

Does Ownership Matter?:
The Causes and consequence of changing ownership structure in
Japan under the Globalization

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Abstract

After the banking crisis of 1997, the corporate ownership structure in Japan veered from an insider-dominated to outsider-dominated structure. This paper analyzes the dramatic changes and their consequences, focusing on the role of foreign investors. First, we show that the so-called cross-shareholding "resurgence" of the late 2000s was not of the traditional type between banks and business firms, but rather a new development between business firms. However, its small scale left the outsider-dominated ownership structure intact. Next, we show that the stock selection of foreign investors has been characterized by a particular bias related to home bias, but at the same time also takes into account corporate governance factors. Moreover, even after allowing for the stock preferences of foreign investors, their growing presence is shown to positively affect firm performance. Finally, we reveal a dynamic process between ownership structure and corporate performance in which firm size, reputation abroad, and firm performance since the early 1990s helped widen differences in ownership structure by affecting the stock preferences of institutional investors and self-selection of firms. In turn, ownership structure exerted a direct disciplinary effect on management as well as an indirect effect by promoting management reforms, leading to growing disparities in firm performance.

JEL classification: G21; G32; K22; L25

Key words: Ownership structure; cross shareholding, main bank relationship, firm performance; Banks' Shareholding Restriction Law

1. Introduction

The ownership structure of Japanese firms listed on domestic stock exchanges has long been characterized by stable shareholdings of financial institutions and business firms. These shareholdings are based on long-term business relationships, and supported by an implicit agreement between respective managements to stay out of the affairs of the firms they invest in, and to protect shareholdings from hostile third parties. We refer to such shareholdings as insider holdings, at the core of which are cross-shareholdings. In contrast, outsider ownership refers to shareholdings whose objective is to maximize investment returns, such as portfolio investment by domestic and foreign institutional investors, shareholdings of individuals other than founding families and executives, and block ownership by foreign firms. According to the long-term trend of the ownership structure based on publicly available data, we find that the insider holding ratio surged from the mid 1960s and reached above 55% in the early 1970s, and continued to trend upward in a stable fashion until 1990.¹

However, the insider-dominated ownership structure shifted dramatically in the late 1990s as a result of the banking crisis. As the ownership ratio of financial institutions plummeted, the foreign ownership ratio surged in sharp contrast. Foreign ownership, which amounted to only 5% in the late 1980s bubble era, grew consistently during the 1990s and reached 28% in 2006. As a result, an outsider-dominated ownership structure prevailed once again from 2000.

However, this growth trend of outsider ownership since the early 1990s appeared to hit a turning point around 2006. As the foreign ownership ratio peaked out in that year, a “resurgence” of cross-shareholding was noted among some firms against the backdrop of activist investment funds seeking control and corporate governance. Moreover, when the sub-prime crisis erupted in 2007 and triggered a global financial crisis, a significant amount of foreign capital fled from Japan, pushing the foreign ownership ratio downward even further.

This paper traces the dramatic changes that occurred in the corporate ownership

¹ For a discussion on the formation of insider ownership, see Franks, Mayer and Miyajima (FMM 2014), and Miyajima, Haramura and Enami (2003).

structure from the onset of the banking crisis in 1997 to 2008, and explains comprehensively to the extent possible the mechanism and consequences of these changes. Specifically, the following points are explained.

First, we examine changes in the ownership structure of Japanese firms since 1990. Usually, the *Shareownership Survey* conducted by stock exchanges is used to capture the ownership structure. However, since the survey collects only market-based data, and does not distinguish the ownership of individual firms or shareholding relationships between firms, and in addition the classification of shareholder types is formalized. As a result, it is impossible to use the data to empirically analyze in detail the relationships between shareholders and firms. Thus for firms listed on the major stock exchanges, we compiled a database that identifies the attributes of major shareholders and shareholding relationships among firms, and conventionalize the facts regarding evolution of ownership structure in recent years. Through this procedure, what becomes clear is the rapid shift in ownership structure in which insider ownership dissolves and outsider dominance grows, as well as the fact that this change has not been uniform across all listed firms.

Main body of this paper is that we consider the determinants and impact of the growth of foreign investors from 1990 to 2007. Regarding the purchasing of Japanese shares by foreign investors, the home bias problem of stock selection has been noted in the past (Kang and Stulz 1997, Hiraki et al. 2003). This suggests that the foreign ownership ratio is determined by factors such as company size and presence in foreign markets, business results, creditworthiness, and composition of board of directors. On the other hand, since monitoring by foreign investors is sometimes credited for contributing to management efficiency, we must simultaneously look at whether foreign investors select firms based on business results, or whether their monitoring activity improve the company's results. In this paper, these two interrelated problems are clarified by solving their respective optimal simultaneous equations. The results corroborate the conventional view of a home bias, namely that foreign investors tend to prefer large firms characterized by a high dependence on foreign markets, superior business performance, and low debt ratio. Another important selection factor is a board

of directors whose composition indicates a shareholder-friendly stance. Moreover, we show that even after seriously considering the endogeneity accompanying the investment preferences of foreign investors, the increased presence of foreign investors has an effect on management discipline, thereby boosting corporate performance.

Finally, we portray the dynamic process of diversification of ownership structure after the banking crisis and growing disparity in corporate performance. Our analysis looks at three reference points in the evolution of ownership structure: before diversification of ownership structure in 1996, emergence of diversification in 2002, and the peak of diversification in 2005. We show that dynamic relationships were in effect in which immediately before the banking crisis occurred, differences in company size, reputation in capital markets, and corporate performance caused diversification due to the stock selection preferences of foreign investors and self-selection of firms. These differences in ownership structure in turn amplified and settle performance disparities by promoting internal governance reforms such as the disciplinary effect of the ownership structure, reduction of the size of the board of directors, and introduction of external directors.

This paper is organized as follows. In section 2, we trace long-term trends in the ownership structure. Section 3 analyzes factors determining the stock selection decisions of foreign investors. In Section 4, after considering the endogeneity accompanying the stock preferences of foreign investors, we analyze the enhanced performance caused by their growing presence. Section 5 explores dynamics of ownership and performance. Section 6 provides some perspectives.

2. Evolution of Ownership Structure of Japanese Firms: Overview

2.1 Insider-dominated structure: 1970 to 1990

We first look at the long-term trends in ownership structure from 1955 to 1990. **Figure 1** shows the long-term time series trend of insider and outsider holding ratios based on data from the *Shareownership Survey*, which is published by all domestic stock exchanges. Here we define insiders as the aggregate of city and regional banks,

life insurers and other financial institutions, and business firms. In general, such shareholders maintain long-term business ties with the company they invest in, and their incentive is not to maximize investment return but to maintain a relationship with the company.² On the other hand, outsiders refer to the aggregate of foreigners, individuals, investment trusts, pension trusts, whose holding objective is to maximize investment return. In **Figure 1**, holding ratios are aggregated on a market price basis, and unavailable values are estimated based on available data (see note to **Figure 1**).

Due to postwar reforms, the ownership structure of Japanese firms became highly dispersed and centered around individual shareholders, but stabilized rapidly following the securities recession of 1965. By the early 1970s, the ownership structure was dominated by insiders such as banks and business firms.³ ⁴ In the mid 1970s, the insider holding ratio exceeded 55%, while the outsider holding ratio of individual and institutional investors remained low at around 35%.

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Figure 1 Long-term Trend of Ownership Structure

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This insider-dominated ownership structure remained largely unchanged until 1990. In the bubble period of the late 1980s, when financing shifted largely from bank lending to equity related debt, financial institutions still remained large net buyers, and slightly increased their holding ratio.

Next let us examine the aggregate-level trend using newly created firm level data. For non-financial business firms listed in the first section the three major domestic stock exchanges in Tokyo, Osaka and Nagoya (referred to below as first section firms), we combined the *Major Shareholders Data* (Toyo Keizai Inc.) with the annexed detailed statements and shareholding data by type of shareholder contained in securities filings (Nikkei NEEDS). We then reconstructed detailed shareholder registries for firms,

² While insider ownership overlaps with cross-shareholding and stable-shareholding, it is a broader concept. FMM (2014) analyzes the evolution and international characteristics of ownership structure in Japan from this perspective.

³ Unless otherwise noted, “bank” refers to banks other than trust banks, and “business firm” refers to listed firms excluding banks, trust banks, life insurers, securities firms, and securities finance firms.

⁴ For more information, see Kawakita (1995), Miyajima, Haramura and Enami (2003), and FMM (2014).

identified cross-holding relationships, and determined the shareholder attributes of large shareholders with at least 3% ownership, and classified shareholders into insider and outsider categories to the extent possible. As **Figure 2 A** shows, the mean values of insider and outsider ownership ratios of major firms are almost the same as in **Figure 1**. Moreover, as **Table 1** shows, the summary statistics of our data at the six dates since 1987 show small changes in ownership structure from 1987 to 1991, and the variance in ownership structure among firms is also small in both periods. Although insider ownership exceeds 45%, the standard deviation is only 13%. On the other hand, outsider ownership is far smaller at approximately 30%, with a small standard deviation of approximately 10%. Thus up to this point in time, insider dominance was characterized by homogeneity.

However, after the bubble's collapse in the early 1990s, outsider ownership gradually increased, while insider ownership lost its foothold and began to rapidly deteriorate from 1997. In next section, we discuss in more detail the changes in ownership structure since 1990, focusing on the role of foreign investors as outsiders, and cross-shareholding relationships as insiders.

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Figure 2 Insider and Outsider 2

Table1 Recent Trend of Ownership Structure

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2.2 Initial Growth of Foreign Investors: 1990 to 1996

Entering the 1990s, the foreign ownership ratio gradually rose in conjunction with the growth of assets under management, without regard to changes in the asset allocation ratio. In fact, U.S. and other foreign institutional investors began increasing their foreign investment from 1990 to achieve international diversification in step with economic globalization. For example, outstanding foreign equity investment by the U.S. surged from USD 197.6 billion in 1990, to USD 776.8 billion in 1995, and reached USD 1,830.4 trillion in 2000 (Ahmadjian 2007: p. 127). As part of the global expansion of international diversification, the foreign ownership ratio of major Japanese firms grew

from 4.1% in 1991 to 7.1% in 1996 (**Figure 2**).

Moreover, the rising presence of foreign investors in Japanese markets was more pronounced than indicated by the ownership structure. First, foreign investors were the sole net buyers during this period, the transaction share of foreigners in the TSE first section surged from approximately 10% in 1988 to almost 40% in 1996.⁵ As the influence on stock price formation from transactions by foreign investors grew, their valuations came to carry a large significance on management affairs. In addition, during this period, the market infrastructure improved due to the entry of foreign financial institutions and increase of securities analysts.⁶ Second, it is important to note the stock selection bias exhibited by foreign investors in this period. Specifically, they preferred firms that were already held in high esteem by the market, that is, large firms with a high ratio of overseas sales, strong profitability, and good credit rating (Miyajima and Kuroki 2007: pp. 86-88). For example, the foreign ownership ratio at Canon Inc., a prominent exporter, rose from 21.5% in 1991 to 39.0% in 1996, and that of Sony likewise rose from 21.6% to 39.0%. Japanese firms, once characterized by strong ties with main banks, bank loan financing, and low foreign ownership ratio, diversified quietly in the mid 1990s in terms of bank ties and ownership structure. Such differences among firms would later have important implications for the future course of evolution.

2.3 Unwinding of Cross-Shareholding: 1997 to 2004

The insider-dominated ownership structure, which had shown remarkable stability until the mid 1990s, changed radically after the 1997 banking crisis.⁷ The ratio of cross-shareholdings, which formed the core of this structure, plummeted from 15.3% in

⁵ Transaction share = (Value of transactions consigned by foreigners / Value of total consigned transaction value). Since foreign corporations and individuals residing abroad do not make many large-scale or high-frequency transactions, most of the transactions can be assumed to be those of institutional investors.

⁶ Market entry by foreign securities firms leveled off during the bubble period. The number of entrants surged from 14 firms in 1985 to 52 firms in 1990, and subsequently stabilized at 57 firms in 1997 (yearend; Japan Securities Dealers Association survey). Thus the 1990s was characterized by the business expansion of foreign securities firms. Meanwhile, the number of certified members of the Security Analysts Association rose from 2,200 persons in 1990 to 9,400 persons in 1996.

⁷ Many observers have expressed surprise at the stability of ownership structure from the 1970s to mid 1990s (Flath 1993, Kawakita 1995).

1996 down to 9.4% in 2004 (**Figure 2**).⁸ The primary cause was the unwinding of cross-shareholding between banks and business firms.

Meanwhile, business firms began selling off their bank shareholdings in 1997. The riskiness of bank shares became evident after the *Jusen* housing loan problem erupted in 1995, causing share prices of parent banks to correct downward, and the correction accelerated as banks began to fail in 1997. For the first time in the postwar period, business firms faced the difficult choice of whether to hold or sell their bank shares. In parallel with these changes in the market environment, foreign investors increased their presence as explained below. Along with this, investors strongly criticized cross-shareholdings and called for accountability. In addition, new accounting rules were introduced in the early 2000s for consolidated reporting (March 2000) and mark-to-market valuation of cross-shareholdings (March 2002), making business firms keenly aware of cross-shareholding risks.

Meanwhile, at the same time that their non-performing loans were mounting, banks faced the growing risk of shareholding as unrealized gains shriveled in the post-bubble stock market, and began selling of shareholdings in 1997. The selloff accelerated in 2001 when the size of banks' shareholdings included in Tier 1 capital requirements became limited (effective January 2002).⁹ In 2001, net selling by the banking sector reached JPY 2.3 trillion, and remained between JPY 1 trillion to JPY 2 trillion until 2005. As a result, the holding ratio of banks fell by 6.4% from 1996 to 2001, and declined another 3.4% from 2001 to 2004.

2.4 Surge of Foreign Investors: 1997 to 2006

In parallel with the unwinding of cross-shareholding, the ownership ratio surged in particular among foreign investors. From 7.1% in 1996, the ratio of foreign investors

⁸ The aggregate cross-shareholding ratio of the market is calculated for firms listed on the first section of the three major exchanges at the end of each fiscal year. It is the firm-level mean calculated from individual firm level data, and tends to underestimate the actual value because we only count cross-shareholdings between two firms. In addition, since the scope of disclosure of the detailed statement of the financial statement filing in the March 2000 period, the current standard is applied retroactively for preceding years to maintain continuity of the time series data. As a result, the cross-shareholding ratio becomes approximately 3% smaller for 1999 and preceding years compared to the available data.

⁹ In Tier 1 capital, items such as unrealized gains from securities are deducted from equity capital.

surged starting in 2002, doubling to 14.2% in 2006 (**Table 2**). By individual movement, first the IT sector became a target of investment in 1999. For example, the foreign ownership ratio of NEC surged from 16.9% in 1996 to 28.3% in 2001. Moreover, from 2003, large firms in the raw materials sector were favored by investors due to the boost from the growth of the global economy and China in particular. For example, in 2006 the foreign ownership ratio of Japan Steel reached 21.9%, and outsider ownership ratio reached 53.6%.

As a result, the ownership structure of Japanese firms changed drastically, and notably, in 2000 the dominant position of insiders was replaced by outsiders (**Figure 1 and 2**). The ownership structure of Japan's listed firms returned to the early 1960s, before stable shareholders emerged. Moreover, the main entity in this resurgence of outsider-dominated ownership structure had shifted from individuals to domestic and foreign institutional investors.

Moreover, the presence of foreign investors in market transactions has grown even more pronounced than before. The share of transactions by foreigners in the TSE first section surpassed 40% in 1997, reaching 50% in 2000 and 60% in 2006. The fact that foreigners became the dominant force in the market dramatically raised their influence in price formation in Japanese markets. On this point, the relationship between the value of net buying by foreigners and the Nikkei average is shown in **Figure 3**.¹⁰ Moreover, a series of hostile takeover bids were seen from mid 2000 including the Livedoor TOB of Nippon Broadcasting (2005), Oji Paper's TOB of Hokuetsui Paper (2006), and Steel Partners' TOB of Bulldog Sauce (2007). Thus Japan's market for corporate control had entered the formative stage.¹¹

The shift in shareholders' awareness caused by the growing presence of foreign investors gradually spread to domestic institutional investors. In the 2000s, the

¹⁰ According to a simple regression of the stock price index against net buying pressure ($= (\text{Purchase amount} - \text{Sale amount}) / \text{Total capitalization of TSE first section} \times 100$), the net buying pressure coefficient rose from 10.19 in the period from January 1980 to December 1989, to 24.67 in January 1990 to December 1999, and still remained high at 17.5 in January 2000 to October 2009.] For example in 2003 and mid 2005, the large net buying by foreigners pushed up the market. Another important change was the emergence and growing prominence of domestic and foreign activist funds since 2000.

¹¹ While there is no clear definition of activist fund, in general it refers to private investment institutions which are relatively unregulated, and as major shareholders seek to exert influence on corporate activities in order to increase investment return.

Federation of Employees' Pension Funds (predecessor of the Pension Fund Association) and domestic investment advisory firms also began to actively exercise their voting rights, and even insurance firms, which were known for being silent shareholders, prepared the procedure to execute their own voting right.¹² In the late 2000s, listed firms had no choice but to pursue management that considers outsider interests, in other words, maximize shareholder value.

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Figure 3 Transaction by Foreign Investors

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2.5 Leveling-off of Foreign Investors and the “Resurgence” of Cross-Shareholding: 2005 to 2008

The linear uptrend of outsider ownership ratio after the banking crisis appears to have reversed after peaking out in 2006 (**Figure 1 and 2**). In contrast, insider ownership moved in the opposite direction and began increasing. In 2004, as the selloff of bank shareholdings took a pause, some business firms formed “strategic alliances” by strengthening capital ties with other firms, which was noted as the “resurgence” of cross-shareholding.¹³ This occurred against the backdrop of the increase of outsider ownership and hostile takeover bids, and lifting of the ban on forward triangular mergers (May 2007).

For example, Japan Steel, faced with the threat of acquisition by foreign competitors who were aggressive in M&A activity, pursued a “strategic alliance” with Sumitomo Metal Industry and Kobe Steel, and expanded cross-shareholdings among the three firms in stages from 2005. As a result, the firm’s cross-shareholding ratio with respect to the number of issued shares rose from 1.2% in 2001 to 8.4% in 2008.¹⁴ In

¹² To facilitate the investment side, the Federation released “Fiduciary Responsibility Handbook: Investment Institution Edition” in 2000 and “Practical Guidelines for Exercising Voting Rights” in 2001.

¹³ For example, the May 17, 2005 issue of the *Economisuto* notes that “the self-defense instinct of firms produced a rush of dividend increases and resurgence of cross-shareholding,” the July 22, 2006 issue of the *Weekly Toyo Keizai* that “cross-shareholding advances beneath the surface,” and the December 29, 2006 issue of the Nikkei Financial Daily mentions it in the 2006 review of keywords in corporate finance.

¹⁴ The Nikkei Shimbun observed that due to this strategic alliance, “the stable shareholding ratio,

addition, in March 2006, Hitachi Metals Co. and Daido Steel Co. agreed on a capital and business alliance. The two firms agreed to jointly purchase and develop specialty steel materials used in automobile parts, and to purchase approximately 1% of the other's shares primarily in the market, and increase the cross-shareholding ratio in stages. The capital alliance was said to have been triggered partly by the sense of crisis with respect to risk of acquisition. Meanwhile, firms that were confronted with the threat from activist funds also sought to create stable shareholdings.¹⁵ For example, since 2005, cross-shareholdings were strengthened among mature mid-sized firms such as Toei Co.

Meanwhile, against the backdrop of the emerging subprime problem, foreign investors became net sellers from approximately 2007, and after the Lehman Brothers crisis struck in September 2008, the scale of selling expanded significantly (**Figure 3**). As a result, the foreign ownership ratio dropped suddenly from 13.9% in March 2008 to 11.7% one year later. During this period, the Nikkei average plummeted 38% from 13,072 yen (end of August 2008) to 8,109 yen (end of March 2009), which can be attributed largely to selling by foreign investors. Thus due to the heightened presence of foreign investors, their trading activity strongly influenced Japanese stock prices.

As shown above, since 1997 changes in the ownership structure can be characterized by the rapid shift from insider dominance to outsider dominance, and the stagnation of outsider dominance since 2005. The most important point is these changes did not occur uniformly across all firms. For example, as the standard deviation trend in **Table 1** shows, while the insider ownership ratio dropped 8.3-percentage points from 46.6% in 1991 to 38.3% in 2008, the standard deviation rose from 13.5% to 16.4%. In addition, the ownership ratio of institutional investors, who form the core of outsiders, surged from 9.2% in 1991 to 19% in 2008, while the standard deviation increased from 7.4% to 13.9% in the same period.

which was approximately 30%, is now almost 50%" ("Real Image of the Resurgence of Cross-shareholding," September 28, 2007).

¹⁵ A good example is Sotoh Co. When Steel Partners purchased a large stake in 2003, Sotoh increased its cross-shareholdings with Daido Limited, its largest shareholder. The shareholder information in March 2004 shows that compared to the previous year, Satoh's ownership ratio in Daido Limited rose from 2.0% to 3.5%, while that of Daido Limited in Satoh rose from 8.6% to 10.5%. Daido Limited, which was also under threat from the activist Murakami Fund, started a new cross-shareholding relationship with Onward Kashiyama Co. in 2004.

These results naturally raise a number of questions. First, what was the mechanism by which cross-shareholding was unwound after the banking crisis? What was the scale of cross-shareholding “resurgence” from 2005, what were the characteristics of firms that expanded cross-shareholdings, and did the “resurgence” signify a return to an insider-dominated ownership structure? Second, regarding the growing presence of foreign investors, how should we comprehend this trend since 1990, and was their stock preference biased, and was a premium granted to board room reforms as has been frequently noted? Third, what impact have the changes in ownership structure had on corporate performance? Has the growing presence of foreign investors had a disciplinary effect on corporate management? Next we provide explanations to these questions by constructing our own database.

3. Preferences of Foreign Investors

3.1 Stylization of Facts and Hypothesis

Along with the unwinding of cross-shareholding, another important change in the post-banking crisis ownership structure was a sharp increase in foreign investor ownership ratio (**Figure 2B**). Similar to the unwinding of cross-shareholding, this inflow of foreign funds did not occur uniformly across all listed firms. This point, which is also evident from the standard deviation of foreign ownership ratio shown in **Table 1**, is further explained in **Table 2**, which arranges data on the distribution among firms listed on the first section of the three exchanges (excluding financial institutions). The distribution of foreign investors prior to 1990, the maximum frequency was below 3%, but when the immediate post-bubble stock market gyrations abated from 1993 to 1996, one peak occurred in the 1%-3% range (referred to below as the left peak) and another peak in the 5%-10% range (right peak). In the period from 1999 to 2002 after the banking crisis, the right peak shifted further rightward to the 10%-20% range, while the left peak shifted to the left to the 0%-1% range, clearly showing a polarization. From 2003 to 2007, as the foreign ownership ratio rose another level, the number of firms belonging to the the right peak (1%-3%) decreased, while that of the right peak

(10%-20%) increased. Looking more closely at 2006, when foreign investors broadly added Japanese equities to their portfolios against the backdrop of the global economic recovery, there were 454 firms in the 10%-20% range, 339 firms in the 20%-33% range, and 128 firms at a higher range. Thus foreign investors showed a preference for over 55% of firms listed on the first section of the three exchanges, while the proportion of firms with a foreign ownership ratio of under 5% grew to 25%.

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Table 2 Distribution of Foreign Ownership Ratio

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The above results suggest that the stock selection of foreign investors is characterized by some sort of preference or bias. Their stock preference is known to be strongly related to a home bias in their international investment diversification, and the factors that have been noted include asymmetry of information, behavioral bias of institutional investors, and liquidity.¹⁶

Due to costs associated with geographic restraints and cultural and language barriers, the information available to foreign investors is limited compared to domestic investors. Thus foreign investors are thought to prefer large firms because their information is relatively more accessible.¹⁷ Consistent with this view, Kang and Stulz (1997) show that foreign investors also tend to prefer large firms in Japan's equity markets. In addition, the behavioral bias of institutional investors may also bias their stock selection. ¹⁸ For example, the behavior of institutional investors may be distorted by restrictions such as fiduciary responsibility and investment guidelines, and explicit and implicit demands of customers (Del Guercio 1996, Falkenstein 1996). Moreover, institutional investors are also known to prefer stocks characterized by high liquidity and low transaction cost (Gompers and Metrick 2001).

¹⁶ In general, a home bias in international investment diversification refers to making a high allocation to assets in one's own country that cannot be rationally explained. Previous studies have also noted a stock selection bias within one country among institutional investors, which is due to factors in common with the home bias.

¹⁷ For example, see Merton (1987), French and Poterba (1991), and Brennan and Cao (1997).

¹⁸ The tendency of unsophisticated investors to prefer stocks with which they are familiar is attributed to an investor familiarity bias from cognitive psychology (Huberman 2001). Hiraki et al. (2003) show that domestic and foreign institutional investors in Japan's markets exhibit this type of stock preference.

Moreover, in recent years, corporate governance has been noted as a determinant of home bias. The asymmetry of information between domestic and foreign investors could become particularly serious with respect to the structure of corporate governance and possible expropriation by insiders. Foreigners have difficulty understanding information about each country's unique transaction practices and political ties, banking relationships with business firms, social status of prestigious families, and networks in the business community (Leuz et al. 2009). In addition, a stock selection bias could arise if the interests of insiders (including large shareholders and managers) diverge from that of other shareholders, causing their respective expected returns to also diverge (Stulz 1981, Giannetti and Simonov 2006). Many empirical studies also show that foreign investors are passive toward investing in countries or firms that exhibit poor corporate governance.¹⁹

3.2 Analytical Model

In consideration of the above points, we estimated the following model in which the foreign investor ownership ratio (FINST) is the dependent variable, and attempt to explain the determinants of their stock selection.

$$\text{FINST} = F (Z_1, Z_2, Z_3, Z_4) \quad (1)$$

Here, Z_1 is a variable that expresses the portion that can be transacted by foreign investors, and we introduced the floating stock ratio.²⁰ Z_2 variables are related to the home bias (referred to below as the home bias variable). According to the existing literature (Kand and Stulz 1997, Gompers and Metrick 2001), we introduced the

¹⁹ See Aggarwal et al. (2005), Giannetti and Simonov (2006), Ferreira and Matos (2008), and Leuz et al. (2009).

²⁰ Due to the presence of fixed shareholders such as the founding family, the floating share portfolio that can be transacted by ordinary investors differs greatly in composition from that based on the market capitalization of the shares. However, the conventional empirical literature had not considered this point. Dahlquist et al. (2003), who explicitly consider this point, emphasize that the portfolio of U.S. investors can be almost fully explained by the floating share portfolio, and that other factors do not have any additional explanatory power. Floating shares refer to the number of issued shares not held by fixed shareholders, who in this case are insiders and foreign firms (see note to Table 1).

logarithmic value of total assets, overseas sales ratio, debt ratio, book-value to price ratio, investment grade dummy, and share transaction volume. The variables of Z_2 primarily express corporate attributes which are not readily subject to short-term changes by managers. The variables of Z_3 express corporate governance factors (referred to below as corporate governance factor), and we introduced the number of board members, ratio of outside directors, and a dummy for the six former large corporate groups. Of these, the composition of board of directors is of course readily changeable by managers, and can be understood as management's stance toward shareholder demands. To control for industry specific influences, we introduced Z_4 as an industry dummy based on the 33 industry sectors of the TSE.

While all variables from Z_1 to Z_4 need to be exogenous variables, the ROA variable, which measures corporate performance, cannot be considered to be exogenous. Here we assume a causal relationship exists in which foreign investors prefer firms that exhibit good performance and, of course, the reverse causation in which monitoring by foreign investors improves management discipline and thereby contributes to better corporate performance. In view of this mutual interaction, we revised Equation (1) as shown into Equation (1)', added Equation (2), and solved them simultaneously.

$$\text{FINST} = F'(\text{ROA}, Z_1(-1), Z_2'(-1), Z_3(-1), Z_4) \quad (1)'$$

$$\text{ROA} = G(\text{FINST}, Z_5(-1), Z_4) \quad (2)$$

In Equation (2)', Z_2' omits ROA from Z_2 , and (-1) expresses the initial state. On the other hand, Equation (3), which explains ROA in the current period, introduces ROA in the previous period, logarithmic value of total assets, and debt ratio as variable Z_5 . The sample consists of firms listed on the first section of the three major exchanges (excluding financial institutions), spanning the 18-year period from 1991 to 2008. To classify the time series change in stock selection factors over this period, the sample period is divided into three six-year periods as shown below.

Period 1 (1990/04~1997/03) : post-bubble adjustment period, emergence of NPLs

Period 2 (1997/04~2002/03) : banking crisis, rise and bursting of IT bubble

Period 3 (2003/04~2009/03) : global recovery and Lehman Brothers collapse

The estimation applies a three-stage least square method (3SLS) to a sample consisting of cross-sectional data for each year. Following the way of Gompers and Metrick (2001), the results are summarized mean value of the regression coefficient in each period, frequency of positive and negative values of the regression coefficient in each period, and of this, the frequency of statistically significant (at the 5% level) positive and negative regression coefficients. Estimation results are shown only for Equation (2)⁶, and results are omitted for Equation (3), which was introduced to control for simultaneity of ROA. The model, which incorporates the assumption of endogeneity of the corporate performance factor, expands on previous empirical analyses regarding home bias.²¹ We perform a more rigorous analysis of the effect of foreign investors on corporate performance in the next section.

3.3 Estimation Results

As the summarized estimation results show in **Table 3**, the stock preferences of foreign investors are determined both by the conventional home bias factor, as well as by the recently noted corporate governance factor.

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Table 3 Determinants of Foreign Investors

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First, the floating share ratio in Z_1 is significantly positive throughout the entire 18-year sample period, confirming that the investment weight of foreign investors was determined based on the floating share portfolio. Moreover, as Dahlquist et al. (2003) assert, this alone was not the only determinant overriding other factors.

Second, looking at the effect of the home bias factor in Z_2 , we confirmed a preference

²¹ The current literature on stock preferences of investors is mainly focused on home bias, with almost no empirical analyses looking at the reverse causation in which shareholder monitoring improves corporate performance.

during almost the entire period for stocks of firms characterized by: (1) small firm size, (2) high overseas sales ratio, (3) high ROA, and (4) low debt ratio. The preference for high ROA performance is significant in a stable way even after taking into account the reverse causal effect on performance is boosted by the management discipline effect of foreign investors.

However, caution is needed when interpreting the book-value to price ratio in Z_2 . According to the analytical results, this factor was not a leading determinant in Period 1 (before 1996). But in Periods 2 and 3 (from 1997 onward), it takes on a significantly negative value in nine out of 12 years. This result suggests that foreign investors selected stocks with high book-to-market ratios, that is, growth oriented firms. Most importantly, during this time foreign investors aggressively acquired Japanese stocks and came to exert a large influence on stock price formation. Thus our results are likely to have occurred not because foreign investors selected stocks based on book-to-market ratios, but rather because their own transactions pushed up the prices of stocks that they purchased.²²

Third, interestingly, among the Z_2 variables, the investment grade dummy variable, which expresses creditworthiness, and stock transaction volume, which expresses market liquidity, were significant determinants in the stock selection of foreign investors prior to 1996, but their importance declined from 1997. As explained earlier, because foreign investment institutions expanded or organized their business foundation in Japan in the early 1990s, their concern for risks such as asymmetry of information and liquidity had waned.

Fourth, the corporate governance factor in Z_3 became a determinant of stock selection for foreign investors. In **Table 4**, we can see that in the early 1990s of Period 1, foreign investors tended to prefer firms with a small board size, but this tendency weakened in Period 2 from around 2000. In the meantime, their preference turned toward firms with independent external directors who were not dispatched from banks

²² Regarding the demand shock associated with the growth of institutional investors in recent years, and the accompanying changes to the stock price formation mechanism, our ongoing research has tentatively found that with the shift in demand of leading investors due to the participation of foreign investors since 1990, the pricing structure of Japan's market has transformed.

or controlling entities, a tendency which became clear from 2003 in Period 3. Until 1996, the board of directors at Japanese firms was characterized by: (1) lack of separation between management supervision and execution, (2) excessive personnel, and (3) emphasis on internal promotion (Miyajima and Nitta 2007, Nitta 2008c). Foreign investors became increasingly critical of such insider-dominated organizations, which differed from the management organization of U.S. and European firms, and demonstrated a stance to give priority to investing in firms that engaged in board reform.²³ Foreign investors are particularly interested in the organizational reform of large boards in which supervision and execution of management are not separated. After management reforms made progress in the mid 2000s, these boards shifted to the independence of outside directors. The results in **Table 3** suggest that this imparted a premium to firms at which foreign investors led board reforms.²⁴ These results are also related to the empirical result that the higher the foreign ownership ratio of a firm, the more aggressively board reforms are pursued (Miyajima and Nitta 2007), and the higher is the ratio of outside directors (Saito 2011). This is because if investors voice their preferences, managers will listen and initiate the desired board reforms.

Thus the stock selection of foreign investors is determined not only by basic firm attributes such as size and overseas sales ratio, but also based on their assessment of the board structure, that is, the management's stance toward shareholders. Their emphasis on board reform at Japanese firms was followed up by their investment behavior, thereby further promoting board reforms.

²³ According to 2000 and 2002 McKinsey & Company questionnaire surveys of institutional investors who invest in international equity markets, foreign institutional investors said they would pay a 20% premium for Japanese firms with superior corporate governance. Among advanced economies, this premium is exceptionally high compared to 14% in the U.S., 12% in the U.K., and 13% in Germany and France, and equivalent to smaller equity markets of developing economies such as in Southeast Asia. The high premium suggests that foreign investors are strongly critical of corporate governance in Japan.

²⁴ Another pillar of board reform is the compensation system. In this regard, the stock option system introduced in 1997 has attracted attention. In our analytical data, the presence of a stock option system can be identified from 1999. When a dummy variable for the presence of stock options is added to Equation (3), the coefficient is significantly positive in one of the six years (2001) in Period 2, and two of the six years (2002 and 2008) in Period 3. While not necessarily pronounced, these results indicate that foreign investors showed a preference for stock options as well.

4. Management Disciplinary Effect of Foreign Investors

4.1 Baseline Model

In this section, we examine whether the growing presence of foreign investors since 1990 contributed to corporate performance by instilling management discipline. As mentioned earlier, unlike conventional shareholders, foreign investors actively exercise their voice and voting rights. This monitoring activity likely spurs management into action, promoting board reform and adoption of appropriate business and organizational strategies. Thus we focus on the time series relationship between foreign ownership ratio and corporate performance. In the previous section, we discussed foreign investors' stock preferences in terms of the investment portfolio allocation at one point in time, in which case a cross-sectional analysis is appropriate. But to examine how the change of foreign investors' presence over time affects corporate performance, it is more appropriate to set up a time series model.

With regard to the disciplinary effect of foreign investors in Japan, numerous empirical studies have noted a positive performance effect. That is, they consistently find that corporate performance as measured by Tobin's q , ROA, or total factor productivity (TFP) is positively correlated to the ownership ratio of foreign investors or foreign individuals including parent firms.²⁵ However, since the stock preference of foreign investors can be partly explained by the home bias factor and corporate governance factor, the ownership ratio cannot be considered as an exogenous variable. In particular, when examining the effect on corporate performance, we must consider the reverse causation in which foreign investors prefer firms that perform well. The current literature does not adequately address this problem. To deal with the endogeneity problem, Iwatsubo and Tonogi (2007) set up a simultaneous equation system expressing the stock selection of foreign investor's and its performance effect, and showed that Tobin's q increases as the foreign investor ownership ratio rises. But as discussed earlier, since foreign investors are the main player in Japan's market, we

²⁵ For example, see Lichtenberg and Puchner (1994), Horiuchi and Hanazaki (2000), Sasaki and Yonezawa (2000), Nishizaki and Kurasawa (2003), Miyajima and Nitta (2003), Miyajima et al. (2004), Miyajima and Kuroki (2007), and Nitta (2008a).

cannot distinguish whether a high Tobin's q is caused by a disciplinary effect or by a demand shock from their own stock transactions. To examine the disciplinary effect of foreign investors, we need to adopt a proxy variable for corporate performance that is unaffected by their own stock transaction activity, such as accounting performance.

Keeping in mind the above points, we follow the procedure in the current literature and use a standard panel analysis method (Within) to confirm the disciplinary effect of foreign investors. However, since foreign investors prefer the stocks of firms that perform well, we must carefully eliminate the endogeneity problem when setting up the model. As a first approximation, we estimate the following model (3), which takes into account the chronological compatibility of the causal relationship.

$$\Delta ROA = P (\text{FINST}(-1), Z_5(-1), \text{YearDummy}) \quad (3)$$

The dependent variable, corporate performance in the current period, is measured as the amount of improvement from the previous period (ΔROA), while the dependent variables FINST (foreign investor ownership ratio) and Z_5 (ROA, logarithmic value of total assets, debt ratio) are all measured at the start of the period or in the previous period. Thus to determine ΔROA , which is a future value, all dependent variables are given, and in this sense the temporal consistency of the causal relationship can be established. In addition, to increase the statistical reliability of the analytical results, we introduced a YearDummy variable to eliminate the mean time series trend of each variable.²⁶

Estimation results are shown in panel 1 of **Table 4**. The coefficient of the foreign investor ownership ratio is significantly positive over all periods of analysis, clearly confirming its disciplinary effect. If we estimate the economic impact of this, in Period 1 (1991 to 1996), when the presence of foreign investors began to rise, if the ownership ratio rises from the mean value of 5.5% by only 1 standard deviation (5.7%), the effect is

²⁶ Since the effect of the average increase of foreign investor ownership ratio (see Figure 2) is absorbed by the year dummy, its coefficient extracts the effect of the ROA increase caused by the deviation from this average trend. The industry characteristics of Z_4 were eliminated because they are absorbed by the fixed effect.

an ROA increase of 0.4%. This increase is equivalent to 11.8% of the mean ROA of 3.5% for this period. The effect on ROA in Period 2 (1997 to 2002) is 0.4%, equivalent to 10.5% of the mean ROA of 3.8%, and in Period 3 (2003 to 2008) is 0.6%, equivalent to 10.3% of the mean ROA of 5.7%. Thus the size of the effect is roughly the same in all of the analysis periods.²⁷ In this way, even after eliminating the effect of the rising foreign investor ownership ratio, the inherent ROA improvement effect remains at a statistically significant level, suggesting that foreign investors have played a key role in disciplining management.

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Table 4 Disciplinary Effect of Foreign Investors

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4.2 Considering the reverse causality

In the above analysis, we did not consider the investment behavior of foreign investors during the period, that is, the effect of their stock selection on management discipline. To make the results compatible with Section 4, we expanded Equation (3) into the simultaneous equation system shown below in Equation (3)' and Equation (4). The focus of analysis is Equation (3)', which analyzes the change of ROA (Δ ROA) caused by the foreign investor ownership ratio (FINST) at the end of the period, reflecting their stock selection during the period. Since the ownership ratio is determined by the home bias factor and corporate governance factor at the start of the period, we added these as operating variables in Equation (4).

$$\Delta\text{ROA} = P'(\text{FINST}, Z_5(-1), \text{YearDummy}) \quad (3)'$$

$$\text{FINST} = Q(\text{ROA}(-1), Z_1(-1), Z_2'(-1), Z_3(-1), \text{YearDummy}) \quad (4)$$

Thus treating the foreign investor ownership ratio (FINST) as an endogenous

²⁷ The mean and standard deviation of the foreign investor ownership ratio are 6.59% and 7.62% respectively in Period 2 (1997 to 2002), and 12.32% and 11.02% respectively in Period 3 (2003 to 2008).

variable, and using ROA in the previous period, float ratio (Z_1), home bias factor (Z_2), and corporate governance factor (Z_3) as operating variables, we solve the simultaneous equation system of Equation (4)' and Equation (5) by applying a 2-stage estimation with fixed effect (Within-2SLS) to the panel data (Baltagi 2001).

The estimation results are shown in Panel 2 of **Table 4**. A stable disciplinary effect can be confirmed even after considering the stock preference of foreign investors. Similar to the results in Panel 1, the coefficient of foreign investor ownership ratio is significantly positive for all periods under analysis, and moreover is much larger. From our simultaneous equation model, we could not confirm any overestimation problem of the disciplinary effect stemming from the reverse causation in which foreign investors choose stocks of firms that perform well. In fact, by controlling for endogeneity, the disciplinary effect of foreign investors shows up more clearly.

In summary, even when we take into account the reverse causality in which foreign investors prefer firms that perform well, corporate performance is positive and sensitive to the foreign investor ownership ratio. Thus we surmise that the growing presence of foreign investors since the 1990s has had an inherent disciplinary effect that contributes to corporate performance.

5. Diversification of Ownership Structure and Transformation of Corporate Governance Mechanism

5.1 Diversification of Ownership Structure

As confirmed above, the insider-dominated ownership structure that used to characterize Japanese firms, and which consisted primarily of cross-shareholding, shifted dramatically after the banking crisis of 1997 to an outsider-dominated structure consisting primarily of foreign and domestic institutional investors. However, as we have repeatedly emphasized, the change was not uniform across all firms. The ownership structure has differentiated and diversified from that of the past.

The decline of insider ownership stems mainly from the unwinding of cross-shareholding between banks and business firms. Business firms with high growth

potential, easy access to capital markets, and no longer dependent on bank lending quickly unwould their bank ties. As a result, the scope of corporate governance performed by banks decreased, and at the same time the equity portfolio of banks became biased toward firms with low growth potential, weak corporate performance, and high debt ratio.

Meanwhile, regarding the other key aspect of outsider ownership, the core component which is the foreign ownership ratio did not rise uniformly across all firms. Foreign investors exhibited a specific stock selection bias related to home bias, leading them to prefer shares of firms characterized by large size, high overseas sales ratio, good corporate performance, and low debt ratio. In addition, corporate governance factors such small size of board of directors and high independence of outside directors were also important determinants of their stock selection.

Even more interestingly, the growing presence of foreign investors caused a disciplinary effect on management and significantly improved corporate performance. A simultaneous estimation that also considers the reverse causation in which foreign investors prefer stocks of high-performance firms shows that the higher the ownership ratio rises, the greater is the ROA improvement. Since the stock selection of foreign investors is controlled by a home bias, they may not necessarily function as an outside monitor in a precautionary sense of accurately assessing a listed firm's quality and growth potential. However, unlike past shareholders, through their active monitoring of management by exercising their voice and voting rights, they made management aware once again of the importance of the stock market's function. As a result, once foreign investors entered the corporate governance mechanism, they stimulated management to boost the level of effort and to adapt board reform and appropriate business and organizational strategies, thus effectively improving management efficiency.

Dynamics of Ownership Structure and Performance

Our results suggest that a dynamic process occurs between ownership structure and corporate performance. Disparities in firm characteristics such as size, reputation

in foreign markets, and performance, by means of the stock preference of institutional investors and self-selection of firms regarding capital policy and management reform, cause the ownership structure to differentiate. Then these differences in ownership structure, through their own disciplinary effect and effect of promoting management innovation, expand or entrench the disparities in corporate performance.

Moreover, the two processes by which (1) the disparity of ownership structure expanded performance disparity (by promoting management discipline and reforms and business model innovations), and (2) the performance disparity expanded the disparity of ownership structure (due to the stock preference of foreign investors and self-selection of firms) essentially appear to have proceeded in a synergistic rather than mutually exclusive manner. If such was the case, which process prevailed after the banking sector crisis? Finally, we confirm these points intuitively.

We selected the three reference dates of end of fiscal 1996 (March 1997, before the ownership structure differentiated, end of fiscal 2002 (March 2003, when diversification was in progress), and end of fiscal 2005 (March 2006, when diversification peaked out). We also divided the sample into two groups characterized by (1) high foreign investor ownership ratio and low cross-shareholding ratio (SM, or strong outside monitoring group), and (2) low foreign investor ownership ratio and high cross-shareholding ratio (WM, or weak outside monitoring group), and then tracked the subsequent ROA trend. As noted in Barber and Lyon (1996), in an event study that uses accounting performance, the initial performance level has a very critical effect on the subsequent performance level. Thus for comparison, we constructed two samples having the same ROA level and different ownership structures. That is, for each reference year, we took the firms with an ROA from 0% to under 10%, and divided them into ten subsamples in 1% ROA increments. From each subsample, we extracted an SM group (firms with foreign investor ownership ratio above the median and cross-shareholding ratio below the median), and a WM group (firms with foreign investor ownership ratio below the median and cross-shareholding ratio above the median). The ten SM and WM pairs identified from the subsamples are then re-aggregated by group. In this way, two comparison samples can be created with evenly distributed ROA across the reference

dates and different ownership structures.

Looking at the ownership structure in reference year 1996, the mean foreign ownership and cross-shareholding ratios are 11.6% and 8.9% respectively for the SM group, and 2.2% and 23.1% respectively for the WM group, thus showing a significant difference. In reference year 2002, the ratios are 11.1% and 4.5% respectively for SM, and 1.3% and 18.4% respectively for WM. In reference year 2005, they are 20.6% and 3.2% respectively for SM and 5.3% and 17.6% respectively for WM. Thus from 2002 to 2005, both WM and SM groups show a sharp drop in cross-shareholding ratio, and sharp rise in foreign investor ownership ratio.

Figure 4 compares corporate performance in the reference year with subsequent years. While the performance disparity between SM and WM is small after reference years 1996 and 2005, a clear disparity appears after reference year 2002. Specifically, while a rather small disparity arises between SM and WM in 1998, two years after reference year 1996, the disparity did not persist and disappeared from 1999. Moreover, the disparity was trivial including in the period after the Lehman Brothers collapse. In contrast, after reference year 2002, the ROA disparity between SM and WM gradually expanded, and by three years later in 2005 reached 1.47%. This disparity persisted, and can be confirmed over the five-year period after the reference year.

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Figure 4 Dynamic Process

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The dynamics between the diversification of ownership structure of Japanese firms and corporate performance after the banking crisis can be summarized as follows. Immediately after the banking crisis, corporate fundamentals such as performance played a large role in determining ownership structure. But after ownership structure differentiated from 2002, it expanded the performance disparity through a direct disciplinary effect as well as by promoting management organizational reform and innovation. By the time the ownership structure diversification peaked in 2005, the performance disparity had become entrenched.

6 Perspectives and Policy Implications

Our results show that the ownership structure of Japanese firms has differentiated quite clearly following the banking crisis. At firms that attained an outsider-dominated ownership structure, the corporate governance mechanism shifted from a conventional status-quo type governance centered around banks (Aoki and Patrick 1994) to one that relies on the stock market's monitoring function.

Moreover, this outsider-dominated ownership structure is not necessarily stable for firms in which corporate governance by insiders still holds rationale. Stronger monitoring accompanying the growth of outsider ownership ratio has served to discipline management, and is compatible with the corporate system of such firms, who have demonstrated high efficiency and strong competitiveness. However, high outsider ownership ratio also makes likely disruptive intervention of management by outsiders. Herein lies the reason for the repeated movement by some firms to secure management rights in the form of "strategic alliances." However, attempts to create stable shareholders by depending on cross-shareholding was never viable in a transformed stock market that was already dominated by outsiders. Moreover, the stock market slump following the Lehman Brothers collapse in September 2008 showed once again the lack of rationale and realism of such share stabilization maneuvers. As a result of the stock market plunge, firms that pursued stabilization on a large scale suffered capital losses, at times generating impairment losses. Moreover, the planned introduction of IFRS rules will further raise awareness of the risk of equity investment by firms. Thus for this type of corporate group, an important policy issue is to maintain stable control of management without depending on cross-shareholding, while at the same time designing an arrangement to encourage the construction of appropriate relationships with institutional investors.

At the other end of the spectrum and too large to ignore is the group of firms that institutional investors do not invest in and that depend on cross-shareholding. Among these firms are mid-sized firms with ample cash and deposits, who have come under threat from hostile large shareholders, and successfully strengthened cross-shareholding ties with other firms sharing the same threat. Due to the bank

sector restructuring and reduced dependence of these firms on bank lending, the discipline formerly exerted by main banks has receded, while market monitoring also does not function. Thus there is a serious vacuum of corporate governance, especially considering that these firms are publicly listed. Going forward, two important policy issues are to implement regulations to promote the unwinding of cross-shareholding, and to design a system that enables more aggressive intervention by bank creditors.

References

- Aggarwal, R., L. Klapper and P. Wysocki (2005) "Portfolio Preferences of Foreign Institutional Investors," *Journal of Banking and Finance* 29, pp.2919-2946.
- Ahmadjian, C. (2007) "Foreign Investors and Corporate Governance in Japan," in Aoki, M, G. Jackson and H. Miyajima eds. *Corporate Governance in Japan: Institutional Change and Organizational Diversity*, Oxford University Press, pp.125-150.
- Aoki, M. and H. Patrick (1994) *The Japanese Main-bank System: Its Relevance for Developing and Transforming Economies*, Oxford University Press.
- Baltagi, B. (2001) *Econometric Analysis of Panel Data 2nd. ed.*, Wiley.
- Barber, B. and J. Lyon (1996) "Detecting Abnormal Operating Performance: The Empirical Power and Specification of Test Statistics," *Journal of Financial Economics* 41(3), pp.359-399.
- Brennan, M. and H. Cao (1997) "International Portfolio Investment Flows," *Journal of Finance* 52, pp.1851-1880.
- Dahlquist, M., L. Pinkowitz, R. Stulz and R. Williamson (2003) "Corporate Governance and the Home Bias," *Journal of Financial and Quantitative Analysis* 38, pp.87-110.
- Del Guercio, D. (1996) "The Distorting Effect of the Prudent-man Laws on Institutional Equity Investments," *Journal of Financial Economics* 40, pp.31-62.
- Falkenstein, E. (1996) "Performance for Stock Characteristics as Revealed by Mutual Fund Portfolio Holdings," *Journal of Finance* 51, pp.111-136.
- Ferreira, M. and P. Matos (2008) "The Colors of Investors' Money: The Role of Institutional Investors around the World," *Journal of Financial Economics* 88(3), pp.499-533.
- Flath, D. (1993), "Shareholding in the Keiretsu: Japan's Financial Groups," *Review of Economics and Statistics* 75(2), pp.249-57.
- Franks, J., C. Mayer, and H. Miyajima (2014), "The Ownership of Japanese Corporations in the 20th Century", *Review of Financial Studies*, forthcoming..

- French, K. and J. Poterba (1991) "Investor Diversification and International Equity Markets," *American Economic Review* 81, pp.222-226.
- Giannetti, M. and A. Simonov (2006) "Which Investors Fear Expropriation? Evidence from Investors Portfolio Choices," *Journal of Finance* 61, pp.1507-1547.
- Gompers, P. and A. Metrick (2001) "Institutional Investors and Equity Prices," *Quarterly Journal of Economics*, pp.229- 259.
- Hiraki, T., H. Inoue, A. Ito, F. Kuroki, and H. Masuda (2003) "Corporate governance and firm value in Japan: Evidence from 1985 to 1998," *Pacific-Basin Finance Journal* 11, pp.239-265.
- Huberman, G. (2001) "Familiarity Breeds Investment," *Review of Financial Studies* 14, pp.659-680.
- Iwatsubo, K and Y. Tonogi (2007) "Kaigaitoshi-ka to Kigyo Kachi: Fukinitsu Bunsan niyoru Dojihouteishiki no Shikibetsu [The Foreign Investors and Firm value: the Approach from Semoultaneous Equation], Economic Research (Hitosubashi University), Vol.58-1, pp. 47-60.
- Kang, J. and R. Stulz (1997) "Why is there a home bias? An analysis of foreign portfolio equity ownership in Japan," *Journal of Financial Economics* 46, pp.3-28.
- Leuz, C., K. Lins and F. Warnock (2009) "Do Foreigners Invest Less in Poorly Governed Firms?," *Review of Financial Studies* 22, pp.3245-3285.
- Lichtenberg, R. and G. Puchner (1994) "Ownership Structure and Corporate Performance in Japan", *Japan and World Economy* 6(3), pp.239-261.
- Merton, R., (1987) "A Simple Model of Capital Market Equilibrium with Incomplete Information." *Journal of Finance* 42, pp.483-510.
- Miyajima, H., K. Haramuraand, and Y. Enami. 2003. Sengo Nihon Kigyō no Kabushiki Shoyu-kōzō [Evolution of ownership structure in postwar Japan: Formulation and unwinding of stable shareholders] in Japanese. *Financial Review*, Policy Research Institute of MOF, 68.
- Miyajima, H. and F. Kuroki (2007), "The Unwinding of Cross-Shareholding in Japan: Causes, Effects, and Implications" in Aoki, M, G. Jackson and H. Miyajima eds. *Corporate Governance in Japan: Institutional Change and Organizational Diversity*, Oxford University Press, pp.79-124.
- Stulz, R. (1981) "On the Effects of Barriers to International Investment," *Journal of Finance* 36(4), pp.923-934.
- White, H. (1980) "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity," *Econometrica* 48(4), pp.817-838.

Figure 1 Long-term Time Series Trend of Ownership Structure

Figure shows insider and outsider ownership ratios based on the Shareownership Survey. Insider ratio is the aggregated ratio of city and regional banks, life insurers, other financial institutions, and business firms. Outsider ratio is the aggregated ratio of foreigners, individuals, investment trusts, and pension trusts. Ownership ratio is aggregated on a market capitalization basis. For data unavailable prior to fiscal 1969, ownership ratio data is based on number of shares, supplemented to preserve the size of change. Since ownership ratio data is unavailable for city and regional banks from fiscal 1970 to 1985, we calculated it assuming that the aggregated ownership ratio of city banks, regional banks, and trust banks is the same as in fiscal 1986. Also, since the composition of financial institutions is unavailable prior to fiscal 1965, each investment entity's ownership ratio is estimated based on the composition in fiscal 1966. Source: Compiled from Tokyo Stock Exchange et al., Share ownership Survey.

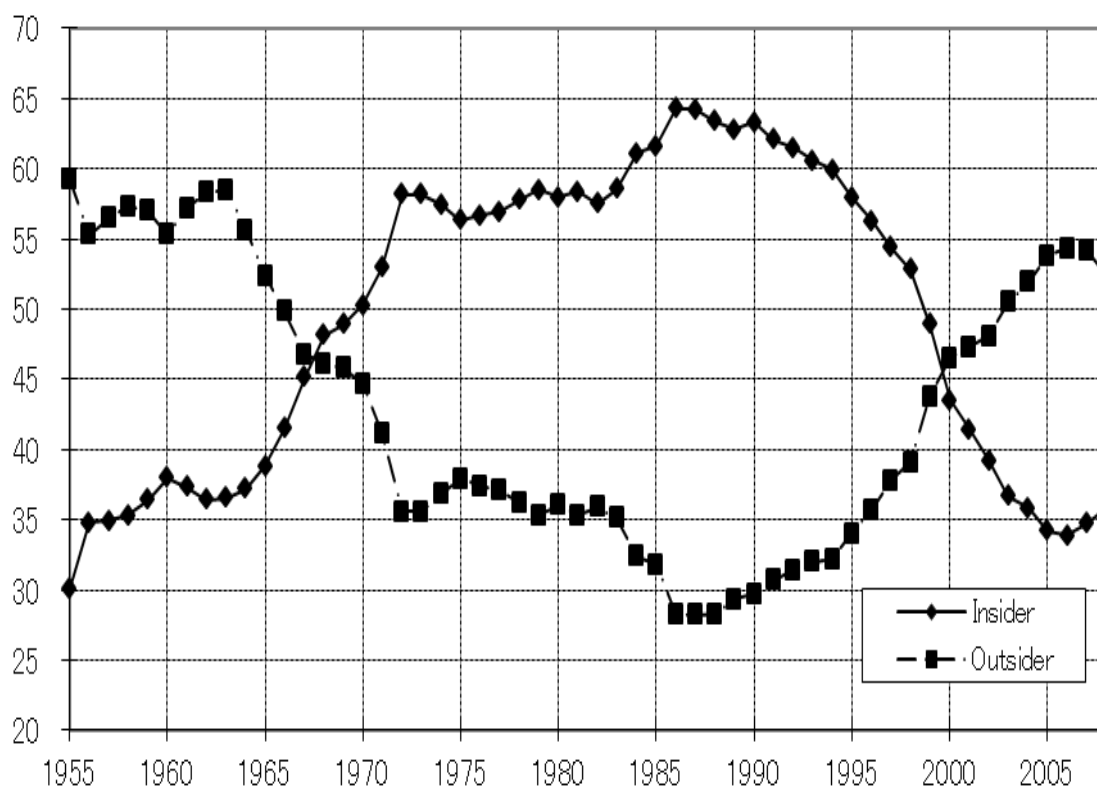
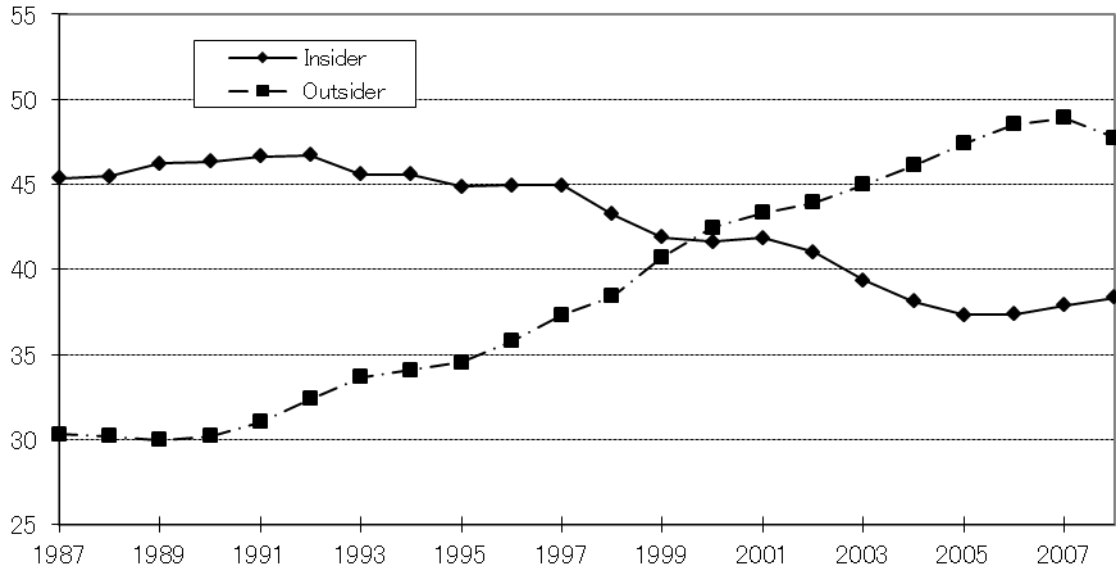


Figure 2 Recent Changes in Insider and Outsider Ownership

Sample consists of firms listed on the first section of the three major stock exchanges (excluding financial institutions). Shows simple mean of ownership ratio of each sampled firms at the firm level at end of fiscal year. See bottom of Table 1 for definition of variables. Source: Compiled from various sources.

(a) Insider and Outsider Ownership Ratios



(b) Cross-shareholding Ratio and Foreign Investor Ownership Ratios

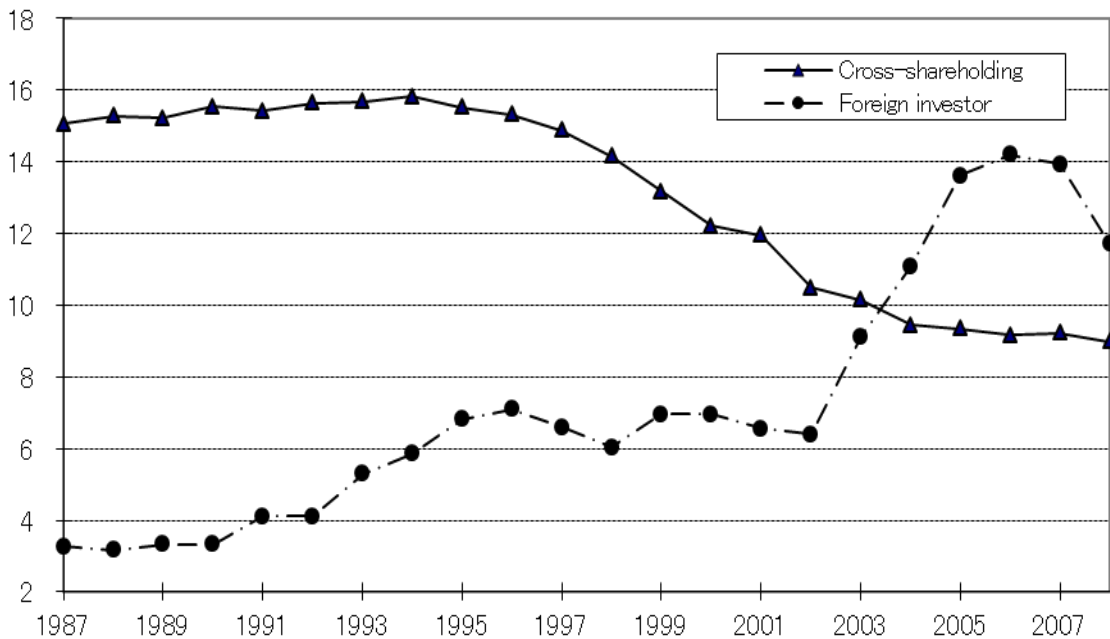
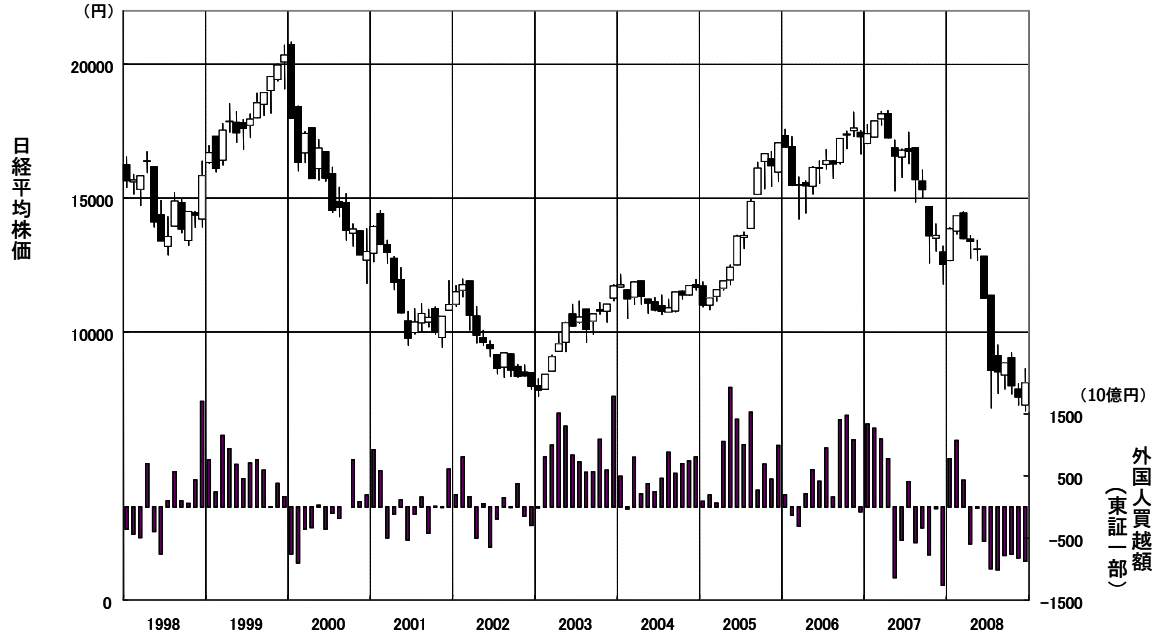


Figure 3 Transactions by Foreign Investors and the Nikkei Stock Average

Source: Compiled from Tokyo Stock Exchange, Investment Trends by Investor Category.

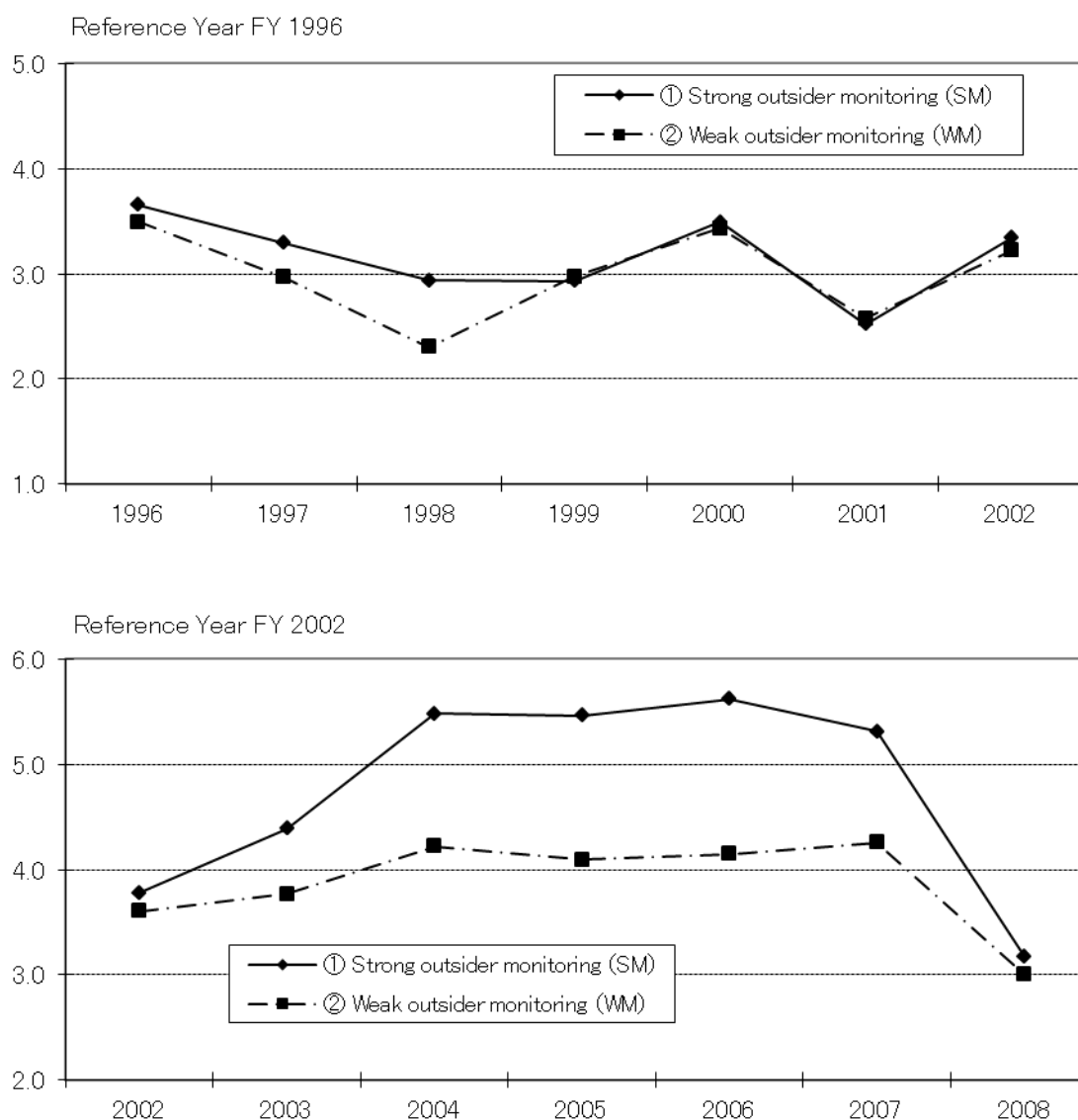


Left axis: Nikkei Stock Average (JPY)

Right axis: Net foreign buying - TSE 1st (JPY billion)

Figure 4 Dynamic Process Caused by Diversification of Ownership Structure

For the sample of firms listed on the first section of the three major stock exchanges (excluding financial institutions), in each reference year of 1996, 2002, and 2005, we extracted firms with ROA from 0% to under 10%, and created subsamples by 1% increment. From each subsample, we extracted two groups: (1) the strong outside monitoring (SM) group of firms with an above median foreign investor ownership ratio and below median cross-shareholding ratio, and (2) the weak outside monitoring (WM) group of firms with below median foreign investor ownership ratio and above median cross-shareholding ratio. Then we re-tallied the SM and WM groups from the subsamples, and formed two comparison samples having the same ROA in the reference years but different ownership structures. We tracked the ROA for six years after the reference year.



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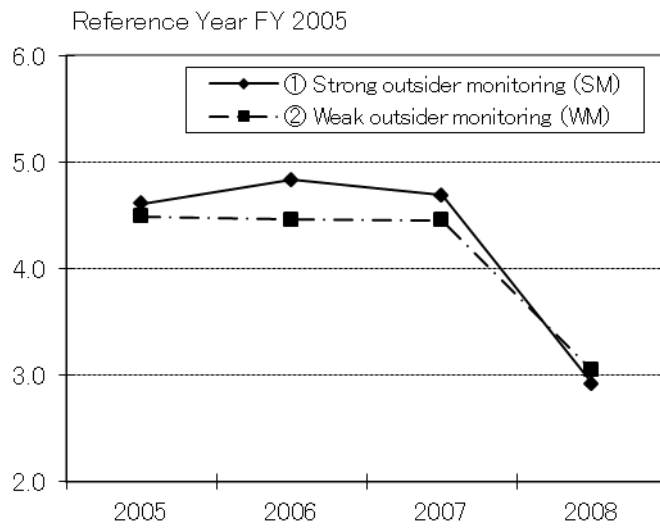


Table 1 Recent Trends in Ownership Structure

Table shows mean and standard deviation of ownership variables in reference years. Sample consists of firms listed on the first section of the three major stock exchanges (excluding financial institutions). Mean is calculated at firm level from ownership ratios of sampled firms at end of fiscal year. See bottom of Table 1 for definitions of variables. Equity capital is subtracted from denominator used to calculate ownership ratio. Asterisk (*) indicates that only ownership ratios of at least 3% are counted. Source: Compiled from various sources.

	FY1987 end N = 1,094		FY1991 end N = 1,223		FY1996 end N = 1,198		FY2001 end N = 1,404		FY2006 end N = 1,616		FY2008 end N = 1,599	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Insider	45.4	13.8	46.6	13.5	44.9	13.2	41.8	15.0	37.4	16.2	38.3	16.4
Cross-shareholding	15.1	9.4	15.4	9.2	15.3	9.1	11.9	9.7	9.2	9.2	9.0	9.3
by financial institutions	10.4	6.4	10.8	6.3	10.7	6.2	7.2	5.9	4.6	4.9	4.1	4.7
by business firms	4.7	6.4	4.6	6.2	4.6	6.2	4.7	6.8	4.6	6.4	4.9	6.8
Other stable shareholding	22.1	16.5	22.5	16.7	22.0	16.6	18.5	17.7	14.9	17.7	15.5	18.0
Holding company	1.1	1.4	1.1	1.4	1.5	1.6	2.3	2.5	2.0	2.3	2.3	2.6
Director	3.4	5.9	2.8	5.0	2.1	4.7	3.6	7.8	4.8	9.2	4.7	9.1
Family control *	3.6	7.8	4.6	9.3	3.9	7.9	5.3	9.7	6.3	10.9	6.7	11.3
Outsider	30.3	11.4	31.0	10.5	35.8	10.8	43.3	13.0	48.5	14.1	47.8	14.8
Institutional investor	6.3	6.6	9.2	7.4	12.0	8.8	13.4	11.9	21.8	14.5	19.0	13.9
foreign	3.3	4.1	4.1	4.4	7.1	6.8	6.6	7.9	14.2	11.6	11.7	10.7
domestic	3.0	3.5	5.1	4.1	4.9	3.3	6.8	5.6	7.6	5.6	7.3	5.8
Small individual	23.3	10.1	21.2	8.9	23.1	10.6	29.0	14.0	26.0	13.8	28.2	14.7
Foreign firm *	0.7	5.5	0.6	5.1	0.7	5.4	0.9	6.4	0.7	5.7	0.6	5.1

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	Definition
Insider	Cross-shareholdings + other stable shareholders (excluding cross-shareholding) + holding companies + family and family-controlled firms *
Cross-shareholding	Ratio of shares held as cross-shareholding. Distinguishes ownership of holding co., etc.
Financial institution	Cross-shareholdings of banks (excluding trust account), life insurers (excluding special account), non-life insurers, and domestic securities firms
Business firm	Cross-shareholdings of listed firms excluding banks, life insurers, non-life insurers, domestic securities firms
Other stable shareholder	Total ratio of shreholdings of banks (trust account), life insurers (special account), non-life insurers, domestic securities firms, and other buisness firms, excluding cross-shareholdings (includes unlisted affiliates of listed holding companies)
Holding company	Total ownership ratio of employee stock ownership plans, business partners, holding companies
Director	Ownership ratio of directors and auditors, including director stock ownership plans
Family control *	Total ownership ratio of foreign-national asset managers, individuals, family-controlled domestic unlisted corporations
Outsider	Institutional investors + small individuals + foreign firms*
Institutiona investor	Foreign institutional investors + domestic institutional investors
Foreign	Foreign ownerhip ratio excluding foreign firms, foreign large individual shareholders*
Domestic	Total ownership ratio of pension trusts, investment trusts, and life insurance special accounts
Small individual	Ownership ratio of individuals excluding directors and large individual investors with 3% or more ownership
Foreign firm *	Total ownership ratio of foreign-national firms engaged in business activity who have 3% or more ownership ratio

Table 2 Distribution of Foreign Investor Ownership Ratio

Table shows the basic statistics of the foreign investor ownership ratio and variance. Sample consists of firms listed on the first section of the three major stock exchanges (excluding financial institutions). For definition of foreign investor, see foreign institutional investor at the bottom of Table 1. The notation a~b% means at least a% but less than b%.

FY	No. of firms	Basic statistics (%)		Distribution of ownership ratio (firms)							
		Mean	Std. Dev.	0~1%	1~3%	3~5%	5~10%	10~20%	20~33%	33~50%	50%~
1987	1,106	3.30	4.20	400	322	139	163	71	10	1	0
1988	1,136	3.17	3.56	349	360	191	169	63	3	1	0
1989	1,172	3.31	3.31	282	417	226	192	53	1	1	0
1990	1,202	3.32	3.54	344	409	198	177	73	1	0	0
1991	1,238	4.11	4.40	343	342	179	252	109	13	0	0
1992	1,243	4.12	4.66	369	331	183	230	111	19	0	0
1993	1,158	5.30	5.44	248	266	188	275	148	32	1	0
1994	1,158	5.87	5.41	196	266	163	316	186	31	0	0
1995	1,181	6.84	6.44	202	239	136	299	255	44	6	0
1996	1,215	7.14	6.82	200	260	141	293	260	52	9	0
1997	1,255	6.64	7.07	254	294	141	264	232	60	10	0
1998	1,268	6.10	6.99	334	261	153	238	209	62	11	0
1999	1,332	7.09	8.07	317	308	118	232	243	96	18	0
2000	1,408	7.09	8.00	238	424	131	240	267	87	21	0
2001	1,432	6.67	8.01	372	330	142	232	244	89	23	0
2002	1,455	6.46	8.09	418	307	154	230	229	100	17	0
2003	1,482	9.25	9.63	221	323	143	279	311	151	51	3
2004	1,573	11.24	10.43	119	263	187	335	383	212	65	9
2005	1,614	13.74	11.14	65	203	141	346	451	300	94	14
2006	1,651	14.33	11.69	83	187	154	306	454	339	114	14
2007	1,643	14.06	11.99	101	205	153	303	449	309	104	19
2008	1,625	11.75	10.68	148	233	168	337	412	250	66	11

Table 3 Determinants of Stock Preference of Foreign Investors

Applies three-stage least squares method (3SLS) to the simultaneous equation model of Equation (2)' and Equation (3). Summarizes regression results for the 18-year period from 1991 to 2008. Sample consists of firms listed on the first section of the three major stock exchanges (excluding financial institutions). For details of the analytical model, see the discussion in the paper. Results of Equation (3) are omitted here. For Equation (2)', table shows mean value of regression coefficients for the regression period, and frequency of positive (or negative) values during regression period, and frequency of same that are significant at the 5% level. Considering the maldistribution of t-values used to evaluate significance, correction is made using White (1980). The dependent variable is foreign investor ownership ratio. Dependent variable ROA is treated as an endogenous variable. ROA is taken in current period, other dependent variables are taken at start of period. Independent variables are defined as follows. Float ratio is proportion of outstanding shares not considered to be fixed shareholdings (see discussion in paper for details). Logarithm of total assets is natural logarithm of the book value of total assets. Overseas sales ratio is the proportion of overseas sales in total sales. Debt ratio = [Book value of total assets + outstanding finance lease at end of period] / [Book value of total assets (adjusted for transition to mark-to-market accounting rules) + outstanding finance lease at end of period]. Book-value to price ratio = Net assets / Market capitalization. Investment grade dummy assumes a value of 1 if firm is rated at least BBB- by rating agencies. Transaction volume is the average daily volume divided by number of outstanding shares over the past three years, annualized. Number of directors is obtained from the Toyo Keizai database of directors. Ratio of other outside directors is calculated as the number of outside directors not from banks or controlling entities (having at least 15% ownership in the firm) divided by total number of directors. Ratio of outside directors from bank is calculated as the number of outside directors dispatched from banks divided by total number of directors. Ratio of outside directors from controlling entity is calculated as the number of outside directors dispatched from the controlling entity divided by total number of directors. Former six-major corporate group dummy assumes a value of 1 for firms belonging to the president's club of the six large corporate groups, and the firms in which they have one-third ownership. Industry dummy is based on the TSE 33-industry classification. Financial data is obtained from consolidated financial statements when possible, and otherwise from unconsolidated financial statements.

	Total (1991-2008)			Period 1 (1991-1996)			Period 2 (1997-2002)			Period 3 (2003-2008)		
	Avg. regress. coef.	Pos. [sig.]	Neg [sig.]	Avg. regr. coef.	Pos. [sig.]	Neg [sig.]	Avg. regr. coef.	Pos. [sig.]	Neg [sig.]	Avg. regr. coef.	Pos. [sig.]	Neg [sig.]
Constant	-28.07	0	18	-19.30	0	6	-24.94	0	6	-39.95	0	6
		[0]	[18]		[0]	[6]		[0]	[6]		[0]	[6]
Current period ROA	0.40	18	0	0.43	6	0	0.31	6	0	0.45	6	0
		[17]	[0]		[6]	[0]		[5]	[0]		[6]	[0]
Float ratio	0.14	18	0	0.09	6	0	0.13	6	0	0.21	6	0
		[18]	[0]		[6]	[0]		[6]	[0]		[6]	[0]
Log (total assets)	2.96	18	0	2.01	6	0	2.82	6	0	4.05	6	0
		[18]	[0]		[6]	[0]		[6]	[0]		[6]	[0]
Overseas sales ratio	0.06	18	0	0.05	6	0	0.06	6	0	0.07	6	0
		[18]	[0]		[6]	[0]		[6]	[0]		[6]	[0]
Debt ratio	-0.11	0	18	-0.08	0	6	-0.11	0	6	-0.15	0	6
		[0]	[17]		[0]	[6]		[0]	[5]		[0]	[6]
Book-to-price ratio	-1.27	2	16	-0.09	2	4	-2.18	0	6	-1.53	0	6
		[1]	[10]		[1]	[1]		[0]	[6]		[0]	[3]
Investment grade dummy	0.70	18	0	0.91	6	0	0.58	6	0	0.60	6	0
		[9]	[0]		[5]	[0]		[2]	[0]		[2]	[0]
Share transaction volume	1.23	17	1	1.84	6	0	0.80	5	1	1.07	6	0
		[10]	[0]		[5]	[0]		[2]	[0]		[3]	[0]
No. of board members	-0.09	0	18	-0.11	0	6	-0.10	0	6	-0.07	0	6
		[0]	[10]		[0]	[6]		[0]	[3]		[0]	[1]
Other outside director ratio	0.02	18	0	0.01	6	0	0.02	6	0	0.03	6	0
		[6]	[0]		[0]	[0]		[1]	[0]		[5]	[0]
Outside director ratio from banks	-0.01	5	13	-0.00	2	4	-0.03	0	6	-0.01	3	3
		[0]	[1]		[0]	[0]		[0]	[1]		[0]	[0]
Outside director ratio from controlling entity	0.02	17	1	0.02	6	0	0.02	6	0	0.02	5	1
		[7]	[0]		[2]	[0]		[3]	[0]		[2]	[0]
Former 6 corporate group dummy	-0.06	8	10	0.08	3	3	-0.24	1	5	-0.03	4	2
		[0]	[0]		[0]	[0]		[0]	[0]		[0]	[0]
Industry dummy		Yes			Yes			Yes			Yes	

Table 4 Disciplinary Effect of Foreign Investors

In Panel 1, fixed-effect model (Within) is applied to Equation (4). In Panel 2, fixed-effect 2-stage estimation (Within-2SLS) is applied to the simultaneous equation system consisting of Equation (4)' and Equation (5). Sample consists of firms listed on the first section of the three major stock exchanges (excluding financial institutions). In Panel 1, independent variable is Δ ROA (ROA in current period - ROA in previous period). Of the dependent variables, foreign investor ownership ratio is taken at start of period, and others are taken at start of period or in previous period. See note to Table 7 for definition of variables Panel 2 omits results from first stage of Equation (5), and shows only results of second stage of Equation (4)'. Dependent variable is Δ ROA. Of the dependent variables, foreign investor ownership ratio is treated as an endogenous variable and taken at end of period. Asterisks (***), (**), and (*) denote that the regression coefficient is significant at the 1%, 5%, and 10% level respectively.

Panel 1: Within Model Estimation Results

	All periods 1991-2008	Period 1 1991-1996	Period 2 1997-2002	Period 3 2003-2008
Foreign investor ownership ratio (start of period)	0.032 *** (6.91)	0.072 *** (6.25)	0.052 *** (4.60)	0.053 *** (5.25)
ROA in previous period	-0.398 *** (-52.18)	-0.458 *** (-34.90)	-0.749 *** (-48.81)	-0.573 *** (-33.35)
Log (total assets)	-1.548 *** (-17.48)	-4.558 *** (-19.79)	-1.306 *** (-5.94)	-5.128 *** (-19.60)
Debt ratio	0.021 *** (8.88)	0.107 *** (18.10)	0.024 *** (7.29)	0.177 *** (23.62)
Constant term	18.693 *** (17.83)	49.591 *** (18.41)	16.444 *** (6.29)	52.028 *** (17.55)
Year dummy	Yes	Yes	Yes	Yes
Sample size	23,661	6,983	7,654	9,024
R-squared	0.190	0.320	0.342	0.311

Panel 2: Within-2SLS Model Estimation Results

	All periods 1991-2008	Period 1 1991-1996	Period 2 1997-2002	Period 3 2003-2008
Foreign investor ownership ratio (start of period)	0.090 *** (7.44)	0.430 *** (5.84)	0.236 *** (5.49)	0.186 *** (3.00)
ROA in previous period	-0.418 *** (-49.84)	-0.460 *** (-32.25)	-0.769 *** (-47.59)	-0.591 *** (-29.22)
Log (total assets)	-1.693 *** (-17.84)	-4.662 *** (-18.60)	-1.230 *** (-5.62)	-5.269 *** (-19.58)
Debt ratio	0.024 *** (9.95)	0.131 *** (17.03)	0.029 *** (8.40)	0.180 *** (23.54)
Constant term	19.685 *** (18.45)	47.899 *** (16.35)	13.998 *** (5.40)	52.655 *** (17.64)
Year dummy	Yes	Yes	Yes	Yes
Sample size	23,563	6,972	7,628	8,963
R-squared	0.198	0.202	0.338	0.319