8.0%	1.4%												1.4%		26.8%	
BBB+	136				2.9%	1.5%	2.9%	14.0%	22.1%	9.6%	7.4%	4.4%	2.2%											33.1%	
BBB	134						1.5%	4.5%	27.6%	17.9%	1.5%	5.2%	7.5%	10.4%										23.9%	
BBB-	186						1.1%	0.5%	7.0%	11.3%	16.1%	5.4%	3.2%	10.2%	1.1%							1.6%		42.5%	
BB+	79								5.1%	10.1%	12.7%	12.7%	13.9%	2.5%								1.3%		41.8%	
BB	71							1.4%		4.2%	7.0%	8.5%	4.2%	2.8%	4.2%	2.8%	1.4%					2.8%		60.6%	
BB-	59								1.7%		6.8%	5.1%	10.2%	6.8%	5.1%	6.8%		1.7%				1.7%		54.2%	
B+	47									2.1%	6.4%			10.6%		8.5%	2.1%					6.4%		63.8%	
B	45					2.2%							2.2%	2.2%	11.1%	13.3%	4.4%	4.4%	2.2%			13.3%		44.4%	
B-	43									2.3%		4.7%	9.3%	2.3%		7.0%	9.3%					4.7%		60.5%	
CCC+																									
CCC	24									4.2%								12.5%	16.7%			8.3%		58.3%	
CCC-																									
CC																									
C																									
TOTAL	1331																								

B. Insurance Companies - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024-12/31/2025 (%)			
Credit Rating	# 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+	9		100.0%																						
AA	15			100.0%																					
AA-	183			0.5%	98.4%																			1.1%	
A+	176					97.2%																		2.8%	
A	208					19.7%	75.0%	2.4%																2.9%	
A-	140					1.4%	6.4%	85.0%	5.0%															2.1%	
BBB+	105						1.9%	12.4%	78.1%	4.8%														2.9%	
BBB	49							6.1%	28.6%	57.1%	2.0%													6.1%	
BBB-	13									38.5%	46.2%	7.7%												7.7%	
BB+	5										40.0%	60.0%													
BB	4												75.0%											25.0%	
BB-	3												33.3%	33.3%										33.3%	
B+	5														80.0%	20.0%									
B	5														40.0%	20.0%	20.0%							20.0%	
B-	4															50.0%	50.0%								
CCC+	1																							100.0%	
CCC																									
CCC-	1																							100.0%	
CC																									
C																									
TOTAL	926																								

B. Insurance Companies - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																					Other Outcomes During 12/31/2022 - 12/31/2025 (%)		
Credit Rating	# 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+	8		100.0%																						
AA	15			93.3%																				6.7%	
AA-	159			0.6%	98.1%																			1.3%	
A+	190				9.5%	85.8%																		4.7%	
A	192					12.0%	68.8%	10.4%																8.9%	
A-	160					12.5%	13.8%	43.8%	15.0%	0.6%														14.4%	
BBB+	104					1.0%	3.8%	30.8%	42.3%	6.7%														15.4%	
BBB	49							10.2%	38.8%	30.6%												2.0%		18.4%	
BBB-	11								18.2%	27.3%	27.3%			9.1%										18.2%	
BB+	6											50.0%												50.0%	
BB	5									20.0%			20.0%											60.0%	
BB-	5												20.0%											80.0%	
B+	7														42.9%									57.1%	
B	6														33.3%	16.7%								50.0%	
B-	4															50.0%	25.0%							25.0%	
CCC+																									
CCC																									
CCC-																									
CC	2																							100.0%	
C																									
TOTAL	923																								

B. Insurance Companies - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	1		100.0%																						
AA+	5		100.0%																						
AA	18			77.8%																				22.2%	
AA-	158				89.2%	0.6%		1.3%																8.9%	
A+	146			0.7%	12.3%	44.5%	6.2%			0.7%														35.6%	
A	250		0.8%		1.2%	26.4%	28.0%	8.4%	5.6%	0.4%														29.2%	
A-	179					16.8%	13.4%	21.2%	6.7%	1.7%														40.2%	
BBB+	120						5.0%	15.8%	12.5%	0.8%														65.8%	
BBB	37						8.1%	21.6%	5.4%	8.1%												2.7%		54.1%	
BBB-	24					4.2%	4.2%	8.3%	37.5%															45.8%	
BB+	6																							100.0%	
BB	7							14.3%		14.3%														71.4%	
BB-	4												25.0%											75.0%	
B+	6												16.7%				16.7%							66.7%	
B	5									20.0%														80.0%	
B-	4																							100.0%	
CCC+																									
CCC																									
CCC-																									
CC																									
C																									
TOTAL	970																								

C. Corporate issuers - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	2	100.0%																							
AA+	3		100.0%																						
AA	14			78.6%																				21.4%	
AA-	16				87.5%	6.3%																		6.3%	
A+	56				1.8%	39.3%	55.4%																	3.6%	
A	91						72.5%	20.9%																6.6%	
A-	180						2.8%	80.0%	9.4%	1.1%														6.7%	
BBB+	301							2.3%	86.4%	5.0%														6.3%	
BBB	390			0.3%					10.8%	79.7%	4.6%	0.3%												4.4%	
BBB-	326								0.6%	8.6%	80.4%	4.9%	0.6%	0.3%										4.6%	
BB+	223								0.9%		11.2%	75.3%	5.4%	0.4%		0.4%					0.4%			5.8%	
BB	188										3.7%	7.4%	70.2%	8.5%										10.1%	
BB-	227											1.8%	12.8%	59.5%	13.7%	1.3%			0.4%				0.4%	10.1%	
B+	204										0.5%	0.5%	1.0%	6.9%	64.7%	3.4%	2.5%	1.5%					1.0%	18.1%	
B	340													0.9%	3.2%	65.9%	10.3%	1.8%	0.3%	0.6%	0.3%	0.9%	2.1%	13.8%	
B-	367														1.6%	6.0%	57.8%	5.4%	3.5%	1.1%		5.2%		19.3%	
CCC+	115														0.9%	0.9%	13.9%	30.4%	8.7%	13.9%	1.7%		7.8%	21.7%	
CCC	46																6.5%	19.6%	13.0%	2.2%	2.2%	10.9%	28.3%	17.4%	
CCC-	33																	18.2%	27.3%			3.0%	45.5%	6.1%	
CC	23																			4.3%	26.1%	8.7%	39.1%	21.7%	
C	6																							100.0%	
TOTAL	3151																								

C. Corporate issuers - 3-Year Transition and Default Rates
(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022-12/31/2025 (%)			
Credit Rating	# of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	2	50.0%																							
AA+	3		66.7%	33.3%																					
AA	7		14.3%	85.7%																					
AA-	18			11.1%	77.8%																			11.1%	
A+	41					19.5%	61.0%			2.4%															
A	106				0.9%	9.4%	57.5%	14.2%	0.9%																
A-	158					0.6%	4.4%	65.8%	17.1%	1.3%															
BBB+	269						0.4%	7.4%	65.1%	8.6%	0.7%	0.4%		0.7%								0.4%			
BBB	361						0.8%	1.9%	17.2%	55.4%	9.1%	0.8%	0.6%	0.3%	0.3%										
BBB-	361			0.3%			0.3%		3.0%	19.9%	51.8%	7.5%	3.0%	0.3%	0.6%	0.6%		0.3%			0.3%				
BB+	154								1.9%	0.6%	18.2%	48.7%	9.7%	2.6%		0.6%	0.6%	0.6%					1.3%		
BB	188								0.5%	0.5%	8.0%	23.4%	30.9%	7.4%	1.6%	1.6%		0.5%					3.7%		
BB-	221								0.5%		3.6%	4.1%	15.4%	24.9%	12.7%	2.3%	1.4%	1.4%	0.5%				4.1%		
B+	157										1.3%	1.3%	0.6%	14.6%	28.0%	8.3%	3.2%	1.9%					4.5%		
B	341												1.2%	2.9%	4.1%	30.5%	10.3%	2.1%	0.6%	0.9%			6.5%		
B-	413											0.5%	0.5%		1.5%	7.5%	21.3%	3.1%	3.6%	2.4%			11.4%		
CCC+	80													1.3%	1.3%	1.3%	18.8%	3.8%	5.0%	3.8%	2.5%		21.3%		
CCC	50																6.0%	4.0%	2.0%	2.0%			50.0%		
CCC-	46																	13.0%	4.3%	6.5%			56.5%		
CC	18																6.5%				5.6%	11.1%	77.8%		
C	3																					66.7%			
TOTAL	2997																								

C. Corporate issuers - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	1																							100.0%	
AA+	2																							100.0%	
AA	12		8.3%	25.0%	8.3%																			58.3%	
AA-	21				28.6%	4.8%																		66.7%	
A+	54			1.9%	1.9%	9.3%	35.2%	1.9%	1.9%	3.7%														44.4%	
A	106				0.9%	4.7%	34.9%	10.4%	6.6%	2.8%	1.9%													37.7%	
A-	149					0.7%	8.1%	31.5%	18.8%	3.4%	0.7%											2.0%		34.9%	
BBB+	255					0.4%	2.0%	9.8%	31.0%	7.5%	3.5%	1.6%	0.8%	0.8%								1.6%		41.2%	
BBB	247			0.4%				4.9%	14.2%	27.1%	8.9%	2.8%	1.2%		0.4%							0.8%		39.3%	
BBB-	300						0.3%	0.7%	9.0%	15.7%	15.7%	8.3%	1.7%	1.7%	1.3%	0.3%					0.3%	2.0%		43.0%	
BB+	126							0.8%	2.4%	7.1%	9.5%	7.9%	4.0%		0.8%	0.8%		0.8%				3.2%		62.7%	
BB	100								3.0%	1.0%	5.0%	9.0%	3.0%	5.0%		1.0%	1.0%	2.0%				10.0%		60.0%	
BB-	111									1.8%	2.7%	8.1%	1.8%	5.4%	4.5%	1.8%						15.3%		58.6%	
B+	106								1.9%		0.9%	1.9%	2.8%	1.9%	4.7%		0.9%					17.0%		67.9%	
B	122											1.6%	1.6%	0.8%	1.6%	1.6%		0.8%				18.9%		73.0%	
B-	59													1.7%		1.7%		1.7%				28.8%		66.1%	
CCC+																									
CCC	37																2.7%			5.4%		54.1%		37.8%	
CCC-																									
CC	10																					90.0%		10.0%	
C	5																					100.0%			
TOTAL	1823																								

D(i) Residential mortgage backed securities ("RMBS") - 1-Year Transition and Default Rates

(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# 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	4783	92.8%	0.0%	0.2%		0.4%	0.0%																	6.5%	0.0%
AA+	296	53.7%	31.8%		0.7%																			13.9%	
AA	1234	23.8%	8.1%	60.8%	0.2%	0.4%	0.3%			1.2%			0.4%											3.8%	1.0%
AA-	140	18.6%	15.0%	37.1%	23.6%	3.6%																		2.1%	
A+	181	1.7%	5.0%	3.9%	7.7%	59.7%	0.6%	1.7%	0.6%	0.6%	1.1%												17.1%	0.6%	
A	1257	2.1%	10.3%	38.3%	0.2%	1.8%	37.5%	0.3%	0.2%	1.4%	0.1%	0.2%	2.5%	0.3%		0.3%							3.4%	1.0%	
A-	155		3.2%	21.3%	0.6%	4.5%	43.2%	18.7%	0.6%	3.2%	0.6%												3.9%		
BBB+	72		5.6%	6.9%		9.7%	12.5%	2.8%	22.2%	4.2%	1.4%	11.1%	2.8%	1.4%			1.4%						18.1%		
BBB	832		2.9%	8.9%		0.6%	28.1%	0.4%	0.2%	50.0%	0.4%	0.4%	1.6%			1.1%	0.1%						3.8%	1.6%	
BBB-	161		0.6%	0.6%	1.9%	1.2%	32.3%	1.2%		36.6%	19.9%	1.2%	1.2%										1.9%		
BB+	67		1.5%		1.5%	4.5%	7.5%	1.5%	1.5%	11.9%	6.0%	41.8%	4.5%	4.5%		1.5%	1.5%		3.0%				7.5%		
BB	608		1.6%	3.1%			13.8%		0.3%	25.8%		0.7%	42.6%	0.5%		3.3%	0.7%		3.6%				2.5%	1.5%	
BB-	79						2.5%			19.0%			44.3%	26.6%	5.1%		2.5%								
B+	40						2.5%		2.5%	20.0%	2.5%		30.0%	2.5%	22.5%		12.5%						5.0%		
B	463			1.3%			4.1%			14.9%			25.5%	0.4%	0.9%	36.9%	1.7%		10.4%		0.2%		2.2%	1.5%	
B-	102									2.0%		2.0%	15.7%	2.0%	1.0%	23.5%	48.0%		3.9%				2.0%		
CCC+	1																	100.0%							
CCC	285												0.7%		0.4%	14.7%	0.4%		71.2%		1.8%	3.2%	0.7%	1.1%	6.0%
CCC-																									
CC	185								1.1%										4.9%		85.9%	4.9%	1.1%	2.2%	
C	313																				5.4%	89.1%	2.9%	0.6%	1.9%
TOTAL	11254																								

D(i) Residential mortgage backed securities ("RMBS") - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022 - 12/31/2025 (%)			
Credit Rating	# 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	3684	74.1%	0.1%	1.0%		0.6%				0.0%			0.1%											23.8%	0.3%
AA+	184	55.4%	15.2%	1.1%																			0.5%	27.7%	
AA	668	55.7%	1.8%	23.4%		0.3%	0.7%						0.1%					0.1%						12.6%	5.2%
AA-	105	39.0%	15.2%	18.1%	4.8%	5.7%																		17.1%	
A+	277	12.6%	7.9%	6.1%	3.6%	29.6%		0.4%	0.4%															39.4%	
A	1215	15.0%	5.5%	41.0%	0.3%	1.2%	12.3%	0.1%		1.4%		0.1%	1.8%	0.3%		0.4%		0.5%						13.8%	6.3%
A-	111	8.1%	11.7%	21.6%	1.8%	3.6%	27.0%	5.4%	0.9%	1.8%	1.8%													16.2%	
BBB+	60	1.7%	8.3%	11.7%	3.3%	11.7%	13.3%	3.3%	6.7%	1.7%	1.7%	8.3%	1.7%											25.0%	1.7%
BBB	997	4.3%	6.1%	27.7%	0.3%	0.5%	18.8%			15.9%		0.4%	2.3%			0.7%	0.1%	0.9%						7.0%	14.9%
BBB-	80		3.8%	7.5%	1.3%	5.0%	20.0%		1.3%	33.8%	2.5%	6.3%		1.3%										17.5%	
BB+	91		9.9%	1.1%	1.1%	6.6%	9.9%	2.2%	1.1%	9.9%	3.3%	12.1%	3.3%			1.1%		2.2%						35.2%	1.1%
BB	704	1.6%	3.3%	12.6%		0.3%	19.7%	0.4%	0.1%	17.6%	0.1%	0.1%	11.1%	0.3%		2.4%	0.7%	4.0%				0.1%	6.4%	19.0%	
BB-	48		2.1%		2.1%	4.2%	14.6%			22.9%		2.1%	31.3%	4.2%	2.1%	2.1%	2.1%							10.4%	
B+	34					2.9%	8.8%			17.6%	5.9%	2.9%	38.2%		11.8%		5.9%						2.9%	2.9%	
B	531	0.6%	0.2%	6.4%			14.1%		0.2%	23.7%			13.0%	0.2%	0.2%	11.1%	0.9%	9.4%			0.6%	0.4%	8.3%	10.7%	
B-	77						2.6%	1.3%		6.5%		1.3%	15.6%	2.6%	3.9%	14.3%	32.5%	1.3%	5.2%					11.7%	1.3%
CCC+																									
CCC	312					0.6%	0.6%		0.6%	5.1%	0.3%		13.1%		0.3%	8.7%	0.3%	46.8%			1.6%	3.2%	1.9%	4.8%	11.9%
CCC-																									
CC	272						0.4%		0.7%	0.4%		0.4%	1.5%	0.4%		13.2%	0.4%		10.3%		55.9%	5.9%	2.2%	2.6%	5.9%
C	350																		0.9%		4.3%	76.6%	6.3%	1.4%	10.6%
TOTAL	9800																								

D(i) Residential mortgage backed securities ("RMBS") - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015 - 12/31/2025 (%)			
Credit Rating	# 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	1729	13.6%	0.1%	0.2%		0.9%											0.2%							79.6%	5.3%
AA+	214	3.7%	0.5%			4.7%	0.5%										0.5%							89.3%	0.9%
AA	776	9.4%	0.5%	1.3%		1.0%	0.9%						0.5%						0.1%				0.1%	64.3%	21.8%
AA-	75	9.3%				4.0%											2.7%							84.0%	
A+	122	9.0%	0.8%			3.3%																		85.2%	1.6%
A	1731	4.4%	0.3%	4.2%	0.1%	1.0%	0.8%	0.1%		0.3%			0.2%			0.1%	0.1%		0.1%				0.7%	69.1%	18.5%
A-	65	12.3%	3.1%			12.3%											4.6%							67.7%	
BBB+	88	9.1%	2.3%	1.1%		9.1%	6.8%			1.1%							2.3%							68.2%	
BBB	1621	4.4%	0.7%	2.9%		0.4%	1.8%			1.3%		0.1%	0.6%				0.1%		0.2%				2.2%	53.1%	32.2%
BBB-	68	11.8%	2.9%		2.9%	4.4%	1.5%								1.5%				2.9%					69.1%	2.9%
BB+	40	5.0%	5.0%			15.0%	2.5%												2.5%					67.5%	2.5%
BB	1738	3.6%	0.5%	7.4%	0.3%	1.0%	2.1%	0.1%	0.2%	2.5%		0.2%	1.1%			0.3%	0.2%		0.5%			0.1%	3.0%	44.2%	32.6%
BB-	29	6.9%	6.9%																					82.8%	3.4%
B+	13			7.7%	7.7%	30.8%					7.7%				7.7%				7.7%					30.8%	
B	1557	2.3%	0.1%	5.6%	0.3%	0.3%	2.8%	0.2%	0.1%	1.9%	0.3%	0.3%	1.2%	0.1%		1.1%	0.3%		1.6%		0.1%	0.3%	7.2%	44.3%	29.8%
B-	21		14.3%	4.8%		33.3%		4.8%						9.5%			4.8%							28.6%	
CCC+																									
CCC	1758	1.8%	0.2%	6.0%	0.1%	0.3%	3.9%	0.2%	0.1%	2.8%	0.2%	0.5%	1.0%	0.1%	0.2%	0.9%	0.3%		3.8%		0.7%	1.0%	14.1%	35.5%	26.5%
CCC-																									
CC	2431	1.6%	0.0%	9.0%		0.1%	3.6%		0.1%	2.9%		0.0%	2.3%	0.1%	0.0%	1.9%	0.1%		4.2%		3.5%	2.7%	22.5%	29.6%	15.5%
C	2465	0.2%		2.3%			2.3%			2.9%			1.4%			1.8%	0.0%		2.4%			8.5%	34.6%	6.9%	33.8%
TOTAL	16541																								

D(ii) Commercial mortgage backed securities ("CMBS") - 1-Year Transition and Default Rates

(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# 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	3408	85.7%		0.8%	1.1%		0.1%																	12.4%	
AA+	152	5.3%	86.8%		0.7%	1.3%																		5.3%	0.7%
AA	107	0.9%	3.7%	66.4%			7.5%																	20.6%	0.9%
AA-	612	0.8%	0.3%	0.8%	78.1%	1.8%	6.4%	6.4%		0.2%														5.2%	
A+	51			3.9%	7.8%	74.5%			2.0%													2.0%	9.8%		
A	145				0.7%	0.7%	57.9%	0.7%		9.7%	4.1%		4.1%											22.1%	
A-	661	0.2%		0.3%	0.2%	0.3%	1.2%	77.8%		4.4%	11.0%	0.3%	0.8%											3.6%	
BBB+	60			1.7%				5.0%	80.0%	3.3%		3.3%							3.3%					3.3%	
BBB	355						0.8%		1.1%	80.8%	0.8%	0.8%	10.1%	1.4%										3.9%	
BBB-	667			0.4%			0.3%	0.1%	0.4%	1.3%	73.2%		5.4%	9.3%	0.1%	1.3%	1.9%		0.3%			0.1%		5.5%	
BB+	77								2.6%			77.9%		2.6%	6.5%	2.6%	5.2%							2.6%	
BB	210									0.5%	1.0%		62.9%	2.4%	0.5%	16.7%	5.7%		2.4%		0.5%			7.6%	
BB-	391													74.4%			11.0%		4.9%		0.5%			2.8%	
B+	66											1.5%			51.5%	6.1%	19.7%		16.7%		4.5%				
B	119															58.0%	2.5%		31.1%					8.4%	
B-	429											0.2%					66.4%		27.3%		2.6%	1.2%		2.3%	
CCC+																									
CCC	333																		57.1%		33.3%	7.2%	0.3%	2.1%	
CCC-																									
CC	184																				60.9%	34.2%	2.2%	2.7%	
C	162																					82.7%	10.5%	0.6%	6.2%
TOTAL	8189																								

D(ii) Commercial mortgage backed securities ("CMBS") - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022-12/31/2025 (%)			
Credit Rating	# 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	3628	65.6%	2.6%	1.2%	1.2%	0.1%	0.3%	0.1%		0.1%	0.1%								0.1%					28.7%	
AA+	10	10.0%	20.0%					10.0%																50.0%	10.0%
AA	108	6.5%	2.8%	15.7%		2.8%	6.5%			0.9%	1.9%		1.9%											59.3%	1.9%
AA-	599	0.5%	2.5%	3.3%	52.8%	1.5%	7.2%	9.2%	0.2%	3.2%	3.5%		2.0%	0.2%					0.3%			0.2%		13.4%	0.2%
A+	9		11.1%			33.3%																		55.6%	
A	141	3.5%	1.4%		0.7%	1.4%	26.2%	0.7%	1.4%	8.5%	1.4%		2.1%	0.7%		0.7%	1.4%							49.6%	
A-	577	0.2%		0.3%	0.2%	1.4%	2.6%	55.1%		6.1%	12.7%	0.7%	2.9%	2.1%		1.9%	0.9%		0.9%		0.2%	0.2%		11.8%	
BBB+	79	5.1%	8.9%	8.9%	5.1%	8.9%	5.1%		25.3%	3.8%	2.5%		1.3%	2.5%					1.3%					21.5%	
BBB	287	0.3%	1.7%	1.0%	0.3%	0.7%	1.7%		1.0%	54.7%	1.4%	2.8%	11.8%	4.2%	0.7%	3.5%	2.1%		1.0%		0.3%			10.5%	
BBB-	765		1.0%	0.7%	0.7%	1.0%	0.8%	1.2%	0.8%	1.6%	39.6%	0.3%	10.5%	9.0%	0.7%	5.5%	5.9%		6.8%		0.7%	0.5%		12.9%	
BB+	80			2.5%								47.5%	11.3%	1.3%	10.0%	2.5%	7.5%		10.0%		2.5%			5.0%	
BB	139								2.2%	1.4%	2.2%	0.7%	26.6%		2.9%	12.2%	1.4%		17.3%		5.0%	1.4%		26.6%	
BB-	370												0.8%	37.0%	3.8%	6.8%	17.8%		18.6%		7.0%	2.7%		5.4%	
B+	5														20.0%				40.0%				20.0%		
B	101											2.0%	1.0%	1.0%	1.0%	21.8%	5.9%		21.8%		21.8%	4.0%		19.8%	
B-	376												0.3%	0.3%		0.5%	38.6%		31.4%		16.8%	8.2%		4.0%	
CCC+																									
CCC	246											0.4%				0.8%	0.4%		26.8%			32.5%	28.5%	2.0%	8.5%
CCC-																									
CC	102															1.0%			2.0%		30.4%	52.9%	9.8%	3.9%	
C	122																		0.8%			42.6%	34.4%	1.6%	20.5%
TOTAL	7744																								

D(ii) Commercial mortgage backed securities ("CMBS") - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																					Other Outcomes During 12/31/2015 - 12/31/2025 (%)		
Credit Rating	# 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	1914	2.4%		0.7%	0.4%	0.1%	0.3%			0.1%	0.1%		0.1%			0.2%	0.1%							95.6%	
AA+	10																							100.0%	
AA	154	0.6%		3.9%		3.9%	1.9%		1.9%	0.6%				0.6%										85.1%	1.3%
AA-	186	1.6%	1.6%	3.2%	4.3%		7.0%	2.7%		5.4%	3.8%		5.4%			0.5%			2.2%		0.5%	1.1%		60.8%	
A+	16																							100.0%	
A	292	0.3%							0.7%	0.3%	0.7%		0.3%			0.7%			1.0%		0.3%		0.7%	94.2%	0.7%
A-	204	1.5%	0.5%		1.5%	1.0%	2.0%	6.4%		2.9%	3.9%	1.5%	5.9%	2.0%		2.9%	0.5%				2.0%	2.5%	0.5%	58.8%	3.9%
BBB+	48												2.1%			2.1%			6.3%				4.2%	85.4%	
BBB	169									7.7%		0.6%	0.6%						2.4%		0.6%		1.8%	86.4%	
BBB-	283	0.7%			0.4%	0.4%	0.4%			0.4%	7.1%		6.4%	2.5%		2.5%	1.1%		13.1%		7.4%	6.7%	4.9%	44.9%	1.4%
BB+	31									19.4%		3.2%	3.2%						9.7%		3.2%	9.7%	3.2%	48.4%	
BB	269		0.4%	0.4%			0.4%	0.4%			0.4%		2.6%			2.2%	0.7%		1.9%		7.8%	9.7%	7.8%	65.1%	0.4%
BB-	89													7.9%		1.1%	7.9%		14.6%		15.7%	14.6%	5.6%	32.8%	
B+	3																							100.0%	
B	238															1.3%	0.8%		2.9%		2.9%	16.8%	14.7%	60.5%	
B-	74																8.1%		10.8%		12.2%	27.0%	10.8%	31.1%	
CCC+																									
CCC	251																		0.8%			0.4%	29.1%	64.9%	4.8%
CCC-																									
CC	228											0.4%									0.9%	1.8%	55.3%	36.8%	4.8%
C	438												0.2%				0.2%		0.2%			1.4%	84.0%	7.3%	6.6%
TOTAL	4897																								

D(iii) Collateralized loan obligations ("CLOs") - 1-1-Year Transition and Default Rates

(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 - 12/31/2025 (%)			
Credit Rating	# 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	1938	63.5%																						36.5%	
AA+	288	11.1%	58.7%																					30.2%	
AA	1026	0.7%	3.0%	68.0%																				28.3%	
AA-	7			14.3%																				85.7%	
A+	246		1.6%	1.6%	2.0%	62.6%																		32.1%	
A	793			0.3%		3.4%	68.5%																	27.9%	
A-	12							58.3%																41.7%	
BBB+	195					1.5%	1.5%	2.1%	60.0%															34.9%	
BBB	160								6.9%	72.5%														20.6%	
BBB-	971								0.1%	0.9%	77.5%													21.4%	
BB+	213											66.2%	0.5%											33.3%	
BB	87											9.2%	62.1%		1.1%									27.6%	
BB-	675											0.1%	1.0%	73.5%	0.1%		0.3%							24.9%	
B+	83														53.0%									47.0%	
B	30														16.7%	50.0%	6.7%							26.7%	
B-	370															0.5%	72.7%		0.5%					26.2%	
CCC+																									
CCC	1																				100.0%				
CCC-																									
CC																									
C																									
TOTAL	7095																								

D(iii) Collateralized loan obligations ("CLOs") - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																					Other Outcomes During 12/31/2022-12/31/2025 (%)		
Credit Rating	# 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	1500	24.4%																						75.6%	
AA+	184	9.8%	13.6%																					76.6%	
AA	549	5.3%	16.0%	24.6%																				54.1%	
AA-	4	25.0%																						75.0%	
A+	159	0.6%	0.6%	1.3%	0.6%	15.1%																		81.8%	
A	347		0.3%	1.4%	1.2%	17.9%	21.0%																	58.2%	
A-	13							38.5%																61.5%	
BBB+	118					0.8%		0.8%	13.6%															83.9%	0.8%
BBB	97					1.0%	2.1%	2.1%	32.0%	9.3%														53.6%	
BBB-	267					0.4%		0.4%	6.4%	4.9%	24.7%													63.3%	
BB+	107										0.9%	15.9%	0.9%											82.2%	
BB	92											43.5%	17.4%		1.1%		1.1%							37.0%	
BB-	215											3.3%	5.6%	28.8%	0.9%		0.5%							60.9%	
B+	67														13.4%		1.5%	1.5%						83.6%	
B	41													2.4%	29.3%	12.2%	4.9%				2.4%			48.8%	
B-	176														8.0%	5.1%	51.1%		0.6%					35.2%	
CCC+																									
CCC																									
CCC-																									
CC																									
C																									
TOTAL	3936																								

D(iii) Collateralized loan obligations ("CLOs") - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# 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	537																							100.0%	
AA+	43																							100.0%	
AA	90																							100.0%	
AA-																									
A+	22																							100.0%	
A	69																							100.0%	
A-	5																							100.0%	
BBB+	16																							100.0%	
BBB	84																							100.0%	
BBB-	6																							100.0%	
BB+	12																							100.0%	
BB	80																							100.0%	
BB-	5																							100.0%	
B+	2																							100.0%	
B	24																							100.0%	
B-	61																							100.0%	
CCC+																									
CCC	8																						37.5%	62.5%	
CCC-																									
CC	4																						100.0%		
C	3																						100.0%		
TOTAL	1071																								

D(iv) Collateralized debt obligations ("CDOs") - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# 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	39	69.2%				2.6%																		23.1%	5.1%
AA+	23	8.7%	78.3%																					13.0%	
AA	26		3.8%	61.5%																					34.6%
AA-	20				85.0%	5.0%																			10.0%
A+	27	3.7%			3.7%	51.9%																		14.8%	25.9%
A	19			5.3%		15.8%	63.2%																	5.3%	10.5%
A-	23							73.9%																21.7%	4.3%
BBB+	40			2.5%			2.5%		47.5%															35.0%	12.5%
BBB	16								12.5%	68.8%														18.8%	
BBB-	19								10.5%	5.3%	73.7%													5.3%	5.3%
BB+	21						4.8%		4.8%		14.3%	42.9%												4.8%	28.6%
BB	9												33.3%												66.7%
BB-	6												16.7%	16.7%										16.7%	50.0%
B+	4																								100.0%
B																									
B-	6																							16.7%	83.3%
CCC+	1																	100.0%							
CCC	7																		42.9%						57.1%
CCC-																									
CC	10																				30.0%				70.0%
C	65																					36.9%			63.1%
TOTAL	381																								

D(iv) Collateralized debt obligations ("CDOs") - 3-Year Transition and Default Rates
(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022 12/31/2025 (%)			
Credit Rating	# 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	48	39.6%	31.3%																			2.1%	22.9%	4.2%	
AA+	2		50.0%																				50.0%		
AA	24			41.7%																			8.3%	50.0%	
AA-	23			4.3%	30.4%																		56.5%	8.7%	
A+	25				16.0%	20.0%																	44.0%	20.0%	
A	16					25.0%	18.8%		6.3%														37.5%	12.5%	
A-	12							50.0%															33.3%	16.7%	
BBB+	14					14.3%	14.3%		14.3%	7.1%													7.1%	28.6%	
BBB	35					2.9%		2.9%	2.9%	20.0%	5.7%												62.9%	2.9%	
BBB-	17									5.9%	52.9%	29.4%											11.8%		
BB+	18		5.6%						11.1%		16.7%	16.7%											16.7%	33.3%	
BB	14												7.1%										35.7%	57.1%	
BB-	5																						40.0%	60.0%	
B+	9											11.1%											33.3%	55.6%	
B	1												100.0%												
B-	6																	16.7%					33.3%	50.0%	
CCC+																									
CCC	14												14.3%						21.4%				14.3%	50.0%	
CCC-																									
CC	17																				17.6%			82.4%	
C	124																					19.4%	12.1%	68.5%	
TOTAL	424																								

D(iv) Collateralized debt obligations ("CDOs") - 10-Year Transition and Default Rates
(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# 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	68	13.2%	14.7%																					64.7%	7.4%
AA+	32																							96.9%	3.1%
AA	27																							85.2%	14.8%
AA-	6																							50.0%	50.0%
A+	26					11.5%																		73.1%	15.4%
A	106																							67.9%	32.1%
A-	15																							53.3%	46.7%
BBB+	26									23.1%	3.8%	3.8%												65.4%	3.8%
BBB	83									1.2%	2.4%	1.2%												39.8%	55.4%
BBB-	29									3.4%	10.3%	6.9%												72.4%	6.9%
BB+	13										15.4%													69.2%	15.4%
BB	97																					1.0%	52.6%	46.4%	
BB-	3																							100.0%	
B+	4																							100.0%	
B	87									1.1%														49.4%	49.4%
B-	11																					9.1%	81.8%	9.1%	
CCC+																									
CCC	104						1.0%						1.0%											48.1%	50.0%
CCC-																									
CC	93						1.1%						2.2%						3.2%		1.1%		10.8%	41.9%	39.8%
C	854																				0.2%	2.8%	21.0%	6.9%	69.1%
TOTAL	1684																								

D(v) Asset-backed commercial paper ("ABCP") - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)						Other Outcomes During 12/31/2024 - 12/31/2025 (%)		
Credit Rating	# of Ratings Outstanding	F1+	F1	F2	F3	B	C	Defaults	Paid Off	Withdrawn (other)
F1+	23	100.0%								
F1	56		71.4%						28.6%	
F2										
F3										
B										
C										
TOTAL	79									

D(v) Asset-backed commercial paper ("ABCP") - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)						Other Outcomes During 12/31/2022 - 12/31/2025 (%)		
Credit Rating	# of Ratings Outstanding	F1+	F1	F2	F3	B	C	Defaults	Paid Off	Withdrawn (other)
F1+	14	100.0%								
F1	40	10.0%	62.5%						25.0%	2.5%
F2										
F3										
B										
C										
TOTAL	54									

D(v) Asset-backed commercial paper ("ABCP") - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)						Other Outcomes During 12/31/2015 - 12/31/2025 (%)		
Credit Rating	# of Ratings Outstanding	F1+	F1	F2	F3	B	C	Defaults	Paid Off	Withdrawn (other)
F1+	6	83.3%							16.7%	
F1	26	26.9%	65.4%						3.8%	3.8%
F2	5								60.0%	40.0%
F3										
B										
C										
TOTAL	37									

D(vi) Other asset-backed securities ("other ABS") - 1-Year Transition and Default Rates

(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# 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	1459	73.0%																						26.9%	0.1%
AA+	314	9.2%	75.2%	0.6%	1.0%																			14.0%	
AA	352	17.6%	17.0%	45.7%			2.0%			0.6%						0.3%								16.8%	
AA-	69	2.9%	13.0%	4.3%	68.1%		4.3%																	7.2%	
A+	114	3.5%	13.2%	7.0%	5.3%	48.2%	2.6%																	19.3%	0.9%
A	512	1.4%	1.0%	6.3%	1.6%	1.8%	75.4%			2.5%	0.2%					0.4%								9.6%	
A-	84	1.2%	2.4%		2.4%	2.4%	10.7%	58.3%		2.4%	1.2%												2.4%	16.7%	
BBB+	91		1.1%	1.1%	2.2%	3.3%	2.2%	11.0%	53.8%		1.1%	1.1%												22.0%	1.1%
BBB	308	0.3%	0.3%	0.3%	0.3%		8.1%	1.0%	5.8%	69.5%			2.9%			0.6%								10.7%	
BBB-	167	0.6%					1.2%	0.6%	1.2%	2.4%	82.0%		0.6%											11.4%	
BB+	65					1.5%	1.5%	1.5%	1.5%	6.2%	55.4%													29.2%	1.5%
BB	141		0.7%					1.4%	0.7%	7.1%		7.8%	63.1%		0.7%	6.4%	1.4%		1.4%					9.2%	
BB-	58								1.7%		1.7%		13.8%	69.0%	1.7%		1.7%		3.4%					5.2%	1.7%
B+	25												12.0%	8.0%	64.0%					8.0%				8.0%	
B	83									2.4%		1.2%	3.6%	2.4%	2.4%	62.7%			7.2%					18.1%	
B-	7																100.0%								
CCC+	2															50.0%	50.0%								
CCC	15											13.3%			6.7%			33.3%	13.3%		13.3%			20.0%	
CCC-																									
CC	20											5.0%							5.0%		55.0%	15.0%	10.0%		
C	32											3.1%		3.1%	3.1%	3.1%						87.5%			
TOTAL	3918																								

D(vi) Other asset-backed securities ("other ABS") - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022-12/31/2025 (%)			
Credit Rating	# 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	1476	19.3%	12.1%	0.7%			0.3%			0.1%			0.1%			0.3%								66.9%	0.1%
AA+	53	28.3%	17.0%																					54.7%	
AA	327	4.9%	4.3%	17.7%			4.0%			3.4%			0.9%			0.6%								63.6%	0.6%
AA-	30	3.3%	10.0%	10.0%	46.7%																			30.0%	
A+	100	16.0%	6.0%	1.0%	1.0%	13.0%				1.0%			2.0%			1.0%								57.0%	2.0%
A	480	2.9%	1.3%	1.7%	0.6%	1.3%	42.7%			1.9%			0.4%			1.7%						0.2%		45.4%	
A-	58	6.9%	1.7%	1.7%	3.4%		6.9%	15.5%	1.7%						12.1%									48.3%	1.7%
BBB+	52		5.8%	3.8%	1.9%		5.8%	5.8%	15.4%	1.9%						1.9%								51.9%	5.8%
BBB	270	1.5%	0.7%	1.5%			5.2%	1.1%	7.0%	25.2%	0.4%		1.1%			2.6%			0.4%					53.3%	
BBB-	50	2.0%	6.0%	2.0%	2.0%		4.0%	2.0%	4.0%	16.0%			4.0%											52.0%	2.0%
BB+	102		2.0%			2.0%			1.0%	3.9%	36.3%	6.9%	1.0%											46.1%	1.0%
BB	105	1.0%	1.0%					1.0%	2.9%	4.8%	1.9%	3.8%	26.7%		1.0%	1.9%			1.9%					51.4%	1.0%
BB-	20												10.0%	40.0%	5.0%									40.0%	5.0%
B+	14												14.3%	7.1%	7.1%									64.3%	7.1%
B	70			1.4%				1.4%	1.4%	5.7%		1.4%	5.7%	1.4%	1.4%	34.3%			2.9%			2.9%		40.0%	
B-	9											11.1%					33.3%				11.1%			44.4%	
CCC+																									
CCC	28											7.1%				3.6%	7.1%	17.9%	7.1%		3.6%			53.6%	
CCC-																									
CC	36											2.8%			2.8%				2.8%		30.6%	8.3%	22.2%	27.8%	2.8%
C	34											2.9%		2.9%	2.9%	2.9%						82.4%			5.9%
TOTAL	3314																								

D(vi) Other asset-backed securities ("other ABS") - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# 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	1825	1.9%	7.1%	0.9%			0.5%			0.4%			0.4%			1.0%	0.1%		0.2%				0.5%	83.8%	3.3%
AA+	36									2.8%													2.8%	86.1%	8.3%
AA	318	0.6%	4.1%	3.8%		0.6%	1.9%			2.2%						0.9%								84.3%	1.6%
AA-	31		9.7%	3.2%	3.2%	3.2%																		80.6%	
A+	186		0.5%	3.2%		1.6%	5.4%			2.2%			1.1%			2.7%						0.5%	73.1%	9.7%	
A	691	0.1%	0.9%	0.9%			6.5%			1.2%			0.4%		0.3%	2.0%	0.1%					0.1%	0.9%	85.5%	1.0%
A-	115										9.6%				4.3%			1.7%					0.9%	82.6%	0.9%
BBB+	190						1.1%		0.5%															28.4%	70.0%
BBB	239						0.8%			2.5%			0.4%			1.3%					0.4%		0.4%	88.3%	5.9%
BBB-	46																							71.7%	28.3%
BB+	26											7.7%	3.8%											61.5%	26.9%
BB	71			1.4%				1.4%		1.4%			1.4%			2.8%							1.4%	76.1%	14.1%
BB-	22												4.5%											54.5%	40.9%
B+	14																							50.0%	50.0%
B	61			1.6%																		3.3%	36.1%	59.0%	
B-	60																	1.7%			5.0%		6.7%	18.3%	68.3%
CCC+																									
CCC	11																				36.4%			36.4%	27.3%
CCC-																									
CC	22											4.5%			4.5%						9.1%			59.1%	22.7%
C	63											4.8%		1.6%	1.6%	1.6%			1.6%		1.6%	42.9%	1.6%	19.0%	23.8%
TOTAL	4027																								

D(vii) Other Structured Finance Products ("other SFPs") - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# 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	86	95.3%																						4.7%	
AA+	10		90.0%																					10.0%	
AA	143		7.0%	82.5%																			9.8%	0.7%	
AA-	1																							100.0%	
A+	1					100.0%																			
A	45						93.3%																6.7%		
A-																									
BBB+	1	100.0%																							
BBB																									
BBB-																									
BB+																									
BB																									
BB-																									
B+																									
B																									
B-																									
CCC+																									
CCC																									
CCC-																									
CC																									
C																									
TOTAL	287																								

D(vii) Other Structured Finance Products ("other SFPs") - 3-Year Transition and Default Rates
(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022-12/31/2025 (%)			
Credit Rating	# 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	80	82.5%																						17.5%	
AA+	4		100.0%																						
AA	146	0.7%	4.8%	72.6%			1.4%																20.5%		
AA-	2	50.0%	50.0%																						
A+	9		44.4%																					55.6%	
A	90	2.2%				1.1%	41.1%																48.9%	6.7%	
A-																									
BBB+	2	50.0%	50.0%																						
BBB	1																							100.0%	
BBB-	3																							100.0%	
BB+																									
BB																									
BB-																									
B+																									
B																									
B-																									
CCC+																									
CCC																									
CCC-																									
CC																									
C																									
TOTAL	337																								

D(vii) Other Structured Finance Products ("other SFPs") Data includes structured finance other long term ratings not otherwise classified including covered bond programs and closed end fund ratings.

D(vii) Other Structured Finance Products ("other SFPs") - 10-Year Transition and Default Rates
(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015-12/31/2025 (%)			
Credit Rating	# 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	412	9.7%		11.4%			2.4%																	46.4%	30.1%
AA+	7																							100.0%	
AA	72	1.4%	1.4%	6.9%			1.4%																	41.7%	47.2%
AA-																									
A+	6		16.7%	33.3%																					50.0%
A	42	2.4%					35.7%																	26.2%	35.7%
A-	5																							20.0%	80.0%
BBB+	17	5.9%	17.6%																					17.6%	58.8%
BBB	17	5.9%	5.9%																					35.3%	52.9%
BBB-	6		16.7%																					33.3%	50.0%
BB+	3		33.3%																					33.3%	33.3%
BB	1																							100.0%	
BB-																									
B+	1	100.0%																							
B																									
B-	2																								100.0%
CCC+	2																								100.0%
CCC																									
CCC-																									
CC																									
C																									
TOTAL	593																								

E(i) Sovereign issuers - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024-12/31/2025 (%)			
Credit Rating	# 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	25	96.0%																						4.0%	
AA+	10		80.0%	20.0%																					
AA	9			100.0%																					
AA-	11				81.8%	18.2%																			
A+	6					83.3%	16.7%																		
A	6					16.7%	66.7%																	16.7%	
A-	11						36.4%	63.6%																	
BBB+	3								100.0%																
BBB	11								27.3%	63.6%	9.1%														
BBB-	5									20.0%	80.0%														
BB+	13										23.1%	61.5%	15.4%												
BB	5											20.0%	80.0%												
BB-	13												76.9%												
B+	10												10.0%	80.0%				10.0%							
B	7														100.0%										
B-	5															20.0%	80.0%								
CCC+	8																37.5%	37.5%	12.5%	12.5%					
CCC	2																	50.0%		50.0%					
CCC-																									
CC	1																				100.0%				
C																									
TOTAL	161																								

E(i) Sovereign issuers - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022 12/31/2025 (%)			
Credit Rating	# 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	26	88.5%	3.8%																						
AA+	9	11.1%	55.6%	33.3%																				7.7%	
AA	7		14.3%	71.4%		14.3%																			
AA-	12			25.0%	58.3%	16.7%																			
A+	5				20.0%	40.0%	40.0%																		
A	7					42.9%	42.9%	14.3%																	
A-	6						16.7%	66.7%																16.7%	
BBB+	5						20.0%	20.0%	60.0%																
BBB	11							27.3%	54.5%	9.1%	9.1%														
BBB-	6							16.7%		50.0%	16.7%														
BB+	8									12.5%	62.5%	25.0%													
BB	7								14.3%	42.9%	14.3%	28.6%													
BB-	11											9.1%	36.4%	9.1%				9.1%							
B+	9												44.4%	33.3%	22.2%										
B	9											11.1%	11.1%	22.2%	33.3%	11.1%			11.1%						
B-	8														37.5%	25.0%	12.5%		12.5%	12.5%					
CCC+	4																50.0%	25.0%							
CCC																									
CCC-	2																50.0%					50.0%			
CC	2																					100.0%			
C	1																					100.0%			
TOTAL	155																								

E(i) Sovereign issuers - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015 12/31/2025 (%)			
Credit Rating	# 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	27	81.5%	7.4%	3.7%																				7.4%	
AA+	4	25.0%		25.0%	50.0%																				
AA	10		10.0%	30.0%	20.0%	40.0%																			
AA-	4			25.0%	75.0%																				
A+	7			14.3%	14.3%	14.3%	14.3%	28.6%																14.3%	
A	5					40.0%	40.0%																	20.0%	
A-	7			14.3%		14.3%	28.6%	28.6%		14.3%															
BBB+	9					11.1%	22.2%		22.2%	22.2%															
BBB	5							20.0%		20.0%		20.0%	20.0%											20.0%	
BBB-	16								6.3%	18.8%	31.3%	6.3%		18.8%	6.3%									12.5%	
BB+	5						20.0%			20.0%		20.0%	40.0%												
BB	5							20.0%				40.0%	20.0%							20.0%					
BB-	10											10.0%	20.0%	10.0%	10.0%	20.0%	10.0%						20.0%		
B+	14							7.1%				7.1%	7.1%	14.3%	7.1%	14.3%	14.3%		7.1%	7.1%			14.3%		
B	11														9.1%	27.3%							54.5%		
B-	2													50.0%			50.0%								
CCC+																									
CCC	3									33.3%													66.7%		
CCC-																									
CC																									
C																									
TOTAL	144																								

E(ii) U.S. Public Finance - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024 12/31/2025 (%)			
Credit Rating	# 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	525	96.6%	1.3%																					2.1%	
AA+	578	1.6%	94.3%	1.2%																				2.9%	
AA	616		3.4%	91.2%	2.1%																			3.2%	
AA-	497			4.4%	90.9%	1.2%																		3.4%	
A+	334			0.3%	6.9%	84.4%	1.8%	0.6%																6.0%	
A	235				0.9%	8.5%	82.1%	3.4%	0.9%	0.4%														3.8%	
A-	156					0.6%	12.8%	80.1%	0.6%	0.6%														5.1%	
BBB+	125						3.2%	10.4%	78.4%	4.8%														3.2%	
BBB	178				0.6%			3.4%	10.1%	77.5%	1.7%	0.6%												6.2%	
BBB-	154							0.6%		8.4%	85.1%	1.3%	1.3%			1.3%		0.6%						1.3%	
BB+	70										11.4%	72.9%	8.6%	1.4%										5.7%	
BB	34										2.9%	8.8%	79.4%	2.9%		2.9%								2.9%	
BB-	30								3.3%			3.3%	6.7%	56.7%	10.0%	3.3%			3.3%					13.3%	
B+	6														50.0%	16.7%								33.3%	
B	13													7.7%	7.7%	23.1%	23.1%	7.7%						30.8%	
B-	10									10.0%							90.0%								
CCC+	2																					100.0%			
CCC	1																	100.0%							
CCC-	1																				100.0%				
CC	2																				100.0%				
C	1																					100.0%			
TOTAL	3568																								

E(ii) U.S. Public Finance - 3-Year Transition and Default Rates
(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2022 12/31/2025 (%)			
Credit Rating	# 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	471	84.9%	7.2%	0.4%																				7.4%	
AA+	549	15.8%	69.6%	4.7%	0.4%																			9.5%	
AA	625	2.9%	19.7%	64.0%	4.5%	0.3%		0.2%																8.5%	
AA-	560	0.2%	2.3%	20.4%	60.5%	4.8%	0.5%	0.2%		0.2%														10.9%	
A+	348		1.1%	4.6%	21.3%	55.2%	4.6%	1.1%				0.3%												11.8%	
A	254			2.0%	5.9%	23.6%	49.6%	3.5%	1.6%	1.2%		0.4%												12.2%	
A-	191			1.0%	4.2%	3.1%	26.2%	49.2%	3.1%	2.6%	1.6%													8.9%	
BBB+	129				0.8%	3.1%	4.7%	20.2%	48.1%	3.1%	7.0%													13.2%	
BBB	161					0.6%	1.2%	6.8%	14.3%	61.5%	3.7%		0.6%	0.6%										10.6%	
BBB-	146						1.4%	4.1%	17.1%	63.7%	2.7%	2.1%	0.7%	0.7%		0.7%	1.4%		0.7%					5.5%	
BB+	72								2.8%	12.5%	45.8%	11.1%	2.8%	2.8%	4.2%	1.4%			1.4%					18.1%	
BB	46							2.2%		2.2%	17.4%	15.2%	39.1%	4.3%			4.3%					4.3%		10.9%	
BB-	35								2.9%			8.6%	14.3%	28.6%	5.7%		4.3%						14.3%	22.9%	
B+	6														33.3%	16.7%								50.0%	
B	7													14.3%		14.3%	14.3%							57.1%	
B-	8									12.5%				12.5%			25.0%					12.5%	12.5%	25.0%	
CCC+	1																		100.0%						
CCC	4															25.0%	25.0%							50.0%	
CCC-																									
CC	1																							100.0%	
C	4																				25.0%		50.0%	25.0%	
TOTAL	3618																								

E(ii) U.S. Public Finance - 10-Year Transition and Default Rates
(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2015 12/31/2025 (%)			
Credit Rating	# 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	416	55.5%	9.4%	1.0%	0.5%																			33.7%	
AA+	462	16.9%	42.6%	8.2%	1.5%	1.3%																		29.4%	
AA	606	5.4%	21.3%	28.9%	6.4%	1.0%	0.3%	0.2%																36.5%	
AA-	674	3.4%	7.7%	19.6%	21.4%	4.5%	1.8%	0.6%	0.1%		0.1%													40.8%	
A+	446	0.7%	2.0%	10.8%	17.9%	21.5%	4.5%	1.8%	0.4%		0.2%						0.2%		0.2%		0.2%			39.5%	
A	324	0.6%	2.2%	3.4%	11.4%	15.1%	17.6%	4.3%	2.2%	2.5%	0.3%		0.3%									0.3%		39.8%	
A-	228		1.3%		4.4%	10.5%	14.0%	13.6%	3.9%	0.9%	1.3%	2.2%												47.8%	
BBB+	160			4.4%	0.6%	2.5%	8.8%	13.1%	10.0%	11.3%	3.8%	0.6%		0.6%										44.4%	
BBB	146			2.1%	1.4%	3.4%	3.4%	6.2%	10.3%	15.1%	7.5%	1.4%	1.4%		0.7%							0.7%		46.6%	
BBB-	122			0.8%	0.8%	0.8%	2.5%	2.5%	7.4%	16.4%	12.3%	3.3%	3.3%	1.6%	0.8%	0.8%					0.8%	2.5%		43.4%	
BB+	52								3.8%	1.9%	7.7%	11.5%	1.9%	1.9%	1.9%		5.8%					5.8%		57.7%	
BB	37							2.7%		2.7%		5.4%	8.1%			2.7%						8.1%		70.3%	
BB-	26									3.8%	3.8%		3.8%									19.2%		69.2%	
B+	10									10.0%					20.0%									70.0%	
B	12			8.3%												8.3%						8.3%		75.0%	
B-	4																							100.0%	
CCC+																									
CCC																									
CCC-																									
CC	9																					66.7%		33.3%	
C	2																					50.0%		50.0%	
TOTAL	3736																								

E(iii) International Public Finance - 1-Year Transition and Default Rates
(December 31, 2024 through December 31, 2025)

Credit Ratings as of 12/31/2024		Credit ratings as of 12/31/2025 (%)																				Other Outcomes During 12/31/2024-12/31/2025 (%)			
Credit Rating	# 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	29	96.6%																							
AA+	12		83.3%	16.7%																					
AA	8			87.5%	12.5%																				
AA-	84				29.8%	63.1%																		7.1%	
A+	59					45.8%	45.8%																		
A	85					1.2%	56.5%	35.3%																	
A-	69						13.0%	69.6%	4.3%																
BBB+	61							8.2%	83.6%																
BBB	113								21.2%	70.8%															
BBB-	73								1.4%	8.2%	79.5%														
BB+	7											42.9%	42.9%												
BB	15										6.7%		93.3%												
BB-	12													91.7%											
B+	4													50.0%	50.0%										
B	2															50.0%									
B-	8																75.0%	25.0%							
CCC+	3																	66.7%							
CCC	8																		100.0%						
CCC-																									
CC	7																			28.6%	71.4%				
C																									
TOTAL	659																								

E(iii) International Public Finance - 3-Year Transition and Default Rates

(December 31, 2022 through December 31, 2025)

Credit Ratings as of 12/31/2022		Credit ratings as of 12/31/2025 (%)																					Other Outcomes During 12/31/2022 12/31/2025 (%)		
Credit Rating	# 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	27	92.6%																							7.4%
AA+	9		88.9%	11.1%																					
AA	33			12.1%	3.0%	72.7%																			12.1%
AA-	59			3.4%	30.5%	30.5%	10.2%																		25.4%
A+	75				6.7%	25.3%	37.3%	24.0%																	6.7%
A	50					8.0%	52.0%	18.0%																	22.0%
A-	58						19.0%	48.3%	6.9%																25.9%
BBB+	62						1.6%	11.3%	59.7%	8.1%															19.4%
BBB	105							1.0%	22.9%	56.2%	1.9%														18.1%
BBB-	71								7.0%	11.3%	57.7%	1.4%													22.5%
BB+	22									4.5%	13.6%	9.1%	13.6%												59.1%
BB	16								6.3%		6.3%		18.8%												68.8%
BB-	15												66.7%	6.7%											26.7%
B+	5												20.0%	40.0%	40.0%										
B	12													83.3%		8.3%									8.3%
B-	4															50.0%	50.0%								
CCC+	2																100.0%								
CCC																									
CCC-	5																				20.0%		60.0%		
CC	11																		72.7%	9.1%	9.1%		20.0%		9.1%
C	1																						100.0%		
TOTAL	642																								

E(iii) International Public Finance - 10-Year Transition and Default Rates

(December 31, 2015 through December 31, 2025)

Credit Ratings as of 12/31/2015		Credit ratings as of 12/31/2025 (%)																					Other Outcomes During 12/31/2015 12/31/2025 (%)		
Credit Rating	# 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	22	86.4%	9.1%																						4.5%
AA+	5	20.0%			20.0%																				60.0%
AA	33		15.2%	6.1%	3.0%	51.5%																			24.2%
AA-	17				35.3%	29.4%																			35.3%
A+	13					23.1%	46.2%																		30.8%
A	18				22.2%	11.1%	38.9%	5.6%		5.6%															16.7%
A-	18						38.9%	11.1%	5.6%																44.4%
BBB+	30					3.3%	16.7%	3.3%	43.3%	13.3%															20.0%
BBB	32							21.9%	12.5%	21.9%	3.1%		9.4%												31.3%
BBB-	34								2.9%	14.7%	23.5%			5.9%	2.9%										50.0%
BB+	19						5.3%						26.3%	10.5%											57.9%
BB	21								9.5%				4.8%												85.7%
BB-	12												25.0%	8.3%		8.3%									58.3%
B+	7												14.3%												85.7%
B																									
B-																									
CCC+																									
CCC	6																16.7%		33.3%				33.3%		16.7%
CCC-																									
CC																									
C	1																								
TOTAL	288																						100.0%		

Fitch calculates the "Default" classification to incorporate its definitions of both "D – Default" and "Restricted Default," where both such definitions were applicable to a particular asset class. For the purposes of these performance and measurement statistics, a credit rating is classified as a Default if any of the following conditions are met:

- The obligor failed to timely pay principal or interest due according to the terms of an obligation during the applicable period or the issuer of the security or money market instrument failed to timely pay principal or interest due according to the terms of the security or money market instrument during the applicable period;
- The security or money market instrument was subject to a write-down, applied loss, or other realized deficiency of the outstanding principal amount during the applicable period.

Definitions and Symbols

International Credit Rating Scales

The following sections describe credit rating scales (those featuring the symbols 'AAA'–'D' and 'F1'–'D') and their use for issuers and obligations in corporate, public, structured and infrastructure and project finance debt markets.

Within rating categories, Fitch may use modifiers. The modifiers "+" or "–" may be appended to a rating to denote relative status within major rating categories.

For example, the rating category 'AA' has three notch-specific rating levels ('AA+'; 'AA'; 'AA-'; each a rating level). Such suffixes are not added to 'AAA' ratings and ratings below the 'CCC' category. For the short-term rating category of 'F1', a '+' may be appended. For VRs, the modifiers "+" or "–" may be appended to a rating to denote relative status within categories from 'aa' to 'ccc'. For Derivative Counterparty Ratings the modifiers "+" or "–" may be appended to the ratings within 'AA(dcr)' to 'CCC(dcr)' categories.

International credit ratings relate to either foreign currency or local currency commitments and, in both cases, assess the capacity to meet these commitments using a globally applicable scale. As such, both foreign currency and local currency international ratings are internationally comparable assessments.

The Local-Currency International Rating measures the likelihood of repayment in the currency of the jurisdiction in which the issuer is domiciled and hence does not take account of the risk that it will not be possible to convert local currency into foreign currency or make transfers between sovereign jurisdictions (transfer and convertibility [T&C] risk).

A Local-Currency International Rating will be assigned in cases where the underlying issuance is denominated in local currency but the terms and conditions allow for repayment/settlement in foreign currency at the prevailing exchange rate at the time of repayment. Examples include global depository notes (GDNs) and Masala bonds.

Foreign-currency ratings additionally consider the profile of the issuer or note after addressing T&C risk. This risk is usually communicated for different countries by the Country Ceiling, which caps the foreign currency ratings of most, though not all, issuers within a given country.

Besides T&C risks, there can be rating distinctions between an issuer's local- and foreign-currency ratings to differentiate the risk of default on local-currency obligations versus foreign-currency obligations.

A foreign-currency rating will be assigned in cases where an issuance is denominated in local currency or local-currency equivalent, but repayment of principal and/or interest is required to be made in foreign currency at the prevailing exchange rate at the time of repayment.

Where the rating is not explicitly described in the relevant RAC as local or foreign currency, the reader should assume that the rating is a foreign-currency rating (i.e. the rating is applicable for all convertible currencies of obligation).

Issuer Default Ratings

Rated entities in several sectors, including financial and non-financial corporations, sovereigns, insurance companies and some sectors within public finance, are generally assigned IDRs. IDRs are also assigned to certain entities or enterprises in global infrastructure, project finance and public finance. IDRs opine on an entity's relative vulnerability to default – including by way of a distressed debt exchange (DDE) – on

financial obligations. The threshold default risk addressed by the IDR is generally that of the financial obligations whose non-payment would best reflect the uncured failure of that entity. As such, IDRs also address relative vulnerability to bankruptcy, administrative receivership or similar concepts.

In aggregate, IDRs provide an ordinal ranking of issuers based on the agency's view of their relative vulnerability to default, rather than a prediction of a specific percentage likelihood of default.

AAA: Highest Credit Quality

'AAA' ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very High Credit Quality

'AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High Credit Quality

'A' ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good Credit Quality

'BBB' ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate, but adverse business or economic conditions are more likely to impair this capacity.

BB: Speculative

'BB' ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial flexibility exists that supports the servicing of financial commitments.

B: Highly Speculative

'B' ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.

CCC: Substantial Credit Risk

Very low margin for safety. Default is a real possibility.

CC: Very High Levels of Credit Risk

Default of some kind appears probable.

C: Near Default

A default or default-like process has begun, or for a closed funding vehicle, payment capacity is irrevocably impaired. Conditions that are indicative of a 'C' category rating for an issuer include:

- The issuer has entered into a grace or cure period following non-payment of a material financial obligation.
- The formal announcement by the issuer or their agent of a DDE.
- A closed financing vehicle where payment capacity is irrevocably impaired such that it is not expected to pay interest and/or principal in full during the life of the transaction, but where no payment default is imminent.

RD: Restricted Default

'RD' ratings indicate an issuer that in Fitch's opinion has experienced:

- An uncured payment default or DDE on a bond, loan or other material financial obligation, but
- Has not entered into bankruptcy filings, administration, receivership, liquidation, or other formal winding-up procedure, and
- Has not otherwise ceased operating.

This would include:

- The selective payment default on a specific class or currency of debt;
- The uncured expiry of any applicable original grace period, cure period or default forbearance period following a payment default on a bank loan, capital markets security or other material financial obligation.

D: Default

'D' ratings indicate an issuer that in Fitch's opinion has entered into bankruptcy filings, administration, receivership, liquidation or other formal winding-up procedure or that has otherwise ceased business and debt is still outstanding.

Default ratings are not assigned prospectively to entities or their obligations; within this context, non-payment on an instrument that contains a deferral feature or grace period will generally not be considered a default until after the expiration of the deferral or grace period, unless a default is otherwise driven by bankruptcy or other similar circumstance, or by a DDE.

In all cases, the assignment of a default rating reflects the agency's opinion as to the most appropriate rating category consistent with the rest of its universe of ratings and may differ from the definition of default under the terms of an issuer's financial obligations or local commercial practice.

Short-Term Ratings Assigned to Issuers and Obligations

A short-term issuer or obligation rating is based in all cases on the short-term vulnerability to default of the rated entity and relates to the capacity to meet financial obligations in accordance with the documentation governing the relevant obligation. Short-term deposit ratings may be adjusted for loss severity. Short-Term Ratings are assigned to obligations whose initial maturity is viewed as "short term" based on market convention (a long-term rating can also be used to rate an issue with short maturity). Typically, this means a timeframe of up to 13 months for corporate, sovereign, and structured obligations and up to 36 months for obligations in U.S. public finance markets.

F1: Highest Short-Term Credit Quality

Indicates the strongest intrinsic capacity for timely payment of financial commitments; may have an added '+' to denote any exceptionally strong credit feature.

F2: Good Short-Term Credit Quality

Good intrinsic capacity for timely payment of financial commitments.

F3: Fair Short-Term Credit Quality

The intrinsic capacity for timely payment of financial commitments is adequate.

B: Speculative Short-Term Credit Quality

Minimal capacity for timely payment of financial commitments, plus heightened vulnerability to near term adverse changes in financial and economic conditions.

C: High Short-Term Default Risk

Default is a real possibility.

RD: Restricted Default

Indicates an entity that has defaulted on one or more of its financial commitments, although it continues to meet other financial obligations. Typically applicable to entity ratings only.

D: Default

Indicates a broad-based default event for an entity, or the default of a short-term obligation.

Limitations: For limitations, please see Usage and Limitations of Credit Ratings and Other Forms of Opinions and Specific Limitations Relevant to Ratings Assigned Using the Primary Credit Rating Scale and Financial Institution Ratings.

Rating Correspondence Table

Long-Term Rating	Short-Term Rating
AAA	F1+
AA+	F1+
AA	F1+
AA-	F1+
A+	F1 or F1+
A	F1 or F1+
A-	F2 or F1
BBB+	F2 or F1
BBB	F3 or F2
BBB-	F3
BB+	B
BB	B
BB-	B
B+	B
B	B
B-	B
CCC+/CCC/CCC-	C
CC	C
C	C
RD/D	RD/D

Source: Fitch Ratings

Relationship between Short- and Long-Term Ratings

The credit risks that drive the long-term rating and the short-term rating are linked but distinct. Some issuers may have a significantly stronger short-term credit profile than implied by the long-term rating. Some long-term factors such as strategy are unlikely to have an immediate impact on defaults. Conversely, factors such as liquidity can have a significant impact on short-term performance and will therefore gain more weight in the short-term rating.

The table in the margin reflects typical relationships between the long-term rating and the short-term rating. The two are linked, but at certain long-term rating levels ('A+' to 'BBB') more than one short-term rating are possible. The lower of the two short-term ratings indicated by the table is the base-line. Whether an issuer achieves the higher of two possible short-term ratings is determined by the analytical

groups with reference to sector specific factors, such as liquidity. Details are contained in the relevant criteria.

The Rating Correspondence Table is a guide only. Actual ratings assigned can differ from this correspondence consistent with the criteria employed by individual rating groups, where analytically merited.

Standalone Credit Profile

A Standalone Credit Profile (SCP) measures the intrinsic vulnerability to default of an issuer without considering extraordinary impact (either support or interference) on the credit profile due to the relationship with, and credit quality of, related parties. The ordinary impact from related entities is considered as part of the SCP, while extraordinary impact is not considered in the SCP but is reflected in the rating. SCPs are not credit ratings but express a key component of the rating analysis. SCPs are indicated using the International Rating Scale but using lower-case letters, e.g. 'aaa' instead of 'AAA'. The relevant criteria may provide additional information on ordinary/extraordinary considerations.

Obligation Ratings – Probability of Default Only

Ratings of public finance obligations, infrastructure and project finance obligations on the long-term scale, structured finance and fund finance obligations only consider the obligations' relative vulnerability to default¹.

In limited cases in US public finance, where Chapter 9 of the Bankruptcy Code provides reliably superior prospects for ultimate recovery to local government obligations that benefit from a statutory lien on revenues, Fitch reflects this in a security rating with limited notching above the IDR. Recovery expectations can also be reflected in a security rating in the US during the pendency of a bankruptcy proceeding under the Code if there is sufficient visibility on potential recovery prospects.

Recovery Ratings are only assigned to infrastructure and project finance obligations, to indicate likely recovery prospects upon request. They are assessed in parallel to instrument ratings and typically do not influence the obligation rating, which remains premised on vulnerability to default.

AAA: Highest Credit Quality

'AAA' ratings denote the lowest expectation of default risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.

AA: Very High Credit Quality

'AA' ratings denote expectations of very low default risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.

A: High Credit Quality

'A' ratings denote expectations of low default risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

BBB: Good Credit Quality

'BBB' ratings indicate that expectations of default risk are currently low. The capacity for payment of financial commitments is considered adequate, but adverse business or economic conditions are more likely to impair this capacity.

¹ A small number of individual obligation ratings may exceptionally include recovery features; where this is the case, the incorporation of recoveries is noted in detail in the accompanying Rating Action Commentaries.

BB: Speculative

'BB' ratings indicate an elevated vulnerability to default risk, particularly in the event of adverse changes in business or economic conditions over time.

B: Highly Speculative

'B' ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, capacity for continued payment is vulnerable to deterioration in the business and economic environment.

CCC: Substantial Credit Risk

Very low margin for safety. Default is a real possibility.

CC: Very High Levels of Credit Risk

Default of some kind appears probable.

C: Exceptionally High Levels of Credit Risk

Default appears imminent or inevitable.

D: Default

Indicates a default. Default generally is defined as one of the following:

- Failure to make payment of principal and/or interest under the contractual terms of the rated obligation;
- Bankruptcy filings, administration, receivership, liquidation or other winding-up or cessation of the business of an issuer/obligor.
- Distressed exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation to avoid a probable payment default.

Note: In US public finance, obligations may be pre-refunded, where funds sufficient to meet the requirements of the respective obligations are placed in an escrow account. When obligation ratings are maintained based on the escrowed funds and their structural elements, the ratings carry the suffix "pre" (e.g. 'AAApre', 'AA+pre').

Limitations: For limitations, please see Usage and Limitations of Credit Ratings and Other Forms of Opinions and Specific Limitations Relevant to Ratings Assigned Using the Primary Credit Rating Scale and Financial Institution Ratings.

Structured Finance Defaults

Imminent default, categorised under 'C', typically refers to the occasion where a payment default has been intimated by the issuer and is all but inevitable. This may, for example, be where an issuer has missed a scheduled payment but (as is typical) has a grace period during which it may cure the payment default. Another alternative would be where an issuer has formally announced a DDE, but the date of the exchange still lies several days or weeks in the immediate future.

Additionally, in structured finance transactions, where analysis indicates that an instrument is irrevocably impaired such that it is not expected to pay interest and/or principal in full in accordance with the terms of the obligation's documentation during the life of the transaction, but where no payment default in accordance with the terms of the documentation is imminent, the obligation will typically be rated in the 'C' category.

Structured Finance Write-Downs

Where an instrument has experienced an involuntary and, in the agency's opinion, irreversible write-down of principal (i.e. other than through amortization, and resulting in a loss to the investor), a credit rating of 'D' will be assigned to the instrument. Where the agency believes the write-down may prove to

be temporary (and the loss may be written up again in future if and when performance improves), then a credit rating of 'C' will typically be assigned. Should the write-down then later be reversed, the credit rating will be raised to an appropriate level for that instrument. Should the write-down later be deemed as irreversible, the credit rating will be lowered to 'D'.

Note

In the case of structured finance, while the ratings do not address the loss severity given default of the rated liability, loss severity assumptions on the underlying assets are nonetheless typically included as part of the analysis. Loss severity assumptions are used to derive pool cash flows available to service the rated liability.

The suffix 'sf' denotes an issue that is a structured finance transaction.

Ratings Definitions

Additional information regarding Ratings Definitions can also be found via the web link below under the heading: "Ratings Definitions", <https://www.fitchratings.com/products/rating-definitions>.

17 CFR 17g-7(b) Disclosure of Credit Rating Histories

Information pursuant to 17 CFR 17g-7(b) Disclosure of Credit Rating Histories, can be found at the web address: <https://www.fitchratings.com/ratings-history-disclosure>.