

Regulatory Pressure, Blockholders, and Corporate Social Responsibility (CSR) Disclosures in
China

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Structured Abstract:

Purpose - This paper investigates the relationship between external regulation pressure and Corporate Social Responsibility (CSR) reporting decision and comprehensiveness, and the relationship between block ownership and CSR in China.

Design/methodology/approach - This paper provides descriptive statistics of the current state of CSR reporting in China. In addition, regression models are utilized to analyze the behavior of CSR reporting of a sample of 5,334 listed firms in China.

Findings - Our paper records a significant increase of CSR reporting in the period of 2008-2010. Using a sample of 5,334 listed firms in China, we find a positive yet weak association between centrally controlled State-Owned Enterprises (SOEs) and CSR reports. Moreover, we find that firms with more concentrated block ownership are less likely to issue CSR reports.

Research limitations/implications - Taken as a whole, our analyses suggest that the entrenchment effect from blockholders seems to dominate the incentive effect and this depresses the quality of CSR reports.

Practical implications - Despite the well known effect of economic factors on CSR decision, corporate governance such as ownership structure could complicate the final results. Furthermore, the institutional background of the country and its implications for corporate governance should be considered jointly and concurrently.

Social implications - The positive effect from regulatory pressure on centrally owned SOEs suggests that regulation remains an effective tool to encourage CSR reporting in emerging markets.

Originality/value - First, our study confirms prior research that CSR disclosure decision is primarily driven by economic and strategic considerations. Moreover, our results suggest that a country's institutional background, in addition to economic and strategic considerations, influences the decision and quality of CSR disclosures. Second, we extend the literature on ownership structure, particularly with respect to blockholders. Third, our research design addresses a weakness in earlier studies which are biased exclusively on state ownership to the exclusion of all other blockholders.

Keywords: blockholders, Corporate Social Responsibility, Corporate Social Responsibility reporting, non-financial reporting, ownership structure, State-Owned Enterprises

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Introduction

Corporate Social Responsibility (CSR) and related disclosures have been on the rise in recent years. While governments and international groups have not agreed upon a common definition for CSR (Freeman and Hasnaoui, 2011), a significant number of corporations have adopted CSR as a standard practice (KPMG, 2011). At the same time, CSR disclosures have received an increasing amount of attention from regulators and public institutions. Similarly, there is a tremendous growth in academic research of CSR disclosures in China. When the keyword “*gongsi shehui zeren*” (Chinese for CSR) was typed in as a keyword for a title search in the China Academic Journals Full Text Database, Lin (2009) found only 1 article published in 1994, 2 in 1998, 1 in 1999, and 1 in 2001. However, the literature has expanded noticeably since 2002: from 8 articles in 2002 to 172 in 2006.

Existing studies primarily focus on developed countries from North America, Europe and Australia. Several cross-national studies observe significant differences in environmental and non-financial information disclosures between countries. Smith et al. (2005) provides a list of such studies. Their results suggest country of origin and institutional background are important factors explaining CSR disclosures. In China, ancient merchants originated the responsible business concept more than 2500 years ago. Wang and Juslin (2009) posit that Zi Gong (520-475 BC) was the originator of the “Confucian Trader”. He applied the Confucian virtues of “righteousness or *yi*” and “sincerity or *xin*” to his business, thereby pursuing a harmonious and responsible business relationship. According to Wang and Juslin (2009), Confucian traders were entrepreneurs who adopted the Confucian principles of morality, sincerity, fairness, and

benevolence and applied these principles to their business. This Confucian version of CSR was interrupted following the takeover of power by the Chinese Communist Party in 1949 and resumed slowly only in the mid 1990s. Since then, Chinese government and the business society have taken several initiatives to promote the development of CSR in China. As affirmed by Lin (2009), CSR requires companies to look beyond minimum compliance with existing laws and beyond shareholder wealth maximization. Under CSR, companies are required to provide safe products while protecting the environment, and respecting labor and human rights. For the first time, the 2006 Chinese Company Law explicitly recognizes the term "social responsibility". Article 5 states, "In the course of doing business, a company must comply with laws and administrative regulations, ... and undertake social responsibility in the course of business." The government's initiatives have prompted similar actions on CSR disclosures by the two leading Chinese stock exchanges: the Shenzhen Stock Exchange (SZSE) and Shanghai Stock Exchange (SHSE), issued several guidelines on CSR disclosures in 2006 and 2008 respectively. While the 2006 Shenzhen Guide served as a voluntary guide only, the 2008 Shanghai Guide mandated annual CSR reporting for three types of listed companies, namely (i) companies that are listed in the Shanghai Stock Exchange Corporate Governance Index, (ii) companies that list shares overseas, and (iii) companies in the financial sector. Accordingly, the number of listed companies issuing CSR reports has increased significantly from just 20 in 2006 to more than 500 for the fiscal year of 2010 in our sample.

Given the unique institutional background in China and institutional theory, we develop hypotheses focusing on the significant effect of external pressure and internal forces on the CSR disclosures. In particular, we investigate whether the decision by certain enterprises to publish CSR reports and the quality of such reports are influenced by regulatory pressure and the

controlling blockholders of that enterprise. We define a blockholder as one who owns at least 5% of a firm's outstanding shares.

Our study contributes to the literature in several ways. First, we test the application of institutional theory explaining CSR disclosures in Chinese securities markets. The Chinese stock markets are less investor-oriented than those in developed countries. Despite the differences, our results are consistent with those from Anglo-Saxon countries indicating that results of CSR disclosures observed in developed countries are also valid for China, a prominent emerging market. Our study confirms prior research by Cormier and Magnan (2003) and Branco and Rodrigues (2008) that CSR disclosure is primarily driven by economic and strategic considerations. Moreover, our results suggest that a country's institutional background, in addition to economic and strategic considerations, influences the decision and comprehensiveness of CSR disclosures.

Second, we extend the literature on ownership structure, particularly with respect to blockholders. While most prior studies concentrate on the association between blockholders and financial reporting issues, our current paper ventures into the non-financial reporting area. The results suggest that ownership structure, termed "blockholders" in this paper, is an integral component of corporate governance, influencing financial reporting as well as non-financial reporting decisions.

Third, we supplement previous studies on CSR disclosures in China by taking a holistic view of the ownership structure of enterprises in China. Existing literature on ownership structure in China tends to focus on the uniqueness of state ownership. We recognize the fact that owners of public firms in China are not simply the Chinese State, but are increasingly a collection of stakeholders with potentially divergent economic and social interests. Our research design

includes both outside and inside blockholders and separates the outside blockholders by state and legal person. Therefore we are able to reflect the multidimensionality of ownership structure in China. In this way, our paper differs significantly from prior studies such as Li et al. (2011) and Bei et al. (2011).

Finally, we expand on earlier studies by considering multiple years of sample data instead of simply focusing on a single year. Our sample covers the period from 2008 through 2010. Therefore, the current study provides a more comprehensive picture of CSR development over time and we are able to control for temporary shocks that may exist in any given year.

The remainder of the paper is organized as follows. Section two reviews relevant literature and develops hypotheses. Section three presents data source and research design. Section four analyzes empirical results and the last section summarizes the conclusions.

Literature review and hypotheses development

Prior literature, for example, Holder-Webb et al (2009), suggests that it is difficult to separate the differences between the decision to engage in CSR activities and the decision to disclose such activities. In this section, we argue that the decision to disclose CSR activities results from both external pressure and internal forces. We further identify factors pertinent to Chinese firms' CSR disclosure behavior.

Institutional Theory

Institutional theory "considers the processes by which structures, including schemas, rules, norms, and routines, become established as authoritative guidelines for social behavior." (Scott 2007, p. 460) As pointed out in Adams and Larrinaga-Gonzalez (2007) the increasingly common practice of CSR reporting provides powerful evidence of an institutionalization process.

Consequently, institutional theory provides a social perspective of understanding the adoption of CSR practices and reporting by organizations.

According to institutional theory, organizations are created rationally as a product of social norms and rules that constitute actors and their actions. Organizations adopt policies and procedures that are considered socially legitimate by external stakeholders (Scott 2007). DiMaggio and Powell (1983) expand the previous viewpoint by arguing that organizations evolve in such processes that "make organizations more similar without necessarily making them more efficient" (p. 147). They identify that firms will achieve homogeneous changes through three types of mechanisms, i.e., coercive, mimetic, and normative mechanisms arising from external pressure. Coercive pressure comes from "formal and informal pressures by other organizations upon which organizations are dependent and by cultural expectations in the society" (p. 150). Mimetic process refers to the fact that organizations copy similar organizations in their field as a standard response to uncertainty. Normative pressures stem from professionalization (DiMaggio and Powell 1983).

While operating in the same external environment and facing the same external pressures, organizations respond in different ways thus exhibiting heterogeneous behavior. Greenwood and Hinings (1996) attribute such behavior to the internal organization dynamics. Further Oliver (1991) categorizes two levels within the dynamics: the individual level (decision makers' norms and value, habits and unconscious conformity to tradition) and the firm level (organizational culture and politics, shared belief systems).

Overall, institutional theory presents a complex view of organizations and their behavior. The theoretical framework suggests that pressures from both outside the organizations and within the organizations determine organization behavior. In this paper, we attempt to utilize arguments

from institutional theory and integrate external pressures and internal factors to explain CSR reporting behavior of listed firms in China.

External pressure

Coercive pressure is one of the important external mechanisms that has been emphasized in institutional theory. Political interference, particularly in the form of government regulations, can be seen as an example of coercive pressure for some firms. In China, government still retains a high percentage of ownership in listed firms (Tian and Estrin 2008). Furthermore, top executives of Chinese listed firms are politically connected to government since they hold or have held governmental positions (Fan et al. 2007). Therefore, regulatory pressure can significantly impact Chinese firms' behavior because of the potential reward or punishment. Zeng et al. (2012) find that SOEs in China respond to encouragement and pressure exerted by the government by disclosing more environmental information.

In 2008, the Chinese central government released *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities*. These SOEs are referred to as Central State-Owned Enterprises (CSOEs) in the Guidelines and represent the central government's big stake in key industries. The Guidelines include fundamental principles, major content and implementation measures of CSR for CSOEs. Overall the Guidelines are consistent with international definitions except for the absence of human rights protection, as affirmed by Lin (2009). The Guidelines explicitly state that "Fulfilling CSR is not only their (namely, SOE's) mission and responsibility, but also an ardent expectation and requirement from the public" (Article 2). Moreover, Article 18 encourages CSOEs to "establish an information releasing mechanism, providing updated and regular information about CSR performance and sustainable development, plans and measures in carrying out CSR". We concur

with Zeng et al. (2012) that the word of encouragement has more influence on SOEs since they are often pioneers in implementing new regulations. Therefore, we expect CSOEs to respond to the Guidelines' call for CSR activities and reporting to reduce regulatory costs.

H1a: There is a positive relationship between centrally controlled SOEs and the decision to disclose CSR activities.

H1b: There is a positive relationship between centrally controlled SOEs and the level of CSR disclosures.

Internal forces

While external political pressure exerts a force upon listed companies with respect to CSR disclosures, internal forces are also likely to affect the disclosure decision. Ownership structure is one such force that has been found to impact firms' CSR disclosure.

Large public firms in the Western countries are often characterized by dispersed ownership, atomistic shareholders, and a separation between ownership and control (Demsetz & Lehn, 1985). Previous literature on CSR has found a positive relationship between dispersed ownership and CSR disclosures. Kleim (1978) argues that as corporate ownership becomes less concentrated, the demands by shareholders become broader. When the dispersed ownership is held by investors concerned with corporate social activities, management face heightened pressure to disclose social responsibility activities. Such an argument has been supported by empirical evidence in Kleim (1978) and Ullmann (1985).

China embarked on economic reforms in 1978 to transform the economy from a centrally-planned economy to one that is market-based. Consistent with this goal, two domestic stock exchanges, SZSE and SHSE, were opened on December 19, 1990, and April 3, 1991, respectively. Listed companies are authorized to issue four classes of shares: shares owned by

the state, legal person shares, employee shares, and the public shares. It is found that Chinese listed companies are distinct from their western counterparts in that they have generally more concentrated shareholding structure (Tian and Estrin 2008). The controlling shareholders (blockholders hereafter) have varying incentives with respect to CSR activities and hence affect CSR disclosures in different ways.

State blockholders are representatives of the state which considers the interests of the whole society in addition to shareholder value. Management in firms with state blockholders are under governmental influence and pressure to pursue social goals related to government policies, which help to improve CSR. Such firms have incentives to become committed to CSR and hence satisfy the state shareholders' social interests. Empirical evidence on CSR activities confirms the positive role of state blockholders. For example, Ndemanga and Koffi (2009) examine a sample of public companies in Sweden and their results show that government- and institution-controlled listed companies fulfill their social responsibilities better than family-controlled companies. Roberts (1992) has found that political interference positively impacts social responsibility disclosures.

Therefore, we expect companies with large state shareholding are more likely to fulfill their CSR obligations and disclose their CSR activities. This leads to the following hypotheses.

H2a: There is a positive relationship between state blockholders and the decision to disclose CSR activities.

H2b: There is a positive relationship between state blockholders and the level of CSR disclosures.

The legal person shares consist mostly of related parties whose interests may not coincide with the interests of other investors or those of employees and managers (Shleifer and Vishny

1997). Luo (2007) shows legal person shareholders engage in inappropriate related party transactions to expropriate benefits for themselves at the expense of minority shareholders. Evidence in Jiang et al. (2010) suggests that controlling shareholders divert corporate wealth through the mechanism of inter-corporate loans. Such activities are certainly contradictory to the stakeholders' perspective of CSR. Hence, we argue that the relationship between legal person shares and CSR decision is negative.

H3a: There is a negative relationship between legal person blockholders and the decision to disclose CSR activities.

H3b: There is a negative relationship between legal person blockholders and the level of CSR disclosures.

Theories and empirical findings on large shareholdings by employees and managers are mixed, however. On the one hand, the incentive effect suggests that when managers hold less equity in the firm, they have greater incentives to pursue non-value-maximizing behavior often associated with CSR activities. Consistent with this prediction, some studies (e.g., Warfield et al., 1995 and Yeo et al., 2002) find evidence of this in the financial reporting setting. On the other hand, concentrated management ownership could allow these shareholders to exercise undue influence to secure private benefits that are detrimental to minority shareholders, i.e., the entrenchment effect, see for example, Morck et al. (1988) and Barclay and Holderness (1989). The incentive effect and the entrenchment effect are both documented in empirical studies on CSR activities and disclosures. Evidence in Zahra et al. (1993) shows that management holding is positively related to CSR activities. However, Ghazali (2007) studies the annual reports of Malaysian public companies and the result is contradictory to the previous study in that less CSR disclosure is observed in companies with greater holding by top management.

In China, Lv (2006) finds mixed results for the relationship between ownership structure and various CSR activities. In particular, taxation and value retention are enhanced by higher state ownership and legal person shares while higher management ownership curtails illegal acts. Based on the above discussion, it is not clear ex ante whether on average one would expect inside ownership to support CSR decision. Therefore, our hypothesized relation between inside block ownership and the CSR is non-directional.

H4a: There is a relationship between management blockholders and the decision to disclose CSR activities, but we are unsure of the nature of this relationship.

H4b: There is a relationship between management blockholders and the level of CSR disclosures, but we are unsure of the nature of this relationship.

Data and research methods

Data source

We obtain accounting and ownership structure data from the *China Stock Market and Accounting Research* (CSMAR) database. Our sample includes 5,334 firms/year observations with available data from the CSMAR database during 2008 through 2010. CSR information is obtained from the *Listed Firms CSR Reports Ratings Database* (Year 2011 version) by Rankins CSR Ratings (RKS). The database has been used in prior studies such as Li et al. (2011). RKS was established in 2007 and has become a leading independent organization specializing in CSR reports ratings in China. RKS collects and evaluates CSR reports in three areas: Macrocosm, Content, and Technique. Each CSR report is evaluated based on 70 indicators and assigned a score of 0-4 for each indicator. A weighted average score is calculated and becomes the final rating ranging continuously from 0 to 100 (the full score). A higher score corresponds to a more

comprehensive CSR report. The Year 2011 version of the CSR database includes CSR report ratings for CSR reports issued in 2008 through 2010.

Research design

Ideally, we hope to test the influence of external pressure and internal forces simultaneously in the same model. However, practically most centrally controlled SOEs have significant state holdings and this creates a multicollinearity issue between their proxies. Hence, we first test the influence of external pressure using the full sample. Then a subsample of non-centrally controlled firms is identified to test the relationship between blockholders and CSR reports.

To investigate the effect of external pressure from regulation on CSR reporting decision (H1a), we run a Probit regression on the full sample using the following model:

$$Prob (CSR) = f (GOV, Lev, ROA, Size, Age) \quad (1)$$

To investigate the impact of external pressure on the level of CSR reports (H1b), the following regression model is used.

$$Score = f (GOV, Lev, ROA, Size, Age) \quad (2)$$

To test H2a, H3a, and H4a, i.e., the relationship between blockholders and CSR reporting decision, we use the following Probit regression models.

$$Prob (CSR) = f (State, Legal, Insider, Lev, ROA, Size, Age) \quad (3a)$$

$$Prob (CSR) = f (State_d, Legal_d, Insider_d, Lev, ROA, Size, Age) \quad (3b)$$

To examine the effect of blockholders on the level of CSR reports (H2b, H3b, and H4b), two regression models are provided as below:

$$Score = f (State, Legal, Insider, Lev, ROA, Size, Age) \quad (4a)$$

$$Score = f (State_d, Legal_d, Insider_d, Lev, ROA, Size, Age) \quad (4b)$$

Our dependent variables and explanatory variables are defined below.

CSR: *CSR* is a dummy variable with a value of 1 for firms identified in RKS CSR ratings, and 0 otherwise.

Score: This is the raw score provided by RKS in its CSR rating database. A higher score indicates a higher level of CSR reports.

GOV: *GOV* has a value of 1 if the firm is identified as a centrally controlled SOE in the CSMAR database. This variable is used to test H1 which says a positive relationship between centrally controlled SOEs and CSR reports. We expect coefficients of *GOV* to be significantly positive.

State and *State_d*: We use the variable *State* to measure the percentage of ownership controlled by the state blockholders. Alternatively, we create a dummy variable of *State_d* to indicate the presence of the state blockholders. Significantly positive coefficients of *State* and *State_d* support H2 which articulates the influence of state blockholders on CSR reports.

Legal and *Legal_d*: The variables *Legal* and *Legal_d* measure the ownership by legal person entities. H3 expects a negative relationship between legal person shares and CSR reports. Hence, negative coefficients will support H3.

Insider and *Insider_d*: The management ownership is measured by the variables *Insider* and *Insider_d*. H4 predicts a non-directional relationship between insider shares and CSR reports¹.

Based on prior literature (Zeng et al., 2011; Bei et al., 2011; Li et al., 2011), we employ a set of four control variables for leverage, firm performance, firm size, and firm listing age as follows:

Lev: Leverage (*Lev*) is measured using the ratio of total liabilities to total assets. This ratio captures the influence of creditors on firms' CSR reporting (Roberts 1992). Both Li and Zhang

¹ We thank an anonymous reviewer for the suggestion of including variables for both presence and shareholding of blockholders.

(2010) and Li et al. (2011) find that Chinese firms are less likely to provide CSR reports as their leverage increases.

ROA: Return on Assets (ROA) is a proxy for firm performance. Empirical evidence on the effect of firm performance on CSR disclosures has been mixed (e.g., Gray et al., 2001; Haniffa & Cooke, 2005). Li et al. (2011) confirms that in China better-performing firms have the motivation and incentive to provide CSR disclosures.

Size: We use the natural logarithm of total assets to measure the firm size. Zeng et al. (2011) and Bei et al. (2011) both find a positive relationship between nonfinancial disclosure and firm size.

Age: This variable measures the age of the firm since its listing.

We include in all models year dummies and industry dummies.

Analysis and Results

In this section, we first analyze the current state of CSR reporting in China by presenting distributions of CSR scores by several criteria. We then provide regression results to test our hypotheses.

Current state of CSR reporting in China

The RKS database, i.e., the CSR database in China, collects and provides CSR ratings since 2009. The 2011 version of the database provides scores for CSR reports of fiscal years 2008 through 2010. Table 1 presents the number of CSR firms and the split by mandatory regulations. Over the period 2008 through 2010, a total of 1265 Chinese listed firms provided CSR reports. The number increased steadily from 314 to 518 during the period. The biggest change occurred for the year of 2009 when 119 (433 vs. 314) more firms appeared in the database. This accounted for more than 38% from the previous year. From 2009 to 2010, the growth continued

although it slowed to 20%, or roughly half the growth rate in the previous year. The distribution of firms by regulations shows that most of the increase is driven by the fact that more firms voluntarily disclosed CSR information. As we discuss in the introduction, three types of listed companies at SHSE, including companies of the Shanghai Stock Exchange Corporate Governance Index, companies that list shares overseas, and companies in the financial sector are required to issue annual CSR reports. Firms that are not mandated to provide CSR information but did so anyway increased from 18% to 28% of the total sample. It appears that more firms are voluntarily willing to provide CSR reports.

While we cheer the increase in the number of non-mandated firms reporting CSR information, the overall percentage of CSR reporting firms has remained low. Panel B in Table 1 shows that CSR firms accounted for around a quarter (20%, 26%, 25% respectively in the three years) among all listed firms. This percentage is significantly lower than in other countries. For example, Holder-Weber et al. (2009) showed more than 40% of US firms provided CSR reports. KPMG's 2011 annual CSR survey of 34 countries had an even higher (69%) participation rate. The lower rate in China, however, shows potential for growth of CSR reports. With respect to firms listed on different stock exchanges, the distribution was uneven. We see that a higher percentage of firms listed on the SHSE reported CSR information as compared to firms listed on the SZSE, i.e. 31% vs. 17%. From 2008 to 2010, the proportion of SHSE firms reporting CSR information increased from 23% to 36%. During the same time period, the proportion of SZSE firms reporting CSR information stayed almost flat at 17%.

[Insert Table 1 here]

We now turn to the CSR scores which provide insights into the contents of CSR reports. Scores range from 0 to 100 measuring the completeness of CSR reports. Higher scores imply

better reports. Results in Table 2 indicate CSR reports received poor scores in every single year though the scores did increase over time. Out of a possible 100, the average scores were in the low to mid-30s while the highest score was in the low 80s. Higher scores appeared for SHSE firms as compared to SZSE firms, but the difference is not significant. Similarly, firms who were required to furnish CSR reports mandatorily have a slightly higher average score as compared to those that were not so required, although the differences are not significant.

[Insert Table 2 here]

Table 3 presents the CSR reports by industry. The classification of industry is obtained from the *China Securities Regulatory Commission (CSRC)*. Across the 22 industries, the Machinery industry and the Metals and Non-Metals industry are among the industries with the largest number of listed firms. It is not surprising that each of them accounted for more than 10% of the firms submitting CSR reports. However, the proportion of CSR reporting firms to total listed firms is below 33% in the case of the Metals and non-Metals industry and less than 25% in the Machinery industry. On the other hand, an amazing 89% firms in the much smaller Finance and Insurance industry provided CSR information in 2010. Similarly, approximately 50% of firms in the Transportation industry and the Mining industry submitted CSR reports in 2010. The Timber and Furnishings industry stands out in the list when no firms submitted CSR reports in all three years. This is probably because it is an industry with less than eight firms, the smallest sample size among all industries in our list.

[Insert Table 3 here]

Results and analysis

Before we proceed to empirically test the hypotheses, we winsorize the top and bottom 1% of data based on major variables to minimize the effects of outliers on the results. Table 4 reports

the descriptive statistics for the full, CSR and non CSR sample. In the full sample, 13.65% firms are controlled by the central government (*GOV*). The percentage increases to 21.39% in the CSR sample who publish CSR reports while the non CSR sample has only half the ratio (11.38%).

With respect to ownership structure, untabulated analyses show that about two thirds of the sample firms have at least one blockholder. The full sample and the non CSR subsample share similar ownership structure pattern. They both have about a third of the firms with state blockholders and legal person blockholders. The CSR subsample has more firms (537) with state blockholders while less firms (278) having legal person blockholders. State blockholders own about 35.37% of shares on average being the biggest blockholder while legal person blockholders occupy the second place (29.03%) and management blockholders (or Insider blockholders) has about 26.52%. However, when we split the sample into the CSR and non CSR subsamples, we find a different pattern. State is still the dominating blockholder but legal person and management hold significantly more shares in the non CSR group than in the CSR group.

The CSR sample's performance in terms of *ROA* is significantly better than that of their counterparts who did not issue CSR reports (5.01% vs. 3.54%). Similarly, the CSR firms are bigger than non CSR firms measured by the natural log of total assets. CSR firms finance their operations using about 52.06% debt while non-CSR firms have slightly lower leverage (48.06%). Finally, the *Age* variable shows that CSR firms have an average listing age of 8.9810, slightly longer than the non CSR sample age of 8.3910.

[Insert Table 4 here]

Table 5 reports pair-wise correlations among variables. Coefficients above the diagonal represent Pearson correlation while those below the diagonal are Spearman correlation. Both

sets of coefficients are similar hence we focus on only the Pearson correlation. CSR is significantly positively correlated with centrally controlled SOEs (*GOV*) and state ownership (*State*), but negatively correlated with legal person ownership (*Legal*) and management ownership (*Insider*). In addition, correlations between CSR and leverage, performance, size and listing age are positive as we expect. Correlations between the comprehensiveness of CSR reports (*Score*) and explanatory variables are similar to what is reported for CSR. We observe a negative correlation between outside blockholders (*State* and *Legal*) which suggests that these two groups seem to counteract or neutralize each other. The state blockholder is negatively correlated with inside blockholder suggesting that concentrated inside ownership fosters entrenchment. This piece of evidence is consistent with Duggal and Millar (1999).

[Insert Table 5 here]

To test the hypotheses which predicts the relationship between external pressure or blockholder influence and (i) the decision to submit CSR reports and (ii) the level of CSR reports, we employ two sets of regressions. One is Probit regression to verify the impact of pressures on the CSR decision. Another is linear regression which examines the effect of pressures on the level of CSR reports.

Table 6 presents the empirical findings for the Probit regression analyses. *GOV* measures the relationship between centrally controlled SOEs and the decision to issue CSR reports and level of CSR reports. In Panel A, a positive coefficient of 0.142 shows that these SOEs are more likely than other firms to disclose CSR reports and the result is significant at a 5% level. This is consistent with institutional theory which suggests a positive influence of regulatory pressure on the CSR behavior. Because our sample includes firms that are mandated to issue CSR reports and firms providing voluntary reports, the results may be misleading. So we test the model again

in the subsample of voluntary firms only. A total of 4,240 firms are identified as voluntary firms. We observe a positive yet insignificant coefficient for *GOV*. The weak result implies that when firms are not required to issue CSR reports, regulatory pressure is not as effective as suggested by institutional theory. Taken together, we do not find a full support for H1a. Results of leverage, ROA, size and listing age are similar to other analyses and will be discussed later.

In Panel B, we include non-centrally controlled firms only (4,606 firms) to test whether blockholders influence CSR reporting decision when firms are not under regulatory pressure. We use alternative measures for blockholders, i.e., the percentage of shares (*State*, *Legal*, and *Insider*) and the presence of blockholders (*State_d*, *Legal_d*, and *Insider_d*). Tests are repeated for the full sample and the subsample of voluntary firms only.

Results show that when considering all firms in the sample including mandatory and voluntary firms, all three types of blockholders appear to have significant influence on the decision of whether to issue CSR reports. *State_d*, *Legal_d*, and *Insider_d* represent the presence of blockholders. These three variables are found to have positive relationships, indicated by positive coefficients, with the decision to provide CSR reports. Among them, the positive coefficient of *State_d* is highly significant at a 1% level while positive relationships of *Legal_d* and *Insider_d* are less significant at a 10% and 5% level respectively. However, when we examine whether the decision is influenced by the shareholdings of blockholders, the results are contrary to what we document earlier. All three proxies (*State*, *Legal*, and *Insider*) turn out to have negative relationships with the CSR decision. In other words, empirical evidence for H2a, H3a, and H4a should be interpreted carefully.

Positive coefficients of *State* and *Insider* support H2a and H4a, and suggest that the presence of state blockholders and management blockholders increases the chance of issuing CSR reports.

However, negative coefficients of *State_d* and *Insider_d* show the more shares blockholders have, the less likely it is for firms to provide CSR reports to the public. It appears that as state blockholders and management blockholders have more control through shareholdings, they are likely to request CSR reports through means other than the public reports, possibly through internal reports. The positive yet very weak coefficient of *Legal* contradicts H3a. Nonetheless the significantly negative coefficient of *Legal_d* is consistent with our expectation outlined in H3a, i.e., a negative influence of legal person blockholders on issuing CSR reports.

We also select non-centrally controlled firms that are not required by SHSE to issue CSR reports (3,508 firms) to see if the influence of blockholders still holds. Results are mixed. In the absence of CSR reporting requirements, state blockholders do not have positive influence anymore (-0.573 for *State* and -0.226 for *State_d*). Instead, firms with state blockholders are less likely than other firms to publicly issue CSR reports. Our interpretations are similar to what we offer in the previous paragraph. We insist that state blockholders are still demanding CSR behavior consistent with the goal of providing societal services but they can possibly request the information internally instead of requiring management to disclose the CSR reports to the public. Results on legal person blockholders and management blockholders are either insignificant or only significant at a 10% level. We treat them as not supporting our hypotheses H3a and H4a.

Contrary to rather confusing results found for blockholders, evidence of control variables (*Lev*, *ROA*, *Size* and *Age*) is consistent between all non-centrally controlled firms and the smaller voluntary subsample. Our results are also consistent with prior studies. Firms with higher leverage are less likely to issue CSR reports as indicated by negative coefficients of *Lev*. Perhaps firms with more borrowings are constrained by resources on hand to meet the CSR obligations (Li and Zhang 2010). Similar to results in Li et al. (2011), firms with higher profit

levels (*ROA*) and bigger firms (*Size*) are more likely to disclose their CSR activities to shareholders. We do not find a significant relationship between the listing time (*Age*) and CSR reporting.

[Insert Table 6 here]

Finally, we report the regression results in Table 7. The regression models test if external pressure and blockholders impact the level of CSR activities disclosed. We use the F-test to examine existence of fixed effects in the linear regression models. The F value is 7.89 which rejects the null hypothesis of no fixed effects. Similarly we use Breusch-Pagan Lagrange Multiplier test to identify random effects. The m value is 795.88 which means that random effects exist in the models. We then conduct the Hausman test to choose between a fixed effect model and a random effect model. Statistics show a value of 475.23 which favors a fixed effect model. Therefore, we control for time, i.e., fixed effects in our linear models in Table 7².

Panel A shows that centrally controlled firms are no more likely to have higher levels of disclosures than other issuers. That is, coefficients of *GOV* are positive yet insignificant in both the full sample and the subsample of voluntary firms. Therefore, H1b is not supported. This result combined with what we find in Panel A of Table 6 shows that centrally controlled firms appear to cooperate with the government in terms of providing CSR reports however the disclosure is merely a gesture. Perhaps these firms are not willing to incur additional costs of disclosing more information. Therefore fulfilling CSR missions is superficial in that it does not increase the content of CSR information available to the public substantially. We also find that profitability (*ROA*) does not affect the level of CSR disclosures. The results on leverage (*Lev*) are consistent with earlier findings that CSR reporting is constrained by resources on hand. Larger firms (*Size*) and firms that have been listed for shorter period of time (*Age*) take the CSR

² We thank an anonymous reviewer for the suggestion of testing between different linear models.

disclosures more seriously. Once they decide to publish the CSR reports, the content is richer than in other reports, which is reflected by significant coefficients in both models.

We investigate how the blockholders affect CSR scores and report the results in Panel B of Table 7. A total of 1,006 non-centrally controlled firms that issued CSR reports are used in Panel B. In addition we exclude mandatory firms and use 251 voluntary non-centrally controlled firms for a more robust test. Proxies for the presence and shareholding of state blockholders have insignificant relationships with CSR scores. Hence, H2b is not supported. Results in Table 6 (Panel B) and Table 7 (Panel B) taken together reveal an interesting fact for state blockholders. When firms are under control by blockholders representing state ownership, they are more likely than firms without state blockholders to publish CSR reports. However, those published CSR reports are not better than reports issued by other firms in terms of CSR scores. A possible explanation is the cost issue. Once state blockholders increase their control, they tend to discourage firms to give public the CSR reports. We suggest that controlling state blockholders are likely to keep CSR information private.

The existence of legal person blockholders has a significant yet weak association with CSR scores of voluntary firms, i.e., *Legal_d* has a value of -1.136 in model 4b for voluntary firms. This indicates that H3b is supported among a small group of firms. Reconciling results in Table 6 and Table 7, we provide the following articulation for the effects of legal person blockholders on the CSR decision and the level of disclosures. In Model 3b for all firms in Panel B of Table 6, we tentatively find that legal person controlled firms have higher chances of issuing CSR reports. Disappearance of such effect among voluntary firms (Model 3b for voluntary firms in Panel B of Table 6) leads us to believe that the weak association observed previously among the full sample is possibly due to the mandatory CSR requirements by the stock exchange. As we expect, higher

percentages by legal person blockholders negatively affect not only the CSR decision but also the level of CSR disclosure content.

In Panel B of Table 7, we find a strong support for the effect of management blockholders on CSR scores. The coefficient of *Insider* is statistically (3.060) and economically (9.538) significant. In other words, firms with large management ownership can get as much as 10 points higher for the published CSR reports. Apparently the result does not hold for voluntary firms. Considering results in both Table 6 and Table 7, management blockholders prompt firms to furnish CSR reports to the public. Like the state blockholders, management blockholders with higher control are more likely to have CSR information internally rather than sharing it with the public. When CSR reports are disclosed to the public, the content is richer as management increase their control.

Firm characteristics such as leverage level (*Lev*), firm size (*Size*), and listing age (*Age*) are found to have significant relationships with CSR scores. Evidence in Panel B of Table 7 indicates that firms with higher leverage receive lower CSR scores than other CSR firms. Bigger firms tend to disclose more CSR information, i.e., get higher scores as compared to smaller firms. In addition, firms that are more recently listed are more likely to have issued higher levels of CSR reports.

[Insert Table 7 here]

Robustness tests

As reported in Table 5, main variable are correlated and their correlation coefficients are significant yet small. This suggests a potential issue of multicollinearity in the regression models. To verify that our models are free of this issue, we examine the values of Variance Inflation Factors (VIF) of variables in models reported in Table 6 and 7. Results show that all variables

have VIF between 1 and 2 in Table 6 and Table 7. It is suggested that dependent variables, *CSR* and *Score*, may be associated with firm size (*Size*) in a non-linear way³. Therefore, we replace the *Size* variable with its squared term. All empirical results remain the same.

Summary and conclusions

In this paper, we study CSR reporting behavior of Chinese listed firms from 2008 through 2010. Borrowing from institutional theory perspectives, we propose that CSR reporting decision and comprehensiveness are affected by external pressure and internal factors. In particular, we examine the association between regulatory pressure and corporate CSR reports, and the association between ownership structure and CSR disclosures. Using a sample of 5,334 Chinese listed firms from 2008 to 2010, we find that when centrally controlled firms are subject to stock exchange mandates, they are more likely than others to publish CSR reports under government guidelines on CSR disclosures, i.e., *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities* discussed on page 8. When examining the reporting behavior of non-centrally controlled firms, we find strong evidence that blockholders, i.e., concentrated ownership, seem to deter firms from publicly issuing CSR disclosures. In addition, neither external pressure nor blockholders appear to motivate firms enough to provide more comprehensive disclosures. Therefore most firms received low CSR scores in terms of content and comprehensiveness ~~quality~~.

We do find limited evidence that centrally controlled firms, which are under government pressure to provide a leadership role in CSR behavior and disclosures, tend to be more likely to issue CSR reports when the government guidelines are augmented by stock exchange regulations. The positive effect from regulatory pressure on centrally-owned SOEs provides a policy implication. It suggests that regulation remains an effective tool to encourage CSR reporting in

³. We thank an anonymous reviewer for this suggestion.

emerging markets. A similar conclusion is drawn in the *KPMG International Survey of Corporate Responsibility Reporting 2011*. The survey attributes the rise of South Africa to the third place worldwide in terms of CSR reporting to the King Corporate Governance Commission and the resulting Corporate Governance code that came into force in 2010.

However, our observation of low CSR scores of Chinese listed firms provides strong implications that governmental regulation may result in superficial implementation. Hence to improve the effectiveness of CSR reporting, additional mechanisms should be considered. For example, comprehensive exchange-wide guidelines can be established to give detailed instructions of the disclosure format and content. Another suggestion for policy makers is to mandate the certification by management and assurance from auditors on CSR disclosures. While these tools impose additional costs on the government and firms, they provide long-term benefits in terms of promoting CSR reporting and enhancing the report quality.

Throughout this study, we recognize ownership structure of Chinese listed firms as multidimensional, modeling outsider blockholdings and insider blockholdings. This research design addresses a weakness in earlier studies which are biased exclusively on state ownership to the exclusion of all other blockholders. Li et al. (2011) and Bei et al. (2011) both found a significantly positive relationship between SOEs and CSR reporting. On the contrary, we present evidence that benefits of state blockholders, as well as of management blockholders, are limited to the disclosure act only. Both types of blockholders play little role in promoting higher amount of public disclosure content.

Moreover, our evidence shows that legal person blockholders are present in about as many firms as state blockholders, particularly in firms that are reluctant to issue CSR reports. Unlike other blockholders, the legal person blockholders expropriate benefits at the expense of other

shareholders which contradicts the CSR vision and therefore hold negative attitude toward CSR reporting. We caution future studies to consider the impact of blockholders other than the state jointly and concurrently.

Our mixed results on the roles of blockholders on CSR reporting shed light on CSR practices in China. Different owners have distinct perspectives on CSR and its disclosures. For example, state and management blockholders are not necessarily concerned about the disclosure of CSR to the public as blockholders are able to obtain the information internally. The withholding of public disclosure is detrimental to investors particularly social conscious ones and those that are keen to CSR investments. We suggest that investors evaluate the presence and shareholdings of different blockholders when making investment decisions. Individual investors should be more active, demanding that firms establish policies and procedures to ensure full and fair CSR disclosures.

Our paper can be extended in several ways. First, although the existing study includes comprehensive data which investigates a sample of Chinese listed firms across three years, it contains mostly cross sectional data. Future studies can track a longer period of time to conduct longitudinal analysis to examine if our empirical results evolve over time. Because of the lack of published CSR evaluations, authors may have to collect CSR disclosures and conduct their own content analysis. Second, our investigation entails a significant conclusion for CSR studies. That is, despite the well known effect of economic factors on CSR decision, corporate governance such as ownership structure could complicate the final results. Since corporate governance is an entity specific concept, generalization of our study is limited. Future studies can extend our paper to analyze the role of corporate governance in other countries especially in non-developed countries, while considering the institutional background of companies in such

countries. Such studies will advance the understanding of CSR behavior and its reporting under influences of both external and internal factors. Last but not the least, we conjecture that the negative associations between state and management blockholders are caused by the internally requested CSR reports. Future studies can conduct field studies or interviews to validate our suggestion.

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Table 1

Number of CSR Firms and Their Distributions

Panel A

Number of CSR Firms and Distribution by Mandatory Reporting

Year	By regulation	Number of CSR Firms	Percentage
2008		314	100%
	Mandatory	258	82%
	Voluntary	56	18%
2009		433	100%
	Mandatory	336	78%
	Voluntary	97	22%
2010		518	100%
	Mandatory	373	72%
	Voluntary	145	28%
Total		1265	

Panel B

Distribution of CSR Firms by Stock Exchanges

Stock Exchange	Year	Number of CSR Firms	All Listed Firms	Percentage of CSR Firms
	2008	314	1603	20%
	2009	433	1692	26%
	2010	518	2039	25%
	Total	1265	5334	24%
SHSE	2008	198	855	23%
	2009	289	857	34%
	2010	319	882	36%
	Total	806	2594	31%
SZSE	2008	116	748	16%
	2009	144	835	17%
	2010	199	1157	17%

Total	459	2740	17%
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This table presents the number of CSR firms and their distributions over 2008-2010. SHSE represents the Shanghai Stock Exchange and SZSE is the Shenzhen Stock Exchange.

Table 2

Scores of CSR Reports

Distribution		Year	Number of CSR Firms	CSR Scores				
				Mean	Median	Minimum	Maximum	
		2008	314	29.80	27.48	15.20	72.09	
		2009	433	32.75	29.23	11.69	78.71	
		2010	518	34.92	30.88	13.33	81.46	
		Total	1265					
By Stock Exchange	SHSE	2008	198	30.54	27.12	15.20	72.09	
		2009	289	33.39	29.70	11.69	78.71	
		2010	319	36.09	31.71	14.15	81.46	
		Total	806					
	SZSE	2008	116	28.56	27.91	17.60	60.69	
		2009	144	31.31	28.71	16.62	71.06	
		2010	199	33.15	29.91	13.33	71.87	
		Total	459					
	By regulation	Mandatory	2008	258	30.47	27.52	15.20	72.09
			2009	336	33.87	30.49	11.69	78.71
			2010	373	36.55	32.24	16.12	81.46
			Total	967				
Voluntary		2008	56	26.72	26.73	17.60	34.54	
		2009	97	28.91	26.48	14.14	66.80	
		2010	145	30.72	27.41	13.33	71.78	
		Total	298					

Table 2 presents scores for CSR reports (over the period 2008-2010) obtained from the *Listed Firms CSR Reports Ratings Database* (Year 2011 version) by Rankins CSR Ratings (RKS).

Table 3

Distribution of CSR Reports and Scores across Industries

By Industries	Year	Number of CSR Firms	All Listed Firms	Percentage of CSR Firms	CSR Scores			
					Mean	Median	Minimum	Maximum
Agriculture, forestry, livestock farming, fishery	2008	2	32	6%	23.36	23.36	20.85	25.87
	2009	4	35	11%	23.95	23.95	21.40	26.51
	2010	7	43	16%	27.60	29.21	18.07	35.14
	Total	13						
		1%						
Mining	2008	16	44	36%	36.83	28.55	22.22	68.76
	2009	24	44	55%	39.88	33.57	14.14	78.49
	2010	25	48	52%	44.18	36.31	19.59	80.29
	Total	65						
		5%						
Food & beverage	2008	14	65	22%	32.71	30.00	23.73	65.12
	2009	15	68	22%	33.77	29.14	23.24	66.79
	2010	16	80	20%	32.06	30.26	18.77	68.14
	Total	45						
		4%						
Textiles & Apparel	2008	9	60	15%	24.18	23.67	15.96	34.11
	2009	10	63	16%	26.04	26.04	15.40	38.03
	2010	12	73	16%	26.23	24.46	18.37	41.15
	Total	31						
		2%						
Timber & Furnishings	2008	0	5	0%	N/A	N/A	N/A	N/A
	2009	0	5	0%	N/A	N/A	N/A	N/A
	2010	0	7	0%	N/A	N/A	N/A	N/A
	Total	0						
		0%						
Paper & Printing	2008	5	30	17%	27.07	28.01	19.60	31.95
	2009	8	33	24%	25.45	23.83	23.10	31.92
	2010	8	39	21%	25.44	24.92	18.55	34.27
	Total	21						
		2%						
Petrochemicals	2008	15	172	9%	25.33	24.99	16.85	38.07
	2009	25	176	14%	28.73	25.92	18.70	59.36
	2010	35	220	16%	30.74	28.54	19.75	56.32
	Total	75						
		6%						

Electronic	2008	11	69	16%	27.73	27.52	22.80	33.96
	2009	14	73	19%	29.71	27.76	23.09	47.63
	2010	20	110	18%	31.76	28.14	23.55	52.08
	Total	45						
		4%						
Metals & Non -metals	2008	39	137	28%	29.32	26.90	19.75	64.86
	2009	47	141	33%	33.23	30.51	20.36	64.69
	2010	51	167	31%	34.28	30.19	20.45	71.50
	Total	137						
		11%						
Machinery	2008	43	245	18%	27.35	26.57	16.00	42.48
	2009	60	269	22%	30.68	29.81	15.32	54.21
	2010	78	357	22%	32.40	28.97	16.89	63.00
	Total	181						
		14%						
Pharmaceuticals	2008	17	99	17%	30.15	27.03	15.20	61.05
	2009	25	105	24%	32.38	29.23	18.60	76.14
	2010	28	125	22%	35.43	31.88	13.33	78.44
	Total	70						
		6%						
Other manufacturing	2008	4	12	33%	26.78	26.48	23.90	30.25
	2009	5	13	38%	26.18	28.03	21.75	29.33
	2010	5	17	29%	29.04	29.08	24.22	37.12
	Total	14						
		1%						
Utilities	2008	19	65	29%	30.97	29.17	22.94	52.89
	2009	22	66	33%	35.71	33.66	25.21	66.58
	2010	25	67	37%	36.23	32.57	20.96	72.71
	Total	66						
		5%						
Construction	2008	7	31	23%	24.76	24.56	19.93	30.80
	2009	12	35	34%	37.84	29.82	17.92	71.92
	2010	14	41	34%	42.08	37.87	17.23	75.22
	Total	33						
		3%						
Transportation	2008	23	65	35%	33.05	30.66	15.82	61.73
	2009	31	67	46%	36.61	30.85	21.20	66.91
	2010	37	73	51%	37.68	32.00	14.15	77.59
	Total	91						
		7%						

IT	2008	19	98	19%	26.53	26.42	17.33	40.85
	2009	23	115	20%	28.66	26.60	18.45	44.33
	2010	31	159	19%	32.02	28.52	18.52	70.46
	Total	73						
		6%						
Wholesale and retail trade	2008	12	103	12%	27.19	26.57	19.13	35.86
	2009	21	106	20%	32.90	29.72	18.92	66.80
	2010	26	115	23%	36.01	30.94	18.49	71.78
	Total	59						
		5%						
Finance and insurance	2008	21	30	70%	45.33	42.06	22.30	72.09
	2009	28	32	88%	47.53	46.27	22.49	78.71
	2010	33	37	89%	54.25	45.75	32.28	81.46
	Total	82						
		6%						
Real estate	2008	17	107	16%	25.66	26.62	15.56	36.30
	2009	28	109	26%	28.16	26.23	17.97	71.06
	2010	31	109	28%	30.06	26.11	17.26	71.87
	Total	76						
		6%						
Social Services	2008	5	50	10%	30.06	33.96	17.29	36.79
	2009	7	55	13%	30.93	31.74	20.37	40.42
	2010	10	62	16%	34.70	34.38	22.33	52.36
	Total	22						
		2%						
Communication and Cultural Industry	2008	3	17	18%	26.27	25.97	22.57	30.28
	2009	4	17	24%	26.12	22.90	19.76	38.92
	2010	4	24	17%	30.40	24.44	21.93	50.77
	Total	11						
		1%						
Comprehensive	2008	13	67	19%	24.48	23.17	18.20	31.47
	2009	20	65	31%	25.86	24.54	11.69	46.58
	2010	21	65	32%	28.27	28.00	16.12	42.47
	Total	54						
		4%						
Total	1265							

Table 3 reports distribution of CSR reports and scores by industries. The classification of industry is obtained from the *China Securities Regulatory Commission (CSRC)*.

Table 4

Descriptive Statistics

	Mean	Std. Dev.	Median	Minimum	Maximum
Panel A: Full sample (n=5334)					
GOV (n=728)	0.1365				
State (n=2038)	0.3537	0.2008	0.0000	0.0000	0.5835
Legal (n=1762)	0.2903	0.1640	0.0000	0.0000	0.5233
Insider (n=624)	0.2652	0.0949	0.0000	0.0000	0.3764
Lev	0.4897	0.2191	0.4947	0.1065	0.8913
ROA	0.0388	0.0495	0.0375	-0.0817	0.1346
Size	21.6067	1.1898	21.4414	19.7410	24.1679
Age	8.5249	5.2877	9.0000	0.0000	20.0000
Panel B: CSR sample (n= 1265)					
GOV (n=259)	0.2139				
State (n=537)	0.3816	0.2194	0.0000	0.0000	0.5835
Legal (n=278)	0.2518	0.1300	0.0000	0.0000	0.5233
Insider (n=74)	0.2287	0.0617	0.0000	0.0000	0.3764
Lev	0.5206	0.1965	0.5335	0.1065	0.8913
ROA	0.0501	0.0409	0.0427	-0.0817	0.1346
Size	22.5959	1.1845	22.6120	19.7410	24.1679
Age	8.9810	4.8635	9.0000	0.0000	20.0000
Panel C: Non CSR sample (n= 4069)					
GOV (n=469)	0.1138				
State (n=1501)	0.3438	0.1939	0.0000	0.0000	0.5835
Legal (n=1484)	0.2975	0.1711	0.0000	0.0000	0.5233
Insider (n=550)	0.2701	0.1021	0.0000	0.0000	0.3764
Lev	0.4806	0.2246	0.4824	0.1065	0.8913
ROA	0.0354	0.0513	0.0357	-0.0817	0.1346
Size	21.3162	1.0236	21.2072	19.7410	24.1679
Age	8.3910	5.3992	9.0000	0.0000	20.0000
Panel D: CSR - Non CSR sample					
	Mean difference	Welch's t-test		Wilcoxon Rank-Sum test	
State	0.0378	6.2994	***	2245434	***
Legal	-0.0458	-10.7447	***	2856709	***
Insider	-0.0414	-9.2612	***	2680599	***
Lev	-0.0400	-6.0267	***	2225050	***
ROA	0.0147	10.3202	***	2131301	***

Size	1.2797	30.4026	***	1059216	***
Age	0.5900	3.6080	***	2361389	***
				Chi-Square	
GOV				78.7692	***

This table presents the descriptive statistics of main test variables for a sample of 5,334 firm-year observations over 2008-2010. Firm-specific variables are defined as follows.

GOV = a dummy variable that has a value of 1 if the firm is identified as a centrally controlled SOE in the CSMAR database and 0 otherwise

State = the percentage of ownership controlled by the state blockholders

Legal = the percentage of ownership by legal person blockholders

Insider = the percentage of management blockholders ownership

Lev = total liabilities divided by total assets

ROA = Return on Assets

Size = the natural logarithm of total assets

Age = the age of the firm since its listing

Table 5

Correlation Analysis of Main Variables

	CSR	Score	GOV	State	Legal	Insider	Lev	ROA	Size	Age
CSR		0.9159***	0.1222***	0.0919***	-0.1260***	-0.0974***	0.0765***	0.1247***	0.4506***	0.0467***
Score	0.9891***		0.1424***	0.1021***	-0.1234***	-0.0943***	0.1038***	0.1155***	0.4973***	0.0201
GOV	0.1222***	0.1314***		0.2402***	-0.1820***	-0.1255***	0.0904***	-0.0557***	0.2197***	0.0574***
State	0.0835***	0.0906***	0.2389***		-0.2836***	-0.1919***	0.0871***	-0.0492***	0.2447***	0.0143
Legal	-0.1252***	-0.1269***	-0.1953***	-0.2557***		0.0033	-0.0775***	0.0772***	-0.1713***	-0.1770***
Insider	-0.0959***	-0.0962***	-0.1349***	-0.2046***	0.1039***		-0.3520***	0.1641***	-0.1958***	-0.4665***
Lev	0.0787***	0.0854***	0.0931***	0.1064***	-0.0914***	-0.3412***		-0.4388***	0.1359***	0.3227***
ROA	0.1061***	0.1087***	-0.0647***	-0.0874***	0.0969***	0.2248***	-0.4133***		0.0697***	-0.2172***
Size	0.4178***	0.4357***	0.2006***	0.2157***	-0.1949***	-0.2083***	0.3124***	0.0299**		0.1195***
Age	0.0393***	0.0348**	0.0493***	0.0384***	-0.1645***	-0.4782***	0.3495***	-0.2415***	0.1310***	

The table shows the pair-wise correlations of main variables for 5,334 observations over 2008-2010. Numbers above the diagonal are Pearson correlation coefficients, and numbers below the diagonal are Spearman rank-order correlations. ***, **, * indicate that

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the correlation coefficient is significant at the 0.01, 0.05, and 0.1 level, respectively. Details of variable definitions are in notes to Table 4.

Table 6

Probit Regression Analysis

Panel A

Test of the Relationship between CSR decision and GOV

	Predicted	All firms			Voluntary firms		
	sign	(obs=5334)	Wald z-statistic		(obs=4240)	Wald z-statistic	
Intercept		-12.312	816.270	***	-11.389	383.100	
GOV	+	0.142	5.500	**	0.119	2.160	
Lev	-	-0.519	19.260	***	-0.548	13.880	***
ROA	+	3.203	56.300	***	3.567	46.030	***
Size	+	0.520	664.330	***	0.470	290.830	***
Age	?	0.016	12.110	***	0.008	1.790	
Year	Controlled						
Industry	Controlled						

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Panel B

Test of the Relationship between CSR Decision and Blockholders Using Non-Centrally Controlled Firms

	Predicted sign	All firms (obs=4606)				Voluntary firms (obs=3508)			
		Model 3a	Wald z- statistic	Model 3b	Wald z- statistic	Model 3a	Wald z- statistic	Model 3b	Wald z- statistic
Intercept		-12.7057	602.070 ***	-13.016	642.500 ***	-11.921	342.450 ***	-11.826	318.360 ***
State	+	-0.436	11.230 ***			-0.573	11.750 ***		
Legal	-	-0.810	29.490 ***			-0.316	3.560 *		
Insider	?	-0.959	16.510 ***			-0.262	1.130		
State_d	+			0.164	9.350 ***			-0.226	11.710 ***
Legal_d	-			0.090	3.210 *			-0.088	2.030
Insider_d	?			0.114	4.580 **			0.125	3.700 *
Lev	-	-0.609	20.48 ***	-0.546	17.300 ***	-0.562	13.030 ***	-0.481	9.460 ***
ROA	+	2.954	39.48 ***	2.977	40.210 ***	3.539	42.320 ***	3.353	35.750 ***
Size	+	0.548	505.83 ***	0.541	508.800 ***	0.498	266.030 ***	0.488	248.340 ***
Age		0.001	0.000	0.009	3.360 *	-0.001	0.020	0.010	2.370
Year	Controlled								
Industry	Controlled								

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The table shows the regression results of regulation pressure and blockholder ownership structure on CSR reporting decision. The sample covers 5,334 firm-year observations over 2008-2010. ***, **, * indicate that the coefficient is significant at the 0.01, 0.05, and 0.1 level, respectively.

Variable definitions are provided below and in notes to Table 4.

State_d = the presence of ownership controlled by the state blockholders

Legal_d = the presence of ownership by legal person blockholders

Insider_d = the presence of management blockholders ownership

Table 7

Fixed Effects Regression Analysis

Panel A

Test of the Relationship between CSR Scores and GOV

	Predicted sign	All firms (obs=1265)	t-statistic		Voluntary firms (obs=298)	t-statistic	
Intercept		-63.179	-19.390	***	-44.656	-8.920	***
GOV	+	0.206	0.980		0.700	1.090	
Lev	-	-5.585	-4.890	***	-7.428	-5.330	***
ROA	+	9.315	1.620		7.358	1.060	
Size	+	4.662	77.200	***	3.566	16.770	***
Age	?	-0.279	-2.380	**	-0.106	-2.370	**
Year	Controlled						
Industry	Controlled						
R ²	0.388				0.2264		

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Panel B

Test of the Relationship between CSR Scores and Blockholders Using Non-Centrally Controlled Firms

Predicted sign	All firms (obs=1006)						Voluntary firms (obs=251)						
	Model	t-		Model	t-		Model	t-		Model	t-statistic		
	4a	statistic		4b	statistic		4a	statistic		4b			
Intercept	-58.440	-8.470	***	-57.421	-8.990	***	-36.519	-3.820	***	-35.190	-3.530	***	
State	+	-1.312					2.041	0.940					
Legal	-	-0.830					-3.460	-1.390					
Insider	?	9.538	3.060	***			7.664	0.790					
State_d	+				-0.115	-0.200				0.651	1.280		
Legal_d	-				-0.146	-0.430				-1.136	-1.810	*	
Insider_d	?				0.697	0.690				0.444	0.390		
Lev	-	-6.021	-4.420	***	-5.923	-4.440	***	-6.750	-5.160	***	-7.068	-5.070	***
ROA	+	6.767	1.660	*	7.335	1.860	*	3.986	0.880		4.214	0.890	
Size	+	4.500	20.030	***	4.445	21.660	***	3.227	9.250	***	3.186	8.740	***
Age	?	-0.282	-2.470	**	-0.300	-2.780	***	-0.137	-1.130		-0.145	-1.760	*
Year	Controlled												
Industry	Controlled												
R ²	0.343			0.342			0.209			0.203			

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The table shows the regression results of regulation pressure and blockholder ownership structure on CSR scores with control variables. The sample covers 5,334 firm-year observations over 2008-2010. ***, **, * indicate that the coefficient is significant at the 0.01, 0.05, and 0.1 level, respectively. Details of variable definitions are in notes to Table 4 and Table 6.