

## Article

# The Effectiveness of Internal Control and Corporate Social Responsibility: Evidence from Chinese Capital Market

Xiao Li, Chunmei Zheng \*, Gang Liu \* and Muhammad Safdar Sial

Economics and Management School of Wuhan University, Wuhan 430072, China; xiaoli78@aliyun.com (X.L.); safdar.sial786@gmail.com (M.S.S.)

\* Correspondence: meiz6523@whu.edu.cn (C.Z.); lgxueshu@126.com (G.L.)

Received: 10 September 2018; Accepted: 30 October 2018; Published: 1 November 2018



**Abstract:** From the perspective of the effectiveness of internal control, according to the Stakeholder Theory, Principal-Agent Theory and Reputation Theory, this paper analyzes comparatively the influences of internal control on the assumption of corporate social responsibility (SCPS) from the accrual basis, and the fulfillment of corporate social responsibility (CSRF) from the cash flow system respectively. Using a sample of 1767 firms listed in China between 2011 and 2016, we find that effective internal control has significantly promoted enterprises to assume social responsibilities. Meanwhile, effective internal control substantially improves the fulfillment of corporate social responsibility. This study overcomes the current situation that the two concepts of assumption and fulfillment of corporate social responsibility have not been distinguished in previous literature. We suggest that, in the economic transition period, the positive role of internal control in corporate governance should be promoted to protect the legitimate rights and interests of stakeholders; the adverse impact of the principal-agent relationship between shareholders and management on corporate governance should be avoided, building high-quality internal control; enterprises achieve steady and sustainable development process by the positive reputation value and robust external monitoring mechanism. This research is of practical importance to strengthen the subsequent construction of the internal control system and the long-term practice of corporate social responsibility.

**Keywords:** corporate social responsibility (CSR); assumption; fulfillment; rights and interests; sustainable development; control; comparatively

## 1. Introduction

In recent years, Chinese enterprises are accelerating the construction of internal control systems to achieve their sustainable development. The structure of internal control involves various aspects of production and operation, which is a complex system engineering. Enterprises design, and execute, internal control according to laws and regulations to ensure the authenticity and reliability of financial reports and achieve operational efficiency and effectiveness. The construction and implementation of internal control is a significant strategic move of modern enterprises and has become an important mechanism design to solve the principal-agent problem.

Enterprise management has more discretion in choosing accounting estimation methods [1]. Without the restriction of formal policies and procedures, it is difficult to guarantee the reliability of the company's external disclosure of financial reports, which will have a negative impact on the protection of stakeholders' rights and interests. Enterprise goals can be divided into economic goals and non-economic goals. Economic goals are undoubtedly the primary goal, while social responsibility is the spillover effect of pursuing the primary goal [2]. For state-owned enterprises,

corporate social responsibility is a specific, mandatory and legal goal and responsibility. Social responsibility includes both non-economic goals and economic goals. In 2008, China State-Owned Assets Supervision and Administration Commission of the State Council issued the “Guiding Opinions on the Implementation of Social Responsibility by Central enterprises,” which called for integrating the concept and requirements of social responsibility into the development strategy of central enterprises [3]. Where central enterprises are those enterprises that dominate in major industries and key areas that are vital to national security and the lifeblood of the national economy. Central enterprises are an important pillar of the national economy.

As the basic link between corporate governance and social governance, corporate social responsibility is a good combination of economic and social goals. From the perspective of the relationship between private cost and social cost, while pursuing their development, enterprises have obvious “external effects.” The more prominent positive external effect and the practice of creating positive benefits are charity activities [4]. This not only belongs to the category of corporate social responsibility, but also mitigates the adverse effects of some acute social contradictions. However, the absence of corporate social responsibility means that stakeholders are “absent” in the contractual relationship, and their contractual demands cannot be satisfied with. Some large enterprises at home and abroad have been discredited due to the loss of social responsibility concept and internal control defects, and the lessons of the spectacular collapse are extremely shocking [5]. To improve the performance level of corporate social responsibility, the relevant institutional environment should be improved to provide effective external constraints and internal dynamic mechanism [6].

The Ministry of Finance of the People’s Republic of China and the other four Ministries issued the “Guidelines on Application of Internal Control in Enterprises” on 15 April, 2010 [7]. Where, in the article 1 of the “Application Guideline No.4 of Enterprise Internal Control—Social Responsibility”, it is specified that “in order to promote enterprises to fulfill their social responsibilities and realize the coordinated developments of enterprises and society, this guideline is formulated in accordance with relevant national laws and regulations and the ‘Basic Norms of Internal Control’.” In the article 2 of this guideline, it is explicitly mentioned that “the social responsibility as referred to in this guideline refers to the social responsibilities and obligations that an enterprise should fulfill in its business development.” Corporate social responsibility should be taken as the content of internal control and the link between corporate social responsibility, and internal control should be strengthened. Then, does internal control play a positive role in the practice of corporate social responsibility?

However, the existing literature often only analyzes the assumption of corporate social responsibility based on the accrual basis [8–10], or analyzes the fulfillment of corporate social responsibility from the cash flow system only [11,12]. Based on the research motivation of comprehensively evaluating the practice of corporate social responsibility, from the perspective of internal control effectiveness, this paper analyzes, comparatively, the influences of internal control on the assumption of corporate social responsibility from the accrual basis, and the fulfillment of corporate social responsibility from the cash flow system respectively. Figure 1 shows the research train of thought. Through the study, it is expected to overcome the status quo that the two concepts of the assumption of corporate social responsibility and the fulfillment of corporate social responsibility that, in previous literature, are not differentiated [4,6,13]. We hope to enrich the achievements of the existing literature, to strengthen the in-depth construction of enterprises’ internal control system and to strengthen the practice of enterprises’ social responsibility.

The remainder of this paper is organized as follows: Section 2 presents the literature review, theoretical basis, and research hypothesis; Section 3 presents the data source, variable definition, and model setting; Section 4 discusses the descriptive statistics and correlation among variables; Section 5 presents the model regression analysis; Section 6 develops the caution test; Section 7 concludes the study. This paper clarifies the mechanism of internal control on corporate social responsibility practice and provides empirical evidence for “normalizing” the corporate social responsibility practice and weakening the corporate social responsibility risk.

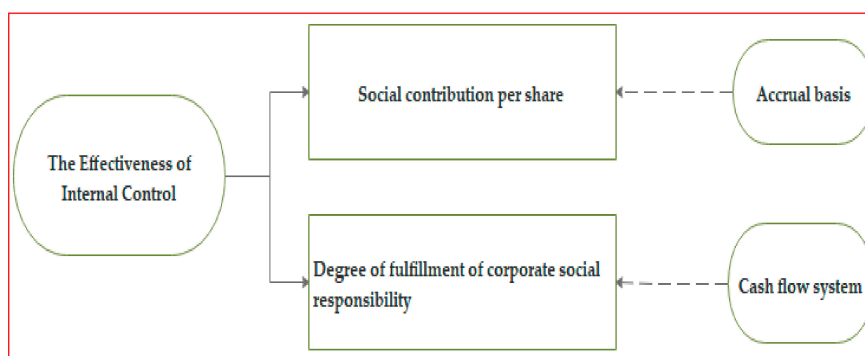


Figure 1. The research train of thought.

## 2. Literature Review, Theoretical Basis, and Research Hypothesis

The concept of corporate social responsibility is an objective requirement for the development of human society. As a means of social development for powerful resource accumulation and utilization, enterprises have significantly improved the level of social welfare and realized positive externalities in the process of realizing their utility. According to the Stakeholder Theory, an enterprise is a “set of contracts” concluded by stakeholders [14], and stakeholders have invested necessary resources into the enterprise. In essence, corporate social responsibility embodies the contractual demands of stakeholders [15]. There is a natural fit between corporate social responsibility and stakeholders [16]. Specifically, corporate social responsibility refers to the responsibilities that an enterprise should fulfill to creditors, suppliers, governments, employees, customers, communities and other stakeholders, as well as the environment, while bearing the necessary economic responsibilities to shareholders [13].

### 2.1. The Effectiveness of Internal Control and the Assumption of Social Responsibility

Smith’s moral philosophy holds that while pursuing entrepreneurs’ profits, enterprises should combine their interests with employees’ health and social progress, which is the earliest exploration of the practice of corporate social responsibility. The goal of corporate governance develops from the maximization of profit to the maximization of shareholder equity, and then to the maximization of stakeholders’ benefit. The Stakeholder Theory reasonably integrates enterprises’ interests and social effects and emphasizes that enterprises should take similar responsibilities for employees, consumers, communities and regional economic development while improving enterprise value [17,18]. When the level of internal governance is relatively high, and power supervision and balances between the governance and the management are in place, the enterprise will assume full social responsibility. Internal control optimizes the efficiency of capital allocation and promotes the sustainable development of enterprises. However, the main risk to internal control is the risk of fraud. The loss of control of social responsibility risk will seriously delay the sustainable development of enterprises [19]. Social responsibility risk broadens the risk boundary of enterprises and intensifies the risk level of enterprises.

Companies should control the risk of major behaviors that deviate from their goals. The significance of undertaking social responsibility lies in its breakthrough of the governance model of shareholder supremacy. Based on the internal control system, enterprises should reshape the governance structure and build a governance mechanism that promotes enterprises to assume social responsibility. Internal control reasonably guarantees the efficiency of business activities, reliability of financial reports and compliance with laws and regulations, and alleviates the conflict of interest caused by the unbalance of the governance structure. Furthermore, internal control makes up for the lack of corporate social responsibility and plays an active role in regulating the quality of social responsibility information disclosure. In the “Application Guideline No.4 of Enterprise Internal Control—Social Responsibility” it has clarified the internal control requirements for corporate social responsibility. As a strategic move, enterprises can change the perceptions of stakeholders while assuming the corresponding social responsibilities. The strategic purposes of social

responsibility practice cover the change of stakeholders' expectations on performance, the transmission of signals of performance improvement, and the diversion of social attention to enterprises [20,21]. Internal control effectively controls the risk of social responsibility, safeguards the legitimate rights and interests of stakeholders, and promotes the successful realization of the strategic goal of social responsibility practice.

In summary, as a system of enterprise risk management and control, when internal control is effective, it can prevent improper behaviors that damage corporate reputation and image, avoid adverse events that damage social responsibility practice, and thus improve corporate social responsibility performance. The goal of internal control is in line with the stakeholders' demands for rights and interests, and it can enhance the value of corporate social responsibility practice. Therefore, the effective internal control will promote enterprises to assume their due social responsibilities.

Based on the above analysis, the following research hypothesis is proposed.

**Hypothesis 1.** The effective internal control can significantly promote enterprises to assume their due corporate social responsibility.

## 2.2. *The Effectiveness of Internal Control and the Fulfillment of Corporate Social Responsibility*

Enterprises should make decisions by giving full consideration to the interests of stakeholders and fulfill the expectations and requirements of different groups by fulfilling their social responsibilities. The practice of social development shows that the fulfillment of social responsibility is the basic requirement for enterprises to survive and develop. Due to the historical and contemporary characteristics of society itself, the concept of corporate social responsibility is continuously enriched, and the institutional environment has an impact on corporate social responsibility. From the perspective of Stakeholder Theory, the conflict between economic responsibility and social responsibility is alleviated, and the goals of corporate governance and social governance are organically integrated. While fulfilling their social responsibilities, the company also conveys information such as abiding by the law and good business performance to the public.

Corporate social responsibility practice delivers the signal of contract performance to stakeholders, minimizes agency costs and weakens the risk that the existing management is replaced by stakeholders [22]. When enterprises disclose social responsibility information, they can obtain low-interest loans with a longer term. The higher the quality of corporate information disclosure, the lower the financing constraints enterprises face [23,24]. In the process of corporate governance, the allocation of responsibilities, rights, and interests should not be limited traditionally but should reflect the content of social responsibility practice. The corresponding mechanism should be designed to ensure the fulfillment of more responsibilities in environmental protection, sustainable development, community and employees. Through the effective fulfillment of social responsibilities, enterprises can send positive signals to the capital market, gain a good organizational reputation and sustainable competitive advantage. The enterprise's social capital can be accumulated, from which the strategic concept of social responsibility is formed.

Internal control is closely related to the fulfillment of corporate social responsibility [25,26]. It is an important function of internal control to supervise the fulfillment of corporate social responsibility and maintain the legitimate rights and interests of stakeholders [19,27]. The practice of corporate social responsibility is not to increase the burden on itself, but to change the traditional thinking mode and take the new paradigm as the driving force to ensure the sustainable long-term benefits for enterprises. In the "Application Guideline No.4 of Enterprise Internal Control—Social Responsibility", it is pointed out that strengthening enterprises to fulfill social responsibility belongs to the functional category of internal control. Internal control ensures the realization of enterprise development strategy. The realization of strategic goals must be based on the fulfillment of social responsibility. A series of control activities carried out to achieve the strategic objectives of internal control belong to the strategic management behavior of enterprises [28,29]. Therefore, the more effective the internal control operation is, the higher the strategic management level of the enterprise is, indicating the better fulfillment degree of corporate social responsibility.

Based on the above logic, we propose the following second hypothesis.

**Hypothesis 2.** The effective internal control significantly improves the degree of fulfillment of corporate social responsibility.

### 3. Data Source, Variable Definition and Model Setting

#### 3.1. Data Source

Referring to the research designs of Zhang et al. (2014) [9] and Kim et al. (2018) [30], we adopted the annual data from the China Stock Exchange Database and Wind Database. The listed companies on Chinese Stock Markets between 2011 and 2016 were selected as the research sample. Specifically, we removed the financial firms because their accounting schemes are different from that of firms in other industries; we removed the sample firms that are financially abnormal (ST); additionally, we deleted firm-year observations with missing values. Our final sample consisted of 10,284 firm-year observations and represents 1767 firms listed on Chinese Stock Markets. On this basis, the continuous variables were winsorized with two-way 1% quantiles, to avoid the adverse effects of abnormal observations on the analyses. To conduct the regression analyses, we used the STATA 14.2 software package.

#### 3.2. Variable Definition

##### 3.2.1. Interpreted Variables

(1) The level of corporate social responsibility assumed. Based on the authoritative and universal consideration of indicators, we refer to the studies of Zhang et al. (2014) [9], Chen et al. (2015) [10] and Fan et al. (2014) [31], and use the “social contribution value per share” as the indicator of corporate social responsibility assumed. This indicator is defined in the “Notice on Strengthening the Social Responsibility of Listed Companies” issued by the Shanghai Stock Exchange in 2008. When the index is relatively higher, it indicates that enterprises have assumed social responsibilities better. Social contribution per share (SCPS) is determined as Equation (1).

$$\text{SCPS} = X/Y \quad (1)$$

For Equation (1),  $X = X1 + X2 + X3 + X4 + X5 - X6 + X7 + X8 - X9$ . The meanings of  $X1 \sim X5, X7 \sim X8$  are Net profit, Income tax expense, Business tax and surcharges, Cash paid to and for employees, Current wages payable to employees, Financial expense and donation respectively. The meanings of  $X6$  and  $X9$  are Salary payable to employees in the previous period, Sewage charge and cleaning charge respectively. Additionally,  $Y$  represents the average number of shares at the beginning and end of the period. Among them, the data related to “donation” are manually collected and obtained from the detailed items of “Non-operating expenses” in the notes to the income statement; the data related to “Sewage charge and cleaning charge” are collected manually from the detailed items of “Administrative costs” in the notes to the income statement.

(2) The degree of fulfillment of corporate social responsibility. Given the true social responsibility of a company to its stakeholders, it is reflected in the actual cash paid to stakeholders under the given income conditions. Enterprises should change from accrual basis to a cash flow system to examine their social responsibility performance [12]. Therefore, we refer to the research results of Li et al. (2010) [32], Zhang and Liang (2012) [33], and take the ratio of cash flow paid from an enterprise for shareholders, creditors, employees, customers, consumers, suppliers, communities and other stakeholders to the average number of shares at the beginning and end of the year as the degree of fulfillment of corporate social responsibility (CSRF). CSRF is determined as Equation (2).

$$\text{CSRF} = Z/Y \quad (2)$$



For Equation (2),  $Z = Z1 + Z2 + Z3 + Z4 + Z5 + Z6$ . The meanings of  $Z1 \sim Z6$  are Cash paid for distributing dividends or profits, Operating expenses, Cash paid for interest, Cash paid to and for employees, Cash paid for goods and services and Cash paid in taxes and fees respectively. In particular,  $Z2$  refers to the operating expenses paid in cash in the current period.  $Y$  represents the average number of shares at the beginning and end of the period.

### 3.2.2. Explanatory Variable

The effectiveness of internal control not only includes the effectiveness of internal control to prevent, detect and correct major misstatements in financial statements, but also includes the effectiveness of restraining executive behaviors to reduce agency costs [34]. As an independent third party, Shenzhen DIB Risk Management Technology Co., Ltd. (DIB) published the “Internal Control Index of Chinese Listed Companies” for the first time, which largely guarantees the objectivity of the data. Since the release of the “Internal Control Index of Chinese Listed Companies” in 2011, it has been widely adopted by the academic and practical circles. Therefore, for the explanatory variable—internal control effectiveness (IC)—the “Internal Control Index of Chinese Listed Companies” was adapted to measure the operating effectiveness of the sample enterprises’ internal control. The higher the internal control index, the more effective the internal control.

### 3.2.3. Controlled Variables

Regarding the selection of controlled variables, we consider that the degree of equity concentration will affect the principal-agent relationship between stakeholders, which determines the distribution of control rights of listed companies [35]. Based on self-interests, major shareholders may strengthen the restraint on senior executives or have “collusion” with them [36]. Therefore, this paper takes the ownership concentration (SHRCR) as a variable to evaluate its possible influence on corporate social responsibility practice. In the process of enterprise operation, management as a trustee receives the supervision of the board of directors. When the chairman concurrently serves as the general manager, the management team has the decision-making power, the executive power, and the supervision power. The management team’s power is in the core position, and it is easy to cause absolute power and lose the supervision and restriction from stakeholders. The excessive power of management will weaken the effective play of the stakeholder supervision and restriction mechanism. Once the management is above the internal control and there are circumstances such as collusion and fraud, the internal control will lose its due effectiveness. Based on this consideration, the situation that the chairman concurrently serves as the general manager (DUAL) was added to the models for control.

Additionally, it is an important dimension of internal corporate governance to motivate the management through salary incentives [37], which may affect the attitudes of enterprises to assume the social responsibilities. Therefore, executive compensation (LNSALARY) as a variable was included in the regression models. Moreover, when the enterprises’ scales are different, their performances of social responsibility are also different [38]. Therefore, the asset size (LNASSET) was adopted as the measurement variable of enterprise size to investigate its possible influence on CSR practice. Meanwhile, based on the Reputation Theory, enterprises with higher growth are more concerned about their reputation value, and they often promise to fulfill the relevant expenditure of social responsibility. Accordingly, we used the sales growth rate (GROWTH) to measure the company’s growth. In accordance with the relevant studies of Zhang et al. (2014) [9], Chen et al. (2015) [10] and Fan et al. (2014) [31], we controlled the size of board of supervisors (SUPERVISOR), return on equity (ROE), equity multiplier (EM), audit opinion (AUDIT), enterprise nature (STATE) in the following models. On this basis, we also controlled the annual effect (YEAR) that reflect the changes in the macroeconomic environment, as well as the industry effect (IND) generated by industry characteristics. Table 1 presents the names and meanings of variables.

**Table 1.** Variable name and definition.

Variable Nature	Variable Symbol	Variable Name	Computing Method
Explained variable	SCPS	The level of CSR assumed	Social contribution per share (SCPS): (Net profit + Income tax expense + Business tax and surcharges + Cash paid to and for employees + Current wages payable to employees – Salary payable to employees in the previous period + Financial expense + Donation – Sewage charge and cleaning charge)/the average number of shares at the beginning and end of the period
	CSRF	The degree of fulfillment of CSR	(Cash paid for distributing dividends or profits + Operating expenses + Cash paid for interest + Cash paid to and for employees + Cash paid for goods and services + Cash paid in taxes and fees)/the average number of shares at the beginning and end of the period
Explanatory variable	IC	Internal control effectiveness	The “Internal Control Index of Chinese Listed Companies” issued by DIB; in regression analysis, the value is standardized when divided by 100
Controlled variable	ROE	Return on equity	After-tax profit/average owner’s equity at the beginning and end of the period; it reflects the level of return on owner’s equity
	EM	Equity multiplier	Assets/equity; the higher the value, the higher the level of debt
	GROWTH	Sales growth rate	(Current operating income – previous operating income)/previous operating income
	SHRCR	Ownership concentration	The combined value of the shareholding ratio of the top 10 shareholders
	DUAL	Double duty	When the chairman concurrently serves as the general manager, the value is 1; otherwise 0
	SUPERVISOR	Size of the board of supervisors	Total number of supervisors (including chairman of the board of supervisors)
	LNSALARY	Executive compensation	Natural logarithm of total compensation of directors, supervisors and top three executives
	LNASSET	Asset size	Natural logarithm of total assets at the end of the year
	AUDIT	Audit opinion	Dummy variables set according to the types of audit opinion in the annual financial report. Where the value of a standard unreserved opinion is 1; otherwise, it is 0
	STATE	Enterprise nature	Dummy variable; 1 for state-owned enterprises, and 0 otherwise
	YEAR	Annual effect	The annual effects
	IND	Industry effect	The industry effects; according to the “Guidelines on Industry Classification of Listed Companies (revised in 2012)” issued by China Securities Regulatory Commission (CSRC), the sample enterprises are divided into 17 industries, and 16 industry dummy variables are set up
	$\varepsilon$	Random disturbance term	

### 3.3. Model Setting-Up

To verify the rationality of the hypotheses mentioned above, we refer to the related studies of Chen et al. (2015) [10] and Gupta (2014) [39] and construct the following regression model 1 and model 2. The parameters were estimated by panel data regression analyses, which were used to test hypothesis 1 and hypothesis 2 respectively. To avoid the endogenous problem caused by adverse

causality in model 1 and model 2, we adopted the first order lags of ROE, EM, GROWTH, LNSALARY, LNASSET, AUDIT in the regression models.

$$\begin{aligned} \text{Model 1 : SCPS}_{i,t} = & \alpha_0 + \alpha_1 \text{IC}_{i,t} + \alpha_2 \text{ROE}_{i,t-1} + \alpha_3 \text{EM}_{i,t-1} + \alpha_4 \text{GROWTH}_{i,t-1} + \alpha_5 \text{SHRCR}_{i,t} + \\ & \alpha_6 \text{DUAL}_{i,t} + \alpha_7 \text{SUPERVISOR}_{i,t} + \alpha_8 \text{LNSALARY}_{i,t-1} + \alpha_9 \text{LNASSET}_{i,t-1} \\ & + \alpha_{10} \text{AUDIT}_{i,t-1} + \alpha_{11} \text{STATE}_{i,t} + \alpha_{12} \sum_t \text{YEAR} + \alpha_{13} \sum_t \text{IND} + \varepsilon_{i,t} \end{aligned} \quad (3)$$

$$\begin{aligned} \text{Model 2 : CSRF}_{i,t} = & \beta_0 + \beta_1 \text{IC}_{i,t} + \beta_2 \text{ROE}_{i,t-1} + \beta_3 \text{EM}_{i,t-1} + \beta_4 \text{GROWTH}_{i,t-1} + \beta_5 \text{SHRCR}_{i,t} + \\ & \beta_6 \text{DUAL}_{i,t} + \beta_7 \text{SUPERVISOR}_{i,t} + \beta_8 \text{LNSALARY}_{i,t-1} + \beta_9 \text{LNASSET}_{i,t-1} \\ & + \beta_{10} \text{AUDIT}_{i,t-1} + \beta_{11} \text{STATE}_{i,t} + \beta_{12} \sum_t \text{YEAR} + \beta_{13} \sum_t \text{IND} + \varepsilon_{i,t} \end{aligned} \quad (4)$$

#### 4. Descriptive Statistics and Correlation of Variables

##### 4.1. Descriptive Statistics

Table 2 shows descriptive statistics for the relevant variables used in our analysis. For the explained variable in model 1, the maximum (minimum) of SCPS is 1.459 (−0.055), and the standard deviation is 0.271, indicating that the levels of social responsibility assumed by sample enterprises are significantly different, and even there exists negative social responsibility assumed, which will have a negative impact on corporate reputation. For the explained variable in model 2, the standard deviation of CSRF is 14.821, indicating that the degree of fulfillment of corporate social responsibility is different to a large extent during the study period on sample enterprises.

**Table 2.** The descriptive statistics table of variables.

Variable	Mean	Median	Maximum	Minimum	Deviation	Observations
SCPS	0.313	0.238	1.459	−0.055	0.271	10,284
CSRF	7.958	4.350	307.089	0.043	14.821	7098
IC	649.253	675.460	873.680	0.000	133.622	10,284
ROE	0.071	0.068	0.368	−0.383	0.102	10,284
EM	2.265	1.844	8.475	1.055	1.304	10,284
GROWTH	0.130	0.086	1.590	−0.518	0.311	10,284
SHRCR	0.558	0.563	0.898	0.213	0.155	10,284
DUAL	0.215	0.000	1.000	0.000	0.411	10,284
SUPERVISOR	3.741	3.000	7.000	3.000	1.124	10,284
LNSALARY	14.312	14.291	16.242	12.702	0.679	10,284
LNASSET	22.251	22.081	26.059	19.862	1.274	10,284
AUDIT	0.980	1.000	1.000	0.000	0.140	10,284
STATE	0.462	0.000	1.000	0.000	0.499	10,284

For the explanatory variable (IC), its median is 675.460, indicating that the overall operation of internal control is at an effective medium level during the implementation of the “Basic Norms for Enterprise Internal Control”. Meanwhile, its maximum (minimum) is 873.680 (0.000), and the standard deviation is 133.622. The effectiveness of internal control of sample enterprises is uneven. In different periods, the operating conditions of the internal control of different enterprises are quite different, and the effectiveness of internal control of individually listed enterprises needs to be further improved.

For the controlled variables, the standard deviations of ROE and EM are 0.102 and 1.304 respectively, suggesting that the returns of owners’ equity and the liabilities in the sample enterprises have a certain range of differences. The median (standard deviation) of GROWTH is 0.130 (0.311), suggesting that the sales growth of sample enterprises is different. The median (mean) of SHRCR is 56.27% (55.81%), indicating that the shareholding ratio of the top 10 shareholders is relatively high. The possible reason is that the equity concentration can bring “supervision effect,” effectively restrain managers’ short-sighted behaviors and speculative behaviors, and to a certain extent reduce enterprises’ hidden costs [40–42]. This is reflected in the context of China’s economic transformation. The average proportion that the chairman concurrently



serves as the general manager is close to 21.53%. The board of supervisors shall be composed of at least three supervisors and, at most, seven supervisors. The supervisors shall be elected by the general meeting of shareholders and shall perform the supervisory function on behalf of the general meeting of shareholders. The standard deviations of LNSALARY, LNASET, in turn, are 0.679 and 1.274. Additionally, 46.19% of the sample enterprises are state-owned. The existence of state-owned enterprises has its historical reason. China has retained a large number of state-owned enterprises in its transition from a socialist planned economy.

In addition, the mean of AUDIT is 0.980, indicating that the auditors have positive attitudes towards the legitimacy and fairness of nearly 98% of the sample companies' financial reports, which also ensures the reliability of the data used in this paper. In general, the values of variables have sufficient variability, providing a useful basis for the regression analyses below.

#### 4.2. Correlation Coefficient of Variables

Table 3 presents the results of the correlation coefficients between variables. For model 1, the correlation coefficient between the explanatory variable (IC) and the explained variable (SCPS) is 0.276 ( $p < 0.01$ ), suggesting that effective internal control is likely to promote enterprises to assume necessary social responsibilities. For model 2, the correlation coefficient between the explanatory variable (IC) and the explained variable (CSRF) is 0.119 ( $p < 0.01$ ), suggesting that when the internal control is effective, it is likely to improve the fulfillment of corporate social responsibility.

Among the controlled variables in model 1, ROE (0.522), EM (0.164), GROWTH (0.132), SHRCR (0.241), SUPERVISOR (0.137), LNSALARY (0.373), LNASET (0.427), AUDIT (0.095), STATE (0.181) is positively and significantly ( $p < 0.01$ ) correlated with the explained variable (SCPS) respectively. Moreover, DUAL is negatively and significantly ( $-0.049$ ;  $p < 0.01$ ) correlated with SCPS. The controlled variable has a strong correlation with the explained variable respectively, which ensures the rationality of model 1 constructed above.

Among the controlled variables in model 2, respectively, ROE (0.126), EM (0.325), GROWTH (0.026), SHRCR (0.110), SUPERVISOR (0.101), LNSALARY (0.150), LNASET (0.286), STATE (0.163) is positively and significantly ( $p < 0.01$  or  $p < 0.05$ ) correlated with the explained variable (CSRF). Moreover, DUAL is negatively and significantly ( $-0.071$ ;  $p < 0.01$ ) correlated with CSRF, and AUDIT negatively and significantly ( $-0.020$ ;  $p < 0.10$ ) correlated with CSRF. Obviously, the controlled variable has a strong correlation with the explained variable respectively, which ensures the rationality of model 2 constructed above.

Additionally, it is shown in Table 3 that the maximum absolute value of the correlation coefficients is 0.456. This maximum exists between LNASET and LNSALARY, which is less than the threshold of 0.800. Taken together, it is shown that there is no serious multicollinearity in the models, which provides a reliable guarantee for the regression analyses below.

**Table 3.** The table of correlation coefficients among variables.

Variable	SCPS	CSRF	IC	ROE	EM	GROWTH	SHRCR	DUAL	SUPERVISOR	LNSALARY	LNASSET	AUDIT	STATE
SCPS	1.000												
CSRF	0.468 ***	1.000											
IC	0.276 ***	0.119 ***	1.000										
ROE	0.522 ***	0.126 ***	0.396 ***	1.000									
EM	0.164 ***	0.325 ***	−0.110 ***	−0.149 ***	1.000								
GROWTH	0.132 ***	0.026 **	0.143 ***	0.267 ***	−0.001	1.000							
SHRCR	0.241 ***	0.110 ***	0.159 ***	0.194 ***	−0.021 **	0.076 ***	1.000						
DUAL	−0.049 ***	−0.071 ***	−0.009	0.010	−0.103 ***	0.057 ***	−0.019 *	1.000					
SUPERVISOR	0.137 ***	0.101 ***	0.023 **	−0.006	0.143 ***	−0.091 ***	0.047 ***	−0.160 ***	1.000				
LNSALARY	0.373 ***	0.150 ***	0.189 ***	0.289 ***	0.075 ***	0.053 ***	0.111 ***	−0.047 ***	0.050 ***	1.000			
LNASSET	0.427 ***	0.286 ***	0.186 ***	0.139 ***	0.428 ***	0.006	0.244 ***	−0.166 ***	0.278 ***	0.456 ***	1.000		
AUDIT	0.095 ***	−0.020 *	0.334 ***	0.150 ***	−0.124 ***	0.041 ***	0.058 ***	0.009	0.022 **	0.080 ***	0.065 ***	1.000	
STATE	0.181 ***	0.163 ***	0.021 **	−0.043 ***	0.227 ***	−0.147 ***	0.054 ***	−0.279 ***	0.370 ***	0.030 ***	0.336 ***	0.019 *	1.000

Note: \*, \*\* and \*\*\* represent two-tailed statistical significance at the 10%, 5% and 1% levels respectively.

## 5. Model Regression Analysis

The descriptive statistics of a single variable and the correlation coefficient between the variables have no control over other factors that affect the explained variable, which are only the preliminary analysis results. The data type adopted in this paper is panel data, which can overcome the endogenous problem caused by the missing variables that do not change with time to some extent. The analysis methods of panel data mainly include mixed OLS, fixed effect model and random effect model. The LSDV method is used to test model 1 and model 2, and both of them reject the hypotheses that the coefficients of all individual dummy variables are 0.000, indicating the existence of individual fixed effects. The robust Hausman tests of model 1 and model 2 show that the Sargan-hansen  $\chi^2$  are 920.558 ( $p < 0.01$ ) and 110.486 ( $p < 0.01$ ) respectively, indicating that the fixed effect model should be adopted instead of the random effect model. Table 4 presents the results of the regression coefficient estimates for the fixed effect.

**Table 4.** Statistical results of the estimated value of regression coefficients for models.

Variable	Model 1	Model 2
	Coefficient (S.E.)	Coefficient (S.E.)
Intercept	0.082 (0.212)	−16.756 (16.276)
IC	0.018 *** (0.002)	0.416 *** (0.117)
ROE	0.076 *** (0.026)	2.407 (1.961)
EM	0.036 *** (0.005)	0.178 (0.307)
GROWTH	0.056 *** (0.007)	1.763 *** (0.455)
SHRCR	0.334 *** (0.037)	2.980 * (1.539)
DUAL	0.005 (0.007)	1.008 (1.009)
SUPERVISOR	−0.0001 (0.007)	0.633 (0.600)
LNSALARY	0.035 *** (0.007)	−0.069 (0.276)
LNASSET	−0.034 *** (0.009)	0.634 (0.698)
AUDIT	−0.009 (0.017)	2.132 (2.396)
STATE	−0.006 (0.021)	−0.200 (0.299)
YEAR/IND	YES	YES
# of obs.	8480	5388
Within_R <sup>2</sup>	0.141	0.026
F_Value	36.610 ***	3.820 ***

Note: \*, \*\* and \*\*\* represent two-tailed statistical significance at the 10%, 5% and 1% levels respectively. Robust standard errors in brackets are clustered at the enterprise level.

### 5.1. Analysis of Model 1's Regression Results

The coefficient on IC is positive and significant (0.018,  $p < 0.01$ ), suggesting that effective internal control promotes enterprises to assume social responsibilities fully, and hypothesis 1 above can be verified. The practice of corporate social responsibility means to protect and enhance the welfare level of the society and the members of the organization through various business and social behaviors and to bring fair and sustainable benefits to stakeholders [43,44]. By comprehensive control, the internal control system supervises, monitors and corrects the production and operation process, thus effectively avoiding risks. Strengthening the construction of the internal control system and safeguarding the legitimate rights and interests of stakeholders reflect the primary goal of social governance to a large extent.

For the controlled variables, the coefficient on ROE, GROWTH is positive and significant (0.076,  $p < 0.01$ ; 0.056,  $p < 0.01$ ) respectively, indicating that the good profit and development situation make the enterprise assume more social responsibility, which is also consistent with the resource-based hypothesis. The coefficient on EM is positive and significant (0.036,  $p < 0.01$ ). The proportion of liabilities has a significant positive effect on SCPS, which implies that the creditor exerts a positive governance effect on the practice of corporate social responsibility. Likewise, the coefficient on SHRCR is positive and significant (0.334,  $p < 0.01$ ). Based on principal-agent relationships, the goals of management and shareholder are likely to be inconsistent. When the degree of equity concentration is relatively high, the interests of major shareholders tend to be

consistent with the enterprise as a whole, to strengthen the supervision effect on the management and ensure that the enterprise bears the necessary social responsibility. Therefore, it will contribute to the realization of enterprise value, which is consistent with the research conclusion of Hillman and Keim (2001) [45]. To realize long-term interests, major shareholders are more inclined to promote enterprises to assume more social responsibilities and achieve more disclosure of social responsibility information.

Additionally, the coefficient on LNSALARY is positive and significant ( $0.035, p < 0.01$ ). The increase in executive compensation levels helps promote enterprises to assume more social responsibilities, and is consistent with the findings of Flammer (2015) [46]. The salary level will affect the material standard of living and the degree of desire satisfaction. When the pay is higher, the material well-being life will be enriched. In the case that their material desire is greatly satisfied, the higher the spiritual demand of the senior executives is, the better they will assume social responsibility when making and implementing corporate decisions. The coefficient on LNASSET is negative and significant ( $-0.034, p < 0.01$ ), implying that large-scale enterprises should consider the interests of other stakeholders while pursuing the profits of entrepreneurs. Enterprises should establish and improve effective incentive systems and incentive mechanisms, and urge senior managers to maximize the utility of stakeholders while realizing corporate profits, to improve the performance of corporate social responsibility practice. The estimated coefficients of other controlled variables are not statistically significant.

## 5.2. Analysis of Model 2's Regression Results

The coefficient on IC is positive and significant ( $0.416, p < 0.01$ ), showing that effective internal control has significantly promoted the improvement of the degree of fulfillment of corporate social responsibility, and hypothesis 2 above has been verified. Under the effective operation of internal control, the corporate governance structure is gradually improved, which improves the effective fulfillment of social responsibility and effectively reduces the risk of social responsibility. Meanwhile, enterprises have different understanding and performance of social responsibility in different periods of existence, and their understanding and performance of social responsibility is a gradual process. In their business practice, enterprises should strengthen the construction of the internal control system, improve the degree of fulfillment of corporate social responsibility, and protect the legitimate rights and interests of stakeholders.

Among the controlled variables in model 2, the coefficient on GROWTH is positive and significant ( $1.763, p < 0.01$ ). Based on the Reputation Theory, the enterprises with higher growth are more concerned about their reputation value. The excellent growth of enterprises is conducive to the fulfillment of corporate social responsibility. Considering both self-development and social responsibility fulfillment, enterprises can better realize their value in the process of social development. Moreover, the coefficient on SHRCR is positive and significant ( $2.980, p < 0.10$ ), suggesting that the higher the ownership concentration, the more the listed companies tend to fulfill their social responsibilities. By improving the practice level of social responsibility, corporate executives transmit the signal of fulfilling contractual obligations to stakeholders, reduce the agency cost between them and stakeholders, and minimize the risk of being replaced by existing stakeholders [22]. The estimated coefficients of other controlled variables are not statistically significant.

In addition to the analysis of the main results above, we examined the annual effect and the industry effect. As for the annual effect, in model 1, the coefficients on YEAR (2012), YEAR (2015) are negative and significant ( $-0.212, p < 0.01$ ;  $-0.010, p < 0.05$ ). In model 2, the coefficient on YEAR (2013) is negative and significant ( $0.671, p < 0.01$ ). The possible reasons for the above results are as follows: China's economy went from a "depression" to a "resurgence" in 2012, in 2013, China's macro-economy would be full of vitality in the complex [47]. Additionally, in 2015, China's macroeconomic structure diverged and became more volatile. As for the industry effect, in model 1, only these coefficients are positive and significant in IND (agriculture, forestry, animal husbandry and fishery), IND (construction), IND (transportation, storage and postal services), IND (leasing and business services), IND (water conservancy, environment and public facilities management). In model 2, the coefficients of IND are not significant. The above results indicate that it may be necessary to improve CSR practices from the perspective of industry regulation. Due to space limitations, the above results are not shown in the table.

Admittedly, in model 1 and model 2, the value of within\_R2 is lower. The models adopted in this paper are the panel models, whose within\_R2 are only the square of the correlation coefficient between the actual value of the explained variable and its predicted value when the inter-group deviation is a regression. While the F\_values that measure the overall significance of model 1 and model 2 are significant ( $p < 0.01$ ), model 1 and model 2 still have good overall explanatory power.

## 6. Caution Test

Referring to the relevant studies of Huang and Chen (2017) [48], we divided the explanatory variables (IC) between the models into four points. According to the classification of 25% group distance and industry-year, the internal control level of each group was calculated as one, two, three and four from low to high, replacing the measurement method of internal control effectiveness (IC) in the original models. At the same time, on the premise of distinguishing the nature of enterprises, we examined the difference in the means of SCPS, CSRF respectively. The results of the t-tests are significant ( $p < 0.01$ ), indicating that the levels of SCPS and CSRF of enterprises with different natures are different respectively. Thus, the whole sample, state-owned enterprise sample and private sample are distinguished, and the regression analyses are conducted again to test the robustness of the conclusions in Table 4.

### 6.1. The Discretionary Test of Model 1's Regression Results

In the whole sample, state-owned sample and private sample, we tested the model 1 by LSDV method and rejected the assumption that the coefficients of all individual dummy variables are all 0.000. The results indicate the existence of individual fixed effects. The robust Hausman tests for model 1 show that the Sargan-Hansen  $\chi^2$  are 769.404 ( $p < 0.01$ ), 288.233 ( $p < 0.01$ ) and 219.351 ( $p < 0.01$ ) respectively, indicating that the fixed effect model should be used instead of the random effect model. Table 5 presents the results of the regression coefficient estimates for the fixed effect.

As shown in Table 5, in the whole sample, state-owned sample and private sample, the coefficients on IC are positive and significant (0.025,  $p < 0.01$ ; 0.029,  $p < 0.01$ ; 0.022,  $p < 0.01$ ) in turn. The results show that the perfection of internal control and the improvement of its operational effectiveness are conducive to preventing enterprises' social responsibility risks. This not only improves the strategic attribute and sustainability of social responsibility, but also promotes the social responsibility practice to deliver social responsibility information and establish effective reputation signal [49].

**Table 5.** Statistical results of caution test for model 1.

Variable	Whole Sample	State-Owned	Private
	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)
Intercept	0.071 (0.227)	−0.115 (0.418)	0.271 (0.277)
IC	0.025 *** (0.002)	0.029 *** (0.003)	0.022 *** (0.002)
ROE	0.108 *** (0.027)	0.123 *** (0.042)	0.077 ** (0.035)
EM	0.036 *** (0.005)	0.037 *** (0.006)	0.031 *** (0.007)
GROWTH	0.059 *** (0.007)	0.084 *** (0.012)	0.046 *** (0.008)
SHRCR	0.296 *** (0.037)	0.311 *** (0.078)	0.280 *** (0.040)
DUAL	0.004 (0.008)	0.009 (0.015)	−0.001 (0.009)
SUPERVISOR	0.001 (0.007)	−0.002 (0.009)	−0.0004 (0.010)
LNSALARY	0.035 *** (0.007)	0.051 *** (0.013)	0.021 *** (0.008)
LNASSET	−0.030 *** (0.010)	−0.030* (0.018)	−0.029 *** (0.011)
AUDIT	−0.011 (0.017)	−0.013 (0.031)	−0.012 (0.019)
STATE	−0.004 (0.021)		
YEAR/IND	YES	YES	YES
# of obs.	8096	3692	4404
Within_R <sup>2</sup>	0.159	0.189	0.130
F_Value	39.800 ***	23.770 ***	19.530 ***

Note: \*, \*\* and \*\*\* represent two-tailed statistical significance at the 10%, 5% and 1% levels respectively. Robust standard errors in brackets are clustered at the enterprise level.

Among the controlled variables, in the whole sample, state-owned and private sample, the coefficients on ROE are positive and significant (0.108,  $p < 0.01$ ; 0.123,  $p < 0.01$ ; 0.077,  $p < 0.05$ ) in turn. The coefficients on EM are positive and significant (0.036,  $p < 0.01$ ; 0.037,  $p < 0.01$ ; 0.031,  $p < 0.01$ ) in turn. The coefficients on GROWTH are positive and significant (0.059,  $p < 0.01$ ; 0.084,  $p < 0.01$ ; 0.046,  $p < 0.01$ ) in turn. The coefficients on SHRCR are positive and significant (0.296,  $p < 0.01$ ; 0.311,  $p < 0.01$ ; 0.280,  $p < 0.01$ ) in turn. The coefficients on LNSALARY are positive and significant (0.035,  $p < 0.01$ ; 0.051,  $p < 0.01$ ; 0.021,  $p < 0.01$ ) in turn. The above results once again show that the good income status, creditor governance, development ability, moderate equity concentration and salary incentive of enterprises, whether state-owned or private, will become the positive motivation for undertaking social responsibility. However, the coefficients on LNASSET are negative and significant ( $-0.030$ ,  $p < 0.01$ ;  $-0.030$ ,  $p < 0.10$ ;  $-0.029$ ,  $p < 0.01$ ) in turn. Once again, the results show again that it is necessary for large-scale enterprises, whether state-owned or private, to improve the practice effect of social responsibility while pursuing entrepreneurs' profits. Overall, the above analysis results verify the analysis conclusions of model 1 in Table 4 above.

## 6.2. The Discretionary Test of Model 2's Regression Results

In the whole sample, state-owned sample and private sample, we tested the model 2 by LSDV method and rejected the assumption that the coefficients of all individual dummy variables are all 0.000. The results indicate the existence of individual fixed effects. The robust Hausman tests for model 1 show that the Sargan-Hansen  $\chi^2$  are 120.344 ( $p < 0.01$ ), 100.865 ( $p < 0.01$ ) and 53.794 ( $p < 0.01$ ) respectively, indicating that the fixed effect model should be used instead of the random effect model. Table 6 presents the results of the regression coefficient estimates for the fixed effect.

As shown in Table 6, in the whole sample, state-owned sample and private sample, the coefficients on IC are positive and significant (0.410,  $p < 0.01$ ; 0.569,  $p < 0.01$ ; 0.238,  $p < 0.01$ ) in turn. These results indicate that whether state-owned or private enterprises, high-quality internal control improves the degree of fulfillment of corporate social responsibility, which is consistent with the analysis result of model 2 in Table 4 above.

**Table 6.** Statistical results of the caution test for model 2.

Variable	Whole Sample	State-Owned	Private
	Coefficient (S.E.)	Coefficient (S.E.)	Coefficient (S.E.)
Intercept	−15.022 (15.862)	−51.078 * (26.901)	8.251 (21.171)
IC	0.410 *** (0.090)	0.569 *** (0.173)	0.238 *** (0.070)
ROE	2.951 (1.990)	0.427 (3.423)	5.058 *** (1.921)
EM	0.193 (0.304)	−0.331 (0.480)	0.883 *** (0.266)
GROWTH	1.741 *** (0.465)	4.217 *** (1.086)	0.427 (0.407)
SHRCR	2.798 * (1.528)	7.0264 * (3.881)	1.247 (1.362)
DUAL	0.992 (1.007)	0.033 (0.382)	1.411 (1.454)
SUPERVISOR	0.661 (0.604)	0.388 (0.625)	1.268 (1.335)
LNSALARY	−0.091 (0.272)	−0.027 (0.577)	−0.247 (0.297)
LNASSET	0.616 (0.691)	1.899 * (1.029)	−0.379 (1.004)
AUDIT	2.571 (2.506)	5.541 (5.133)	−0.596 * (0.360)
STATE	−0.172 (0.292)		
YEAR/IND	YES	YES	YES
# of obs.	5388	2405	2983
Within_R <sup>2</sup>	0.025	0.070	0.019
F_Value	3.76 ***	5.31 ***	1.62 **

Note: \*, \*\* and \*\*\* represent two-tailed statistical significance at the 10%, 5% and 1% levels respectively. Robust standard errors in brackets are clustered at the enterprise level.

Among the controlled variables in model 2, the coefficient on ROE is positive and significant (5.058,  $p < 0.01$ ) in the private sample, showing that the good accounting surplus provides material support for the fulfillment of social responsibility, but this phenomenon is mainly reflected in private



enterprises. In the private sample, the coefficient on EM is positive and significant (0.883,  $p < 0.01$ ), indicating that the creditors of private enterprises have a more prominent governance effect on corporate social responsibility. China's state-owned enterprises are endowed with strong social responsibility from the beginning of their establishment, which is an important manifestation of the nature of state-owned enterprises. However, private enterprises are not born with attention to social responsibility; their management goal is more to pursue maximum profits. The exertion of creditor's governance effect will promote private enterprises to fulfill their social responsibility actively.

In the whole sample and state-owned sample, the coefficients on GROWTH are positive and significant (1.741,  $p < 0.01$ ; 4.217,  $p < 0.01$ ) in turn. While realizing their rapid growth, enterprises also promise and fulfill the relevant expenditure of social responsibility, which is more obvious in state-owned enterprises. The possible reason is that state-owned enterprises are more concerned about the reputation value because of their property nature, while private enterprises have not paid enough attention to the reputation value during their growth. In the whole sample and state-owned sample, the coefficients on SHRCR are positive and significant (2.798,  $p < 0.10$ ; 7.026,  $p < 0.10$ ), respectively. However, in the private sample, the coefficient on SHRCR is insignificant statistically. In state-owned listed enterprises, a moderate increase in ownership concentration will significantly improve the fulfillment of social responsibility, while the ownership concentration of private enterprises has no significant impact on the fulfillment of social responsibility.

In state-owned enterprises, the coefficient on LNASSET is positive and significant (1.899,  $p < 0.10$ ), showing that scale factor can be a force to promote enterprises to fulfill their social responsibilities, but this phenomenon is only apparent in state-owned enterprises. In the private sample, the coefficient on AUDIT is negative and significant ( $-0.596$ ,  $p < 0.10$ ). The evaluation of auditors can also be an active supervision force for enterprises to fulfill their social responsibilities, but this effect is only apparent in private enterprises.

## 7. Conclusions and Recommendations

### 7.1. Conclusions

From the perspective of internal control effectiveness, this paper analyzes the influences of internal control on the assumption of corporate social responsibility, and the fulfillment of corporate social responsibility according to the Stakeholder Theory, Principal-Agent Theory and Reputation Theory. This paper breaks through the previous literature that only analyzed the assumption of corporate social responsibility based on the accrual basis [8–10], or only analyzed the fulfillment of corporate social responsibility based on the cash flow system [11,12]. On this basis, it is expected to put forward reasonable suggestions to further avoid the adverse impact of the principal-agent relationship between shareholders and management. At the same time, through this study, it is expected to promote enterprises to strengthen positive reputation value and protect the legitimate rights and interests of numerous stakeholders in the current economic transition period.

The research shows that effective internal control has significantly promoted enterprises to assume social responsibilities and generated fair and sustainable benefits for stakeholders. Meanwhile, effective internal control substantially improves the degree of fulfillment of corporate social responsibility, and fully reduces the risk of social responsibility. Through this study, we overcome the current situation that the two concepts of assumption and fulfillment of corporate social responsibility have not been distinguished in previous literature [4,6,13]. From the two aspects of accrual basis and cash flow system, we comprehensively analyze the influences of internal control on the assumption and fulfillment of corporate social responsibility, which is of practical value to strengthen the subsequent construction of internal control system and the long-term practice of corporate social responsibility.

### 7.2. Recommendations

Enterprises should further strengthen the mechanism of the internal control system. As an essential part of internal management, enterprise internal control has a substantial impact on production and

operation activities. Under the realistic background of economic transition, the positive role of internal control in corporate governance should be promoted to make internal control a “booster” for core value creation. The establishment and perfection of internal control is a long systematic process. The regulators deeply guide the enterprise to strengthen and perfect the internal control system, and optimize the quality of internal control information disclosure. The supervision departments implement differentiated regulatory measures based on industry characteristics by elaborating the operational guidelines for internal control [50,51]. Furthermore, the design of internal control should be more reasonable and effective, and the legitimate rights and interests of stakeholders should be protected.

In the economic transition period, enterprises should pay attention to the consequences of internal control defects and repair these defects in time. In their operation practices, enterprises avoid the adverse impact of the principal-agent relationship between shareholders and management on corporate governance through building high-quality internal control. Furthermore, the basic norms of social responsibility information disclosure should be established from the perspective of internal control. It is suggested that the relevant contents of evaluation of “the assumption and fulfillment of corporate social responsibility” should be added in internal control audit reports and internal control self-evaluation reports in due time, to improve the protection of stakeholders’ rights and interests. By delivering reputation information to stakeholders, the company establishes a good reputation image. By maintaining a positive reputation value, enterprises can achieve a positive trend of steady and sustainable development.

Additionally, from the perspective of external supervision, the laws and regulations on corporate social responsibility should be improved to provide the necessary incentive and binding mechanisms for corporate social responsibility practice. When the legal environment is relatively perfect, enterprises will assume more social responsibilities. The relevant judicial system of corporate social responsibility should be standardized to build a strong external monitoring mechanism for social responsibility practice. Those undesirable phenomena such as the lack of social responsibility due to an imperfect judicial system should be avoided. Given the malignant event contrary to the rights and interests of stakeholders, the regulator will deal with it seriously according to the laws and regulations. By making up the loss of stakeholders’ rights and interests, the company can promote the long-term implementation of its social responsibility.

**Author Contributions:** The authors contributed equally to all sections of this paper. All the authors contributed to the research design. X.L. prepared the first draft. All the authors revised and approved the final manuscript.

**Funding:** The research for this paper is supported by the Key Scientific Research Projects of Colleges and Universities in Henan province, China (No. 17A630057; 16B630008).

**Acknowledgments:** We thank Bo Li, a Senior R & D Engineer in Texas Hydraulics Holdings Inc., USA, for his comments and suggestions that greatly improved the manuscript.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Hogan, C.E.; Wilkins, M.S. Evidence on the Audit Risk Model: Do Auditors Increase Audit Fees in the Presence of Internal Control Deficiencies? *Contemp. Account. Res.* **2008**, *25*, 219–242. [[CrossRef](#)]
2. Deng, X.; Kang, J.; Low, B.S. Corporate Social Responsibility and Stakeholder Value Maximization: Evidence from Mergers. *J. Financ. Econ.* **2013**, *110*, 87–109. [[CrossRef](#)]
3. The State-Owned Assets Supervision and Administration Commission of the State Council. *The Guiding Opinions on the Implementation of Social Responsibility by Central Enterprises*; State-owned Assets Supervision and Administration Commission of the State Council: Beijing, China, 2018. (In Chinese)
4. Li, Z. A Study on Relation of Corporate Social Responsibility and Corporate Value: Empirical Evidence from Shanghai Securities Exchange. *China Ind. Econ.* **2006**, *2*, 77–83. (In Chinese)
5. Schneider, A.; Church, B.K. The effect of auditors’ internal control opinions on loan decisions. *J. Account. Public Policy* **2008**, *27*, 1–18. [[CrossRef](#)]

6. Banerjee, S.B. Managerial perceptions of corporate environmentalism: Interpretations from industry and strategic implications for organizations. *J. Manag. Stud.* **2010**, *38*, 489–513. [[CrossRef](#)]
7. Ministry of Finance of the People's Republic of China; China Securities Regulatory Commission; National Audit Office of the People's Republic of China; China Banking Regulatory Commission; China Insurance Regulatory Commission. *Guidelines on Application of Internal Control in Enterprises*; Ministry of Finance of the People's Republic of China: Beijing, China, 2010. (In Chinese)
8. Simnett, R.; Vanstraelen, A.; Chua, W.F. Assurance on Sustainability Reports: An International Comparison. *Account. Rev.* **2009**, *843*, 937–967. [[CrossRef](#)]
9. Zhang, C.; Lou, Z.K.; Zhan, D.B. Political Connection, Financial Performance, and Corporate Social Responsibility—Evidence from Listed Companies of the Chemical Industry in China. *Manag. Rev.* **2014**, *26*, 130–139. (In Chinese)
10. Chen, L.R.; Han, B.; Yang, X.L. Research on the Interactive Influence between Corporate Social Responsibility and Top Management Turnover—Empirical Evidence from Chinese A-share Listed Companies. *Account. Res.* **2015**, *8*, 57–64. (In Chinese)
11. Johnson, H.H. Does it pay to be good? Social responsibility and financial performance. *Bus. Horiz.* **2003**, *4*, 34–40. [[CrossRef](#)]
12. Li, X.H. Research on corporate financial goals embedded in social responsibility (Part Two). *Commun. Financ. Account.* **2010**, *2*, 14–17. (In Chinese)
13. Zhang, Z.G.; Liang, Z.G.; Yin, K.G. Research on Corporate Social Responsibility from the Stakeholder Perspective. *China Soft Sci.* **2012**, *2*, 139–146. (In Chinese)
14. Freeman, R.E.; Evan, W.M. Corporate Governance: A Stakeholder Interpretation. *J. Behav. Econ.* **1990**, *19*, 337–359. [[CrossRef](#)]
15. Donaldson, T.; Dunfee, T.W. Toward a Unified Conception of Business Ethics: Integrative Social Contracts Theory. *Acad. Manag. Rev.* **1994**, *19*, 252–284. [[CrossRef](#)]
16. Carroll, A.B. Corporate Social Responsibility Evolution of a Definitional Construct. *Bus. Soc.* **1999**, *38*, 268–295. [[CrossRef](#)]
17. Jones, T.M.; Wicks, A.C. Convergent Stakeholder Theory. *Acad. Manag. Rev.* **1999**, *24*, 206–221. [[CrossRef](#)]
18. Parmar, B.L.; Freeman, R.E.; Harrison, J.S.; Wicks, A.C.; Purnell, L.; de Colle, S. Stakeholder Theory: The State of the Art. *Acad. Manag. Ann.* **2010**, *4*, 403–445. [[CrossRef](#)]
19. Hediger, W. Welfare and capital-theoretic foundations of corporate social responsibility and corporate sustainability. *J. Soc. Econ.* **2010**, *39*, 518–526. [[CrossRef](#)]
20. Lonka, K.; Lindblom-Ylaine, S.; Maury, S. The Effect of Study Strategies on Learning from Text. *Learn. Instr.* **1994**, *4*, 253–271. [[CrossRef](#)]
21. Leopold, C.; Doerner, M.; Leutner, D.; Dutke, S. Effects of Strategy Instructions on Learning from Text and Pictures. *Instr. Sci.* **2015**, *43*, 345–364. [[CrossRef](#)]
22. Cespa, G.; Cestone, G. Corporate Social Responsibility and Managerial Entrenchment. *J. Econ. Manag. Strateg.* **2007**, *16*, 741–771. [[CrossRef](#)]
23. Goss, A.; Roberts, G.S. The Impact of Corporate Social Responsibility on the Cost of Bank Loans. *J. Bank. Financ.* **2011**, *35*, 1794–1810. [[CrossRef](#)]
24. Huang, J.; Hu, W.; Zhu, G. The Effect of Corporate Social Responsibility on Cost of Corporate Bond: Evidence from China. *Emerg. Mark. Financ. Trade* **2018**, *54*, 255–268. [[CrossRef](#)]
25. Wang, Y.; Tang, M.; Yu, X. Can the High Quality of Internal Control Promote the Fulfillment of Corporate Social Responsibility in Energy Enterprises? In Proceedings of the 2015 Asia-Pacific Energy Equipment Engineering Research Conference (AP3ER 2015), Zhuhai, China, 13–14 June 2015.
26. Hao, D.Y.; Qi, G.Y.; Wang, J. Corporate Social Responsibility, Internal Controls, and Stock Price Crash Risk: The Chinese Stock Market. *Sustainability* **2018**, *10*, 1675. [[CrossRef](#)]
27. McWilliams, A.; Siegel, D. Corporate social responsibility and financial performance: Correlation or misspecification? *Strateg. Manag. J.* **2015**, *21*, 603–609. [[CrossRef](#)]
28. Tan, X.H.; Dang, J.F. Internal Control Analysis Based on the Relationship of Internal Controls, Risk Management, Strategic Objectives. In Proceedings of the 2010 International Conference on E-Business and E-Government, Guangzhou, China, 7–9 May 2010; pp. 4145–4149.
29. Ambrosini, V.; Bowman, C. What are dynamic capabilities and are they a useful construct in strategic management? *Int. J. Manag. Rev.* **2010**, *11*, 29–49. [[CrossRef](#)]

30. Kim, W.S.; Park, K.; Lee, S.H. Corporate Social Responsibility, Ownership Structure, and Firm Value: Evidence from Korea. *Sustainability* **2018**, *10*, 2497. [\[CrossRef\]](#)
31. Fan, J.P.H.; Wong, T.J.; Zhang, T.J. Politically Connected CEOs, Corporate Governance, and the Post-IPO Performance of China's Partially Privatized Firms. *Appl. Corp. Financ.* **2014**, *26*, 85–95. [\[CrossRef\]](#)
32. Li, H.; Meng, L.; Zhang, J.S. Why Do Entrepreneurs Enter Politics? Evidence from China. *Econ. Inq.* **2010**, *44*, 559–578. [\[CrossRef\]](#)
33. Zhang, P.; Liang, B. Political Connections and Fulfillment of Corporate Social Responsibility: Evidence from Private Listed Companies in China. *Account. Econ. Res.* **2012**, *26*, 14–23. (In Chinese)
34. Hazarika, S.; Karkoff, J.M.; Nahata, R. Internal Corporate Governance, CEO Turnover and earnings Management. *J. Financ. Econ.* **2012**, *104*, 44–69. [\[CrossRef\]](#)
35. Chen, Z.; Xu, G.C. Research on Influencing factors of Chinese Corporate Social Responsibility—Based on Empirical Analysis from the Perspective of Corporate Governance. *Soft Sci.* **2011**, *25*, 106–111. (In Chinese)
36. Peng, W.Q.; Wei, K.C.J.; Yang, Z. Tunneling or propping: Evidence from connected transactions in China. *J. Corp. Financ.* **2011**, *17*, 306–325. [\[CrossRef\]](#)
37. Korchevska, L.; Zhosan, G.; Kavun, S. Social Responsibility as a Contextual Component of the Enterprise Economic Security. *J. Financ. Econ.* **2013**, *1*, 95–104. [\[CrossRef\]](#)
38. Lee, H.Y.; Kwak, D.W.; Park, J.Y. Corporate Social Responsibility in Supply Chains of Small and Medium-Sized Enterprises. *Corp. Soc. Responsib. Environ. Manag.* **2017**, *24*, 634–647. [\[CrossRef\]](#)
39. Gupta, D.A. The Link between Competitive Advance & Corporate Social Responsibility—Indian Context. *Int. J. Soc. Sci. Interdisciplinary Res.* **2014**, *3*, 150–162.
40. Fauver, L.; Naranjo, A. Derivative Usage and Firm Value: The Influence of Agency Costs and Monitoring Problems. *J. Corp. Financ.* **2010**, *16*, 719–735. [\[CrossRef\]](#)
41. Wang, X.; Manry, D.; Wandler, S. The Impact of Government Ownership on Dividend Policy in China. *Adv. Account.* **2011**, *27*, 366–372. [\[CrossRef\]](#)
42. Hu, Z.M.; Liu, J.; Mo, Q.Y. Equity Concentration, Agency Cost and Enterprises' Performance. *Financ. Account. Mon.* **2018**, *2*, 25–31.
43. Mohr, L.A.; Webb, D.J. The effects of corporate social responsibility and price on consumer responses. *J. Consum. Aff.* **2010**, *39*, 121–147. [\[CrossRef\]](#)
44. Yuen, K.F.; Thai, V.V.; Wong, Y.D.; Wang, X. Interaction impacts of corporate social responsibility and service quality on shipping firms' performance. *Transp. Res. Part A Policy Pract.* **2018**, *113*, 397–409. [\[CrossRef\]](#)
45. Hillman, A.J.; Keim, G.D. Shareholder value, stakeholder management, and social issues: What's the bottom line? *Strateg. Manag. J.* **2001**, *22*, 125–139. [\[CrossRef\]](#)
46. Flammer, C. Does Corporate Social Responsibility Lead to Superior Financial Performance? A Regression Discontinuity Approach. *Manag. Sci.* **2015**, *61*, 2549–2568. [\[CrossRef\]](#)
47. Liu, Y.C. *China's Macroeconomics Analysis and Forecasting (2012–2013) China's Macroeconomy Toward New Economic Recovery and New Structure and Beyond the "New Normal"*; Peking University press: Beijing, China, 2013. (In Chinese)
48. Huang, X.L.; Chen, G.T. Internal Control and Corporate Performance: Industry Clustering Analysis and An Empirical Test Based on Chinese Listed Companies. *J. East China Normal Univ. Hum. Soc. Sci.* **2017**, *2*, 173–180. (In Chinese)
49. Bae, S.M.; Masud, M.A.K.; Kim, J.D. A Cross-Country Investigation of Corporate Governance and Corporate Sustainability Disclosure: A Signaling Theory Perspective. *Sustainability* **2018**, *10*, 2611. [\[CrossRef\]](#)
50. Rice, S.C.; Weber, D.P. How Effective Is Internal Control Reporting under SOX 404? Determinants of the (Non-)Disclosure of Existing Material Weaknesses. *J. Account. Res.* **2012**, *50*, 811–843. [\[CrossRef\]](#)
51. Yang, J.; Zheng, S.Q. Research on industry heterogeneity of the recognized standards concerning internal control deficiencies in Listed Companies. *Contemp. Financ. Econ.* **2017**, *3*, 117–125. (In Chinese)

