



NEWS RELEASE

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Securitization Criteria: R&I's CDO Rating Approach

Rating & Investment Information, Inc. (R&I), has issued a new report on its rating approach for Collateralized Debt Obligations (CDOs). The following is a summary of the main points.

R&I announced its rating approach for CDOs in a release dated November 1, 1999. More than two and a half years have passed since then, and some elements of the CDO rating procedures have been updated. Although the basic concepts are unchanged, this release is a clarification of R&I's rating approach for CDOs incorporating these changes.

CDOs are asset backed securities (ABS) issued with the backing of a pool containing numerous bonds or loans, or other ABS with similar risk factors. Synthetic CDOs (whose backing assets consist of a pool comprising the credit risk of numerous corporates using credit derivatives) have appeared in recent years as well. In many cases, the backing pool may consist of other securitization products. The credit quality of CDOs is enhanced through credit enhancement to account for the credit risks of the backing assets.

The report explains the procedures for calculating the credit enhancement amount. In the event that the number of bonds and other assets in these backing pools is relatively small compared to other forms of ABS, the evaluations of the credit risk of each asset and of the variance of the potential loss that could arise from the pool become the key points in the assessment.

If the obligors in the underlying pool are diversified, for example as in the case of a consumer-loan ABS, the size of the credit enhancement may be determined using historical data. This method, however, is not touched upon in the current report. On the other hand, if the number of obligors is small, an assessment of the credit quality of each obligor becomes more important, and the rating method explained in this report is not suitable to such a pool. The application of the CDO rating method described here is, in principle, limited to pools that have ten or more obligors, and the rating method for pools that have less than ten obligors is judged on a case-by-case basis. Legal issues, meanwhile, depend on asset class, so the report does not comment on this subject.

In the calculation of the credit enhancement amount, the primary consideration is the analysis of the possibility that CDO investors might incur losses. The probability of losses on the CDOs is quantified and then the credit enhancement amount is determined such that the probability that the aggregation amount of the loss will exceed the subordinated amount is below the threshold value for the target rating. The calculation is based on the assumed default probability of the backing bonds and loans and the risks associated with industrial concentration. There are three major revisions contained in this release:

1. Regarding the default probability for the backing assets and the threshold default ratio for the target rating
2. Regarding the approach to the recovery ratio of the backing assets
3. Regarding the approach to the risk of industrial concentration

Regarding the first of these, the settings for calculating the default probability ratio have been adjusted in line with the broad-definition default ratio and the rating transition matrix, which R&I has been announcing annually since June 2000. This has extended the approach to allow differences for the default event, the type of asset and the range. Regarding the second, recovery ratios have been taken into account to some extent based on past experience of default. For the third, there have been slight changes to the way of adjusting risk based on industrial concentration.

Please contact R&I's Structured Finance CDO team about the CDO-PRO program for calculating credit enhancement which is explained in the report.

Rating and Investment Information, Inc. Nihonbashi 1-chome Bldg., 1-4-1, Nihonbashi, Chuo-ku, Tokyo 103-0027, Japan
Structured Finance Rating Division TEL. 03-3276-3406-3428 FAX. 03-3276-3429 EMAIL sfdept@r-i.co.jp Homepage <http://www.r-i.co.jp>

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I. Basic Approach

Credit enhancement for CDOs is usually accomplished through a senior/subordinate structure. Using this structure, CDOs are issued with cash flow from backing assets divided into a tranche given first priority in distribution (the senior tranche) and a different tranche with lower priority in distribution (the subordinate tranche). Investors with rights to the senior tranche can receive distributions and suffer no losses so long as losses do not exceed the value of the subordinate tranche. In other words, the larger the subordinate tranche, the smaller is the risk to the investors in the senior tranche.

Calculation of the subordination level (which serves as credit enhancement) in accordance with the rating desired by the investors in the senior tranche is performed as follows.

1. Ratings are determined for all of the obligors in the asset pool (backing assets) and, assuming that each will default according to the default probability associated with their rating, the loss distribution for the entire pool is calculated.
2. The size of the subordinate tranche is determined such that the default probability for the senior tranche comes in below the level suitable for the senior tranche's rating.

For the sake of convenience, backing assets are referred to herein as the loan pool, which is assumed to be divided into two tranches, senior and subordinated. Furthermore, "obligors" are referred to as "bond issuers" when the underlying assets consists of corporate bonds, and "reference entities" in the case of a synthetic CDO.

II. Assumptions for the Calculation

(1) Credit Ratings of Obligors

When an obligor has a publicly announced R&I rating, its senior long-term credit rating is used. For an obligor without a publicly announced R&I rating, a rating is estimated. Specifically, estimates are made by: 1) having an analyst using available information; 2) plugging financial data into a ratings estimation model; or 3) mapping ratings of the obligor assigned by other rating agencies or financial institution onto ratings of R&I. When there is insufficient information, ratings are estimated based on the fundamental principle of favoring investors' interests. There is, therefore, a tendency for such ratings to be lower than they would have been had a formal rating been requested.

(2) Industry Concentration Risk

If obligors are concentrated in a particular industry, there will be a risk that two or more could default as a result of the same factors. This risk of such a mass default also means an increased risk of a large loss. The loss probability distribution calculated according to the method described later does not take account of such conditions, so it is possible that the presence of industry concentration risk will mean that the amount of credit enhancement determined based on this probability distribution is too small. Therefore, to compensate for this under-evaluation of risk, the default probabilities of obligors are increased to produce greater credit enhancement.

In estimating the default probabilities of obligors, the risk presented by some amount of industry concentration is taken into account. However, it is recognized that if industry concentration increases, the associated risk will also increase. Consequently, stress weightings are increased, as discussed below, to further increase the default probabilities of obligors. For this purpose, industry concentration is measured in terms of numbers of companies (because the bias inherent in concentrations of amount is accounted for when calculating the loss probability distribution).

When 10% or fewer obligors are concentrated in a single industry,
no additional stress weighting is added.

When more than 10% up to 16% of obligors are concentrated in a single industry,
stress weightings are added depending upon the degree of concentration (Specifically,
default probabilities that would apply when obligor ratings are revised downward are



NEWS RELEASE

employed. At 16%, ratings are downgraded by 3 notches.)
When more than 16% of obligors are concentrated in a single industry,
a judgment is made for each case.

It should be noted that “industry” as it is used here refers to R&I’s list of 29 industry sectors given in Appendix 3. Furthermore, because of the recent practice of adding variety to the make up of backing assets by including instruments such as asset-backed securities, additional industry sectors may be separately established.

(3) Obligor’s Default Probability and Target Default Probability Required by the CDO Rating

In the past, the credit risk ratio¹, as a conservative estimate of obligor’s default probability, was used in determining CDO credit ratings. In recent years, however, examples of defaults have been accumulated and R&I, in June 2000, began to publicly discuss the use of a new indicator called the broad-definition default ratio². R&I, judging that broad-definition default ratios constitute data that reflects the actual nature of defaults more closely than do credit risk ratios, has now decided that it will use broad-definition default ratios in determining CDO ratings. In addition to broad-definition default ratios, R&I has also used rating transition matrices to determine default ratios. Additionally, because the sample size for low ratings has been too small, R&I has supplemented its analyses with its own confidential ratings data.

Broad-definition default means that a company has become effectively incapable of making debt payments and the broad-definition default ratio is the percent of companies that come to fit that definition. The definition of broad-definition default goes beyond legal bankruptcy resulting in default to include situations such as loan waivers. Considering this point, the definition of default events, the backing asset type are incorporated in the calculation of credit enhancement amount. For further details, please refer to Appendix 1.

R&I’s current revisions to its CDO ratings approach address default probabilities for obligors and default probabilities required by CDO ratings. Default probabilities for obligors have been set based on conservative scenarios and target default probabilities have been set based on average scenarios. The credit enhancement calculation application, *CDO-PRO*, has been updated with these new default probabilities. The default probabilities themselves are provided in Appendices 2 and 3.

(4) Recovery Rates

R&I recently performed research on post-default recoveries, including those from companies that have issued bonds. As a result, it has concluded that it is reasonable to expect a recovery rate of approximately 5% on unsecured (no collateral nor guaranties) senior debts, assuming a proper recovery process. However, when the period during which recovery is possible is limited or in other cases in which the possibility of recovery is judged low, no recovery is assumed. Nevertheless, for collateralized loans or other loans that are definitely recoverable, recovery rates are considered case by case.

¹ For more information on the difference between the credit risk ratio and the broad-definition default ratio, please refer to the June 22, 2001 report *The Relationship Between Ratings and Default: The Broad-Definition Default Ratio, the Rating Transition Matrix, and the Credit Risk Ratio*.

² For the latest details on the broad definition default ratio and rating transition matrix, please refer to the June 27, 2002 report, *The Relationship Between Ratings and Default The Broad-Definition Default Ratio and the Rating Transition Matrix*.

Rating and Investment Information, Inc. Nihonbashi 1-chome Bldg., 1-4-1, Nihonbashi, Chuo-ku, Tokyo 103-0027, Japan
Structured Finance Rating Division TEL. 03-3276-3406-3428 FAX. 03-3276-3429 EMAIL sfdept@r-i.co.jp Homepage <http://www.r-i.co.jp>

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III. Calculation of the Credit Enhancement Amount

(1) An example of a simple calculation is shown below to explain the concepts discussed above.
(Calculation Example)

Assume there are two obligors, Company A and Company B. Details of each are shown in the following table.

Company	Principal (100 million yen)	Probability of Default Within 1 Year
A	10	5%
B	5	10%
(Total 15)		

There are four possible default patterns.
the patterns that could develop within the coming year are four (=2²) given below.

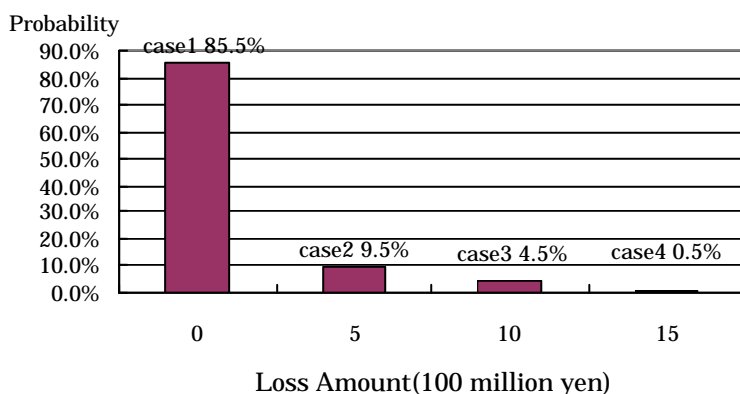
- Case 1 Neither A nor B default
- Case 2 A does not default, but B does
- Case 3 A defaults, but B does not
- Case 4 A and B default

For each pattern, the probabilities and loss amounts are as follows:

	Probability	Loss Amount (million yen)
Case 1	$(100\% - 5\%) \times (100\% - 10\%) = 85.5\%$	0
Case 2	$(100\% - 5\%) \times 10\% = 9.5\%$	500
Case 3	$5\% \times (100\% - 10\%) = 4.5\%$	1000
Case 4	$5\% \times 10\% = 0.5\%$	1500

(Exhibit 1)

Loss Probability Distribution



In the example above, 1.5 billion yen in bonds were issued backed by loans to the two obligors. In case 1, neither obligor defaults and the probability of this outcome is 85.5%. Therefore, the default probability for this bonds is 14.5% (100%-85.5%).

For investors willing to accept this default probability, there is no problem. However, there are also investors who, for example, will not invest if the default probability is greater than 5%, or even greater than 0.5%. The senior/subordinate structure accommodates such needs.

If 1 billion yen in senior bonds and 500 million yen in subordinate bonds (the credit enhancement amount) are issued backed by this loan pool, the 1 billion yen in senior bonds would not default in either case 1 or case 2, in which the loss is 500 million yen. The probability of default for the senior bonds arises only in cases 3 and 4, in which the credit enhancement amount is exceeded, and is equal to the sum of their associated default probabilities, 5%. In other words, with credit enhancement of 500 million yen, the default probability for the senior bonds is 5%.

Similarly, if 500 million yen in senior bonds and 1 billion yen in subordinated bonds (the credit enhancement amount) are issued backed by the same loan pool, the 500 million yen in senior bonds would not default in any of the cases 1, 2, or 3. The default probability for this senior bonds would be 0.5%, the default probability for case 4, which would mean losses in excess of the credit enhancement amount.

Loss probabilities based on the above are shown in Exhibit 2. As is clear from the results presented there, the greater the credit enhancement amount, the lower is the default probability for the targeted obligations. If the credit enhancement amount is set to bring the default probability for senior bonds below the default probability required for the rating desired for the senior tranche, the desired rating can be obtained.

It should be noted that in general, given the same default probabilities for the senior tranches of CDOs, the greater the number of obligors, the smaller will be the loss in the event of default (the expected value of the loss becomes smaller). The reason for this is that even if the number of obligors who default is great enough to cause losses for the senior tranche, there will still be cash flow, so long as the entire pool does not default. The greater the number of obligors, the greater is the proportion of such cash flow to the senior tranche. R&I's CDO ratings, more than simply considering the degree of loss, focus on default probabilities. For reference, the expected loss calculation method and results are attached in Exhibit 2.

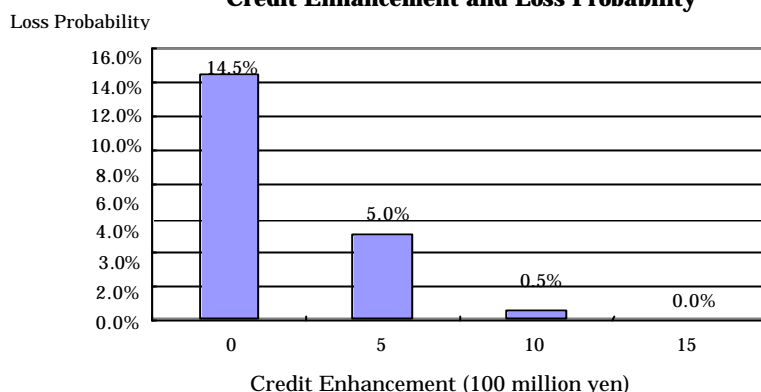
(Exhibit 2) Loss Probability Calculation

million yen

Credit Enhancement Amount (Buffer)	Loss Probability Calculation		(Reference) Expected Loss		
	Case and Loss Probability (a)	Loss Probability ? (a) (Exhibit 3)	Loss Above Credit Enhancement (=Loss - Credit Enhancement) (b)	(a) x (b)	? (a) x (b)
0	Case2 9.5%	14.5%	500 (500 - 0)	9.5% x 500 = 47.50	100
	Case3 4.5%		1,000 (1,000 - 0)	4.5% x 1.0 = 45.00	
	Case4 0.5%		1,500 (1,500 - 0)	0.5% x 1.5 = 7.50	
500	Case3 4.5%	5.0%	500 (1,000 - 500)	4.5% x 500 = 22.50	27.50
	Case4 0.5%		1,000 (1,500 - 500)	0.5% x 1.0 = 5	
1,000	Case4 0.5%	0.5%	500 (1,500 - 1,000)	0.5% x 500 = 2.50	2.50
1,500	N/A	0.0%	0	0.0% x 0 = 0	0

(Exhibit 3)

Credit Enhancement and Loss Probability



(2) Cases of More Than 2 Obligor

The fundamental applicability of the calculation discussed above does not change even if the number of obligors increases. However, as the number of obligors increases, the number of default patterns (combinations in which obligors could default) increases exponentially (for example, with 50 obligors, the number of default patterns would be an astronomical $2^{50} \approx 1,000$ trillion). Since it is unrealistic to perform calculations for each of these patterns, statistical approximations are used in actuality³.

(3) Credit Enhancement Calculation

In credit enhancement through a senior/subordinate structure, the proportion of the total asset pool comprised of the subordinate tranche is referred to as the “subordinated ratio” (for the example above, in which 500 million yen in subordinated debt is issued, the subordinated ratio = 500 million yen / 1.5 billion yen = 33.3%). In general, the higher the number of obligors and the better their credit ratings, the lower is the subordinated ratio (Exhibit 4).

(Conditions)

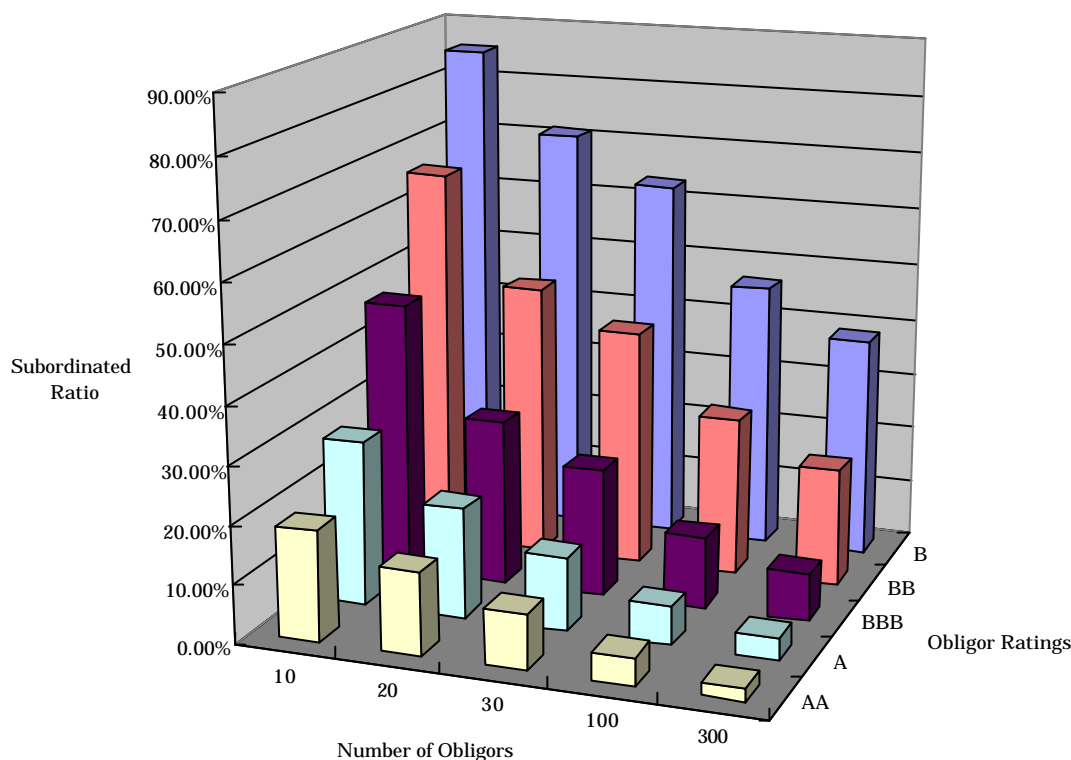
1. Targeted credit rating is AAA
2. Maturity is 5 years
3. All loan balances are the same, with lump-sum repayment at maturity
4. All obligor credit ratings are the same
5. No more than 10% of obligors are concentrated in a single industry sector (industry concentration is not a problem)
6. It is estimated that the recovery rate for loans that default will be 5%
7. Obligor default probabilities are set using the restructuring definition in the 1999 ISDA Credit Derivatives Definitions (most conservative)

³ For details on a similar method, please refer to *Credit Risk*⁺, published by Credit Suisse Financial Products in 1997.



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(Exhibit 4) Credit Enhancement Calculation



(Appendix 1) Discussion of Credit Events and Credit Enhancement Accompanying Diversification of CDO Backing Assets

1. Basic Policy

When R&I made its previous CDO criteria announcement in 1999, it was usual for Japanese CDOs to employ corporate bond pools as backing assets (e.g. primary CBOs⁴). However, the underlying assets of recent CDOs are using the assets other than corporate bonds. A synthetic CDO, which makes use of credit default swaps, is a typical example⁵. Furthermore, with the diversification of backing assets, market participants have come to pay more attention to “backing asset default events” that result in losses for CDOs.

In this revision of its CDO criteria, R&I pays more attention to not only differences among default events for CDO backing assets, but also differences of “backing asset type” in calculating the required credit enhancement amounts for CDOs. In other words, the level of required credit enhancement will depend on such two factors. Regarding default events, the basic policy is to compare the definition of default applied for the broad-definition default ratio, which are employed as a default ratios for *CDO-PRO*, and default events for individual CDOs. Regarding type, R&I takes account of the fact that the broad-definition default ratio primarily focuses on a company’s financial obligations.

⁴ Numerous primary CBOs were issued in the Japanese CDO market from the end of 1998 to 2000 in order to fulfill the funding needs of corporate borrowers rated approximately BB to BBB. The underlying assets of primary CBOs are corporate bonds that have been newly issued in the “primary” market.

⁵ For more details, please refer to the November 30, 2001 report, *Rating Analysis for Synthetic CDOs*.

Rating and Investment Information, Inc. Nihonbashi 1-chome Bldg., 1-4-1, Nihonbashi, Chuo-ku, Tokyo 103-0027, Japan
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2. Credit Events

Regarding synthetic CDOs in a Japanese market, for which ratings requests are rising rapidly, credit events⁶ and “Borrowed Money” defined in the 1999 ISDA Credit Derivatives Definitions are often applied to transactions. In this case, backing asset default events are such credit events and backing asset type is borrowed money which includes corporate bonds and loans.

The Japanese market participants are particularly interested in ISDA Restructuring. The focus of this interest is the difference between “modified restructuring”⁷ and “old restructuring”⁸. The discussion point is that modified restructuring ignores the restructuring credit event under the borrowed money held by less than four creditors. This limitation does not apply to old restructuring. In markets like Japan’s, where bilateral loans predominate, it is believed that the frequency of occurrence for these two types of restructuring would differ, and it appears that awareness of the related risk differential is being expressed in terms of differences in credit default swap market spreads (i.e. the spread for modified restructuring is tighter than the one for old restructuring.).

R&I’s position is that considering Japan’s loan transaction customs it is necessary to reflect the difference in risks presented by the two in terms of differences in required credit enhancement. Furthermore, R&I recognizes that there is a difference between borrowed money (which includes corporate bonds and loans) and corporate bonds in terms of backing asset type.

With the current revision, R&I has established two separate default probabilities for *CDO-PRO*, one for old restructuring and another for modified restructuring. Our reason for doing this is that as mentioned above bilateral loans predominate in Japan – use of syndicated loans is not very great.

Additionally, focusing on corporate bonds, R&I determines default probabilities for *CDO-PRO*. In determining these default probabilities, R&I takes account of the fact that corporate bond defaults as backing asset default events are narrower than the definition of default applied for the broad-definition default ratio, and backing asset type of corporate bond is also narrower than a company’s financial obligations, as discussed above. In sum, under the CDO criteria revision discussed herein, R&I determines three sets of default probabilities for *CDO-PRO*. Specifically, default probabilities set in *CDO-PRO* are as follows: “old restructuring > modified restructuring > corporate bond defaults.”⁹ Accordingly, the required credit enhancements are in the same order.

<Summary>

- ◆ Definition of default events together with the type of CDO backing assets, have a greater impact on calculations of credit enhancement requirements.
- ◆ Judgments are made by comparing both definition of default events and the type of CDO backing assets with broad-definition default, which are the basic data of *CDO-PRO* used to calculate default rates for underlying individual obligors.

⁶ Although five credit events, excluding Obligation Default, are the market standard, narrower three credit events of Bankruptcy, Failure to Pay, and old Restructuring are being new standard market practice after the agreement of ISDA Japan Credit Derivatives Working Group, which implements dropping both Obligation Acceleration and Repudiation / Moratorium from standard credit default swaps.

⁷ This term is commonly used in the market to refer to restructuring in 1999 Definitions supplemented by *Restructuring Supplement to the 1999 ISDA Credit Derivatives Definitions*, announced on May 11, 2001.

⁸ Restructuring as defined in the *1999 ISDA Credit Derivatives Definitions* is also referred to as “old restructuring.”

⁹ Users of *CDO-PRO* can select default rate for these three. “Type 1” is for “old restructuring”, “Type 2” for “modified restructuring”, and “Type 3” for “corporate bond defaults” respectively.



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(Appendix 2) Default Probabilities

Cumulative Default Probabilities by Rating for Backing Assets (%)

Rating	After 1 Year	After 2 Years	After 3 Years	After 4 Years	After 5 Years	After 6 Years	After 7 Years	After 8 Years	After 9 Years	After 10 Years
AAA	0.004	0.008	0.028	0.065	0.126	0.214	0.340	0.500	0.720	0.990
AA+	0.010	0.019	0.054	0.113	0.203	0.332	0.505	0.725	1.005	1.350
AA	0.015	0.030	0.080	0.160	0.280	0.450	0.670	0.950	1.290	1.710
AA-	0.040	0.090	0.180	0.300	0.480	0.710	1.000	1.360	1.790	2.310
A+	0.070	0.150	0.280	0.450	0.680	0.970	1.340	1.780	2.300	2.910
A	0.090	0.210	0.380	0.590	0.880	1.230	1.670	2.190	2.800	3.510
A-	0.170	0.420	0.750	1.160	1.680	2.280	2.990	3.800	4.700	5.700
BBB+	0.260	0.630	1.130	1.740	2.470	3.340	4.320	5.400	6.600	7.900
BBB	0.340	0.840	1.500	2.310	3.270	4.390	5.640	7.010	8.500	10.090
BBB-	0.970	2.100	3.390	4.840	6.420	8.130	9.930	11.800	13.740	15.730
BB+	1.610	3.350	5.290	7.370	9.580	11.860	14.210	16.590	18.980	21.380
BB	2.240	4.610	7.180	9.900	12.730	15.600	18.500	21.380	24.220	27.020
BB-	3.040	6.500	10.000	13.440	16.790	20.040	23.190	26.230	29.160	31.980
B+	3.840	8.390	12.820	16.970	20.860	24.480	27.890	31.090	34.100	36.950
B	5.440	12.160	18.450	24.040	28.980	33.360	37.270	40.790	43.970	46.870
B-	7.040	15.940	24.090	31.110	37.110	42.240	46.660	50.500	53.850	56.800
CCC+	50.000	63.860	69.010	71.860	73.980	75.740	77.270	78.640	79.860	80.960

The figures above are "Type 1" in CDO-PRO. CDO-PRO uses three types of default probabilities for backing assets. For more information on these three types of default probabilities, please refer to Appendix 1.

Target Cumulative Default Probabilities (%) Required for CDO Ratings

Rating	After 1 Year	After 2 Years	After 3 Years	After 4 Years	After 5 Years	After 6 Years	After 7 Years	After 8 Years	After 9 Years	After 10 Years
AAA	0.0001	0.0001	0.0001	0.0003	0.0008	0.0019	0.004	0.006	0.010	0.016
AA+	0.0006	0.0011	0.0031	0.0072	0.0134	0.022	0.032	0.048	0.070	0.093
AA	0.001	0.002	0.006	0.014	0.026	0.042	0.060	0.090	0.130	0.170
AA-	0.020	0.040	0.070	0.110	0.150	0.200	0.260	0.330	0.420	0.520
A+	0.040	0.080	0.140	0.200	0.280	0.360	0.460	0.580	0.720	0.860
A	0.060	0.120	0.200	0.290	0.400	0.520	0.660	0.820	1.010	1.210
A-	0.110	0.230	0.390	0.570	0.780	1.010	1.270	1.560	1.880	2.220
BBB+	0.150	0.340	0.570	0.840	1.150	1.500	1.880	2.300	2.760	3.240
BBB	0.200	0.450	0.760	1.120	1.530	1.990	2.490	3.040	3.630	4.250
BBB-	0.700	1.460	2.300	3.180	4.120	5.090	6.100	7.150	8.220	9.300
BB+	1.190	2.480	3.830	5.250	6.700	8.200	9.720	11.250	12.800	14.350
BB	1.690	3.490	5.370	7.310	9.290	11.300	13.330	15.360	17.390	19.400
BB-	2.670	5.300	7.880	10.410	12.880	15.290	17.650	19.950	22.190	24.370
B+	3.650	7.110	10.390	13.510	16.470	19.290	21.970	24.540	26.990	29.340
B	5.610	10.730	15.410	19.700	23.640	27.270	30.610	33.710	36.590	39.270
B-	7.570	14.350	20.430	25.900	30.820	35.260	39.250	42.890	46.190	49.210

Rating and Investment Information, Inc. Nihonbashi 1-chome Bldg., 1-4-1, Nihonbashi, Chuo-ku, Tokyo 103-0027, Japan
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(Appendix 3) R&I's 29 Industry Sectors

- 1. Telecommunications Equipment; Electronics**
Manufacturing of telecommunications equipment, computers, semiconductors, and electrical and electronic components, etc.
- 2. General Construction; Civil Engineering**
General construction; civil engineering, road paving; construction for NTT, private railways and electric power related projects; bridge building; air-conditioning projects, etc.
- 3. Housing; Construction Materials**
House building; manufacturing of sashes, housing related materials, general construction materials, and cement, etc.
- 4. Chemicals**
Manufacturing of ethylene, ink and dies, films, fertilizers, and oxygen & soda, etc.
- 5. Industrial Engineering; Machinery**
Manufacturing of heavy electrical equipment and heavy equipment, construction equipment, ships and rolling stock, transportation equipment other than automobiles, etc.
- 6. Pulp & Paper**
Manufacturing of pulp & paper and related products and paper-OA products; specialist pulp & paper trading companies, etc.
- 7. Automobiles & Related Equipment**
Manufacturing of automobiles (including cars, buses, trucks, and commercial vehicles), automobile parts, tires, etc.
- 8. Retail**
Department stores, supermarkets, mass retail outlets, specialist stores, convenience stores, discount stores, etc.
- 9. Restaurants**
Restaurants, cafeterias, bars, take-away food stores, etc.
- 10. Foods; Beverages; Breweries**
Manufacturing of foods, confectionery, bread, flour, ham, dairy products, edible oils, sugar, alcoholic beverages, other beverages, seasonings etc.
- 11. Iron & Steel**
Manufacturing and processing of iron & steel, electric furnace products, smelted products, special steel products, composite metal products, cast and forged products, etc.
- 12. Nonferrous Metals; Nonferrous Metal Products; Mining**
Nonferrous metal smelting, aluminum processing (including die-casts), electric wire and cable, ceramics, and fire-resistant roof tiles, etc.
- 13. Electrical Appliances; Precision & Optical Instruments; Office Equipment**
Manufacturing of general electrical equipment, household electrical appliances (including audio-visual equipment), batteries, watches, cameras, etc.
- 14. Media; Publishing & Printing; Broadcasting**
Newspaper firms, publishing, broadcasting, printing, and satellite broadcasting
- 15. Pharmaceuticals; Cosmetics**
Manufacturing of pharmaceuticals, cosmetics, dental products, and sanitary products, etc.
- 16. Oil**
Oil refining, distribution and retailing

Rating and Investment Information, Inc. Nihonbashi 1-chome Bldg., 1-4-1, Nihonbashi, Chuo-ku, Tokyo 103-0027, Japan
Structured Finance Rating Division TEL. 03-3276-3406-3428 FAX. 03-3276-3429 EMAIL sfdept@r-i.co.jp Homepage <http://www.r-i.co.jp>

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NEWS RELEASE

17. **Trading Firms; Wholesalers**
General trading firms and other wholesalers
18. **Private Railways**
Private railway companies (excluding third-sector railway companies) and buses
19. **Transportation**
Air, land and sea transportation
20. **Real Estate**
Real estate development (condos and office building subdivision), real estate sales, real estate rental, hotels, warehousing, etc.
21. **Utilities**
Electric power, gas, telephones & telephonic communications
22. **Corporate Support Services**
Software development, advertising, information services, corporate facilities management services, etc.
23. **Personal Support Services; Leisure**
Leisure & entertainment, travel agencies, medical & health care services, education, game software development, etc.
24. **Textiles; Apparel**
Synthetic fabrics, cotton, wool, silk, & hemp spinning, dyeing, manufacturing and processing of textiles, manufacturing of clothing, etc.
25. **Banks**
City banks, regional banks, second-tier regional banks, long-term credit banks, trust banks, shinkin banks, credit associations, etc.
26. **Securities Companies**
Securities and securities finance
27. **Life & Non-Life Insurance**
Life & non-life insurance
28. **Non-bank Financial Institutions**
Credit companies, consumer finance firms, pawnshops, rental companies, corporate leasing and credit companies, etc.
29. **Others**
Businesses that belong to none of the above classifications (however, public-sector and related bodies are excluded)

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