DIRECTOR OWNERSHIP, OUTSIDE DIRECTORS AND COMMITMENT TO CORPORATE SOCIAL RESPONSIBILITY

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Abstract

This paper examines the effects of director ownership and the proportion of outside directors on firms' commitment to corporate social responsibility (CSR). Using a sample of 453 Hong Kong listed companies for 2005, we find that there is a non-linear relationship between the level of director ownership and firms' engagement in CSR behavior. Commitment to CSR first increases as the proportion of director ownership increases up to 50% and then decreases as that proportion of ownership grows higher. Further, the proportion of outside directors on the board exhibits a positive relationship with the level of CSR commitment. These results provide explanations for firms' commitment to CSR from the corporate governance perspective.

Keywords: Corporate Social Responsibility, Director Ownership, Board of Directors, Outside Directors

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1. Introduction

During the past two decades, the idea of corporate social responsibility (CSR) has attracted a great deal of attention from management, investors, stakeholders, community activists and researchers. According to the European Commission (2002), in engaging in CSR, companies integrate social and environmental concerns in their daily business operations and in their interaction with their stakeholders on a voluntary basis. In today's globalized economy, social responsibility is an important aspect of corporate activities. In addition to performing well economically, companies need to undertake diverse socially responsible actions to ensure their survival and growth. Of the rich body of literature on CSR, most research has focused on the determinants of CSR (Roberts, 1992) and the association between CSR and corporate financial performance (Rowley and Shawn, 2000). As ownership structure can affect organizational objectives and management strategies in decision-making, some CSR studies have extended to the characteristics of corporate ownership (e.g., Zahra et al., 1993; Johnson and Greening, 1999) and corporate governance (e.g., Blair, 1995). According to stakeholder theory, companies should take the interests of their stakeholders into consideration when designing their business strategies (Freeman, 1984). Recently, corporate boards of directors have become increasingly involved in shaping company policies on a wide range of social and environmental issues (Ayuso, 2007). Thus, an investigation of how boards of directors affect CSR commitment is of great interest. In this study, we investigate the effects of director ownership and board independence on the commitment to CSR among Hong Kong firms.

Unlike the U.S. and many European countries, where firms are required to provide CSR reports on a largely mandatory basis, Hong Kong has a laissez-faire economy in which there is no requirement that companies either engage in or disclose CSR activities. In addition, corporate governance in Hong Kong differs substantially from that practiced in firms in Western countries. A central characteristic of Hong Kong companies is concentrated insider ownership and a majority of inside directors. Many listed firms in Hong Kong are subject to family control. On average, the executive directors of such companies hold around 38% of total shareholdings (Leung and Horwitz, 2004). Controlling families routinely appoint family members as key managers (chairmen or CEOs) or directors to represent family interests (Jaggi et

al., 2009; Leung and Horwitz, 2010). The traditional (Type I) agency problem between managers and shareholders in this type of firm is no longer important or severe because the concentrated shareholders have the incentive and ability to better monitor managers and reduce information asymmetry. However, when the ownership of insiders becomes concentrated, the insiders gain absolute control over the firm's operations and decision-making through voting rights. In this case, the agency problem shifts from the manager-shareholder to the conflict between the controlling and minority shareholders (Fan and Wong, 2002), a Type II agency problem. The controlling insiders have incentives and the ability to maximize private benefits by expropriating minority shareholders. Thus, Hong Kong firms provide a good setting in which to examine the association between CSR commitment and director ownership. Using a sample of 453 companies for 2005, we find a non-linear relationship between director ownership and corporate social behavior. CSR activities first increase as the proportion of director ownership increases up to 50% and then decrease as that proportion continues to climb. This finding is consistent with the prior literature examining the effects of director ownership and firm performance (Keasey et al., 1994), which suggests that increased director ownership helps to align the interests of the directors and the firm, thus improving firm performance. However, when the proportion of director ownership reaches a certain point, the entrenchment effect begins to dominate, as the directors are able to benefit themselves by expropriating minority shareholders, thereby reducing firm performance.

Outside directors are expected to be more responsive to balancing the objectives of various stakeholders and more aware of CSR (e.g., Webb, 2004). Our findings show that the proportion of outside directors on the board of a firm is positively associated with the extent of the firm's engagement in CSR activities. This result is consistent with Ibrahim and Angelidis (1995), who found that outside directors exhibit greater concern for CSR than inside directors.

This study contributes to the corporate board literature by extending CSR research from the corporate governance perspective by examining the relationships among director ownership, outside directors and CSR commitment. We provide evidence that the extent of firms' commitment to CSR is related to corporate board structure and ownership. In particular, the finding of a non-linear relationship between director ownership and CSR commitment provides insights into the impact of insider ownership and family control on firms' involvement in CSR.

2. Related Literature and Hypothesis Development

2.1. Background: CSR Commitment

The term CSR was first formalized by Bowen (1953) as a firm's obligation to follow lines of action that have socially desirable objectives and values. For many years, CSR has been largely discussed in terms of whether firms should act in socially responsible ways. Friedman (2007) suggests that firms are bonded only by legal guidelines and need not bear the costs of social conduct and responsibility. Therefore, maximizing shareholder value is the only objective of a firm and its managers. However, in recent years, the idea of CSR has become widely accepted and applied by firms. Increasing numbers of companies now publish CSR reports and discuss corporate social activities in their annual reports. Although the literature on the association between CSR and corporate financial performance is largely inconclusive, organizations are increasingly engaging in CSR strategies and activities to become more sustainable (Steurer et al., 2005). There is evidence that investors value CSR and that the firms that practice CSR are rewarded in the capital markets (Brammer et al., 2006).

Considering the potential benefits of CSR for the community and society, governments are generally in support of CSR engagement and disclosure. In the U.S., government agencies, such as the Federal Trade Commission and the Environmental Protection Agency, require firms to provide information on how they have fulfilled their social responsibilities. For example, listed companies in the U.S. are required to disclose environmental information in their annual reports, especially in the case of firms that can create potential environmental problems. In 2001, the French government issued "Nouvelles Regulations Economiques," the first formal regulation to require all listed companies in the Premier Marché to disclose information on their social and environmental impacts. This mandatory regulation also established an index for CSR disclosure, with listed companies required to disclose information related to employees, health and safety, human rights, community participation, and environmental and social concerns. Early in 1989, Australia initiated a National Strategy for Ecologically Sustainable Development to ensure economic, social and environmental sustainability (Petrovic-Lazarevic and Lazarevic, 2009).

Compared with Western countries, however, the Asian emerging markets lag behind in the concern and attention paid to CSR. Hong Kong, a laissez-faire economy that is largely free from government intervention, has no mandatory requirements for CSR reporting. Any commitment to CSR by Hong Kong firms is purely voluntary. Corporate governance in Hong Kong also differs substantially from that practiced in firms in Western countries. Hong Kong companies are mainly characterized by concentrated insider ownership and a majority of inside directors. Accordingly, in these firms, the agency problem between controlling and minority shareholders dominates the traditional agency problem between managers and shareholders.

2.2. CSR Commitment and Director Ownership

There are opposing views on the expected relationship between CSR and director ownership. On the one hand, increased director ownership is seen to facilitate greater involvement in CSR. The Type I principal-agent problem between managers and shareholders arises from the separation of ownership and control, which creates the potential for moral hazards and conflicts of interest between the two parties. Thus, managers have incentives to engage in non-maximizing firm value-added behavior (Jensen and Meckling, 1976). The prior literature has demonstrated that management ownership can reduce the Type I agency problem by bonding managerial actions to shareholders interests and enhancing managers' incentives for disclosure (Jensen and Murphy, 1990; Nagar et al., 2000; Leung and Horwitz, 2004). Because of the alignment effect, controlling insiders may be more diligent in managing the operations of their firms (Finkelstein, 1992) and work hard to satisfy the demands of stakeholders, as firms are typically dependent on stakeholders for the resources necessary to their survival and growth (Hillman and Keim, 2001). Furthermore, Anderson et al. (2003) suggest that dominant shareholders are more likely to be concerned with the long-term survival of firms and maintaining their own reputation. Thus, investing in socially responsible activities is a good way for controlling shareholders to signal to stakeholders that they are acting in the interests of the company. Such managers may have incentives to engage in corporate social activities, as commitment to CSR can serve to improve the firm's corporate reputation and image (Brammer and Pavelin, 2006).

There are various incentives for engaging in CSR (Baron, 2008). Consumers may appreciate a firm's engagement in CSR and be willing to pay more for the firm's products. Investors may also value this engagement in social responsibility by buying or holding the firm's equity shares. CSR can improve productivity, as a socially responsible approach to the rights and working environment of employees may induce employees to work harder or better for the firm. Because of the potential advantages associated with CSR, directors with substantial shareholdings and whose interests are thereby aligned with a firm's objectives will be more willing to invest in CSR activities. Prior studies (e.g., Zahra et al., 1993; Johnson and Greening, 1999) suggest that managers who have substantial ownership in a firm have more power to allocate resources among diverse stakeholders for performance enhancement activities. Based on this line of argument, voluntary CSR commitment is expected to be positively associated with director ownership.

On the other hand, when director ownership becomes highly concentrated, the Type II agency problem concerning the conflict between controlling and minority shareholders soon arises and may dominate the benefits of the reduction in the Type I agency problem. Directors with concentrated ownership have almost absolute control of the firm and have incentives to seek private benefits by expropriating minority shareholders (Fama and Jensen, 1983). Fan and Wong (2002) document a more serious conflict between controlling and minority shareholders in East Asian countries, where controlling family ownership is widespread and the legal protection of minority shareholders is relatively weak. Controlling directors have no fear of takeover because of their dominant voting rights, and they may care little about their firms' social reputation. Thus, investing less in CSR will increase a firm's cash flow and allow a director the discretion to use the cash to increase his or her own compensation and perquisites. Moreover, the cultural environment has been identified as a predictor of commitment to CSR in prior research (e.g., Waldman et al., 2006). Chinese society is characterized by high levels of power distance, which indicates that members of society accept that power is concentrated in the hands of few people and that they should obey their leaders without question. As Waldman et al. (2006) suggest, managers in cultures with high levels of power distance may be less concerned with the values of shareholders/owners than with their own and may feel less responsible for the welfare of the community or society. In short, in such a cultural environment, directors with concentrated ownership are likely to place personal gain above the interests of the firm and CSR. This line of argument suggests that voluntary CSR commitment will be reduced when director ownership is highly concentrated.

Given the foregoing views, we conjecture that the relationship between director ownership and CSR commitment may not be linear. That is, the extent of firms' commitment to CSR increases as the proportion of director ownership rises from a low to a moderate level. However, once director ownership becomes highly concentrated, the degree of commitment to CSR decreases. To test for the effects of low and high levels of director share ownership on firms' commitment to CSR, we establish the following related hypotheses.

H1a: When the level of director ownership is low, there is a positive association between director ownership and commitment to corporate social responsibility.

H1b: When the level of director ownership is high, there is a negative association between director ownership and commitment to corporate social responsibility.

2.3. CSR Commitment and Outside Directors

Outside directors are seen as crucial in limiting managerial discretionary behavior and protecting stakeholder interests because their roles and incentives are not compromised by the executive directors or top managers (Fama and Jensen, 1983). Wang and Dewhirst (1992) report that outside directors are strongly oriented toward stakeholders. Outside directors may care more about community, employment and environmental issues than insider directors, who focus primarily on financial performance. Therefore, a greater representation of outside directors is more likely to promote corporate social commitment. In addition, an increase in the number of outside directors is likely to increase the diversity of the board in terms of race, ethnicity and gender. A company with a diversity of board members will be more knowledgeable about the changing demands of various stakeholders and be more sensitive to social commitments (Zahra et al., 1993).

Johnson and Greening (1999) examine the effects of outside director representation on two dimensions of CSR: people and product quality. They find a significant positive relationship between outside director representation and both of the CSR dimensions, which suggests that outside directors may have profit and non-profit goals. Ibrahim and Angelidis (1995) and Ibrahim et al. (2003) find that outside directors exhibit greater concern about the philanthropic components of corporate responsibility than inside directors. Webb (2004) shows that socially responsible firms tend to have a higher percentage of outside directors. Furthermore, Zahra and Stanton (1988) argue that outside directors are especially interested in demonstrating compliance with regulations and socially responsible behavior out of concern for building a good image and reputation. Therefore, we expect that the representation of outside directors will be positively associated with voluntary CSR commitment. Hence, our second hypothesis is stated as follows.

H2: There is a positive association between the proportion of outside directors and commitment to corporate social responsibility.

3. Research Design

3.1. Sample

The sample used in this study to examine the relationships among director ownership, outside directors and CSR commitment covers 453 companies listed in Hong Kong in 2005. Following the Asian Financial Crisis in 1997, many changes have been made to the corporate governance requirements and accounting standards in Hong Kong, including a new Code on Corporate Governance Practices, which became effective on 1 January, 2005. Accordingly, the selection of 2005 as the sample year allows us to evaluate the research questions under the latest corporate governance regime.

Our sample selection procedure started with searching the *Global Vantage* database for the set of Hong Kong firms with financial data available for 2005. Data on CSR commitment, director ownership and the proportion of outside directors were manually collected from annual reports. The financial data that needed to be controlled in our analysis were obtained directly from the *Global Vantage* database. After deleting any missing or extreme values in the control variables, the final sample for the regression analysis consisted of 453 observations.

3.2. Measurement of Variables

Dependent variable – CSR Commitment

The definition of what constitutes CSR commitment varies in prior studies. The concept is multi-dimensional in nature, covering issues related to the environment, community, employment, and the treatment of customers and suppliers. Regulatory authorities and professional bodies in Hong Kong have no guidelines for CSR. To avoid making subjective judgments on the list of possible CSR activities employed in this study, we have borrowed the CSR section of the checklist used by the Singapore Panel of Best Annual Report Award for Singaporean listed companies. This checklist includes six dimensions of CSR activities: *environmental, energy, product, fair business, community* and *other information*. We use this checklist because Singapore has a similar economic background to Hong Kong. Both economies are emerging markets with internationally renowned capital markets. Listed companies in Hong Kong and Singapore are characterized by concentrated insider ownership. They also face similar cultural environments, as both societies are predominantly Chinese.

To construct an index to measure the extent of commitment to CSR, we assign a score of "1" to firms that disclose information, and "0" otherwise, for each of the six categories of CSR activities contained in the checklist. We then combine the scores of all six categories to generate a single aggregate measure, with an overall score ranging from 0 to 6. Table 1 provides information on the frequency of the reported CSR activities for each item. The common CSR item is "community involvement," which comprises community, education, arts and health-related activities. Corporate engagement in other CSR items is uncommon. As the number of firms disclosing three or more CSR dimensions is very low (only 2.2%), we combine them, with a CSR score of 2 indicating the highest level of CSR commitment. As a result, the dependent variable, CSR commitment (CSRC), is defined as an ordinal variable with three outcomes: 0, 1 and 2.

Table 1. Dimensions of Corporate Social Commitment

Six Dimensions	1	0
Environmental activities and disclosures	31(5.74%)	509(94.26%)
Energy conservation and products' energy efficiency	7(1.3%)	533(98.7%)
Fair business practices	3(0.56%)	537(99.44%)
Community involvement	185(34.26%)	355(65.74%)
Product safety	6(1.11%)	534(98.89%)
Other social responsibility disclosures	23(4.26%)	517(95.74%)

Environmental activities includes pollution control, prevention or repair of damage to the environment and, other environment disclosures.
Energy: includes conservation of energy activities and, energy efficiency of products.
Fair business practices: includes policies and activities with respect to women in employment, the disabled, responsibility to suppliers and customers.
Community involvement: includes community activities, health-related activities, education and the arts, and other community involvement such as participation in the productivities movement.
Products: includes product safety, pollution controls and other product-related social information.
Others: includes general social policy statements and the availability of additional information.

Experimental variables

The main independent variables are director ownership and board independence. Director ownership (DO) is defined as the fraction of issued shares held by all directors divided by the total number of issued shares. Our conjecture is that there is a non-linear relationship between director ownership and commitment to CSR. That is, the level of CSR commitment differs between high and low levels of director ownership. We use two methods to test this expectation. First, we include director ownership (DO) and the square of director ownership (SQDO) in the regression model to examine the non-linear

relationship between director ownership and CSR commitment. Second, we use a piecewise linear model that allows the effect of ownership on the commitment to CSR to differ on different ownership levels.[37]

Hong Kong firms classify directors as executive directors and non-executive directors, including independent non-executive directors. A number of Hong Kong firms do not designate which non-executive directors are independent such directors. Non-executive directors are expected to play similar roles in advising and monitoring managers and to have incentives to build a good reputation, regardless of whether they are formally classified as independent non-executive directors. Thus, we measure the representation of outside directors by the proportion of non-executive directors on corporate boards.[38]

Control Variables

In our analysis of the effects of director ownership and outside directors on CSR commitment, we control for the following factors that may affect the level of that commitment: firm size (*lnsale*), performance (*roa*), leverage (*Leverage*), auditor status (*big5*), growth (market to book ratio, *pbratio*), information asymmetry (correlation between earnings and market return, *infoas*), issue of new equity capital (*neec*) and age of public listing (*age_public*). Larger firms are more likely to commit themselves to corporate social activities, because they are easy "targets" of social concern and may feel it is necessary to make efforts to establish their social reputation. Further, as political costs are highly dependent on firm size (Watts and Zimmerman, 1978), firms may attempt to reduce these costs by engaging in CSR. Many prior studies (e.g., Trotman and Bradley, 1981; Belkaoui and Karpik, 1989; Hackston and Milne, 1996) show a positive relationship between CSR commitment and firm size. In line with the extant CSR literature, we also control for financial performance, which is measured as return on total assets. Leverage and whether a firm issues new equity capital are used to capture creditors' control. Roberts (1992) argues that the greater the degree to which a corporation relies on debt financing to fund capital projects, the greater the degree to which the firm will be committed to social responsibility. Growth, firm age and industry classification (Roberts, 1992; Amir et al., 2006) are also common controls in the analysis of corporate social performance. Our model also controls for auditor type and information asymmetry, which are usually used as control variables in disclosure studies.

3.3. The Regression Model

The following ordered regression model is used in our main analyses.

$$\mathrm{CSRC} = \beta_0 + \beta_1 DO + \beta_2 SQDO + \beta_3 \mathrm{pned} + \beta_4 big5 + \beta_5 roa + \beta_6 leverage + \beta_7 size + \beta_8 pbratio +$$

$$\beta_9 infoas + \beta_{10} neec + \beta_{11} age_public + \beta_i industry_i + \varepsilon$$

Where:
CSRC = an ordinal variable coded "0" for firms that report none of the six CSR activities in their annual reports; "1" for firms that report only one CSR activity, and "2" for firms that report at least two CSR activities in their annual reports;
DO = the fraction of shares owned by directors on the board;
SQDO = the square of DO;
pned = the proportion of non-executive directors on the board;
big5 = dummy variable coded as "1" if the firm is audited by a big-5 auditor, and "0" otherwise;
roa = return on total asset to measure firm performance, defined as the ratio of net income after tax over total assets;
leverage = firm leverage, defined as the ratio of total debt over total assets;
size = natural log of a firm's net sales (lnsale) to measure firm size;

[37] We first calculate the turning point of director ownership based on the following model: $\mathrm{CSRC} = \beta_0 + \beta_1 DO + \beta_2 SQDO + \beta_i control\ variables_i + \varepsilon$. Using the estimated β_1 and β_2, the calculated turning point in director ownership is 50%. We then adopt 50% of director ownership as the cutoff to identify high and low levels of DO in the piecewise regression model.

[38] We also employ the proportion of independent non-executive directors as an additional test. The results are qualitatively similar to those reported in the tables.

pbratio = market-to-book equity value ratio;
infoas = correlation between earnings and market returns;
neec = dummy variable coded "1" if a firm issued new share capital in the current year in excess of five percent of the last-year ordinary share capital, and "0" otherwise;
age_public = number of years a firm has been publicly listed; and
Industry = dummy variables. We control for industry effects based on the two-digit SIC codes.

4. Empirical Results

4.1. Descriptive Statistics

Descriptive statistics for all of the variables are shown in Table 2. With regard to disclosure of their commitment to CSR, 58.06% of the sample firms provided no information on any social commitments, 35.54% engaged in only one type of social activity, and 6.4% committed to two or more dimensions of CSR.

The mean proportion of non-executive directors is 50%, which represents an increase of around 10% over the past ten years, as the average representation of non-executive directors on corporate boards in Hong Kong firms was 40% in 1996 (Leung and Horwitz, 2004). The implication is that the board independence of Hong Kong companies has improved and, in the majority of firms, executive directors cannot dominate the boards of directors. The mean proportion of shares held by directors to total shares issued is 37%, and the maximum proportion of director ownership is as high as 94%. This suggests that directors in these firms have significant control over decision-making and voting power.

Table 2. Descriptive Statistics for the Main Variables

Panel A					
Continuous variables	N	Mean	Min	Max	Std. Dev.
pned	453	0.50	0.21	0.95	0.14
DO	453	0.37	0.00	0.91	0.26
SQDO	453	0.20	0.00	0.83	0.19
roa	453	0.00	-2.64	0.57	0.25
leverage	453	0.99	-56.56	86.35	5.30
pbratio	453	1.23	0.03	18.70	2.09
infoas	453	0.20	-1.00	1.00	0.57
lnsale	453	6.33	-0.43	10.93	1.77

Panel B				
OrdinalVariable	0	1	2	Total
CSRC	263(58.06%)	161(35.54%)	29(6.4%)	453(100%)

Panel C			
Dummy variables	0	1	Total
big5	121(26.71%)	332(73.29%)	453(100%)
neec	367(81.02%)	86(19.98%)	453(100%)

CSRC: an ordinal variable, which equals 0 if a firm does not disclose CSR in year t; 1 if a firm only discloses one type of socially responsible activity; and 2 if a firm discloses at least two types of CSR activity.
pned: the proportion of non-executive directors on the board in year t.
DO: the measurement of the proportion of director ownership, it equals the sum of shares owned by executive directors, non-executive directors and independent non-executive directors divided by the total common shares issued in year t.
SQDO: the square of director ownership
big5: Equals 1 if the auditor of a firm is a Big 5, and 0 otherwise
roa: return on total assets. It equals net income in year t divided by total assets at the end of year.
leverage: Debt/ equity ratio
lnsale: natural log of the firm's net sales in year t.
pbratio: market to book value
infoas: correlation between earnings and market return
neec: if a firm issued new external equity capital in year t, it is calculated as 1 if there is a 5% increase in 2005 in the common shares issued in t-1, ,and 0 otherwise

Table 3 describes the statistical correlations between all of the variables. The correlation analysis suggests that large companies are associated with good performance and a higher proportion of non-executive directors. Those with a higher level of debt and a longer listing history are more likely to commit to CSR . Auditor type (big5) is also positively correlated with CSR activities. Overall, the correlation coefficients between the independent variables are not high and do not suggest a serious multi-collinearity problem in the regression analysis.

Table 3. Pearson Correlation Coefficients between the Variables

	CSRC	pned	DO	SQDO	big5	roa	leverage	pbratio	infoas	lnsale	neec
pned	0.122**										
DO	0.048	-0.096*									
SQDO	0.039	-0.075	0.956**								
big5	0.244**	0.011	-0.018	0.026							
roa	0.220**	-0.034	0.0899*	0.086*	0.245**						
leverage	0.090*	0.041	-0.029	-0.030	-0.007	0.010					
pbratio	0.049	0.034	-0.088*	-0.080	-0.128**	-0.177**	-0.015				
infoas	-0.014	-0.072	0.056	0.025	0.067	0.051	-0.089	-0.030			
lnsale	0.439**	-0.029	-0.012	-0.002	0.447**	0.400**	0.094*	-0.207**	0.043		
neec	-0.038	0.000	-0.062	-0.085	-0.122**	-0.045	0.060	0.144**	-0.090	-0.066	
age_public	0.164	-0.002	-0.044	-0.054	0.102	0.101	0.038	-0.012	-0.015	0.205**	0.080

**Correlation is significant at the 0.01 level (two-tailed);
*Correlation is significant at the 0.05 level (two-tailed).

4.2. Regression Results

Table 4 reports the results of the ordered logistic regression model, with three outcomes (0, 1 and 2) for the dependent variable (CSRC). The results show that CSR commitment is not only significantly and *positively* associated with director ownership but also significantly and *negatively* associated with the square of director ownership. The positive coefficient of *DO* suggests that increased director ownership above a low level helps to increase CSR commitment. An increase in director ownership from a low level may reduce the Type I agency problem and align the interests of the directors and the firm, leading to greater investment in socially responsible activities to benefit the corporate image, improve productivity, and reward customers and investors. The estimated coefficient of *SQDO* is negative (-3.605) and significant at the 0.10 level for the two-tailed test, which suggests that when director ownership becomes highly concentrated, commitment to CSR is reduced. These findings are consistent with the alignment effect at moderate levels of director ownership and the entrenchment effect once director ownership becomes highly concentrated. More specifically, the results suggest that once the proportion of director ownership exceeds a certain degree of concentration, e.g., the cutoff point of 50% of *DO* in our sample, the Type II agency problem becomes severe, as the insiders gain absolute power over the firms and are able to pursue private benefits by expropriating the interests of minority shareholders. After this point, controlling directors are no longer interested in CSR because they have no fear of takeover and care less about the social reputation of their firms. Overall, the results from the ordered logistic regressions support hypotheses 1a and 1b.

Table 4 also provides support for the notion that a higher proportion of non-executive directors increases commitment to CSR. The estimated coefficient on *pned* is, as expected, positive (2.092) and significant at the 0.05 level, for the two-tailed test. This result suggests that non-executive directors promote engagement in, and commitment to, CSR.

The results also show that control variables such as firm size, performance and leverage are, as expected, all significantly and positively associated with CSR commitment, which is consistent with the prior literature.

Table 4. Main Regression Results

	Predicted Sign	Coefficients	t-statistics
pned	+	2.092**	2.55
DO	+	3.604**	2.30
SQDO	-	-3.605*	-1.75
big5	+	0.314	0.99
roa	+	2.047**	2.49
leverage	+	0.0301**	2.02
pbratio	+	0.122**	2.52
infoas	+	-0.0618	-0.32
lnsale	+	0.586***	5.88
neec	+	-0.127	-0.43
age_public	+	0.0116	1.00
Industry	--	control	control
N	--	453	
adj. R^2		0.1913	

t statistics in parentheses
* $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$
Industry: industry dummy variables. We use the two_digit SIC code to identify industry. The industry dummy is coded as '1' if a firm is classified as a certain type of industry, and '0' otherwise. The whole sample covers 48 industries, of which 31 industries have less than 10 firms that disclose CSR activities. Thus, these industries are merged into one dummy variable SIC_10.
See the definitions of other variables in the notes to Table 2.

4.3. Additional Tests

4.3.1. Piecewise regression

To further test the non-linear relationship between director ownership and commitment to CSR, we adopt a piecewise regression method. First, we calculate the turning point in the proportion of director ownership based on the estimated coefficients of DO (3.3031) and SQDO (-3.3025), as shown in Column 1 of Table 5. The turning point is equal to 50%. Based on this turning point, we create two new variables as follows.

DO_low = the actual fraction of director ownership if DO is no larger than 50% of total outstanding shares (i.e., DO ≤ 50%); or equals 50% if DO is larger than 50% of total outstanding shares (i.e., DO > 50%).

DO_high = the actual fraction of director ownership minus 50% if DO is larger than 50% of total outstanding shares (i.e., DO > 50%); or equals 0 if DO is no larger than 50% of total outstanding shares (i.e., DO ≤ 50%).

Then, we run the following piecewise model.

$$\text{CSRC} = \beta_0 + \beta_1 DO_low + \beta_2 DO_high + \beta_3 \text{pned} + \beta_4 big5 + \beta_5 roa + \beta_6 leverage + \beta_7 size + \beta_8 pbratio + \beta_9 infoas + \beta_{10} neec + \beta_{11} age_public + \beta_i industry_i + \varepsilon$$

The results are reported in Column 2 of Table 5. The estimated coefficient of *DO_low* is significantly positive (2.059), whereas that of *DO_high* is significantly negative (-3.978). These results further confirm our finding that high and low levels of director ownership have different impacts on CSR commitment. When the proportion of director ownership is low, increasing that ownership helps to increase the alignment of interests, as directors may be encouraged to invest in socially responsible activities for the benefit of the firm. However, when director ownership becomes concentrated, controlling directors are less inclined to engage in CSR.

Table 5. Piecewise Regression

	Column 1:The turning point		Column 2: Piecewise regression	
	Coefficient	t-statistics	Coefficient	t-statistics
DO	3.303**	2.14	--	--
SQDO	-3.303*	-1.65	--	--
DO_low			2.059***	2.85
DO_high			-3.978*	-1.93
pned			2.059***	2.55
big5	0.327	1.06	0.316	0.99
roa	2.201***	2.60	2.030**	2.45
leverage	0.0273*	1.90	0.0315**	2.11
pbratio	0.121**	2.42	0.122**	2.49
infoas	-0.120	-0.63	-0.0512	-0.26
lnsale	0.575***	5.71	0.585***	5.86
neec	-0.118	-0.40	-0.0996	-0.33
age_public	0.0122	1.03	0.0128	1.10
Industry	control		control	
N	453		453	
adj. R^2	**0.1821**		**0.1924**	

t statistics in parentheses
* $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$
DO_low=percentage of director ownership if DO<=50%; 50% if DO>50%
DO_high=percentage of director ownership-50% if DO>50%; 0 if DO<=50%
See the definitions of other variables in the notes to Table 2.

4.3.2. The impact of director ownership on the association between outside directors and CSR commitment

The prior literature suggests that inside directors with high levels of ownership can influence the appointment of non-executive directors (Johnson et al., 1996; Anderson and Reeb, 2004). Studies have also shown that non-executive directors may not be sufficiently independent and able to perform their monitoring roles effectively in firms with a high degree of insider ownership (Jaggi et al., 2009). In this additional analysis, we further examine the association between the proportion of non-executive directors and commitment to CSR in relation to different levels of director ownership. Based on the previously identified turning point, we divide the full sample into two groups, "high-level director ownership" (DO_high >= 50%) and "low-level director ownership" (DO_low < 50%), and then rerun the model without the ownership variable for each group. The results, presented in Table 6, show that the estimated coefficient on *pned* is positive (3.385) and strongly significant at p-value < 0.003 for the low-level director ownership group, whereas *pned* is negative (-0.0525) but statistically insignificant for the high-level group. These results suggest that independent non-executive directors are less effective in firms with concentrated director ownership and, therefore, weaken the firms' commitment to CSR. They also suggest that effective monitoring by outside directors is conditional on the extent of director ownership.

Table 6. Regressions of CSR Commitment for High and Low Director Ownership Sub-samples

	High director ownership		Low director ownership	
	Coefficient	t-statistics	Coefficient	t-statistics
pned	-0.0525	-0.04	3.385***	2.98
big5	0.609	1.28	0.0683	0.14
roa	1.133	1.53	2.614**	2.14
leverage	0.0389	1.19	0.0338**	1.98
pbratio	0.354***	2.63	0.106*	1.69
infoas	0.0562	0.18	-0.0532	-0.20
lnsale	0.523***	3.36	0.637***	4.37
neec	0.387	0.79	-0.529	-1.21
age_public	-0.0205	-0.78	0.0310**	2.11
Industry	control		control	
N	176		277	
adj. R^2	0.1453		0.2631	

t statistics in parentheses
* $p< 0.1$, ** $p< 0.05$, *** $p< 0.01$
See the definitions of variables in the notes to Table 2.

4.3.3. The use of alternative CSRC measures

We also consider an alternative test using logistic regression. We define CSRCC as a dummy variable that equals "1" if a firm discloses at least one dimension of CSR activities, and "0" if it reports no CSR activities. The unreported results show that the coefficient of DO is significantly positive (4.461) at the 0.01 level, and that of SQDO is significantly negative (-4.585) at the 0.05 level. The coefficient of *pned* remains positive (1.685) and is statistically significant, with a p-value < 0.031. The results of the robustness checks further support the main results.

5. Conclusion

In this paper, we examine the effects of director ownership and the representation of non-executive directors on firms' commitment to CSR. Unlike the U.S. and most European countries, where firms are required to provide CSR reports on a mandatory basis, Hong Kong has a laissez-faire economy in which there are no requirements for CSR activities or disclosures. Furthermore, in most East Asian countries, including Hong Kong, concentrated director ownership is a prevalent phenomenon. Many listed companies in Hong Kong are subject to family control. These firms are able to overcome the traditional agency problem between managers and shareholders because the substantial shareholders are able to conduct effective monitoring by appointing family members as directors on the board, thereby reducing managerial incentives to engage in short-term behavior. However, when insider ownership becomes highly concentrated, insiders gain absolute control over the operations, decision-making and voting power of firms. In this case, the agency problem shifts from the manager-shareholder to the conflict between the controlling and minority shareholders (Fan and Wong, 2002). The controlling insiders have the incentive and ability to maximize private benefits. Thus, Hong Kong provides a good setting in which to examine the research questions presented in this paper.

The results of this study provide evidence of a non-linear association between commitment to CSR and director ownership. In line with our hypothesis, when the level of director ownership is low, increased ownership helps to increase the alignment of interest, and directors are encouraged to invest in CSR activities that benefit the corporate reputation and contribute to building stable relationships with customers, suppliers and investors (Ibrahim and Angelidis, 1995; Ibrahim et al., 2003). However, when director ownership becomes highly concentrated, the entrenchment/expropriation effect becomes severe and can dominate. The controlling directors have the incentive and ability to divert firms' resources to gain personal private benefits. CSR may thus become a low priority because they have no fear of takeover or stakeholder challenge.

Our results also show that firms with a higher proportion of non-executive directors are more likely to commit themselves to CSR activities. This finding is consistent with the notion that independent non-executive directors have a strong stakeholder orientation and are more concerned about CSR than insiders. However, after controlling for director ownership, we find that a higher proportion of non-executive directors is not associated with greater commitment to CSR in firms with a high level of director ownership. This suggests that independent non-executive directors are more effective in firms with low levels of director ownership than in firms with concentrated director ownership.

This study links the literature on CSR and corporate governance by showing that the effects of director ownership on the commitment to CSR are non-linear. Firms with moderate levels of director ownership are more likely to engage in socially responsible activities. However, firms with highly concentrated director ownership are less likely to regard social commitment as a top priority. The lack of association between independent boards and CSR commitment in firms with concentrated director ownership suggests that regulators and policy makers should closely monitor the effectiveness of outside directors appointed to firms with high levels of director ownership.

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