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# Ownership Reduction in State-Owned Enterprises and Corporate Social Responsibility: Perspective from Secondary Privatization in China

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**Abstract:** As an emerging economy, China modernized its economy via split-share structure reform. This reform changed the nature of ownership in state-owned enterprises (SOEs). Following this reform, we investigated the research question concerning how reductions in state ownership affect the corporate social responsibility (CSR) performance of listed firms. This study tests the hypotheses using data of Chinese listed firms between 2010 and 2015. Applying multiple regressions, we found a negative association between state reductions and CSR performance. We contribute to the existing literature by providing empirical evidence that those firms which reduce state holdings are not taking CSR activities seriously. Our study also sheds light on the worthiness and prominent status of large state owners of SOEs, as they are more likely to engage in social activities. This study provides fruitful implications for policy-makers and practitioners about state holdings, which may either hinder or enhance the corporate social performance.

**Keywords:** state ownership; state ownership reductions; stakeholder salience; corporate social responsibility (CSR) performance; China

## 1. Introduction

The Chinese economy is characterized differently from its Western counterparts because of its concentrated ownership structure [1]. The highly visible form of shareholders in Chinese listed firms involves state owners, and firms comprising largest state ownership are generally known as state-owned enterprises (SOEs) [2]. SOEs in China are more inclined to the demands of the institutional environment and stakeholders [3]. As documented, firms with high state ownership receive coercive pressures from political and government bodies [4], and also from regulatory agencies [5], although state-owned enterprises are difficult to monitor, control, and even determine to achieve any particular goal [6]. SOEs also respond to pressure received from other stakeholders, i.e., media and from society at large with respect to social involvement [6]. Moreover, the role of state shareholders is more emphasized in a way that leads to taking more interest in corporate social responsibilities (CSR) [7,8]. The stakeholder salience theory put forward by Mitchell et al. [9] also proposed that dominant state

shareholders may have a greater influence over a firm's strategic decisions, as firms normally react to powerful stakeholders. Therefore, SOEs were playing the main role in social stability before the economic reforms in China, as their primary objective was to work for social development [10]. However, the modernization of the Chinese economy changed the priorities and objectives of SOEs following secondary privatization. Thus, the main theme of this paper is an investigation of the effect of state ownership reductions on CSR performance after the split-share structure reform.

The economy of China emerged rapidly after economic reforms started in the mid-1980s [11]. Before economic reforms, the government was the controlling shareholder and planned all activities, but their financial system was very inefficient. Thus, to compete with the outside world, the Chinese government started transitioning toward market orientation and privatization by taking a significant step to open the Shanghai and Shenzhen stock exchanges in the early 1990s [12]. During this initial stage of reform, the stock market was characterized by a split-share structure, which divided shares into tradable and non-tradable shares. Due to restricted and non-tradable shares, the largest shareholders of state-owned enterprises have insufficient incentives to increase their firms' values in the stock market [13–15]. Thus, in early–mid-2005, the China Securities Regulatory Commission (CSRC) abolished the first stage of reform and inaugurated the second stage known as split-share structure reform [16]. This reform initiated secondary privatization that provided a unique opportunity for SOEs to trade formerly non-tradable shares [17]. Thus, the split-share structure reform converted all the state shares into tradable form. Since this reform, the Chinese government reduced state ownership by selling state shares to the public [18], as the state ownership ratio fell from 65.50% in 2006 to 35.28% in 2015 in the list of entrepreneurial sectors [19], (see Appendix A, which includes a list of industries in which SOEs reduced state ownership significantly).

After the split-share structure reform, state-owned firms faced a competitive environment [20], becoming more concerned about profit maximization [21], thus acquiring market mechanism [22]. Moreover, a firm with a reduced state ownership comparatively receives less pressure and is usually more autonomous from government agencies in China [6]. Moreover, both stages of reform liberalized the stakeholders and reduced direct government involvement in business activities [11]. Unlike Anglo-Saxon firms, where it is very rare to hold more than 10% shares, Chinese state owners hold large block holdings. However, now, the ownership structure is completely changed as the state shareholding ratio started to decline since 2006 [19,20]. Previous studies investigated the relationship of this change in state ownership with firm financial performance [1,18,23,24]. Therefore, in the spirit of these studies, the modernization in China's market and the state as an institutional factor [12] motivated us to fill the gap by investigating the relationship between reductions in state ownership and CSR performance.

This study contributes to the emerging literature of CSR in several ways. Firstly, its findings add to a strand of empirical literature exploring the association between the nature of state ownership and CSR performance. There is no such study which investigated how a reduction in state ownership influences CSR performance. In this regard, it adds value to the current literature by examining the link between the shift in SOEs and CSR performance. Secondly, in alignment with the stakeholder salience theory of Mitchell et al. [9], we investigate whether large state ownership improves a firm's CSR performance. Our study results support this theory and provide implications that large state shareholders provide a good pace for CSR in an organization, and that a reduction in state ownership hinders the CSR ratings. This study also tends to provide an important implication for the corporate sector that, after the shift in SOEs, firms need to look at strategies to maintain the status of CSR. For that purpose, firms have to adopt the policies of SOEs regarding CSR because they may have a different working environment. Moreover, our study contributes to the extending literature of corporate ownership in a way to consider CSR performance in the context of an emerging economy (China) where state ownership still plays a significant role. China as an emerging country provides an intriguing place for researchers because of its unique ownership structure and business environment. It was documented in prior management studies that emerging economies posit remarkable research pace for examining unique research phenomena to extend the literature [25,26].

We organized the rest of the paper in the following sections: this study highlights the literature and hypothesis development in the second section; the third section covers sample selection, variable descriptions, and model specification; results and discussion are mentioned in Section 4, while the conclusions are documented in the fifth section.

## 2. Literature and Hypothesis Development

In recent decades, corporations were more involved in corporate social activities beyond profit maximization due to increasing pressures from stakeholders on corporations to work for social and public interest [27]. Corporate social responsibility (CSR) is not only important for a firm's legitimacy, but also important for public social expectations [28–30]. Society does not only need products and services; they also want a transparent social system where businesses and corporations protect the public interest [3]. Thus, to protect the public interest and provide social benefits to the stakeholders, state-owned enterprises (SOEs) are the best form to fulfill social objectives [29], wherein the state holds significant ownership in SOEs [30]. Such SOEs consistently pressurize the firm's strategic management for keeping up social responsibilities regarding socially desirable goods and services [7,31].

### 2.1. State Ownership and CSR

With the growing nature of CSR literature, prior studies documented the link between state ownership and CSR performance and reached mixed findings. For instance, Dewenter and Malatesta [32] found empirical evidence using United States (US) firms, stating that a large shareholder in SOEs contributes well in CSR regarding mitigating unemployment issues. Maung et al. [2] also argued that SOEs maintain a good interface for employees and try creating employment opportunities for their stakeholders. Moreover, SOEs encourage their employees and provide jobs security and more facilities, i.e., training and development [33], which contributes in employee career development [34]. Some authors highlighted that SOEs receive significant financial support from government agencies due to state ownership [35–37] and this support encourages these firms toward CSR [38]. The Chinese government provides more subsidies to state owners [39,40] to address financial issues and, in return, requires that states use firms as an agent to participate in CSR activities [41–43]. Prior studies also revealed that government could control state-owned enterprises through direct interference in SOE management due to higher stakes [44]. Large state-owned firms can make an easy way for the government to implement policies that may enhance social stability [45,46]. Salient stakeholders may contribute in enhancing the quality of social life of a particular society [34]. Other authors also highlighted reasons for SOEs with regard to better performance. For instance, Zheng and Zhang [8] noted that firms with higher state ownership perform better in CSR activities because these firms are generally much larger in size. Moreover, the government may also use the state-controlled media for monitoring SOEs' contribution in society [47]. Similarly, Lau et al. [48] also documented that the media pays a lot of attention to the behavior of state-owned firms. Moreover, the government closely scrutinizes SOEs by taking support of political leaders, which pressurizes these firms to satisfy the social demands [49]. On the other hand, a few studies documented that a low level of CSR performance in state-owned firms also seems possible. Van der Zee [50] and Dam and Scholtens [51] stated about European firms that state owners show poor CSR performance due to conflicting goals among shareholders. Chun [52] examined Chinese firms and argued that state-owned firms have a poor performance regarding environmentalism and employee perceptions. Similarly, Zhang et al. [53] argued that firms with state ownership did not perform well in terms of donations after a disaster in China. However, we predict a positive association and, thus, we hypothesize the following:

**Hypothesis 1 (H1).** *Firms having high state ownership have a positive association with CSR performance.*

### 2.2. The Effect of State Ownership Reductions

Following the transition toward the modernization of Chinese SOEs, a significant reduction in state ownership was observed. In this context, few studies investigated the effect of state ownership after

SOE reform. Most of the studies highlighted their relationship with the firm's financial performance and uncovered mixed results, such as Jiang et al. [54], who reported that a reduction in state ownership does not create major principal-agent problems, and enhances firm performance. Tseng [55] used data for the years 2002 to 2008 and found a positive effect of the split-share structure reform regarding alleviating the agency problems among the shareholders. Although, Hess et al. [56] argued that firms having low state holdings might not outperform those with higher state holdings. Similarly, Yu [18] explored the linkage between the shift in state ownership and firm performance of nonfinancial Chinese listed firms during 2003–2010. He documented that state holdings decreased significantly after 2006, and that a highly concentrated state ownership is better than dispersed ownership because of political connections and government support. In the line of this string of literature, Liao et al. [20] investigated the pre and post-privatization effect of SOEs. They documented that SOEs faced a competitive environment after secondary privatization; thus, their focus was to increase their productivity and profitability because a competitive environment is a negative factor for business survival [57]. Conversely, Liu et al. [23] argued that a significant decrease in cash dividends occurred after the SOE reform. Importantly, the reductions in cash dividends were significantly related to the reduction in the largest shareholder's ownership.

However, the above logical reasoning concludes that previous researchers just focused on changes in state ownership after SOE reform and their influence on firm financial performance and efficiency. The reduction in state ownership also influences the firm's policies and priorities regarding the stakeholders' interest. Thus, the reduction in state ownership concentration may provide a good opportunity to investigate its effect on CSR performance. Hence, this study hypothesizes the following:

**Hypothesis 2 (H2).** *Firms that reduced state ownership are less likely to pursue CSR activities than firms that did not reduce state ownership.*

### 3. Methods

#### 3.1. Sample

Our study sample includes all A-share listed companies of the Shenzhen and Shanghai stock exchanges of China from 2010 to 2015. We considered 2010 as the starting point of our sample because a large set of listed companies in China got CSR ratings starting this year. We compiled all the data from both Chinese stock exchanges and from the company annual reports compiled by the Accounting Research database (CSMAR), an authentic and reliable source for collecting data regarding listed Chinese firms. We omitted those firms and years for which a variable's data were not available. Our final sample comprised an unbalanced panel of 10,809 firm-year observations.

#### 3.2. Measures

##### 3.2.1. Dependent Variable

We used CSR performance as a dependent variable measured through rating scores. The CSR rating scores for firms were provided by Rankins (RKS), which is an independent and specialized agency. CSR ratings were also used by previous studies of Zheng et al. [58] and Lau et al. [48]. The range of Rankins ratings is from 0 to 100. A higher rating score reflects how well the firm is contributing in the CSR domain.

##### 3.2.2. Independent Variables

Our main variable of interest was a reduction in state ownership. State ownership reduction was measured by making a dummy variable using 1 for companies which reduced their state ownership and 0 otherwise. State holdings were used with different perspectives in previous studies [6,23,43]. We also investigated state ownership measured as a percentage of shares held by the state owners to check the effect of total state holdings on CSR performance.

Following the prior studies of Dam and Scholtens [51], Li et al. [59], Di Giuli and Kostovetsky [60], and Lopatta et al. [61], we used several control variables to control the effect of other ownership and firm economic factors. These variables were as follows; board ownership, institutional ownership, return on assets, market performance of the firm (Tobin's Q), firm age, financial leverage, the growth of the firm, firm size, and growth opportunities. Also, we included the year and industry dummies to control for the effect of year and industry. Moreover, Table 1 reports descriptions of all variables.

**Table 1.** Descriptions of study variables. CSR—corporate social responsibility; SO—state ownership; ROA—return on assets.

Abbreviation	Details
(1) CSR Rating	CSR rating is used as a proxy for CSR performance measured as scores (1 to 100) given by a Rankins agency to a particular firm in a particular year.
(2) SO Reduction	SO Reduction indicates state ownership reduction measured as a dummy variable which is equal to 1 if there is a reduction in the state ownership and 0 otherwise.
(3) StateOwn	StateOwn indicates state ownership measured as the percentage of shares held by the state.
(4) BoardOwn	BoardOwn represents board ownership which is the proportion of shares owned by board members.
(5) InstOwn	InstOwn indicates institutional ownership calculated as shares owned by institutions divided by total shares of the firm.
(6) ROA	ROA indicates return on assets measured as net profit divided by total assets
(7) Tobin's Q	This is a market measure of performance calculated as the market value of the firm divided by total assets.
(8) Firm Age	Firm age represents the number of years the company has been listed on the stock exchange.
(9) Size	This shows firm size calculated as a natural log of total assets.
(10) Growth	Growth of the firm is measured as the change in total assets.
(11) Leverage	Leverage is calculated as total debt divided by total assets.
(12) GrowthOpp	GrowthOpp indicates growth opportunity and is measured as the book value divided by the market value of shareholder equity.
Year and Industry dummies	To control the effect of year and industry, we included year and industry dummies in all regressions.

### 3.3. Descriptive Statistics and Correlation

Table 2 provides the descriptive statistics about CSR, state ownership, and other variables. Table 2 shows that, on average, Chinese firms get 28.71% scores that reflect their CSR performance. Similarly, the descriptive statistics show that our sample consists of 49% of firms where the government has the majority of shares. Table 2 also reports the statistics for state ownership and state ownership reduction, which indicate that, on average, the state holds 18% shares in a firm and that 10% of SOEs reduced their state ownership. We also include board shareholding and institutional shareholding in our study due to the concentrated mixed ownership structure of Chinese listed firms [1,62]. Table 2 shows that the averages of board shareholding and institutional shareholding in Chinese firms are 10% and 6.80%, respectively. Table 3 presents the pairwise correlation among the estimated variables. The correlation results for all the study variables remained less than 0.60, showing that there was no strong correlation among independent variables. Additionally, there was no serious multicollinearity issue due to sufficiently independent relationships among all of the variables.

**Table 2.** Descriptive statistics.

Variable	Mean	SD	Minimum	Maximum
CSR Rating	28.711	19.439	−15.2	90.84
StateOwn	18.554	22.541	0	89.09
SO Reduction	0.1	0.3	0	1
BoardOwn	0.1	0.184	0	0.892
InstOwn	6.8	9.482	0.04	87.89
ROA	0.038	0.526	−48.316	22.005
Tobin's Q	2.698	26.485	0.065	2354.72
Firm Age	10.659	6.292	1	26
Size	3.092	0.059	2.622	3.35
Growth	0.805	1.896	−12.806	64.697
Leverage	0.461	0.566	0.007	46.159
GrowthOpp	0.964	1.023	0	15.473

**Table 3.** Correlation.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1) CSR Rating	1.000											
(2) StateOwn	0.186 *	1.000										
(3) SO Reduction	−0.021 *	0.254 *	1.000									
(4) BoardOwn	−0.074 *	−0.438 *	−0.172 *	1.000								
(5) InstOwn	0.113 *	0.110 *	0.073 *	−0.085 *	1.000							
(6) ROA	0.055 *	−0.005	−0.005	0.018	0.026 *	1.000						
(7) Tobin's Q	−0.030 *	−0.036 *	−0.011	0.008	−0.001	−0.068 *	1.000					
(8) Firm Age	0.029 *	0.334 *	0.145 *	−0.548 *	0.082 *	−0.022 *	0.002	1.000				
(9) Size	0.387 *	0.434 *	0.133 *	−0.284 *	0.088 *	0.029 *	−0.162 *	0.245 *	1.000			
(10) Growth	0.033 *	−0.058 *	0.033 *	0.064 *	0.036 *	0.063 *	0.087 *	−0.052 *	0.054 *	1.000		
(11) Leverage	−0.030 *	0.095 *	0.034 *	−0.150 *	−0.001	−0.438 *	0.243 *	0.178 *	0.091 *	−0.031 *	1.000	
(12) GrowthOpp	0.172 *	0.316 *	0.037 *	−0.235 *	−0.010	−0.021 *	−0.059 *	0.221 *	0.514 *	−0.031 *	0.194 *	1.000

\* Significance at the 0.05 level.

### 3.4. Model Specification

We used multiple regression models to test the relationship of state ownership and state ownership reduction with CSR. This study further applied robustness tests to address major endogeneity issues. Specifically, one-year lagged ordinary least squares (OLS) measures, and two-stage least squares (2-SLS) regression methods were also applied to validate the original findings of this study.

Our study tests the following regression model:

$$CSR_{it} = \alpha + \beta_1 StateOwn_{it} + \beta_2 SO\ Reduction_{it} + \sum_{i=1}^n \beta_n Controls_{it} + \varepsilon_{it}. \quad (1)$$

In the above statistical model, CSR indicates CSR ratings, which are used to measure CSR performance. StateOwn indicates state ownership, and SO Reduction denotes state ownership reduction. Controls refer to other variables considered in this study to estimate their effect. For descriptions, see Table 1.

## 4. Findings

### 4.1. Results and Discussion

Here, we document the estimation results for the two different natures of state holdings and their relationship with CSR. We used state ownership and state ownership reduction as independent variables in our regression model.

The estimation results of Model 1 to Model 4 are reported in Table 4. Model 1 highlights the result of state ownership effect on CSR ratings. The results show the positive and significant association ( $t = 2.77, p < 0.01$ ) of state ownership with CSR, confirming Hypothesis 1. Regarding H1, we argued that

state owners actively participate in social activities, which boosts the firm's social ratings. Prior studies also support the estimation result (see Chang et al. [45], Liu and Zhang [46]). This result also supports the notion of stakeholder salience theory, which posits that states as large shareholders have a strong and significant influence over the firm's management [27], and large state owners maintain more pressure on firm management to pursue social goals [63]. Model 2 in Table 4 reveals the estimation result regarding our main hypothesis (H2). The coefficient of state ownership reduction indicated a negative and significant relationship with CSR performance ( $t = -2.10, p < 0.05$ ). Our estimation results also confirmed the second hypothesis (H2), which suggests that a reduction in state ownership leads to a reduction in CSR ratings. Unlike firms having large state ownership, firms with low state ownership are more concerned about financial performance [22], and are usually free from government control [6], which could be possible reasons to have weaker CSR performance. Moreover, we applied Model 3 and checked H1 and H2 collectively. H1 was positive and significant ( $t = 3.19, p < 0.01$ ) and H2 was negative and significant (at  $t = -2.62, p < 0.01$ ). These findings are in line with Model 1 and Model 2. In Model 4, we considered only those state-owned enterprises where the state was the ultimate owner, and checked H2. The findings of Model 4 show that state ownership reduction remained negative (at  $t = -1.83, p < 0.10$ ). The findings of Model 3 and 4 are also in alignment with the concept of stakeholder salience theory and institutional theory. These theories support SOE hypotheses that high state ownership shows superior social performance due to power, legitimacy, and normative pressure from state councils. When the proportion of state ownership decreases, then a firm's urgency and involvement becomes limited, which in turn moves the firm's priorities away from social objectives [20].

**Table 4.** Influence of state ownership reduction on CSR performance (multiple regression).

CSR Rating	Model 1	Model 2	Model 3	Model 4
StateOwn (H1)	0.025 *** (2.77)	—	0.030 *** (3.19)	—
SO Reduction * (H2)	—	-1.162 ** (-2.10)	-1.475 *** (-2.62)	-1.194 * (-1.83)
BoardOwn	3.983 *** (3.490)	3.005 *** (2.70)	3.838 *** (3.36)	-17.899 (-1.23)
InstOwn	0.118 *** (6.76)	0.123 *** (7.50)	0.120 *** (6.84)	0.087 *** (3.98)
ROA	-0.466 (-0.97)	-0.497 (-1.03)	-0.467 (-0.97)	8.372 *** (3.80)
Tobin's Q	0.048 *** (7.20)	0.048 *** (7.28)	0.047 *** (7.18)	1.552 *** (8.65)
Firm Age	-0.123 *** (-3.65)	-0.108 *** (-3.24)	-0.119 *** (-3.54)	-0.175 *** (-3.25)
Size	175.380 *** (43.92)	178.762 *** (46.01)	175.773 *** (44.00)	206.207 *** (832.93)
Growth	-0.177 ** (-2.02)	-0.189 ** (-2.16)	-0.167 * (-1.90)	-0.304 ** (-2.12)
Leverage	-2.000 *** (-4.18)	-2.028 *** (-4.24)	-1.993 *** (-4.17)	-9.193 *** (-7.27)
Growthopp	-3.151 *** (-13.52)	-3.163 *** (-13.55)	-3.180 *** (-13.63)	-2.459 *** (-7.84)
Year and industry variables	Included	Included	Included	Included
Constant	-514.132 *** (-42.07)	-523.873 *** (-43.93)	-515.257 *** (-42.15)	-613.315 *** (-31.64)
Adjusted R <sup>2</sup>	0.263	0.262	0.265	0.330

Note: Table 4 presents results for Hypotheses 1 and 2 (H1 and H2). \* State ownership reduction. *T*-statistics are mentioned in parentheses. \*\*\*, \*\*, \* show significance levels at 0.01, 0.05, and 0.10, respectively.

The results of other control variables in regression models (Table 4) show that all the variables had a significant relationship with CSR except return on assets (ROA). These findings for control variables

are also consistent with previous studies [51,61]. Among other control variables, board ownership, institutional ownership, firm size, and Tobin's Q had a positive relationship with CSR. We argue that an increase in board and institutional ownership, and a larger firm size with increasing firm value lead to increases in CSR performance, as consistent with previous findings [64–68]. On the other hand, firm age, firm growth, leverage, and firm growth opportunities had a negative and significant relationship and did not contribute to the improvement of CSR performance. In Model 4, all control variables had significant effects except board ownership, which showed no relationship with CSR. These results are also in line with previous studies [61,69].

#### 4.2. Robustness

Our study reports a negative and significant association between the reduction in state ownership and CSR performance. However, we did further robustness estimations to confirm this relationship, as endogeneity problems exist in such studies due to omitted factors. To address the potential endogeneity issue, we followed Dam and Scholtens [51] and Lopatta et al. [61] to investigate whether a change in ownership reduction affected the firm's CSR performance. For this purpose, we isolated our sample and considered 5%, 10%, and 50% reduction levels in state ownership, as reported in Table 5.

**Table 5.** Endogeneity test of relationship between state ownership reduction and CSR performance.

CSR Rating	Model 1	Model 2	Model 3
SO Reduction * (5%)	−2.465 *** (−3.53)	—	—
SO Reduction (10%)	—	−3.093 *** (−3.69)	—
SO Reduction (50%)	—	—	−3.391 * (−1.90)
Control, year, and industry variables	Included	Included	included
Adjusted R <sup>2</sup>	0.264	0.264	0.263

Note: Table 5 presents results for our main hypothesis H2. \* State ownership reduction; 5% means firms which reduced 5% state ownership or more, 10% indicates firms which reduced 10% state ownership or more, and 50% means firms reduced 50% state ownership or more. *T*-statistics are mentioned in parentheses. \*\*\*, \*\*, \* show significance levels at 0.01, 0.05, and 0.10, respectively.

In Table 5, Model 1 to Model 3, the coefficients of state ownership reduction remained negative and significant and consistent with the previous results of Table 4. The estimation results further confirmed that the magnitude of the coefficients of these three levels of reduction had significant differences. The beta ( $\beta$ ) values of these reduction levels (5%, 10%, 50%) were  $-2.465^{***}$ ,  $-3.093^{***}$ , and  $-3.391^*$ , respectively. This suggests that firms reducing a large proportion of state ownership were associated with lower CSR performance with a greater magnitude as compared to their counterparts.

Furthermore, we applied one-year lagged ownership reduction estimation in our main regression because the reduction in state ownership may not have abruptly disturbed SOE social goals. In Table 6, Model 1 to Model 4 reveal one-year lagged estimations of state ownership reduction. The coefficients of state ownership reduction remained negative and significant in all four models. These estimated findings are in line with the previous results as shown in the regression models in Tables 4 and 5.

We also applied instrumental variable estimation to identify endogeneity issues as used by previous studies [11,19]. We applied our basic equation of study through a two-stage least squares (2-SLS) estimation method. For 2-SLS regression, we need to use conditional instrumental factors which must be correlated with the independent variable and must not be correlated with the dependent variable. In our study, the instrumental variable had to correlate with state ownership reduction. To follow Dam and Scholtens [51], we used a lag of ownership reduction and also considered the industry average as instrumental variables.

In Table 6, Model 5 presents estimation results of 2-SLS regression and denotes that state ownership reduction was again negative and significant ( $t = -3.13, p < 0.01$ ), consistent with the previous findings.

**Table 6.** Influence of state ownership reduction on CSR performance using one-year lagged measures and a two-stage least squares (2-SLS) regression method.

CSR Rating	Model 1	Model 2	Model 3	Model 4	Model 5 (2-SLS)
SO Reduction (one-year lagged)	−2.378 *** (−3.44)	—	—	—	−13.83 *** (−3.13)
SO Reduction (one-year lagged 5%)	—	−3.084 *** (−3.57)	—	—	—
SO Reduction (one-year lagged 10%)	—	—	−3.494 *** (−3.40)	—	—
SO Reduction (one-year lagged 50%)	—	—	—	−4.352 ** (−2.04)	—
Control, year, and industry variables	Included	included	Included	included	Included
Adjusted R <sup>2</sup>	0.259	0.266	0.260	0.262	0.225

Note: Table 6 presents results for our main hypothesis H2. \* State ownership reduction; 5% means firms which reduced 5% state ownership or more, 10% indicates firms which reduced 10% state ownership or more, and 50% means firms reduced 50% state ownership or more. *T*-statistics are mentioned in parentheses. \*\*\*, \*\*, \* show significance levels at 0.01, 0.05, and 0.10, respectively.

## 5. Concluding Remarks

An institutional change in the world's second largest emerging economy (China) provides a natural setting for research and enabled us to explore how a change in SOE ownership affects a firm's social behavior. Given increased attention by the scholars in the field of CSR in the context of China, several studies investigated the economic performance of state-owned enterprises after SOE reform and ownership reduction (e.g., References [1,18,23,24]). Beyond these studies, we investigated whether the reduction in state ownership affected the CSR performance of Chinese listed companies by using multiple regression estimations. Our results suggest that firms which reduced state ownership pay less attention to CSR than firms which did not reduce state ownership. We also applied further robustness tests to validate the study findings and found a consistent result for our main hypothesis.

Moreover, the findings of our study are in alignment with the stakeholder salience theory [9], which concludes that, if government as a specific stakeholder attributes power and legitimacy by holding high state ownership, then it will have a greater influence on the firm's management to pursue social goals. Similarly, in accordance with this theory, if the government reduces state ownership in SOEs, then their supervision and influence on the firm's management will also decrease and, thus, such firms do not account for CSR heavily. The literature reveals that fully privately owned firms have a lack of CSR sense and are more concentrated on making money, taking CSR activities as a cost rather than an ethical obligation; moreover, these firms receive less attention and supervision from the government [8,59]. Thus, we can link our results with these prior studies in a way that, when SOEs reduce state ownership and lead toward privatization, then their priorities will change and they will pursue economic goals rather than social goals.

Our study provides significant implication for firms and policy-makers by showing the circumstances for when SOEs reduce state ownership, suggesting that it negatively affects the firm's CSR performance. Therefore, firms should maintain state ownership and adopt the policies of concentrated state-owned enterprises to improve CSR performance. As the government supports such firms in the form of providing financial assistance that enhances their financial performance, this may improve the CSR performance of state-owned enterprises [38,70,71]. Our study also provides important implications for firms reducing state ownership, whereby these firms may face less pressure from the media, public, and the government [20]. Therefore, most of these firms may focus more on profit maximization. Thus, this situation can create an opportunity for firms to develop a distinctive image in the market by focusing on CSR activities. Also, our findings extend new insight to the literature into how institutional factors within a country (i.e., state ownership reduction in China) influence the social behavior of listed firms.

Similar to other studies, this study also had some limitations that provide future research directions. Firstly, our study considered only the CSR performance of Chinese listed firms; thus, there is an opportunity for future studies to examine the effect of state ownership reduction on earnings management and the misconduct of firms. Secondly, we used data from an emerging economy (China); thus, our study findings may not generalize globally, where proposed hypotheses should be analyzed further. Moreover, our study investigated only one institutional factor that leads CSR performance toward declining. Future research may also investigate other institutional factors that lead to a decline in CSR performance, which will help the policy-makers and regulators to overcome those issues.

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## Appendix A

**Table A1.** List of entrepreneurial sectors with reduced state ownership.

1	Agriculture/forestry/stock raising/fishery	19	Manufacturing motors
2	Communication/cultural	20	Manufacturing non-ferrous metal smelting and rolling processing
3	Conglomerate	21	Manufacturing non-metal minerals
4	Construction	22	Manufacturing paper
5	Education	23	Manufacturing petrochemicals
6	Electricity/gas/water (utilities)	24	Manufacturing railway, ship, aerospace, and other transportation equipment
7	Hotels and catering	25	Manufacturing rubber and plastic products
8	Leasing	26	Manufacturing special equipment
9	Manufacturing chemical raw materials and chemical products	27	Manufacturing textiles
10	Manufacturing computer communication and other electronic equipment	28	Manufacturing wood processing and wood, bamboo, rattan, and brown grass products
11	Manufacturing electronics	29	Manufacturing farm and sideline food processing
12	Manufacturing ferrous metal smelting and rolling processing	30	Manufacturing wine and beverage and refined tea
13	Manufacturing food	31	Mining
14	Manufacturing furniture	32	Real estate
15	Manufacturing general equipment	33	Social service
16	Manufacturing instruments	34	Transportation/storage
17	Manufacturing medicine	35	Wholesale/retail trade
18	Manufacturing metals		

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