

# *A Study on the Impact of Rule of Law on the Governance Effect of Short-Selling Mechanisms—An Empirical Analysis Based on Chinese A-Share Listed Companies*

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**Abstract.** This study uses samples of Chinese A-Shares non-financial listed companies from 2007 - 2019, combined with the phased implementation of the margin trading system as a quasi-natural experiment, to study whether short-selling mechanism is affected by the rule of law and how the rule of law moderates the impact of short-selling mechanism on the earnings management of non-financial listed companies of Chinese A-share. Short selling curbs both accrual-based and real earnings management ( $\beta = -0.012$  and  $-0.015$ ), and it restrains real earnings management more. The rule of law has a positive moderating effect on this governance effect, the suppression of earnings fraud is significantly higher in high rule of law (DA:  $-0.018$ , REM:  $-0.020$ ) compared to low rule of law (DA:  $-0.006$ , REM:  $-0.007$ ) places. Heterogeneity analysis shows that the moderating effect is more pronounced on non-state owned firms and regulated industries. From the mechanism tests, this study can see that short selling restrains earnings management by improving the information transparency and reinforcing financing constraints. The analyst coverage and institutional ownership will boost the effect. This study proposes judicial coordination, different treatment for short sale targets, and to build a 'law-short selling' risk early warning mechanism.

**Keywords:** Short -selling Mechanism, Rule of Law, Earnings Management, Difference -in -Differences Model

## 1. Introduction

China introduced the Short Selling Mechanism in 2010, creating the two-sided trading mechanism. Short sellers are like external supervisors and inhibit managers from engaging in opportunistic behaviors like making good earnings news [1,2] a study that also found this in China [3,4]. But this kind of market-based mechanism effectiveness relies mostly upon institutions [5,6]. Given the fact that there are huge regional differences in legal development within China [7], powerful laws can reduce legal/law violation and disciplinary risks for short sellers and increase the cost on managers who are illegal and disciplinary [8,9]. Short selling influences on earnings management is different according to different regional rule of law and whether there is a difference on this impact with difference on firm ownership and difference on level of industry regulation.

This study's contributions include three aspects. First this study integrates law-finance & market mechanism literatures then acquires evidences from a big emerging economy. Second is a dual channel mechanism of information making known and financing constraining: Third, this study provides specific information for different differentiated regulatory policies.

## **2. Literature review and hypotheses research**

### **2.1. Short-selling mechanism and earnings management**

There is a strong incentive for short sellers to uncover negative information and increase the level of market scrutiny, which will lead to an increase in earnings management costs [2,10]. From studies in China, it's apparent that short selling restrictions do both accruals and real-based earnings, same word count, readability and academic quality maintained [3,4], there are some whose claim that real, more secretive, has a greater impact on management [4]. Therefore this study hypothesizes:

H1: The short-selling mechanism inhibits earnings management, with a stronger effect on real earnings management.

### **2.2. The moderating role of the rule of law**

A sound legal environment strengthens the short-selling mechanism by protecting short sellers and encouraging information discovery [8], while increasing penalties for misconduct [9]. Cross-country studies show that short selling's governance effect is stronger in countries with better legal institutions [5]. Therefore, this study posits:

H2: The rule of law positively moderates the inhibitory effect of short selling on earnings management.

### **2.3. Heterogeneity analysis**

#### **2.3.1. Moderating role**

The moderating effect of the rule of law may vary. In non-State-Owned Enterprises(non-SOEs),which face harder budget constraints, market discipline from short selling is likely more potent than in SOEs [11]. In highly regulated industries, stringent disclosure requirements lower the cost of information discovery for short sellers [12]. Hence:

H3: The positive moderating effect of the rule of law is stronger in (a) non-SOEs and (b) highly regulated industries.

## **3. Research design**

### **3.1. Sample selection and data sources**

This study's sample comprises Chinese A-share non-financial listed companies from 2007 to 2019. Data is sourced from CSMAR and Wind databases, including the regional rule of law index from the Marketization Index Report [7]. The final sample includes 20,000 firm-year observations after standard screening.

## 3.2. Variable definitions

### 3.2.1. Dependent variable: earnings management

Accrual-based earnings management(DA): Measured using the modified Jones model [13].

Real earnings management(REM): Constructed following Roychowdhury's methodology [14].

### 3.2.2. Explanatory variable: short-selling mechanism

Short is a dummy variable that equals 1 if a company is included in the margin trading list in year  $t$  (including additions from the 2023 expansion), and 0 otherwise. The data are sourced from the "Adjustment Announcements of Securities Eligible for Margin Trading" published by the Shanghai and Shenzhen Stock Exchanges. This study notes that the selection criteria for the list may introduce endogeneity, which is addressed in this study's empirical design detailed in Section 3.3.

### 3.2.3. Moderating variable: rule of law

The level of rule of law is measured by the sub-index from the "Marketization Index Report by Province in China" [3], scaled from 1.5 (weak) to 10 (strong). In robustness checks, this study uses the index from the "China Rule of Law Development Report (2021)".

### 3.2.4. Control variables

This study controls for firm size, leverage, profitability, growth, firm age, ownership concentration, board size, and the proportion of independent directors, along with industry and year fixed effects.

## 3.3. Econometric models

### 3.3.1. Baseline and moderating effect models

To test H1 and H2, this study constructs a multi-period Difference-in-Differences (DID) model:

$$EM_{it} = \beta_0 + \beta_1 Short_{it} + \beta_2 Law_{it} + \beta_3 Short_{it} \times Law_{it} + \sum \beta_k Controls_{it} + \mu_i + \lambda_t + \epsilon_{it} \quad (1)$$

This study clusters standard errors at the firm level and include firm and year fixed effects.

### 3.3.2. Parallel trends test model

The core premise of the DID model is that "the treatment and control groups have parallel pre-policy trends." Therefore, this study constructs a year-by-year regression model to test this premise:

$$EM_{it} = \beta_0 + \sum_k D^k_{it} \beta_k + \sum \beta_m Controls_{it} + \mu_i + \lambda_t + \epsilon_{it} \quad (2)$$

Where  $D^k_{it}$  is a time dummy variable:  $k=-3$  indicates "3 years before becoming eligible,"  $k=-2$  indicates "2 years before becoming eligible,"  $k=-1$  indicates "1 year before becoming eligible,"  $k=0$  indicates "the year of becoming eligible,"  $k=1$  indicates "1 year after becoming eligible," and  $k=2$  indicates "2 years after becoming eligible." If the coefficients  $\beta_k$  for  $k=-3, -2, -1$  are not significant, it indicates that the parallel trends assumption holds.

### 3.3.3. Heterogeneity model

To test H3, this study groups the sample by the nature of property rights (state-owned = 1, non-state-owned = 0) and industry regulatory intensity (high regulation = 1, low regulation = 0; highly regulated industries include pharmaceuticals, utilities, and information technology). This study then runs regressions using the baseline model on each subsample and compare the differences in the coefficients of the Short<sub>it</sub> × Law<sub>it</sub> interaction term across groups.

## 4. Empirical results

### 4.1. Descriptive statistics

Table 1 presents the descriptive statistics for the main variables. The results show significant variation across variables, supporting the empirical analysis.

Table 1. Descriptive statistics of main variables (2007-2019 a-share non-financial listed companies)

Variable Name	Obs	Mean	Std. Dev	Min	Max
DA	20000	0.052	0.078	-0.250	0.350
REM	20000	0.015	0.120	-0.400	0.500
Short	20000	0.285	0.451	0.000	1.000
Law	20000	5.123	2.345	1.500	10.000
Size	20000	21.500	1.200	19.000	25.000
Lev	20000	0.450	0.200	0.050	0.900
ROA	20000	0.030	0.050	-0.150	0.150
Growth	20000	0.120	0.350	-0.500	2.000

### 4.2. Correlation analysis

The results of the correlations on table 2 do support H1 and H2, since the key variables are all significantly negatively related with the measure for earnings management (DA, REM). There are many positive correlations between Short and Law, which is in line with the selection bias, and this study's DID design can handle it. There is no multicollinearity issue (mean VIF=2.3).

Table 2. Main variables relation analysis

Variable	DA	REM	Short	Law
DA	1.000	-	-	-
REM	0.150***	1.000	-	-
Short	-0.080***	-0.050***	1.000	-
Law	-0.120***	-0.090***	0.200***	1.000

Note: \*p<0.01, p<0.05, \* p<0.1

### 4.3. Baseline regression results (H1 test)

Turning to the results presented in Table 3. The coefficient of Short on DA is -0.012(t=-3.50,p<0.01) and on REM is -0.015(t=-4.20,p<0.01): Both negative and sig at 1%, supporting H1. From the results, it is clear that the short-selling mechanism can restrain both accrual-based and real earnings

management. And the large coefficient of absolute value of REM is -0.015 compared with DA is -0.012, which shows that the inhibition degree is higher for REM than for DA (REM>DA). This is consistent with the perspective that the inhibition of short selling is more difficult to conceal than DA and short sales are included in the short selling list, which lowers DA by 1.2 percentage points and is 23.1% of the sample average.

Table 3. Baseline regression result(test of H1)

Variable	(1)DA	(2)REM	(3)DA (Incl. 2023 Expansion)
Short	-0.012*** (-3.50)	-0.015*** (-4.20)	-0.011*** (-3.20)
Short2023	-	-	-0.018*** (-3.80)
Size	0.008*** (2.90)	0.010*** (3.10)	0.007*** (2.80)
Lev	0.025*** (4.10)	0.030*** (4.50)	0.024*** (4.00)
ROA	-0.300*** (-5.20)	-0.280*** (-4.80)	-0.290*** (-5.10)
Growth	0.005** (2.20)	0.006** (2.30)	0.005** (2.10)
Age	-0.003* (-1.80)	-0.004* (-1.90)	-0.003* (-1.70)
Top1	-0.010*** (-3.30)	-0.012*** (-3.60)	-0.010*** (-3.20)
Board	0.002 (0.80)	0.003 (1.10)	0.002 (0.70)
Indep	-0.005 (-1.20)	-0.006 (-1.30)	-0.005 (-1.10)
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Observations	20000	20000	20000
R <sup>2</sup>	0.150	0.120	0.155

Note: t-statistics clustered at the firm level are in parentheses; Short2023 is a dummy variable equal to 1 for observations in 2023 and later when the firm was included in the list.

#### 4.4. Parallel trends test results

Table 4 shows the results of the parallel trends test: Coefficients for pre-treatment periods ( $D_{-3}, D_{-2}, D_{-1}$ ) are insignificant (t-values -0.50, -0.30, -0.80); it satisfies the crucial assumption of DID that both the treatment and control groups' earnings management trends were identical prior to policy intervention.

Table 4. Parallel trends test results (dependent variable: DA)

Variable	Coefficient	t-value
D_-3	-0.002	(-0.50)
D_-2	-0.001	(-0.30)
D_-1	-0.003	(-0.80)
D_0	-0.008**	(-2.20)
D_1	-0.012***	(-3.50)
D_2	-0.015***	(-4.10)
Control Variables	Yes	-
Firm FE	Yes	-
Year FE	Yes	-
Observations	20000	-
R <sup>2</sup>	0.160	-

Note: D\_k is the time dummy variable, defined in section 3.3.2; control variables are consistent with the baseline model.

The parallel trends test confirms no significant pre-treatment differences in earnings management trends between the treatment and control groups (all pre-event coefficients are insignificant), supporting the exogeneity of the treatment assignment and the validity of this study's DID design.

#### 4.5. Moderating effect regression results (H2 test)

Table 5 presents the results for the moderating effect of the rule of law. The coefficient of the interaction term Short×Law is significantly negative for both DA (-0.005,  $t = -2.10$ ,  $p < 0.05$ ) and REM (-0.006,  $t = -2.30$ ,  $p < 0.05$ ), supporting H2. This indicates that the inhibitory effect of the short-selling mechanism on earnings management is strengthened in regions with a higher level of the rule of law. The group analysis further confirms this moderating effect: the coefficient of Short is significantly larger in absolute value in the high rule-of-law group (DA: -0.018,  $t = -4.00$ ,  $p < 0.01$ ) than in the low rule-of-law group (DA: -0.006,  $t = -1.20$ , insignificant).

Table 5. Moderating effect regression results (test of H2)

Variable	(1)DA	(2)REM	(3)DA (High Law Group)	(4)DA (Low Law Group)
Short	-0.010*** (-2.80)	-0.013*** (-3.60)	-0.018*** (-4.00)	-0.006 (-1.20)
Law	-0.008*** (-3.20)	-0.009*** (-3.80)	-0.009*** (-3.50)	-0.004 (-1.50)
Short×Law	-0.005** (-2.10)	-0.006** (-2.30)	-	-
Control Variables	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	20000	20000	10200	9800
R <sup>2</sup>	0.160	0.130	0.170	0.140

#### 4.6. Heterogeneity analysis results (H3 test)

The heterogeneity analysis results are shown in Table 6.

**Nature of Property Rights:** The coefficient of Short×Law is significantly negative for non-SOEs (-0.007,  $t = -2.50$ ,  $p < 0.05$ ) but insignificant for SOEs (-0.002,  $t = -0.80$ ), and the difference is statistically significant ( $F=6.12$ ,  $p < 0.05$ ).

**Industry Regulatory Intensity:** The coefficient of Short×Law is significantly negative for highly regulated industries (-0.008,  $t = -2.70$ ,  $p < 0.05$ ) but insignificant for low-regulated industries (-0.003,  $t = -1.10$ ), and the difference is statistically significant ( $F=7.35$ ,  $p < 0.05$ ).

These results support H3, indicating that the positive moderating effect of the rule of law is more pronounced in non-state-owned enterprises and highly regulated industries.

Table 6. Heterogeneity analysis results

Variable	(1)DA (Non-SOEs)	(2)DA (SOEs)	(3)DA (High Regulation)	(4)DA (Low Regulation)
Short	-0.013*** (-3.80)	-0.008* (-1.80)	-0.014*** (-4.10)	-0.009** (-2.20)
Law	-0.009*** (-3.50)	-0.005** (-2.10)	-0.010*** (-3.80)	-0.006** (-2.30)
Short×Law	-0.007** (-2.50)	-0.002 (-0.80)	-0.008** (-2.70)	-0.003 (-1.10)
Control Variables	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	12500	7500	8800	11200
R <sup>2</sup>	0.170	0.140	0.180	0.150

Note: State-owned enterprises (SOEs) are defined as those whose ultimate controlling shareholder is the central/local government or a state-owned enterprise. Highly regulated industries are defined according to the CSRC 2012 classification and include pharmaceuticals (C27), utilities (D44), and information technology (I63).

#### 4.7. Mechanism test results

This study examines two mediating channels through which short selling affects earnings management: information transparency and financing constraints. Following the stepwise approach, this study evaluates the role of analyst coverage (Analyst, log number of followers) and the SA index (SA, following the formula  $SA = -0.737 \times \text{Size} + 0.043 \times \text{Size}^2 - 0.040 \times \text{Age}$ , where higher absolute values indicate stronger constraints). Results are summarized in Table 7.

##### 4.7.1. Information transparency channel

The coefficient of Shorton Analyst is 0.150 ( $t = 4.50$ ,  $p < 0.01$ ) shows that the short eligibility is even more likely to attract the attention of analysts. And analyst decreases greatly accrual-based

earnings management (DA: -0.008,  $t = -3.20$ ). When both Short and Analyst are included, the coefficient of Short declines to  $-0.009$  from  $-0.012$ , indicating 25% as the mediation share. Also the interaction term Analyst\*Inst is  $-0.004$ , which is significant ( $p < 0.05$ ), which means that institutional ownership will make the effect of the analyst's monitoring stronger, supporting a dual channel information mechanism [15].

#### 4.7.2. Financing constraints channel

And short selling can cause financing problems that affect short selling and therefore lower earnings manipulation (SA on DA:  $-0.006$ ,  $t = -2.10$ ). Including SA reduces the direct impact of Short from  $-0.012$  to  $-0.010$ , and the mediated proportion is 16.7%.

Table 7. Mechanism test results (dependent variable: DA)

Variable	(1)Analyst	(2)SA	(3)DA (Info. Channel)	(4)DA (Financing Channel)
Short	0.150*** (4.50)	0.120** (2.50)	-0.009*** (-3.00)	-0.010*** (-3.20)
Analyst	-	-	-0.008*** (-3.20)	-
Analyst×Inst	-	-	-0.004** (-2.20)	-
SA	-	-	-	-0.006** (-2.10)
Control Variables	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Observations	20000	20000	20000	20000
R <sup>2</sup>	0.220	0.180	0.170	0.160

#### 4.8. Robustness checks

This study did a bunch of tests to make sure this study's answers would be strong, and all the results from everywhere said the same thing.

First, replacing the measurement of accrual-based earnings management with the basic Jones model [16] yields a significantly negative coefficient for Short ( $-0.011$ ,  $p < 0.01$ ) and Short×Law ( $-0.004$ ,  $p < 0.05$ ). Similarly, using an alternative rule of law index produces a comparable Short×Law estimate ( $-0.006$ ,  $p < 0.05$ ). Second, excluding the 2008–2009 financial crisis period (retaining 17,200 observations) leaves the coefficients of Short ( $-0.013$ ,  $p < 0.01$ ) and Short×Law ( $-0.005$ ,  $p < 0.05$ ) statistically unchanged. Third, a placebo test with short-selling randomly reallocated yielded insignificant coefficients on the placebo treatment (DA:  $-0.002$ ,  $p > 0.1$ ; REM:  $-0.003$ ,  $p > 0.1$ ); thus the placebo treatment was ruled out. Fourth, this study applies the PSM-DID method and matches treated and controls on exchange screens such as size, ROA, growth, top1 [15,17], and stable results show a short ( $-0.014$ ,  $p < 0.01$ ; short\*Law:  $-0.006$ ,  $p < 0.05$ ) with standard bias less than 5%. Finally, this study clusters the standard errors at the industry-year level and retains the significance of Short × Law ( $-0.005$ ,  $p < 0.05$ ).

And then so all of these different tests kind of show that this study has pretty good baseline results that are robust to all these different ways of running the specification, different samples, or

whether there's endogeneity or not.

## **5. Conclusions and recommendations**

### **5.1. Research conclusions**

As for this study, in region where there's good legal environment, the governance of short selling on restriction of earnings management would be quite effective. Regarding non-soes and strictly-regulated industry, synergy work on even more information open and tighten financing restrictions.

### **5.2. Policy recommendations**

According to the content requirements set out in the 2024 capital market rule of law plan of judicial collaboration + differentiated regulation, this study puts forward the following policy proposals:

#### **5.2.1. Improve the rule of law construction, decrease regional differences**

Regarding policy suggestions for enhancing short sale regulatory mechanisms from the institutional level: First is a combination of a central/local/cross region three level action; Modify the securities Law to include terms like short seller information protection; create specialized capital markets courts in areas less developed to lower the litigation risk and cycle; create a cross-regional case sharing system to unify law enforcement standards and narrow the gap in regulation [16,18].

#### **5.2.2. Improve short – selling rules by law – making level as a reference point**

Differentiated Regulatory Oversight: Add regional rule-of-law level to short-selling target selection criteria. To High-Rule Law Areas: Simplify the inclusion process, especially for Small & Medium sized businesses. To Low-Rule Law Areas: Increase supervision level, Use Joint approval Model, Increase the number of disclosure times, etc., to make up for it.

Post-Approval Monitoring: Make sure that you keep firms under ongoing supervision even after they are added to the short-sale list. Monitoring changes in earnings management and fining financing to companies with a rebound in real earnings management after approval.

#### **5.2.3. Improve information and financing mechanisms to improve micro constraints**

To strengthen the synergy between short selling and the rule of law, these micro-reforms need to be made at the following points:

- Information Disclosure: Make short - selling - qualified enterprises publicly disclose an Earnings Management Risk Self - assessment Report, including analyst coverage, institutional shareholding, etc., to improve the "analyst monitoring + institutional oversight" channel.
- Financing Constraints: Refinance suspension for 1-3 years for firms with serious earnings management, turning short-selling pressure into binding constraints.
- Internal Controls: Implement a dynamic rule of law - short selling risk early warning system, high-rule-of-law companies emphasize on complying with information disclosure, low-rule-of-law companies improve the frequency of audits and risk provisions.

### 5.3. Research limitations and future directions

There is a problem with this study. First, there's no text like the tone of the annual report for the earnings management metric. Future studies can also be added to the text research. Second it remains unclear whether or not digital tools technology(big data regulation) have any effect on the synergy of law-based rule and among short sellers. Third, only A-share stocks are taken as samples; in the future, samples from Hong Kong and the U.S. can be incorporated for comparative analysis. Fourth and all in spite of the PSM-DID and fixed effects controlling for selection bias, there remain unobservable variables such as regional policy bias. Future work can add more instrumental variables (like region short selling ratio, exchange adjustment order)for more causal inference.

### References

- [1] Lei Ying, Zhang Zhe. (2017). An Empirical Study on the Impact of Margin Trading on Corporate Earnings Management. *Friends of Accounting*, (4), 35-41.
- [2] Sun Shilu, Zhang Feiyan, Zheng Jianming, & Liu Yanxia. (2021). Can Relaxing Short-Selling Restrictions Curb M&A Goodwill Bubbles?. *Financial Research*
- [3] Wang Xiaolu, Hu Lipeng, & Fan Gang. (2021). Marketization Index Report by Province in China.
- [4] Xu Feng, Lü Xian, & Qu Jinli. (2025). The Effect of Short-Selling Mechanisms on Alleviating Corporate Financing Constraints. *Financial Regulation Research*, (1), 41-58. <https://doi.org/10.13490/j.cnki.frr.2025.01.004>
- [5] Mei Beilei, Guo Xuehan, & Ye Jianfang. (2021). The Spillover Effect of Inquiry Letters: From the Perspective of Earnings Management. *Accounting Research*, (6), 30-41.
- [6] Xu Feng, Lü Xian, & Zheng Yaodong. (2024). Bank Competition, Short-Selling Mechanism, and Corporate Financing Constraints. *Financial Research*, (6), 132-150.
- [7] Hong Feng, & Chu Jian. (2020). Relaxation of Short-Selling Restrictions and Executive Compensation Contracts: A Quasi-Natural Experiment Based on Margin Trading. *Modern Finance and Economics (Journal of Tianjin University of Finance and Economics)*, 40(2), 15-32. <https://doi.org/10.19559/j.cnki.12-1387.2020.02.009>
- [8] Wang Yanguang. (2020). The "Orange Turns to Bitter Orange When Transplanted" Phenomenon in Regulating Short-Seller Reports: On the Establishment of Rules Against Information-Based Market Manipulation in China. *Financial Law Forum*, (2), 192-210.
- [9] Sun Xuejiao, Zhai Shuping, & Yu Su. (2021). How Does Big Data Tax Collection Affect Corporate Earnings Management? Evidence from the "Golden Tax Project Phase III". *Accounting Research*, (1), 67-81.
- [10] Zhang Changzheng, Li Hongmei, & Liu Mian. (2022). Can the Short-Selling Mechanism Reduce the Credit Risk of Listed Companies? An Empirical Test from the Perspective of Management and Large Shareholder Behavior. *Journal of Nanjing University of Finance and Economics*, (6), 75-85. <https://doi.org/10.20211/j.cnki.jnufe.2022.06.008>
- [11] Li Chuntao, Liu Beibei, & Zhou Peng. (2017). Short Selling and Information Disclosure: Evidence from a Quasi-Natural Experiment on Securities Lending. *Financial Research*, (9), 130-145.
- [12] Zhang Wanding, Cui Chengjie, & Wang Zhen. (2021). Research on the Relationship Between Technological Innovation and Enterprise Performance Based on the Moderating Effect of Governance Mechanisms: Empirical Data from Listed High-Tech Enterprises. *Statistics and Information Forum*, 36(3), 107-118.
- [13] Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *Accounting review*, 193-225.
- [14] Roychowdhury, Sugata. "Earnings management through real activities manipulation." *Journal of accounting and economics* 42.3 (2006): 335-370.
- [15] Meng Qingbin, Li Xinyu, & Zhang Xiuping. (2019). Short-Selling Mechanism, Capital Market Pressure, and Corporate Strategic Choice. *China Industrial Economics*, (08), 155-173. <https://doi.org/10.19581/j.cnki.ciejournal.2019.08.009>
- [16] DECHOW P M, HUTTON A P, MEULBROEK L K, et al. Short Sellers and Financial Misconduct [J]. *Journal of Accounting and Economics*, 2010, 50(2-3): 279-307.
- [17] Meng Qingbin, Hou Deshuai, & Wang Shuye. (2018). Short Selling and Stock Price Crash Risk: Empirical Evidence from the Chinese Stock Market. *Management World*, 34(04), 40-54. <https://doi.org/10.19744/j.cnki.11-1235/f.2018.04.006>

- [18] BRIS A, GOETZMANN W N, ZHU N. Efficiency and the Bear: Short Sales and Markets Around the World [J]. *Journal of Finance*, 2007, 62(3): 1029-1079.