

DOES STATUTORY AUDITORS MATTER IN BANK-DOMINATED CORPORATE GOVERNANCE? EVIDENCE FROM JAPAN

Naoki Watanabel*, Hideaki Sakawa**

Abstract

This paper presents examination of the relation between the role of statutory auditors and corporate governance mechanisms in Japan in the early 1990s. Under Japanese commercial law before 2003, the establishment of an audit committee was required, but not appointment of outside auditors. Consequently, firms came to coexist with and without outside auditors. The empirical question arises of whether outside auditors in Japan are effective monitors or not. We find the following three points in this paper. First, managerial entrenchment effects exist for the appointment of outside auditors. Second, we can find a negative relation between Japanese bank ownership and firms with outside auditors. Finally, financial keiretsu memberships are not significantly effective for the appointment of outside auditors.***

Keywords: Auditors; Bank Ownership; Corporate Governance; Financial Keiretsu Memberships

* Assistant Professor at Faculty of Business Administration, Ritsumeikan University.

** Associate Professor at Graduate School of Economics, Nagoya-City University.

Contact Author: 1 Yamano-hata, Mizuho-cho, Mizuho-ku, Nagoya, Aichi, 467-8501, Japan

E-mail: sakawa@econ.nagoya-cu.ac.jp

*** The authors are grateful for Yoshiro Tsutsui and Yasuharu Ukai for their helpful suggestions. Preliminary version of this paper is presented at the 21th Asian Pacific Conference on International Accounting Issues in 2009 and the annual meeting of Japan Finance Association in 2010. We also thank to all the participants of our session at the conference and meeting. This research is financially supported by RISS Research Project of Kansai University.

1. Introduction

The importance of corporate governance mechanisms has been increasingly emphasized worldwide. An audit committee is an important monitoring mechanism of corporate governance. Klein (2002) points out that the audit committee is a subset of the board of directors and has the responsibility of monitoring the firm's financial-reporting process. The relations between corporate ownership and formations of audit committees or monitoring roles of statutory auditors are empirically investigated worldwide from the view of separation of ownership and control (Chau and Leung, 2006; Collier and Gregory, 1999; Deli et al., 2000; Menon and Williams, 1994; Pincus et al., 1989).

Previous studies are based on the characteristics of corporate ownership in each country, different from Japanese corporate governance structures. Japanese corporate governance mechanisms are regarded as "relation-oriented" or bank-centered" systems and differ from western market-oriented systems (Aoki, 1990). In Japan, however, the introduction of audit committee has not been permitted until the amendment of Commercial Law in 2003 and statutory auditor has taken monitoring roles during 1990s. Few

analyses explore the relation between corporate governance mechanisms and monitoring roles of statutory auditors in Japanese 1990s.

The purpose of this paper is to analyze the relation between statutory auditors and investigate whether or not they take an effective monitoring role like audit committees in US. In addition, we also examine how Japanese corporate governance features of such as managerial ownership, bank ownership, and financial keiretsu memberships affect the monitoring roles of auditors in Japan. We attempt to provide new evidence to analyze these relations in Japan.

This paper presents examination of the relation between Japanese corporate ownership structure and the existence of outside auditors because they are independent from board of directors and expected for effective monitors. Therefore, we make three hypotheses about the relation between Japanese corporate governance mechanisms and the effectiveness of statutory auditors. To analyze the differences of monitoring activities between firms with and without outside auditors, we use the sample period before Japanese regulation was altered to include outside auditors in the audit committee.

The salient conclusions of this paper can be summarized as the following three points. First, managerial entrenchment effects arise from the appointment of outside auditors, but this effect is diminishing. Second, a negative relation exists between Japanese bank ownership and firms with outside auditors. Finally, financial keiretsu memberships are not significantly supported.

The remainder of this paper is summarized into the following five sections. Section 2 discusses the related studies of the literature and audit system in Japan. In section 3, we describe development of our hypotheses. Section 4 presents a description of data and empirical models. Section 5 presents empirical results. In section 6, we summarize the conclusions of this paper.

2. Related Literature and Audit Committees in Japan

Fama (1980) and Fama and Jensen (1983) discuss that the incentives of outside directors help to monitor managers effectively. Results of prior studies imply that independent auditors used in the US are helpful to monitor firms' financial accounting processes better. Nevertheless, few studies analyze whether Japanese statutory audit systems help to monitor their firms' processes effectively or not. In this section, we introduce the role of Japanese statutory auditors and compare them with audit committees of the US.

In the US, the audit committee must include a majority of independent auditors, which are determined by the listing regulations of NYSE and NASDAQ based on their *Reports and Recommendations of the Blue Ribbon Committee on Improving the Effectiveness of Corporate Auditor Committee*. They state that the audit committee is the "ultimate monitor" of the financial accounting system. Carcello and Neal (2000), for example, show that the dependent audit committee tends to send a going concern report when a firm experiences financial distress.

In Japan, auditors are elected at shareholders' meetings and Japanese statutory auditor systems are different from those of the US. In Japan, auditors need not attend the board meeting. In large companies, Japanese commercial law gives them the right to attend the board meeting and express their opinions. Therefore, auditors participate in the process of decision without the right to vote. Before 1994, Japanese commercial law required establishment of statutory auditors for all firms but did not mandate the appointment of outside auditors. Especially, in the early 1990s, nearly 40% of Japanese companies listed at the First Section of the Tokyo Stock Exchange (TSE) had not appointed outside auditors in their statutory auditors¹. Thereafter, Japanese law came to require "large" companies to maintain statutory audit systems with outside auditors for enhancing the

independence of auditors. Japanese commercial law classified a "large" company as a company of ¥500 million in paid-in capital or ¥20 billion in liabilities. These "large" companies must establish statutory auditor systems whose members include more than three auditors and include at least one outside auditor.

Aoki (1990) points out that Japanese corporate governance mechanisms are "relation-oriented" or bank-centered systems whose features consist of two points. First, Japanese corporations were believed to adopt lifetime employment systems; directors were often elected from among the senior management of the company, which is regarded as "internal" promotion. Auditors were also elected from among senior managers who could not be promoted to be directors of their firms. Second, Japanese bank-centered systems represent commercial banks' ties and financial keiretsu memberships.

Some scholars point out the lack of monitoring devices of statutory auditors in Japan. Miyamata (2006) argues the case of a lawsuit of Daiwa Bank (the jurisdiction of the Osaka District Court) and evaluates this as a lack of their monitoring mechanisms. He concludes that this lawsuit served as the foundation, the origin, of the commercial law's amendments in 2003 which permits for firms to establish audit committees.

Comparison of the US and Japan raises an empirical question related to the effectiveness of Japanese statutory auditors' monitoring roles. Regulations about auditor committees in US strictly determine the auditor committee's composition. On the other hands, Japanese listed firms had an option whether or not they appointed outside auditors in their statutory auditors. To analyze the effectiveness of Japanese statutory auditors, we present three hypotheses in the next section.

3. Hypotheses Development

This paper presents examination of the relation between Japanese corporate ownership structure and the existence of outside auditors. In Japan, the role of outside auditors is expected to be independent of managers and a monitor of them. Therefore, we can predict that outside auditors tend to be appointed in firms with effective monitors. Japanese corporate governance mechanisms are so-called bank-centered systems, and are featured as managerial and bank ownership and financial keiretsu memberships (Aoki, 1990; Morck and Nakamura, 1999; Morck et al., 2000). We construct three hypotheses and examine the relation between Japanese corporate governance mechanisms and the existence of auditors in the following sub-section.

¹ See the descriptive statistics of Appendix.

3.1 Relation between Japanese managerial ownership and outside auditors

Jensen and Meckling (1976) show that managerial ownership serves to align the interests of managers with those of shareholders and therefore increases firm value. In contrast, Stulz (1988) points out that stronger managerial ownership contributes to the entrenchment of managers by reducing the threats of takeovers. Morck et al. (1988) and McConnell and Servaes (1990, 1995) empirically support the view of the managerial entrenchment hypothesis over certain ranges of managerial ownership in the US.

In Japan, Morck et al. (2000) find that managerial ownership increases monotonically with firm value, which implies that the managerial entrenchment hypothesis proposed by Stulz (1998) is less important in Japan than that in US because cross-shareholding and bank-ownership limit hostile takeovers. Basu et al. (2007) and Sakawa and Watanabel (2008) report that high degrees of managerial ownership increased levels of compensation. These results imply that the managerial entrenchment hypothesis applies also in Japan.

The relation between outside auditors and managerial ownership in Japan is explainable according to two views, which are the convergence-of-interest hypothesis and managerial entrenchment hypothesis (Morck et al., 1988). We construct following two hypotheses H1a and H1b.

H1a: Considering the ‘aligning interests of managers’ hypothesis, we expect that a positive relation exists between the existence of outside auditors and managerial ownership.

H1b: Considering the ‘managerial entrenchment’ hypothesis, we expect that a non-positive relation exists between the existence of outside auditors and managerial ownership.

Moreover, the possibility remains that the effect of ‘managerial entrenchment’ or ‘aligning interests of managers’ effect is not monotonic for the level of managerial ownership. Therefore, we also analyze additional estimation, following Morck et al. (1988) and Morck et al. (2000).

3.2 Relation between Japanese bank ownership and outside auditors

Numerous previous studies point out that Japanese banks take a monitoring role under the bank-centered corporate governance mechanism (Aoki, 1990). Kaplan and Minton (1994) find that bank-appointed directors increase with poor performance and that turnover of top executives is active when bank-appointed directors are newly appointed to the board.

They conclude that commercial banks serve important disciplinary or monitoring roles in Japan.

Some scholars raise questions about the monitoring roles of commercial banks in Japan (Morck and Nakamura, 1999; Morck et al., 2000; Hiraki et al., 2003; Sakawa et al., 2012). Hiraki et al. (2003) find that both main bank borrowing and the cross shareholdings between the main bank and its client’s business corporation are negatively related to Tobin’s Q. Furthermore, Morck et al. (2000) find that Japanese bank ownership decreases with a firm’s value from the lower to modest range of Tobin’s Q because a bank’s ownership is insufficient to align the interests of bank with other stakeholders. In addition, Sakawa et al. (2012) find that bank ownership and bank-appointed directors are not helpful to adopt adequate incentive for managers and imply that monitoring roles of banks are insufficient in recent Japan. In this case, banks are not expected to take a role of appointing outside auditors. Therefore, we construct the following hypotheses H2a and H2b.

H2a: A positive relation exists between the existence of outside auditors and bank ownership.

H2b: A non-positive or negative relation exists between the existence of outside auditors and bank ownership.

We also analyze additional estimation to check whether a ‘positive’ or ‘negative’ relation is not monotonic for the level of managerial ownership.

3.3 Relation between Japanese business group and outside auditors

Some scholars point out that one important characteristic of the Japanese corporate governance mechanism is their business group memberships: so-called financial keiretsu. Berglof and Perotti (1994) argue that the financial keiretsu system plays a role in monitoring and controlling managers effectively. Kato (1997) finds that top executives of firms with financial keiretsu ties earn less than those without keiretsu ties.

In contrast, Gurati and Singh (1998) argue that coordination costs among keiretsu memberships reduce profits of firms with financial keiretsu ties. Moreover, Miwa and Ramseyer (2002) point out that financial keiretsus serve only a ceremonial role. In other words, we cannot predict the monitoring role of financial keiretsu.

We can construct two predictions about the relation between financial keiretsu memberships and outside auditors. They tend to appoint outside auditors in the firms belonging to their memberships if the financial keiretsu takes a monitoring role. However, no significant relation exists when financial keiretsu memberships do not take a monitoring role, as suggested by Miwa and Ramseyer (2002). These two

predictions are summarized as the following two hypotheses H3a and H3b.

H3a: A positive relation exists between keiretsu memberships and outside directors.

H3b: A non-positive relation exists between keiretsu memberships and outside directors.

4. Data, Descriptive Statistics, and Empirical Model

4.1 Data Source and Data Selection

For this study, we choose the sample period 1991–1993 when Japanese regulation did not require inclusion of more than one outside auditor in the statutory auditor system. Therefore, we can analyze the differences of monitoring activities between firms with and without outside auditors.

The sample comprises 1566 observations acquired during 1991–1993 for 522 Japanese

manufacturing firms listed in the First Section of the Tokyo Stock Exchange. Financial data were obtained from the Nikkei NEEDS database. Data related to characteristics and the numbers of auditor members were collected manually from *Yakuin Shiki Ho*. The financial keiretsu ties data were collected from *Kigyo Keiretsu Souran* (1991). We constructed the financial keiretsu dummy, which denotes whether or not each firm belongs to an executive gathering known as *Shachokai* (presidents' club)⁴ following Hoshi and Kashyap (2001).

4.2. Descriptive Statistics

We provide definitions of the variables (Outside Auditor, Managerial Ownership, Bank Ownership, Financial keiretsu memberships, logarithm of asset, market to book ratio, and debt to asset ratio) and their descriptive statistics in Table 1.

Table 1. Descriptive Statistics (n = 1566)

Variable	Mean	Standard Deviation
<i>P</i>	0.619	0.486
Outside Auditor Ratio (%)	33.225	31.628
Number of Outside Auditors	0.964	0.919
Managerial Ownership	0.021	0.041
Bank Ownership	0.410	0.130
Keiretsu	0.113	0.317
Firm Size (Billion Yen)	11.483	1.085
MTB	2.217	1.260
D/A (%)	0.560	0.174

Note: The variables are defined in the Appendix.

Table 2. Mean Differences Test

Variables			Wilcoxon rank-sum	
	P=0	P=1	Z-value	p-value
Outside Auditor Ratio (%)	0.000	53.695	-34.757	0.000
Number of Outside Auditors	0.000	1.557	-35.163	0.000
Managerial Ownership	0.027	0.018	4.575	0.000
Bank Ownership	0.444	0.388	8.299	0.000
Keiretsu	0.124	0.106	1.072	0.284
Ln(Firm Size)	241137	173903	4.494	0.000
MTB	2.183	2.237	0.104	0.917
D/ A	0.537	0.574	-4.463	0.000
Observations	597	969	-	-

Note: We divide sample firms whether *p* equals to 1 or 0. In column 2 and 3, the mean variables of each group are reported. We also test the mean differences of each variable by Wilcoxon rank-sum test. The Z value and p value of the test is reported in column 4 and 5.

Table 1 shows that the average ratio of outside auditor is about 33.2%, indicating that a substantial share of firms do not appoint an outside auditor. The managerial ownership has a mean of 2.1%. It is apparently too low to exist with the convergence of interest hypothesis. The mean of bank ownership is about 40%, which is consistent with Morck et al. (2000). Sample firms include about 11.3% of firms with financial keiretsu ties. The average of firm size is about 11.4 billion yen. That of the firm's market to book ratio (MTB) is about 2.21. The debt to asset ratio (D/A) is about 0.56, signifying that long-term debt is vital for the capital structure of sample firms.

Table 2 reports that the mean differences test results between firms with and without outside auditors. Managerial ownership is significantly lower—about 0.9%—in a firm with outside auditors, supporting hypothesis H1b. Regarding bank ownership, the degree of bank ownership is significantly lower in the firms with outside auditors, which is consistent with H2b. No significant

difference was found between firms with and without financial keiretsu ties.

Firms without outside auditors are significantly larger, but the debt to asset ratio (D/A) is significantly larger for firms with outside auditors. Klein (2002) points out that creditors' demands for independent audit committees increase with a high debt to asset ratio. This result is consistent with Klein (2002) and suggests that firms which depend more on debt tend to hire outside auditors.

4.3. Empirical Models

Because of the binomial nature of the dependent variable, we select a logit model to test three hypotheses. The dependent variable is 1 if outside auditors are included in the statutory auditor system; otherwise it is equal to 0. The logit model used for estimation is the following estimated equation:

$$\text{Logit}(p) = \beta_0 + \beta_1 \text{ManagerialOwnership} + \beta_2 \text{BankOwnership} + \beta_3 \text{Keiretsu} + \beta_4 \ln(\text{asset}) + \beta_5 \text{MTB} + \beta_6 (D/A) + u_t \quad (1)$$

In equation (1), p is the probability that an outside auditor exists. We use ownership variables to examine the relation between ownership structure and the existence of outside auditors. To control for the firm size, we adopt the logarithm of firm assets ($\ln(\text{Firm Size})$). Klein (2002) shows that firms with high growth opportunities do not demand independent auditor committees. To control for firms' high growth opportunities, we also adopt the market-to-book ratio (MTB). Finally, the debt to asset ratio (D/A) is adopted to control for firms' risk-taking behavior.

We adopt three independent variables to examine three hypotheses: managerial ownership (*Managerial Ownership*), bank ownership (*Bank Ownership*), and financial keiretsu memberships (*Keiretsu*). We construct the following estimated equation (2) adding the squared terms of managerial ownership to identify which of hypotheses 1a and 1b is supported.

$$\begin{aligned} \text{Logit}(p) = & \beta_0 + \beta_1 \text{ManagerialOwnership} + \beta_2 (\text{ManagerialOwnership})^2 \\ & + \beta_3 \text{BankOwnership} + \beta_4 \text{Keiretsu} + \beta_5 \ln(\text{asset}) + \beta_6 \text{MTB} + \beta_7 (D/A) + u_t \end{aligned} \quad (2)$$

Furthermore, to analyze hypotheses 2a and 2b, we construct the following estimated equation (3),

adding the squared terms of managerial ownership and bank ownership.

$$\begin{aligned} \text{Logit}(p) = & \beta_0 + \beta_1 \text{ManagerialOwnership} + \beta_2 (\text{ManagerialOwnership})^2 + \beta_3 \text{BankOwnership} \\ & + \beta_4 (\text{BankOwnership})^2 + \beta_5 \text{Keiretsu} + \beta_6 \ln(\text{asset}) + \beta_7 \text{MTB} + \beta_8 (D/A) + u_t \end{aligned} \quad (3)$$

5. Empirical Results

Results of estimated equation (1), (2), and (3) are presented in Table 3. The predicted signs of logistic estimations are reported in the second columns of Table 3. Logistic regression results of equation (1) are also described in the second column of Table 3. The model's χ^2 is 114.82; it is significant at the 1% level.

The pseudo- R^2 is 0.055. In the third and fourth column, the estimated results of equation (2) and (3) are reported, respectively. These models' χ^2 are 134.19 and 134.46, which are significant at the 1% level. Both the pseudo- R^2 of equation (2) and that of equation (3) are about 0.065.

Table 3. Estimation Results

Variables	Equation(1)	Equation(2)	Equation(3)
Managerial Ownership	-6.941 ** (-4.79)	-18.566 ** (-5.86)	-18.311 ** (-5.71)
Square of Managerial Ownership		56.582 ** (3.79)	55.537 ** (3.68)
Bank Ownership	-3.603 ** (-7.18)	-3.575 ** (-7.06)	-4.876 + (-1.91)
Square of Bank Ownership			1.588 (0.52)
Keiretsu	0.093 (0.49)	0.021 (0.11)	0.016 (0.09)
Ln(Firm Size)	-0.129 * (-2.10)	-0.157 * (-2.52)	-0.157 * (-2.52)
MTB	-0.065 (-1.33)	-0.072 (-1.48)	-0.074 (-1.52)
D/ A	0.928 * (2.56)	0.695 + (-1.88)	0.712 + (1.92)
Constant Terms	3.246 ** (4.73)	3.852 ** (5.44)	4.089 ** (4.85)
Pseudo R ²	0.0552	0.0645	0.0646
Chi Square test	114.82 **	134.19 **	134.46 **

Note: We report the estimated results of each logit model (1), (2), and (3) in this table.

+ $p < 0.1$; * $p < 0.05$; ** $p < 0.01$.

The estimated coefficient of managerial ownership in the second column of equation (1) is about -6.94, which is significant at the 1% level. This is consistent with H1b and the managerial entrenchment effect exists for Japanese statutory auditor systems. The possibility remains that the managerial entrenchment effect is not monotonic for the level of managerial ownership. In the third and fourth columns, we report results of equation (2) and (3), including the squared terms of ownership variables. The estimated coefficients of managerial ownership are -18.57 and -18.31; both the estimated coefficients are significant at the 1% level. The squared term of equation (2) and (3) are 56.58 and 55.54; they are significant at the 1% level. These results can be interpreted that managerial entrenchment effects for statutory auditor systems exist, but they are marginally diminishing.

Regarding bank ownership, the second and third columns show that the coefficients of equation (1) and (2) are about -3.60 and -3.58 and significant at the 1% level. This result is consistent with H2b, suggesting that bank ownership does not converge with the interests of stakeholders and appointed outside auditors. To analyze whether a monotonic relation exists for the level of bank ownership, we also report the estimated result of its squared term. The estimated coefficient of bank ownership in the fourth column is -4.876, which is not significant at the 5% level. The estimated result of its squared term is positive, but not

significant. This result can be interpreted similarly to the results of equation (1) and (2) because the estimated result of the squared term is not significant. These results imply that bank ownership does not support effective monitoring from the viewpoint of appointing outside auditors.

The coefficient for financial keiretsu is positive, but not significant, for three equations. These results do not support either hypothesis 3a or 3b. In other words, we can find no role of the financial keiretsu for appointing outside auditors.

The coefficients of firm size of three equations are negative and significant and consistent with Klein (2002). Regarding the debt to asset ratio (D/A), the coefficient of equation (1) is positive and significant at the 5% level and those on equation (2) and (3) are also positive and significant at the 10% level. This result is also consistent with Klein (2002). The coefficients for MTB are not statistically significant.

6. Conclusions

This paper presented examinations of the relation between outside auditors and corporate governance mechanisms in Japan. Japanese bank-centered corporate governance features are not consistent with market-oriented corporate governance mechanisms as they are in Western countries such as the US and UK. For this study, we choose the sample period 1991–1993 before the commercial law's amendment. We

then make three hypotheses about the relation between the effectiveness of statutory auditor systems and Japanese corporate governance mechanisms such as managerial ownership, bank ownership, and keiretsu.

Our results demonstrate that managerial ownership is negatively related to the effectiveness of statutory auditors in Japan. We infer that the managerial entrenchment hypothesis is adequate for the appointment of outside auditors in Japanese firms. Moreover, the estimated result of the squared term of managerial ownership is positively related to the effectiveness of statutory auditor systems, which implies that managerial entrenchment effects are diminishing.

Results show a negative relation between Japanese bank ownership and firms with outside auditors. The estimated result of its squared term is positive, but not significant. These results imply that bank ownership does not facilitate effective monitoring from the perspective of appointing outside auditors. Although results of previous studies imply that Japanese banks tend to appoint their employees as directors for the monitoring role (Kaplan and Minton, 1994), our results can be interpreted as showing that Japanese banks have no interest in the effective monitoring role of outside auditors.

Our results show that financial keiretsu are positively related to the effectiveness of statutory auditor systems, but the coefficient is not significant for three equations. Therefore, financial keiretsu ties do not relate to the appointment of outside auditors; our hypotheses related to financial keiretsu memberships are not significantly supported.

These findings about Japanese statutory auditor systems in the 1990s suggest that Japanese corporate governance mechanisms are not well functioning for forming effective statutory auditor systems. From the perspective of effective statutory auditor systems, we cannot expect a monitoring role of commercial bank and financial keiretsu. Japanese policymakers and stock exchanges face challenges for enhancing effective statutory auditor systems or US like audit committees fit for the Japanese corporate governance structure and fit to protect the investors' interests. These are important requirements for Japanese markets, in which effective audit committees have not formed.

References

- Aoki, M. (1990), "Toward an economic model of the Japanese firm", *Journal of Economic Literature*, Vol. 28 No. 1, pp. 1–27.
- Basu, S., Hwang, L.S., Mitsudome, T. and Weintrop, J. (2007), "Corporate governance, top executive compensation, and firm performance in Japan", *Pacific Basin Finance Journal*, Vol. 15 No. 1, pp. 56–79.
- Berglof, E. and Perotti, E. (1994), "The governance structure of the Japanese financial keiretsu", *Journal of Financial Economics*, Vol. 36 No. 2, pp. 259–284.
- Carcello, J.V. and Neal, T.L. (2000), "Audit committee composition and auditor reporting", *The Accounting Review*, Vol. 75 No. 4, pp. 453–467.
- Chau, G. and Leung, P. (2006), "The impact of board composition and family ownership on audit committee formation: Evidence from Hong Kong", *Journal of International Accounting, Auditing, and Taxation*, Vol. 15 No. 1, pp. 1–15.
- Collier, P. and Gregory, A. (1999), "Audit committee activity and agency costs", *Journal of Accounting and Public Policy*, Vol. 18 No. 4–5, pp. 311–332.
- Deli, D.N. and Gillan, S.L. (2000), "On the demand for independent and active audit committees", *Journal of Corporate Finance*, Vol. 6 No. 2, pp. 427–445.
- Fama, E.F. (1980), "Agency problems and the theory of the firm", *Journal of the Political Economy*, Vol. 88 No. 2, pp. 288–307.
- Fama, E.F. and Jensen, M.C. (1983), "Separation of ownership and control", *Journal of Law and Economics*, Vol. 26 No. 2, pp. 301–325.
- Gurati, R. and Singh, H. (1998), "The architecture of cooperation: Managing coordination costs and appropriation concerns in strategic alliances", *Administrative Science Quarterly*, Vol. 43 No. 4, pp. 781–814.
- Hiraki, T., Inoue, I., Ito, I., Kuroki, I. and Masuda, H. (2003), "Corporate governance and firm value in Japan: Evidence from 1985 to 1998", *Pacific-Basin Finance Journal*, Vol. 11 No. 3, pp. 239–265.
- Hoshi, T., Kashyap, A. (2001), *Corporate financing and governance in Japan: The road to the future*, MIT Press, Cambridge, MA.
- Jensen, M.C. and Meckling, W.H. (1976), "Theory of firm: managerial behavior, agency costs and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305–360.
- Kaplan, S.N. and Minton, B.A. (1994), "Appointments of outsiders to Japanese boards: Determinants and implications for managers", *Journal of Financial Economics*, Vol. 36 No. 2, pp. 225–258.
- Kato, T. (1997), "Chief executive compensation and corporate groups in Japan: New evidence from micro data", *International Journal of Industrial Organization*, Vol. 15 No. 4, pp. 455–467.
- Kigyō Keiretsu Soran (1991) Touyou Keizai Inc, Tokyo.
- Klein, A. (2002), "Economic determinants of audit committee independence", *The Accounting Review*, Vol. 77 No. 2, pp. 435–452.
- McConnell, J.J. and Servaes, H. (1990), "Additional evidence on equity ownership and corporate value", *Journal of Financial Economics*, Vol. 27 No. 2, pp. 595–612.
- McConnell, J.J. and Servaes, H. (1995), "Equity ownership and two faces of debt", *Journal of Financial Economics*, Vol. 39 No. 1, pp. 131–157.
- Menon, K. and Williams, J.D. (1994), "The use of audit committees for monitoring", *Journal of Accounting and Public Policy*, Vol. 13 No. 1, pp. 121–139.
- Miyamata, Y. (2006), "Naibutousei wo meguru saikin no ugoki to kigyō no kadai. *Shoji-houmu*, No. 1766, pp. 197–202. (in Japanese)
- Miwa, Y. and Ramseyer, J. (2002), "The fable of the keiretsu", *Journal of Economics and Management Strategy*, Vol. 11 No. 2, pp. 169–224.

23. Morck, R., Shleifer, A. and Vishny, R.W. (1988), "Management ownership and market valuation", *Journal of Financial Economics*, Vol. 20 No. 1, pp. 293-315.
24. Morck, R. and Nakamura, M. (1999), "Banks and corporate control in Japan", *Journal of Finance*, Vol. 54 No. 1, pp. 319-339.
25. Morck, R., Nakamura, M. and Shivdasani, A. (2000), "Banks, ownership structure, and firm value in Japan", *Journal of Business*, Vol. 73 No. 4, pp. 539-567.
26. Pincus, K., Rusbarsky, M. and Wong, J. (1989), "Voluntary formation of corporate audit committees among NASDAQ firms", *Journal of Accounting and Public Policy*, Vol. 8 No. 4, pp. 239-265.
27. Sakawa, H. and Watanabel, N. (2008), "Relationship between managerial compensation and business performance in Japan: New evidence using micro data", *Asian Economic Journal*, Vol. 22 No. 4, pp.431-455.
28. Sakawa, H., Moriyama, K. and Watanabel. (2012), "Relation between Top Executive Compensation Structure and Corporate Governance: Evidence from Japanese Public Disclosed Data", *Corporate Governance: An International Review*, Vol. 20 No. 6, pp. 593-608.
29. Stulz, R. (1988), "Managerial control of voting rights: Financing policies and the market for corporate control", *Journal of Financial Economics*, Vol. 20 No. 1, pp. 25-54.

Appendix. Variable definition

Variable	Definition and Measure
P	Probability that outside auditors are included in the statutory auditor system of the firms. P equals 1 if firms have outside auditors in the statutory auditor system; Otherwise it is equal to 0.
Outside Auditor Ratio	Percentage of outside auditors in the statutory auditor system
Number of Outside Auditors	Number of outside auditors in the firm
Managerial Ownership	Percentage of common shares held by board members of firm
Bank Ownership	Percentage of common shares held by commercial bank
Keiretsu	Keiretsu equals 1 if firms belong to financial keiretsu; Otherwise it is equal to 0.
Ln(Firm Size)	Legalism of firm's asset
MTB	Market to book ratio (%)
D/A	Debt to Asset Ratio (%)