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# Stock Ownership Structure and Corporate Social Performance: Evidence from Japan[†]

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## Abstract

Japanese firms' relationships with their stockholders have changed significantly since the globalisation of stock ownership in the 2000s. This study represents a first attempt to investigate the influences of different types of investor groups on corporate social performance (CSP) in Japan in the late 2000s. This paper focuses on the role of foreign investors in affecting corporate social performance relative to domestic investors. To accomplish this, we identify attributes of corporate social responsibility (CSR) and construct a normalized CSP composite index and five dimensional indices through principal component analysis. After controlling for firm characteristics, cross-sectional regression analyses of ownership structure on the CSP indices reveal that an increase in foreign shareholdings is positively associated with high levels of CSP. In contrast, a higher share of domestic corporate investors shows a negative association with those same outcome measures. Both foreign and domestic investors demonstrate strong preferences for large-scale and mature firms. These empirical results suggest that foreign investors, who are increasingly concerned with the social implications of investees' activities in a globalised business environment, may play a key role as a driver of CSR and consequently influence stakeholder management of Japanese firms.

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## 1. Introduction

Corporate social responsibility (CSR) has been globally recognised as one of the core concepts in corporate management since the 1980s, when international businesses underwent economic and financial liberalisation. CSR relates to broad business activities and processes, but expected gains from CSR are generally uncertain and ambiguous. Business organizations suffer significant financial losses for engaging in CSR-related activities in the short term, even if these activities are geared towards long-term societal goals. Strategic responses of business organizations vary from firm to firm and industry to industry, so corporate social performance is not a standardized concept but is instead multi-dimensional. Therefore, in this study, we apply the stakeholder management approach to explore the CSR-related practices of Japanese firms in the context of the globalised nature of business and ownership structures, focusing on the role of investors as drivers of CSR.

The central purpose of this study is to investigate the relationship between corporate ownership and corporate social performance (CSP) of Japanese business firms in the late 2000s, when ownership structures of many Japanese firms changed significantly. Foreign investors became major players in the Japanese stock market, while cross-shareholdings among business corporations and financial intermediaries were gradually dissolved. In addition, some domestic institutional investors began to voice dissent against their investees' management personnel in the prolonged worldwide economic downturn. These changing environmental characteristics led Japanese firms to adjust their attitudes regarding shareholders and ownership, as well as their relationships with other stakeholders.

This study is a first attempt to shed light on the influence of foreign investors on the CSP of Japanese firms. Specifically, this study is the first to compare the effects of foreign investors on CSP to those associated with domestic investors in the late 2000s. The remainder of this study is as follows. First, we explicitly distinguish foreign investors' preference bias for high-CSP firms from their influence on the CSP of investee companies. Second, we explore the influence of different types of investment structures on a comprehensive CSP index and five dimensional indices of stakeholders' perspectives, both of which we originally constructed on the basis of questionnaire results of the CSR Database of Toyo Keizai, Incorporated.

Through these analyses, we found that an increase in foreign shareholdings was positively associated with high scores on the CSR indices while an increase in domestic corporate investors' shareholdings demonstrated an opposite relationship. Our results suggest that foreign investors, who are concerned with CSP as well as financial performance, played a key role as drivers of CSR and influenced stakeholder management of Japanese firms in the late 2000s. The results also imply that in addition to their traditional business-related activities, individual investors may have played a complementary role in enhancing social relations and

environmental preservation on the part of the company. Changing ownership structures have influenced the CSR-behaviours of Japanese firms, but domestic corporate investors appear to continue under the restraint of relation-based investment.

The rest of the paper will proceed in the following manner: Section 2 will survey the conceptual background and extant empirical studies related to ownership structure and investor behaviour. Section 3 will present research objectives and introduce hypotheses to be examined. Section 4 will explain data construction, estimation methods, and results. Finally, in Section 5, we will discuss implications for development of CSR practices in Japanese firms from an international perspective, and provide some avenues of future research in this area.

## 2. Ownership Structure and Investors' Behaviour in Japan

### 2.1. Definition of CSR and Stakeholders

Although discussions regarding the definition of CSR have a long and varied history, they have yet to produce a consensus conceptualisation. The concept of CSR has long been discussed in the fields of business and societal studies (see Carroll 1979; Wood, 2000; Windsor 2006; McWilliams, Siegel and Wright, 2006) and many empirical studies have been conducted on the relationship between corporate social performance (CSP) and corporate financial performance (CFP) since the 1970s (see Cochran and Wood, 1984; McGuire, Sundgren and Schneeweis, 1988; Waddock and Graves, 1997; McGuire and Siegel, 2000, 2001). Proposed definitions for CSR have varied greatly, and have emphasized the narrow aspects of stakeholder management to the broad aspects of social issue management.

Although the definition of CSR is still embryonic and ambiguous in both academic analyses and business practices, 'researchers are moving beyond just defining and identifying CSR activities, to examine the strategic role of CSR in organizations' (McWilliam et al., 2006, p. 2). Many researchers have explored the financial implications of CSR and firms' incentives for engaging in socially responsible behaviour. To this end, some researchers have applied a governance framework on CSR practices and analysed the relationship between CSR activities and financial performance.

Empirical research on the association between CFP and CSP using a governance framework provides businesses with practical insight regarding 'how firms' roles in society take shapein the interaction with their stakeholders' (de Graaf and Stoelhorst, 2009, p. 5). As a result of these investigations, it has been found that 'the comprehensiveness of CSP becomes problematic in assessing the relationship between it and CFP, as some aspects of CSP might aid financial performance whereas other aspects of CSP might hurt it' (Cox and Schneider, 2010, p. 255). Despite the confusing nature of the CFP-CSP relationship thus far, disaggregating the dimensions of CSP in stakeholder relationship management may promote the development of

sustainable sources of competitive advantage (Hillman and Keim, 2001).

Various models for stakeholder behaviour have been proposed to explain the relationship between CSP and CFP. Observations and theoretical discussion have shown that consumers might be drivers of CSR, supporting pro-social corporate products and punishing corporations that fail social responsibility (Smith, 2008). Schuler and Cording (2006), for example, examined the moderating effects of information intensity and moral values on the relationship between CSP and consumers' purchase behaviours. Similarly, Deakin and Hobbs (2007) presented a model of CSR that described it as a set of mechanisms for aligning corporate behaviour with the interests of society by reducing externalities and promoting a sustainable corporate sector that takes voluntary action geared towards more than simply enhancing competitiveness. The financial tenets of this model are concerned with managerial incentives for aligning CSR strategies in the financial market and promoting shareholder engagement on internal issues related to employment and safety. Devoting corporate resources to the social benefit of employees, customers, suppliers, and local communities can help to create shareholder value (Brickley et al., 2003). Given this, long-term institutional investors, such as pension funds and insurance companies, are expected to play a crucial role as key drivers of CSR.

## 2.2. Long-term Investors and CSP in Preceding Studies

Institutionalization of investment is a recent trend that has commonly been observed in countries with developed economies. In the tradition of a seminal study by Cochran and Wood (1984), many empirical studies on the relationship between institutional shareholding and CSP have been conducted since the 1990s. The results of many of these studies suggest a positive relationship between institutional shareholdings and CSP (see Waddock and Graves, 1997; Johnson and Greening, 1999; Hillman and Keim, 2001).

Investment time horizon and aims differ between types of institutional investors. Social investors generally have long-term perspectives, though the objectives pursued by their investments are various. They include 'value-based investors' who act in accordance with deeply held ethical views, 'value-seeking investors' who use social and environmental data to enhance portfolio performance, 'value-enhancing investors' who use shareholder activism techniques to enhance investment value by focusing primarily on corporate governance, and investors targeting some other specific concern (Kurtz, 2008). The socially-responsible investment (SRI) movement in the USA in the 1970s and 1980s was religiously, socially, and politically value-based. In contrast, recent global institutional investors who are concerned with CSP seem to be value-seeking or value-enhanced rather than value-based.

Long-term institutional investors' decision making is subject to various pressures arising from regulatory constraints and customer demands. For example, the 2000 revision of the

Pension Funds Act requires that controllers of pension funds in the UK disclose their policy for socially responsible investment within their formal Statement of Investment Principles. Under this regulation, SRI has spread among institutional investors in the UK, and CSR has subsequently influenced pension investors' decision making in the European region. On the other hand, customers within an aging society have increased their demand for financial gain from their pension funds and mutual funds. In this way, the association between CSP and CFP is coming to the forefront of discussions related to long-term asset management in developed countries.

Cox et al. (2004) investigated patterns of institutional shareholding and its relationship with socially responsible behaviour in large British companies between 2001 and 2002. Their results suggest that shareholding by long-term institutional investors or pension funds is positively related to CSP. With the same data set, Cox et al. (2008) examined the relationship between multidimensional CSP and pension ownership, and found that UK pension funds prefer employee-focused aspects of CSP. Cox and Schneider (2010) compared preference for CSP of 'US-–domiciled' and 'UK-domiciled' pension plans in the UK stock market. They found that the UK pension plans possess a positive relationship with workplace practices and environment, while the US pension plans stress CFP. These results imply that a regulatory framework of institutional investment is a critical determinant in promoting certain CSR activities.

Neubaum and Zahra (2006) examined the influence of shareholders' activism and coordination on executives' support of CSP. Using data from Fortune 500 companies from 1995 to 2000, they found that socially-active investors had a positive influence on CSP. Their results suggest that long-term shareholdings may foster relational exchanges between shareholders and corporate executives related to the enhancement of CSP. Based on the organizational architecture of corporations, the authors further imply that coordination among stakeholders reduces conflicts with executives and may enhance corporate value.

### 2.3. Foreign Ownership and Domestic Investors in Japan

Conventionally, stock ownership in Japanese companies is characterized as either insider holdings or cross-holdings among corporations based on relevant long-term business relationships. This feature of ownership structure has changed since the Bubble Economy Burst in the late 1980s. During a decline in cross-shareholding among Japanese firms, institutional and foreign investors have emerged as major shareholders since the 1990s, when globalisation of business and financial liberalisation advanced with worldwide growth of capital flow and cross-border diversification of portfolio investments.

Table 1 shows stock ownership at market value from 1985 to 2010. Stockholding by foreign investors was at 4.7% in 1990, rose to 18.8% in 2000, and peaked at 28% in 2006. Domestic

corporate shareholding fell from 60.2% to 49.9% during the period between 2000 and 2010. Among shares owned by domestic corporations, shareholding by trust banks, comprised of investment trust accounts and pension fund accounts, held around 18%. This degree of ownership is considered as institutional holding. Shareholding by commercial banks, insurance companies, and businesses, fell from 42.8% to 31.7%. Given this, investment by corporations and financial institutions (with the exception of trust banks) may maintain a large part of ownership of Japanese listed companies, even at the end of the 2000s. Many of them might be realized as relation-based investment. Shareholding by individuals, which include various types of direct holdings by individual investors, held steady at about 20% throughout the 2000s.

[Table 1 about here]

Since the early 2000s, corporate governance by institutional shareholders has been gradually recognized among domestic, long-term institutional investors. In 2001, Pension Fund Association (PFA) began disclosing their policy for shareholder voting and began to execute voting rights on stocks of its in-house portfolio management. On the other hand, managers of pension funds have faced increasing pressure from their customers to demand high performance in a society that is rapidly aging.

Generally, institutional investors have behavioural biases as a result of pressures from their customers or a regulatory authority. Their behaviour may also be influenced by an incentive system of the organization to which they belong (Scharfstein and Stein, 1990; Sias, 2004; Hansen and Hill, 1991). Suto and Toshino (2005) examined behavioural biases of fund managers of Japanese institutional investors based on the 2003 survey data. Their results indicated that fund managers demonstrated a short-term bias and participated in herding, and self-marketing to improve appearance of portfolio performance under strong pressures from their customers who demand high financial performance in the short-term. Their results also suggested that in the relationship between sponsor companies of pension funds and fund management companies or Keiretsu financial group, fund managers displayed weakness due to pressures from customers.

Biases of long-term investors would seem to contradict their role as monitors for corporate value. In other words, long-term investment biases could hurt the corporate governance mechanism of shareholders. In this way, Japanese institutional investors have been sensitive to (and biased towards) their customers' expectations since the early 2000s[1].

[1] Suto, Menkhoff, L. and Beckmann (2005) compared the results of the same form of surveys in Japan, Germany, and the U.S. Their findings indicated that Japanese fund managers demonstrate more strongly biased behaviour than both German and U.S. fund managers in terms of short-time bias and herding.

### 2.4. Preference of Foreign Investors

Given the growth of cross-border portfolio investment, many researchers have become interested in the behaviour of foreign investors and examined their preferences. According to previous studies, foreign investors are more inclined to invest in large and esteemed firms relative to those that are small or poorly governed. Additionally, they tend to have a home-country bias in selecting investee companies due to information asymmetry relative to local investors (Choe, Koh, and Stulz, 2005; Leuz et al., 2009).

American investors show a strong preference for disclosure and transparency, avoiding insider systems, peculiar relationships, and weak stockholder protection (Kang and Stulz, 1997; Kho, Starks and Warnock, 2006; Aggarwal, Klapper and Wysocki, 2005; Leuz et al., 2009). Institutional investors generally prefer firms with low transaction costs or high liquidity in the market (Gompers and Metric, 2001). Given this, foreign investors might prefer large-scale companies with global significance and high credit ranking in the Japanese stock market.

I. In 2006, the Tokyo Stock Exchange began requiring listed companies to disclose their Corporate Governance Report. In 2007, the Financial Instruments and Exchange Act was passed and became effective in April 2008. According to this Act, a company that is required to submit annual securities reports to the Ministry of Finance must also submit internal control reports. In the corporate sector, this has led large and international companies to strengthen their investor relations (IR) and most of have voluntarily issued CSR reports.

In spite of these activities and legislation, many have argued that the disclosure and transparency of Japanese firms remain insufficient (OECD, 2010; ACGN 2008). Further, some have argued that Japanese pension funds should be more concerned with disclosure related to nonfinancial issues to improve long-term performance (OECD, 2010). Using data from Japanese firms between 1991 and 2008, Miyajima and Nitta (2011) examined the relationship and causality between shareholding and governance features. They found that the way in which a board of directors is structured with respect to shareholders' interest is a primary determinant of foreign ownership. The results suggest that foreign investors pay a premium for firms with more independent directors. Thus, foreign investors exhibited a home-country bias and preferred strong corporate governance in investing in the Japanese stocks, but also influenced the improvement of corporate performance of investee companies.

### 2.5. SRI Market in Japan

Traditional Japanese corporations are characterised by ethical self-discipline or CSR policy that is passed down in the business over generations[2]. Some key concepts of CSR, including

[2] The most well-known policy of long-established Japanese business is the coordination of interests of

product quality, social contributions, and community employment, are familiar to traditional Japanese corporate management as integral for the company's long-term survival.

Nevertheless, the SRI market in Japan is extremely small in comparison to the economy. Based on a 2009 estimation, 90% of SRI is comprised of investment trust funds for individuals; only 10% is due to long-term institutional investment. Investment funds for individuals have been biased toward the environmental aspects of CSR[3]. In contrast, pension funds remain sceptical about SRI in terms of both investment policy and performance. In a prolonged financial downturn, pension funds' primary concern is not social performance, but financial performance. Governance problems related to the organization of pension funds, particularly their ambiguity regarding the decision-making responsibilities of trustees and the advisory committee have also been discussed. Hence, long-term institutional investors have been reluctant to implement an investment strategy based on CSP[4].

Given the above situation, foreign investors who have a global perspective of CSR may have played a key role in pushing for the improvement of socially responsible practices related to ESG (Environmental, Social, and Governance) to increase the corporate social performance of Japanese corporations.

## 3. Research Objective and Hypotheses

### 3.1. CSP Attributes

Through a review of the extant research and arguments related to CSR attributes, we find a consensus that different types of corporate social activities have different implications for financial performance (Cox et al., 2009, p.29). In terms of risk management, cost-saving, and employee motivation, there are many potential benefits for linking CSP and CFP. Thus, different types of investors may be primarily concerned with different aspects of corporate activities. Although indicators and attributes of CFP are relatively clear, the discussions related to the linkage between CSP and CFP are characterized by disagreement and ambiguity of CSP attributes.

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three stakeholders: suppliers, buyers, and community or society; Sanpou-yoshi (business should be run for three-stakeholder-benefits) to establish trust based on societal relationships as well as in transactions guided by self-discipline. According to the 2010 report of TEIKOKU DATABANK Ltd, there are 22,219 companies that are over a hundred years old and 39 companies that are older than 500 years. The oldest company is Kongo-gumi, a construction company that specializes in building temples and shrines. It has operated as a private business since 578 A.D.

[3] According to the estimation by SIF-Japan, market value of SRI peaked at approximately 850 billion Japanese Yen at the end of 2007, but fell to 579 billion JPY due to the shrinking of the market. In 2007, European SRI amounted to 2.7 trillion Euro and that of the U.S. amounted to $2.7 trillion. (Japan Social Investment Forum, *Annual Report*, 2009).

[4] Based on a questionnaire survey for pension plans, only 6.9% of pension plans (32 plans out of 465 respondents to the survey) have already adopted SRI. (*Study Report for SRI and PR* by Research Policies on Pension and Aging (2008).)

A stakeholder-focused approach to corporate governance emphasizes that corporate responsible activities can be linked to different stakeholder relations (e.g. employees, communities, customers, suppliers, the environment) and firms are required to choose the appropriate architecture of internal governance and adopt strategies in the existing regulatory framework. Given these stakeholder relationships, we define the following five attributes of corporate social performance: 1) employee relations, 2) social contributions, 3) security for organization and product safety (i.e. quality of product), 4) internal governance and risk management, and 5) environmental preservations.

The first attribute, employee relations, which includes working conditions within the organization, can enhance employee quality and motivation (Turban and Greening, 1997). Appropriate working hours and salary, minority employment, job stability, safe working conditions, as well as enlightenment and the development of abilities are all related to the employee relations variable.

The second attribute, social contributions, is related to a firm's policy for and response to social demands. Good relationships and coordination with the surrounding community in which they operate can reduce costs associated with local conflicts, attract effective human resources, and enhance reputation. On the other hand, negative relationships with the surrounding community can narrow business perspectives and increase costs and risks associated with business operation.

The third attribute, firm security and product safety, is related to the quality of a firm's products and the sustainability of its business. Therefore, it exists as a competitive advantage of corporate management in the long-term. Security and safety is related to supply chain management as well as the firm's own activities, and ultimately affects a firm's relationship with its customers.

The fourth attribute, internal governance and risk management, is related to the quality of disclosure, compliance, internal auditing and self-disciplining that a firm demonstrates. The fifth attribute, environmental preservation, is a pillar of CSR in a society that is increasingly concerned with global climate change. As such one may perceive that this is the most integral responsibility of firms.

We define comprehensive or 'Composite CSP' as a composite index of the above five attributes.

### 3.2. Hypotheses Development

In light of the above discussion, we propose hypotheses to examine the relationship between the foreign ownership and CSP of Japanese listed firms in the late 2000s. Considering the simultaneous determination of CSP and the structure of shareholdings, we attempt to distinguish

foreign investors' preference for companies with high-CSP from their influence on improving the CSP of the investee companies. Three groups of ownership are classified based on distance from their investees: domestic corporate ownership, foreign corporate ownership, and individual ownership.

Corporate ownership includes shareholdings of both business companies and financial institutions. Thus, domestic corporate ownership is relationship-based shareholding, broadly defined. On the other hand, foreign ownership is characterized by shareholding by those outside a company's country of operation. Foreign corporate investors may prefer established companies due to information asymmetry. Corporate investors, both domestic and foreign, are inclined to prefer large-scale and mature companies, though their respective reasoning for this could differ. Individual ownership reflects the decision-making of various individual investors.

In this study, we focus on corporate investor groups. We explore domestic and foreign investors' preferences for and influences on CSP of listed companies in which they invest. We propose the following hypotheses related to the association between investment structure and CSP. Foreign investors might place a higher value on the individual CSP dimensions than domestic investors. Domestic corporate investors might have stronger interest in CSP-employment in a Japanese insider-system of corporate management relative to foreign investors. The internal governance index might be less interesting to investors in the observed period, as an internal control report was legally required for all listed corporations from 2008 and simply complied.

We examine the association of ownership structure with Composite CSP and CSR dimensions, and the influences of changes in ownership on CSR achievement. Thus, our hypotheses can be divided into three categories:

(1) Corporate ownership structure and Composite CSP

Hypothesis 1: *There is a positive relationship between corporate ownership and Composite CSP achievement because they prefer matured companies.*

Hypothesis 2: *The positive relationship between foreign ownership and Composite CSP is more pronounced than the relationship between domestic corporate ownership and composite CSP.*

(2) Changes in foreign ownership and Composite CSP

Hypothesis 3: *There is a positive relationship between growing foreign ownership and Composite CSP because foreign investors pressure have influences on investee companies to improve their CSP.*

Hypothesis 4: *The positive relationship between growing foreign ownership and CSP is more pronounced than the relationship between growing domestic ownership and CSP.*

(3) Changes in ownership structure and CSP Dimensions

Hypothesis 5: *The relationships between the five CSP dimensions and three types of investors differ because each type of investor has different preferences for firms' CSP practices.*

Hypothesis 6: *The relationships between five CSP dimensions and changes in stock ownership by three types of investors differ because each type of investor has different influences on firms' CSP practices.*

## 4. Data Construction Method and Estimation

### 4.1. Construction of CSP Indices

We constructed the CSP indices using the Corporate Social Responsibility Database, which was provided by Toyo Keizai Inc. as a primary data source. The original database consists of three parts: employee relations (Part I), an overall survey for CSR (Part II), and environmental preservation (Part III). We further subdivided Part II into three CSP attributes. They were 'social contributions', 'security of the firm and product safety', and 'internal governance and risk management'.

First, we carefully selected 17 questions items about employee relations, 21 questions about CSR in general, and 18 questions about environmental preservation[5]. Then, based on the responses to the questions we selected, we kept 13 scores regarding (1) employee relations (EMP), 5 scores regarding (2) social contributions (SC), 5 scores regarding (3) security of the firm and product safeness (SS), 6 scores regarding (4) internal governance and risk management (IG), and 5 scores regarding (5) environmental preservation (ENV)[6]. Third, for each of these five CSP attributes (ENV, SC, SS, IG, and ENV), we constructed CSP dimensional indices by conducting a principal component analysis. Items and their related factor weights are shown in Table A2. Each CSP dimensional index is demeaned and scaled by its standard deviation so that it approximately obeyed a standard normal distribution.

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[5] With respect to environmental preservation, we excluded items which require quantities such as costs and emissions because there can be large dispersion about the accuracy of figures among industries. Further, there was a significant amount missing data for such questions.

[6] In each year, we first converted quantitative data such as proportion of female employees to three or four level categorical data. Second, we made within sector adjustments since some questions had very different meanings among sectors. The seven sectors used in this study shown in Table A1 are identical to those defined in Kubota and Takehara (2007) that set store on the distance between firms and final consumers.

The comprehensive CSP index was computed based on the above constructed five dimensional indices. Let $r(\ )$ denote the function that gives a rank of the element of vector in ascending order and $n$ denote the number of firms in each year. Given this, the comprehensive measure of CSP in each year is defined as follows:

$$CSP = \frac{r(r(EMP) + r(SC) + r(SS) + r(IG) + r(ENV)) - 1}{n - 1} \times 6 - 3 \qquad (1)$$

It is convenient for researchers if the scale of the comprehensive CSP measure is comparable to those of the CSP dimensional indices. Since our CSP dimensional indices approximately obey a standard normal distribution, equation (1) is adjusted such that the comprehensive measure of CSP is uniformly distributed and falls in the closed interval [-3, 3].

**4.2. Descriptive Statistics of CSP and Firm Characteristics**

We constructed the CSP Dimensional Index Database using information from 2007 to 2010, which included all the listed firms in Japan which responded to the questionnaire survey administered by Toyo Keizai Inc. Toyo Keizai Inc. sent a questionnaire to the firms in the beginning of July and the firms responded by the end of September. In this study, we use the most recent financial statement data and market-attributed data that were available at the end of September. The primary source for financial statement data was the NIKKEI NEEDS Database. The primary source for market attributed data, including market value of equity and stock return, was the NIKKEI Portfolio Master Database.

Before examining the hypotheses described in the previous section, it was imperative to compute the proportion of shares owned by domestic corporations, foreign corporations, and individuals, respectively. Japanese firms are required to disclose the brief summary of their stock ownership structure in their financial reports. This summary includes the number of shares owned by foreign corporations and the number of shares owned by individuals. For this study, the number of shares owned by domestic corporations was defined as the sum of shares owned by financial institutions and the number of shares owned by other corporations. We explicitly excluded shares owned by financial products dealers, governments, and public organizations in our calculation of shares owned by domestic corporations.

To investigate the behaviour of stakeholders associated with CSP, it was necessary to evaluate the firms' characteristics in addition to the stock ownership structure. We used the following eight variables in this study. First, as is pointed out in many previous studies, a firm's CSP is positively correlated to its size. As such, we use natural logarithm of total asset value (in million JPY), lnTA, as a measure of size. Since the relationship between CSP and firm size is not linear, we also constructed three size dummy variables, Size1, Size2, and Size3 for use in the regression analysis whose results will be reported later. Other characteristic variables were

proxies for profitability, credit risk, and growth of the firm. These variables were Return on Asset (ROA), Debt Ratio (DR), and Growth rate in Total Asset (GTA), respectively. As a measure of liquidity and financial variability of the firm, we used monthly turnover rate (Turn) and past the volatility of the past three years' monthly stock returns (Vol3Y), respectively. Book-to-Price Ratio (BPR) was a variable used to control the difference in firm's style (i.e. value and growth.) A lower book-to price ratio implies that investors expect managers to create value thorough the operation of the firm. Finally, we introduced a Foreign Dependency Ratio (FDR) variable, which was defined as sales in foreign countries divided by total sales.

Table 2 lists the number of firms in each sector by year. The number of firms ranged from 894 in 2007 to 975 in 2010. About 60 percent of the firms are listed on the Tokyo Stock Exchange (TSE) first section, however, about 10 percent of the firms are listed in the TSE second section and about 30 percent of the firms are listed exchanges other than the TSE. Firms in the services industry represented 37 percent of the sample firms, but only half of them are listed in the TSE.

[Table 2 about here]

For September of each year, we constructed sector portfolios or size-ranked equal-weighted portfolios. Table 3 reports the descriptive statistics of CSP by sector (Panel A) and by firm size (Panel B). The median and mean scores for CSP (the comprehensive measure of CSP) is highest in the consumption goods sector. Medians of EMP, SS, and IG are highest in the investment goods sector. Contrarily, median values of SC and ENV are highest in the utility sector. Panel B shows the pronounced positive relationship between the firm size (as measured by total assets) and firm CSP.

Descriptive statistics related to the stock ownership structure of sample firms are shown in Table 4. There is little difference in shares owned by domestic corporations across the sectors or firms size. In sharp contrast, there exists a large difference in the number of shares owned by foreign corporations. Foreign corporations tend to own large- and medium-sized stocks and do not invest a great deal in firms in service sectors whose CSPs are relatively low.

[Table 3 about here]

[Table 4 about here]

### 4.3. Correlation between the Variable and Regression Model

Panel A of Table 5 shows the correlations between CSP and ownership structure, and Panel

B shows the correlations between CSP and eight firm characteristic variables. In both panels, Spearman rank correlations and their corresponding probability values are reported. The results shown in this table can assist in verifying the research hypotheses we have proposed.

In panel A, the correlation between comprehensive CSP and percentage of shares owned by Japanese corporations is 0.269 and the correlation between comprehensive CSP and percentage of shares owned by foreign corporations is 0.533. Both correlations are positive and significant at the 1% level. This finding supports Hypothesis 1. Since the correlation is much higher for the relationship between foreign corporate ownership and CSP, these findings also provide evidence for supporting Hypothesis 2. The correlation between comprehensive CSP and the five-year increase in shares owned by foreign corporations is 0.217 and significant at the 1% level. This supports Hypothesis 3. Contrary to the positive correlation between CSP and the increase in percentage of shares owned by foreign corporations, the correlation between CSP and the increase in percentage of shares owned by Japanese corporations is negative at -0.155. This observation does not contradict Hypothesis 4. Finally, there exists significant variation in the magnitudes of the correlation between CSP dimensional indices and ownership structure variables; this observation supports Hypotheses 5 and 6. Overall, these findings provide no evidence against Hypotheses 1 to 6 in Panel A of Table 5.

Panel B confirms the relationship between firms' characteristics and the CSP indices. The correlations between the comprehensive CSP measure and the characteristics variables were statistically significant at 1% level in most cases. The exceptions were the respective relationships between CSP and debt ratio (DR), and growth rate of assets (GTA). As already confirmed in Table 3, there exist strong, positive relationships between the CSP indices and firm size (lnTA). Furthermore, the CSP indices were higher in firms that are more liquid and less variable.

[Table 5 about here]

The high correlations between the CSP indices and characteristics variables raise suspicion regarding the findings in Panel A. To verify the findings reported above, we a conducted regression analysis by treating the characteristic variables as covariates. To verify the robustness of our findings after controlling firms' characteristics, we employed the following regression model:

$$y_j = \alpha + \beta x_j + \sum_{i=1}^{7} \gamma_i CV_{i,j} + \sum_{i=2}^{3} \delta_i DSize_{i,j} + \sum_{i=2}^{6} \lambda_i DSecter_{i,j} + \sum_{t=2007}^{2009} DYear_{t,j} + \varepsilon_j . \quad (2)$$

In model (2), $y_i$ is a comprehensive measure of CSP or one of five CSP dimensional indices. Independent variable $x_j$ indicates the percentage of shares owned by Japanese corporations, the percentage of shares owned by foreign corporations, the percentage of shares owned by individuals, the percentage increase in in share ownership by Japanese corporations, the percentage increase in share ownership by foreign corporations, or the percentage increase in share ownership by individuals. $CV_{i,j}$ is the set of control variables consisting of ROA, DR, GTA, Turn, Vol3Y, BPR, and FDR. $DSize_{i,j}$ is a size dummy-coded variable which is equal to 1 if the sample $j$ belongs to the $i$-th size ranked portfolio and equal to 0 otherwise. $DSector_{i,j}$ is a sector dummy variable if the sample $j$ belongs to the $i$-th sector and 0 otherwise. Finally, the *DYear* variables are the dummy variables for each year $t$=2007,…, 2009.

Before conducting the regression analysis, we excluded the upper and lower 2.5% samples as outliers[7]. As a result, the number of firms we used in the following regression analysis was 3,536.

### 4.4. Estimation Results

Table 6 reports the regression results for different types of ownership for all sample firms on both the Composite CSP and five attribute indices with a set of control variables. With respect to the association among different types of ownership in companies and Composite CSR, the results support Hypothesis 1; corporate ownership, both domestic and foreign, demonstrated a positive relationship with comprehensive corporate social performance ($p < 0.05$), while individual ownership demonstrated a significantly negative relationship. The estimated coefficient for CSP of foreign ownership is larger than that of domestic corporate ownership, so Hypothesis 2 is likewise supported. These results indicate that corporate investors seem to prefer large-scale and matured companies which have had relatively high levels of success and reputation in the society in which they operate.

[Table 6 about here]

Table 7 indicates similar regression results related to the influence of changes in ownership on Composite CSP and five attribute indices. It shows that growing foreign ownership has a positive influence on Composite CSP, thus supporting Hypothesis 3. Further, it is interesting that growing domestic ownership demonstrated a negative relationship with Composite CSP, though this relationship did not achieve statistical significance. These results can be interpreted such that domestic corporate investors are, as a whole, not terribly concerned with the social

[7] Although the number of independent variables in model (2) equals 15, variance inflation factors are less than 2 for all variables, and multicollinearlity may not exist in model (2).

aspects of corporate performance relative to foreign investors, who have seemed to contribute to the improvement of CSR practices of investee companies. According to the results, Hypothesis 4 is also supported.

[Table 7 about here]

With regard to firm characteristics, Composite CSP showed negative associations with debt ratio, growth rate, stock volatility and BPR. However, ROA and Turn have no significant relationship as a whole as reported in Table 6. High CSP companies are generally shown to be less dependent on debts, and are rather matured with lower growth, less risk, and therefore relatively low market prices. Also shown in Table 7, debt ratio and growth rate do not have a significantly positive relationship with the CSR indices. On the contrary, FDR is significantly positive, and volatility (Vol3Y) is significantly negative in all cases. These results suggest that firms exposed to international competition are more sensitive to corporate social performance and stocks of higher CSP companies experience less volatility in the market.

Concerning the results on dimensional CSP in Table 6, all indices showed a significant positive relationship with corporate ownership as well, but the coefficients for foreign ownership were much higher. In contrast, individual ownership had a significantly negative association with all dimensions.

Further, Table 7, reports some interesting observations related to changes in ownership structure for the past five years. First, with EMP, an increase in foreign ownership is shown to have a significant positive relationship with CSP, while an increase in domestic ownership is not. This suggests that foreign investors are concerned with good employment policies and may contribute to improving the employment circumstances of their investees.

Second, for SC and ENV, regression coefficients associated with an increase in domestic corporate ownership were negative and significant, but that of an increase in foreign ownership is positive but non-significant. These results imply that domestic corporate investors seem to be insensitive to social contributions and environmental strategies.

Third, Panel C of Table 7 shows that an increase in individual investors' shareholdings is positively correlated with both SC and ENV, though it is negatively correlated with EMP. These results suggest that individual investors are concerned with social contributions and environmental strategies of those firms in which they invest. As such, they might emphasize these dimensions of CSR more than employment policy.

Fourth, for IG and SS, regression coefficients of changes in shareholdings ($\Delta$JPN, $\Delta$FOR and $\Delta$IND) were not statistically significant in Table 7, despite the fact that percentage of shareholding is positively correlated with IG and SS in Panel A of Table 7. One possible

interpretation is that all investor groups treat these variables as equally important.

In sum, Hypothesis 5 and Hypothesis 6 were partially supported. From these results, which are shown in Tables 6 and 7, we infer that firms who perform well with respect to CSP tend to be large and matured, which are qualities that are generally preferred by corporate investors. However, foreign investors may have some influence on improving the CSR practices of firms in which they invest, while domestic investors seem to be unconcerned with improvement of CSR practices. These results suggest that individual investors may play drive CSR with respect to societal goods and environment protection.

**4.5. Reverse Causality**

The regression results showed that all indices of corporate social performance are positively associated with both domestic and foreign institutional ownership. In addition, increases in foreign institutional shareholdings are positively related with the Composite CSP and EMP. However, in regression model (2), we implicitly assumed that the stock ownership structure (and/or changes in the stock ownership structure) affects a firm's social performance. This assumption raises the question of causality with regard to the relationship between corporate social performance and stock ownership structure. Does stock ownership structure dictate CSP or are certain types of stockholders drawn to firms that already demonstrate a given level of CSP? To address this critical issue, we interchanged the main independent variable and dependent variable in model (2) and examined how the corporate social performance of the firm affects the stock ownership structure. Consequently, in the following regression analysis we used CSP or its dimensional indices (EMP, SC, SS, IG and ENV) as main independent variable $x_j$ in (2)[8].

[Table 8 about here]

The regression results are summarized in Table 8. With respect to the relationship between Composite CSP and shareholding by each group of investors in Panel A, estimated coefficients were consistent with the results from regression model (2). As a result, there exists the possibility of reverse causality between Composite CSP and stock ownership structure.

However, results were more illuminating with respect to changes in ownership and CSP. In

[8] One may suggest that we should employ the instrument variable approach including two-stage least square regression to control the endogeneity between the corporate social performance and stock ownership structure. Although we conducted two-stage least squared regressions, we do not report their results because none of several candidates of instrument variables have passed the Sargan's over-identification test. Furthermore, it is possible that more complicated endogeneity among the independent variables in model (2) may be uncontrollable even if we impose instrument variable approach.

Panel A of Table 8, Composite CSP is negatively associated with an increase in domestic corporate ownership (⊿JPN, $p$<.1).). On the other hand, CSP is positively associated with an increase in individual investor ownership (⊿IND; $p$<.1).. An increase in foreign corporate ownership (⊿FOR) was not significantly associated with CSP. These results suggest that current CSP practices can yield a decrease in domestic corporation shareholding and an increase in individual investors' shareholding. Similar results are observed for SC and ENV. This suggests that high expected CSP may serve as an incentive for individual investors, but not to domestic corporate investors. Foreigners seem to be indifferent to the expected level of CSP.

This regression also provided insight with respect to foreign corporate ownership and CFP. Positive relationships between ROA and Turn and CFP were observed in every case. Though expected CSP was not significantly related to an increase in share of foreign investors, expected corporate financial performance (in terms of profit and liquidity) might increase foreign share ownership. In contrast, there were no positive relationships observed between expected CFP and the proportion of shares held by domestic corporate investors or its change.

Our results imply that foreign corporate investors are not only concerned with expected CFP, but also serve to improve CSP practices. On the other hand, domestic corporate investors seem to be concerned with neither expected CFP nor CSP improvement. This is consistent with conventional interpretations of cross-shareholding of Japanese corporations and relationship-based investment.

### 4.6. Industry-wise Regression Results

The association between CSP and changes in ownership could vary from industry to industry. To explore this phenomenon, we carried out industry-wide tests on three major industry groups in our sample: consumption goods, investment goods, and services. Firms in the consumption goods sector may be more sensitive to product safety and social contributions because they deal directly with consumers' preferences and social demands, while those in the investment goods sector may be more concerned about environmental issues because they have a greater influence on global circumstances relative to other sectors. Firms in the services industry, including retail and wholesale, may demonstrate a proclivity for security and safeness. To test these possibilities, we focus on the influence of changes in ownership structure for each industry.

[Table 9 about here]

Table 9 shows the relationship between the CSR indices and changes in ownership by industry. Only for the service sector was an increase in foreign ownership shown to significantly positive relationship on CSR. The influence of changes in ownership on the CSP dimensional

indices vary from industry to industry. In the consumption goods sector, an increase in foreign ownership was positively associated with all dimensions of CSP but only its relationship with EMP was significant. Contrary to our assertion, the increase in individual ownership demonstrated no relationship with all indices in the consumption goods sector.

For the investment goods industry, ENV showed a significant negative association with increases in both domestic and foreign corporate ownership, though it had a significant positive association with increase in individual ownership. This suggests that environmental preservation may be costly for the industry in the observed period, as social pressure to employ environmentally friendly strategies increases. Similar results are observed for SC.

For the service sector, an increase in domestic corporate ownership had a significant negative relationship with ENV. However, an increase in foreign ownership demonstrated a significant positive relationship with both the Composite CSP and ENV. These results suggest that foreign investors have remarkable influence on CSR practices in this sector.

In sum, domestic corporate investors tend to behave negatively or indifferently toward CSP practices in all three sectors. In contrast, foreign investors' clear attention to CSP practices can contribute to the improvement of EMP and ENV in the consumption goods and services sectors. Results further indicate that individual investors may promote environmentally friendly practices in the investment goods sector, in which even foreign investors seem hesitant to pursue.

## 5. Summary and Implications

This is the first study to investigate the influence of stock ownership structure on the corporate social performance of Japanese business firms in the late 2000s. In particular, this study has highlighted the role of foreign investors in promoting CSP relative to domestic corporate investors or individual investors. Features of our empirical analysis are twofold. First, we constructed normalized CSP attribute indices and a composite index with a wide range of questionnaire survey data. Second, we explicitly distinguished foreign investors' preference bias for high CSP firms from their influence on CSP of investee companies in the Japanese market.

The use of cross-sectional regressions of ownership structure and its changes on CSP indices while controlling for firm characteristics allowed for additional insights. First, foreign corporate ownership showed a more positive relationship with comprehensive social performance than that of domestic ownership. Both foreign and domestic corporate shareholders tend to prefer large-scale and mature firms, which are relatively concerned with CSR. However, this relationship is more pronounced for foreign investors.

Second, the increase in foreign shareholdings is positively associated with high CSP indices while the increase in domestic corporate investors' shareholdings shows an opposite relationship.

Domestic corporate investors are less conscious of improving the CSP practices than their foreign counterparts. It also may be that they are still influenced by relational investment.

Third, foreign corporate investors are not only concerned with expected CFP of investees, but also influence CSP practices as shareholders. In contrast, domestic corporate investors do not show much concern for CFP and CSP of their investees. These results imply that foreign investors, who are concerned about the social aspects of investees' activities in a highly connected world, might play a key role as a driver of CSR and influenced stakeholder management of Japanese firms.

Lastly, the individual investors might also drive CSR in the form of socially friendly goods and environmental protection. It is also suggested that high expected CSP may serva sa an incentive for individual investors.

Despite the findings of this study, there were some limitations associated with it. First, our categorization scheme for investors (i.e. foreign corporate investors, domestic corporate investors, and individuals) did not distinguish long-term institutional investors from others. This shortcoming is due to ownership data we used. However, it would be interesting to break down domestic ownership to investigate the heterogeneity of corporate governance and stakeholder management of Japanese firms. In future studies, we could exploit extant ownership structure data more in detail to accomplish this. Second, it is necessary to develop technical devices for use in the regression model to solve endogeneity between CSP indices and stock ownership structure. This represents our next stage in this avenue of research.

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## Table 1. Ownership Structure of Listed Companies at Market Value

Percentage of shares at market value held by each type of investor. Listed companies in JASDAQ Stock Exchange are included since 2004. Security brokers are excluded.

| Year | Number of Companies | Commercial Bank | Trust Bank | Insurance Companies | Business Corporations | Domestic Corporations | Foreign Corporations | Individuals |
|---|---|---|---|---|---|---|---|---|
| | | a | b | c | d | a+b+c+d | | |
| 1985 | 1,833 | 20.9 | 2.5 | 16.4 | 28.8 | 68.6 | 7.0 | 22.3 |
| 1990 | 2,078 | 15.7 | 9.8 | 15.9 | 30.1 | 71.5 | 4.7 | 20.4 |
| 2000 | 2,587 | 10.1 | 17.4 | 10.9 | 21.8 | 60.2 | 18.8 | 19.4 |
| 2001 | 2,656 | 8.7 | 19.9 | 10.2 | 21.8 | 60.6 | 18.3 | 19.7 |
| 2002 | 2,661 | 7.7 | 21.4 | 9.3 | 21.5 | 59.9 | 17.7 | 20.6 |
| 2003 | 2,679 | 5.9 | 19.6 | 8.1 | 21.8 | 55.4 | 21.8 | 20.5 |
| 2004 | 2,775 | 5.3 | 18.8 | 7.6 | 21.9 | 53.6 | 23.7 | 20.3 |
| 2005 | 2,843 | 4.7 | 18.4 | 7.4 | 21.1 | 51.6 | 26.7 | 19.1 |
| 2006 | 2,937 | 4.6 | 17.9 | 7.6 | 20.7 | 50.8 | 28.0 | 18.1 |
| 2007 | 3,897 | 4.7 | 17.3 | 7.6 | 21.4 | 51.0 | 27.4 | 18.7 |
| 2008 | 3,803 | 4.8 | 18.8 | 7.4 | 22.6 | 53.6 | 23.5 | 20.5 |
| 2009 | 3,694 | 4.3 | 18.4 | 7.0 | 21.3 | 51.0 | 26.0 | 20.1 |
| 2010 | 3,616 | 4.1 | 18.2 | 6.4 | 21.2 | 49.9 | 26.7 | 20.3 |

Source: Tokyo Stock Exchange Stock Ownership Survey

## Table 2. Number of Sample Firms

Number of firms sampled at the end of September of each year (2007-2009) and number of firms listed on the Tokyo Stock Exchange 1st Section (TSE1), on Tokyo Stock Exchange Second Section (TSE2), and other stock exchanges in Japan (Others). Number of firms in the most right four columns is non-duplicated and a single firm appears four times at maximum in our sample period, 2007 through 2010.

| Sector | 2007 | 2008 | 2009 | 2010 | TSE1 | TSE2 | Others | Total |
|---|---|---|---|---|---|---|---|---|
| Consumption Goods | 216 | 203 | 207 | 225 | 207 | 33 | 47 | 287 |
| Investment Goods | 306 | 316 | 330 | 333 | 298 | 42 | 91 | 427 |
| Services | 296 | 310 | 339 | 344 | 211 | 46 | 233 | 480 |
| Transportation | 19 | 21 | 21 | 22 | 20 | 3 | 4 | 27 |
| Utility | 12 | 13 | 13 | 15 | 15 | 0 | 0 | 15 |
| Real Estate | 37 | 41 | 31 | 36 | 32 | 7 | 21 | 60 |
| All Sectors | 886 | 904 | 941 | 975 | 783 | 131 | 396 | 1296 |

Table 3. Descriptive Statistics of Corporate Social Performance of Japanese Firms

Panel A. Sector-wise Corporate Social Performance

| | Employee Relations | | | | | Social Contribution | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Consumption Goods | -0.598 | 0.267 | 0.998 | 0.103 | 1.197 | -0.594 | 0.191 | 0.913 | 0.157 | 0.991 |
| Investment Goods | -0.528 | 0.285 | 1.107 | 0.197 | 1.225 | -0.763 | -0.028 | 0.655 | 0.024 | 0.960 |
| Services | -1.094 | 0.069 | 0.758 | -0.147 | 1.227 | -0.928 | -0.346 | 0.450 | -0.170 | 0.955 |
| Transportation | -0.368 | 0.166 | 0.855 | 0.157 | 1.092 | -0.408 | 0.097 | 1.059 | 0.139 | 1.098 |
| Utility | -0.620 | -0.109 | 0.365 | -0.089 | 1.020 | -0.341 | 0.722 | 1.076 | 0.356 | 0.845 |
| Real Estate | -1.055 | -0.009 | 0.728 | -0.170 | 1.170 | -0.935 | -0.430 | 0.353 | -0.177 | 0.923 |
| All Firms | -0.725 | 0.203 | 0.901 | 0.036 | 1.221 | -0.852 | -0.072 | 0.662 | -0.014 | 0.975 |
| | Security and Safeness | | | | | Internal Governance and Risk Management | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Consumption Goods | -0.079 | 0.707 | 0.985 | 0.415 | 0.810 | -0.411 | 0.055 | 0.768 | 0.064 | 0.977 |
| Investment Goods | -0.233 | 0.427 | 0.915 | 0.228 | 0.884 | -0.521 | -0.049 | 0.636 | -0.044 | 1.001 |
| Services | -1.112 | -0.176 | 0.638 | -0.331 | 1.040 | -0.454 | 0.001 | 0.698 | -0.004 | 0.988 |
| Transportation | -0.398 | 0.490 | 0.773 | 0.037 | 1.027 | -0.823 | -0.131 | 0.525 | -0.416 | 1.407 |
| Utility | -0.268 | 0.557 | 0.639 | 0.171 | 0.778 | -0.330 | -0.141 | 0.152 | 0.017 | 0.652 |
| Real Estate | -1.196 | -0.240 | 0.096 | -0.420 | 1.019 | -0.589 | 0.021 | 0.774 | -0.019 | 0.989 |
| All Firms | -0.396 | 0.163 | 0.841 | 0.046 | 0.985 | -0.472 | -0.006 | 0.699 | -0.012 | 1.000 |
| | Environment | | | | | Corporate Social Performance | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Consumption Goods | -0.499 | 0.273 | 0.836 | 0.162 | 0.935 | -0.852 | 0.723 | 1.998 | 0.466 | 1.748 |
| Investment Goods | -0.487 | 0.180 | 0.803 | 0.144 | 0.908 | -1.097 | 0.381 | 1.766 | 0.262 | 1.697 |
| Services | -1.052 | -0.493 | 0.526 | -0.210 | 0.909 | -1.892 | -0.577 | 0.896 | -0.427 | 1.653 |
| Transportation | -0.316 | 0.162 | 0.566 | 0.153 | 0.814 | -1.194 | 0.123 | 1.630 | 0.101 | 1.699 |
| Utility | -0.010 | 0.336 | 1.009 | 0.596 | 0.899 | -0.387 | 0.426 | 1.585 | 0.401 | 1.483 |
| Real Estate | -1.027 | -0.745 | 0.205 | -0.332 | 0.854 | -1.951 | -0.731 | 0.981 | -0.531 | 1.597 |
| All Firms | -0.836 | 0.002 | 0.708 | 0.013 | 0.931 | -1.450 | 0.054 | 1.541 | 0.037 | 1.730 |

Panel B. Firm Size and Corporate Social Performance

| | Employee Relations | | | | | Social Contribution | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Size1(Large) | 0.037 | 0.782 | 1.500 | 0.675 | 1.105 | 0.143 | 0.872 | 1.394 | 0.739 | 0.911 |
| Size2 | -0.717 | 0.178 | 0.782 | -0.047 | 1.133 | -0.758 | -0.145 | 0.374 | -0.152 | 0.798 |
| Size3 (Small) | -1.399 | -0.361 | 0.344 | -0.518 | 1.116 | -1.110 | -0.766 | -0.161 | -0.627 | 0.652 |
| All Firms | -0.725 | 0.203 | 0.901 | 0.036 | 1.221 | -0.852 | -0.072 | 0.662 | -0.014 | 0.975 |
| | Security and Safeness | | | | | Internal Governance and Risk Management | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Size1(Large) | 0.065 | 0.739 | 0.991 | 0.402 | 0.915 | -0.180 | 0.216 | 1.110 | 0.262 | 0.987 |
| Size2 | -0.328 | 0.113 | 0.810 | 0.061 | 0.952 | -0.466 | -0.071 | 0.666 | -0.059 | 0.979 |
| Size3 (Small) | -0.964 | -0.265 | 0.531 | -0.323 | 0.951 | -0.581 | -0.230 | 0.324 | -0.238 | 0.969 |
| All Firms | -0.396 | 0.163 | 0.841 | 0.046 | 0.985 | -0.472 | -0.006 | 0.699 | -0.012 | 1.000 |
| | Environment | | | | | Corporate Social Performance | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Size1(Large) | 0.378 | 0.769 | 1.218 | 0.759 | 0.707 | 0.795 | 1.765 | 2.440 | 1.448 | 1.280 |
| Size2 | -0.609 | -0.043 | 0.494 | -0.023 | 0.791 | -1.112 | -0.021 | 1.020 | -0.052 | 1.435 |
| Size3 (Small) | -1.129 | -0.949 | -0.343 | -0.695 | 0.643 | -2.301 | -1.497 | -0.441 | -1.283 | 1.241 |
| All Firms | -0.836 | 0.002 | 0.708 | 0.013 | 0.931 | -1.450 | 0.054 | 1.541 | 0.037 | 1.730 |

Table 4. Descriptive Statistics of Stock Ownership Structure of Japanese Firms

Panel A. Sector-wise Summary of Stock Ownership Structure

| | Percentage of Shares Owned by Japanese Corporations | | | | | Past 5 Year Increase in Shares Held by Japanese Corporations | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Consumption Goods | 38.506 | 49.829 | 61.309 | 49.086 | 16.743 | -8.015 | -3.141 | 1.619 | -3.031 | 9.901 |
| Investment Goods | 42.511 | 52.932 | 62.318 | 51.834 | 15.921 | -8.303 | -3.167 | 1.440 | -3.374 | 8.792 |
| Services | 28.719 | 44.130 | 58.558 | 43.133 | 20.883 | -7.615 | -1.869 | 3.224 | -1.706 | 11.235 |
| Transportation | 47.105 | 54.378 | 64.713 | 55.395 | 13.442 | -7.448 | -2.000 | -0.640 | -3.908 | 8.955 |
| Utility | 41.966 | 47.517 | 54.041 | 49.287 | 10.329 | -4.558 | -1.855 | -0.328 | -2.836 | 7.495 |
| Real Estate | 24.039 | 51.431 | 68.018 | 46.490 | 23.145 | -6.742 | -1.288 | 4.806 | -0.148 | 14.908 |
| All Firms | 36.192 | 49.690 | 60.995 | 48.011 | 18.575 | -7.946 | -2.504 | 1.892 | -2.670 | 10.139 |
| | Percentage of Shares Owned by Foreign Corporations | | | | | Past 5 Year Increase in Shares Held by Foreign Corporations | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Consumption Goods | 3.247 | 10.582 | 22.698 | 14.034 | 12.760 | -0.664 | 1.774 | 6.673 | 2.837 | 8.326 |
| Investment Goods | 2.481 | 9.737 | 20.749 | 13.032 | 12.539 | 0.000 | 2.741 | 8.203 | 4.344 | 8.082 |
| Services | 0.508 | 3.284 | 11.659 | 7.904 | 10.728 | -0.633 | 0.453 | 5.287 | 1.934 | 7.543 |
| Transportation | 2.893 | 8.549 | 23.275 | 13.249 | 12.163 | 0.000 | 2.093 | 6.150 | 4.260 | 6.792 |
| Utility | 9.687 | 12.486 | 17.463 | 14.346 | 8.754 | 3.020 | 5.047 | 8.037 | 5.975 | 6.942 |
| Real Estate | 2.950 | 11.076 | 20.590 | 14.267 | 13.555 | -0.003 | 4.450 | 11.943 | 6.558 | 12.097 |
| All Firms | 1.518 | 7.358 | 18.491 | 11.550 | 12.272 | -0.218 | 1.773 | 7.060 | 3.332 | 8.199 |
| | Percentage of Shares Owned by Individual Investors | | | | | Past 5 Year Increase in Shares Held by Individual Investors | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Consumption Goods | 20.268 | 29.529 | 49.195 | 35.397 | 19.376 | -4.632 | 0.356 | 4.460 | -0.047 | 10.208 |
| Investment Goods | 19.243 | 29.030 | 46.614 | 33.993 | 19.313 | -5.270 | -1.045 | 3.216 | -1.108 | 9.306 |
| Services | 29.193 | 46.099 | 65.467 | 47.852 | 23.566 | -5.481 | 0.221 | 5.213 | -0.367 | 11.516 |
| Transportation | 17.633 | 24.208 | 40.100 | 30.443 | 17.165 | -2.638 | -0.071 | 2.583 | -0.540 | 7.071 |
| Utility | 25.215 | 35.049 | 40.564 | 33.219 | 11.471 | -4.703 | -2.545 | -0.162 | -2.006 | 4.442 |
| Real Estate | 15.752 | 35.245 | 56.691 | 37.932 | 25.693 | -12.248 | -3.790 | 0.607 | -6.767 | 14.990 |
| All Firms | 21.365 | 35.357 | 54.958 | 39.199 | 21.990 | -5.306 | -0.472 | 4.086 | -0.815 | 10.452 |

Panel B. Firm Size and Stock Ownership Structure

| | Percentage of Shares Owned by Japanese Corporations | | | | | Past 5 Year Increase in Shares Held by Japanese Corporations | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Size1(Large) | 45.786 | 53.258 | 61.949 | 53.425 | 13.121 | -10.529 | -4.566 | -0.090 | -5.244 | 8.767 |
| Size2 | 41.501 | 53.232 | 64.593 | 52.395 | 16.195 | -6.608 | -1.808 | 2.962 | -1.765 | 9.569 |
| Size3 (Small) | 20.792 | 35.926 | 52.891 | 38.233 | 21.366 | -5.689 | -0.983 | 3.179 | -0.397 | 11.722 |
| All Firms | 36.192 | 49.690 | 60.995 | 48.011 | 18.575 | -7.946 | -2.504 | 1.892 | -2.670 | 10.139 |
| | Percentage of Shares Owned by Foreign Corporations | | | | | Past 5 Year Increase in Shares Held by Foreign Corporations | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Size1(Large) | 13.032 | 20.629 | 28.919 | 21.918 | 12.152 | 0.607 | 5.333 | 11.250 | 5.982 | 9.008 |
| Size2 | 2.498 | 6.435 | 13.067 | 8.971 | 8.550 | -0.066 | 1.973 | 6.120 | 3.111 | 7.327 |
| Size3 (Small) | 0.093 | 0.921 | 3.802 | 3.783 | 7.539 | -0.814 | 0.000 | 1.035 | 0.064 | 6.794 |
| All Firms | 1.518 | 7.358 | 18.491 | 11.550 | 12.272 | -0.218 | 1.773 | 7.060 | 3.332 | 8.199 |
| | Percentage of Shares Owned by Individual Investors | | | | | Past 5 Year Increase in Shares Held by Individual Investors | | | | |
| | 25%ile | Median | 75%ile | Mean | S.D. | 25%ile | Median | 75%ile | Mean | S.D. |
| Size1(Large) | 14.508 | 20.943 | 29.074 | 22.823 | 11.776 | -4.793 | -0.777 | 3.236 | -1.073 | 8.492 |
| Size2 | 25.078 | 36.392 | 48.390 | 37.706 | 16.733 | -6.734 | -1.044 | 4.037 | -1.344 | 10.780 |
| Size3 (Small) | 42.058 | 58.288 | 73.188 | 57.027 | 21.059 | -4.202 | 0.708 | 5.728 | 0.223 | 12.197 |
| All Firms | 21.365 | 35.357 | 54.958 | 39.199 | 21.990 | -5.306 | -0.472 | 4.086 | -0.815 | 10.452 |

Panel C. Foreign Ownership and Corporate Social Performance of Sequentially Sorted 9 Portfolios

In each year $t$=2007,…,2010, all the sample firms are first ranked by their total asset value and three size-ranked portfolios are constructed. Firms in these three size portfolios are further divided into three groups based on their past five year increase in shares held by foreign corporations.

| Size | Size1 (Large Cap) | | | Size2 (Mid Cap) | | | Size3 (Small Cap) | | |
|---|---|---|---|---|---|---|---|---|---|
| ΔFOR | High | Mid. | Low | High | Mid. | Low | High | Mid. | Low |
| lnTA | 13.249 | 13.234 | 13.249 | 11.248 | 11.036 | 11.031 | 9.522 | 9.334 | 9.339 |
| Foreign | 27.419 | 21.314 | 19.398 | 17.682 | 7.596 | 6.370 | 7.434 | 1.049 | 3.156 |
| ΔFOR | 14.500 | 6.087 | -1.674 | 11.085 | 3.060 | -2.582 | 5.193 | 0.131 | -4.605 |
| CSP | 1.422 | 1.581 | 1.471 | 0.335 | 0.032 | 0.285 | -0.981 | -1.168 | -1.229 |
| EMP | 0.690 | 0.809 | 0.590 | 0.180 | 0.009 | 0.023 | -0.345 | -0.473 | -0.472 |
| SC | 0.724 | 0.840 | 0.782 | -0.043 | -0.097 | -0.008 | -0.515 | -0.568 | -0.612 |
| SS | 0.299 | 0.408 | 0.486 | 0.164 | 0.115 | 0.174 | -0.203 | -0.276 | -0.349 |
| IG | 0.287 | 0.294 | 0.239 | 0.018 | -0.058 | 0.078 | -0.283 | -0.258 | -0.283 |
| ENV | 0.752 | 0.816 | 0.799 | 0.172 | 0.042 | 0.117 | -0.569 | -0.611 | -0.605 |

## Table 5. Correlation among CSP, Ownership Structure, and Firms' Characteristics

Spearman rank correlations and corresponding probability values.

Panel A. Correlation between Corporate Social Performance and Stock Ownership Structure

| | Japanese Corporations | Foreign Corporations | Individual Investors | Past 5 Years Increase in Shares Owned by Japanese Corporations | Past 5 Years Increase in Shares Owned by Foreign Corporations | Past 5 Years Increase in Shares Owned by Indivudual Investors |
|---|---|---|---|---|---|---|
| Employee Relations | 0.152 | 0.340 | -0.315 | -0.087 | 0.168 | -0.060 |
| *p* -value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.001 |
| Social Contribution | 0.235 | 0.455 | -0.458 | -0.145 | 0.177 | 0.008 |
| *p* -value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.633 |
| Security and Safeness | 0.141 | 0.331 | -0.293 | -0.091 | 0.114 | -0.014 |
| *p* -value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.422 |
| Internal Governance | 0.093 | 0.229 | -0.210 | -0.045 | 0.079 | -0.013 |
| *p* -value | 0.000 | 0.000 | 0.000 | 0.009 | 0.000 | 0.467 |
| Environment | 0.284 | 0.501 | -0.497 | -0.185 | 0.209 | 0.017 |
| *p* -value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.318 |
| Total CSP | 0.270 | 0.533 | -0.513 | -0.155 | 0.217 | -0.022 |
| *p* -value | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.206 |

Panel B. Correlation between Corporate Social Performance and Firms' Characteristics

lnTA: natural logarithm of total asset (in million JPY), ROA: Return of Asset, DR: Debt ratio, GTA: Growth rate in total asset, Turn: Monthly turnover, Vol3Y: Past 3 year volatility of monthly stock returns, BPR: Book-to-price ratio, FDR: Foreign dependency ratio defined as (sales in foreign countries)/(total sales).

| | lnTA | ROA | DR | GTA | Turn | Vol3Y | BPR | FDR |
|---|---|---|---|---|---|---|---|---|
| Employee Relations | 0.432 | 0.045 | 0.017 | 0.001 | 0.238 | -0.093 | -0.183 | 0.103 |
| *p* -value | 0.000 | 0.006 | 0.304 | 0.943 | 0.000 | 0.000 | 0.000 | 0.000 |
| Social Contribution | 0.603 | 0.035 | 0.033 | 0.043 | 0.307 | -0.149 | -0.240 | 0.068 |
| *p* -value | 0.000 | 0.031 | 0.042 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 |
| Security and Safeness | 0.378 | 0.040 | -0.053 | 0.016 | 0.226 | -0.130 | -0.178 | 0.120 |
| *p* -value | 0.000 | 0.015 | 0.001 | 0.338 | 0.000 | 0.000 | 0.000 | 0.000 |
| Internal Governance | 0.256 | 0.026 | -0.019 | 0.012 | 0.193 | -0.021 | -0.154 | -0.016 |
| *p* -value | 0.000 | 0.117 | 0.249 | 0.455 | 0.000 | 0.206 | 0.000 | 0.338 |
| Environment | 0.674 | 0.025 | 0.032 | 0.014 | 0.346 | -0.165 | -0.226 | 0.132 |
| *p* -value | 0.000 | 0.131 | 0.055 | 0.400 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total CSP | 0.676 | 0.051 | 0.004 | 0.019 | 0.375 | -0.160 | -0.279 | 0.115 |
| *p* -value | 0.000 | 0.002 | 0.830 | 0.259 | 0.000 | 0.000 | 0.000 | 0.000 |

## Table 6. Effects of Stock Ownership Structure on the CSP

[Dependent Variables] CSP: Total CSP, EMP: Employee relations, SC: Social Contribution, SS: Security of the firm and Safeness of the product, IG: Internal Governance and Risk Management, ENV: Environment preservations.

[Independent Variables] lnTA: natural logarithm of total asset (in million JPY), ROA: Return of Asset, DR: Debt ratio, GTA: Growth rate in total asset, Turn: Monthly turnover, Vol3Y: Past three year volatility of monthly stock returns, BPR: Book-to-price ratio, FDR: Foreign dependency ratio defined as (sales in foreign countries)/(total sales).

*** Significant at p < .01, ** Significant at p < .05, *Significant at p < .10.

| Panel A. %Shares Held by Japanese Corporations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 1.716 | *** | 0.722 | *** | 0.846 | *** | 0.790 | *** | 0.367 | *** | 0.663 | *** |
| Japanese Corp. | 0.009 | *** | 0.003 | ** | 0.004 | *** | 0.003 | ** | 0.002 | * | 0.006 | *** |
| ROA | 0.000 | | 0.005 | | -0.002 | | -0.002 | | -0.006 | * | 0.000 | |
| DR | -0.003 | *** | 0.001 | | 0.000 | | -0.002 | *** | -0.001 | * | -0.001 | |
| GTA | -0.004 | *** | -0.003 | ** | -0.001 | | 0.000 | | 0.000 | | -0.002 | *** |
| Turn | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | ** |
| Vol3Y | -0.025 | *** | -0.017 | *** | -0.014 | *** | -0.013 | *** | 0.001 | | -0.014 | *** |
| BPR | -0.002 | *** | -0.001 | *** | -0.001 | *** | -0.001 | ** | -0.001 | *** | 0.000 | ** |
| FDR | 0.006 | *** | 0.004 | *** | 0.002 | * | 0.003 | *** | 0.000 | | 0.003 | *** |
| Adjusted $R^2$ | 0.460 | | 0.185 | | 0.356 | | 0.172 | | 0.058 | | 0.432 | |
| Panel B. %Shares Held by Foreign Corporations | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 1.724 | *** | 0.636 | *** | 0.738 | *** | 0.694 | *** | 0.333 | *** | 0.780 | *** |
| Foreign Corp. | 0.027 | *** | 0.014 | *** | 0.013 | *** | 0.012 | *** | 0.006 | * | 0.012 | *** |
| ROA | 0.003 | | 0.006 | * | 0.000 | | -0.002 | | -0.005 | * | 0.002 | |
| DR | -0.001 | | 0.001 | | 0.000 | | -0.001 | | -0.001 | | 0.000 | |
| GTA | -0.005 | *** | -0.004 | ** | -0.001 | | -0.001 | | 0.000 | | -0.003 | *** |
| Turn | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |
| Vol3Y | -0.032 | *** | -0.021 | *** | -0.015 | *** | -0.018 | *** | 0.002 | | -0.017 | *** |
| BPR | -0.001 | *** | -0.001 | *** | 0.000 | * | 0.000 | ** | -0.001 | *** | 0.000 | ** |
| FDR | 0.002 | | 0.003 | * | 0.001 | | 0.001 | | -0.001 | | 0.001 | |
| Adjusted $R^2$ | 0.429 | | 0.167 | | 0.336 | | 0.154 | | 0.051 | | 0.410 | |
| Panel C. %Shares Held by Individual Investors | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.470 | *** | 0.952 | *** | 1.173 | *** | 1.009 | *** | 0.569 | *** | 1.122 | *** |
| Individuals | -0.012 | *** | -0.004 | *** | -0.007 | *** | -0.003 | ** | -0.005 | *** | -0.006 | *** |
| ROA | 0.002 | | 0.006 | * | -0.001 | | -0.001 | | -0.006 | * | 0.001 | |
| DR | -0.003 | ** | 0.001 | | 0.000 | | -0.003 | *** | -0.002 | * | 0.000 | |
| GTA | -0.009 | *** | -0.007 | *** | -0.002 | * | -0.002 | | -0.002 | | -0.004 | *** |
| Turn | 0.001 | * | 0.000 | | 0.000 | | 0.001 | ** | 0.000 | | 0.000 | ** |
| Vol3Y | -0.029 | *** | -0.022 | *** | -0.014 | *** | -0.016 | *** | 0.002 | | -0.017 | *** |
| BPR | -0.002 | *** | -0.001 | *** | 0.000 | *** | 0.000 | | 0.000 | ** | 0.000 | * |
| FDR | 0.005 | *** | 0.003 | ** | 0.001 | | 0.003 | *** | 0.000 | | 0.002 | *** |
| Adjusted $R^2$ | 0.425 | | 0.174 | | 0.336 | | 0.156 | | 0.061 | | 0.395 | |

## Table 7. Effects of Change in Stock Ownership on the CSP

[Dependent Variables] CSP: Total CSP, EMP: Employee relations, SC: Social Contribution, SS: Security of the firm and Safeness of the product, IG: Internal Governance and Risk Management, ENV: Environment preservations.

[Independent Variables] lnTA: natural logarithm of total asset (in million JPY), ROA: Return of Asset, DR: Debt ratio, GTA: Growth rate in total asset, Turn: Monthly turnover, Vol3Y: Past 3 year volatility of monthly stock returns, BPR: Book-to-price ratio, FDR: Foreign dependency ratio defined as (sales in foreign countries)/(total sales).

*** Significant at p < .01, ** Significant at p < .05, *Significant at p < .10.

| Panel A. Past 5 Years Increase in Shares Held by Japanese Corporations | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.227 | *** | 0.872 | *** | 1.045 | *** | 0.953 | *** | 0.520 | *** | 0.976 | *** |
| ⊿JPN | -0.003 | | 0.001 | | -0.005 | ** | -0.001 | | 0.001 | | -0.006 | *** |
| ROA | 0.002 | | 0.006 | | -0.001 | | 0.001 | | -0.001 | | -0.002 | |
| DR | -0.004 | *** | 0.001 | | -0.001 | | -0.003 | *** | -0.002 | ** | -0.001 | |
| GTA | -0.006 | ** | -0.006 | *** | 0.000 | | -0.003 | * | -0.003 | | -0.001 | |
| Turn | 0.000 | | 0.000 | | 0.000 | * | 0.000 | | -0.001 | | 0.000 | |
| Vol3Y | -0.021 | *** | -0.018 | *** | -0.010 | *** | -0.018 | *** | 0.001 | | -0.012 | *** |
| BPR | -0.002 | *** | -0.001 | *** | -0.001 | *** | -0.001 | ** | -0.001 | ** | -0.001 | *** |
| FDR | 0.005 | *** | 0.003 | ** | 0.002 | * | 0.003 | *** | 0.000 | | 0.002 | ** |
| Adjusted $R^2$ | 0.408 | | 0.159 | | 0.334 | | 0.141 | | 0.057 | | 0.377 | |
| Panel B. Past 5 Years Increase in Shares Held by Foreign Corporations | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.201 | *** | 0.866 | *** | 0.998 | *** | 0.957 | *** | 0.482 | *** | 0.994 | *** |
| ⊿FOR | 0.015 | *** | 0.013 | *** | 0.005 | | 0.003 | | 0.000 | | 0.004 | |
| ROA | 0.003 | | 0.005 | | 0.000 | | -0.002 | | -0.001 | | 0.000 | |
| DR | -0.004 | *** | 0.001 | | -0.001 | | -0.003 | *** | -0.002 | ** | -0.001 | |
| GTA | -0.006 | ** | -0.006 | *** | 0.001 | | -0.001 | | -0.002 | | -0.002 | * |
| Turn | 0.000 | | 0.000 | | -0.001 | ** | 0.000 | | -0.001 | * | 0.000 | |
| Vol3Y | -0.020 | *** | -0.022 | *** | -0.007 | ** | -0.014 | *** | 0.010 | ** | -0.013 | *** |
| BPR | -0.002 | *** | -0.001 | *** | -0.001 | *** | -0.001 | ** | -0.001 | ** | 0.000 | *** |
| FDR | 0.004 | *** | 0.003 | ** | 0.002 | | 0.002 | ** | -0.001 | | 0.002 | ** |
| Adjusted $R^2$ | 0.422 | | 0.164 | | 0.341 | | 0.153 | | 0.060 | | 0.387 | |
| Panel C. Past 5 Years Increase in Shares Held by Individual Investors | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.159 | *** | 0.902 | *** | 1.029 | *** | 0.871 | *** | 0.453 | *** | 0.974 | *** |
| ⊿IND | -0.001 | | -0.006 | * | 0.005 | ** | 0.001 | | -0.001 | | 0.006 | *** |
| ROA | 0.004 | | 0.005 | | 0.001 | | 0.003 | | 0.002 | | -0.002 | |
| DR | -0.004 | *** | 0.001 | | -0.001 | | -0.002 | ** | -0.002 | * | -0.001 | |
| GTA | -0.006 | ** | -0.006 | *** | 0.002 | | -0.003 | | -0.003 | | -0.001 | |
| Turn | 0.000 | | 0.000 | | 0.000 | | 0.000 | | -0.001 | | 0.001 | ** |
| Vol3Y | -0.014 | ** | -0.020 | *** | -0.007 | ** | -0.011 | ** | 0.009 | * | -0.011 | *** |
| BPR | -0.002 | *** | -0.001 | *** | -0.001 | *** | 0.000 | | -0.001 | ** | -0.001 | *** |
| FDR | 0.003 | ** | 0.002 | | 0.001 | | 0.002 | ** | 0.000 | | 0.002 | ** |
| Adjusted $R^2$ | 0.418 | | 0.166 | | 0.346 | | 0.143 | | 0.062 | | 0.384 | |

Table 8. Effects of CSP on the Stock Ownership Structure

All notations are same as in Table 7.

| Panel A. Comprehensive Measure of CSP (CSP) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Domestic | | Foreign | | Individuals | | ⊿JPN | | ⊿FOR | | ⊿IND | |
| Intercept | 54.769 | *** | 24.685 | *** | 18.856 | *** | -2.373 | ** | 1.609 | ** | 0.604 | |
| CSP | 1.324 | *** | 0.521 | *** | -1.863 | *** | -0.273 | * | -0.031 | | 0.277 | * |
| ROA | 0.067 | | 0.074 | *** | -0.120 | ** | -0.025 | | 0.120 | *** | -0.065 | |
| DR | 0.073 | *** | -0.112 | *** | 0.045 | *** | -0.022 | ** | -0.011 | | 0.039 | *** |
| GTA | -0.016 | | -0.010 | | 0.019 | | 0.126 | *** | -0.017 | | -0.125 | *** |
| Turn | -0.023 | * | 0.014 | *** | 0.007 | | -0.014 | *** | 0.012 | *** | -0.002 | |
| Vol3Y | -0.414 | *** | 0.147 | *** | 0.230 | *** | 0.103 | * | 0.014 | | -0.124 | * |
| BPR | -0.013 | *** | -0.014 | *** | 0.027 | *** | -0.007 | ** | 0.002 | | 0.005 | |
| FDR | -0.128 | *** | 0.098 | *** | 0.029 | | -0.029 | ** | 0.012 | | 0.012 | |
| Adjusted $R^2$ | 0.200 | | 0.453 | | 0.433 | | 0.082 | | 0.198 | | 0.071 | |
| Panel B. Employee Relations (EMP) | | | | | | | | | | | | |
| | Domestic | | Foreign | | Individuals | | ⊿JPN | | ⊿FOR | | ⊿IND | |
| Intercept | 56.973 | *** | 26.118 | *** | 15.151 | *** | -3.219 | *** | 1.400 | ** | 1.691 | * |
| EMP | 0.377 | | 0.135 | | -0.547 | ** | -0.283 | | 0.206 | | 0.021 | |
| ROA | 0.080 | | 0.063 | ** | -0.121 | ** | -0.020 | | 0.122 | *** | -0.070 | |
| DR | 0.066 | *** | -0.118 | *** | 0.058 | *** | -0.016 | | -0.013 | * | 0.034 | *** |
| GTA | -0.022 | | -0.010 | | 0.024 | | 0.123 | *** | -0.014 | | -0.125 | *** |
| Turn | -0.024 | * | 0.014 | *** | 0.007 | | -0.013 | *** | 0.010 | *** | -0.002 | |
| Vol3Y | -0.441 | *** | 0.131 | *** | 0.272 | *** | 0.113 | * | 0.017 | | -0.137 | ** |
| BPR | -0.015 | *** | -0.015 | *** | 0.030 | *** | -0.007 | ** | 0.002 | | 0.004 | |
| FDR | -0.112 | *** | 0.095 | *** | 0.017 | | -0.024 | * | 0.009 | | 0.009 | |
| Adjusted $R^2$ | 0.188 | | 0.458 | | 0.424 | | 0.081 | | 0.197 | | 0.068 | |
| Panel C. Social Contribution (SC) | | | | | | | | | | | | |
| | Domestic | | Foreign | | Individuals | | ⊿JPN | | ⊿FOR | | ⊿IND | |
| Intercept | 55.541 | *** | 25.318 | *** | 17.797 | *** | -2.753 | *** | 1.960 | *** | 0.498 | |
| SC | 2.277 | *** | 0.889 | *** | -3.176 | *** | -0.462 | * | -0.266 | | 0.738 | *** |
| ROA | 0.071 | | 0.070 | ** | -0.118 | ** | -0.022 | | 0.120 | *** | -0.066 | |
| DR | 0.068 | *** | -0.120 | *** | 0.056 | *** | -0.015 | | -0.016 | ** | 0.038 | *** |
| GTA | -0.020 | | -0.011 | | 0.024 | | 0.131 | *** | -0.016 | | -0.131 | *** |
| Turn | -0.023 | * | 0.014 | *** | 0.005 | | -0.014 | *** | 0.011 | *** | -0.002 | |
| Vol3Y | -0.415 | *** | 0.142 | *** | 0.239 | *** | 0.111 | * | 0.006 | | -0.125 | * |
| BPR | -0.014 | *** | -0.015 | *** | 0.029 | *** | -0.006 | ** | 0.001 | | 0.005 | |
| FDR | -0.111 | *** | 0.097 | *** | 0.008 | | -0.031 | ** | 0.013 | | 0.012 | |
| Adjusted $R^2$ | 0.202 | | 0.456 | | 0.436 | | 0.081 | | 0.202 | | 0.075 | |

(Table 8. Continued.)

| Panel D. Security of the Firm and Products Safeness (SS) | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Domestic | | Foreign | | Individuals | | ⊿JPN | | ⊿FOR | | ⊿IND | |
| Intercept | 57.294 | *** | 25.824 | *** | 15.267 | *** | -2.944 | *** | 1.431 | ** | 1.406 | |
| SS | 0.074 | | 0.655 | *** | -0.671 | * | -0.080 | | -0.108 | | 0.038 | |
| ROA | 0.112 | * | 0.066 | ** | -0.156 | *** | 0.000 | | 0.115 | *** | -0.085 | |
| DR | 0.060 | *** | -0.114 | *** | 0.059 | *** | -0.021 | ** | -0.011 | | 0.038 | *** |
| GTA | -0.030 | | -0.015 | * | 0.037 | * | 0.120 | *** | -0.019 | | -0.117 | *** |
| Turn | -0.024 | * | 0.015 | *** | 0.005 | | -0.015 | ** | 0.013 | *** | -0.003 | |
| Vol3Y | -0.448 | *** | 0.134 | *** | 0.277 | *** | 0.100 | | 0.022 | | -0.127 | * |
| BPR | -0.015 | *** | -0.015 | *** | 0.030 | *** | -0.006 | ** | 0.001 | | 0.004 | |
| FDR | -0.120 | *** | 0.094 | *** | 0.024 | | -0.033 | *** | 0.006 | | 0.022 | |
| Adjusted $R^2$ | 0.195 | | 0.470 | | 0.440 | | 0.094 | | 0.208 | | 0.069 | |
| Panel E. Internal Governance and Risk Management (IG) | | | | | | | | | | | | |
| | Domestic | | Foreign | | Individuals | | ⊿JPN | | ⊿FOR | | ⊿IND | |
| Intercept | 57.046 | *** | 25.964 | *** | 15.233 | *** | -3.272 | *** | 1.422 | ** | 1.635 | * |
| IG | 0.800 | ** | 0.515 | *** | -1.392 | *** | 0.174 | | -0.200 | | 0.061 | |
| ROA | 0.092 | | 0.071 | *** | -0.142 | ** | -0.027 | | 0.129 | *** | -0.071 | |
| DR | 0.064 | *** | -0.112 | *** | 0.054 | *** | -0.016 | | -0.009 | | 0.032 | *** |
| GTA | -0.029 | | -0.016 | ** | 0.037 | * | 0.129 | *** | -0.024 | | -0.120 | *** |
| Turn | -0.021 | | 0.013 | *** | 0.005 | | -0.012 | ** | 0.010 | *** | -0.003 | |
| Vol3Y | -0.459 | *** | 0.135 | *** | 0.287 | *** | 0.112 | * | 0.020 | | -0.137 | ** |
| BPR | -0.015 | *** | -0.015 | *** | 0.030 | *** | -0.006 | ** | 0.002 | | 0.004 | |
| FDR | -0.112 | *** | 0.097 | *** | 0.015 | | -0.032 | *** | 0.006 | | 0.021 | |
| Adjusted $R^2$ | 0.193 | | 0.465 | | 0.443 | | 0.081 | | 0.195 | | 0.068 | |
| Panel F. Environment Preservations (ENV) | | | | | | | | | | | | |
| | Domestic | | Foreign | | Individuals | | ⊿JPN | | ⊿FOR | | ⊿IND | |
| Intercept | 54.846 | *** | 25.594 | *** | 17.768 | *** | -2.272 | ** | 1.804 | *** | 0.274 | |
| ENV | 2.852 | *** | 0.757 | *** | -3.596 | *** | -0.904 | *** | -0.269 | | 1.157 | *** |
| ROA | 0.040 | | 0.079 | *** | -0.098 | | -0.010 | | 0.103 | *** | -0.063 | |
| DR | 0.082 | *** | -0.123 | *** | 0.047 | *** | -0.013 | | -0.012 | * | 0.031 | *** |
| GTA | -0.017 | | -0.006 | | 0.015 | | 0.109 | *** | -0.005 | | -0.120 | *** |
| Turn | -0.024 | * | 0.015 | *** | 0.007 | | -0.015 | *** | 0.011 | *** | -0.001 | |
| Vol3Y | -0.422 | *** | 0.143 | *** | 0.239 | *** | 0.097 | | 0.003 | | -0.109 | |
| BPR | -0.017 | *** | -0.015 | *** | 0.032 | *** | -0.007 | *** | 0.001 | | 0.007 | ** |
| FDR | -0.108 | *** | 0.092 | *** | 0.016 | | -0.027 | ** | 0.010 | | 0.011 | |
| Adjusted $R^2$ | 0.201 | | 0.472 | | 0.448 | | 0.089 | | 0.205 | | 0.074 | |

Table 9. Industry-wise results of Regression Analysis

Panel A. Consumption Goods Sector

| Past 5 Years Increase in Shares Held by Domestic Institutions and Firms' CSP | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 1.743 | *** | 0.426 | ** | 0.909 | *** | 0.868 | *** | 0.395 | *** | 0.749 | *** |
| $\Delta$ JPN | -0.002 | | -0.004 | | -0.002 | | 0.000 | | 0.000 | | -0.005 | |
| ROA | 0.013 | | 0.013 | | -0.001 | | 0.006 | | 0.004 | | -0.002 | |
| DR | 0.003 | | 0.006 | *** | 0.001 | | -0.002 | | 0.003 | ** | 0.000 | |
| GTA | -0.010 | ** | -0.013 | *** | 0.000 | | -0.002 | | -0.005 | | -0.001 | |
| Turn | -0.001 | | 0.000 | | -0.001 | | 0.000 | | 0.000 | | 0.000 | |
| Vol3Y | 0.019 | | 0.006 | | 0.004 | | 0.008 | | -0.007 | | 0.010 | |
| BPR | -0.002 | ** | -0.001 | * | -0.001 | * | -0.001 | *** | 0.001 | | 0.000 | |
| FDR | 0.004 | | 0.006 | ** | 0.000 | | 0.000 | | 0.001 | | 0.001 | |
| Adjusted $R^2$ | 0.550 | | 0.156 | | 0.435 | | 0.197 | | 0.114 | | 0.489 | |
| Past 5 Years Increase in Shares Held by Foreign Institutions and Firms' CSP | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 1.807 | *** | 0.405 | ** | 0.904 | *** | 0.957 | *** | 0.394 | *** | 0.818 | *** |
| $\Delta$ FOR | 0.012 | | 0.015 | * | 0.000 | | 0.003 | | 0.004 | | 0.003 | |
| ROA | 0.005 | | 0.007 | | -0.001 | | 0.002 | | 0.005 | | -0.007 | |
| DR | 0.004 | | 0.007 | *** | 0.001 | | -0.002 | | 0.003 | * | 0.000 | |
| GTA | -0.011 | *** | -0.012 | *** | 0.000 | | -0.003 | | -0.005 | * | -0.005 | ** |
| Turn | -0.001 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |
| Vol3Y | 0.011 | | 0.000 | | 0.005 | | 0.005 | | -0.006 | | 0.005 | |
| BPR | -0.002 | *** | -0.001 | | -0.001 | * | -0.002 | *** | 0.000 | | 0.000 | |
| FDR | 0.004 | | 0.008 | *** | 0.001 | | 0.000 | | -0.001 | | 0.001 | |
| Adjusted $R^2$ | 0.549 | | 0.171 | | 0.441 | | 0.206 | | 0.113 | | 0.489 | |
| Past 5 Years Increase in Shares Held by Individual Investors and Firms' CSP | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 1.871 | *** | 0.540 | *** | 0.879 | *** | 0.942 | *** | 0.426 | *** | 0.825 | *** |
| $\Delta$ IND | -0.003 | | -0.006 | | 0.002 | | 0.000 | | -0.002 | | 0.001 | |
| ROA | 0.004 | | 0.006 | | -0.001 | | 0.000 | | 0.002 | | -0.008 | |
| DR | 0.003 | | 0.006 | *** | 0.001 | | -0.002 | | 0.003 | * | 0.000 | |
| GTA | -0.010 | ** | -0.011 | ** | 0.001 | | -0.001 | | -0.004 | | -0.003 | |
| Turn | -0.001 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | |
| Vol3Y | 0.010 | | -0.004 | | 0.007 | | 0.002 | | -0.010 | | 0.005 | |
| BPR | -0.002 | *** | -0.002 | ** | -0.001 | ** | -0.002 | *** | 0.000 | | 0.000 | |
| FDR | 0.005 | * | 0.006 | ** | 0.000 | | 0.001 | | 0.001 | | 0.001 | |
| Adjusted $R^2$ | 0.545 | | 0.160 | | 0.419 | | 0.210 | | 0.111 | | 0.486 | |

Panel B. Investment Goods Sector

| Past 5 Years Increase in Shares Held by Domestic Institutions and Firms' CSP | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.357 | *** | 1.353 | *** | 1.078 | *** | 0.954 | *** | 0.519 | *** | 0.940 | *** |
| $\Delta$ JPN | -0.004 | | 0.002 | | -0.007 | * | -0.005 | | 0.006 | | -0.007 | ** |
| ROA | -0.015 | | 0.007 | | -0.011 | * | -0.007 | | -0.012 | | 0.004 | |
| DR | -0.002 | | 0.000 | | -0.002 | | 0.001 | | -0.003 | * | 0.002 | |
| GTA | -0.003 | | -0.003 | | 0.001 | | -0.005 | | -0.001 | | -0.002 | |
| Turn | 0.000 | | 0.001 | | -0.001 | * | 0.001 | *** | 0.001 | | -0.001 | |
| Vol3Y | -0.039 | *** | -0.029 | *** | -0.016 | ** | -0.043 | *** | -0.005 | | -0.012 | ** |
| BPR | -0.004 | *** | -0.002 | *** | -0.002 | *** | -0.001 | *** | -0.001 | *** | -0.001 | *** |
| FDR | 0.004 | ** | 0.000 | | 0.004 | *** | 0.004 | *** | 0.000 | | 0.002 | |
| Adjusted $R^2$ | 0.441 | | 0.231 | | 0.324 | | 0.090 | | 0.054 | | 0.403 | |
| Past 5 Years Increase in Shares Held by Foreign Institutions and Firms' CSP | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.364 | *** | 1.416 | *** | 1.069 | *** | 0.859 | *** | 0.497 | *** | 0.971 | *** |
| $\Delta$ FOR | -0.007 | | 0.006 | | -0.005 | | -0.003 | | -0.009 | | -0.007 | * |
| ROA | -0.012 | | 0.000 | | -0.008 | | -0.006 | | -0.013 | * | 0.007 | |
| DR | -0.004 | * | -0.002 | | -0.002 | * | 0.000 | | -0.003 | * | 0.002 | * |
| GTA | -0.003 | | -0.001 | | 0.001 | | -0.003 | | 0.001 | | -0.002 | |
| Turn | 0.000 | | 0.001 | | -0.001 | * | 0.001 | ** | 0.000 | | 0.000 | |
| Vol3Y | -0.030 | *** | -0.026 | *** | -0.011 | * | -0.029 | *** | 0.002 | | -0.015 | *** |
| BPR | -0.004 | *** | -0.002 | *** | -0.001 | *** | -0.001 | *** | -0.001 | *** | -0.001 | *** |
| FDR | 0.004 | * | 0.000 | | 0.003 | ** | 0.004 | *** | -0.001 | | 0.002 | * |
| Adjusted $R^2$ | 0.450 | | 0.236 | | 0.323 | | 0.080 | | 0.056 | | 0.412 | |
| Past 5 Years Increase in Shares Held by Individual Investors and Firms' CSP | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.263 | *** | 1.367 | *** | 1.048 | *** | 0.866 | *** | 0.387 | *** | 0.950 | *** |
| $\Delta$ IND | 0.003 | | -0.005 | | 0.007 | ** | 0.005 | | -0.006 | | 0.011 | *** |
| ROA | -0.007 | | 0.002 | | -0.005 | | -0.003 | | -0.009 | | 0.008 | |
| DR | -0.003 | | -0.001 | | -0.002 | | 0.000 | | -0.002 | * | 0.001 | |
| GTA | -0.005 | | -0.001 | | 0.000 | | -0.005 | | -0.001 | | -0.002 | |
| Turn | -0.001 | | 0.001 | | -0.001 | ** | 0.001 | ** | 0.000 | | -0.001 | |
| Vol3Y | -0.024 | ** | -0.023 | ** | -0.009 | | -0.031 | *** | 0.004 | | -0.010 | * |
| BPR | -0.004 | *** | -0.002 | *** | -0.002 | *** | -0.001 | *** | -0.001 | ** | -0.001 | *** |
| FDR | 0.003 | * | -0.001 | | 0.003 | ** | 0.004 | *** | 0.000 | | 0.002 | |
| Adjusted $R^2$ | 0.452 | | 0.235 | | 0.336 | | 0.086 | | 0.056 | | 0.412 | |

Panel C. Service Sector

| Past 5 Years Increase in Shares Held by Domestic Institutions and Firms' CSP | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.098 | *** | 0.842 | *** | 0.971 | *** | 0.592 | *** | 0.616 | *** | 1.019 | *** |
| $\Delta$ JPN | -0.003 | | 0.002 | | -0.006 | * | 0.004 | | -0.001 | | -0.007 | ** |
| ROA | 0.008 | | 0.008 | | 0.005 | | -0.007 | | -0.002 | | 0.002 | |
| DR | -0.007 | *** | 0.000 | | 0.001 | | -0.006 | *** | -0.004 | *** | -0.002 | |
| GTA | -0.010 | ** | -0.009 | *** | -0.002 | | -0.001 | | -0.006 | ** | -0.004 | |
| Turn | 0.000 | | 0.000 | | 0.000 | | 0.000 | | -0.002 | ** | 0.001 | |
| Vol3Y | -0.031 | *** | -0.030 | *** | -0.014 | *** | -0.021 | ** | 0.017 | *** | -0.023 | *** |
| BPR | -0.001 | *** | 0.000 | | 0.000 | | -0.001 | | -0.001 | *** | 0.000 | |
| FDR | -0.001 | | 0.005 | | -0.009 | | -0.006 | | -0.003 | | 0.005 | |
| Adjusted $R^2$ | 0.271 | | 0.108 | | 0.276 | | 0.035 | | 0.043 | | 0.280 | |
| Past 5 Years Increase in Shares Held by Foreign Institutions and Firms' CSP | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.031 | *** | 0.763 | *** | 0.966 | *** | 0.567 | *** | 0.587 | *** | 1.002 | *** |
| $\Delta$ FOR | 0.020 | ** | 0.003 | | 0.005 | | 0.006 | | 0.003 | | 0.012 | ** |
| ROA | 0.007 | | 0.009 | * | 0.003 | | -0.008 | | -0.004 | | 0.001 | |
| DR | -0.008 | *** | -0.001 | | 0.000 | | -0.007 | *** | -0.005 | *** | -0.002 | * |
| GTA | -0.008 | * | -0.008 | ** | 0.000 | | 0.001 | | -0.004 | | -0.003 | |
| Turn | -0.001 | | 0.000 | | 0.000 | | 0.000 | | -0.002 | *** | 0.000 | |
| Vol3Y | -0.031 | *** | -0.026 | *** | -0.012 | *** | -0.019 | *** | 0.016 | *** | -0.022 | *** |
| BPR | -0.001 | ** | 0.000 | | 0.000 | | 0.000 | | -0.001 | ** | 0.000 | |
| FDR | -0.003 | | 0.006 | | -0.012 | ** | -0.009 | | -0.003 | | 0.003 | |
| Adjusted $R^2$ | 0.278 | | 0.109 | | 0.274 | | 0.041 | | 0.043 | | 0.285 | |
| Past 5 Years Increase in Shares Held by Individual Investors and Firms' CSP | | | | | | | | | | | | |
| | CSP | | EMP | | SC | | SS | | IG | | ENV | |
| Intercept | 2.064 | *** | 0.781 | *** | 1.017 | *** | 0.543 | *** | 0.579 | *** | 0.996 | *** |
| $\Delta$ IND | -0.002 | | -0.003 | | 0.002 | | -0.004 | | 0.000 | | 0.004 | |
| ROA | 0.011 | | 0.012 | ** | 0.003 | | -0.004 | | 0.000 | | 0.004 | |
| DR | -0.007 | *** | 0.000 | | 0.000 | | -0.007 | *** | -0.004 | *** | -0.001 | |
| GTA | -0.010 | ** | -0.008 | ** | 0.000 | | -0.001 | | -0.005 | * | -0.004 | * |
| Turn | 0.000 | | 0.000 | | 0.000 | | 0.000 | | -0.002 | ** | 0.001 | * |
| Vol3Y | -0.029 | *** | -0.027 | *** | -0.014 | *** | -0.018 | ** | 0.018 | *** | -0.023 | *** |
| BPR | -0.001 | ** | 0.000 | | 0.000 | | 0.000 | | -0.001 | ** | 0.000 | |
| FDR | 0.000 | | 0.006 | | -0.010 | | -0.008 | | -0.003 | | 0.006 | * |
| Adjusted $R^2$ | 0.273 | | 0.104 | | 0.274 | | 0.035 | | 0.039 | | 0.273 | |

Table A1. Definition of Sector Classification

Based on 33 industry classifications by Tokyo Stock Exchange, we re-define seven sectors below following Kubota and Takehara (2007).

| Sector | Industry |
|---|---|
| *Consumption Goods* | Fishery and Agriculture |
| | Foods |
| | Textiles and Apparels |
| | Pharmaceutical |
| | Electric Appliances |
| | Other Products |
| *Investment Goods* | Mining |
| | Construction |
| | Pulp and Paper |
| | Chemicals |
| | Oil and Coal Products |
| | Rubber Products |
| | Glass and Ceramics Products |
| | Iron and Steel |
| | Nonferrous Metals |
| | Metal Products |
| | Machinery |
| | Transportation Equipment |
| | Precision Instruments |
| *Services* | Communication |
| | Wholesale Trade |
| | Retail Trade |
| | Services |
| *Financial* | Banks |
| | Securities |
| | Insurance |
| | Other Financing Business |
| *Transportation* | Land Transportation |
| | Marine Transportation |
| | Air Transportation |
| *Utility* | Electric Power and Gas |
| *Real Estate* | Warehousing |
| | Real Estate |

Table A2. Adopted Questions from CSR Survey of Toyo Keizai CSR Database

| | Evaluation Point | Weights |
|---|---|---|
| **Employee Relations (EMP)** | | |
| 1 | Ratio of female employees to total employees | -0.233 |
| 2 | Ratio of female managers to total managers | -0.301 |
| 3 | Ratio of phisically handicapped employees to total employees | -0.305 |
| 4 | Ratio of old employees (60 years old and over) to total employees | -0.275 |
| 5 | Average years of continuous employment | -0.141 |
| 6 | Labor turnover rate | -0.318 |
| 7 | Average salary for a 30 years old | -0.306 |
| 8 | Overtime hours | -0.329 |
| 9 | Overtime wage per hour | -0.351 |
| 10 | Rate of paid holidays taken | -0.342 |
| 11 | Frequency rates of industrial injuries | -0.244 |
| 12 | Flexible work arrangement (flex-time, short-time working, on-site child care, etc.) | -0.191 |
| 13 | Incentive program (internal venture, bonus plan, education program etc.) | -0.165 |
| **Social Contribution (SC)** | | |
| 1 | Comprehensive evaluation (CSR department, director in charge, CSR document etc.) | -0.442 |
| 2 | Corporate ethics (guidelines, business ethics document, etc.) | -0.259 |
| 3 | Department of social actions | -0.693 |
| 4 | Social expenditure per employee | -0.438 |
| 5 | Matching gift and voluntier grant programs | -0.256 |
| **Security of the Firm and Product Safeness (SS)** | | |
| 1 | Specialty divisions on investor relations, consumer affairs, cooperation with NPO. | -0.282 |
| 2 | Whisle-blower policy | -0.132 |
| 3 | Specialty department for managing quality and safety of products and services | -0.907 |
| 4 | Ratio of domestic business offices with ISO9000 certification | -0.201 |
| 5 | Ratio of foreign business offices with ISO9000 certification | -0.202 |
| **Internal Governance and Risk Management (IG)** | | |
| 1 | Comprehensive evalusation (whisle-blower protection, CSR manual, complaint DB, etc.) | -0.191 |
| 2 | Existence/nonexistence of complience department | -0.450 |
| 3 | Existence/nonexistence of CIO | -0.579 |
| 4 | Existence/nonexistence of CFO | -0.601 |
| 5 | Information systems (security policy, internal/external auditiing etc.) | -0.220 |
| 6 | Comprehensive evaluation (fair trade, complience, closedown in the past 3 years, etc.) | -0.128 |
| **Environment Preservations (ENV)** | | |
| 1 | Environmental planning department, director in charge of environmental affairs, etc. | -0.497 |
| 2 | Environmental accounting, disclosure and auditiing. | -0.558 |
| 3 | Ratio of environment related business to total revenue | -0.431 |
| 4 | Promotion of procurement of eco-friendly goods and services | -0.462 |
| 5 | Ecolabelling (ISO14020 series etc.) | -0.198 |
| 6 | Environment related complience (environmental disasters, law violation, etc.) | -0.050 |