

## Special Comment

# Moody's Credit Policy

March 2008

## Corporate One-to-Five-Year Rating Transition Rates

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This *Special Comment* presents average corporate <sup>1</sup> rating transition rates for various time horizons, by both broad and alphanumeric ratings. For the broad rating categories, we look at the time period 1970-2007 and calculate five different average rating transition rates – from the 1-year horizon up to the 5-year horizon. When calculating the alphanumeric transition rates we use the 1983-2007 sample since Moody's introduced the alphanumeric rating scale above Caa in mid-1982. The data are spaced at a monthly cohort frequency.

### Data Sources

Moody's bases the results of this study on its proprietary database of ratings and defaults for corporate bond and loan issuers. Municipal and sub-sovereign debt issuers, structured finance securities, private placements, and issuers with only short-term debt ratings are excluded unless otherwise noted. In total, Moody's data covers the credit experiences of over 18,000 corporate issuers that sold long-term public debt at some time between 1920 and 2007. As of January 1, 2007 over 6,000 corporate issuers held a Moody's long-term bond, loan, or corporate family rating.

Moody's database of corporate defaults covers over 3,600 long-term bond defaults by issuers both rated and non-rated by Moody's. Additional data sources, such as Lehman Brothers index data, supplemented Moody's proprietary data in the construction of the aggregate dollar volume-weighted default rates. Defaulted bond pricing data was derived from Bloomberg, Reuters, and TRACE. The majority of these market quotes represent an actual bid on the debt instrument, although no trade may have occurred at that price. Over the 1982-2007 period, the dataset consists includes post-default prices for approximately 3,000 defaulted instruments issued by over 1,400 defaulting corporations. Moody's makes the 1970-2007 credit rating, default, and recovery rate data used in this study available through its Default Risk Service (DRS) database.

<sup>1</sup> Includes both financial and non-financial corporate debt issuers.



## Corporate One-to-Five-Year Rating Transition Rates

## Rating Migration Calculations

A rating migration matrix completely summarizes changes in credit ratings over a given time horizon. The cells of the matrix are discrete-time estimates of rating migration probabilities. They show rate of rating change measured at two points in time; e.g. the start and end of one year. When calculating credit rating migration rates, Moody's treats rating changes, rating withdrawals, and defaults as mutually exclusive states. For example, an issuer that is downgraded on the day of default is counted only as a default, not a downgrade or a downgrade and default. Similarly, an issuer whose rating is withdrawn on the day of default is counted as a default, not a withdrawal.

The probability that an issuer's rating  $i$  held on cohort date  $y$  will transition to rating  $j$  (which includes default and withdrawal) over a time horizon  $T$  is calculated as:

$$p_{ij}^y(T) = \frac{n_{ij}^y(T)}{n_i^y(0)}$$

The weighted average rating migration rate for all cohorts  $y$  in the historical data set  $Y$  is calculated as:

$$\bar{p}_{ij}(T) = \frac{\sum_{y \in Y} n_{ij}^y(T)}{\sum_{y \in Y} n_i^y(0)}$$

## Average One-Year Broad Rating Migration Rates, 1970 -2007

Rating	Aaa	Aa	A	Baa	Ba	B	Caa-C	Default	WR
Aaa	88.647%	7.447%	0.637%	0.000%	0.015%	0.002%	0.000%	0.000%	3.251%
Aa	1.075%	87.190%	6.881%	0.254%	0.055%	0.017%	0.000%	0.008%	4.520%
A	0.064%	2.724%	87.559%	4.927%	0.493%	0.090%	0.022%	0.020%	4.101%
Baa	0.045%	0.193%	4.887%	84.345%	4.309%	0.774%	0.232%	0.169%	5.046%
Ba	0.008%	0.055%	0.383%	5.703%	75.649%	7.736%	0.574%	1.097%	8.795%
B	0.012%	0.041%	0.157%	0.351%	5.566%	73.440%	5.589%	4.484%	10.361%
Caa-C	0.000%	0.028%	0.028%	0.168%	0.627%	9.689%	59.186%	16.597%	13.678%

## Average Two-Year Broad Rating Migration Rates, 1970 -2007

Rating	Aaa	Aa	A	Baa	Ba	B	Caa-C	Default	WR
Aaa	78.163%	13.709%	1.597%	0.011%	0.018%	0.004%	0.000%	0.000%	6.497%
Aa	1.759%	75.751%	12.578%	0.781%	0.196%	0.073%	0.002%	0.019%	8.841%
A	0.108%	4.739%	76.656%	8.670%	1.147%	0.279%	0.056%	0.094%	8.252%
Baa	0.100%	0.396%	8.668%	71.495%	6.819%	1.621%	0.511%	0.476%	9.914%
Ba	0.020%	0.078%	0.799%	9.439%	57.324%	11.547%	1.088%	2.853%	16.853%
B	0.020%	0.066%	0.256%	0.787%	8.676%	53.292%	7.220%	9.802%	19.880%
Caa-C	0.000%	0.031%	0.083%	0.364%	1.316%	12.606%	34.735%	25.923%	24.943%

## Corporate One-to-Five-Year Rating Transition Rates

## Average Three-Year Broad Rating Migration Rates, 1970 -2007

Rating	Aaa	Aa	A	Baa	Ba	B	Caa-C	Default	WR
Aaa	68.621%	18.733%	2.689%	0.111%	0.123%	0.000%	0.000%	0.000%	9.724%
Aa	2.414%	65.850%	16.873%	1.511%	0.371%	0.108%	0.004%	0.042%	12.826%
A	0.148%	6.244%	67.452%	11.304%	1.796%	0.505%	0.103%	0.217%	12.231%
Baa	0.145%	0.671%	11.282%	61.400%	8.203%	2.196%	0.641%	0.872%	14.589%
Ba	0.028%	0.097%	1.314%	11.316%	44.326%	12.702%	1.429%	4.811%	23.977%
B	0.025%	0.080%	0.308%	1.263%	9.142%	39.265%	6.928%	14.648%	28.342%
Caa-C	0.000%	0.017%	0.059%	0.545%	2.050%	10.556%	20.617%	33.289%	32.866%

## Average Four-Year Broad Rating Migration Rates, 1970 -2007

Rating	Aaa	Aa	A	Baa	Ba	B	Caa-C	Default	WR
Aaa	60.374%	22.184%	4.003%	0.173%	0.262%	0.029%	0.005%	0.024%	12.946%
Aa	2.939%	57.554%	19.799%	2.382%	0.466%	0.151%	0.021%	0.102%	16.585%
A	0.182%	7.283%	59.812%	13.244%	2.351%	0.702%	0.158%	0.341%	15.928%
Baa	0.190%	0.936%	12.804%	53.515%	8.993%	2.657%	0.631%	1.331%	18.942%
Ba	0.037%	0.157%	1.872%	11.650%	34.987%	12.613%	1.543%	6.730%	30.412%
B	0.036%	0.078%	0.295%	1.602%	8.414%	29.199%	6.107%	18.771%	35.497%
Caa-C	0.000%	0.000%	0.016%	0.616%	2.335%	7.715%	11.953%	39.163%	38.203%

## Average Five-Year Broad Rating Migration Rates, 1970 -2007

Rating	Aaa	Aa	A	Baa	Ba	B	Caa-C	Default	WR
Aaa	52.832%	24.597%	5.471%	0.335%	0.280%	0.042%	0.040%	0.090%	16.313%
Aa	3.289%	50.412%	21.730%	3.305%	0.577%	0.188%	0.041%	0.170%	20.288%
A	0.207%	7.933%	53.492%	14.532%	2.880%	0.878%	0.185%	0.469%	19.424%
Baa	0.238%	1.250%	13.744%	46.892%	9.366%	2.964%	0.577%	1.803%	23.167%
Ba	0.047%	0.218%	2.294%	11.556%	27.853%	11.725%	1.558%	8.435%	36.315%
B	0.048%	0.072%	0.306%	1.534%	7.243%	21.778%	5.139%	22.417%	41.463%
Caa-C	0.000%	0.000%	0.000%	0.732%	1.925%	6.037%	6.847%	43.490%	40.970%

## Corporate One-to-Five-Year Rating Transition Rates

## Average One-Year Alphanumeric Rating Migration Rates, 1983 -2007

Rating	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	C	Default	WR	
Aaa	87.779%	5.360%	2.018%	0.404%	0.330%	0.126%	0.014%	0.000%	0.000%	0.000%	0.019%	0.000%	0.000%	0.003%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	3.947%	
Aa1	2.771%	77.272%	7.503%	6.288%	1.088%	0.275%	0.149%	0.104%	0.026%	0.007%	0.037%	0.000%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	4.476%
Aa2	1.165%	4.839%	76.513%	7.966%	2.927%	1.172%	0.352%	0.076%	0.086%	0.000%	0.000%	0.000%	0.029%	0.019%	0.010%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	4.847%
Aa3	0.231%	1.270%	4.151%	78.184%	7.455%	2.402%	0.615%	0.182%	0.136%	0.065%	0.011%	0.029%	0.029%	0.016%	0.005%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.016%	5.203%
A1	0.066%	0.108%	1.064%	5.371%	78.446%	6.762%	2.481%	0.532%	0.336%	0.082%	0.187%	0.122%	0.042%	0.048%	0.012%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.002%	4.340%
A2	0.088%	0.033%	0.242%	1.117%	5.338%	76.719%	7.365%	2.699%	0.847%	0.342%	0.204%	0.093%	0.129%	0.044%	0.038%	0.005%	0.005%	0.029%	0.006%	0.000%	0.000%	0.000%	0.024%	4.634%
A3	0.043%	0.087%	0.128%	0.251%	1.974%	7.603%	73.127%	6.461%	3.247%	1.057%	0.462%	0.194%	0.200%	0.106%	0.046%	0.026%	0.002%	0.005%	0.007%	0.012%	0.000%	0.032%	4.929%	
Baa1	0.031%	0.052%	0.099%	0.115%	0.295%	2.146%	7.128%	72.559%	7.254%	2.964%	0.888%	0.435%	0.342%	0.448%	0.065%	0.037%	0.069%	0.035%	0.000%	0.018%	0.001%	0.141%	4.879%	
Baa2	0.045%	0.084%	0.048%	0.101%	0.199%	0.743%	3.071%	6.505%	72.610%	6.555%	1.703%	0.648%	0.718%	0.493%	0.277%	0.141%	0.145%	0.026%	0.018%	0.013%	0.000%	0.141%	5.715%	
Baa3	0.057%	0.010%	0.026%	0.044%	0.145%	0.293%	0.624%	3.099%	8.834%	69.479%	5.323%	2.501%	1.200%	0.779%	0.364%	0.226%	0.223%	0.139%	0.157%	0.051%	0.009%	0.308%	6.109%	
Ba1	0.026%	0.002%	0.024%	0.051%	0.181%	0.143%	0.371%	0.691%	2.927%	9.679%	63.698%	4.916%	4.046%	1.287%	1.088%	0.735%	0.073%	0.219%	0.064%	0.013%	0.015%	0.662%	9.088%	
Ba2	0.000%	0.000%	0.031%	0.000%	0.031%	0.100%	0.074%	0.333%	0.856%	2.986%	9.224%	61.137%	7.722%	2.758%	2.389%	1.002%	0.218%	0.167%	0.123%	0.054%	0.003%	0.756%	10.037%	
Ba3	0.000%	0.020%	0.010%	0.023%	0.025%	0.136%	0.141%	0.171%	0.225%	0.643%	2.790%	6.370%	62.393%	7.548%	4.572%	2.179%	0.478%	0.319%	0.077%	0.057%	0.015%	1.733%	10.073%	
B1	0.029%	0.016%	0.017%	0.009%	0.043%	0.107%	0.088%	0.071%	0.128%	0.228%	0.618%	2.599%	6.934%	61.398%	9.239%	3.916%	1.067%	0.582%	0.230%	0.334%	0.011%	2.486%	9.851%	
B2	0.000%	0.000%	0.009%	0.020%	0.024%	0.000%	0.083%	0.118%	0.091%	0.122%	0.325%	0.686%	2.196%	7.972%	58.877%	8.678%	3.201%	1.676%	0.447%	0.482%	0.050%	4.148%	10.793%	
B3	0.000%	0.007%	0.053%	0.000%	0.012%	0.028%	0.069%	0.074%	0.065%	0.131%	0.081%	0.263%	0.627%	3.401%	7.480%	56.863%	5.278%	3.719%	1.012%	1.047%	0.214%	8.118%	11.459%	
Caa1	0.000%	0.066%	0.000%	0.000%	0.000%	0.053%	0.000%	0.000%	0.000%	0.007%	0.046%	0.093%	0.179%	1.204%	3.170%	10.800%	48.673%	6.545%	3.779%	2.171%	0.549%	9.913%	12.752%	
Caa2	0.000%	0.000%	0.000%	0.000%	0.000%	0.017%	0.000%	0.000%	0.087%	0.424%	0.242%	0.234%	0.632%	1.177%	1.618%	4.586%	8.221%	44.990%	3.184%	3.020%	1.454%	17.359%	12.755%	
Caa3	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.211%	0.000%	0.211%	1.212%	0.422%	2.820%	3.979%	6.166%	40.922%	4.321%	0.949%	23.715%	15.072%	
Ca	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.111%	0.000%	0.389%	0.111%	0.695%	2.476%	1.446%	4.172%	5.535%	35.243%	1.864%	29.096%	18.860%	
C	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.585%	2.807%	1.637%	38.713%	32.164%	24.094%	

## Corporate One-to-Five-Year Rating Transition Rates

## Average Two-Year Alphanumeric Rating Migration Rates, 1983 -2007

Rating	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	C	Default	WR	
Aaa	76.883%	8.343%	4.223%	1.464%	0.716%	0.337%	0.066%	0.000%	0.000%	0.000%	0.023%	0.000%	0.000%	0.006%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	7.938%	
Aa1	4.514%	60.058%	11.804%	9.361%	3.030%	0.963%	0.650%	0.360%	0.055%	0.086%	0.063%	0.000%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	9.052%
Aa2	1.625%	6.806%	59.090%	13.208%	4.734%	3.109%	1.107%	0.417%	0.268%	0.030%	0.013%	0.025%	0.063%	0.096%	0.010%	0.000%	0.000%	0.008%	0.000%	0.000%	0.000%	0.000%	0.010%	9.382%
Aa3	0.347%	1.826%	6.178%	61.591%	12.136%	4.726%	1.576%	0.566%	0.239%	0.148%	0.131%	0.053%	0.104%	0.079%	0.017%	0.006%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.036%	10.241%
A1	0.137%	0.289%	1.884%	8.647%	60.632%	10.954%	4.704%	1.556%	0.998%	0.330%	0.248%	0.178%	0.158%	0.180%	0.009%	0.036%	0.000%	0.019%	0.000%	0.000%	0.000%	0.000%	0.080%	8.959%
A2	0.126%	0.104%	0.388%	2.151%	8.137%	59.306%	11.322%	4.501%	2.048%	0.789%	0.544%	0.265%	0.426%	0.153%	0.096%	0.014%	0.043%	0.040%	0.008%	0.002%	0.000%	0.000%	0.076%	9.462%
A3	0.071%	0.117%	0.268%	0.549%	3.873%	11.872%	53.938%	9.801%	4.830%	2.315%	0.930%	0.438%	0.465%	0.327%	0.121%	0.073%	0.018%	0.017%	0.001%	0.013%	0.000%	0.000%	0.152%	9.811%
Baa1	0.071%	0.095%	0.200%	0.228%	0.792%	3.911%	10.538%	53.256%	10.898%	4.662%	1.675%	1.075%	0.806%	0.926%	0.182%	0.160%	0.233%	0.130%	0.011%	0.036%	0.002%	0.390%	0.417%	9.723%
Baa2	0.107%	0.189%	0.079%	0.200%	0.571%	1.458%	5.443%	9.639%	53.951%	9.170%	2.562%	1.290%	1.200%	0.881%	0.583%	0.397%	0.295%	0.107%	0.038%	0.063%	0.000%	0.417%	11.359%	
Baa3	0.136%	0.019%	0.078%	0.093%	0.280%	0.667%	1.710%	5.409%	13.331%	49.579%	6.550%	3.513%	2.065%	1.368%	0.921%	0.512%	0.334%	0.331%	0.269%	0.125%	0.015%	0.845%	11.851%	
Ba1	0.044%	0.002%	0.039%	0.100%	0.274%	0.471%	0.933%	1.625%	5.025%	12.673%	42.000%	5.903%	5.427%	2.296%	2.082%	1.328%	0.176%	0.378%	0.144%	0.042%	0.014%	1.720%	17.304%	
Ba2	0.000%	0.000%	0.035%	0.016%	0.049%	0.136%	0.210%	0.807%	1.825%	5.794%	10.994%	38.222%	9.619%	4.037%	3.838%	1.721%	0.431%	0.382%	0.161%	0.098%	0.003%	2.084%	19.535%	
Ba3	0.000%	0.042%	0.000%	0.032%	0.046%	0.203%	0.198%	0.342%	0.464%	1.569%	4.697%	7.905%	38.776%	9.943%	6.582%	3.451%	0.854%	0.692%	0.152%	0.157%	0.014%	4.680%	19.200%	
B1	0.048%	0.032%	0.045%	0.008%	0.047%	0.177%	0.160%	0.150%	0.292%	0.549%	1.360%	3.880%	8.841%	37.393%	11.676%	5.614%	1.679%	1.077%	0.484%	0.691%	0.083%	6.662%	19.053%	
B2	0.000%	0.000%	0.010%	0.022%	0.039%	0.029%	0.145%	0.200%	0.223%	0.304%	0.739%	1.726%	3.502%	9.639%	35.077%	10.192%	4.217%	2.365%	0.619%	0.588%	0.129%	9.547%	20.689%	
B3	0.000%	0.008%	0.078%	0.000%	0.044%	0.000%	0.084%	0.170%	0.097%	0.285%	0.282%	0.648%	1.377%	5.261%	8.874%	32.164%	5.170%	4.195%	1.672%	1.361%	0.321%	15.895%	22.016%	
Caa1	0.000%	0.000%	0.000%	0.000%	0.000%	0.100%	0.000%	0.077%	0.069%	0.038%	0.077%	0.138%	0.908%	2.784%	4.476%	10.168%	24.458%	6.153%	3.953%	1.884%	0.623%	20.381%	23.712%	
Caa2	0.000%	0.093%	0.000%	0.000%	0.000%	0.130%	0.000%	0.000%	0.084%	0.724%	0.223%	0.334%	0.919%	2.534%	2.868%	6.515%	7.452%	21.531%	3.072%	2.729%	1.782%	25.244%	23.768%	
Caa3	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.141%	0.084%	0.141%	0.337%	1.715%	0.928%	4.948%	6.635%	4.386%	17.093%	3.177%	0.056%	32.724%	27.636%	
Ca	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.461%	0.000%	1.096%	0.461%	1.413%	3.750%	1.673%	3.548%	5.653%	12.547%	1.990%	35.766%	31.641%	
C	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	1.317%	0.000%	1.437%	0.000%	0.599%	1.198%	1.557%	15.928%	40.120%	37.844%	

## Corporate One-to-Five-Year Rating Transition Rates

## Average Three-Year Alphanumeric Rating Migration Rates, 1983 -2007

Rating	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	C	Default	WR	
Aaa	67.137%	9.087%	7.001%	2.658%	1.215%	0.642%	0.238%	0.015%	0.000%	0.000%	0.112%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	11.896%	
Aa1	5.814%	47.564%	13.976%	10.294%	4.554%	1.587%	1.000%	0.603%	0.248%	0.231%	0.190%	0.000%	0.000%	0.004%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	13.934%
Aa2	2.152%	7.551%	45.272%	16.192%	6.619%	4.800%	1.733%	0.994%	0.416%	0.167%	0.048%	0.030%	0.137%	0.271%	0.011%	0.000%	0.000%	0.008%	0.000%	0.000%	0.000%	0.000%	0.043%	13.557%
Aa3	0.556%	2.254%	7.164%	49.285%	14.077%	6.961%	2.650%	1.095%	0.376%	0.223%	0.200%	0.130%	0.175%	0.036%	0.013%	0.025%	0.000%	0.005%	0.000%	0.000%	0.000%	0.000%	0.071%	14.703%
A1	0.224%	0.517%	2.243%	10.253%	47.197%	13.016%	6.994%	2.536%	1.721%	0.531%	0.345%	0.210%	0.161%	0.296%	0.028%	0.085%	0.010%	0.045%	0.000%	0.014%	0.000%	0.216%	13.358%	
A2	0.135%	0.227%	0.577%	2.731%	9.551%	46.497%	13.099%	5.590%	3.188%	1.285%	0.889%	0.534%	0.669%	0.248%	0.135%	0.032%	0.097%	0.053%	0.000%	0.007%	0.000%	0.202%	14.254%	
A3	0.079%	0.140%	0.649%	1.147%	4.906%	14.054%	40.075%	11.384%	5.688%	3.103%	1.321%	0.804%	0.722%	0.635%	0.280%	0.071%	0.069%	0.010%	0.001%	0.004%	0.000%	0.311%	14.547%	
Baa1	0.093%	0.140%	0.271%	0.387%	1.189%	4.923%	12.157%	40.128%	12.707%	5.699%	1.985%	1.708%	1.122%	1.084%	0.313%	0.293%	0.356%	0.202%	0.067%	0.010%	0.000%	0.683%	14.481%	
Baa2	0.152%	0.290%	0.142%	0.391%	1.111%	2.129%	6.225%	10.719%	41.410%	10.571%	2.911%	1.556%	1.634%	1.088%	0.794%	0.617%	0.385%	0.234%	0.012%	0.125%	0.000%	0.799%	16.704%	
Baa3	0.221%	0.020%	0.140%	0.160%	0.397%	1.159%	2.751%	6.717%	14.437%	37.294%	6.626%	3.793%	2.557%	1.786%	1.230%	0.639%	0.358%	0.457%	0.190%	0.101%	0.016%	1.451%	17.500%	
Ba1	0.046%	0.019%	0.034%	0.097%	0.277%	0.876%	1.436%	2.460%	6.132%	12.445%	28.943%	5.838%	5.570%	2.930%	2.584%	1.915%	0.353%	0.406%	0.204%	0.039%	0.012%	2.942%	24.439%	
Ba2	0.000%	0.000%	0.012%	0.038%	0.055%	0.151%	0.477%	1.181%	2.545%	6.990%	9.992%	25.683%	9.134%	4.564%	4.497%	1.987%	0.460%	0.529%	0.160%	0.169%	0.000%	3.581%	27.795%	
Ba3	0.000%	0.067%	0.000%	0.028%	0.035%	0.259%	0.268%	0.492%	0.817%	2.318%	5.016%	6.751%	25.610%	9.194%	6.984%	3.916%	0.933%	0.858%	0.225%	0.441%	0.080%	8.112%	27.595%	
B1	0.056%	0.051%	0.067%	0.000%	0.051%	0.176%	0.179%	0.330%	0.469%	0.867%	1.798%	3.841%	7.573%	24.806%	10.875%	5.762%	2.019%	1.299%	0.526%	0.558%	0.122%	10.806%	27.770%	
B2	0.000%	0.000%	0.011%	0.043%	0.043%	0.063%	0.143%	0.292%	0.222%	0.437%	1.015%	2.092%	4.079%	8.277%	22.320%	9.133%	4.047%	2.378%	0.670%	0.645%	0.113%	14.439%	29.537%	
B3	0.003%	0.009%	0.047%	0.000%	0.050%	0.000%	0.207%	0.207%	0.245%	0.449%	0.464%	0.898%	1.730%	5.131%	7.400%	19.018%	4.291%	3.459%	1.852%	1.173%	0.233%	22.615%	30.520%	
Caa1	0.000%	0.000%	0.000%	0.000%	0.000%	0.009%	0.000%	0.202%	0.000%	0.202%	0.119%	0.413%	1.486%	3.339%	3.550%	5.954%	13.513%	4.724%	3.128%	1.064%	0.890%	30.190%	31.217%	
Caa2	0.000%	0.051%	0.000%	0.000%	0.000%	0.164%	0.000%	0.123%	0.031%	0.636%	0.216%	0.462%	1.262%	3.048%	3.089%	5.235%	4.783%	10.941%	2.699%	2.145%	1.314%	31.346%	32.454%	
Caa3	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.031%	0.214%	1.193%	0.459%	1.040%	0.795%	6.332%	5.598%	1.132%	6.730%	2.019%	0.153%	37.290%	37.014%	
Ca	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.273%	0.455%	0.000%	1.394%	1.000%	1.970%	2.152%	0.970%	1.636%	4.364%	5.424%	1.758%	39.667%	38.939%	
C	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	2.516%	0.000%	0.755%	0.000%	0.000%	0.000%	1.635%	5.660%	47.296%	42.138%	

## Corporate One-to-Five-Year Rating Transition Rates

## Average Four-Year Alphanumeric Rating Migration Rates, 1983 -2007

Rating	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	C	Default	WR
Aaa	58.670%	9.390%	8.784%	3.651%	2.306%	0.752%	0.485%	0.035%	0.000%	0.000%	0.044%	0.000%	0.006%	0.025%	0.013%	0.000%	0.000%	0.006%	0.000%	0.000%	0.000%	0.032%	15.801%
Aa1	6.820%	38.289%	14.809%	10.899%	5.394%	2.126%	1.528%	1.050%	0.514%	0.283%	0.075%	0.084%	0.022%	0.018%	0.000%	0.004%	0.004%	0.044%	0.000%	0.000%	0.000%	0.089%	17.949%
Aa2	2.580%	7.445%	35.023%	17.018%	8.079%	6.028%	2.724%	1.477%	0.600%	0.243%	0.110%	0.238%	0.144%	0.277%	0.008%	0.023%	0.000%	0.008%	0.000%	0.000%	0.000%	0.105%	17.869%
Aa3	0.769%	2.418%	7.534%	40.851%	13.862%	8.845%	3.387%	1.690%	0.647%	0.345%	0.147%	0.140%	0.181%	0.076%	0.012%	0.027%	0.016%	0.009%	0.000%	0.000%	0.000%	0.124%	18.921%
A1	0.255%	0.806%	2.393%	10.704%	37.857%	13.712%	8.942%	3.396%	2.040%	0.760%	0.545%	0.244%	0.200%	0.290%	0.067%	0.088%	0.015%	0.057%	0.000%	0.015%	0.000%	0.310%	17.305%
A2	0.143%	0.361%	0.802%	2.899%	9.953%	37.174%	13.342%	6.639%	4.134%	1.849%	1.227%	0.732%	0.767%	0.364%	0.165%	0.043%	0.145%	0.046%	0.000%	0.008%	0.000%	0.378%	18.830%
A3	0.090%	0.190%	0.829%	1.748%	5.200%	14.792%	30.870%	11.471%	6.532%	3.720%	1.514%	1.117%	0.933%	0.885%	0.400%	0.114%	0.179%	0.045%	0.012%	0.002%	0.000%	0.435%	18.919%
Baa1	0.107%	0.172%	0.271%	0.543%	1.641%	5.392%	11.992%	31.961%	13.099%	6.549%	2.402%	1.948%	1.392%	1.149%	0.399%	0.344%	0.286%	0.230%	0.092%	0.062%	0.000%	0.954%	19.015%
Baa2	0.208%	0.398%	0.258%	0.450%	1.411%	2.491%	6.525%	10.716%	33.168%	10.935%	3.000%	1.693%	1.725%	1.212%	1.185%	0.728%	0.368%	0.346%	0.009%	0.090%	0.000%	1.358%	21.724%
Baa3	0.320%	0.049%	0.194%	0.190%	0.459%	1.453%	3.428%	7.197%	13.943%	29.524%	6.241%	3.888%	2.872%	2.157%	1.358%	0.797%	0.450%	0.329%	0.095%	0.093%	0.018%	2.130%	22.817%
Ba1	0.049%	0.049%	0.056%	0.151%	0.448%	1.034%	1.865%	2.825%	6.381%	10.920%	20.980%	5.414%	5.473%	3.208%	2.820%	2.101%	0.471%	0.368%	0.210%	0.095%	0.000%	4.147%	30.936%
Ba2	0.000%	0.012%	0.000%	0.040%	0.056%	0.273%	0.744%	1.503%	2.701%	7.020%	8.808%	17.414%	8.169%	4.635%	4.669%	1.927%	0.520%	0.657%	0.081%	0.152%	0.006%	5.118%	35.497%
Ba3	0.000%	0.085%	0.004%	0.020%	0.063%	0.301%	0.307%	0.512%	0.847%	2.729%	4.281%	5.705%	17.605%	7.843%	6.915%	3.714%	1.001%	0.845%	0.203%	0.483%	0.193%	11.316%	35.028%
B1	0.059%	0.070%	0.068%	0.000%	0.049%	0.161%	0.217%	0.440%	0.569%	1.031%	1.669%	3.742%	6.019%	17.220%	8.970%	5.289%	2.020%	1.319%	0.596%	0.474%	0.034%	14.340%	35.644%
B2	0.000%	0.000%	0.000%	0.061%	0.028%	0.058%	0.068%	0.342%	0.339%	0.491%	1.037%	1.854%	3.830%	6.846%	14.929%	7.777%	3.286%	2.110%	0.592%	0.719%	0.149%	18.633%	36.851%
B3	0.042%	0.003%	0.000%	0.000%	0.023%	0.000%	0.255%	0.232%	0.245%	0.571%	0.574%	0.828%	1.628%	4.248%	5.405%	11.498%	3.604%	2.785%	1.705%	0.896%	0.219%	28.310%	36.929%
Caa1	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.243%	0.000%	0.099%	0.243%	0.806%	1.866%	2.020%	2.561%	3.543%	7.661%	2.660%	1.821%	0.640%	0.773%	38.801%	36.262%
Caa2	0.000%	0.000%	0.000%	0.000%	0.000%	0.046%	0.000%	0.436%	0.000%	0.321%	0.310%	0.768%	1.261%	3.325%	2.763%	2.775%	2.809%	5.630%	1.605%	1.709%	0.585%	36.785%	38.872%
Caa3	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.923%	0.581%	0.103%	0.923%	1.230%	5.537%	4.306%	0.684%	3.144%	0.786%	0.103%	40.567%	41.114%
Ca	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.295%	0.098%	0.000%	0.458%	1.211%	1.767%	1.505%	0.425%	0.884%	3.043%	2.454%	1.832%	41.198%	44.830%
C	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	1.088%	0.000%	0.000%	0.000%	0.000%	0.000%	1.633%	1.088%	51.973%	44.218%

## Corporate One-to-Five-Year Rating Transition Rates

## Average Five-Year Alphanumeric Rating Migration Rates, 1983 -2007

Rating	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Caa2	Caa3	Ca	C	Default	WR
Aaa	50.914%	9.308%	9.975%	4.502%	3.177%	0.995%	0.958%	0.167%	0.040%	0.000%	0.000%	0.000%	0.007%	0.043%	0.013%	0.000%	0.000%	0.020%	0.000%	0.000%	0.000%	0.070%	19.810%
Aa1	7.299%	31.006%	14.344%	11.930%	5.449%	2.634%	1.630%	1.711%	0.989%	0.282%	0.010%	0.191%	0.100%	0.000%	0.029%	0.014%	0.062%	0.005%	0.000%	0.000%	0.000%	0.139%	22.178%
Aa2	3.010%	6.986%	27.533%	16.499%	9.032%	7.377%	3.424%	1.721%	0.638%	0.379%	0.119%	0.441%	0.242%	0.292%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.197%	22.110%
Aa3	0.873%	2.629%	7.844%	33.827%	13.426%	9.669%	4.205%	2.247%	1.082%	0.460%	0.124%	0.091%	0.129%	0.116%	0.013%	0.006%	0.040%	0.030%	0.000%	0.000%	0.000%	0.179%	23.010%
A1	0.293%	0.995%	2.306%	10.626%	31.240%	14.129%	9.981%	4.129%	2.106%	1.061%	0.672%	0.194%	0.215%	0.292%	0.121%	0.091%	0.005%	0.062%	0.000%	0.016%	0.000%	0.388%	21.079%
A2	0.114%	0.426%	0.987%	2.986%	9.700%	30.337%	13.078%	7.228%	4.791%	2.403%	1.366%	0.965%	0.878%	0.531%	0.206%	0.113%	0.173%	0.022%	0.000%	0.010%	0.000%	0.545%	23.141%
A3	0.089%	0.255%	0.925%	2.125%	5.278%	14.526%	24.430%	11.316%	7.259%	4.000%	1.762%	1.306%	1.264%	0.876%	0.437%	0.130%	0.224%	0.085%	0.036%	0.002%	0.000%	0.593%	23.083%
Baa1	0.121%	0.220%	0.302%	0.772%	1.796%	5.813%	10.948%	25.837%	12.945%	7.514%	2.742%	1.977%	1.400%	1.137%	0.489%	0.367%	0.220%	0.170%	0.043%	0.101%	0.000%	1.250%	23.836%
Baa2	0.253%	0.513%	0.219%	0.578%	1.857%	2.493%	6.581%	10.406%	27.491%	10.743%	2.948%	1.882%	1.618%	1.363%	1.455%	0.691%	0.390%	0.376%	0.010%	0.080%	0.000%	1.871%	26.181%
Baa3	0.432%	0.095%	0.247%	0.161%	0.696%	1.622%	3.867%	7.298%	13.038%	23.624%	5.603%	3.981%	3.234%	2.211%	1.522%	0.882%	0.528%	0.139%	0.076%	0.095%	0.020%	2.968%	27.662%
Ba1	0.051%	0.070%	0.081%	0.184%	0.447%	1.182%	2.125%	3.144%	6.334%	9.480%	15.575%	4.618%	5.114%	3.431%	3.027%	1.640%	0.637%	0.412%	0.290%	0.119%	0.000%	5.342%	36.696%
Ba2	0.000%	0.026%	0.039%	0.056%	0.095%	0.402%	1.037%	1.577%	2.824%	6.972%	7.051%	12.270%	6.855%	4.325%	4.234%	1.904%	0.599%	0.484%	0.056%	0.193%	0.003%	6.364%	42.633%
Ba3	0.000%	0.065%	0.029%	0.023%	0.000%	0.245%	0.303%	0.614%	0.821%	2.491%	3.619%	4.694%	12.695%	6.810%	6.102%	3.369%	1.271%	0.817%	0.157%	0.207%	0.144%	13.907%	41.617%
B1	0.064%	0.075%	0.051%	0.000%	0.064%	0.153%	0.244%	0.358%	0.378%	0.949%	1.724%	2.875%	4.928%	11.884%	7.179%	4.392%	1.740%	1.280%	0.576%	0.516%	0.036%	17.835%	42.699%
B2	0.017%	0.000%	0.000%	0.059%	0.006%	0.031%	0.104%	0.273%	0.389%	0.417%	0.897%	2.227%	2.509%	6.053%	10.124%	6.183%	2.718%	1.807%	0.620%	0.651%	0.200%	22.149%	42.564%
B3	0.066%	0.000%	0.000%	0.000%	0.000%	0.021%	0.182%	0.199%	0.272%	0.758%	0.419%	0.723%	1.453%	3.493%	3.622%	7.482%	2.815%	2.068%	1.195%	0.629%	0.133%	32.774%	41.695%
Caa1	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.293%	0.000%	0.133%	0.213%	0.533%	1.080%	1.173%	2.186%	2.333%	4.133%	1.866%	0.653%	0.467%	0.387%	45.607%	38.941%
Caa2	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.532%	0.000%	0.215%	0.317%	0.811%	1.204%	3.383%	2.192%	1.761%	1.786%	3.243%	0.912%	0.900%	0.469%	39.858%	42.417%
Caa3	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	1.339%	0.446%	0.000%	0.974%	2.679%	3.247%	2.354%	0.446%	0.284%	0.649%	0.000%	44.562%	43.019%
Ca	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.344%	0.000%	1.184%	0.993%	0.764%	0.115%	0.267%	1.527%	2.482%	0.496%	42.421%	49.408%
C	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	1.053%	59.474%	39.474%



## Corporate One-to-Five-Year Rating Transition Rates

### Moody's Related Research

#### Special Comments:

- Corporate Default and Recovery Rates, 1920-2007, February 2008 (107385)
- Corporate One-to-Five-Year Rating Transition Rates - Excel data, March 2008 (108190)

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