

1Y average (weighted) transitions in rating categories for the period from 31st of December 2004 to 31st of December 2020

	AAA	AA	A	BBB	BB	B	CCC/C	Default	Withdraw	TOTAL
AAA										
AA		76.5%	5.9%						17.6%	17
A			78.7%	3.7%				0.7%	16.9%	136
BBB			2.0%	72.0%	4.7%	0.4%			20.9%	254
BB				11.2%	64.3%	1.4%		0.7%	22.4%	143
B					5.9%	67.6%	2.9%		23.5%	34
CCC/C						10.0%	30.0%	10.0%	50.0%	10

1Y average (weighted) transitions in rating notches for the period from 31st of December 2004 to 31st of December 2020

	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C	Default	Withdraw	TOTAL
AAA																				
AA+																				
AA			80.0%																20.0%	5
AA-				75.0%	8.3%														16.7%	12
A+					50.0%					25.0%									25.0%	8
A					10.5%	57.9%	5.3%												26.3%	19
A-						1.8%	79.8%	2.8%										0.9%	14.7%	109
BBB+							9.3%	51.2%	7.0%	7.0%	2.3%	2.3%							20.9%	43
BBB							1.0%	10.4%	57.3%	5.2%	1.0%								25.0%	96
BBB-								1.7%	9.6%	62.6%	7.8%			0.9%					17.4%	115
BB+									2.5%	16.5%	55.7%	3.8%		2.5%				1.3%	17.7%	79
BB										3.0%	9.1%	60.6%	6.1%						21.2%	33
BB-												9.7%	54.8%						35.5%	31
B+													10.0%	50.0%	5.0%		5.0%		30.0%	20
B															28.6%	28.6%	14.3%		28.6%	7
B-																14.3%	85.7%			7
CCC/C																10.0%	30.0%	10.0%	50.0%	10

1Y average (weighted) transitions in rating categories for the last 10-year period from 31st of December 2010 to 31st of December 2020

	AAA	AA	A	BBB	BB	B	CCC/C	Default	Withdraw	TOTAL
AAA										
AA		71.4%							28.6%	7
A			73.9%	5.7%				1.1%	19.3%	88
BBB			1.8%	74.4%	5.5%	0.6%			17.7%	164
BB				9.1%	70.5%	2.3%		1.1%	17.0%	88
B					4.0%	72.0%	4.0%		20.0%	25
CCC/C						25.0%	25.0%		50.0%	4

1Y average (weighted) transitions in rating notches for the last 10-year period from 31st of December 2010 to 31st of December 2020

	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C	Default	Withdraw	TOTAL
AAA																				
AA+																				
AA			80.0%																20.0%	5
AA-				50.0%															50.0%	2
A+					57.1%					28.6%									14.3%	7
A					16.7%	33.3%	8.3%												41.7%	12
A-						1.4%	76.8%	4.3%										1.4%	15.9%	69
BBB+							10.0%	50.0%	6.7%	10.0%	3.3%	3.3%							16.7%	30
BBB								10.9%	54.3%	6.5%	2.2%								26.1%	46
BBB-								1.1%	8.0%	69.3%	6.8%			1.1%					13.6%	88
BB+										13.5%	59.6%	5.8%		3.8%				1.9%	15.4%	52
BB										6.3%	6.3%	68.8%	12.5%						6.3%	16
BB-												10.0%	60.0%						30.0%	20
B+													7.7%	46.2%	7.7%		7.7%		30.8%	13
B														40.0%	20.0%	20.0%			20.0%	5
B-															14.3%	85.7%				7
CCC/C																25.0%	25.0%		50.0%	4

1Y Transition matrix 2017 in rating categories (from 31st of December 2019 to 31st of December 2020)

	AAA	AA	A	BBB	BB	B	CCC/C	Default	Withdraw	TOTAL
AAA										
AA										
A			100.0%							5
BBB			4.5%	90.9%					4.5%	22
BB				6.3%	93.8%					16
B						100.0%				2
CCC/C										

1Y Transition matrix 2017 in rating notches (from 31st of December 2019 to 31st of December 2020)

	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-	B+	B	B-	CCC/C	Default	Withdraw	TOTAL
AAA																				
AA+																				
AA																				
AA-																				
A+																				
A						100.0%														1
A-							100.0%													4
BBB+							33.3%	66.7%												3
BBB								16.7%	83.3%											6
BBB-										92.3%									7.7%	13
BB+										12.5%	87.5%									8
BB											20.0%	80.0%								5
BB-													100.0%							3
B+														100.0%						1
B																				
B-																100.0%				1
CCC/C																				