

# Does Economic Environment Affect Ownership-performance Relation?

## Evidence from Financial Deregulation in Japan

Yabei Hu (Corresponding author)

Graduate School of Economics and Management, Tohoku University, Sendai 9808576, Japan

Hebei University, Baoding 071002, China

Tel: 81-2-2728-0261 E-mail: huyabei2004@yahoo.co.jp

Shigemi Izumida

Graduate School of Economics and Management, Tohoku University, Sendai 9808576, Japan

Tel: 81-2-2795-6277 E-mail: izumida@econ.tohoku.ac.jp

### Abstract

This paper examines the effect of the changing economic environment on the relationship between ownership structure and corporate performance by comparing 1984 and 2004 samples of Japanese manufacturing firms. The 1984 evidence shows that in a tightly regulated environment, ownership has little effect on performance. However, the 2004 result presents that in an increasingly market-oriented environment, the overall ownership concentration, as well as certain types of shareholders, is significantly correlated with performance. The contrasting findings suggest that the ownership-performance relation has been influenced by the transformation of corporate governance environment caused by the financial deregulation in Japan over the past two decades.

**Keywords:** Ownership structure, Corporate performance, Financial deregulation

### 1. Introduction

Japanese financial deregulation over the past two decades has created an economic environment which differs from that of postwar. From a viewpoint of corporate governance, it is a noteworthy issue that the economic transformation may influence the effect of ownership structure on corporate performance. Although the ownership-performance relation in Japan has been the subject of a great volume of literature, this issue has received less attention. To this end, this paper contributes to the existing research by empirically exploring whether and how the ownership-performance relation is affected by the shifts of the economic environment driven by the financial deregulation in Japan.

The debate on the ownership-performance relation dates back to Berle and Means (1932), who argue that the separation of ownership and control induces the potential that managers deviate from shareholders' best interests. This concern is developed further by Jensen and Meckling (1976) into agency theory, which has subsequently become known as the guiding framework for corporate finance and governance studies. Since then, researchers have advanced alternative hypotheses to explain the ownership-performance relation, but neither theory nor empirical evidence has reached an agreement. We argue that the lack of attention to the environment in which ownership affects performance could explain, at least partially, the discrepancies among previous research. The ownership-performance relation varies with the realities of the corporate governance environment — the community in which firms operate, the political landscape, and more generally the markets and law/regulation of increasing interest to researchers. Therefore, contextualizing the ownership-performance relation within a broader environment may yield additional insight into this field.

To extend this line of research, we examine the cross-sectional relation between ownership and performance with two separate investigation periods, fiscal year 1984 and 2004 (Japanese fiscal year runs between April 1<sup>st</sup> of the first year and March 31<sup>st</sup> of the second year). The evidence shows that there is no significant association between ownership and performance in 1984, while the overall concentration of ownership, as well as particular types of shareholders, is significantly correlated with performance in 2004. The contrasting results can be viewed as the evidence of the influence of the economic environment on the ownership-performance relation.

The remainder of this paper is organized as follows. Section 2 examines the transition of ownership structure as the financial deregulation proceeded in Japan. Section 3 conducts a literature review and considers testable implications. In Section 4, we describe our data and research design. The empirical results are presented in Section 5 and conclusions are in Section 6.

### 2. The Changes of Japanese Ownership Structure in Deregulated Financial Markets

Japanese ownership structure has changed substantially over the last twenty years. As of 2005, the percentage of equity

ownership held by financial institutions decreased to 31.6% from 43% in the late 1980s. The non-financial corporate shareholdings also declined to 21.1% from 30.1% over the same time. The corollary to the decline in domestic institutional ownership was an increase in foreign shareholding, which jumped from 4.2% in 1989 to 26.7% by 2005. Simultaneously, individual equity ownership was stable at 20% more or less. (See Figure 1)

Similarly, the NLI Research Institute (2004) reports the shifts of shareholding pattern. Stable-shareholding and cross-shareholding respectively decreased by more than 20% and more than 10% from 1987 to 2003. Especially since 1997, the first implement year of “Japan’s Big Bang” reforms, banks have begun to dispose of their shares in industrial firms after industrial firms selling their bank shareholdings which took place in the early 1990s. As a result, both stable and cross-shareholding have fallen quite sharply. By 2001, stable shareholding had been lower than 33%, which is the borderline that shareholders have enough voting control to reject the firm’s proposal or to deter external takeovers (Miyamoto, 2004). (See Figure 2)

Although the deep ownership structure changes may occur for a variety of reasons, we take a special view on the financial deregulation in Japan. 1984 was a landmark year for Japanese financial deregulation. In that year the United States and Japan reached the Yen-Dollar Agreement on a wide range of deregulatory measures to liberalize Japan’s financial system. The “gradualist approach” deregulation processes were accelerated into a “radical stage” by “Japan’s Big Bang” reforms. In 1996, the Japanese government announced details of the financial deregulation package, which aimed to create a “free, fair and global” financial system. “Big Bang” has reformed the Japanese financial system and legal system comprehensively, and created a new corporate governance environment.

The noteworthy deregulatory measures that have profound effects on ownership structure are as follows. First, deregulation on corporate bond issues. The Japanese straight bond market had been tightly regulated for a long time, which limited firms’ opportunities for direct financing. The criteria for issuing straight bonds have been relaxed gradually since 1984 and completely removed in January 1996. A result of the full liberalization was an increase in the amount of straight bonds issued balanced with a reduction in bank financing, which partly explains the distinct decline of stable and cross-shareholding since the mid-1980s. Second, deregulation on financial institutions. Mired in a prolonged and serious recession, Japan has committed itself to the creation of a competitive banking industry to cure the ailing financial system. Banks are prohibited from providing soft loans to the industry as before. In addition, bad debts, shirking assets and expensive rescue operations limit the abilities and willingness of banks to lend both within and outside the *keiretsu* (corporate group). Japanese banks are shifting their strategies from relationship banking toward investment banking and capital markets. The ties between firms and banks loosened. Finally, deregulation on foreign investment. The present trend in the development of ownership structure around the whole world is marked by a growing fraction of shares held by foreign investors due to globalization of equity markets and equity investment. With respect to Japan, regulatory reforms in the financial system, accompanied by improvements in corporate law, bankruptcy law and accounting principles help attract foreign capital to Japanese firms. Consequently, foreign shareholding has risen steadily during recent years.

### 3. Ownership Structure and Corporate Performance: Theory and Evidence

#### 3.1 Concentrated Ownership and Corporate Performance: Monitoring vs. Expropriation

The concentration of ownership may give a blockholder both the means (enough voting rights) and the incentives (internalization of benefits) to monitor managerial decision-making. As better monitoring of large shareholders partially resolves agency problems inherent in widely held firms, improved performance seems to be expected (Grossman and Hart, 1986; Shleifer and Vishny, 1997). However, a competing view is that concentrated ownership tends to give a dominant shareholder power to expropriate other investors or stakeholders, and then degrades corporate value (Shleifer and Vishny, 1997; La Porta et al., 2002).

Whether benefits outweigh costs depends on how ownership is concentrated and the macroeconomic environment where firms are embedded. With respect to Japan, the evidence is mixed. Prowse (1992), using shareholding data from 1984, reports that ownership concentration and return on assets are unrelated in both independent and *keiretsu* firms. Lichtenberg and Pushner (1994), however, employing data from 1976 to 1989, document evidence of a strong negative coefficient associated with the top ten shareholdings in the regressions of total factor productivity. As in the preceding Section 2, the financial deregulation has resulted in the significant transformation of blockholders’ component and corporate governance environment. If the changing environment does matter, the regression results of performance on concentration should be quite different when the data used are from alternative periods. Without taking account for the dynamic change, prior studies can not clearly define the concentration-performance relation. For this reason, the paper compares the pre-deregulation 1984 sample and the post-deregulation 2004 sample to test the possibility.

#### 3.2 Types of Shareholders and Performance

Various motivations and abilities of different types of shareholders may result in their distinctive effectiveness to

influence major corporate decisions and value. In Japan, financial institutions and non-financial corporations are referred to as long-term/stable shareholders, who pay attention to enhancing relationship between each other and more stable development. On the contrary, individuals and foreign investors are viewed as short-term/market investors, who are concerned with firm's value or returns on stocks.

### 3.2.1 Stable Shareholders: Financial Institutions and Non-financial Corporations

The Japanese corporate governance has been characterized by intra-group cross-shareholding by stable shareholders — often affiliated companies and their banks. Although stable shareholding is said to increase the incentives and means for intervention by shareholders, and effectively substitute for the “missing” takeover market, some doubt about the monitoring role of stable ownership, especially interlocking corporate shareholding. Stable shareholders are not only a firm's shareholders, but also its creditors, buyers, suppliers and business partners. They emphasize to maximize the joint utility of its stakeholders, rather than to earn returns on their equity investment. They tend to take an understanding and essentially long-term view to consistently support management. Further, stable investors almost never buy and sell shares only based on the price of stock. Therefore, keeping control in the hands of “friendly” fellow business group members is a device to entrench management. The absence of pressure from corporate control market reinforces the natural tendency that management would pursue its own objectives other than maximization, which in turn reduces its attentiveness to the firm's productivity and efficiency.

Significantly, the dual status of main banks both as creditors and shareholders is well worth re-considering carefully. Prior studies argue that a main bank plays an active role of highly integrated monitoring and contingent governance. However, a key question of the effect of the main bank is: in whose interest to intervene and control firms? Morck et al. (2000) analyze the conflicts emanating from banks' dual status and argue that Japanese banks behave primarily in maximizing the value of their debt claims rather than the value of client firms' equity. A bank's equity ownership gives the bank power to extract surplus from affiliated firms when the ownership is large enough to affect corporate governance but not large enough to align the bank's interests with those of shareholders. They find a negative relation between equity holdings by banks and Tobin's Q to support their theory. Moreover, as major creditors, banks are likely to be more risk averse than shareholders, then distort the firm's investment by reducing the entrepreneur's returns from successful projects.

In sum, although benefits of stable shareholding have been intensively pronounced by many, it is interesting to note that there are offsetting costs that prevent firms from higher profits. The performance characteristics of ownership depend upon the economic system in which it is embedded. Given the macroeconomic shifts with the financial deregulation in Japan, we argue that the costs of stable shareholding become obvious and the benefits become obscure over the past twenty years.

### 3.2.2 Market Investors: Individuals and Foreign Investors

Unlike stable shareholders who have multiple relationships with firms, individuals and foreign investors have the sole equity tie with firms in which they own shares. It is natural that they are likely to be more concerned with returns on stocks than stable shareholders. The basic problem faced by them is how to get the highest capital gain from the shares they purchase. Managers under the control of such market investors are required to focus on maximizing quarter-to-quarter investment returns.

An overwhelming majority of foreign investors in Japan is US and British institutional investors, who adopt the Anglo-American system with a distinct ideology of “maximizing shareholder value” (Ahmadjian and Robbins, 2005). Contrary to relative silent domestic institutional investors, foreigners use both “exit”, i.e., getting rid of shares that no longer appeal to them, and “voice”, i.e., directly influencing the management of the firm to make their interests clear. Specifically, they have an important influence on share prices because they are active traders in Japanese stock markets, and domestic investors often follow their moves in and out of stocks. Senior Japanese managers feel an increasing pressure to listen to foreign shareholders and have to pay serious attention to corporate governance. Foreign ownership has been found to be associated with changing corporate governance practices and then improve shareholder value (Yoshikawa and Gedajlovic, 2002; Ahmadjian and Robbins, 2005). Therefore, we expect that the higher the proportion of outstanding shares held by foreigners, the better performance of corporations. Further, it is expected that the positive influence of foreign ownership becomes more notable in the Japanese liberalization.

Typically, each individual shareholder has only a tiny proportion of a firm's equity, so the voting power of any individual is much less influential. All small shareholders are faced with a potential free-rider problem. The benefits of any collective action in corporate governance will be shared with every individual in a group, whether or not that individual has borne any of the costs. Thus, individual shareholders do not have incentives to become involved in corporate governance. They express their disappointment by “exit” rather than by “voice”. Consequently, the presence of individuals might have a negative effect on performance because they are entirely passive investors.

Management ownership appears to be rather less important in Japan, with the mean value of less than 5% in our paper, compared to 20% in U.S. (Holderness, 2003). Morck et al. (1988) and other following research find the inverse U-shaped relation between firm value and managerial ownership in U.S., which can be explained by combining the convergence-of-interest and entrenchment hypotheses. However, the non-linear relation in U.S. may be inappropriate in Japan. Morck et al. (2000) argue that an entrenchment effect at higher levels of managerial ownership ought not to be observed, because the average managerial ownership in Japan is not sufficiently high for most firms to give management unfettered control, and hostile takeovers are fairly rare. Hence, a positive effect of managerial ownership is expected.

#### 4. Data and methodology

##### 4.1 Sample

To explore the impact of ownership structure on performance within the framework of corporate governance environment, the study uses financial and ownership data of manufacturing firms in the first section of the Tokyo Stock Exchange with two separate investigation periods, one for fiscal year 1984 and the other for fiscal year 2004.

Our empirical investigations of 1984 and 2004 are motivated mainly by the process of financial deregulation. 1984 can be viewed as an epoch-making year for the Japan's financial deregulation as aforesaid. Since the enforcement period of the 1984 deregulatory measures was postponed, we choose 1984 to test the effect of ownership on performance in the pre-deregulation environment. After 1984, Japanese economy went through dramatic transition 20 years: the sudden appreciation of yen after the Plaza Accord in September 1985, the bubble economy from 1986 to 1989, the bursting of the asset price bubble in 1990, and the consequent ten-year slump until 2002. We select 2004, the year after the long Japanese recession, to avoid the impact of the abnormality in the macro-economy. More importantly, a more radical deregulation program of "Big Bang" has been implemented between 1997 and 2001. As the most recent year for which data is available, 2004 is suitable to compare the ownership-performance relation in the post-deregulation environment.

The data is provided by the Nikkei-Needs database published by *Nihon Keizai Shimbun* and the Stock Price Charts of *Toyo Keizai Databank*. Only manufacturing firms are chosen in order to eliminate possible distortions caused by government regulations over certain industries. The Nikkei-Needs database contains 828 manufacturing firms listed on the first section of the Tokyo Stock Exchange by 2004. Due to data unavailability, the 1984 sample consists of 439 firms and the 2004 sample consists of 486 firms. To obviate the problem with outliers, we drop additional firms whose value of Tobin's Q/ROA falls outside the range of the sample mean plus and minus two times the standard deviation.

##### 4.2 Variables and Model Specification

###### 4.2.1 Variables

The study employs two alternative measures of corporate performance as dependent variables: 1) Tobin's Q, a stock market performance measure, and 2) ROA, an accounting performance measure. Tobin's Q, the ratio of market value to replacement cost, provides a viewing window into the firm through the market value of the securities issued. Q is a general accepted proxy for firm valuation because it captures the long-term impacts of corporate actions. ROA (return on assets), the ratio of net income to total assets, reflects the short-term profitability of the firm's operations.

As for the independent variables, we describe a firm's ownership structure in two ways: 1) a measure of ownership concentration, and 2) different types of shareholders. A measure of ownership concentration is the percentage of a firm's combined common equity owned by the 10 largest shareholders (A10). The choice of the combined large shareholdings is dictated by the fact that ownership concentration in Japan is largely a consequence that main banks and affiliated firms within corporate groups jointly hold significant blocks of a firm's shares. We classify shareholdings into the following five types: percent of shares owned by financial institutions (FI), non-financial corporations (CO), individuals (PS), foreign investors (EC), and top management (MH).

The study introduces several control variables. Firm size (Lasset) is measured by total assets transformed into natural logarithm. The debt/asset ratio (DA) is calculated as the book value of total liabilities divided by total assets. Ad/s and Rd/s are the ratios of advertising and research expenses, and development expenses to annual sales respectively. Based on the Nikkei medium classification industry code, we divide Japanese manufacturing firms into 14 categories. 13 industry dummies (DUM) are employed to capture industry-specific characteristics.

###### 4.2.2 Methodology

Our empirical strategy has three equations. The first regresses performance on ownership concentration as follows,

$$P_i = \alpha_0 + \alpha_1 \cdot A10_i + \alpha_2 \cdot Lasset_i + \alpha_3 \cdot DA_i + \alpha_4 \cdot Ad / s_i + \alpha_5 \cdot Rd / s_i + \sum_{j=1}^{13} \gamma_j DUM_j + \varepsilon_i \quad (1)$$

where  $P_i$  presents measures of corporate performance, Tobin's Q and ROA,  $\alpha_0$  is the intercept,  $\alpha_1 \dots \alpha_5$  and  $\gamma_1 \dots \gamma_{13}$  are

the regression coefficients to be estimated, and  $\varepsilon_i$  is a random error term. Firm size (*Lasset*) is introduced as a determinant of performance because of the existence of the “size effect”. Financial leverage (*DA*) is used to capture the influence of capital structure on firm value. Finally, ratios to sales of advertising (*Ad/s*) and of research and development expenses (*Rd/s*) are observable measures of intangible assets, used to explain differences in measurement of performance that are caused by accounting artifacts (Himmelberg et al., 1999).

The second equation regresses performance on different types of shareholders by estimating the following,

$$P_i = \alpha_0 + B \times TS + \alpha_1 \cdot Lasset_i + \alpha_2 \cdot DA_i + \alpha_3 \cdot Ad / s_i + \alpha_4 \cdot Rd / s_i + \sum_{j=1}^{13} \gamma_j DUM_j + \varepsilon_i \quad (2/3)$$

where *TS* is a vector presenting two groups of ownership classification variables respectively. Since the sum of all ownership classification variables in the samples is an approximate one, we can not gather them in one equation simultaneously. In an effort to reduce multicollinearity, we run the regressions on ownership variables in two combinations: the percent of stock owned by financial institutions, nonfinancial corporations, and individuals are included in the equation 2; foreign and management shareholdings are included in the equation 3. The study uses VIF values (variance inflation factor) for each equation as a check for multicollinearity. The VIF values of each predictor are quite acceptable for all less than 5 in our reported results.

To test the robustness of the results, the study estimates the following equation when both concentration and classification ownership variables (divided in two groups) are included.

$$P_i = \alpha_0 + \alpha_1 \cdot A10_i + B \times TS + \alpha_2 \cdot Lasset_i + \alpha_3 \cdot DA_i + \alpha_4 \cdot Ad / s_i + \alpha_5 \cdot Rd / s_i + \sum_{j=1}^{13} \gamma_j DUM_j + \varepsilon_i \quad (4/5)$$

### 4.3 Description of Data

Summary statistics for sample variables are reported in Table 1. Tobin’s Q values range from 0.18 to 2.82 with an average value of 1.35 in 1984 and from 0.69 to 1.98 with an average of 1.14 in 2004. Average ROA is 8.78% in 1984 and 3.50% in 2004. Similar declines of both Tobin’s Q and ROA indicate deteriorating corporate performance over the past two decades.

Ownership concentration ranges from 20.05% to 100% around a mean value of 44.17% in 1984, and from 8.96% to 83.33% with mean of 44.15% in 2004. It shows ownership concentration is significantly high and varies quite widely across firms. Very little change in average A10 over time provides evidence for the high stability of ownership concentration in spite of the changes of composition of shareholding in Japan.

Table 1 shows the major shareholders are financial institutions and individuals, which on average own about a third of total shares separately. Average ownership by financial institutions is 35.66% and that by non-financial corporations is 23.63% in 1984, while ownership by them is 30.53% and 21.50% respectively in 2004. Meanwhile, foreign investors have an average ownership of 7.64% in 1984 and 12.56% in 2004. That is, the decline in Japanese stable ownership has been almost offset by the increase in foreign ownership. Management ownership is of substantial minority, averaging 4.46% in 1984 and further decreasing to 2.69% in 2004. (See Table 1)

## 5. Empirical Results

### 5.1 Regression Results

#### 5.1.1 Endogeneity Issue of Ownership

Endogeneity problems are methodological difficulties that are especially pronounced in attempts to identify the impact of ownership on performance. Demsetz (1983) argues that ownership structure varies systematically in ways that are consistent with value maximization. In other words, ownership structure may be determined by corporate performance as well. We are concerned that ownership variables — A10, FI, CO, PS, EC, and MH may be endogenously determined, and provide Hausman tests for endogeneity of them.

To reflect the desire to keep apart the pre- and post- financial deregulation, the regression equations are separately estimated for two fiscal years: 1984 and 2004. For 2004, the Hausman test results in Tobin’s Q equations can’t reject the null hypotheses that all ownership variables are exogeneity. We then use OLS (ordinary least squares) method to estimate the specifications. However, the Hausman tests on the residuals of the ROA equations suggest that A10 and PS are endogenous variables. If so, OLS estimates are biased and inconsistent. Consequently, in the regressions including A10 and PS as independent variables, we present on the left hand side the OLS results and on the right hand side the corresponding 2SLS (two-stage least squares) findings with one year lagged ownership variables  $A10_{2003}$  and  $PS_{2003}$  as instruments. Similarly for 1984, judging by the Hausman tests, we employ one year lagged  $A10_{1983}$  and  $EC_{1983}$  as instruments to estimate Tobin’s Q regressions and  $FI_{1983}$  and  $MH_{1983}$  in ROA regressions. To our knowledge, this is the first study to apply instrumental variables (IV) to examine the ownership-performance relation

in Japan.

### 5.1.2 Regression Results

All specifications include industry effects (not reported). As the White tests reject the null hypothesis of homoskedasticity, heteroskedasticity-consistent standard errors (HCSE) are used to calculate t-statistics, which are shown in parentheses below coefficients. (See Tables 2-5)

Tables 2 and 3 present the regression results for the 1984 sample. The evidence shows that Tobin's Q is negatively correlated with A10, while ROA shows some improvement with high levels of concentration. The inconsistent results suggest that the effect of concentration on performance is ambiguous. This seems to support the evidence of Prowse (1992). With respect to the various roles of different types of shareholders, the 2SLS estimates of the coefficients on ownership variables are generally higher than the OLS estimates, but the statistical significance of both estimates is similar. Financial institutions and non-financial corporations have no apparent effects on both Tobin's Q and ROA. Foreign ownership has significantly positive coefficients and individual ownership and managerial ownership have significantly negative coefficients on Tobin's Q, while no consistent effects of them are detected in ROA regressions. In all, there is little stable evidence of any relationship between ownership structure and corporate performance in 1984.

Tables 4 and 5 report the regression results for the 2004 sample, which are distinctively different from those for 1984. Both Tobin's Q and ROA are positively, and statistically significantly, correlated with ownership concentration, which reveals that the higher the concentration of ownership, the higher the profitability and market value of firms. The effects of different shareholders are consistent in all Tobin's Q and ROA regressions of 2004 as well. The fraction of shares held by financial institutions, non-financial corporations and individuals have negative and significant effects on performance. On the other hand, foreign investors and management shareholdings have positive and significant impacts. All together, the evidence shows that ownership structure is significantly correlated with both Tobin's Q and ROA in 2004.

Finally, it is found that the size of a firm is negatively related to its performance, which supports the expectation from the loss of monitoring and agency costs of large firms. A negative relationship between profitability and debt level (DA) is detected in all ROA regressions, which is usually interpreted as the agency cost of debt finance, while market values of firms are positively associated with leverage in 2004 Tobin's Q regressions.

Although not reported, we examine the robustness of the regression results in Tables 2 to 5. Because we have data only for two fiscal years, the stability of the results is in question. As a crude test of stability, we use 1983 and 2003 financial and ownership data for firms in our samples to make pre- and post-deregulation comparisons of the ownership-performance relation. The substitution of sample periods does not qualitatively affect the results. Specifically, we do not find any evidence that ownership structure affect corporate performance in the 1983 sample, while ownership significantly influences both Tobin's Q and ROA in the 2003 sample. Hence, our results are not biased for the sample years that we choose.

### 5.2 Further Discussions

In a specific economic environment, different ownership structure brings various benefits and costs to firms. If the positive effects that certain ownership structure brings to firms just compensate the negative effects it brings, we should find no systematic relation between ownership and performance. However, if the benefits dominate the costs (or vice versa), a systematic positive (or negative) relation should be detected. Most importantly, we argue that the actual balance of benefits and costs is contingent on a specific corporate governance environment. Here we intend to use the transition of Japanese society raised by the financial deregulation to explain the contrasting results with regard to the ownership-performance relation between 1984 and 2004.

A prominent characteristic of the Japanese financial system until the early 1980s was highly regulated. Without efficient means of direct financing, Japanese corporations had close ties with banks and mainly relied on bank loans to raise funds. Main banks and affiliated firms, with multiple ties of firms in which they held shares, did not exert pressure on managers to maximize firms' value. They left corporate governance largely in the hands of management. That is, Japanese governance practices did not assign effective control rights to residual claimants, and then there existed a vacuum of corporate governance. As a result, the effects of ownership structure on corporate performance were limited in the regulated financial environment.

The ownership-performance relation has changed with time. Over the last two decades financial deregulation, Japanese firms are in a more market-oriented environment. For 2004, the significantly negative influence of financial institutions and non-financial corporations is contrast to that of 1984. One of possible explanations is that the declining stable shareholding has weakened or lost some of their positive influence they had in the high-growth period (Bernotas, 2005). For example, as deregulation opened capital markets for Japanese firms, the main bank's motivation and capacity to offer integrated monitoring inevitably declined. Japanese banks are less likely to lead a restructuring and to rescue distressed firms. Financial institutions even extract money from their client firms in the

ways of income redistribution, rather than conveyors they used to be (Gedajlovic et al., 2005). When the bank's power to control has already been weakened below a certain threshold, a further decline in the bank's active role in ex post monitoring would trigger a negative effect on firms (Aoki, 1994). So it is not surprising that we find a negative and significant effect of financial institutions on performance in the 2004 sample.

Contrary to stable shareholders, foreign investors have become increasingly active in corporate governance. The coefficients and t-statistics of foreign shareholders in 2004 get notably larger than those in 1984, which suggests that foreigners have more power to exercise their influence to maximize shareholders' value. Although stable investors still hold significant equity position, the relative power of stable and market investors to affect corporate governance has transformed. The impact of foreign investors has exceeded their actual levels of shareholdings. Thus, the significantly positive effect of concentration may present the positive influence of foreign investors. Senior managers feel increasing pressures from institutional investors and financial markets. High corporate performance associated with managerial ownership, thus, indicates that Japanese management is now more sensitive to the objectives of market shareholders and pays more attention to the firm's share price.

## 6. Conclusion

Based on the contrasting results between 1984 and 2004, this paper documents that the ownership-performance relation has been affected by the changing economic environment which is mainly raised by the financial deregulation. In a traditional Japanese economic system until the early 1980s, tightly regulated capital markets played little role in corporate governance. Large shares of Japanese firms were in hands of stable shareholders, who did not emphasize the importance of maximizing shareholder's value and became a potent barrier to market influence. We thus find little evidence of any association between ownership and performance in the 1984 sample. Financial deregulation has resulted in the development of capital markets and changes in ownership structure — the decline in ownership by stable and cross-shareholding and the increase in foreign ownership. Decreasing domestic stable shareholders no longer perform the role they did in the past. Japanese senior managers now feel more and more pressures from financial markets. Thus, ownership structure has become an important determinant on performance in today's market-oriented environment. Accordingly, for the 2004 sample, both financial institutions and non-financial corporations are negatively associated with corporate performance, while foreign investors have a more strongly positive relation with improved performance than before.

The Japanese evidence implies that the ownership-performance relation tends to vary with the corporate governance environment where it is embedded. Although our research is set in Japan, it may provide new perspectives for other countries. Differences from nation to nation can play key roles in determining the specific effects of ownership structure on corporate performance. International diversity should always be kept in mind when a country plans to guide firms toward good governance practice and performance.

The research to contextualize the ownership-performance relation into an economic system has really just begun. Greater efforts are required to find the precise mechanisms through which the governance environment affects the ownership-performance relation and through which ownership structure interacts with performance.

## References

- Ahmadjian, C. L., & Robbins, G. E. (2005). A clash of capitalisms: foreign shareholders and corporate restructuring in 1990s Japan. *American Sociological Review*, 70, 451-471.
- Aoki, M. (1994). Monitoring characteristics of the main bank system: an analysis and development view. In M. Aoki, & H. Patrick (Eds.), *The Japanese main bank system* (pp. 109-141). New York: Oxford University Press Inc.
- Berle, A. A., & Means, G. C. (1932). *The modern corporation and private property*. New York: Macmillan.
- Bernotas, D. (2005). Ownership structure and firm profitability in the Japanese keiretsu. *Journal of Asian Economics*, 16, 533-554.
- Demsetz, H. (1983). The structure of ownership and the theory of the firm. *Journal of Law and Economics*, 26, 375-390.
- Gedajlovic, E., Yoshikawa, T., & Hashimoto, M. (2005). Ownership structure, investment behavior and firm performance in Japanese manufacturing industries. *Organization Studies*, 26 (1), 7-35.
- Grossman, S. J., & Hart, O. D. (1986). The costs and benefits of ownership: a theory of vertical and lateral integration. *Journal of Political Economy*, 94 (4), 691-719.
- Himmelberg, C. P., Hubbard, R. G., & Palia, D. (1999). Understanding the determinants of managerial ownership and the link between ownership and performance. *Journal of Financial Economics*, 53, 353-384.
- Holderness, C. G. (2003). A survey of blockholders and corporate control. *FRBNY Economic Policy Review*, 9 (1), 51-64.

Jensen, M., & Meckling, W. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3, 305-360.

La Porta, P., Lopez-de-silanes, F., Shleifer, A., & Vishny, R. (2002). Investor protection and corporate valuation. *Journal of Finance*, 57 (3), 1147-1170.

Lichtenberg, F. R., & Pushner, G. M. (1994). Ownership structure and corporate performance in Japan. *Japan and the World Economy*, 6, 239-261.

Miyamoto, M. (2004). *Economics of firm's system*. Tokyo: Sinseisyua.

Morck, R., Nakamura, M., & Shivdasani, A. (2000). Banks, ownership structure, and firm value in Japan. *Journal of Business*, 73 (4), 539-567.

Morck, R., Shleifer, A., & Vishny, R. (1988). Management ownership and market valuation: an empirical analysis. *Journal of Financial Economics*, 20, 293-315.

Prowse, S. (1992). The structure of corporate ownership in Japan. *Journal of Finance*, 47 (3), 1121-1140.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance*, 52 (2), 737-783.

Yoshikawa, T., & Gedajlovic, E. R. (2002). The impact of global capital market exposure and stable ownership on investor relations practices and performance of Japanese firms. *Asia Pacific Journal of Management*, 19 (4), 525-540.

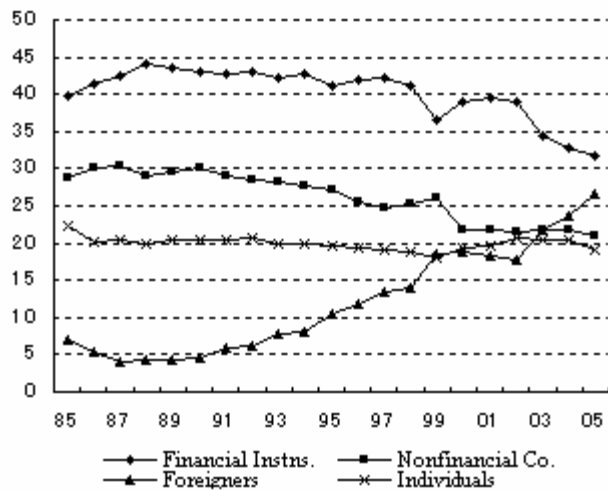


Figure 1. Changing ownership structure in Japan

Source: Japanese National Council of Stock Exchanges,

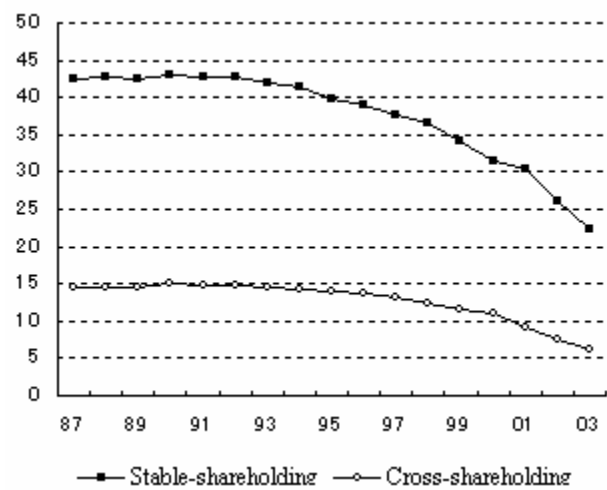


Figure 2. Changing shareholding pattern in Japan,

Source: NLI Research Institute, 2004.



Table 1. Summary Statistics

Variable	Mean	Median	Max	Min	Std. Dev.
(A) 1984 sample (sample size = 439)					
Tobin's Q	1.35	1.30	2.82	0.18	0.43
ROA (%)	8.78	8.50	18.55	-0.09	3.80
A10 (%)	44.17	41.41	100.00	20.05	13.06
FI (%)	35.66	36.93	74.39	0.00	13.49
CO (%)	23.63	19.87	100.00	0.00	15.61
PS (%)	29.17	26.56	100.00	0.00	14.45
EC (%)	7.64	4.32	71.88	0.00	9.33
MH (%)	4.46	0.67	86.66	0.00	9.90
Total asset (billions of yen)	246.31	77.55	5073.88	6.36	563.44
DA (%)	67.67	68.53	143.12	17.93	17.49
(B) 2004 sample (sample size = 486)					
Tobin's Q	1.14	1.09	1.98	0.69	0.24
ROA (%)	3.50	3.08	13.12	-6.54	2.87
A10 (%)	44.15	41.47	83.33	8.96	12.65
FI (%)	30.53	30.03	60.25	5.79	11.16
CO (%)	21.50	17.23	79.94	0.65	15.68
PS (%)	33.11	31.27	86.51	2.74	15.52
EC (%)	12.56	9.16	63.98	0.30	11.27
MH (%)	2.69	0.47	42.68	0.00	5.87
Total asset (billions of yen)	359.78	88.43	24335.01	5.03	1444.93
DA (%)	50.01	51.37	114.55	9.47	19.21
Ad/s (%)	1.30	0.46	17.38	0.01	1.98
Rd/s (%)	3.13	2.31	21.08	0.03	3.03

Notes: Tobin's Q = Ratio of market value to replacement cost, ROA = Return on assets, A10 = Percentage of shares held by the 10 largest shareholders, FI = Percentage of shares held by financial institutions, CO = Percentage of shares held by non-financial corporations, PS = Percentage of shares held by individuals, EC = Percentage of shares held by foreign investors, MH = Percentage of shares held by management, DA = Ratio of the book value of liabilities to total assets, Ad/s = Ratio of advertising expenditures to annual sales, Rd/s = Ratio of research and development expenditures to annual sales.

Table 2. Regressions of Tobin's Q on ownership, 1984 sample

	Dependent variables: Tobin's Q							
	(1)	(2)	(3)		(4)		(5)	
	OLS		OLS	IV <sup>a</sup>	OLS	IV <sup>b</sup>	OLS	IV <sup>c</sup>
Intercept	1.248** (4.4)	2.530** (6.7)	1.585** (6.4)	1.613** (6.5)	3.166** (7.4)	3.491** (8.1)	1.712** (6.0)	1.948** (6.8)
A10	-0.004* (-2.4)				-0.009** (-4.2)	-0.013** (-5.4)	-0.002 (-1.0)	-0.005* (-2.4)
FI		-0.003 (-0.8)			-0.005 (-1.8)	-0.006* (-2.2)		
CO		-0.007* (-2.4)			-0.004 (-1.5)	-0.003 (-1.1)		
PS		-0.016** (-6.1)			-0.017** (-7.0)	-0.018** (-7.3)		
EC			0.005 (1.9)	0.007* (2.2)			0.005* (2.0)	0.008* (2.5)
MH			-0.016** (-7.2)	-0.016** (-6.7)			-0.016** (-6.3)	-0.015** (-5.5)
Lasset	0.019 (1.0)	-0.036* (-2.1)	-0.008 (-0.5)	-0.013 (-0.7)	-0.055** (-3.0)	-0.065** (-3.6)	-0.015 (-0.8)	-0.031 (-1.6)
DA	0.001 (0.4)	-0.000 (-0.3)	-0.001 (-0.8)	-0.001 (-0.6)	0.000 (0.1)	0.000 (0.3)	-0.001 (-0.5)	-0.000 (-0.0)
Adjusted R <sup>2</sup>	0.04	0.18	0.17		0.21		0.17	
F-statistic	2.18**	6.01**	6.03**		6.84**		5.75**	

Notes: (1) The t-statistics calculated using heteroskedasticity consistent standard errors are shown in parentheses below coefficients. (2) \*\* and \* denote statistical significance at the 1, 5 percent level. (3) For other notes see Table 1.

<sup>a</sup>  $EC_{1983}$  as the instrumental variable of EC. <sup>b</sup>  $A10_{1983}$  as the instrumental variable of A10. <sup>c</sup>  $A10_{1983}$  and  $EC_{1983}$  as the instrumental variables of A10 and EC.

Table 3. Regressions of ROA on ownership, 1984 sample

	Dependent variables: ROA								
	(1)	(2)		(3)		(4)		(5)	
	OLS	OLS	IV <sup>a</sup>	OLS	IV <sup>b</sup>	OLS	IV <sup>a</sup>	OLS	IV <sup>b</sup>
Intercept	11.309** (4.3)	17.064** (5.7)	18.887** (5.9)	13.810** (5.6)	13.745** (5.5)	14.823** (3.6)	19.584** (5.1)	9.831** (3.4)	9.895** (3.3)
A10	0.039* (2.4)					0.028 (0.8)	-0.009 (-0.3)	0.041* (2.5)	0.039* (2.3)
FI		-0.047 (-1.8)	-0.066* (-2.1)			-0.043 (-1.6)	-0.068* (-2.2)		
CO		-0.011 (-0.5)	-0.027 (-1.0)			-0.021 (-0.7)	-0.024 (-0.9)		
PS		-0.036 (-1.2)	-0.066* (-2.1)			-0.027 (-0.7)	-0.070* (-2.1)		
EC				0.051* (2.0)	0.052* (2.0)			0.047 (1.7)	0.048 (1.7)
MH				0.101 (1.7)	0.085 (1.2)			0.111* (2.1)	0.107 (1.6)
Lasset	0.263 (1.5)	0.182 (1.1)	0.184 (1.1)	0.053 (0.3)	0.066 (0.4)	0.260 (1.2)	0.161 (0.8)	0.258 (1.4)	0.261 (1.4)
DA	-0.126** (-8.5)	-0.124** (-8.3)	-0.123** (-8.3)	-0.106** (-6.6)	-0.107** (-6.5)	-0.125** (-8.2)	-0.123** (-9.5)	-0.112** (-7.0)	-0.111** (-6.9)
Adjusted R <sup>2</sup>	0.40	0.40		0.41		0.40		0.43	
F-statistic	11.27**	10.08 **		11.14**		9.61**		11.09**	

See notes for Table 2. <sup>a</sup>  $FI_{1983}$  as the instrumental variable of FI. <sup>b</sup>  $MH_{1983}$  as the instrumental variable of MH.

Table 4. Regressions of Tobin's Q on ownership, 2004 sample

	Dependent variables: Tobin's Q				
	(1)	(2)	(3) OLS	(4)	(5)
Intercept	0.784** (6.5)	2.223** (11.8)	1.265** (11.1)	1.828** (7.7)	1.148** (9.3)
A10	0.002** (2.4)			0.005** (3.0)	0.002* (2.4)
FI		-0.010** (-6.4)		-0.009** (-5.1)	
CO		-0.009** (-7.4)		-0.010** (-7.6)	
PS		-0.009** (-6.4)		-0.007** (-4.3)	
EC			0.010** (8.1)		0.010** (7.9)
MH			0.007* (2.0)		0.006 (1.8)
Lasset	0.006 (0.6)	-0.042** (-3.6)	-0.045** (-4.5)	-0.034** (-2.9)	-0.045** (-4.4)
DA	0.002* (2.5)	0.003** (4.3)	0.003** (5.8)	0.003** (4.8)	0.004** (6.3)
Ad/s	0.014 (2.0)	0.011 (1.8)	0.010* (1.5)	0.010 (1.7)	0.010 (1.5)
Rd/s	0.007 (1.1)	0.008 (1.3)	0.009 (1.5)	0.008 (1.3)	0.008 (1.4)
Adjusted R <sup>2</sup>	0.13	0.21	0.23	0.24	0.25
F-statistic	4.69**	7.24**	8.66**	7.80**	8.72**

Notes: (1) Ad/s = Ratio of advertising expenditures to annual sales, Rd/s = Ratio of research and development expenditures to annual sales. (2) For other notes see Table 2.

Table 5. Regressions of ROA on ownership, 2004 sample

	Dependent variables: ROA									
	(1)		(2)		(3)	(4)		(5)		
	OLS	IV <sup>a</sup>	OLS	IV <sup>b</sup>	OLS	OLS	IV <sup>c</sup>	OLS	IV <sup>a</sup>	
Intercept	4.523** (3.2)	3.985** (2.7)	17.227** (6.6)	14.716** (5.2)	8.495** (5.7)	13.198** (4.6)	9.577** (3.1)	7.267** (4.7)	6.849** (4.3)	
A10	0.024* (2.3)	0.030** (2.6)				0.047** (3.1)	0.064** (3.8)	0.023* (2.3)	0.027** (2.6)	
FI			-0.066** (-3.3)	-0.050* (-2.4)		-0.052** (-2.6)	-0.033 (-1.6)			
CO			-0.069** (-4.6)	-0.058** (-3.5)		-0.082** (-5.2)	-0.077** (-4.5)			
PS			-0.080** (-4.7)	-0.062** (-3.2)		-0.062** (-3.5)	-0.040* (-2.0)			
EC					0.084** (5.7)			0.085** (5.8)	0.084** (5.8)	
MH					0.064* (2.5)			0.058* (2.3)	0.056** (2.2)	
Lasset	0.075 (0.7)	0.099 (0.9)	-0.402** (-2.8)	-0.292 (-1.9)	-0.354 (-2.5)	-0.322* (-2.2)	-0.197 (-1.3)	-0.348* (-2.5)	-0.327* (-2.4)	
DA	-0.066** (-9.4)	-0.066** (-9.5)	-0.059** (-8.3)	-0.063** (-8.7)	-0.050** (-6.9)	-0.057** (-8.1)	-0.059** (-8.3)	-0.048** (-6.6)	-0.048** (-6.7)	
Adjusted R <sup>2</sup>	0.22		0.27		0.29	0.28		0.30		
F-statistic	9.62**		10.50**		12.40**	10.78**		12.14**		

See notes for Table 2. <sup>a</sup>  $A10_{2003}$  as the instrumental variable of A10. <sup>b</sup>  $PS_{2003}$  as the instrumental variable of PS. <sup>c</sup>  $A10_{2003}$  and  $PS_{2003}$  as the instrumental variables of A10 and PS.