

KROLL BOND RATING AGENCY, LLC

Form NRSRO Annual Certification

EXHIBIT 1:

Performance Measurement Statistics

Form NRSRO Exhibit 1

Exhibit 1. Provide in this Exhibit performance measurement statistics of the credit ratings of the Applicant/NRSRO, including performance measurement statistics of the credit ratings separately for each class of credit rating for which the Applicant/NRSRO is seeking registration or is registered (as indicated in Item 6 and/or 7 of Form NRSRO):

OVERVIEW

Kroll Bond Rating Agency (KBRA) began to issue credit ratings in 2011. The attached tables show transition and default rates for 1-year, 3-year, and 10-year time periods through the most recent calendar year end.

PERFORMANCE MEASUREMENT STATISTICS

Periods Shown: Institutions Rated: Frequency of Ratings

The data in the attached tables have been compiled from historical published and unpublished ratings. The unit of study for Structured Finance ratings is the rated tranche. For other ratings, the unit of study is either: the distinctly rated tranches of a secured debt transaction; the senior rating or the issuer rating of a government, corporate or financial entity; or the Insurer Financial Strength Rating (IFSR) of an insurance entity regardless of the number of securities rated.

Each table shown is based on a static pool or cohort analysis. The tables show the percent of ratings outstanding at the start of the period (not initial ratings) in each category, compared to where they stood at the end of the stated period. The diagonal is the percent of ratings that remained the same at the start and end of the period. The periods covered are 1-year (comparing ratings on December 31, 2020 with ratings at December 31, 2021), 3-year (comparing ratings on December 31, 2018 with ratings at December 31, 2021) and 10-year (comparing ratings on December 31, 2011 with ratings at December 31, 2021).

The transition and default tables reflect specific time periods. However, the number of entities included may change from period to period, or from the beginning of a period to the end of a period. For example, an institution may merge, dissolve, or otherwise experience an organizational change that causes it to cease to be included in a later period.

For long-term and short-term Credit Ratings, KBRA defines default as occurring if:

- 1. There is a missed interest payment, principal payment, or preferred dividend payment, as applicable, on a rated obligation which is unlikely to be recovered; or
- 2. The rated entity files for protection from creditors, is placed into receivership or is closed by regulators such that a missed payment is likely to result; or
- 3. The rated entity seeks and completes a distressed exchange, where existing rated

¹ Except for CMBS, KBRA has not assigned credit ratings for the length of time necessary to produce any 10-year transition matrices.

obligations are replaced by new obligations with a diminished economic value.

In all cases, defaulted entities are not dollar-weighted (*i.e.*, a failure of a large entity and a small entity will be counted the same).

Some cells of the transition matrix do not include a value. This indicates that there were no transitions observed for that cell. A cell with a non-zero value that is less than 0.5% will be shown with a value of "0%" in the transition matrix due to rounding.

For the purposes of KBRA's Exhibit 1 submission, "other SFPs" means a securitization primarily of Containers, Aircraft, Fleet Lease, Franchise, Ground Lease, Rail Car, Solar, Specialty Finance, Net Leases, Residential PACE, Property Tax Liens, Whole Business Securitization, Wireless Spectrum, Timeshare, Trade Receivables, SBA Loans, Lottery Receivables, Structured Settlements, Litigation Finance or other miscellaneous ABS.

Definition of Credit Rating Categories Used by KBRA

Long-Term Credit Rating Scale

KBRA assigns credit ratings to issuers and their obligations using the same rating scale. In either case, KBRA's credit ratings are intended to reflect both the probability of default and severity of loss in the event of default, with greater emphasis on probability of default at higher rating categories. For obligations, the determination of expected loss severity is, among other things, a function of the seniority of the claim. Generally speaking, issuer-level ratings assume a loss severity consistent with a senior unsecured claim. KBRA appends the "sf" indicator to ratings assigned to structured finance obligations.

- **AAA** Determined to have almost no risk of loss due to credit-related events. Assigned only to the very highest quality obligors and obligations able to survive extremely challenging economic events.
- **AA** Determined to have minimal risk of loss due to credit-related events. Such obligors and obligations are deemed very high quality.
- A Determined to be of high quality with a small risk of loss due to credit-related events. Issuers and obligations in this category are expected to weather difficult times with low credit losses.
- **BBB** Determined to be of medium quality with some risk of loss due to credit-related events. Such issuers and obligations may experience credit losses during stress environments.
- **BB** Determined to be of low quality with moderate risk of loss due to credit-related events. Such issuers and obligations have fundamental weaknesses that create moderate credit risk.
- **B** Determined to be of very low quality with high risk of loss due to credit-related events. These issuers and obligations contain many fundamental shortcomings that create significant credit risk.

- **CCC** Determined to be at substantial risk of loss due to credit-related events, near default or in default with high recovery expectations.
- **CC** Determined to be near default or in default with average recovery expectations.
- **C** Determined to be near default or in default with low recovery expectations.
- **D** KBRA defines default as occurring if:
 - 1. There is a missed interest payment, principal payment, or preferred dividend payment, as applicable, on a rated obligation which is unlikely to be recovered; or
 - 2. The rated entity files for protection from creditors, is placed into receivership or is closed by regulators such that a missed payment is likely to result; or
 - 3. The rated entity seeks and completes a distressed exchange, where existing rated obligations are replaced by new obligations with a diminished economic value.

KBRA may append + or - modifiers to ratings in categories AA through CCC to indicate, respectively, upper and lower risk levels within the broader category.

Short-Term Credit Rating Scale

KBRA's short-term ratings indicate an ability to meet obligations that typically have maturities of thirteen months or fewer when issued by corporate entities, financial institutions, and in connection with structured finance transactions. When applied to municipal obligations, KBRA's short- term ratings typically indicate an ability to meet obligations of three years or fewer. Short-term ratings may be assigned to both issuers and to specific obligations. As compared to long-term ratings, greater emphasis is placed on an obligor's liquidity profile and access to funding. KBRA appends the "sf" indicator to ratings assigned to structured finance obligations.

- **K1+** Exceptional ability to meet short-term obligations.
- **K1** Very strong ability to meet short-term obligations.
- **K2** Strong ability to meet short-term obligations.
- **K3** Adequate ability to meet short-term obligations.
- **B** Questionable ability to meet short-term obligations.
- **C** Little ability to meet short-term obligations.
- **D** KBRA defines default as occurring if:
 - 1. There is a missed interest payment, principal payment, or preferred dividend payment, as applicable, on a rated obligation which is unlikely to be recovered;
 - 2. The rated entity files for protection from creditors, is placed into receivership or is closed by regulators such that a missed payment is likely to result; or
 - 3. The rated entity seeks and completes a distressed exchange, where existing rated obligations are replaced by new obligations with a diminished economic value.

RATING ACTION HISTORY

Ratings information that is required to be made available pursuant to SEC Rule 17g-7(b) can be found first by clicking on the link https://www.krollbondratings.com/regulatory, and then clicking the hyperlinks "Issue Level Ratings" and "Issuer Level Ratings" under the heading "Rating Action History."

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Table 1: Financial Institutions, Brokers, or Dealers - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat	1/2020								Credit		s as of 12														nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	вв	BB-	B+	В	B-	CCC+ C	CC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	7	100%																							
AA+	0																								
AA	4			75%																					25%
AA-	12				100%																				
A+	18					94%																			6%
A	18						100%																		
A-	100						4%	88%	2%															4%	2%
BBB+	151							5%	85%	2%														1%	7%
BBB	117							1%	4%	82%	1%													3%	9%
BBB-	58						3%	2%		5%	84%													3%	3%
BB+	17										6%	70%												6%	18%
BB	9										11%	22%	23%	11%										22%	11%
BB-	4													75%									25%		
B+	4														75%			25	5%						
В	3																			34%	33%		33%		
B-	0																								
CCC+	1																						100%		
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	523																								

Table 2: Financial Institutions, Brokers, or Dealers - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Ra 12/3	1/2018								Credit	Ratings	s as of 12	2/31/202	1 (Per	cent)										1/2018 -	nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	1	100%	7171	7171	7171	21	- 11	11	BBB	DDD	DDD	DD	DD	DD	D		Ъ	0001	000	000		-	Delaure	OII	(Other)
AA+	0	10070																				+			
AA	3			33%																					67%
AA-	4				25%																				75%
A+	8					75%																			25%
A	14						57%	7%																7%	29%
A-	70						3%	70%	7%										1%					9%	10%
BBB+	110							11%	62%	5%										1%			1%		20%
BBB	77								14%	52%	8%										1%		1%	3%	21%
BBB-	23						4%			22%	66%													4%	4%
$\mathrm{BB}+$	9										11%	67%													22%
BB	3																								100%
BB-	3																						34%	33%	33%
$\mathrm{B}+$	1														100%										
В	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0															_									
Total	326																								



Table 4: Financial Institutions, Brokers, or Dealers - 1-Year Transition and Default Rates (Short-Term Credit Ratings)

								Oth	er Outcon	nes During
Credit Rat	ings as of							12/3	31/2020 - 1	12/31/2021
12/31	1/2020	Credit	Ratings	as of 12	/31/202	1 (Pe	ercent)		(Per	cent)
	Number of									
Credit	Ratings								Paid	Withdrawn
Rating	Outstanding	K1+	K1	K2	K3	В	\mathbf{C}	Default	Off	(other)
K1+	5	100%								
K1	12		100%							
K2	192		1%	94%	1%					4%
K3	82			5%	88%					7%
В	1									100%
С	0									
Total	292									

Table 5: Financial Institutions, Brokers, or Dealers - 3-Year Transition and Default Rates (Short-Term Credit Ratings)

								Oth	er Outcon	nes During
Credit Rat	ings as of							12/3	31/2018 - 3	12/31/2021
12/31	/2018	Cred	it Ratin	gs as of	12/31/2	021 ((Percent)		(Per	cent)
	Number of									
Credit	Ratings								Paid	Withdrawn
Rating	Outstanding	K1+	K1	K2	K3	В	С	Default	Off	(other)
K1+	5	20%								80%
K1	14		64%							36%
K2	148		1%	80%	3%					16%
K3	58			17%	62%					21%
В	2									100%
С	0									
Total	227									



Table 7: Insurance Companies - 1-Year Transition and Default Rates (Insurance Financial Strength Ratings)

								(2000	inoci o	-,	01110			001	, <u> </u>) = ±)	,						Oth	er Outcon	nes During
Credit Rat																							12/3		12/31/2021
12/31	1/2020								Credit	Ratings	as of 12/	31/2021	(Percei	nt)										(Per	cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	4		75%																						25%
AA	5		20%	80%																					
AA-	1				100%																				
A+	0																								
A	12						100%																		
A-	51						4%	94%																	2%
BBB+	14								100%																
BBB	1									100%															
BBB-	10									40%	50%														10%
BB+	3											100%													
BB	0																								
BB-	0																								
B+	0																								
В	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	101																								

Table 8: Insurance Companies - 3-Year Transition and Default Rates (Insurance Financial Strength Ratings)

	tings as of 1/2018								Credi	•	s as of 1				,		,								nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	3		67%																						33%
AA	1		100%																						
AA-	4																								100%
A+	0																								
A	10						100%																		
A-	27						7%	89%																	4%
$\mathrm{BBB}+$	6								100%																
BBB	0																								
BBB-	6									17%	50%														33%
$\mathrm{BB}+$	0																								
BB	0																								
BB-	0																								
B+	0																								
В	0																								
В-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	57																								

Table 9: Insurance Companies - 10-Year Transition and Default Rates (Insurance Financial Strength Ratings)	
KBRA has not assigned credit ratings in this class/subclass for the length of time necessary to produce a Transition/Default Matrix.	

Table 10: Corporate Issuers - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	1/2020								C	redit Ra	tings as	of 12/31	/2021 (F	Percent)											nes During .2/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	1		100%																						
AA	0																								
AA-	0																								
A+	2					100%																			
A	3						100%																		
A-	7							100%																	
BBB+	9							11%	89%																
BBB	47								9%	85%	4%													2%	
BBB-	69										95%	4%													1%
$_{ m BB+}$	19										11%	73%	11%	5%											
BB	11												37%	9%										45%	9%
BB-	9												11%	78%	11%										
B+	6														50%				50%						
В	3															33%			67%						
В-	5																20%			20%	60%				
CCC+	1																							100%	
CCC	1																		100%						
CCC-	0																								
CC	0																								
С	0																								
Total	193																								

Table 11: Corporate Issuers - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat	1/2018								Cree		ngs as of				,		,								nes During .2/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	
AAA	0																								
AA+	0																								
AA	0																								
AA-	0																								
A+	2		50%			50%																			
A	2						100%																		
A-	6							50%	17%										33%						
$\mathrm{BBB}+$	6								66%										17%					17%	
BBB	32								9%	51%	22%	3%									6%			9%	
BBB-	63									6%	59%	14%	2%		2%				2%		2%			10%	3%
$_{ m BB+}$	5								20%		20%	20%		20%	20%										
BB	3												67%											33%	
BB-	6													16%			17%		17%					50%	
$\mathrm{B}+$	2																							50%	50%
В	0																								
В-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	127																								









Table 16: RMBS - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

								(20	cinoci	J1, 2			11 200	011100	1 01,)						Oth	er Outcon	nes During
Credit Rat	ings as of																								12/31/2021
12/31	1/2020								Cr	edit Rat	ings as o	of 12/31	/2021 (P	ercent)										(Per	cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	4866	76%																						24%	
AA+	117	79%	10%																					11%	
AA	204	55%	15%	24%																				6%	
AA-	58	29%	17%	14%	26%																			14%	
A+	75	25%	27%	12%	7%	14%																		15%	
A	203	0%	19%	43%	4%	3%	26%																	5%	
A-	54		2%	2%	41%	9%	4%	35%																7%	
BBB+	66				38%	27%		5%	21%															9%	
BBB	257					25%	22%	8%	5%	26%														14%	
BBB-	221						50%	2%	1%	2%	10%													35%	
$_{ m BB+}$	174						10%	66%	7%	2%	4%	7%												4%	<u> </u>
BB	220						13%	0%	34%	7%	5%	3%	31%											7%	
BB-	105									80%	2%	2%	2%	14%											
B+	132									14%	67%	5%	2%	5%	6%									1%	
В	247										6%	66%	6%	2%	2%	17%			0%					1%	
B-	93												61%	16%	3%	6%	13%							1%	
CCC+	0																								
CCC	50													16%	4%	8%	46%		22%	J				4%	ļ
CCC-	0																								<u> </u>
CC	0																								ļ
С	0																								
Total	7142																								I

Table 17: RMBS - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

								(2	cccinoc	,,	-010	orri o aq	511 20	COLLEG	01 01	,	-)						O+b	on Outoon	nes During
Credit Rat	.:																								12/31/2021
	1/2018								0	hodit De	atings as	of 19/9	/9091 (Donagni)								12/3		cent)
12/31	Number of			1	1	1	I			Tean na	itings as	01 12/3.	1/2021 (r ercent)		1			I	1	_		(rei	sent)
Credit	Ratings																							Paid	Withdrawn
Rating	Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	$_{\mathrm{BB+}}$	ВВ	BB-	B+	В	B-	CCC+	CCC	CCC-	CC	C	Default	Off	(other)
AAA	3020	67%														_					-	-		33%	(******)
AA+	100	77%	1%																		-	+		22%	
AA	116	67%	5%	8%																	-			20%	
AA-	34	44%	9%	15%	6%																-	+		26%	
A+	39	26%	18%	5%	070																			51%	
	89	9%	20%	35%	2%	1%	11%															-		22%	
A		9%	12%	14%	5%	3%	2%	F07																	
A-	58	1.507					2%	5%													-			59%	
BBB+	88	17%	8%	5%	13%	13%	100	1%	207	204												-		43%	
BBB	179	6%	11%	2%	5%	17%	13%	4%	2%	8%	-~													32%	
BBB-	158		6%		9%	11%	27%	1%	1%	2%	3%											_		40%	
BB+	86					24%	30%	27%	7%		2%	3%												7%	
BB	294				0%	0%	17%	28%	8%	2%	11%	17%	12%											5%	
BB-	49							6%	47%	24%			2%	5%										16%	
B+	123								15%	41%	15%	24%	2%	2%										1%	
В	54									2%	37%	2%	6%	6%	9%	25%			6%					7%	
В-	4									25%					25%		50%								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	4491																								









Table 22: CMBS - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	1/2020									Credit l	Ratings a	as of 12/	31/2021	(Percen	ıt)										nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A +	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	2650	94%	0%	0%	0%					0%	0%											0%		6%	
AA+	55	4%	81%		4%		4%			2%														5%	
AA	171		1%	90%	1%	1%	2%	1%		1%	1%		1%										Ì	1%	
AA-	207	0%	0%	2%	86%		1%	3%					0%											8%	
A+	62			2%		85%		2%		2%	3%						3%							3%	
A	139					1%	90%	4%		2%			1%				1%							1%	
A-	321			0%	0%	1%	1%	88%		3%	3%			0%										4%	
BBB+	137					1%		1%	91%	2%	1%		1%	1%					1%					1%	
BBB	136									91%	4%		2%			1%	1%		1%						
BBB-	452	0%						0%	0%	1%	88%	0%	2%	4%	0%	1%			1%		0%			3%	
$_{ m BB+}$	55										2%	80%		5%		11%	2%								
BB	154											1%	73%	4%	1%	9%	4%		5%		1%	1%		1%	
BB-	270													80%		4%	6%		4%		1%			5%	
B+	41														66%		24%		10%						
В	105															67%	8%		14%		6%	3%		2%	
B-	240																78%		13%	1%	2%	1%		5%	
CCC+	0																								
CCC	64																		42%	5%	33%	20%			
CCC-	0																								
CC	29																				17%	76%	7%		
С	18																					89%	11%		
Total	5306																								

Table 23: CMBS - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat	tings as of 1/2018 Number of								(atings as						,								nes During 12/31/2021 cent)
Credit Rating	Ratings Outstanding	AAA	AA+	AA	AA-	$\mathbf{A}+$	A	A-	BBB+	ввв	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	2129	83%	0%	0%	0%					0%	0%		0%				0%		0%		0%	0%		17%	0%
AA+	38	3%	63%		5%		5%			3%														21%	
AA	131	2%	5%	80%		1%	2%	2%		1%	1%								1%					5%	
AA-	179		2%	5%	66%		2%	3%					1%						1%					20%	
A+	42			5%	2%	69%				2%	5%						5%				2%			10%	
A	120			1%	2%	6%	71%	3%		3%	1%		1%	2%			1%							9%	
A-	275			0%		1%	3%	74%		5%	3%		1%						1%		1%			11%	
BBB+	73					4%	1%	3%	73%	4%	1%		3%	1%	1%	1%			3%					5%	
BBB	81	1%						1%		81%	7%		1%	1%		1%			5%					2%	
BBB-	395	1%						1%	1%	2%	64%	1%	4%	5%	0%	5%	1%		3%		2%	1%		9%	
BB+	44									2%		59%	5%	5%		11%	9%		2%			5%		2%	
BB	142										1%		44%	11%		8%	8%		8%	1%	8%	6%		5%	
BB-	204											1%		63%	1%	2%	9%		6%		2%	1%		15%	
B+	44														30%		14%		32%		5%	14%		5%	
В	103															35%	21%		14%	2%	6%	14%	2%	6%	
В-	169																55%		14%	1%	3%	10%		17%	
CCC+	0																								
CCC	9																		22%			56%	22%		
CCC-	0																								
CC	0																								
С	0																								
Total	4178																								

Table 24: CMBS - 10-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat	1/2011								Cre		ngs as of						,							31/2011 -	nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	$\Lambda+$	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	19	16%																						84%	
AA+	0																								
AA	6						17%																	83%	
AA-	0																								
A+	0																								
A	5										20%													80%	
A-	1																							100%	
$\mathrm{BBB}+$	0																								
BBB	5													20%										80%	
BBB-	2																							100%	
$\mathrm{BB}+$	0																								
BB	2																							100%	
BB-	0																								
B+	0																								
В	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	40																								







Table 28: CLOs - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	./2020								Cre		ngs as of														nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	31	51%																						39%	10%
AA+	0																								
AA	12			75%																				25%	
AA-	2																							100%	
A+	6					83%																		17%	
A	10					10%	70%																	20%	
A-	4							75%																25%	
$\mathrm{BBB}+$	1								100%																
BBB	5									80%														20%	
BBB-	11									9%	73%													18%	
$\mathrm{BB}+$	0																								
BB	1																							100%	
BB-	10													100%											
$\mathrm{B}+$	0																								
В	0																								
B-	3																100%								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	96																								

Table 29: CLOs - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat	1/2018								Credit		as of 12				,		,								nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	1	100%																							
AA+	0																								
AA	0																								
AA-	0																								
A+	0																								
A	1						100%																		
A-	1							100%																	
$\mathrm{BBB}+$	1								100%																
BBB	0																								
BBB-	1										100%														
$_{ m BB+}$	0																								
BB	0																								
BB-	0																								
B+	0																								
В	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	5																								









Table 34: CDOs - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

	atings as of $81/2020$								Cre	edit Ratir					,		,								nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	2		100%																						
AA	6			83%																					17%
AA-	8				87%																			13%	
A+	9					67%																			33%
A	5						80%																		20%
A-	6							50%																17%	33%
BBB+	3								100%																
BBB	5									100%															
BBB-	28								4%	4%	81%													11%	
$_{ m BB+}$	0																								
BB	4												100%												
BB-	20												5%	80%										15%	
B+	0																								
В	0																								
B-	7																100%								
CCC+	0																								
CCC	0															\perp						1			
CCC-	0																					1			
CC	0																								
C	0						ļ																		
Total	103				1	1			1		1							1							

Table 35: CDOs - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	/2018							<u> </u>	Cr				2021 (Pe												nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	0																								
AA+	1		100%																						
AA	0																								
AA-	6				83%																				17%
A+	1																								100%
A	2						50%																		50%
A-	4							25%																50%	25%
BBB+	2																								100%
BBB	3								33%	34%														33%	
BBB-	21								5%	5%	52%													33%	5%
BB+	0																								
BB	2												100%												
BB-	24												4%	63%										33%	
B+	0																								
В	0																								
B-	7																100%								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	73																								









Table 40: Other ABS - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	/2020								C:	redit Ra	tings as	of 12/31	/2021 (F	Percent)											nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	113	32%																						68%	
AA+	61	20%	21%																					59%	
AA	71	17%	24%	24%																				32%	3%
AA-	34	18%	3%	9%	23%																			47%	
A+	40	13%	23%	3%	3%	18%																		40%	·
A	85	7%	7%	12%	5%	12%	31%																	22%	4%
A-	57	4%	5%	7%	5%	4%	11%	31%																33%	1
$\mathrm{BBB}+$	38	3%	5%	13%	3%	8%	5%	8%	23%															32%	1
BBB	100	1%	2%	2%		5%	8%	8%	11%	45%														18%	
BBB-	63		2%	3%		3%	3%	3%	2%	13%	44%													27%	
$\mathrm{BB}+$	32					3%		6%	3%	9%	6%	32%												41%	
BB	90			1%		1%	2%	1%	3%	9%	3%	12%	46%											22%	
BB-	44			5%				2%	5%		5%	2%	14%	49%										18%	
$\mathrm{B}+$	13										8%		8%		38%									46%	1
В	32											3%	9%		9%	54%								25%	
В-	17											6%	6%	12%	12%	18%	28%							18%	
CCC+	0																								
CCC	1																							100%	
CCC-	0																								
CC	0																								
C	0																								
Total	891																								

Table 41: Other ABS - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

								(occinio c			- 0			,		/						Oth	er Outcon	nes During
Credit Rat	tings as of																						12/3	1/2018 - 3	12/31/2021
12/31	1/2018								Cı	edit Rat	ings as o	of 12/31	/2021 (1	Percent)								,	(Per	
	Number of																								
Credit	Ratings																							Paid	Withdrawn
Rating	Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	В	B-	CCC+	CCC	CCC-	CC	$^{\rm C}$	Default	Off	(other)
AAA	87	5%																						95%	
AA+	70	1%	4%																					94%	1%
AA	64	2%	6%	1%																				86%	5%
AA-	21			5%	5%																			90%	
A+	44	7%	2%																					91%	
A	79	13%	1%	1%		4%	3%																	75%	3%
A-	34						3%	6%																85%	6%
BBB+	28	4%	7%			7%																		82%	
BBB	97	5%	5%	2%	1%	3%		1%	8%	10%														63%	2%
BBB-	23						9%			4%	13%													74%	
BB+	20		5%	5%			5%			5%	5%													75%	
BB	65		2%	3%			3%	3%	2%	3%	2%	8%	8%											66%	
BB-	20			5%		10%		5%	15%			5%		5%										55%	
B+	8							13%							12%									75%	
В	12												17%			8%								75%	
B-	4											25%		25%										50%	
CCC+	1																							100%	
CCC	0																								
CCC-	0																								
CC	0																								
С	0																								
Total	677																								İ



Table 43: Other ABS - 1-Year Transition and Default Rates (Short-Term Credit Ratings)

								Oth	er Outcon	nes During
Credit Rat	ings as of							12/3	31/2020 - 1	12/31/2021
12/31	/2020	Cred	it Rat	ings a	s of 12	2/31/	/2021 (Percent)		(Per	cent)
	Number of									
Credit	Ratings								Paid	Withdrawn
Rating	Outstanding	K1+	K1	K2	K3	В	С	Default	Off	(other)
K1+	4								100%	
K1	0									
K2	0									
K3	0									
В	0									
С	0									
Total	4									

Table 44: Other ABS - 3-Year Transition and Default Rates (Short-Term Credit Ratings)

Credit Rat	ings as of									nes During 12/31/2021
	12/31/2018			ings a	s of 12	2/31/	2021 (Percent)	,	,	cent)
Credit Rating	Number of Ratings Outstanding	K1+	K1	K2	K3	В	С	Default	Paid Off	Withdrawn (other)
K1+	2								100%	
K1	0									
K2	0									
K3	0									
В	0									
С	0									
Total	2									



Table 46: Other SFPs - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	/2020								C		itings as			Percent)		- /							31/2020 - 3	nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC CCC	- CC	C	Default	Paid Off	Withdrawn (other)
AAA	53	75%																					25%	
AA+	0																							
AA	12	8%	8%	51%																			33%	
AA-	6				83%																		17%	
A+	5					80%																	20%	
A	156					4%	67%	1%	1%	1%													25%	1%
A-	64						2%	69%	16%	5%													8%	
BBB+	23						4%		61%	22%		4%											9%	
BBB	136								1%	70%	1%	1%	2%										25%	
BBB-	43										69%	19%	7%										5%	
BB+	26									4%		54%	19%			4%							19%	
BB	41												64%			5%			2%				29%	
BB-	12													100%										
B+	5												20%		60%								20%	
В	8															62%			13%				25%	
B-	10																50%		40%					10%
CCC+	2																	100%						
CCC	40																		87%	3%			10%	
CCC-	1																		100%					
CC	0																							
C	0																							
Total	643																							

Table 47: Other SFPs - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	1/2018							`	Cr		ings as o						,								nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	В+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	49	57%																						43%	
AA+	1	100%																							
AA	14	14%		22%																				64%	
AA-	2				100%																				
A+	6					33%																		67%	
A	112					5%	25%	5%	12%	6%			1%											44%	2%
A-	19						5%	59%	5%	5%														26%	
BBB+	6								17%															83%	
BBB	118									26%	5%	9%	6%			3%			1%					47%	3%
BBB-	15										26%		13%			7%			7%					40%	7%
BB+	4											75%												25%	
BB	42												18%	2%	2%		5%		31%				2%	38%	2%
BB-	9													45%					44%					11%	
B+	1																							100%	
В	9															12%	11%		33%		11%		11%	22%	
B-	2																		50%						50%
CCC+	1																		100%						
CCC	4																		100%						
CCC-	1																			100%					
CC	0																								
C	0																								
Total	415																								·









Table 52: Sovereign Issuers - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	1/2020							,	Cre	edit Ratir														31/2020 -	nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	4	100%																							
AA+	0																								
AA	0																								
AA-	0																								
A+	4				50%	50%																			
A	0																								
A-	0																								
$\mathrm{BBB}+$	0																								
BBB	3									100%															
BBB-	0																								
$\mathrm{BB}+$	0																								
BB	0																								
BB-	0																								
$\mathrm{B}+$	0																								
В	0																								
B-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	11																								

Table 53: Sovereign Issuers - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat	1/2018										ngs as of		021 (F	ercent)	- ,		ŕ						Oth 12/5	er Outcon 31/2018 - (Per	nes During 12/31/2021 cent)
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	ввв	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)
AAA	2	100%																							
AA+	0																								
AA	0																								
AA-	0																								
A+	2					100%																			
A	0																								
A-	0																								
BBB+	0																								
BBB	0																								
BBB-	0																								
$\mathrm{BB}+$	0																								
BB	0																								
BB-	0																								
$\mathrm{B}+$	0																								
В	0																								
В-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	4																								



Table 55: Sovereign Issuers - 1-Year Transition and Default Rates (Short-Term Credit Ratings)

										nes During
Credit Rat	ings as of							12/3	31/2020 - 1	12/31/2021
12/31	/2020	Credit	Ratin	ngs as of	12/31	/2021	l (Percent)		(Per	cent)
	Number of									
Credit	Ratings								Paid	Withdrawn
Rating	Outstanding	K1+	K1	K2	K3	В	С	Default	Off	(other)
K1+	8	100%								
K1	0									
K2	2			100%						
K3	0									
В	0									
С	0									
Total	10									

Table 56: Sovereign Issuers - 3-Year Transition and Default Rates (Short-Term Credit Ratings)

										nes During
Credit Rat	ings as of							12/3	31/2018 - 3	12/31/2021
12/31	/2018	Credit	Ratin	ngs as	of 12/	/31/2	2021 (Percent)		(Per	cent)
	Number of									
Credit	Ratings								Paid	Withdrawn
Rating	Outstanding	K1+	K1	K2	K3	В	C	Default	Off	(other)
K1+	4	100%								
K1	0									
K2	0									
K3	0									
В	0									
С	0									
Total	4									



Table 58: U.S. Public Finance - 1-Year Transition and Default Rates (Long-Term Credit Ratings)

Credit Rat 12/31	1/2020	Credit Ratings as of $12/31/2021$ (Percent)												Other Outcomes During 12/31/2020 - 12/31/2021 (Percent)											
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	С	Default	Paid Off	Withdrawn (other)
AAA	17	100%																							
AA+	17	6%	94%																						
AA	23		4%	96%																					
AA-	23			4%	96%																				
A+	14					100%																			
A	7						100%																		
A-	8							100%																	
BBB+	3								67%	33%															
BBB	9									100%															
BBB-	6									17%	83%														
$\mathrm{BB}+$	0																								
BB	1															100%									
BB-	0																								
B+	0																								
В	0																								
В-	0																								
CCC+	0																								
CCC	0																								
CCC-	0																								
CC	0																								
C	0																								
Total	128																								

Table 59: U.S. Public Finance - 3-Year Transition and Default Rates (Long-Term Credit Ratings)

	(2 300 mo 1 91, 2010 mo 1 91, 2021)																Other Outcomes During									
Credit Rat																							12/3	12/31/2018 - 12/31/2021		
12/31	/2018	Credit Ratings as of 12/31/2021 (Percent)											(Percent)													
Credit Rating	Number of Ratings Outstanding	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	ВВ	BB-	B+	В	В-	CCC+	CCC	CCC-	CC	C	Default	Paid Off	Withdrawn (other)	
AAA	12	100%																								
AA+	15	33%	53%	7%																				7%		
AA	15		13%	87%																						
AA-	17			18%	64%	6%																		6%	6%	
A+	9					100%																				
A	5						100%																			
A-	8							50%		25%														25%		
BBB+	3								67%	33%																
BBB	5									100%																
BBB-	5									20%	60%					20%										
BB+	1																							100%		
BB	0																									
BB-	0																									
B+	0																									
В	0																									
B-	0																									
CCC+	0																									
CCC	0																									
CCC-	0																									
CC	0																									
С	0																									
Total	95																									



Table 61: U.S. Public Finance - 1-Year Transition and Default Rates (Short-Term Credit Ratings)

						Other Outcomes During					
Credit Rat						12/31/2020 - $12/31/2021$					
12/31	Cred	it Rating	s as of	12/3	1/202	(Percent)					
	Number of										
Credit	Ratings								Paid	Withdrawn	
Rating	Outstanding	K1+	K1	K2	K3	В	C	Default	Off	(other)	
K1+	6	83%							17%		
K1	1		100%								
K2	0										
K3	0										
В	0										
С	0										
Total	7										

Table 62: U.S. Public Finance - 3-Year Transition and Default Rates (Short-Term Credit Ratings)

Credit Rat							Other Outcomes During $12/31/2018 - 12/31/2021$					
12/31	Cred	it Rat	ings a	s of 12	2/31/	2021 (Percent)	(Percent)					
Credit Rating	Number of Ratings Outstanding	K1+	K1	K2	К3	В	C	Default	Paid Off	Withdrawn (other)		
K1+	4	75%								25%		
K1	0											
K2	0											
K3	0											
В	0											
С	0											
Total	4											

