CSR Financial Performance from View of Long- Term Investment[1]

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Abstract

Corporate social responsibility (CSR) is gaining importance among governments, consumers, businesses, and academics. We empirically investigate the relationship between CSR-stock performance, which is the simplest financial market measure, and CSR performances for long-term aspects in Japan. In this regard, we apply a comprehensive and unique investigation to more than 10 years of recent data. Our results are as follows. First, we find that CSR activities create better stock performance in the labor-related, community, and environmental categories for long-term investments. Second, firms with strong corporate governance can realize better stock performance. Additionally, the global sales field is an important means of progressing suitable CSR activities, especially in the environment and community category. Third, increases in CSR performance improve firm-specific informativeness, in the eco CSR activities include only regulatory information in stock prices.

Keywords: Corporate Social Responsibility, Long-term Investment, Global Firms, Foreign Investors, Stock Price Informativeness

JEL Classifications: G11; G32; G39

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1. Introduction

Corporate social responsibility (CSR) is the subject of growing attention from firms, governments and regulators, stakeholders. Based on various responsibility criteria, a rapidly increasing number of institutes, investment funds, publications and online resources are calling on corporations to alter their business practices. In response to the increased attention given to corporations' impact on society and the environment, a 2017 KPMG survey finds substantial growth in global CSR reporting rates (75% in 2017 compared to 64% in 2011 and 18% in 2002) and in the number of firms that include CSR information in their annual reports (60% in 2017 compared to 56% in 2015). Moreover, although Japanese market is lagging North America and Western Europe where are the highest CSR reporting. In recent years, CSR has become an increasingly important business practice and academic issue in the Japanese market. This growth maybe reflects regulatory changes and new requirements, as well as greater market awareness and pressure from investors and consumers. For example, the Government Pension Investment Fund (JPIF) in Japan, the biggest public pension investment agency, has announced to investors that it will now promote CSR financial activities. In the academic side, Kolk (2016) confirmed the importance about the CSR issues; the environment, ethics, poverty and sustainable development, from historical perspective with his review of CSR literature from the past 50 years.

To complete the goals of CSR purposes, firms needs the long time not short time. For example, it takes long terms to reform the governance system, the good relationship between employer and employees, and making the good society in their community. Then we focus the long-term investment for investigating CSR performance. Also, recently, in the Tokyo market, the share of foreign investors is increasing (30.3% at the end of 2017 fiscal year) and the highest share

of investors in Tokyo markets. Not only Japanese domestic investors but also global investors, CSR is the one of the most important themes of investment.

Theoretically, CSR is part of economic contract theory and regarded as extended governance. The contractarian approach defines CSR as a "model of extended corporate governance whereby those who runs firm (entrepreneurs, directors, and managers) have responsibilities that range from fulfillment of their fiduciary duties toward the owners to fulfillment of analogous fiduciary duties toward all the firm's stakeholders" (Sacconi 2006). The origin of this definition is neo-institutional theory (Grossman and Hart, 1986). Because, relationships between firms and shareholders/stakeholders are characterized by the responsibilities of the former to the latter, then, despite information asymmetries (Antoni and Portale 2011), a firm can develop a reputation by adopting an explicitly announced CSR standard. Antoni and Portale (2011) mentioned that "contractarian CSR practices are considered implemented when stakeholder engagement becomes part of a firm's governance, fiduciary relationships are constituted, and the firm develops a reputation by complying with commitments subscribed in the social contract." Long-term investors are natural monitors who can ensure that firms choose the degree of CSR that maximizes shareholder value (Bénabou and Tirole 2010). Further, as long as a firm's management is properly monitored to confirm correct corporate governance, socially responsible objectives can promote better financial performance.

One of the most discussed CSR issues is the relationship between CSR performance and firms' stock performance; namely, the concern is whether CSR creates or destroys value (Margolis et al. 2009, Kitzmueller and Shimshack 2012). Destroyed value suggests the presence of agency problems (Cheng et al. 2013, Krüger 2015). Brammer et al. (2006) find that composite CSR indicators have a negative influence on stock returns. Created value occurs when CSR is used as a

strategic tool that maximizes shareholders' wealth (Shirasu 2011, Cheng et al. 2014). Margolis et al. (2009) reviewed 106 studies and showed that the overall effect of created value is positive, but small and that recent social and environmental activities produce better financial results. Kim et al. (2012) noticed that CSR-related information is a substitute for financial information. In addition, Benlemlih (2017) found that highly successful CSR performance reduces information asymmetry. While the theoretical issues reviewed are relatively clear defined, empirical outcomes are ambiguous.

First, this current study contributes to the literature on the link between CSR and stock returns in the Japanese market. Second, because long-term investors are natural monitors who improve corporate value, we confirm whether such investors increase the value of CSR activities to shareholders. For example, employee satisfaction has value, but this is not immediately capitalized by the market (Edmans et al. 2018); thus, we need to evaluate the effects of CSR activities in the long term.

Second, we consider the roles of overseas expansion and foreign stockholders' powers. Recently, Japanese firms have developed into overseas markets to increase sales; moreover, the number of foreign investors in the Japanese stock market has been increasing. When Japanese firms operate their businesses in foreign countries, they must enhance their reputations and establish trust with foreign consumers, employees, investors, and the social community. In contrast, many foreign investors enter the Tokyo stock market as shareholders and expect firms' managers to maximize the returns on investments. The firms' managers must do their best to satisfy the foreign stockholders. CSR is a strategic tool to enforce best practices by managers and decrease firms' private benefits. Indeed, foreign investors are useful because they boost management/market performance in Japanese firms through the improved corporate governance that is associated with

positive CSR activities. The potential benefits of positive CSR activities suggest that Japanese firms with significant CSR activities in relation to high levels of overseas sales or large shares of foreign investors are likely to exhibit higher financial performance. Boubakri et al. (2016) found that foreign investors enforce CSR performance empirically. The authors also discovered that cross-listed firms in the U.S. market have better CSR performance than non-cross-listed domestic firms; moreover, cross-listed firms with better CSR performance exhibit higher valuations. We empirically investigate CSR-related stock performance effects through the power of extended governance in Japan. In this regard, we include foreign investors and overseas sales.

Finally, we investigate the relationship between stock price informativeness (SPI) and CSR performance. SPI is the degree to which a firm's specific private information, including CSR information, is integrated into stock performance. If an informed market reveals firm-specific private information about stocks by timely trading, this leads to more information about stock prices, thereby making the stock market more efficient. When a positive relationship exists between CSR performance and stock returns, CSR activities improve the stock's informational environment. Yu (2011) showed that the relationship between a CSR governance score and the variation in a firm-specific return is positive and significant. Thus, we ask: Does CSR performance affects firm-specific private information?

Our results are as follows. First, we find that CSR activities create better stock performance in the labor-related, community and environmental categories for long-term investments. This result is robust. Second, the field of overseas sales is an important means of progressing suitable CSR activities in the community and eco category. Third, we find that increases in CSR performance improve SPI and firm-specific informativeness in the labor-related and governance

categories. Surprisingly, market considers that the information of Eco-environmental activities is not firm-specific but public; regulation.

The rest of this paper proceeds as follows. Section 2 develops our research questions. Section 3 describes our sample and presents our empirical methods. Section 4 discusses the empirical results and Section 5 provides a summary and directions for further research.

2. Research Questions

The CSR is the model of extended corporate governance, and those who runs firm have responsibilities toward all the firm's stakeholders (Sacconi 2006). Friedman (1970) described socially responsible stakeholders as stockholders, customers, employees, people associated with environmental improvements, and people who fight poverty. The connects CSR to corporate governance is explored by Cespa and Cestone (2007), they study whether in efficient manager can use CSR. Singler (1962) points CSR is enables firms to trade off labor-wage and nonmonetary conditions of employment attacking lower quality workers. Bhallacharya and Sen (2003) suggests that social consumer preferences may drive CSR. Also, high demand of consumer's social goods empowers the business incentive of managers (Baron 2008).

Since our CSR data is separated six CSR categories: work, governance, customer, community, employee, and environmental, we cannot see the whole picture of Japanese CSR activities and do not know the relationship between CSR categories. At last, we do clarify the overall picture for CSR activities of Japanese firms. Thus, we ask the following question before hypotheses: *What is the whole picture of CSR activities in Japan?*

There are two views about the assessment of CSR value creation. The first is the negative view that CSR signals the presence of agency problems[2]. The second is the positive view that CSR is one of the strategic tools that can force managers to maximize the wealth of stakeholders, namely, stockholders, employees, consumers/suppliers, and society. CSR can be market driven or "strategic as opposed to Mcwilliams and Siegel (2001), CSR may be strategic but need not be. Some empirical studies find that CSR has positive effects on a firm's value. Shirasu (2011) showed that, in Japan, stocks related to socially responsible investment (SRI) exhibit better performance than non-SRI-related stocks; moreover, the SRI score is related positively to stock returns. Dimson et al. (2015) stated that better CSR performance is related to larger abnormal returns, Goss (2009) found that CSR reduces the risk of financial distress, El Ghoul et al. (2011) discovered that CSR results in a lower cost for capital and enhances a firm's valuation, and Cheng et al. (2014) said that CSR improves access to finance. We support the arguments in favor of the positive view and thereby construct our first hypothesis.

Evidence exists that some types of intangible assets, other than accounting output, partly determine stock market prices. For example, intangible assets such as firms with superior governance (Giroud and Mueller 2011), customer satisfaction (Fornell et al. 2006), environmental efficiency (Derwall et al. 2005), and employee satisfaction (Edmans et al. 2018) earn long-term stock returns. Thus, it is reasonable that the measure of financial performance that results from CSR activities is not accounting output but the stock returns of the Japanese stock market. The stock return is simplest measure of firm value. In japan, we have few empirical results about the relationship between CSR performance and stock performance, and we many market players use

[2] On the contrary, Brekke and Nyborg (2003) shows that CSR can reduce moral hazard at least is the labor market context, and reduce agency cost due to matching agents and principals.

the stock return as primary measure, then we employ the stock returns of the stock market. We use five CSR categories: governance, customer, community, employee, and environmental. We then compare the similarities and differences in the financial performance of CSR-related firms. Hence, we ask the following questions.

H1: *CSR activities result in better stock performance. Also, there is there any difference between CSR categories.*

As argued in Bénabou and Tirole (2010), long-term investors are natural monitors who can ensure that firms' managers choose the level of CSR that maximizes shareholder value. Nguyen et al. (2017) confirmed that the value to shareholders of CSR activities is increased by long-term investors. The authors also showed that the effect of long-term investors on CSR activities is to maximize shareholder value. In addition, Chen (2007) proposed that long-term investors have lower costs and higher benefits than short-term investors; moreover, long-term investors engage in more monitoring. Further, Edmans et al. (2018) said that employee satisfaction has value but that it is not immediately capitalized by the market. Edmans (2011) also reported that the value of even the best firm in the U.S. is not fully capitalized by the market until four–five years later. This situation applies despite the U.S. having the most efficient market.

Because investment terms matter, particularly long-term investment, we investigate how various investment terms have affected CSR-related stock returns and CSR activities. Thus, we ask the following question.

H2*: The long- term investment make CSR-related stock returns and CSR activities betters.*

Recently, Japanese firms have increased the number of foreign stockholders. Figure 1 represents the average ratios of foreign investors. The ratio is increasing year by year and the CSR-related firms are higher than those of non-CSR-related firms.

【Insert Figure 1 around here】

While Japanese firms have been expanding their business into foreign countries, the subject of CSR has been growing in importance worldwide. Global firms in a number of fields are under increasing scrutiny. The range of socially responsible issues that they are required to address has widened to include ethical, social, and working conditions; environmental concerns; sustainable development issues (Kolk 2016); and production systems. Such activities are directly related to CSR. Some scholars have maintained that global firms should be accountable to a wider range of CSR stakeholders who enable their existence and growth (Enderwick 2017). Others have highlighted that social consumer preferences drive CSR and that socially responsible consumers are loyal and committed (Kitzmueller and Shimshack 2012). According to a Mori (2003) survey, more than half of American consumers say that a firm's social reputation influences their purchase decisions; moreover, 70 percent of UK consumers state that they prefer to deal with firms that they perceive as ethically superior. Tsai and Child (1997) showed that global firms have the potential to function as a mechanism for the upward harmonization of CSR standards internationally; moreover, global firms can act as moral hazard agents with the aim of spreading a social development model and improving social maturity for the betterment of wider communities (Collier and Wanderly 2005). Hence, we check stock returns related to CSR activities by sales

areas/regions, as reported by Blasi et al. (2018). Stock returns also depend on the CSR categories in which firms invest. The foregoing prompts the following questions.

***H3**: CSR-active firms result in greater stock performance depend on the region where their operate overseas businesses.*

Foreign investors in the Tokyo market have great expectations for Japanese firms to maximize returns on investments through strong corporate governance. Krüger (2015) and Harjoto et al. (2015) find a positive relationship between CSR and financial performance when firms consider their CSR practices and levels of governance. The foreign investors are playing like as main subject of governance management discipline on behalf of the main banks by voice (voting) and leaving (selling stocks). In this regard, CSR is one of a number of strategic tools for driving managers' efforts. From this perspective, foreign investors empower Japanese firms to boost performance through improved corporate governance that is driven by proactive CSR initiatives. These benefits suggest that Japanese firms with high levels of CSR activities relating to significant overseas sales or large numbers of foreign investors are likely to exhibit greater stock performance.

***H4**: More foreign investment among CSR-active firms result in greater stock performance.*

Essentially, a stock's price is a mirror of private and public information. Private information is firm-specific information; public information is market and industry information. If an informed market reveals firm-specific information about stocks, this leads to more information about stock prices, thereby making the stock market more efficient. SPI enable the measurement of the relative amount of firm-specific information in stock prices (Ben-Nosr and Cosset 2014). SPI have the idea that an individual stock moves independently of the market in informed investors possess firm

specific information. Thus, SPI represents the degree to which firm-specific information, including CSR information, is integrated into stock performance. Kim et al. (2012) noted that CSR activities improve information flow toward investors. If firms pay more attention to CSR, more firm-specific information becomes available. A higher SPI value indicates the stronger explanatory power of CSR activities and more firm-specific information about firms' returns. Hence, we ask the following question.

The benefits of CSR activities suggest that Japanese firms with high levels of such activities relating to significant overseas sales or large numbers of foreign investors are likely to exhibit greater stock price informativeness. Additionally, we investigate the difference between sales areas/regions and foreign investment power.

H5*: CSR activities result in greater stock price informativeness.*

3. Empirical Analyses

3.1. Data and Methodology

We collected all available Japanese CSR score data from GoodBankers© (GB), an independent investment and advisory firm specializing in social investment research, from 2004 to 2015. The CSR data were divided into five categories: “governance,” supply and consumption procedures (“customer”), social activities (“community”), "employees," and the environment (“eco”) (See Appendix 2). The CSR scores that we used are announced once a year at the end of August. We calculated long-term CSR scores of more than two years from the average of the annual scores. For the Robustness, we collected Japanese CSR score data from the Thomson Reuters ASSET4 database. The detailed information about ASSET 4 is Appendix 3. We adjusted the CSR categories of Asset4 with GB categories, “Environment”; Emissions, Resource Use, and

Environmental Innovation, “Governance”; Shareholders, Management, and CSR Strategy, “Customer”; Product Responsibility and Human Rights. “Community”; only Community. The number of CSR of Asset 4 is almost half of GB data. The coverage about Asset 4 CSR score is only half of GB data.

Accounting data are from Nikkei Financial Quest and QUICK databases. Stock data are from the QUICK database. Ownership data regarding foreign investors are from the Nikkei Financial Quest database.

In our sample, a CSR-related firm has regular common stock listed on the Tokyo stock market and must have accounting data based on the Japanese yen. We deleted observations that were greater or lower than the 99th or 1st percentiles respectively for the potential of outliers. We calculated the excess adjusted returns: the individual stock returns minus every Industrial Price Index return, to mitigate macroeconomic effects and industrial specific effects. Our study control for at least industry effects. We used annual returns; moreover, we used annual long-term returns to calculate average annual returns. We also employed the Fama–French Japanese three-factors model with momentum model and five-factors model from the Kenneth French website[3]. We adjusted the related index to yen in accordance with the dollar–yen exchange rate. We did this because the original index is dollar-based despite the stock return and financial data being yen-based.

CSR sores are announced once a year in August. We calculated long-term average annual returns starting from the following September’s monthly returns. We define long terms as one year, three years, five years and more.

[3] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

Firstly, to investigate our first research questions; what the whole picture of CSR activities in Japan is, empirically, we first use the principal component analysis (PCA) and find some important factors and specify principal components.

To investigate our research second questions about the adjusted-stock returns empirically, we simply estimated the alpha level effects by means of the Fama–French three-factors with momentum model and five-factors model and estimated ordinary least squares (OLS) regression. In regression models, the explanatory variable of interest is CSR scores. All independent variables are lagged by one year so that we examine the relation between the explanatory variables and future stock returns. Also, we used dynamic panel regression/GMM, two-stage least squares (2SLS) regression for endogeneity problem, and Heckman's two-stage regression model (Heckit) for robustness. With regard to 2SLS regression, the instrumental variables were the average of industrial CSR scores, lagged and second-lagged CSR scores, as suggested by El Ghoul et al. (2011), and the average of 10- firm-sized CSR scores. As well known, industries that are well organized and represented by the centralized lobby might be able to exert pressure on firm behavior. Also, we calculate the average of 10- firm-sized CSR scores from the firm size, sorting firm size and categorized 10 groups by firm size, and calculate the average CSR score by firm sized group. More, when initially selecting firms that have implemented CSR, certain issues may cause selection bias (Wu and Shen 2013); thus, we employed the Heckit model.

To investigate our fourth research questions about SPI, we estimated our primary measure of firm-specific stock return variation with a market- and industry-lagged model.[4] We used 60 monthly historical data returns for each year. Thus:

[4] We estimate our SPI variation by not only using the Fama/French 5 factors market model but also a market and industry model. Both results are similar. We do not report the results of the Fama/French 5 factors market model for reasons of space.

$$Return_{it} = \alpha_{it} + \beta 1_{it} Market_t + \beta 2_{it} Market_{t-1} + \beta 3_{it} Industry_{jt} + \beta 4_{it} Industry_{jt-1} + \varepsilon_{it} \quad (1)$$

where $Return_{it}$ is firm i's monthly stock return minus each industrial returns, t; $Market_t$ is the monthly TOPIX return; $Industry_{jt}$ is the monthly stock index return, t, of firm i's industry, j; α and β are parameters' and ε is the error term.

Stock returns are more informative when they become less correlated with public information. Such returns are market and industry return. We define SPI as 1-R^2 divided by R^2, the 1- R^2, where R^2 is estimated based on equation (1), is measure of firm- specific stock return, using logistically transformed, as suggested by Ben-Nasr and Cosset (2014). Thus:

$$\text{SPI} = \log\left(\frac{1-R^2}{R^2}\right) \quad (2)$$

The firm specific information affects the stock price, we should observe a lack of market synchronicity and higher values for SPI indicate higher firm-specific return variations relative to stronger explanation power of market- and industry-based variations. Such values also indicate lower synchronicity with market and industry indices.

3.2. Sample Description

Table 1 presents an outline of the CSR data, from 2004 to 2015. Governance concentrates on corporate governance and compliance. Customer includes consumer management, supply chains, procedural management, caring for developing countries, and caring for local people. Community addresses societal activities. Employee pays attention to literacy development, career-development support, and labor associations. Finally, eco relates to environmental management. The data numbers in the table refer to the number of stocks with CSR scores.

【Insert Table 1 around here】

Panel A of Table 2 presents the basic descriptive statistics.

【Insert Table 2 around here】

Figure 2 illustrates the relationship between the CSR scores and the stock returns for governance, customer, community, employee, and eco. Almost all stock returns are positively correlational with CSR scores.

【Insert Figure 2 around here】

4. Empirical Results

4.1. What is the whole picture of CSR activities in Japan?

At first, by using BG score data, we examine the integrated CSR performance. We empirically integrate the five kinds of CSR scores using by the principal component analysis methods (PCA). Panel A of Table 3 present the results of PCA; five principal components (PC), eigenvalues, proportion and cumulative value. Although, only the eigenvalue of PC1 is more than 1, from PC1 to PC2, the cumulative value is more than 0.90, and the movement of categorized CSR score is explained almost 90%, then we use three PC, PC1 and PC2.

Panel B of Table 3 presents the correlations and Z statistics (in parentheses) of PCA by PCs and categories. Almost all categories have as same as strong significant correlation with PC 1, and we suggest the meaning of PC 1 that it looks like the well- balanced, so we named PC 1 as

"Well balanced". Since PC1 is significant, we can analyze every CSR-category well-balanced. Only the eigenvalue of PC1 is significant and it shows well-balanced, then we continue to progress this investigation by category. Although the eigenvalue of PC2 is less than one, PC 2 that it looks like the good environment with poor governance.

For the robustness, by using alternative CSR measure; Asset 4 score, we check the results of PC. The Panel A of Table 3, Asset 4 results show only the eigenvalue of PC1 is more than 1, it is similar to the BG results. Also, the Panel B of Table 3, Asset 4 results PC1 is significant and it shows well-balanced, same line of BG results.

4.2. Do CSR Activities Improve a Stock's Short-term Performance?

Before discussing the financial performance of CSR-related firms, we must first consider the factors that determine such firms. Appendix 2 presents the results of the logit model. With CSR-related firms, the dependent variable is 1 and 0 otherwise. We include many control variables. We observe positive relationships between CSR-related firms, the firm size (msize), at 1 percent level for all categories.

Panel B of Table 2 presents the mean differences between CSR-related and non-CSR-related stock returns. We find that the average return of CSR-related stocks is higher than that of non-CSR-related stocks. Interestingly, it is not significant for one year's results; a longer period is needed to acquire an accurate valuation from the stock market.

First, we focus on the short-term returns, one-year returns after announcing of CSR score. Table 4 presents the results of the effects of the alpha levels of CSR-related annually stocks through Fama–French three-factors with momentum regression and five-factors regression using monthly

returns data[5]. We employ these models because Edmans et al. (2018) stated that the latter is more effective for controlling stock momentum in the context of CSR analysis. The results show that as it looks, for both three-factors with momentum regression and five-factor regression. All categories' coefficients of alpha levels in three-factors with momentum regressions are significantly positive, and some categories in spite of only 10% significant level are positive. However, we must exercise caution when analyzing this finding because, as highlighted by Nguyen et al. (2017), the magnitude of abnormal returns when computing from the Fama–French factors model may be overestimated relative to the magnitude of the effects of multivariable regression. Also, almost all CSR-firms are big Japanese listed companies, there are some suspicions about big companies' bias. To confirm this caution, we compare the alpha results between the CSR-related firms and the other big company[6] without CSR-related firms. [6] of Panel A and Panel B shows the results of the other big firms without CSR-related. For the big firms' results, the coefficients of alpha levels are significantly positive, and its' levels are higher than the alpha levels of CSR-related firms. From this result of alpha, we need to say that seemingly although there are over-valued effects of CSR-related stock returns, however it made to occur by the characteristics of big-stock effects. On the contrary, the over-valued effects of CSR-related firms are smaller than general big-stock effects. Additionally, we check the average treatment effects (ATE) of one-year adjusted return using by propensity score matching (PSM). Appendix 2 presents the results and almost all ATEs are not significant.

【Insert Table 4 around here】

[5] We estimated the alpha by using monthly data. Results are almost same as the results of annual data.
[6] We determine and calculate the big company as upper 30% assets among listed all Japanese firms during our research term.

For the robustness, we estimate the relationship between one-year adjusted returns and CSR scores as shown by Table 5, where Panel A is the results of OLS. The results show that CSR score is significantly positive for the work and eco categories, however both are only 10% significant level. It is significantly positive for the work and eco category with weak effects. We should bear in mind the positive CSR effects for the work and eco categories. We use dynamic panel regression to consider the impact over time, as highlighted by Blasi et al. (2018), and performance persistence problems, as empirically shown by El Ghoul and Karoui (2017). Panel B of Table 5 presents the results of this regression. The dependent variable is one-year stock adjusted returns; the independent variables are lagged returns, CSR score, market size, Q ratio etc. The results show that CSR scores are significantly negative. We should say the non-significant CSR effects for short- term (one year) investment. In the next section, we show the results for the long-term investment, more than three years investment.

【Insert Table 5 around here】

4.3. Do CSR Activities Improve a Stock's Long-term Performance?

Table 6 presents the results of long-term adjusted stock returns, which are calculated from each firm's stock return minus the return of each industrial returns, and the findings for three years, five years and seven years. The dependent variable is *long-term CSR-related adjusted stock returns*. The independent variables are CSR scores together with many control variables: firm characteristics (*market size*, *Q ratio*, *leverage*, *dividend yields*, *forecast of profitability*, *prior returns*, *volatility*, *volume of trading*, and *exchange rate*), as used by Brennan et al. (1998) and

Blasi et al. (2018), and the *foreign investor ratio* as the corporate-governance variable. The long-term stock return regression includes the *forecast of profitability* as an independent variable because, as shown by Blasi et al. (2018), performance based on the stock market represents investors' evaluation of a firm's ability to generate future profits. The most important variable, though, is the *CSR score*. We focus on the coefficients of this variable. We mainly report the results of the three-year investment term. The remaining results in Table 6 show the other *CSR score* coefficients. *CSR score* is significantly positive from the three-year investment term to the five-year investment term for the employee, community, and eco categories and significantly positive only for the five-year investment terms for the community category with 10% significant level. Long-term CSR-related stock affiliated to the employee, and eco categories show good stock market performance for the long- term. The governance and customer categories are not significant for any investment terms. The governance results differ from those of Krüger (2015).

Panel C of Table 6 shows the regression results by using an alternative CSR score, Asset4. Both results of three-year and five-year, Employee, Community and Eco were positively significant, and it is same line of the main results with using BG score. However, Customer and is not significant.

【Insert Table 6 around here】

4.4. The Robustness of CSR Activities and Long-Term Stock Performance

We now check the robustness of the empirical results concerning the relationship between the CSR scores and adjusted stock returns.

First, we consider the endogeneity problem by using 2SLS regression. Table 7 shows the results of long-term 2SLS regression using the instrumental variables, the instrumental variables of Panel A of Table 7 are the averaged industrial CSR score and *CSR score*'s lagged score as similar as shown by El Ghoul et al.(2011), the instrumental variables of Panel B of Table 7 are the average of firm-sized CSR scores and averaged industrial CSR score, the instrumental variables of Panel C of Table 7 are the lagged values, t-1 and t-2, of *CSR score*. We confirm the problems of the causality between stock return and CSR score, relationship of industries and CSR, relationship firm size and CSR. Margalis et al.(2007) point that the positive correlation between CSR and corporate financial performance is at least as attributable to causation form corporate financial performance to CSR.

The results of Table 7 only show the *CSR score* coefficients. *CSR score* is significantly positive through the three- to seven-year investment terms for community, employee, and eco categories.

【Insert Table 7 around here】

Next, we consider selection bias. To overcome this problem, we use the Heckit model, which is Heckman's two-stage regression model, as shown by Wu and Shen (2013).[7] Table 8 presents the results of long-term regression using the Heckit model. As a first stage, we use the logit model to estimate where the independent variable is 1 and otherwise 0 for CSR-related stocks. As a second stage estimation, we regress long-term CSR returns with the Mills lambda ratio,

[7] They do not use logistic regression as the first regression but multi-nominal regression. The multi-nominal regression is the advanced regression of logistic regression, we apply their methodology.

considering the conditional effects of logit regression. Panel B of Table 8 only shows the *CSR score* coefficients and the inverse Mills ratios for the five-, seven- year investment terms. Almost all the results are similar to the prior simple OLS regression; further, the inverse Mills ratios are significantly positive. First, the findings mean that those stock returns related to CSR are determined as a condition of whether or not they are a CSR-related. Second, a high CSR score makes a CSR-related stock perform significantly better in the employee and eco categories from the coefficients of *score* the Panel A and Panel B of Table 8. The significance of investment terms depends on the categories; for example, the employee, and eco categories, but not customer and community; community are not significant, and customer is negatively significant. The reason why customer shows negative is the problem of scoring works in process by the scoring agency. By the meeting of agency firm, we hear that the number of questionnaires to CSR firms about customer is relatively small, then the customer score cannot be acquired the enough CSR information about customer; supply-chain etc. In sum, in labor-related (employee) and eco CSR activities, CSR scores are useful for increasing stock returns.

【Insert Table 8 around here】

4.5. CSR-Stock Performance in the Global Crisis

To examine whether the estimation results differ over time (e.g. due to changing macro-economic condition, changing the characteristics of market participants), we check the effects of Global Crisis eras. We investigate the relationship between adjusted long-term returns and CSR score. Panel A of Table 9 represents the results during the Global Crisis, 2008-2012, Panel B of Table 9 is the results of after Global crisis and at this era we have only there-years investment

results without five-years results. The results are reported only for the *CSR score* coefficients. Interestingly, the coefficients of score the Panel A of Table 9, during Global crisis, is positively significant, however, after the crisis the coefficients of score turn to insignificant in Panel B. We guess that CSR firms have to effort CSR activities hardly to acquire the reputation from market and investor. After crisis era with better macroeconomic condition and better profitability of all of Japanese firms easily, almost all CSR firms realize higher stock returns without their CSR efforts. This result is consisting with other recent studies, for example Yuyama et al.2018.

We look at whether the CSR-CFP effect are different stronger in the time period.

【Insert Table 9 around here】

4.6. Do CSR- stock performance depend on the region for the multinational firms?

In Table 10, we reexamine the results in detail by sales regions as the multinational firm's effects. The multinational firms' sales their products to overseas consumers. The overseas consumer faces their region social problems; for example, in the developing countries, they are suffering from poverty and political uncertainty, in Europe they are interested in emission of CO2. The multinational firms operate sales with depending on the overseas region social problems. In this study, we consider the difference of regions. Our empirical results are reported only for the *CSR score* coefficients in Table 10. Across the regions, the CSR scores of the work and employee categories are significantly positive for long-term investments. However, some specific characteristics depend on the regions.

【Insert Table 10 around here】

In European, the CSR scores of the eco category are significantly positive. Contrastingly, in the developing countries, which comprise Mediterranean, African, and South American regions, the CSR scores of the community category are significantly positive. We say that CSR firms, who operate their business and CSR activities to consistent with local customer's social needs, success to acquire higher stock returns. For example, in Europe where customers are interested in environment, multinational CSR firms operate their business in Europe with high eco score reveal higher stock returns. In developing countries where customers are interested in political or social problems, multinational CSR firms operate their business in developing countries with high community score reveal higher stock returns. In the same line, all over the world, customer is interested in labor issued, all multinational CSR firms with high employee score reveal higher. On the other hand, all the customer categories are negatively significant. We guess one of the reasons is the problem of scoring works by the scoring agency as mentioned before, as well as investors recognition of higher cost about supply-chain etc. Although in South America, Governance categories are positively significant, there is special reason; the number of multinational firms are small and only excellent firm's business development, IHI, Mitsubishi Heavy Industries, Mitsui Engineering and Shipbuilding etc. In sum, the effect of each CSR category depends on the sales region, and the multinational CSR firms, who operate their business to consistent with local customer's social needs, success to be realize higher stock returns.

4.7. Do Good Governance CSR Firms Provide Better Stock Performance?

Panel A of Table 11 presents the results of long-term stock returns using the foreign investor ratio, divided into above-average and below-average ratios. The results are reported only for the *CSR score* coefficients. For the above-average foreign investor ratio, the CSR scores make the performances of the CSR-related stocks significantly positive in the community, and employee and eco categories. The below-average foreign investor ratio is not significant at all. We observe that for the community, and employee categories, CSR-related stocks with higher levels of foreign investors perform considerably better. Panel B of Table 11 shows the results of 2SLS regression using the instrumental variables for robustness. Almost all the results are similar to simple OLS regression. We can say that the disadvantage of foreign investor is absent from Japanese market and make it difficult to get enough information, however the advantage of foreign investors is holding the long-term aspects for CSR investment in spite of short noisy information, as well as requiring good corporate governance to CSR firms.

【Insert Table 11 around here】

4.8. CSR Activities and Stock Price Informativeness

We now consider the following question: Does private information or public information that is integrated in stock prices affect our findings? Essentially, a stock's price is a mirror of private and public information. In response, we investigate the relationship between the levels of private information: SPI and CSR performance. Further, following empirical studies about the levels of information asymmetry, we examine systematic public information and idiosyncratic, private, firm-specific information.

Table 12 shows the results of SPI regression. The results are reported only for the *CSR score* coefficients for the three-year and five-year investment terms[8]. The *CSR score* coefficients are significantly positive in the governance and employee categories. Yu (2011) found a positive relationship between SPI and firms' corporate governance. Our empirical results are consistent with this finding. However, surprisingly, only the eco category is negatively significant. We can confirm that an increase in CSR performance improves the SPI, which means that a stock price with high CSR performance includes a greater relative amount of firm-specific information, except in the case of the eco category. A stock price with higher eco performance is related to market and industry effects. In this regard, why does only the eco category show opposite results?[9] The stock price of a firm with higher eco performance is related with public information not private firm-specific information. Based on the eco results, we suggest that information about eco activities is not firm-specific but public because eco has the longest history and is the most popular of all the CSR categories in Japan. We propose that many Japanese firms with high eco scores launch eco activities without strong strategic aims; such firms are simply copying the actions of others and more important it is the effects of the strong regulation all over the world like as many kinds of COPS/codes.

【Insert Table 13 around here】

4.9. Do Good Governance CSR Firms Provide Higher SPI?

[8] In this section, we use only the GB score dates not Asse4 scores, because the number of score data of Asset4 is almost half of GB data, and the percentage of standalone Asset4 score among CSR-firms is only 5.5%.

[9] First, we confirm the difference between industries. To investigate the industry effects, we check the coefficients of every industry dummy. We observe no remarkable results between the eco category and the other CSR categories.

We now investigate SPI in terms of above-average and below-average of foreign investor ratios to consider the effects of corporate governance power. The results are reported only for the *CSR score* coefficients. Table 13 shows that the effects of foreign investors are significantly positive for the above-average ratio in the governance and employee categories, negatively significant in eco categories. The stock price of a firm with high CSR-related performance and with good governance in the labor-related categories (work and employee) includes a greater relative amount of firm-specific private information. For eco activities, similar results of Table12, the eco category is significantly negative in above-average of foreign investor ratios, also even in the below-average of foreign investor ratios, the eco category is significantly negative. Moreover, both coefficients are almost all same, -0.00284 and -0.00294. we suggest that eco activities are not controlled by governance power but also like as uniform power, say that regulatory power.

【Insert Table 13 around here】

5. Conclusion

Our study extends the CSR literature by providing comprehensive empirical analysis and offering a thorough and distinctive investigation about the links between CSR and adjusted stock returns for long-term aspects. Government policymakers and business practitioners will also find our insights into CSR practical and informative. Our findings are summarized as follows.

First, we find that CSR activities create better stock performance in the labor-related, community, and environmental categories only for long-term investments. This result is robust. Especially in the global crisis era, the CSR firm effort their CSR activities and stock market evaluate them.

Second, stocks in CSR firms with stronger corporate governance, higher foreign investor ratios, can realize better stock performance for long-investment terms. With regard to global firms, the overseas sales operation area is important for progressing CSR activities. Eco activities are capitalized only in Europe, community CSR activities are capitalized only in developing regions, although labor-related CSR is capitalized worldwide.

Third, we decompose stock prices into those related to private and public information and find a relationship between firm-specific private information and CSR performance. Increases in CSR performance improve firm-specific informativeness in the labor-related and governance CSR categories. In particular, well-governance firms have better SPI performance. With regard to eco CSR activity, the stock price is included as regulatory information and not firm-specific information. To manage some CSR activities, it is important to know not only stock performance but also the stock price information structure.

There are some remaining problems and limitations. Biggest problem is absent from the process of the contagion way from CSR performance to high long-term stock returns. We find CSR stocks acquire higher returns for long-term, however we do not find the process how to acquire the higher returns. Generally, to acquirer the higher returns, there are two possibilities that the increasing the future cash flow or decreasing the cost of capital. It is the limitation and future issues of our studies.

References

Antoni,G D., and E,Portale, 2011, The Effect of Corporate Social Responsibility on Social Capital Creation in Social Cooperatives, Nonprofit and Voluntary Sector Quarterly, 40 (3), 566-582.

Bénabou, R., Tirole, J., 2010. Individual and corporate social responsibility. Economica, 77, 1–19.

Benlemliha, M., 2017, Corporate social responsibility and firm financing decisions: A literature review, Journal of Multinational Financial Management, 42–43, 1–10

Ben-Nosr, H., and J-C, Cosset, 2014, State Ownership, Political Institutions, and Stock Price Informativeness: Evidence from Privatization, Journal of Corporate Finance, 29, 179-199.

Blasi,S., M, Caporin., F, Fontini, 2018, A multidimensional analysis of the relationship between corporate social responsibility and firms' economic performance, Ecological Economics, 147, 218-229.

Boubakri,N., El Ghoul, Wang, H., S., Guedhami., Kwok, C, C.Y., 2016, Cross-listing and corporate social responsibility, Journal of Corporate Finance, 41, 123-138.

Brammer, S., Brooks, C., Pavelin, S., 2006. Corporate social performance and stock returns: UK evidence from disaggregate measures. Financial Management, 97– 116. Autumn.

Brennan, M. J., T, Chordia., A,Subrahmanyam, 1998, Alternative factor specifications, security characteristics, and the cross-section of expected returns, Journal of Financial Economics 49, 345–373.

Chen, X., Harford, J., Li, K., 2007. Monitoring: which institutions matter? Journal of Financial Economics, 86, 279–305.

Cheng, I., Hong, H.G., Shue, K, 2013, Do managers do well with other peoples' money? NBER Working Paper No. 19432

Cheng, B., Ioannou, I., Serafeim, G, 2014, Corporate social responsibility and access to finance, Strategic Management Journal, 35, 1–23.

Collier, J. and Wanderley, L. 2005, Thinking for the future: global corporate responsibility in the twenty-first century, Futures, 37 Nos 2/3, 169-82.

Derwall, J., N, Guenster., R, Bauer., K, Koedijk, 2005, The Eco-efficiency premium puzzle, Financial Analysts Journal 61, 51–63.

Dimson, E., Karakaş, O., Li, X., 2015, Active ownership, The Review of Financial Studies, 28, 3225–3268.

Edmans, A., 2011, Does the stock market fully value intangibles? employee satisfaction and equity prices, Journal of Financial Economics, 101, 621–640.

Edmans, A., L, Li., C, Zhang, 2018, Employee satisfaction, labor market flexibility, and returns around the world, presentation paper at 2018 American Finance Association Annual Meeting.

El Ghoul, S., Guedhami, O., Kwok, C.C., Mishra, D.R., 2011, Does corporate social responsibility affect the cost of capital? Journal of Banking and Finance, 35, 2388–2406.

El Ghoul, S., and Karoui, A., 2017, Does corporate social responsibility affect mutual fund performance and flow? Journal of Banking and Finance, 77, 53–63.

Enderwick, P,2017, The scope of corporate social responsibility in networked multinational enterprises, International Business Review, Available in press.

Fornell, C., S, Mithas., F. V. Morgeson III., M.S. Krishnan, 2006, Customer satisfaction and stock prices: high returns, low risk, Journal of Marketing 70, 3–14.

Friedman M. 1970. The social responsibility of business is to increase its profits. New York Times Magazine, 13 September: 122-126.

Giroud, X and H. M. Mueller, 2011, Corporate governance, product market competition, and equity prices, Journal of Finance 66, 563–600.

Grossman, S., Hart, O. 1986. The costs and benefit of ownership: A theory of vertical and lateral integration. Journal of Political Economy, 94, 691-719.

Kim, Y., Park, M., Wier, B., 2012. Is earnings quality associated with corporate social responsibility? The Accounting Review. 87 (3), 761–796.

Kitzmueller, M and J, Shimshack, 2012, Economic perspectives on corporate social responsibility, Journal of Economic Literature, 50 (1), 51–84.

Kolk,A., 2016, The social responsibility of international business: From ethics and environment to CSR and sustainable development, Journal of World Business, 51,23-34.

Krüger, P,2015, Corporate goodness and shareholder wealth. Journal of Financial Economics, 115, 304–329.

Margolis, J.D., H.A, Elfenbein,. J.P,Walsh., 2009. Does it pay to be good ... and does it matter? A meta-analysis of the relationship between corporate social and financial performance, SSRN working paper.

Nguyen, P.A., A, Kecskés., S, Mansi, 2017, Does corporate social responsibility create shareholder value? The importance of long-term investors, Journal of Banking and Finance, Available online.

Shirasu, Y., 2011. The middle and long-term performance of SRI related stocks, (in Japanese), Securities Analysts Journal,49,19-28

Sacconi, L. 2006. A social contract account for CSR as extended model of corporate governance: Rational bargaining and justification. Journal of Business Ethics, 63, 259-281.

Tsai, T. and Child, J. 1997, Strategic responses of multinational corporations to environmental demands, Journal of General Management, 23, 1-22.

Yu,J., 2011, Stock Price Informativeness and Corporate Governance: An International Study, International Review of Finance, 11(4), 477-514

Wu, M., and C. Shen. 2013. Corporate social responsibility in the banking industry: movies and financial performance, Journal of Banking and Finance, 37, 3529-3547.

Appendix

1, Variable Descriptions

Variable	Description
Score	The CSR score was evaluated by GoodBanker, Work, Governance, Customer, Community, Employee, and Eco.
Foreign investors: Fran	Foreign investor ratio is the number of shares held by foreign investors over the total number of stock.
Market capital size: msize	Market Size is defined as a log of the market value.
Leverage: lev	The leverage is defined as debt over the total assets.
ROA: roa	ROA is defined as EBIT over total assets.
Q ratio: q	The Q ratio is the market value of capital plus book value of debt over the book value of capital, as a measure of quality.
Dividend yield: divyld	Dividend yield.
previous return: ret112	The cumulative return over t-1 through t-2 month.
Volatility: vol	Volatility is volatility calculated from previous 12 months returns.
Volume: volm	The log of trading Japanese -yen volume.
Forecast of profitability: forecst	Forecast in profitability of financial analysts.
Year dummy: year D	Year dummy is a dummy variable of the announcement year of the CSR score.
Stock Price Informativeness: SPI	SPI is the measure of firm-specific variation estimating from a market and industry model. Higher values for SPI indicate higher firm-specific stock variation relative to market-wide and industry-wide variation, lower synchronicity with the market and industry.

2, CSR Score (GoodBanker) data

2.1 GoodBanker

Goodbanker is the first independent SRI/ESG special research company in Japan, established from 1999. The GB created first SRI products, called “Nikko Eco Fund”, 1999 in Asia and has continued original and detailed SRI analyses. The number of analysts is 13, the number of target companies is more than 1000. They collect not only public information data but also private information by direct meeting, hearing and receiving Q&A etc. Every year more than 200 companies were visited and had meetings. Since established, they effort to continues independent by no-paid consultants’ policy.

2.2 CSR categories and Research items

Categories		Points of screening
G	Governance	Corporate Governance system, Compliance, Management, Disclosure, Intellectual property, Managerial philosophy, Organization, Code/policy, Auditing, Protection of personal data
S	Supply and consumption Procedure (Customer)	Consumer management, Supply chain, procedure management, Developing country care, Local people care
	Social activities (Community)	Organization for social, Active program of social, educational support
	Employee	Labor association, Care for temporally employee, Affirmative-action employer, Nurseing leave program, Management of employee, Diversification of working style, Meental health care, Safety, Shorter working hours, Development of literacy, Support of career-development , Perfomance appraisal, Equal opportunity of working, Diversification, The handicapped, Employee creation
E	Environment (ECO)	ISO, Organization for environment, Director in charge, Code/policy, Co2 emission, Waste materials, Draining, Chemical substance, Care of products

3, Robustness Score (Asset4) data

3.1 CSR Screening

Categories		Points of screening
G	Governance	Best practice corporate governance principles, Equal treatment of shareholders and the use of anti-takeover
S	Workforce	Job satisfaction, healthy and safe workplace
	Community	Respecting the fundamental human rights conventions, Being a good citizen, protecting public health and respecting business ethics
	Product	Product Responsibility; Produce quality goods and services integrating the customer's health and safety, integrity and data privacy.
E	Environment	Management of environment-friendliness

3.2 The number of score data

2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
184	365	372	381	382	390	398	398	395	400	405	4070

3, The results of the logit function and ATE from PSM of CSR-related firms

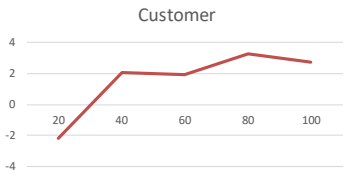
	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Frgn	0.000957	-0.000195	0.0242***	0.0335***	0.0304***
	(0.318)	(-0.0656)	(6.066)	(8.089)	(8.618)
msize	1.321***	1.192***	2.012***	2.031***	1.570***
	(26.35)	(24.44)	(30.46)	(30.37)	(27.80)
q	-0.387***	-0.414***	-0.639***	-0.514***	-0.723***
	(-6.041)	(-6.542)	(-8.384)	(-6.802)	(-9.968)
lev	0.0107***	0.0111***	0.00542***	0.00328	-0.00379**
	(6.074)	(6.336)	(2.699)	(1.622)	(-2.039)
divyld	0.122***	0.125***	0.191***	0.231***	0.197***
	(3.282)	(3.432)	(4.605)	(5.509)	(5.169)
forecst	-3.39e-05	5.49e-05	0.000256	0.00124***	0.000762*
	(-0.0838)	(0.138)	(0.568)	(2.762)	(1.834)
ret112	-0.398***	-0.402***	-0.914***	-1.076***	-0.675***
	(-4.159)	(-4.292)	(-8.420)	(-9.836)	(-6.784)
vol	-12.83***	-14.52***	-8.064**	-4.804	-10.32***
	(-3.105)	(-3.546)	(-1.984)	(-1.209)	(-2.664)
lvolm	0.0452	0.0597*	0.290***	0.315***	0.220***
	(1.416)	(1.878)	(8.126)	(8.794)	(6.603)
Exchang	-0.00269	0.00100	-0.00269	0.00120	-0.00342
	(-0.279)	(0.105)	(-0.260)	(0.115)	(-0.349)
Year FE	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES
Observations	10,695	10,695	10,695	10,695	10,695
ATE	0.491	-1.958	-1.688	-3.413**	-1.666
	(0.441)	(-1.639)	(-0.947)	(-2.033)	(-1.094)

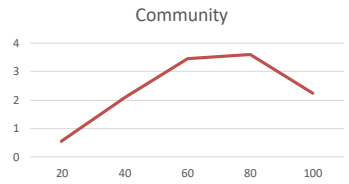
z-statistics in parentheses

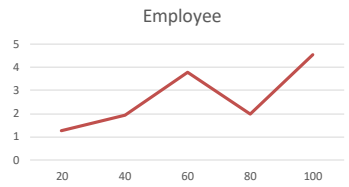
*** p<0.01, ** p<0.05, * p<0.1

Figure 1: The average ratios of foreign investors

Figure 2: The average returns and scores







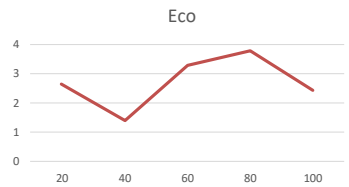


Table 1: The outline of CSR screening, GB's scores

Panel A：The number of score data

	G	S			E
	Governance	Customer	Community	Employee	Eco
2004	253	278	562	655	563
2005	448	906	904	904	533
2006	681	392	674	706	628
2007	567	399	697	777	643
2008	428	414	713	728	664
2009	427	420	752	753	656
2010	421	414	798	803	666
2011	398	398	744	744	761
2012	385	389	733	732	779
2013	373	373	753	740	812
2014	409	380	908	917	815
Total	5701	5665	9156	9377	8341

Panel B：Average of score

	G	S			E
	Governance	Procedure	Social	Employee	Eco
2004	54.7	65.0	37.4	29.3	58.1
2005	45.8	20.2	27.0	27.0	59.6
2006	36.6	53.8	42.0	38.6	60.8
2007	47.4	59.8	44.0	38.3	60.7
2008	67.2	61.6	44.0	41.5	61.1
2009	65.9	62.6	45.5	41.2	61.6
2010	64.7	63.7	44.0	38.2	60.2
2011	65.4	67.0	50.4	42.5	57.8
2012	65.4	66.1	51.4	41.0	57.0
2013	66.9	66.5	51.4	40.1	56.1
2014	38.5	67.4	43.8	34.9	56.5

Table 2: Descriptive statistics

Panel A: Basic statistics

Variable	Obs	Mean	Std. Dev.
Score of Governance	5705	52.651	25.739
Score of Customer	5635	52.374	31.844
Score of Community	9163	43.254	28.518
Score of Employee	9382	37.207	28.769
Score of Eco	8347	58.646	23.163
Return:1 year	29731	4.695	30.928
Return:3 years	25029	1.618	15.063
Return:5 years	17692	1.833	10.746
The ratio of Foreign Investor	36761	9.309	11.370
The ratio of Oversea's sales	15152	32.517	22.539
ROA	40290	5.586	5.518
ln(marketprice)	39879	23.592	1.686
Leverage	40326	50.199	20.042
Q ratio	38478	1.179	0.719
Divident Yield	38885	1.764	1.255
Forecast of profitability	14986	22.626	77.312
volalitity	33697	0.010	0.013
ln(trading volume)	38526	20.266	2.519
The change ratio of exchange rate	41829	0.364	10.047

Panel B: t-tests between CSR-related and non-CSR-related stock returns

		Governance	Customer	Community	Employee	Eco
1Y	Non-CSR	1.680	1.818	1.633	1.644	1.442
	CSR	2.473	1.719	2.327	2.281	3.068
	difference T test	(0.10)	(0.84)	(0.09)	(0.11)	(0.00) **
3Y	Non-CSR	-0.726	-0.556	-0.888	-0.886	-0.926
	CSR	1.678	0.780	1.157	1.101	1.476
	difference T test	(0.00) **	(0.00) **	(0.00) **	(0.00) **	(0.00) **
5Y	Non-CSR	0.748	0.834	0.708	0.705	0.730
	CSR	1.828	1.444	1.509	1.491	1.539
	difference T test	(0.00) **	(0.00) **	(0.00) **	(0.00) **	(0.00) **

* P value are in parentheses. The symbols **, and * denote statistical significant at the 1% and 5% level, respectively.

Table 3: The results of PCA
Panel A: Eigen values of PCA

	GB Score			Asset4 Score		
VARIABLES	Eigenvalues	Proportion	Cumulative	Eigenvalues	Proportion	Cumulative
PC1	3.600	0.720	0.720	3.090	0.618	0.618
PC2	0.613	0.123	0.843	0.658	0.132	0.750
PC3	0.318	0.064	0.906	0.540	0.108	0.858
PC4	0.310	0.062	0.968	0.414	0.083	0.941
PC5	0.158	0.032	1.000	0.297	0.060	1.000

Panel B: correlation and Z statistics

	GB Score		Asset4 Score
	PC1	PC2	PC1
	Well-balanced	Environment with poor Governance	Well-balanced
Categories	(1)	(2)	(3)
Governance	0.424***	-0.577***	0.385***
	(78.18)	(-38.09)	(54.79)
Customer	0.455***	-0.164***	0.400***
	(103.5)	(-8.491)	(98.00)
Community	0.473***	0.102***	0.414***
	(125.6)	(6.363)	(64.64)
Employee	0.487***	-0.0751***	0.492***
	(151.3)	(-6.127)	(115.0)
Eco	0.390***	0.790***	0.481***
	(61.68)	(72.96)	(104.1)

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 4: The effects of the alpha of CSR-related stocks

Panel A: FF 5 factor model

	G	S			E	Big Firm
	Governance	Customer	Community	Employee	Eco	
Variable	[1]	[2]	[3]	[4]	[5]	[6]
α	1.0501 *	0.5398	0.5541	0.791 *	0.7236 *	1.303***
	(1.69)	(0.84)	(1.18)	(1.84)	(1.95)	(3.708)
mkt	0.8001 ***	0.8121 ***	0.813 ***	0.8107 ***	0.8188 ***	0.681***
	(93.18)	(95.11)	(115.94)	(116.19)	(110.78)	(118.0)
smb	-0.108 ***	-0.0948 ***	-0.0365 ***	-0.0281 **	-0.0548 ***	0.493***
	-(7.62)	-(6.62)	-(3.21)	-(2.49)	-(4.60)	(54.71)
hml	-0.1075 ***	-0.1303 ***	-0.0986 ***	-0.1006 ***	-0.0782 ***	-0.132***
	-(6.39)	-(7.79)	-(7.12)	-(7.30)	-(5.36)	(-13.31)
rmw	-0.9489 ***	-0.9667 ***	-1.0137 ***	-1.016 ***	-1.0072 ***	-1.152***
	-(46.52)	-(46.47)	-(63.37)	-(63.82)	-(60.44)	(-88.40)
cma	-0.5766 ***	-0.5833 ***	-0.6027 ***	-0.6045 ***	-0.6248 ***	-0.655***
	-(29.08)	-(28.57)	-(36.93)	-(37.29)	-(36.43)	(-53.75)
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Observations	58432	57180	91856	93819	84693	216571
R-squared	0.2941	0.3033	0.2814	0.2788	0.2843	0.158

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Panel A: 4 factor model

	G	S			E	Big Firm
	Governance	Customer	Community	Employee	Eco	
Variable	[1]	[2]	[3]	[4]	[5]	[6]
α	1.8574 ***	1.3753 **	1.438 ***	1.6785 ***	1.5887 ***	2.396***
	(3.03)	(2.19)	(3.09)	(3.94)	(4.31)	(6.689)
mkt	0.6847 ***	0.7164 ***	0.6929 ***	0.6869 ***	0.699 ***	0.486***
	(78.89)	(81.97)	(97.42)	(97.21)	(93.17)	(87.36)
smb	-0.4951 ***	-0.4725 ***	-0.4427 ***	-0.4342 ***	-0.4691 ***	-0.0306***
	-(37.00)	-(34.93)	-(40.68)	-(40.29)	-(40.87)	(-3.598)
hml	-0.5412 ***	-0.6224 ***	-0.5768 ***	-0.5773 ***	-0.5521 ***	-0.534***
	-(42.12)	-(49.33)	-(54.80)	-(55.26)	-(49.97)	(-68.55)
wml	-0.2876 ***	-0.2946 ***	-0.2844 ***	-0.2843 ***	-0.2878 ***	-0.318***
	-(24.79)	-(24.64)	-(29.39)	-(29.63)	-(28.70)	(-43.42)
Year FE	YES	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES	YES
Observations	58432	57180	91856	93819	84693	216571
R-squared	0.2549	0.2626	0.2375	0.2349	0.2408	0.1057

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5: The results of one-year return and CSR score regression

Panel A: OLS

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
score	-0.0269	-0.0111	0.0209	0.0181	0.0324*
	(-1.456)	(-0.674)	(1.461)	(1.351)	(1.825)
Observations	3,745	3,632	5,893	6,028	5,423
R-squared	0.111	0.144	0.108	0.108	0.096
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Panel B: Dynamic Panel

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
L.f1y	-0.0702*	-0.0717*	-0.0547**	-0.0411*	-0.0526**
	(-1.932)	(-1.830)	(-2.338)	(-1.818)	(-2.170)
score	-0.0959**	-0.298***	-0.448***	-0.170***	-0.564***
	(-2.275)	(-4.472)	(-8.259)	(-3.142)	(-3.697)
msize	-47.60***	-48.71***	-52.42***	-52.64***	-49.16***
	(-10.92)	(-10.34)	(-15.95)	(-16.22)	(-15.32)
q	-11.54***	-12.55**	-8.537***	-4.507	-7.671**
	(-2.602)	(-2.366)	(-2.813)	(-1.481)	(-2.271)
lev	0.139	0.0649	0.536***	0.752***	0.728***
	(0.744)	(0.342)	(3.575)	(5.129)	(5.034)
divyld	-3.529***	-2.837***	-1.870**	-3.481***	-3.564***
	(-3.472)	(-2.729)	(-2.362)	(-4.400)	(-4.356)
forecst	-0.00227	0.000948	0.00238	0.000341	0.00140
	(-0.360)	(0.139)	(0.451)	(0.0641)	(0.269)
vol	-242.1***	-245.6***	-300.0***	-288.1***	-253.8***
	(-3.101)	(-3.062)	(-5.278)	(-5.190)	(-4.336)
lvolm	0.358	0.987	1.517	0.543	-0.137
	(0.230)	(0.595)	(1.368)	(0.494)	(-0.125)
Exchang	0.443***	0.536***	0.593***	0.545***	0.593***
	(5.678)	(6.562)	(10.87)	(10.34)	(10.84)
Frgn	0.0691	0.226	0.212	0.0780	0.105
	(0.324)	(0.998)	(1.434)	(0.533)	(0.726)
Observations	2,131	1,956	4,093	4,219	4,007

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 6: The results of long-term regression
Panel A: Long term results

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Three year					
CSR score	0.00620	-0.00832	0.0158*	0.0186**	0.0239**
	(0.591)	(-0.783)	(1.776)	(2.255)	(2.190)
msize	1.957***	2.496***	2.115***	2.230***	2.044***
	(4.247)	(5.113)	(5.539)	(5.872)	(5.371)
q	3.665***	2.868***	3.572***	3.304***	5.048***
	(4.686)	(3.529)	(5.737)	(5.611)	(7.549)
lev	0.0220	0.0273*	0.0222*	0.0217*	0.0428***
	(1.615)	(1.916)	(1.939)	(1.923)	(3.605)
divyld	-0.601	-0.540	-0.624**	-0.687**	-0.497*
	(-1.634)	(-1.385)	(-2.104)	(-2.347)	(-1.661)
forecst	0.0563***	0.0554***	0.0518***	0.0529***	0.0480***
	(6.906)	(6.775)	(8.641)	(8.817)	(8.081)
ret112	-5.858***	-5.479***	-5.464***	-5.516***	-6.129***
	(-6.102)	(-5.369)	(-7.228)	(-7.396)	(-7.266)
vol	-78.42	-2.690	-79.86*	-80.55*	-26.01
	(-1.318)	(-0.0415)	(-1.725)	(-1.778)	(-0.545)
lvolm	-1.244***	-1.287***	-1.229***	-1.257***	-1.539***
	(-3.850)	(-3.657)	(-4.654)	(-4.828)	(-5.685)
Exchange	-0.0804	-0.0715	0.00233	0.0153	-0.130
	(-0.573)	(-0.480)	(0.0189)	(0.125)	(-1.047)
Frgn	0.0465*	0.0557**	0.0353*	0.0342*	0.0519**
	(1.806)	(1.999)	(1.739)	(1.716)	(2.414)
Observations	2,710	2,610	4,440	4,549	4,088
R-squared	0.144	0.136	0.148	0.154	0.168
Year FE	YES	YES	YES	YES	YES
Five year					
score	0.0114	-0.0107	0.0141*	0.0211***	0.0215**
	(1.308)	(-1.268)	(1.876)	(3.110)	(2.389)
Observations	2,119	2,005	3,315	3,427	2,983
R-squared	0.177	0.180	0.196	0.198	0.215
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Robust t-statistics in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Panel B; Dependent variables which are just one year score determine

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Three year					
CSR score	0.00347	0.00139	0.0318***	0.0361***	0.0304***
	(0.331)	(0.128)	(3.583)	(4.408)	(2.781)
Observations	2,843	2,746	4,680	4,811	4,304
R-squared	0.103	0.100	0.111	0.116	0.122
Year FE	YES	YES	YES	YES	YES
Five year					
score	0.0120	-0.00266	0.0257***	0.0373***	0.0251***
	(1.397)	(-0.306)	(3.456)	(5.454)	(2.788)
Observations	2,311	2,214	3,671	3,813	3,278
R-squared	0.094	0.094	0.119	0.121	0.129
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Panel C; An alternative CSR measure, Asset 4

	G	S			E
Three year	Governance	Customer	Community	Employee	Eco
score	-0.00247	0.0105	0.0282**	0.0206**	0.0124***
	(-0.459)	(1.460)	(2.194)	(2.098)	(2.793)
Observations	2,379	2,379	2,379	2,379	2,379
R-squared	0.150	0.150	0.152	0.151	0.152
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Five year					
score	-0.00538	0.0116	0.0190	0.0209**	0.0136***
	(-0.897)	(1.503)	(1.398)	(2.008)	(2.904)
Observations	1,409	1,409	1,409	1,409	1,409
R-squared	0.188	0.189	0.189	0.190	0.192
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 7: The long-term 2SLS regression for robustness

Panel A: Average of industry score and one-lagged score

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
3 year	0.0176	0.00781	0.0304***	0.0282***	0.0198
	(0.969)	(0.514)	(2.709)	(2.844)	(1.592)
5 year	0.0355**	0.0108	0.0334***	0.0329***	0.0274**
	(1.966)	(0.776)	(3.219)	(3.655)	(2.340)
7 year	0.0245	0.0101	0.0280**	0.0309***	0.0417***
	(1.423)	(0.688)	(2.434)	(3.187)	(3.353)

Panel B: Average of Firm-Sized CSR scores and Average of industry score

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
3 year	-0.0179	(1.698)	0.0841***	0.0276	0.0773***
	(-0.615)	0.0400**	(2.762)	(1.089)	(2.917)
5 year	-0.00876	(2.240)	0.0938***	0.0689***	0.0895***
	(-0.338)	0.0362**	(3.579)	(3.275)	(4.060)
7 year	0.0283	(2.171)	0.127***	0.0949***	0.105***
	(1.251)	(0.00)	(4.459)	(4.384)	(4.580)

Panel C: One-lagged and two-lagged score

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
3 year	0.00806	-0.00699	0.0304***	0.0264**	0.0206
	(0.341)	(-0.420)	(2.602)	(2.575)	(1.608)
5 year	0.0208	-0.00947	0.0315***	0.0289***	0.0207*
	(0.873)	(-0.629)	(2.929)	(3.109)	(1.718)
7 year	-0.00638	-0.0109	0.0255**	0.0270***	0.0311**
	(-0.240)	(-0.660)	(2.080)	(2.717)	(2.402)

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 8: The long-term effects of CSR-related returns estimated by Heckit for robustness

Panel A: The results for three investment years

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Second Step					
score	0.00207	-0.0230**	0.0106	0.0109	0.0254**
	(0.165)	(-2.012)	(1.207)	(1.344)	(2.341)
msize	10.56***	10.97***	3.537***	3.590***	4.399***
	(9.923)	(10.44)	(7.861)	(8.283)	(8.559)
q	-0.183	-1.416	2.716***	2.483***	3.508***
	(-0.202)	(-1.505)	(5.119)	(4.897)	(5.780)
lev	0.0353**	0.0464**	0.0202*	0.0196*	0.0268**
	(1.981)	(2.480)	(1.741)	(1.703)	(2.152)
divyld	-0.0141	-0.0473	-0.539*	-0.657**	-0.352
	(-0.0318)	(-0.101)	(-1.844)	(-2.258)	(-1.154)
forecst	0.0607***	0.0603***	0.0532***	0.0565***	0.0521***
	(8.699)	(8.407)	(10.84)	(11.74)	(10.62)
ret112	-5.297***	-4.940***	-4.842***	-5.017***	-5.545***
	(-5.513)	(-4.902)	(-6.811)	(-7.154)	(-7.533)
vol	-44.80	28.10	-57.41	-64.42	7.577
	(-0.869)	(0.516)	(-1.401)	(-1.587)	(0.178)
lvolm	-0.888***	-0.860**	-0.926***	-1.021***	-1.313***
	(-2.762)	(-2.527)	(-3.550)	(-3.954)	(-4.944)
Exchang	-0.0899	0.00251	0.00405	0.0251	-0.126
	(-0.508)	(0.0139)	(0.0333)	(0.207)	(-0.985)
Frgn	0.0191	0.0202	-0.00251	-0.00103	0.0334
	(0.583)	(0.574)	(-0.123)	(-0.0513)	(1.518)
mills	19.42***	20.33***	3.673***	3.269***	5.910***
Year FE	YES	YES	YES	YES	YES
First Step					
msize	0.792***	0.724***	1.315***	1.347***	0.984***
	(43.03)	(40.84)	(46.63)	(46.58)	(46.26)
lev	-0.000260	3.18e-05	-0.00134	-0.00264**	-0.00769***
	(-0.273)	(0.0336)	(-1.233)	(-2.390)	(-7.702)
roa2	-0.0248***	-0.0295***	-0.0352***	-0.0339***	-0.0344***
	(-4.813)	(-5.819)	(-6.397)	(-6.153)	(-6.535)
q	-0.153***	-0.179***	-0.294***	-0.229***	-0.350***
	(-3.472)	(-4.231)	(-5.988)	(-4.726)	(-7.542)
divyld	0.0631***	0.0585***	0.0470**	0.0630***	0.0675***
	(2.983)	(2.806)	(1.972)	(2.617)	(3.137)
forecst	0.000109	0.000220	-0.000117	0.000336	0.000436*
	(0.461)	(0.957)	(-0.454)	(1.284)	(1.813)
Frgn	0.000459	0.000987	0.0129***	0.0189***	0.0191***
	(0.261)	(0.564)	(5.712)	(8.018)	(9.749)
Year FE	YES	YES	YES	YES	YES
Observations	11,038	11,053	10,414	10,358	10,547

Panel B: Other years

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
5 year	0.00992	-0.0199*	0.00547	0.0146**	0.0209**
	(0.776)	(-1.928)	(0.790)	(2.320)	(2.415)
mills	18.03***	15.97***	5.221***	4.786***	8.628***
7 year	0.0114	-0.00890	0.00682	0.0182***	0.0207**
	(1.263)	(-1.209)	(1.041)	(3.061)	(2.459)
mills	11.37***	9.281***	4.898***	4.555***	8.886***

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 9: The long-term regression in the Global Crisis

Panel A: During 2008-2012, Global Crisis Era

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
3 year	0.00469	0.00992	0.0358***	0.0425***	0.0186
	(0.163)	(0.622)	(2.725)	(3.604)	(1.155)
5 year	-0.00614	0.00519	0.0268**	0.0261***	0.0202
	(-0.237)	(0.393)	(2.539)	(2.779)	(1.509)
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Panel B: After Crisis Era

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
3 year	-0.0422	-0.0281	-0.00232	-0.0127	-0.00497
	(-0.890)	(-1.033)	(-0.104)	(-0.608)	(-0.168)
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 10: The long-term regression by sales regions

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
NothAmerica					
3 year	-0.00999	-0.0507***	0.00192	0.0167	0.0205
	(-0.612)	(-2.749)	(0.126)	(1.159)	(0.940)
5 year	-0.00985	-0.0412***	0.00646	0.0235**	0.00898
	(-0.760)	(-3.055)	(0.511)	(2.072)	(0.505)
Europe					
3 year	-0.000898	-0.0590***	0.00900	0.0329**	0.0406*
	(-0.0543)	(-3.058)	(0.585)	(2.255)	(1.726)
5 year	-0.00145	-0.0407***	0.0176	0.0371***	0.0499***
	(-0.109)	(-2.750)	(1.364)	(3.258)	(2.717)
Asia					
3 year	0.0157	-0.0465***	0.00480	0.0243*	0.00532
	(1.046)	(-2.816)	(0.350)	(1.929)	(0.271)
5 year	0.0125	-0.0355***	0.00534	0.0249**	0.0115
	(1.008)	(-2.789)	(0.470)	(2.496)	(0.708)
Med&Africa					
3 year	-0.0964	-0.154***	0.226***	0.202***	0.130
	(-1.355)	(-3.264)	(2.754)	(2.774)	(1.131)
5 year	0.0446	-0.101	0.297***	0.253***	0.196
	(0.608)	(-1.446)	(4.540)	(3.747)	(1.521)
South America					
3 year	0.302**	0.276***	0.416***	0.243**	0.0855
	(2.366)	(3.358)	(3.386)	(2.047)	(0.659)
5 year	0.275**	0.200	0.305***	0.00590	0.134*
	(2.367)	(1.636)	(2.900)	(0.0590)	(1.956)

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 11: A comparison between high and low foreign investors' ratios
Panel A: OLS regression

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Foreign investor ratio>=mean					
3 year	0.00535	0.00498	0.0190*	0.0247***	0.0186
	(0.467)	(0.420)	(1.870)	(2.645)	(1.586)
5 year	0.0109	-0.00296	0.0187**	0.0214***	0.0178*
	(1.129)	(-0.308)	(2.156)	(2.745)	(1.735)
Foreign investor ratio<mean					
3 year	0.00627	-0.0196	0.00229	0.00653	0.0202
	(0.236)	(-0.769)	(0.115)	(0.345)	(0.544)
5 year	0.00377	-0.0191	0.00757	0.0245	0.0338
	(0.184)	(-0.894)	(0.433)	(1.494)	(1.069)

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Panel B) 2SLS regression

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Foreign investor ratio>=mean					
3 year	0.0145	0.0181	0.0376***	0.0300***	0.0220*
	(0.733)	(1.094)	(3.016)	(2.697)	(1.677)
5 year	0.0312	0.0192	0.0354***	0.0313***	0.0252**
	(1.583)	(1.259)	(3.123)	(3.120)	(2.038)

Instrument variable: Industry avgerage CSR score

Variable	Governance	Customer	Community	Employee	Eco
Foreign investor ratio<mean					
3 year	0.0135	0.101***	0.122***	0.0958***	0.0940***
	(0.432)	(3.895)	(3.532)	(3.269)	(3.267)
5 year	0.00701	0.0724***	0.120***	0.104***	0.0974***
	(0.244)	(3.539)	(3.971)	(4.063)	(3.830)

Instrument varianle: Size category average CSR score and Industry average CSR score

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 12: The results of SPI regression

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Three year					
score	0.00105**	0.000328	-0.000315	0.000820**	-0.00268***
	(1.961)	(0.611)	(-0.758)	(2.114)	(-4.540)
Observations	2,358	2,262	3,825	3,943	3,476
R-squared	0.493	0.505	0.469	0.471	0.478
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES
Five year					
score	0.000804	0.000279	-0.000287	0.000817*	-0.00275***
	(1.446)	(0.491)	(-0.631)	(1.954)	(-4.041)
Observations	1,782	1,670	2,751	2,862	2,442
R-squared	0.530	0.554	0.516	0.516	0.524
Control	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES
Industry FE	YES	YES	YES	YES	YES

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 13: SPI regression comparison between high and low foreign investor ratios

	G	S			E
Variable	Governance	Customer	Community	Employee	Eco
Foreign investor ratio>=mean					
3 year	0.00109*	0.000282	0.000256	0.00130***	-0.00284***
	(1.843)	(0.472)	(0.540)	(2.932)	(-4.152)
5 year	0.000885	8.95e-05	0.000443	0.00116**	-0.00291***
	(1.438)	(0.138)	(0.844)	(2.411)	(-3.609)
Foreign investor ratio<mean					
3 year	0.00304*	0.00236	-0.00317***	-0.00162	-0.00294*
	(1.951)	(1.601)	(-2.774)	(-1.481)	(-1.660)
5 year	0.000811	0.00308**	-0.00339**	-0.00128	-0.000528
	(0.468)	(2.090)	(-2.458)	(-1.036)	(-0.200)

Robust z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1