

Three (3) Years Rating Transition Matrix (2018-2020)

Rating	AAA	AA+	AA	AA-	A+	A	A-	BBB+	BBB	BBB-	BB+	BB	BB-
AAA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AA+	0.00%	40.00%	40.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AA	0.00%	16.67%	66.67%	16.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
AA-	0.00%	0.00%	20.00%	60.00%	20.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
A+	0.00%	0.00%	0.00%	4.76%	57.14%	14.29%	9.52%	4.76%	9.52%	0.00%	0.00%	0.00%	0.00%
A	0.00%	0.00%	0.00%	0.00%	5.88%	52.94%	14.71%	14.71%	11.76%	0.00%	0.00%	0.00%	0.00%
A-	0.00%	0.00%	0.00%	0.00%	0.00%	13.70%	76.71%	5.48%	2.74%	0.00%	1.37%	0.00%	0.00%
BBB+	0.00%	0.00%	0.00%	0.00%	2.99%	11.94%	13.43%	53.73%	11.94%	4.48%	1.49%	0.00%	0.00%
BBB	0.00%	0.00%	0.00%	0.00%	0.00%	2.90%	7.25%	17.39%	66.67%	2.90%	2.90%	0.00%	0.00%
BBB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.90%	6.90%	13.79%	62.07%	6.90%	3.45%	0.00%
BB+	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	20.00%	50.00%	10.00%	0.00%
BB	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	66.67%	33.33%	0.00%
BB-	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	33.33%	66.67%

* Each Row corresponds to an initial Rating

* Each Column corresponds to a Rating after 3rd Year