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Are Controlling Shareholders Influencing the Relationship between CSR and Earnings Quality? Evidence from Chinese Listed Companies

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Abstract

This paper examines how controlling shareholders may affect the relationship

between the level of corporate social responsibility (CSR) and earnings quality. We

find that controlling shareholders have a significant impact on the relationship

between the level of CSR and earnings quality; the relationship between the level of

CSR and earnings quality is significantly positive in privately owned enterprises but

not state-owned enterprises; and, among state-owned enterprises, the relationship is

weaker at enterprises controlled by the central government than at those controlled by

local governments. Our paper highlights the differential impacts of controlling

shareholders on the relationship between CSR and earnings quality.

Keywords: controlling shareholders, corporate social responsibility, earnings quality,

privately owned enterprises, state-owned enterprises.

JEL: M14; M41; P26

1. Introduction

Is earning quality likely to be higher or lower at companies with a higher level of corporate social responsibility (CSR)? The level of CSR is a measurement of socially responsible activities by companies that benefit stakeholders overall (Kim et al., 2012), such as increasing customers reliability and reducing pollution. Prior research has had conflicting results. For example, Kim et al. (2012), by using the global data from 2001 to 2009, suggest that companies with a higher level of CSR tend to have better earnings quality because they reduce their manipulation of earnings and deliver higher-quality financial information in a responsible manner. In contrast, Jensen and Meckling (1976) argue that managers of companies with a higher level of CSR work to pursuit self-interest or improve the firm's reputation, at such firms, so earnings quality tends to decline, but so does manipulation of financial reporting.

One possible reason for this apparent contradiction is that certain factors may affect the relationship between having a high level of CSR and earnings quality, such as the extent to which the managers restrict the manipulation of reported earnings. For example, Choi et al. (2013) and Sun et al. (2010) find that the relationship between the level of CSR and earnings quality is weaker when a firm's percentage of institutional investors increases, whereas the relationship is stronger when the firm's percentage of foreign investors increases. In China, Zhong and Fan (2011) examine the relationship between the level of CSR and the scale of earnings manipulation, demonstrating that companies with a higher level of CSR have more transparency and less earnings manipulation.

Controlling shareholders play an important role in earnings quality (Wang 2013). The earnings quality is lower at state-owned enterprises (SOEs) than at private owned firms (POEs). However, POEs have a higher quality of earnings than SOEs listed on the S&P 500 stock index (Ali et al. 2007). In China, Xia and Fang (2005) show that enterprises controlled by the central government (CGCEs), enterprises controlled by local governments (LGCEs), and POEs are driven by different layers of local governments, such as provincial government, municipal government and county government. Therefore, companies that have different controlling shareholders will display different corporate behavior for different potential interests.

However, to date little research has examined the different relationships between the level of CSR and earnings quality at firms with different kinds of controlling shareholders. Our research is intended to fill this gap. We argue that the relationship between the level of CSR and earnings quality will be affected differently by firms with different kinds of controlling shareholders.

We study this question in the context of Chinese listed companies. The controlling shareholders may differ among Chinese listed firms; and this difference may significantly affect a firm's regulatory environment and strategic behavior (Xia and Fang, 2005). SOEs are the main engine of the country's economy and are required to disclosed CSR report in mandate. POEs are likely to disclose CSR report voluntarily. We define POEs as enterprises in which the majority of shareholders are individuals (Tsui et al. 2006). SOEs come in two kinds, depending on whether their controlling interests are at the national or local government level. Those at the local level (LGCEs)

are under the supervision of provincial or municipal governments. Those at the national level (CGCEs) are under the control of the State-Owned Assets Supervision and Administration Commission (SASAC) of the State Council (China's Cabinet). SASAC has the authority to formulate regulations and policies for CGCEs. In 2008, SASAC issued guidelines and recommendations on reporting corporate social and environmental activities and required all CGCEs to disclose their level of CSR every year. These actions had a significant impact on the level of CSR and earnings quality at those enterprises.

Our results demonstrate that companies with a higher level of CSR tend to show better earnings quality. We also find that the relationship between the level of CSR and earnings quality is significantly positive at POEs, whereas the relationship is not significant at SOEs. If we break SOEs into those at the national level and those at the local level, we find that the relationship is weaker at CGCEs. Our results are consistent with the theory on transparent financial reporting (Kim et al. 2012; Scholtens and Kang, 2013).

This paper contributes to the literature in two ways. First, we contribute to research on the relationship between the level of CSR and earnings quality by investigating the importance of controlling shareholders in this relationship. Second, we use evidence in China, which has been little studied to date, to show that the level of CSR is positively related to high-quality financial reporting with recent data from Chinese listed firms (Carnegie and Napier 2010; Kim et al. 2012; Laux and Leuz 2009).

The remainder of the paper is organized as follows. We first describe the

background in Section 2; our literature review and hypothesis development are in Section 3; our methodology is described in Section 4; Section 5 provides results and discussions; Section 6 offers our conclusions.

2. Background

In China, awareness of CSR is growing, although it is still at an early stage (Noronha et al. 2013). The Chinese government has recently made efforts to improve relevant laws and market regulations and to expand supervisory practices to decrease irresponsible corporate behavior (Lattemann et al. 2009). In 2008, the China Securities Regulatory Commission (CSRC) encouraged all listed companies to disclose CSR reports voluntarily. SOEs tend to disclose CSR report involuntarily, whereas POEs have been more willing to do so voluntarily. Recent studies have explored the level of CSR in the Chinese market from different perspectives, focusing on political issues (Li and Zhang 2010), ethical issues (Moon and Shen 2010), and cultural issues (Wang and Juslin 2009). Lattemann et al. (2009) compare CSR reporting in China and India. Marquis and Qian (2013) develop a political-dependence model in China, suggesting that CSR practices and reporting are dependent on the government.

3. Literature Review and Hypothesis Development

3.1. The Relationship between the Level of CSR and Earnings Quality

CSR encompasses economic, legal and ethical expectations that society has about organizations at a given point in time. Carroll (1979) suggests that companies with a high level of CSR should strive to make a profit, obey the law, and be good corporate

citizens. Brummer (1991) argues that CSR is supplementary to a firm's economic, legal, moral, and social responsibilities. The level of CSR can be measured quantitatively. Kim et al. (2012) use KLD data (KLD Research & Analytics, Inc) to measure the level of CSR. In this paper, we use scores from the Chinese CSR White Paper (Li et al., 2013) to measure the level of CSR. Earnings quality can be represented by the degree of matching of accruals and cash flow in the current period and adjacent periods (Dichev and Dechow, 2002). Prior research sheds light on earnings quality (Dechow and Schrand 2004; Dechow and Skinner 2000).

Two views discuss the relationship between CSR and earnings quality.

First, the transparent financial reporting theory argues that companies with high levels of CSR behave in a responsible manner to improve earnings quality, delivering more transparent and reliable financial information to investors (Carroll, 1979; Jones, 1991; Kim et al. 2012). Jones (1991) concludes that firms with a higher level of CSR have an incentive to be honest, trustworthy, and ethical. Shleifer (2004) argues that earnings manipulation occurs less often in corporations with a strong commitment to social responsibility, which indicates that managers have incentives to "do the right thing," such as restraining themselves from engaging in earnings manipulation. Kim et al. (2012) find that socially responsible firms in 57 countries are less likely to manage earnings through discretionary accruals and to maintain transparency in financial reporting. Current studies on emerging markets demonstrate similar results, such as in the BRICs (Brazil, Russia, India, and China; Wong, 2008), Asian-Pacific economies (Scholtens and Kang, 2013), and countries such as South Korea (Cho and

Chun, 2016; Choi et al., 2013).

Second, the opportunistic financial reporting theory implies a negative relationship between CSR and earnings quality. From this perspective, managers might engage in CSR activities to manipulate earnings (Chih et al., 2008). Jensen and Meckling (1976) suggest that CSR activities might be linked to the pursuit of managers' self-interest under the agency-cost perspective. CSR activities may give insiders a greater impetus for engaging in earnings manipulation to hide their rent-seeking activities from outsiders (Leuz, 2009). Managers have incentives to get promotion through CSR activities (McWilliams and Siegel 2006); scarify at the value of stakeholders and compensate managers own interest through CSR activities (Prior et al., 2008).

In China, Zhong and Fan (2011) examine the relationship between the level of CSR and the scale of earnings manipulation, demonstrating that companies with a higher level of CSR enhanced transparency and reduced the scale of aggressive earnings manipulation. Based on prior research, we derive the following hypothesis:

Hypothesis 1: Companies in China with a higher level of CSR have higher earnings quality.

3.2. The Relationship between CSR and Earnings Quality at SOEs and POEs

China has a transitional economy and a weak legal environment. The governance mechanisms of SOEs and POEs are different from those in either a planned economy or a developed market economy (Chen et al., 2009). Kim et al. (2012) argue that the level of CSR and earnings quality have a positive relationship when firm managers are ethical and engage in CSR activities voluntarily. At SOEs, the relationship is

negative, because the government engages in the supervision, monitoring, and intervention of firms. First, SOEs are under the control of a particular government level, which affects the degree of supervision. Under this government supervision, SOEs are required to have a CSR budget and, at the same time, SOEs are more likely to obtain subsidies and policy advantages from the government (Xia and Fang 2005). Such involuntarily imposed CSR activities do not generate a positive relationship with earnings quality (Li et al., 2013). Second, SOEs are under high levels of auditing supervision, particularly CGCEs, which are audited by the National Audit Office and they are more likely to restrict earning management. Third, SOEs are more likely to experience government intervention in the sense of being compelled to perform tasks that are outside their business obligations (Chen et al., 2008). Such intervention unintentionally improves the level of CSR at SOEs through mandate regulation. However, it does not contribute to a positive relationship between the level of CSR and earnings quality.

The relationship between the level of CSR and earnings quality may be more positive at POEs than at SOEs for several reasons. First, they are not subject to state intervention because of their private ownership. Firm managers have incentives to be honest and trustworthy (Carrol, 1979) that drive them to enforce higher ethical standards. Healy and Palepu (2001) find less earning manipulation at privately owned or family-owned companies. Second, POEs in China are more likely to operate based on market principles (Tan and Ma, 2016), therefore their CSR reporting is voluntary. CSR performance can help a company to build a reputation and may have a positive

association with the firm's financial performance (Waddock and Graves 1997). Third, the level of CSR can influence a company's future earnings in different ways, such as adding customers and increasing sales (Lev et al., 2010) and attracting or motivating employees (Balakrishnan et al., 2011); in addition, voluntary CSR reporting can reduce the cost of equity capital (Dhaliwal et al., 2011). Therefore, POEs with a higher level of CSR have stronger motivations for presenting higher earnings quality. We posit that:

Hypothesis 2: The relationship between the level of CSR and earnings quality in China is weaker at SOEs than at POEs.

3.3 The Relationship between CSR and Earnings Quality at CGCEs and LGCEs

CGCEs have a higher level of monitoring than LGCEs (Chen et al., 2009). Beginning in 2008, SASAC required all CGCEs to establish reporting mechanisms and an action plan for mandatory CSR reporting (Lin, 2009). At the same time, SASAC exercises a high degree of supervision over financial statements. These requirements weaken the relationship (Kim et al., 2012). Therefore, the relationship between the level of CSR and earnings quality is less significant at CGCEs than at LGCEs.

Second, observance of the law and regulations is higher at CGCEs than at LGCEs (Chen et al., 2009) because laws and regulations are difficult to impose far from the center of political power (Liu et al., 2003). Therefore, CGCEs are tied to government more tightly than LGCEs. The government intervention weakens the relationship.

Third, according to Li et al. (2013), because of the dual-task characteristics, both

financial target and social need fulfillment, CGCEs have goals that differ from those at LGCEs and POEs, it may be more likely to maximize social welfare rather than its own economic benefit. CGCEs not only have to meet financial targets set by SASAC but also have to fulfill social responsibilities. SASAC requires CGCEs to take responsibility for product and service quality, the efficient use of resources and environmental protection, innovation and technology, production safety, and protection of employees' legal rights and charity as well as profitability. CGCEs sacrifice some economic benefits in order to maximize social welfare.

We derive our third hypothesis.

Hypothesis 3: The relationship between the level of CSR and earnings quality in China is weaker at CGCEs than at LGCEs.

4. Methodology

4.1. Variables and Samples

4.1.1. Earnings Quality

We use three proxies to measure earnings quality: discretionary accruals are measured using the revised Jones (Absolute value of discretionary accruals, ABS-DA) model (Jones 1991), the intangible asset Jones (Intangible asset discretionary accruals, IA-DA) model (Huang and Xia, 2009), and the performance matched discretionary accrual (Return on asset discretionary accruals, ROA-DA) model (Kothari et al, 2005). Earnings quality is negatively associated with the absolute value of discretionary accruals: the higher absolute value of discretionary accruals, the lower quality of

earning. The proxy models are illustrated in Appendix 1.

4.1.2. Level of CSR

The level of CSR is defined as the amount of socially responsible activities engaged in by companies that benefit overall stakeholders (Kim et al., 2012), measured using the CSR score for Chinese listed companies in the Chinese CSR White Paper (Li et al., 2016). The score is calculated in accordance with Chinese CSR Reporting Rating Standards, which range from 0 to 100. This White Paper was issued by the Chinese Academy of Social Science's (CASS's) Research Center on CSR. CASS CSR evaluation specialists use various methodologies to measure the CSR level, including field visits, sampling, interviews, and monitoring. The evaluation process takes into account the opinions of business and academic leaders.

In robustness tests, we use a social responsibility dummy as a proxy for CSR scores. The CSR dummy comes from the CSR Index¹ on the Shanghai Stock Exchange and the Shenzhen Stock Exchange. The index is defined as 1 if the company is included in the CSR index and 0 otherwise.

4.1.3. Controlling Shareholders

First, we divide our sample into SOEs and POEs: The variable *SOE* has a value of 1 if the company is controlled by the state and 0 otherwise; the variable *POE* has a value of 1 if the company is controlled by individual shareholders and 0 otherwise.

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¹ The CSR index consists of the companies with best CSR performance in both Shanghai and Shenzhen Stock Exchange. Comprised of top 100 ranked by social contribution value per share stocks from the SSE Corporate Governance index, the Shanghai Stock Exchange Social Responsibility index is designated to reflect performance of stocks with good performance in Social Responsibility. The purpose of the SSE Social Responsibility index is to stimulate listed companies to carry out Social Responsibility and provide underlying for investors.

We subdivide SOEs between CGCEs and LGCEs. *CGCE* has a value of 1 if a company is controlled by the central government and 0 otherwise; *LGCE* has a value of 1 if a company is controlled by a local government and 0 otherwise.

4.1.4. Control Variables

Our regression model includes growth opportunities (*Growth*) and return on assets (ROA) in lagged years (*Adj. ROA*) (Roychowdhury, 2006), firm size (*SIZE*) (Prior et al., 2008), and leverage (*Lev*) as control variables. Table 1 lists all the variables.

[Insert Table 1 here]

After matching a CSR score with a firm's financial indexes in the China Stock Market and Accounting Research (CSMAR) database, our sample consists of 8,156 firms from 2009 to 2014.

4.2. Models

As in Kim et al. (2012), we construct a multiple regression model to investigate the relationship between CSR and earnings quality, as follows.

$$ABS - DA = \beta_0 + \beta_1 \times CSR \ Score + \beta_2 \times Size + \beta_3 \times Adj. \ ROA + \beta_4 \times Lev$$
$$+\beta_5 \times Growth + \beta_6 \times Tobin - Q + \varepsilon_t \tag{1}$$

To investigate the impact of controlling shareholders on the relationship between CSR and earnings quality, we derive the model to include the cross-sectional variables between the CSR score and controlling shareholders:

$$ABS - DA =$$

 $\beta_0 + \beta_1 \times CSR \ Score + \beta_2 \times CSR \ Score \times Controlling \ Shareholders + \beta_3 \times CSR \ Score \times Controlling \ Shareholders + \beta_3 \times CSR \ Score \times CONTROLLING \ Shareholders + \beta_3 \times CSR$

$$Size + \beta_4 \times Adj. ROA + \beta_5 \times Lev + \beta_6 \times Growth + \beta_7 \times Tobin - Q + \varepsilon_t$$
 (2)

To conduct robustness tests, we substitute the CSR score with the CSR index in the model.

5. Results and Discussions

5.1. The Relationship between CSR and Earnings Quality

There are 1,129 companies with a higher level of CSR and 7,027 other companies. We report the results using ABS-DA, IA-DA, and ROA-DA models. The descriptive statistics are shown in Table S1 (in the Supplementary Material, available online). Our results demonstrate that companies with a higher CSR level have discretionary accruals of 19,478,000 under the ABS-DA model, which is less than that of other companies, 82,925,000. Other discretionary accrual measurements are also lower than at other companies. The results show that companies with a high level of CSR have a greater incentive for improving earnings quality. In addition, companies with a high level of CSR are larger, with a higher growth rate and better performance than other companies as well as higher firm value and more growth opportunity. The results are consistent with those in prior studies (McWilliams and Siegel 2006; Prior et al., 2008; Roychowdhury, 2006).

The Pearson Correlation is shown in Table S2. The correlations between CSR and variables on discretionary accruals are negative, indicating that companies with a higher level of CSR have higher earnings quality.

Table 2 shows the multivariate regression results, indicating that CSR scores are negatively correlated with discretionary accruals at the 1% significance level. In

columns 1 to 3, the coefficients are -0.300, -0.251, and -0.293, respectively, with respective *t* values of -3.538, -2.803, and -3.461. This suggests that a company with a higher level of CSR tends to improve its earnings quality through engaging in CSR activities. Kim et al. (2012) socially responsible firms are less likely to engage in earnings management through discretionary accruals and to maintain transparency in financial reporting. Our results are consistent with transparent financial reporting theory (Choi et al., 2013; Kim et al., 2012; Scholtens and Kang, 2013). We also find that firm size is positively associated with earnings quality. The results suggest that large companies are less likely to manipulate earnings through CSR activities. Therefore, our results support Hypothesis 1.

[Insert Table 2 here]

Table 3 shows the results of robustness tests. We replace the CSR score with the CSR dummy variable, which is negative and statistically significant at the 1% significance level.

[Insert Table 3 here]

Using Chinese data from 2007 to 2009, Zhong and Fan (2011) find a positive relationship between the level of CSR and earnings quality and confirm the transparent financial reporting theory. Marquis and Qian (2013) argue that CSR reporting is dependent on government signaling. Li and Zhang (2010) imply that CSR reporting in China is subject to political interference. Our results indicate that the Chinese government has made progress in improving the level of CSR, therefore providing higher-quality financial reporting.

5.2. The Relationship between CSR and Earnings Quality at SOEs and POEs

In this section, we divide our samples into SOEs and POEs, yielding 5,324 SOE firm samples and POE 2,832 firm samples.

Descriptive statistics for SOEs and POEs is shown in Table S3. *SOE* has an average CSR score of 2.274, and *POE* has an average score of 1.061. SOEs have a higher level of CSR than POEs. And SOEs have a higher absolute value of discretionary accruals and larger average size than POEs.

Tables 4 and 5 show the impact of controlling shareholders on the relationship between CSR and earnings quality at SOEs and POEs respectively.

[Insert Table 4 here]

[Insert Table 5 here]

In Table 4, we find no significant relationship between the level of CSR and earnings quality at SOEs. Although the coefficients of the CSR score are negative and statistically significant at the 1% level, the coefficients of the interaction term CSR scores*SOE are negative but not statistically significant.

Table 5 indicates that the level of CSR and earnings quality is positively correlated at POEs. Coefficients of the CSR score and their interaction terms are negative and statistically significant at the 1% level. This suggests that POEs with higher levels of CSR are more likely to have higher earnings quality. The results support Hypothesis 2.We explain the weaker relationship at SOEs as follows. China has a transitional economy and a weak legal environment, with state governance mechanisms and

private ownership that differ from those in either a planned economy or a developed market economy (Chen et al., 2009). We explain that involuntary CSR reporting, government political intervention, and higher monitoring levels (Chen et al., 2008) lead to a weaker relationship between CSR and earnings quality at SOE than at POEs.

POEs in China are more likely to operate based on market principles (Tan and Ma, 2016). Companies engage in CSR activities voluntarily, for example, increasing POEs are likely to increase donation and make promotion. CSR performance can help a company to build a reputation and has a positive association with a firm's financial performance (Dai and Kong, 2016; Waddock and Graves 1997). Second, CSR performance can influence a company's future earnings by attracting more customers and increasing sales (Lev et al., 2010) and attracting or motivating employees (Balakrishnan et al., 2011). Dhaliwal et al. (2011) find that voluntary CSR disclosure can reduce the cost of equity capital. Deng et al. (2013) conclude that companies with a high level of CSR can achieve higher returns from mergers and longer-term stock returns. Therefore, POEs have strong motivations for presenting transparent financial statements through CSR reporting.

Table 6 lists the results of robustness tests by replacing the CSR score with a CSR dummy for SOEs. The coefficients of the CSR dummy are negative and statistically significant at the 1% level. The interaction terms CSR dummy*SOE are negative but not significant. The results show that the relationship between the level of CSR and earnings quality is not strong at SOEs.

Table 7 shows the results of the robustness test of the relationship between the level

of CSR and earnings quality at POEs. Both the CSR dummy and the interaction term CSR dummy*POE are negative and significant at the 1% level. The results demonstrate that POEs with a higher level of CSR are more likely to have higher earnings quality.

[Insert Table 6 here]

[Insert Table 7 here]

5.3. The Relationship between CSR and Earnings Quality at CGCEs and LGCEs

We further divide SOE samples into CGCEs and LGCEs, yielding 1,511 CGCE firm samples and 3,813 LGCE firm samples in Table S4. CGCEs have the highest average CSR score, 6.266, and LGCEs have an average score of 1.103. Using the ABS-DA, IA-DA, and ROA-DA model measurements, CGCEs have higher discretionary accruals (63,437, 133,622, and 57,452, respectively), and LGCEs have averages of 21,508, 34,878, and 19,787, respectively. CGCEs have the largest size, 9.799, and LGCEs have a smaller firm size, 9.657. We explain that results on firm size may influence earnings quality; larger firms may have higher earning accruals (Roychowdhury 2006).

Table 8 shows the regression results for the relationship between the level of CSR and earnings quality at CGCEs. We find that the coefficients of the CSR score and interaction terms are negative. Although the coefficients of the CSR score are significant at the 1% level, the interaction terms are not significant. The results show no strong relationship between the level of CSR and earnings quality at CGCEs.

Table 9 indicates that the relationship between the level of CSR and earnings quality is not significant at LGCEs. The coefficients of the CSR score and the interaction terms are negative. Although the coefficients of the CSR score are significant at the 1% level, only the interaction terms in column 1 are significant: the coefficient is -0.050 with a *t* value of 2.019. However, the coefficients in columns 2 and 3 are not significant.

Overall, our results support the transparent financial reporting theory. Unlike POEs, CGCEs and LGCEs are controlled by the government and their financial statements are subject to heavy supervision. They have less motivation than POEs for increasing earnings management and engaging in CSR activities to build their reputation.

[Insert Table 8 here]

[Insert Table 9 here]

We also compare the results in Tables 8 and 9, finding that the relationship between CSR and earnings quality is weaker at CGCEs than at LGCEs. Two of three coefficients of the interaction terms in Table 8 are lower than those in Table 9. In Table 8, the coefficients of the interaction terms CGCE*CSR score are -0.014, -0.081, and -0.048, respectively, and are not significant, whereas in Table 9, the coefficients of the interaction terms LGCE*CSR score are -0.050, -0.089, and -0.044, respectively. In addition, the coefficients are statistically significant at the 5% level in column 1.

Kim et al. (2012) argue that the relationship between the level of CSR and earnings quality is voluntary. Monitoring, government intervention, and the level of observance of the law and regulations weaken the extent to which this is voluntary. First, CGCEs

are subject to a higher level of SASAC monitoring. SASAC guidelines state that CSR information disclosed should be material to the operations of the enterprise and should focus on key social aspects related to their activities, such as employee rights, environmental protection, and product safety. This requirement weakens the relationship between the level of CSR and earnings quality at CGCEs. Second, SOEs are subject to dual-task characteristics from government (Li et al., 2013). They have to fulfill responsibilities imposed by the government, resulting in a higher level of CSR. The relationship is weakened under government intervention. Third, CGCEs have a higher level of observance of laws and regulation than LGCEs (Chen et al., 2009). CGCEs perform social responsibilities less voluntarily.

In Table 10 we replace the CSR score with the CSR dummy at CGCEs. The coefficients of the CSR dummy are negative and significant at the 1% level. The interaction terms CSR dummy*CGCE are negative but not significant. The results show that the relationship between the level of CSR and earnings quality is not significant at CGCEs. Our results support the Hypothesis 3.

Using a similar methodology, in Table 11, we find that the relationship between the level of CSR and earnings quality is significant at LGCEs. The coefficients of the level of CSR and the interaction terms are negative and significant at the 1% level. We can find clear evidence that the relationship between the level of CSR and earnings quality is weaker at CGCEs than at LGCEs.

[Insert Table 10 here]

[Insert Table 11 here]

5.4. Discussion of Endogeneity Problems

In our paper, we address the endogeneity problem as follows. First, we include ROA (Kim et al., 2012) as a control variable to eliminate the situation in which firms with better performance are more likely to have a higher level of CSR. Therefore, possible omitted variables are considered. Second, most coefficients of the control variables are insignificant. Therefore, differences in the firm-level characteristics have an insignificant impact on the results. Third, we select samples from 2008 because in that year the CSRC issued a policy requiring all CGCEs to file CSR reporting and encourage other listed companies to do the same. Therefore, all the firms are operating in the same regulatory environment in a clean setting.

6. Conclusions

This paper examines the relationship between the level of CSR and earnings quality and whether controlling shareholders affect the relationship. We find a positive relationship between the level of CSR and earnings quality in China. This relationship is significant at POEs but not significant at SOEs. In addition, among SOEs, the relationship is weaker at CGCEs than at LGCEs.

Overall, our results are consistent with the transparent financial reporting theory. They indicate that companies with a high level of CSR behave in a responsible manner to restrict earnings management, delivering more transparent and reliable financial information to investors. Our results are consistent with prior research (Carnegie and Napier, 2010; Kim et al., 2012; Laux and Leuz, 2009) and reinforce the uniqueness of CSR practices from the perspective of controlling shareholders in

China. Unlike SOEs, the managers of POEs tend to report CSR practices voluntarily and deliver transparent financial statements and maintain a good reputation. Therefore, the relationship between the level of CSR and earnings quality is more significant at POEs. SASAC imposes mandatory CSR reporting requirements on CGCEs, its dual-task characteristics of CGCEs that weaken the relationship between the level of CSR and earnings quality, unlike at LGCEs.

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Tables

Table 1 Variables

Table 1 Variables				
		Variables	Descriptions	
		Discretionary Accruals by Revised Jones Model(ABS-DA)	Absolute value of discretionary accruals (signed discretionary accruals), where discretionary accruals are computed using the modified Jones model excluding changes of account receivable as a regressor;	
Explained Variables		Discretionary Accruals Intangible Asset Jones Model (IA-DA)	Absolute value of discretionary accruals (signed discretionary accruals), where discretionary accruals are computed using the modified Jones model including intangible asset as a regressor;	
		Performance Matched Discretionary Accruals (ROA -DA)	Absolute value of discretionary accruals (signed discretionary accruals), where discretionary accruals are computed using the modified Jones model including intangible asset as a regressor;	
		Corporate Social Responsibility Scores (CSR Score)	We employ data from 2009-2011 Chinese CSR White Paper conducted by Research Center of CSR in Chinese Academy of Social Science. The CSR Scores from the Paper, the scores range from 0 to 100.	
		CSR Dummy Variable (CSR Dummy)	The indicator is 1 when the company is in the CSR index of Shanghai and Shenzhen Stock Market, 0 for others.	
Explanatory		State Owned Enterprise(SOE)	We define 0 for State Owned Enterprises and 1 for others.	
Variables		Private Owned Enterprises (POE)	We define 1 for those controlled by individuals or group of members other than Chinese government, we define 1 for those firms and 0 for others.	
		Central Government Controlled Enterprises (CGCE)	other than Chinese government, we define 1 for those firms and 0 for	
		Local Government Controlled Enterprises (LGCE)	We define 1 for those controlled by Chinese Local Government and 0 for others.	
		Firm's Size(SIZE)	Natural logarithm of the market value of equity	
		ROA in lagged year (Adj	Ratio between net income and total assets in the lagged year.	
Control		ROA)		
Variables		Leverage ratio(Lev)	Ratio between long term debt and total assets.	
		Growth opportunities(Growth)	Sales growth rate in the current year.	
Tobin Q		Tobin Q	The ratio between market value to book value.	

Table 2 The Relationship between CSR and Earnings Quality

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Scores	-0.300	-0.251	-0.293
	(-3.538) ***	(-2.803)***	(-3.461)***
Control Variable			
SIZE	-0.260 (-3.062) ***	-0.183 (-2.653) ***	-0.270 (-3.181)***
Adj-ROA	-0.012 (1.560)	-0.008 (-1.002)	-0.013 (0.147)
Lev	0.005 (0.624)	0.003 (0.320)	0.005 (0.599)_
Growth	-0.001 (-0.009)	-0.001 (-0.026)	-0.001 (-0.010)
Tobin-Q	0.002 (0.289)	0.002 (0.184)	-0.002 (0.304)
Intersection	-30.08***	-20.05***	-31.26***
Adj. R2	0.219	0.132	0.221
Sample Size	8156	8156	8156

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

Table 3 Robust Test of The Relationship between CSR and Earnings Quality

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Dummy	-0.029	-0.036	-0.029
	(-3.373) ***	(-4.111)***	(-3.401)***
Control Variable			
SIZE	-0.388	-0.294	-0.395
	(-4.543) ***	(-3.318) ***	(-4.641)***
Adj-ROA	-0.018	-0.013	-0.018
	(2.190)**	(-1.537)	(-2.250)**
Lev	0.007	0.005	0.007
	(0.899)	(0.559)	(0.870)
Growth	-0.001	-0.001	-0.001
	(-0.063)	(-0.074)	(-0.064)
Tobin-Q	0.003	0.002	0.003
	(0.382)	(0.265)	(0.395)
Intersection	-44.48***	-32.40***	-45.44***
Adj. R2	0.144	0.081	0.149
Sample Size	8156	8156	8156

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

 $Table\ 4\ Regressions\ on\ the\ Relationship\ between\ CSR\ and\ Earnings\ Quality\ of\ SOE$

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Scores	-0.079	-0.071	-0.078
	(-3.518)***	(-3.523)***	(-3.496)***
CSR Scores*SOE	-0.237	-0.091	-0.230
	(-1.066)	(-1.192)	(-1.039)
Control Variable			
SIZE	-0.259	-0.182	-0.181
	(-3.058)***	(-2.039)**	(-2.014)**
Adj-ROA	-0.012	-0.008	-0.013
	(-1.538)	(-0.975)	(-1.612)
Lev	0.005	0.003	0.005
	(0.648)	(0.384)	(0.660)
Growth	-0.001	-0.001	-0.001
	(-0.034)	(-0.181)	(-0.010)
Tobin-Q	0.002	0.002	0.002
_	(0.287)	(0.287)	(0.301)
Intersection	-3.034***	-1.995***	-18.80***
Adj. R2	0.121	0.141	0.131
Sample Size	5324	5324	5324

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

Table 5 Regressions on the Relationship between CSR and Earnings Quality of Private Owned Enterprise

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Score	-0.303	-0.253	-0.296
	(-3.565)***	(-2.826)***	(-3.488)***
CSR Scores*POE	-0.038	-0.038	-0.037
	(-4.796)**	(-4.617)***	(-4.789)***
Control Variable			
Size	-0.262	-0.185	-0.272
	(-3.086)***	(-2.067)***	(-3.203)***
Adj-ROA	-0.012	0.003	-0.008
	(-1.526)	(0.316)	(-1.022)
Lev	0.005	0.005	0.003
	(0.620)	(0.623)	(0.329)
Growth	-0.001	-0.001	-0.001
	(-0.050)	(-0.044)	(-0.033)
Tobin-Q	-0.002	0.002	0.002
	(-0.287)	(0.291)	(0.186)
Intersection	-3.029***	-3.087***	-3.145***
Adj. R2	0.221	0.134	0.223
Sample Size	2832	2832	2832

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

Table 6 Robust Test of the Relationship between CSR and Earnings Quality of State Owned Enterprise

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Dummy	-0.038	-0.049	-0.038
	(-4.043)***	(-5.017)***	(-4.070)***
CSR Dummy *SOE	0.021	-0.029	-0.021
	(-1.334)	(-1.055)	(-1.376)
Control Variable			
SIZE	-0.388	-0.293	-0.395
	(-4.536)***	(-3.395)***	(-4.633)***
Adj-ROA	-0.001	0.001	-0.018
	(-0.063)	(-0.047)	(-2.242)**
Lev	0.007	0.005	0.007
	(0.894)	(0.552)	(0.865)
Growth	-0.001	-0.001	-0.001
	(-0.063)	(-0.074)	(-0.064)
Tobin-Q	0.003	0.002	0.003
	(0.381)	(0.263)	(0.394)
Intersection	-4.019***	-3.231***	-4.763***
Adj. R2	0.144	0.081	0.150
Sample Size	5324	5324	5324

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

Table 7 Robust Test of the Relationship between CSR and Earnings Quality of POE

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Dummy	-0.045	-0.046	-0.046
-	(-5.352)***	(-5.187)***	(-5.542)***
CSR Dummy *POE	-0.206	-0.120	-0.220
	(-2.438)**	(-13.50)***	(-2.628)**
Control Variable			
SIZE	-0.325	-0.257	-0.328
	(-3.724)***	(-2.796)**	(-3.779)***
Adj-ROA	-0.015	-0.011	-0.015
	(-1.852)*	(-1.333)	(-1.891)*
Lev	0.006	0.004	0.005
	(0.717)	(0.450)	(0.675)
Growth	-0.001	-0.001	-0.001
	(-0.046)	(-0.064)	(-0.045)
Tobin-Q	0.003	0.002	0.003
	(0.333)	(0.235)	(0.343)
Intersection	-3.654***	-2.734**	-3.709***
Adj. R2	0.182	0.093	0.193
Sample Size	2832	2832	2832

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

Table 8 Regressions on the Relationship between CSR and Earnings Quality of Central Government Controlled Enterprise

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Score	-0.310	-0.193	-0.327
	(-2.702)**	(-2.593)**	(-2.857)**
CSR Scores*CGCE	-0.014	-0.081	-0.048
	(-1.021)	(-1.113)	(-1.041)
Control Variable			
Size	-0.259	-0.188	-0.267
	(-3.049)**	(-2.095)**	(-3.145)***
Adj-ROA	0.004	-0.008	-0.013
_	(0.472)	(-1.024)	(-1.623)
Lev	0.005	0.003	0.005
	(0.619)	(0.346)	(0.583)
Growth	-0.001	-0.001	-0.001
	(-0.009)	(-0.027)	(-0.010)
Tobin-Q	0.002	0.002	0.002
	(0.288)	(0.188)	(0.302)
Intersection	-2.998**	-2.052**	-3.091***
Adj. R2	0.219	0.136	0.222
Sample Size	1511	1511	1511

T statistics in parentheses * p<0.1, ** p<0.05, *** p<0.01

Table 9 Regressions on the Relationship between CSR and Earnings Quality of Local Government Controlled Enterprise

Explained Variable	ABS-DA	IA-DA	ROA-DA
CSR Score	-0.319	-0.283	-0.310
	(-3.494)***	(-2.983)**	(-5.309)***
CSR Scores*LGCE	-0.050	-0.089	-0.044
	(-1.219)	(-1.321)	(-1.309)
Control Variable			
Size	-0.261	-0.185	-0.271
	(-3.074)***	(-2.068)**	(-3.192)***
Adj-ROA	-0.012	-0.008	-0.013
-	(-1.556)	(-1.024)	(-1.638)
Lev	0.005	0.003	0.005
	(0.619)	(0.346)	(0.593)
Growth	-0.001	-0.001	-0.001
	(-0.009)	(-0.027)	(-0.011)
Tobin-Q	0.002	0.002	0.002
	(0.288)	(0.188)	(0.303)
Intersection	3.021***	-2.062**	-2.059**
Adj. R2	0.221	0.139	0.223
Sample Size	3813	3813	3813
-			

T statistics in parentheses *p<0.1, **p<0.05, ***p<0.01

Table 10 Robust Test of the Relationship between CSR and Earnings Quality for Central Government Controlled Enterprise

Explained Var	ABS-DA	IA-DA	ROA-DA
CSR Dummy	-0.043	-0.040	-0.048
	(-4.128)***	(-3.686)***	(-4.553)***
CSR Dummy*CGCE	-0.002	-0.011	-0.001
	(-0.956)	(-1.011)	(-0.800)
Control Var			
Size	-0.389	-0.295	-0.396
	(-4.555)**	(-3.327)***	(-4.653)***
Adj-ROA	-0.018	-0.005	-0.018
	(-2.211)**	(-1.024)	(-2.273)**
Lev	0.007	0.005	-0.007
	(0.901)	(0.560)	(-0.872)
Growth	-0.001	-0.001	-0.001
	(-0.063)	(-0.073)	(-0.064)
Tobin-Q	0.003	0.002	0.003
	(0.382)	(0.265)	(0.395)
Intersection	-4.459***	-2.052**	-3.091***
Adj. R2	0.145	0.082	0.151
Sample Size	1511	1511	1511

T statistics in parentheses * p<0.1, ** p<0.05, *** p<0.01

Table 11 Robust Test of the Relationship between CSR and Earnings Quality for Local Government Controlled Enterprise

Explained Var	ABS-DA	IA-DA	ROA-DA
CSR Dummy	-0.030	-0.038	-0.030
	(-3.513)***	(-4.355)***	(-3.532)***
CSR Dummy*LGCE	-0.028	-0.050	-0.026
-	(-3.415)***	(-5.837)***	(-3.193)***
Control Var			
Size	-0.384	-0.286	-0.391
	(-4.500)**	(-3.204)***	(-4.549)***
Adj-ROA	-0.018	0.005	-0.018
_	(-2.170)**	(-1.504)	(-2.231)**
Lev	0.007	0.005	0.007
	(0.896)	(0.553)	(0.867)
Growth	-0.001	-0.001	-0.001
	(-0.053)	(-0.056)	(-0.054)
Tobin-Q	0.003	0.002	0.003
	(0.387)	(0.273)	(0.399)
Intersection	-4.136***	-2.913**	-3.091***
Adj. R2	0.145	0.083	0.150
Sample Size	3813	3813	3813
		1	

T statistics in parentheses * p<0.1. ** p<0.05. *** p<0.0