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Credit Rating Gaps in Japan: Differences between Solicited and Unsolicited Ratings, and "Rating Splits"

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Abstract

Credit ratings have become an indispensable part of the fundamental information infrastructure of credit markets. Credit ratings cover a wide range of issuers including governments, governmental organizations, municipalities, nonfinancial companies and financial institutions, and also cover securitized products. For users, credit ratings are readily available tools to grasp the credit quality of securities (or issuers), as they rank, in the simple form of letter symbols, the ability of issuers to repay creditors in a timely manner in accordance with contractual obligations. It is necessary to fully understand the credit rating criteria, policies, and characteristics of rating agencies when users refer to credit ratings in making investment decisions or for other purposes.

This paper attempts to clarify the current status and facts behind the two types of “rating gaps,” which must be taken note of by users of credit ratings. These are (1) differences between solicited and unsolicited ratings, and (2) differences in ratings assigned to the same securities or issuers by different rating agencies, i.e., the “rating splits.” We focus on the credit ratings of Japanese corporations; i.e., nonfinancial companies and nonbank financial companies, excluding banks and other types of financial institutions. While these differences have often been qualitatively discussed, this paper places emphasis on quantitative and objective analyses. In the analyses, although we use data of specific rating agencies, our focus is purely on the “differences,” and we do not intend to rank the appropriateness of individual credit ratings.

With regard to differences between solicited and unsolicited ratings, our results show that unsolicited ratings tend to be lower than solicited ratings, concurring with general views, and that such differences have been narrowing and are on average less than one notch recently. We

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calculate the differences, based on several assumptions, using credit ratings assigned by Standard and Poor's Ratings Services and Rating and Investment Information, as they disclose the distinctions of solicited and unsolicited ratings. The backdrop of such rating gaps may include disparity in the level of information available to rating agencies as well as cherry picking actions by the issuers. Some point out that solicited-unsolicited gaps are narrowing due to improvements in corporate disclosure among other factors, and the results of our analyses are consistent with such view. In addition, looking at the practices of credit rating usages by investors, they do not seem to distinguish solicited and unsolicited ratings in many cases. However, strong and deep-rooted concerns over the reliability of unsolicited ratings remain especially among issuers. In this respect, the issue of differences between solicited and unsolicited ratings deserves further analyses from various perspectives.

In regard to rating splits, the findings are that on average a three-notch difference exists for a certain issuer between the highest rating assigned by one rating agency and the lowest rating by another rating agency. The existence of rating splits may indicate that the same credit rating symbols may signify dissimilar credit qualities by each rating agency, in other words rating scales may differ. In many cases, investors, in using credit ratings, seem to make necessary adjustments considering rating splits. We believe comparison against default rates is the ultimate test of rating splits, and assessments using data currently available suggest that differences stay within a certain range. Further analyses are also required in this respect, however, because data constraints, such as available amount of data for default rates and lengths of the sample period, are still large in Japan.

Key words: Credit Rating, Unsolicited Rating, Rating Split, Credit Risk, Default Rate, Disclosure, Basel II

JEL classification: G10, G11, G18, G20

1. Introduction

Investors now widely use credit ratings assigned by rating agencies in making investment decisions and in risk management. Use in a regulatory and supervisory context is also expanding;[1] for example, use of credit ratings as a measure of credit risk is allowed in the international capital adequacy framework set by the BIS Basel Committee on Banking Supervision, known as Basel II, which has applied to banks as of March 31, 2007 in Japan.

There are many issues under debate in regard to credit ratings,[2] and the focus of this paper is on two types of "differences in ratings," i.e., differences between solicited and unsolicited ratings, and differences in ratings assigned to the same securities or issuers by two or more rating agencies, or "rating splits." In the following sections, the current situation surrounding this issue as well as the background are summarized based on the results of analyses on credit ratings, information gathered from interviews with investors, issuers, and rating agencies, and related empirical studies.

A total of five rating agencies are referred to in this paper, i.e., two Japan-based rating agencies, Japan Credit Rating Agency (JCR) and Rating and Investment Information (R&I), and three non-Japan-based, Standard and Poor's Ratings Services (S&P), Moody's Investors Service (Moody's), and Fitch Ratings (Fitch). Part of the data used in this paper was provided by these rating agencies. Fitch data are not used in our quantitative analyses, because Fitch has a relatively short history of corporate credit rating in Japan and does not rate many Japanese corporations.

2. Unsolicited Ratings

2.1 Defining Unsolicited Ratings

Unsolicited ratings are credit ratings that rating agencies assign without the issuers' solicitation. The definition of "solicitation" has provoked much debate, but in general, unsolicited ratings seem to refer to credit ratings for which issuers pay no fees and/or where no contract exists between the rating agencies and issuers. While the definition varies among rating agencies, in this paper, we treat the ratings defined as in Chart 1 by each rating agency as unsolicited ratings.

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[1] Credit ratings have already been employed in the capital adequacy requirement framework for securities companies. Credit ratings have also been used in the inspection manual of the Financial Services Authority of Japan as one of the measures in judging whether the collateral taken by financial institutions is sound.

[2] Besides the issues mentioned in this paper, the regulation and supervision of rating agencies is one area of debate. In this relation, in the United States, the Credit Rating Agency Reform Act of 2006 has been introduced. This Act includes measures to encourage more competition among rating agencies (changing the practice of identifying NRSROs through staff no-action letters to registering with the Securities and Exchange Commission (SEC)) and clarification of the rights of the SEC to inspect NRSROs through its examination function.

(Chart 1) Unsolicited Ratings Definitions (information from public releases by rating agencies)

R&I	Determined mainly on the basis of publicly disclosed information ("op" ratings)
JCR	Not initiated at the request of issuers ("p" ratings)
S&P	Initiated by S&P and may be based solely on publicly available information and/or may not involve the participation of the issuer's management
Moody's	(a) The credit rating is a first-time assignment related to a given issuer; and (b) the credit rating was not requested by the issuer, and was initiated by Moody's[3]
Fitch	No rating engagement with issuers (Fitch-initiated)

Globally, Moody's started assigning a large number of unsolicited ratings in 1991.[4] As competition intensified, other rating agencies soon followed. At about the same time, Moody's and S&P in particular increased the number of unsolicited ratings for Japanese companies.

It follows that, even at present, many unsolicited ratings for Japanese companies are assigned by non-Japanese rating agencies. Chart 2 summarizes the information on credit ratings assigned by rating agencies for nonfinancial companies and nonbank financial companies as of the end of August 2006.[5] According to this chart, only a small percentage of the credit ratings assigned by Japanese rating agencies comprised unsolicited ratings, whereas 70 percent of S&P ratings was once unsolicited.[6] It is unknown which ratings by Moody's and Fitch were solicited and which were not, as they do not disclose the distinctions,[7] but unsolicited ratings are considered to have

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[3] At the time the original Japanese version of this paper was written, Moody's only made distinctions of solicited and unsolicited ratings for initially rated issuers, and did not make distinctions in this regard thereafter. On April 13, 2007, Moody's released a list of ratings with regard to Japanese corporations, distinguishing solicited and unsolicited ratings as well as participation of issuers.

[4] When rating agencies started operations in the United States in the early 1900s, all credit ratings were unsolicited. Rating agencies received fees from users of credit ratings for providing information in the form of publications and such. However, in the 1970s, rating agencies shifted their focus to solicited ratings and began obtaining fees from issuers to assign these ratings. This was partly because the widespread use of copying machines led to an increasing number of cases where rating information bought by one user was copied and distributed to others without the consent of rating agencies. In addition, issuers' interest in obtaining credit ratings to appeal their creditworthiness to investors grew (White [2001], Hill [2005]).

[5] See footnote 3.

[6] S&P issued a news release on January 8, 2007 announcing that it was withdrawing the unsolicited ratings for 108 nonfinancial companies and one financial institution effective on the same day. In effect, the number of solicited and unsolicited credit ratings by S&P is now about the same, a shift from the figures as of the end of August 2006 shown in Chart 2.

[7] At the time the original Japanese version of this paper was written, Moody's and Fitch only released information on whether the ratings are solicited or unsolicited upon initially rating issuers, and did not release information in this regard thereafter. See footnote 3.

accounted for a sizable portion.[8]

Japanese rating agencies distinguish unsolicited ratings by “p” and “op” attached to each rating symbol. S&P attaches a footnote disclaimer in every rating report.[9] While Moody’s and Fitch do not disclose whether the rating is solicited or unsolicited,[10] they release information on whether issuers participated in the rating process, as they consider the issuers’ participation more important.

(Chart 2) Credit Ratings as of the End of August 2006 (nonfinancial companies and nonbank financial companies)

	R&I	JCR	S&P	Moody’s	Fitch
Number of issuers rated	479	466	252	175	74
Solicited	479	426	74	n.a.[11]	n.a.
Unsolicited	0	40	178	n.a.[11]	n.a.
Distinctions of solicited and unsolicited ratings	disclosed	disclosed	disclosed	undisclosed[11]	undisclosed
How distinctions are disclosed	“op” rating	“p” rating	disclaimer	―	―
Participation of issuers	undisclosed	undisclosed	undisclosed	disclosed	disclosed

Source: Public releases by rating agencies.

2.2 Dissenting Views against Unsolicited Ratings

In the 1990s, as rating agencies began to assign a greater number of unsolicited ratings, critical views especially among issuers grew in Japan and in other countries. The main arguments were focused on the reliability of the level of credit ratings, such as (1) rating agencies may be assigning lower ratings while they are unsolicited so as to induce issuers to ask for solicited ratings, and (2) not sufficient information is gained from issuers in the process of assigning unsolicited ratings,

[8] See footnote 3.

[9] The following disclaimer is contained in the footnotes of press releases and/or rating analyses regarding an unsolicited rating: “This rating was initiated by Standard and Poor’s Ratings Services and may be based solely on publicly available information and/or may not involve the participation of the issuer’s management.” On April 9, 2007, S&P released a list distinguishing solicited and unsolicited ratings with regard to Japanese corporations it rates.

[10] See footnote 3.

[11] See footnote 3.

which leads to a lower evaluation than the actual credit quality.[12]

A most pointed case of such criticism was a lawsuit filed by Jefferson County School District (JCSD) of Colorado, U.S.A. against Moody's. JCSD claimed that an unjustly low unsolicited rating by Moody's hindered the sales of bonds issued by JCSD in 1993, and sought punitive damages. The court dismissed the claim by JCSD on the grounds that "a statement of opinion relating to matters of public concern which does not contain a provably false factual connotation will receive full constitutional protection" applied to the case concerning Moody's unsolicited ratings.

In Japan, there have been no similar lawsuits like the one in the United States mentioned above, but the 1998 and 2002 results of surveys conducted by the Japan Center for International Finance (JCIF) imply that dissenting views on unsolicited ratings also exist in Japan (Chart 3). This type of survey has not been repeated in the last few years, but bond issuers continue to voice that "while it is not clear whether unsolicited ratings are used strategically by rating agencies to induce issuers to pay to be rated, we feel that unsolicited ratings are unjustifiably low."

(Chart 3) Results of a Survey by JCIF

Question: With which statements about unsolicited ratings do you agree? Choose all answers that apply.

	1998	2002
We do not mind that rating agencies assign unsolicited ratings, if there are investor needs.	13.1%	15.6%
We think it is inevitable that rating agencies assign unsolicited ratings, but they should clearly distinguish and disclose whether the ratings are "solicited" or "unsolicited" when releasing credit ratings.	60.4%	55.6%
We think it is inevitable that rating agencies assign unsolicited ratings, but they should disclose the bases of such ratings in more detail.	62.5%	62.6%
We consider that unsolicited ratings are used as strategic business tools by rating agencies, so there are problems with the reliability of these ratings.	29.8%	21.7%
Others	—	3.4%

Note: The survey covered leading financial institutions and business corporations. Eligible

[12] There are other issues pointed out in regard to unsolicited ratings. These include that "credit events that deter the credit quality of issuers are not reflected as quickly in actions such as credit ratings reviews compared to solicited ratings," and "rating agencies may decide to withdraw credit ratings before the maturity of the issue." This paper focuses on what may be the most critical of these issues: differences in credit rating levels between solicited and unsolicited ratings.

responses were received from 144 companies in the 1998 survey and 115 companies in the 2002 survey (no further breakdown available). The figures shown in the table are the percentages of eligible respondents that answered "applies" to each description.

Source: "*Shuyo Kakuzuke Gaisha no Tokucho to Hyoka (2003 nen ban)* (Characteristics and Appraisal of Major Rating Companies (2003))" (available only in Japanese)

2.3 Rating Agencies' Treatment of Unsolicited Ratings

Although some of the rating agencies had once considered that "the quality of solicited and unsolicited ratings are different because of the amount of information input and differences in the rating process itself," they increasingly seem to have been changing their views in recent years. JCR, S&P, and Fitch have changed the treatment of unsolicited ratings as summarized in Chart 4. This is because they now claim that there are little differences in the quality of unsolicited ratings and solicited ratings, as issuers have enhanced their information disclosure practices, and rating agencies now conduct interviews and exchange views with issuers in the process of assigning unsolicited ratings.[13] Moody's has unchangedly avowed that it only assigns ratings when it believes it has sufficient information to form a useful conclusion, and as a result, all of its credit ratings provide equal informational value regardless of whether they are solicited or unsolicited.

(Chart 4) Policy Changes in regard to Unsolicited Ratings

	Initiated	Description
S&P	Nov. 2000	Modified unsolicited ratings to include plus and minus designations like solicited ratings (only full letters such as AAA and AA had been used until then).
JCR	Aug. 2002	Modified unsolicited ratings to include plus and minus designations like solicited ratings (only full letters such as AAA and AA had been used until then).
S&P	Oct. 2003	Stopped using "pi" subscripts for unsolicited ratings. Thereafter, distinguishes unsolicited ratings in footnote disclaimers in credit rating reports.
Fitch	Jun. 2005	Changed policy to disclose whether the rating is unsolicited only when issuers are initially rated, and to not disclose the distinctions thereafter.

Source: Public releases by rating agencies.

[13] For example, S&P announced in its November 15, 2000 news release that it will further refine "pi" ratings, the name given to its unsolicited ratings, because the evaluation methods have been expanded and as the credit rating environment improved enough, including the increase in information publicly disclosed by companies. Specifically, these ratings were newly modified to include "plus" and "minus" designations, providing a more precise indication of a company's relative standings within its rating category. The news release also mentioned that even if these "pi" ratings were switched to solicited ratings, the changes in such ratings would most likely be within one notch.

In addition, the non-Japanese rating agencies in particular claim that unsolicited ratings are useful as they (1) increase the amount of information available for investors,[14] (2) restrain issuers from shopping for ratings,[15] and (3) encourage competition among rating agencies.

2.4 Investors' Views and Usages of Unsolicited Ratings

Not a few investors recently support the view that "unsolicited ratings are useful." Issuers may be compelled to shop for ratings, such as in the form of withdrawal of lower-than-expected solicited ratings.[16] However, the availability of a balanced credit rating spectrum over time, unbiased by the opinions of issuers, is desirable from the standpoint of investors. Therefore, unless there is a major concern over their quality, unsolicited ratings seem to be considered to be of value by investors. In addition, some view that solicited ratings pose problems of conflicts of interest, arguing "it is to be doubted whether rating agencies can give fair evaluations to issuers while being paid by them" (Shima [2006]).

It seems that not many investors, in using credit ratings, differentiate between solicited and unsolicited ratings, even for S&P ratings where these distinctions are disclosed. There seem to be views that unsolicited ratings are not that different from solicited ratings as the coverage of corporate disclosure has widened in recent years.[17,18]

In the following section, we examine the magnitude of differences between solicited and unsolicited ratings using actual credit ratings data.

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[14] For example, some companies are reluctant to pay to be rated or even to be rated, but evaluations of such companies can be provided through unsolicited ratings.

[15] Rating shopping means that bond issuers concede to pay only for the expected (or higher) level of ratings and have them disclosed as solicited ratings, while they make lower-than-expected ratings undisclosed or withdraw the solicitation.

[16] Some rating agencies have rating policies not to withdraw credit ratings as long as the bonds remain outstanding.

[17] Other reasons investors using unsolicited ratings point out include "we feel no need to pay the cost of distinguishing solicited and unsolicited ratings, as such differences are smaller than the variations of evaluation attributed to which analyst or rating agency assigned the corresponding credit rating," "unsolicited ratings tend to be lower than solicited ratings, but from the perspective of risk management, there is no need to exclude more conservative unsolicited ratings," and "the amount of information increases when unsolicited ratings are used along with solicited ratings, compared to only using the limited number of solicited ratings."

[18] However, because the use of unsolicited ratings is not allowed in complying with Basel II in Japan, investors' usages of these ratings may change in the future reflecting this treatment.

2.5 Current Differences between Solicited and Unsolicited Ratings

To assess the solicited-unsolicited gap, it would be ideal to compare a solicited and an unsolicited rating provided by a particular rating agency for the same issuer (i.e., how different the rating would be from an unsolicited status for a certain issuer if the rating was solicited). However, there are very few cases where such comparisons are possible.[19] Therefore, in this paper, a solicited rating from one rating agency and an unsolicited rating from another rating agency for the same issuer is compared as a proxy for differences between solicited and unsolicited ratings. Details of the methods applied in this analysis are as follows:

(1) In this analysis, the data compared are those for unsolicited ratings by S&P, as S&P discloses which kind they are and assigns relatively many unsolicited ratings,[20] and those for solicited ratings by R&I, as R&I also discloses which kind they are and assigns the largest number of solicited ratings in Japan.

(2) First, notch-differences between S&P unsolicited ratings and R&I solicited ratings are calculated (A).[21,22] It should be noted that differences derived here, (A), include differences in the ratings between rating agencies based on differences in rating processes by S&P and R&I and such, or "rating splits" (described in more detail in Chapter 3), as well as differences between solicited and unsolicited ratings. Therefore, it is not appropriate to consider (A) by itself to be differences between solicited and unsolicited ratings.

(3) Next, notch-differences between S&P solicited ratings and R&I solicited ratings are calculated (B). In this case, (B) indicates differences between the same solicited ratings assigned by two different rating agencies reflecting differences in the rating process and other features of S&P

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[19] For example, for issuers that formerly had only an unsolicited rating but obtained a solicited rating, it is possible to compare the credit ratings before and after the assignment of the solicited rating, but there is only a small sample of such issuers.

[20] S&P has stopped distinguishing solicited and unsolicited ratings by subscript symbols since October 2003. Therefore, we identified them through the footnote disclaimers of credit rating reports. As of the time of writing this paper, the credit ratings reports are widely available on the S&P website free of charge. Nevertheless, these reports are only available on this free website for a limited time, so it is necessary to access the subscriber website to obtain historical data distinctions, at a charge.

[21] When an issuer has plural credit ratings from the same rating agency (for example, an issuer rating and a issue rating), the lowest rating is used to calculate the notch-differences. In addition, where the issuer has both an issuer rating and a issue rating assigned by the same rating agency, solicitation is assumed for the issue rating where the issuer rating is a solicited rating. Likewise, the absence of solicitation is assumed for the issue rating when the issuer rating is an unsolicited rating.

[22] Differences by notches are measured counting plus/minus signs as a one-notch difference; for instance, BBB+ and BBB ratings are considered different by one notch. This methodology is also often employed in practice and in other empirical studies when assessing rating splits (Canter and Packer [1997]). Moreover, in the strict sense, a certain notch-difference between credit ratings may not signify the same difference in credit quality (for instance, the one-notch difference between R&I A+ and S&P A ratings and the one-notch difference between the R&I BBB+ and S&P BBB ratings may not be the same distance measured in terms of differences in default rates).

and R&I rating agencies, i.e., rating splits.

(4) We assume (A) minus (B) to be differences between solicited and unsolicited ratings.

In interpreting the results of this analysis, it is important to take into account that the sample in calculating (A) and the sample in calculating (B) do not cover the same issuer universe. The number of issuers included in the sample is 60 for (A) and 133 for (B) as of the end of August 2006. This means that average ratings are calculated based on a modestly good number of samples, but some caution is required in considering (A) minus (B) to simply be differences between solicited and unsolicited ratings.[23]

The results, based on the methodologies and reservations described above, reveal the following (Chart 5):

(1) Unsolicited ratings tend to be lower than solicited ratings.[24]

(2) Solicited-unsolicited gaps are narrowing compared to those observed at the end of December 2000, with the gaps being less than one notch on average since December 2003.[25]

(3) By credit rating level, using data as of the end of August 2006, while the extent of gaps seems to vary somewhat, unsolicited ratings are lower than solicited ratings for all credit rating levels.

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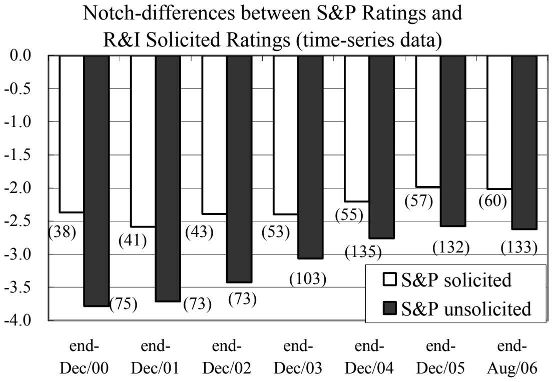
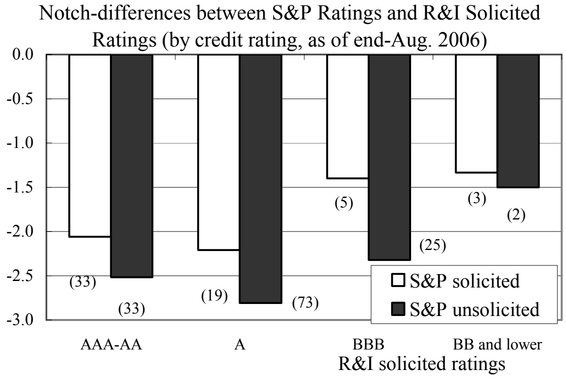
[23] Care should be taken when the sample size is small. Specifically, if it holds that the rating process and views on specific industry sectors held by S&P and R&I are significantly different from each other, these differences could be misinterpreted to be solicited-unsolicited gaps (the differences between solicited and unsolicited ratings will be overstated in this case).

[24] These differences are simply results derived by comparing solicited and unsolicited ratings, and are not intended to imply, for example, "that unsolicited ratings are lower than what they should be."

[25] The number of issuers included in the sample in Chart 5 is larger for the end-August 2006 figures than for the end-December 2000 figures. That said, the observations (that differences have narrowed significantly in recent years, and differences as of end-August 2006 are less than one notch) still hold even when the same sample set as end-December 2000 is used to analyze the end-August 2006 situation.

(Chart 5) Differences between Solicited and Unsolicited Ratings (nonfinancial companies, nonbank financial companies)





Note: Figures in parentheses show number of companies.

A regression analysis with S&P ratings set as dependent variables and R&I ratings as independent variables also shows similar results with regard to differences between solicited and unsolicited ratings (see Box). In respect to solicited-unsolicited gaps, Suzuki [1999] examined the credit ratings of Moody's and S&P as of October 1998 and found that "unsolicited ratings are lower than solicited ratings by one notch at Moody's, and by two notches at S&P."[26] We use a similar analytical process as Suzuki.

[26] In addition, although Moody's did not distinguish solicited and unsolicited ratings at the time, Suzuki [1999] conducted individual interviews with companies that received credit ratings from Moody's and found that "approximately 60 percent was unsolicited."

(Box) Regression Analysis on Differences between Solicited and Unsolicited Ratings

Results of a regression analysis[27] using data as of the end of August 2006 in Chart 5 also confirm that there are differences between solicited and unsolicited ratings.

$$\text{S\&P rating} = \alpha + \beta_1 * \text{R\&I rating (solicited)} + \beta_2 * \text{dummy for unsolicited rating}$$

$$\text{Dummy for unsolicited ratings} = \begin{cases} 0, & \text{S\&P solicited rating} \\ 1, & \text{S\&P unsolicited rating} \end{cases}$$

For the purpose of this analysis, credit ratings by R&I and S&P are converted into numerical figures according to the following scale:

Credit rating	Numerical scale	Credit rating	Numerical scale	Credit rating	Numerical scale
AAA	1	BBB+	8	B	15
AA+	2	BBB	9	B-	16
AA	3	BBB-	10	CCC+	17
AA-	4	BB+	11	CCC	18
A+	5	BB	12	CCC-	19
A	6	BB-	13		
A-	7	B+	14		

Results of Analysis

	Value	Std. dev.	t-value
α	2.21	0.20	11.24
β_1	0.96	0.03	31.40
β_2	0.65	0.16	4.00

Adjusted $R^2 = 0.8517$

Sample size = 193

In this analysis, zero for β_2 would signify that there are no differences between solicited and unsolicited ratings, but this hypothesis is null under the one percent statistical significance level. This means that there are statistically significant differences between solicited and unsolicited ratings. Meanwhile, the average differences are 0.65 notch as of the end of August 2006, which is smaller than the "about two-notch differences between solicited and unsolicited ratings assigned by S&P (the value of the figure corresponding to β_2 in the above equation was 1.98)" found by Suzuki [1999] for the October 1998 data. This may indicate that notch-differences are contracting.

[27] In this paper, as done so in Suzuki [1999], a linear regression model is used after assigning numerical figures for each credit rating. Suzuki [1999] also contemplated using a non-linear model based on the assumption that the distances between credit ratings are not even. In the end, though, the fit was judged not good, so he used a linear model such as the one shown in the Box of this paper.

The analysis presented above focuses on differences between solicited ratings by R&I and unsolicited ratings by S&P, and it is not clear whether the results can be generalized to apply to other rating agency ratings as well (similar analyses for Moody's and Fitch ratings are difficult as they do not disclose whether the ratings are solicited or unsolicited).[28] In addition, it should be noted that the solicited-unsolicited gap, even if it exists, does not mean that one of the ratings is more appropriate than the other.

2.6 Background to Differences between Solicited and Unsolicited Ratings

The following factors are generally considered to account for differences between solicited and unsolicited ratings.

(1) Differences in information between solicited and unsolicited ratings

Unsolicited ratings, like the investment decisions by investors, are mainly based on public information.[29] Meanwhile, solicited ratings may also take into account other undisclosed information. If rating agencies tend to be "more conservative when there are ambiguities" as would be risk-adverse investors, unsolicited ratings which are based on less information would likely be lower than solicited ratings. Meanwhile, many indicate that the influence of gaps in information has been shrinking in recent years as information disclosure and IR (investor relations) have progressed.[30]

(2) Influence of business strategies of rating agencies

If credit ratings reflect the business strategies of rating agencies, ratings agencies might make (a) unsolicited ratings lower than they should be in order to induce issuers to pay to obtain solicited ratings, or (b) solicited ratings higher than they ought to be in order to obtain and maintain their fee business. Such skeptical views about rating agencies heightened in the United States in the aftermath of the bankruptcy of Enron,[31] and have lingered ever since. Meanwhile, such disapproval from market participants and the release of the "Code of

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[28] See footnote 3.

[29] Recently, many rating agencies conduct interviews with the management of rated companies even when assigning unsolicited ratings, through which we assume that rating agencies have more opportunities to obtain undisclosed information.

[30] Meanwhile, "information that has high economic value that will erode the competitiveness of the issuer when known by competitors" will not be disclosed voluntarily. If rating agencies can access these types of information on the to-be-rated company only in the process of assigning solicited ratings, the information gap between solicited and unsolicited ratings will not narrow in this aspect.

[31] Enron's credit ratings stayed high until just before its Chapter 11 filing. This provoked criticism of credit ratings. In particular, lack of competition among rating agencies, and the rating agencies' income structure that depends heavily on rating fees paid by issuers were criticized. Katsuki [2003] noted "the question is whether fair objective ratings are assigned to issuers who issue large amounts of securities each year. Because Enron was a large issuer, this debate attracted renewed interest."

Conduct Fundamentals for Credit Rating Agencies" by the International Organization of Securities Commissions (IOSCO) have encouraged rating agencies to fortify internal rules to prevent conflicts of interest, such as introducing strict firewall rules to separate the operations of the rating sections from the marketing sections.

(3) Issuers' cherry picking of credit ratings

If issuers only pay for the credit ratings that are favorable to them, only high credit ratings are likely to remain "solicited ratings" regardless of whether the biases as described in (1) and (2) exist. Such inclinations are likely to be strong particularly when issuers have control over whether the credit ratings will be made public (in cases where lower-than-expected credit ratings can be withdrawn), or when issuers believe that solicited ratings can gain higher credibility from investors (as a precondition, it is disclosed whether the credit ratings are solicited or unsolicited).

The influence of factors such as (1) and (3) above is also noted in related empirical studies over global ratings (e.g., Poon [2001], Roy [2006][32]). It is difficult to assess the influence of the second factor, (2) above, and no quantitative analyses seem to exist in past studies. It should be noted here that in order to improve the credibility of credit ratings as an infrastructure in the credit market, a key dimension is whether users can clearly identify when there are differences between solicited and unsolicited ratings, and if so, how wide and why. In this regard, the analyses in this paper focus on whether there are gaps between solicited and unsolicited ratings, but do not delve into the reasons. Also, comparisons are limited to S&P and R&I ratings due to constraints in disclosed data.[33] In addition, the definition of solicited and unsolicited ratings and information disclosed differ among rating agencies. Some rating agencies assert that they place more value on whether issuers participate in the rating process than whether issuers pay for the ratings. As such, further disclosure by rating agencies and analyses from various perspectives are required to further clarify the differences between solicited and unsolicited ratings.

[32] Poon [2001] analyzed the credit ratings of nonfinancial companies assigned by S&P during the period of 1998-2000 and found that, in general, differences between solicited and unsolicited ratings can be explained by cherry picking by issuers (the issuers who have obtained solicited ratings tend to have stronger financial profiles). However, Poon also indicated that factors other than issuers' cherry picking of credit ratings may exist as unsolicited ratings were still lower than solicited ratings after controlling for the key financial characteristics. Roy [2006] used a sample of Asian banks rated by Fitch and found that "unsolicited ratings appear to be lower because they tend to be more conservative than solicited ratings reflecting the fact that they are based on public information." Roy also noted that "banks with unsolicited ratings but a high amount of disclosure receive ratings that are not significantly different from the ratings of similar banks which have solicited ratings."

[33] See footnote 3.

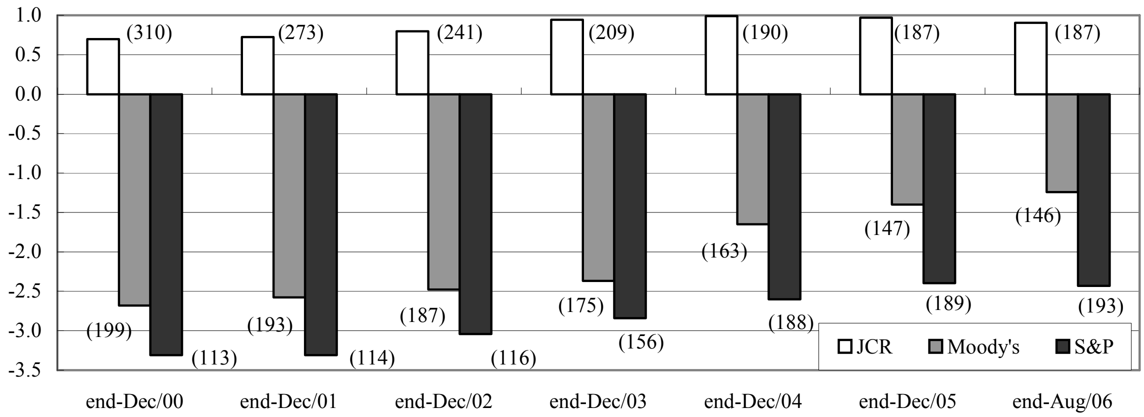
3. Rating Splits

3.1 Current Situation of Rating Splits

The situation where several rating agencies assign different credit ratings for the same issuers is referred to as "rating splits." Chart 6 shows the calculated average rating differences of credit ratings by R&I and other rating agencies for the same issuers: nonfinancial companies and nonbank financial companies.[34]

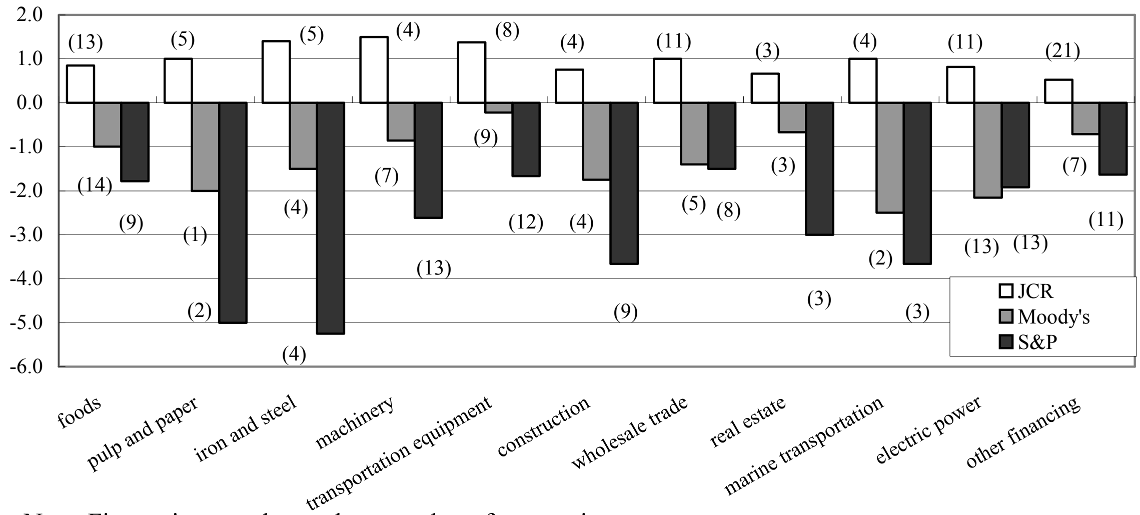
(Chart 6) Rating Splits (average notch-differences compared with R&I)

Developments over Time



Note: Figures in parentheses show number of companies.

By Industry Sector (as of end-Aug. 2006)



Note: Figures in parentheses show number of companies.

[34] In this analysis, the data used are those for solicited ratings by R&I and JCR, as well as solicited and unsolicited ratings by Moody's and S&P.

Chart 6 indicates the following features:

(1) Credit ratings for the same issuers tend to be in the following order from high to low: JCR, R&I, Moody's, and S&P. Looking at the developments over time, differences between credit ratings assigned by Japanese and non-Japanese rating agencies are gradually narrowing.[35]

(2) By industrial sector of issuers, differences between R&I and JCR ratings are fairly stable, whereas notch-differences between credit ratings assigned by Japanese and non-Japanese rating agencies are widely different by sector. Underlying factors may include differences in analysts' views of the sector, or differences in the rating agencies' views and rating processes for each industrial sector. Rating splits in credit ratings by S&P and Japanese rating agencies are most pronounced for the pulp and paper, iron and steel, and construction sectors.

3.2 Background to Rating Splits

Even when based on the same set of information, as there are differences in evaluation criteria and rating processes across rating agencies,[36] it is only natural that there will be some differences in evaluation results.

In addition, even for credit ratings that are shown by the same letters such as AAA and AA, there may be differences in the implied credit quality (rating scales) across rating agencies. As long as differences are within a certain range, this would probably not pose a major problem when credit ratings are used. Ultimately, whether such differences are within a certain range will, we think, be assessed by looking at default rates.

Meanwhile, related empirical studies indicate the following. As to differences in rating scales, Ota, Harigae, and Morimoto [2006] contemplated the possibility that the credit rating levels which investors in Japan and the United States consider appropriate for investment differ, i.e., in Japan, this is A or above, whereas in the United States, BBB or above. They conjectured that this may have led to the about three-notch differences between credit ratings of Japanese and non-Japanese rating agencies. That said, this and other empirical studies do not necessarily make it explicit

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[35] In this respect, one comment was that "in the last few years, R&I seems to have made efforts to lower its credit ratings across the board so that the ratings that had been too high will be adjusted down. Meanwhile, Moody's, in the last three years or so, seems to have made efforts to raise its ratings across the board so that the ratings that had been too low will be adjusted up" (Shima [2006]).

[36] Differences will also arise from whether the credit rating is a "issue rating" or an "issuer rating." "Issue ratings" reflect the default probability of particular securities and the recovery risk involved. "Issuer ratings" reflect the default probability of the issuers' financial debts including bank borrowings (but do not include recovery risk evaluations). For example, a comparison of credit ratings for an issuer by Moody's and R&I as of end-January 2007 reveals that Moody's issue rating is Ba2 (no issuer rating), whereas R&I issue rating is BB and issuer rating is BB+. The difference between Moody's and R&I ratings will depend on which of the two R&I ratings is used.

whether the actual rating scales are different among rating agencies.

Besides the above, some suggest the home bias of foreign rating agencies, where rating agencies assign lower ratings to foreign companies than to own-country companies. Views here are divided on this issue. The Japan Center for International Finance (JCIF) [1999] found that none of the 25 Japanese issuers that were assigned speculative-grade ratings (Ba1 or below) by Moody's had defaulted in the five years up to the date the study was conducted, and that the credit ratings assigned by Moody's for Japanese issuers may not have the same meaning as the credit ratings for U.S. issuers. On the other hand, related empirical studies such as Canter and Packer [1994], Ammer and Packer [2000], and JCIF [2002] refute the existence of home bias. For example, Canter and Packer [1994] compared the credit ratings assigned by own-country and foreign rating agencies for global banks in four countries and found that the results were not uniform in respect to which credit ratings are higher, own-country or foreign rating agency ratings.

3.3 Evaluation of Credit Ratings by Default Rates

In this section, default rates provided by rating agencies are compared (Chart 7). As mentioned above, differences in rating scales across rating agencies will ultimately show as differences in the default rates for each credit rating level. In looking at the results of such assessments on the credit ratings for Japanese issuers, some allowances should be made. This is because the amount of data and length of sample period for default rate evaluations are limited compared to the United States and Europe, and the methods of calculating default rates vary across rating agencies.[37] Some allowances are also made in the setting of cumulative default rate (CDR) benchmarks for each credit rating in Basel II. Specifically, Basel II presents long-run "reference level" CDRs as information on what its default experience has been internationally for each credit risk category, as well as "trigger level" CDRs which serve as guidance on when adjustments should be made. That is, if the observed three-year CDRs exceed the "trigger level" in consecutive years, supervisors would be expected to move the risk assessment into a less favorable category.[38]

Chart 7 compares the ten-year average of the three-year CDRs for each letter level of credit ratings (i.e., the alphabetical letter component of each rating. Each letter level covers three notches: plus,

[37] For example, the definitions of default that are used to calculate default rates in Chart 7 are not identical across rating agencies. More specifically, R&I, JCR, S&P, and Fitch include debt waivers by banks, whereas Moody's does not (it includes only defaults of bond debentures). In addition, particularly in Japan, there may be some debt restructuring cases that should be but are not counted as default because they are not known to the public. Meanwhile, Japanese rating agencies disclose information on default rates based on several different default definitions. Of these, the definitions of default rates used in Chart 7 are "default ratios" by R&I and "broadly defined defaults" by JCR (terms in parentheses are the ones used by each rating agency).

[38] Specifically, the mapping relationships of risk weights prescribed in Basel II and the credit ratings of the pertaining rating agencies are adjusted.

flat, and minus). Ideally, default rates should be compared using long-term time-series data. However, because the time-span coverages of data released by rating agencies are not identical (Reference Chart),[39] we compared the average default rates for the last ten years in this paper; data were obtained with the cooperation of each rating agency. Basel II also recommends the use of the ten-year average of the three-year CDRs in comparing default rates of rating agency ratings to the proposed "reference level" CDRs.

(Chart 7) Ten-year Average of the Three-year CDRs

(unit: percent)

<table>
<tr><th></th><th>R&I</th><th>JCR</th><th>S&P</th><th>Moody's</th><th>Fitch</th><th colspan="2">Basel II benchmarks</th></tr>
<tr><th>Coverage</th><th>Japan</th><th>Japan</th><th>Global</th><th>Global</th><th>Global</th><th>Reference level</th><th>Trigger level</th></tr>
<tr><td>AAA</td><td>0.00</td><td>0.00</td><td rowspan="2">0.07</td><td>0.00</td><td>0.00</td><td>0.10</td><td>1.20</td></tr>
<tr><td>AA</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.00</td><td>0.10</td><td>1.20</td></tr>
<tr><td>A</td><td>0.44</td><td>0.45</td><td>0.41</td><td>0.15</td><td>0.38</td><td>0.25</td><td>1.30</td></tr>
<tr><td>BBB</td><td>0.70</td><td>1.13</td><td>1.60</td><td>1.31</td><td>2.04</td><td>1.00</td><td>3.00</td></tr>
<tr><td>BB</td><td>6.70</td><td>8.95</td><td>6.35</td><td>4.45</td><td>5.98</td><td>7.50</td><td>12.40</td></tr>
<tr><td>B</td><td>35.29</td><td>56.48</td><td>18.95</td><td>19.63</td><td>6.78</td><td>20.00</td><td>35.00</td></tr>
</table>

Source: Compiled by the authors based on the figures available from each rating agency.

(Reference Chart) Description of CDRs Released by Rating Agencies

	R&I	JCR	S&P	Moody's	Fitch
Sample period (terms analyzed)	1978-2005	1994-2005 1996-2006	1975-2005 1981-2005 1994-2005	1920-2005 1970-2005 1983-2005	1990-2005
Results available (CDR)	1-10 years	1, 3, 5 years	1-8, 10 years	1-20 years	1-5 years

Source: Public releases by rating agencies.

The characteristics of the ten-year average of the three-year CDRs as shown in Chart 7 are as follows:

(1) Except in respect to the B category for the two Japanese rating agency ratings, default rates are below the "trigger level" CDRs prescribed in Basel II.[40,41]

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[39] Results would vary according to the time-span covered in calculating default rates. For example, the ten-year average of the three-year CDRs for R&I are as shown in Chart 7, but for the 1978-2005 sample period, the default rates are as follows: AAA-AA, 0.00 percent; A, 0.29 percent; BBB, 0.48 percent; BB, 4.74 percent, and B and below, 19.29 percent.

[40] The default rates for the B-ratings assigned by the two Japanese rating agencies exceed the "trigger

(2) For the credit ratings of all rating agencies, default rates for AA ratings are virtually zero percent, for A ratings about 0.3 to 0.5 percent, and for BBB about one to two percent. Meanwhile, those for BB or below are significantly higher with larger differences across rating agencies. This observation can be explained in part by the fact that there are not many issuers rated BB or below in Japan.

(3) No major inconsistencies in rating scales across rating agencies are observed. For instance, default rates of a credit rating category assigned by a rating agency did not exceed those in the lower credit rating category by another rating agency. This is generally in line with the results in Chart 6 that the average differences in credit ratings by rating agencies for the same issuers fall within three notches on the whole.

3.4 Investors' Views and Usages of Credit Ratings

Investors use credit ratings, often with the precondition that there are rating splits and differences in rating scales among rating agencies. Examples of the treatments investors make when using credit ratings include the following:

(1) Predetermined order rules are applied when there are several credit ratings available, with adjustments to account for notch-differences among rating agencies in the process.

=> For example, credit ratings assigned by Japanese rating agencies are prioritized over non-Japanese agencies. When only non-Japanese rating agency ratings are available, two to three notches are added. As another example, credit ratings assigned by non-Japanese rating agencies are prioritized, with downward adjustments to Japanese rating agency ratings when only these are available.

(2) Rating splits are considered in mapping own internal ratings to external ratings assigned by rating agencies.

=> An example is that when constructing in-house quantitative models to analyze financial conditions to be consistent with external ratings, (1) the average of several ratings (after two to three-notch adjustments) or credit ratings assigned by a particular rating agency is used as an input parameter of external ratings, or (2) a mapping table which reflects the gaps between rating agencies is created and compared with internal ratings.

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level" CDRs prescribed in Basel II. However, adjustments are not made at this level, as there is only one prescribed risk-weight for nonfinancial companies with B or below ratings.

[41] Basel II recommends that the ten-year average of the three-year CDRs of rating agencies be compared against long-run "reference level" CDRs. When the CDRs of a rating agency exceed the "trigger level" CDRs for consecutive years, supervisors are expected to move the risk assessment into a less favorable risk category. None of the rating agencies, for which the yearly averages are shown in Chart 7, breach the criteria.

The results of the above-mentioned analysis of default rates did not reveal differences as large as one letter level (three notches). Quantitative assessments of Japanese data, however, are subject to several constraints, since Japan has a relatively short history compared to the United States and Europe in using credit ratings, as well as in the accumulation of related data such as default rates. Also, there are some differences in credit rating definitions and gaps in the amount of data available from rating agencies. Therefore, the issue of rating splits should continue to be analyzed from various perspectives over time as data are accumulated.

4. Conclusions and Future Prospects

Credit ratings play an increasingly important role in the credit market in Japan. Widely and properly assigned credit ratings allow investors to lower the cost of analyzing and monitoring issuers and allow issuers to lower the cost of information disclosure to creditors (debt IR). This is expected to lead to expansion of the investor base and also improvements in market efficiency. The use of credit ratings in a regulatory and supervisory context is also increasing, as exemplified by the use in Basel II.

Rating agencies have also made headway in improving the reliability of credit ratings. They have begun disclosing descriptions of rating processes, releasing default data, and establishing codes of conduct. Looking forward, to encourage ongoing appropriate and transparent discussions on issues surrounding credit ratings, including credit rating gaps discussed in this paper, it is important for rating agencies to disclose more information such as longer-term default rate data and methods of calculating default rates. In this way, as rating agencies make available more information to help assess rating agencies and stimulate discussion on credit ratings among market practitioners, credit ratings will become an even more essential part of the credit market infrastructure. In addition, Basel II has been applied in Japan from the end of March 2007, signifying wider use of credit ratings in the field of regulation and supervision. Given the changes in the environment surrounding credit ratings, we will need to closely monitor the possible influences over the architecture and use of credit ratings in the coming years.

References

Ammer, John and Frank Packer, 2000, "How Consistent Are Credit Ratings? A Geographic and Sectoral Analysis of Default Risk," International Finance Discussion Paper, Board of Governors of the Federal Reserve System.

Basel Committee on Banking Supervision, 2000, "Credit Ratings and Complementary Sources of Credit Quality Information," Working Paper, Bank for International Settlements.

Canter, Richard and Frank Packer, 1994, "The Credit Ratings Industry," Federal Reserve Bank of New York Quarterly Review.

Canter, Richard and Frank Packer, 1997, "Differences of Opinion and Selection Bias in the Credit Rating Industry," Journal of Banking and Finance.

Financial Services Agency, 2006, "*Basel II ni okeru Tekikaku Kakuzuke Kikan no Kakuzuke to Kokujijo no Risk Weight to no Taio Kankei (Mapping) ni tsuite* (Basel II, Mappings Assigned by Eligible External Credit Assessment Institutions (ECAIs) and the Corresponding Risk Weights Prescribed in the Ordinance)," (available only in Japanese).

Hill, Claire, 2005, "Regulating the Rating Agencies," Unpublished working paper, University of California, Berkeley.

Japan Center for International Finance, 1998, "*Shuyo Kakuzuke Gaisha no Tokucho to Hyoka (1999 nen ban)* (Characteristics and Appraisal of Major Rating Companies (1999) – Focusing on Ratings in Japan and Asia)," (full text available only in Japanese).

————, 1999, "*Shuyo Kakuzuke Gaisha no Tokucho to Hyoka (2000 nen ban)* (Characteristics and Appraisal of Major Rating Agencies (January 2000))," (full text available only in Japanese).

————, 2001, "*Shuyo Kakuzuke Gaisha no Tokucho to Hyoka (2001 nen ban)* (Characteristics and Appraisal of Major Rating Companies (2001 Edition))," (full text available only in Japanese).

————, 2002, "*Shuyo Kakuzuke Gaisha no Tokucho to Hyoka (2003 nen ban)* (Characteristics and Appraisal of Major Rating Companies (2003))," (available only in Japanese).

Katsuki, Yasunobu, 2003, "*Kakuzuke Gaisha no Arikata wo Meguru Giron – Enron go no NRSRO Kaikaku Giron no Ronten Seiri* (Issues regarding Rating Agencies: the NRSRO Reforms after the Collapse of Enron)," Mizuho Securities Credit Commentary No.11 (September 2003), (available only in Japanese).

Nagata, Takahiro, 2006, "*Basel II to Ginko Kakuzuke* (Basel II and Bank Credit Ratings)," R&I Rating Information, February 2006 (available only in Japanese).

Ota, Yoko, Kazuaki Harigae, and Kuniyuki Morimoto, 2006, "*Kigyo Kachi Kojo no Zaimu Senryaku* (Strategies in Corporate Finance to Raise Corporate Value)," edited by Nomura Securities Financial and Economic Research Center, Diamond, Inc., (available only in Japanese).

Poon, Winnie, 2001, "Are Unsolicited Credit Ratings Biased Downward?" Journal of Banking and Finance.

Roy, Patrick Van, 2006, “Is There a Difference between Solicited and Unsolicited Bank Ratings and If So, Why?” Working Paper, National Bank of Belgium.

Shima, Yoshio, 2006, “*Nihon no Credit Shijo* (The Credit Market in Japan),” Sigma Base Capital, (available only in Japanese).

Suzuki, Shigeo, 1999, “*Honpo Jigyo Gaisha ni taisuru Katte Kakuzuke ni kansuru Kosatsu* (Observations regarding Unsolicited Ratings for Japanese Nonfinancial Companies),” Security Analysts Journal, 1999, No.3, (available only in Japanese).

White, Lawrence, 2001, “The Credit Rating Industry: an Industrial Organization Analysis,” Unpublished working paper, Stern School of Business, New York University.