

# Can Minority Investor Protection Restrain Earnings Management? An Empirical Test of China's Listed Companies

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## Abstract

This paper investigates the relationship between minority investor protection and the earnings management of Chinese listed companies. We find that the improvement of protection for minority investors' rights can significantly reduce the degree of listed companies' accrual earnings management, but has no effect on real earnings management. Meanwhile, the effect on accrual earnings management is primarily related to the role of protection for minority investors' right to know, and the system construction for rights' implementation environment. After considering the nature of ownership, we find that the effect is predominantly highlighted in state-owned enterprises, which may be due to the more serious "one big share dominance" phenomenon in Chinese state-owned enterprises, resulting in a more substantial marginal effect. This paper enriches the study on the economic consequences of minority investors' protection, and provides meaningful enlightenment for Chinese listed companies on how to better resolve the agency problem, restrain operators' earnings management, and improve the quality of financial information.

**Keywords:** Minority investor protection, Accrual earnings management, Real earnings management

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## 1. Introduction

China's capital market entered a period of rapid development since the 2005 split share structure reform, as more people became involved in the capital market as minority investors. Currently, minority investors account for the majority of investors, and have become an important force to promote the development of China's securities market. If the interests of minority investors are not assured, investors' confidence will be impacted, which

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is not conducive to the stability and development of China's capital market. Therefore, it is essential to protect the rights of minority investors.

However, because the current investor protection mechanism is not yet sound, accounting is likely to become a tool to perpetuate management's personal gain, such as earnings management. As a universal phenomenon in enterprises, earnings management not only affects companies' management activities, operating activities, and financial structure and damages the company's value (Dechow and Sloan, 1991; Cohen and Zarowin, 2010), but also reduces the reliability of financial reports, which will ultimately impair investors' interests (Dechow et al., 1996). Therefore, in the context of China's vigorously developing the capital market, studying the effect of the protection mechanism for minority investors on earnings management has important theoretical and practical significance.

Most empirical studies to date have focused on only a few aspects of minority investor protection, or have examined the protection effects solely on a national or regional level. This paper focuses on the overall investor protection mechanism, and ventures into the micro-firm level, based on a systematic and comprehensive minority investor protection indicator system from the perspective of earnings management to explore the effect of restraining management from exhibiting opportunistic behavior.<sup>1</sup> This paper will also examine the role of the nature of ownership on the relationship between minority investor protection and earnings management because the nature of ownership in China results in a different institutional environment for enterprises, which may affect the effectiveness of minority investors' protection mechanisms.

## **2. Literature Review and Hypotheses' Development**

There are two contrary hypotheses in theory regarding the relationship between investor protection level and earnings management. One is the "transfer" hypothesis, which makes it difficult, in terms of strong legal protection, not only for management to conceal the business fact from outside investors, but also to implement the transfer of personal benefit, thereby reducing their earnings management incentives. Another is the "punishment" hypothesis, which suggests that a strong legal environment will lead to the further implementation of earnings management behaviors, as negative earnings could lead to greater punishment expectations. Leuz et al. (2003) studied non-financial sector companies in 31 countries, and found that the degree of legal protection for outside investors is a key determinant of financial information quality; the stronger the country's investor protection,

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<sup>1</sup> Watts and Zimmerman (1986) and Holthausen and Leftwich (1983) classify the accounting policy choices into three categories: the opportunism behavior view, effective contract view, and information view.

the fewer earnings management behaviors are implemented, and vice versa. Shen and Chih (2005) further extended the study to financial sector companies with an international comparison, and found that a greater level of investor protection will curb banks' incentive to manage earnings. Enomoto et al. (2015) further distinguished between accrual earnings management and real earnings management, and based on an empirical study conducted in 38 countries from 1991 to 2001, they found that in countries with a higher level of investor protection, management was more inclined to substitute accrual earnings management with real earnings management.

With the development of China's securities market, more attention has been given to investor protection, and in China, investor protection is more significant for the protection of minor investors. Domestic scholars have also begun to focus on research in this area. For example, Yuan et al. (2014) investigated the relationship between overvalued equity firms' earnings management and the level of local investor protection level, and found that with the higher level of investor protection in the region, there will be significant inhibiting of accrual earnings management, to increase profits, and real earnings management, to decrease profits. However, these studies only considered the macroeconomic view, such as the national or regional levels of investor protection; research has not pursued investor protection at the micro-firm level. These studies focused on the legal aspect, social norms, or market mechanisms, and did not combine this variety of mechanisms to describe the comprehensive effects on minority investor protection. Therefore, this paper will be based on a comprehensive minority investor protection index, which was first developed by the Research Center for Corporate Governance and Enterprise Development at Beijing Normal University, to explore the relationship between the micro-enterprise level of minority investor protection and earnings management, including both accrual and real earnings management.

The protection of minority investors, as defined in the index, includes four aspects: (1) investors' right to know, which represents the level of information minority investors receive regarding companies' major business decisions; (2) investors' right to make decisions and supervise, which represents how minority investors exercise rights and supervise agents; (3) investors' right to receive returns, which indicates if minority investors' earnings are ensured by cash dividends or capital gains; and (4) investors' rights' execution environment, which illustrates the system construction for minority investors to exercise and maintain their legitimate rights and interests. We believe that investors' right to know is the basis for minority investors' interest protection, their right to make decisions and supervise is the method to protect minority investors' rights and interests, earnings indemnification is the purpose to protect minority investors' right and interest, and rights execution environment is the system guarantee for protecting minority investors' rights and interests. If the above four

aspects are strongly guaranteed, management will be subject to more rigorous supervision and constraints, and subsequently more transparency and timely information disclosure will leave less space for accrual earnings management. Accordingly, we propose the following hypotheses:

H1: The level of minority investors' protection is negatively related to the degree of accrual earnings management.

However, management under performance pressure may choose to implement real earnings management, which will not be easily identifiable, but could damage companies' long-term value. The firms with a higher level of minority investor protection will have a significantly increased cost of manipulating earnings, and this may blur the relationship between the level of minority investor protection and earnings management. Accordingly, we propose the following hypotheses:

H2a: The higher the level of minority investor protection, the more likely that management will turn to implement the more concealed real earnings management.

H2b: The higher the level of minority investor protection, the higher the inhibition of real earnings management implementation.

H2c: There is no significant relationship between the level of minority investor protection and the degree of real earnings management.

### **3. Methodology**

#### **3.1 Measurement of Earnings Management**

##### **3.1.1 Accrual Earnings Management**

There is inevitably a wide scope of accounting choices and professional judgment, as accounting earnings are the results of implementing accrual accounting. By examining the separation degree of net income and cash flows from operating activities, and particularly after the removal of normal business accruals or non-discretionary accruals (NDA), the discretionary accruals represent the manipulated part of management, regardless of motive, which is the most commonly used method of measuring the level of earnings management. Many studies have illustrated that accrual items are an important method for many companies to manage and manipulate accounting earnings. The higher the level of accrual, the higher the likelihood that accounting earnings are to be manipulated, or that the level of earnings management is higher (Healy, 1985; Easton and Zmijewski, 1989; Jones, 1991). Therefore, the level of accrual can be measured as the companies' level of earnings management (Sloan, 1996; Houge and Loughran, 2000; Richardson et al., 2006). We emulate previous studies by implementing a cross-sectional modified Jones Model to estimate the magnitude of earnings management (Dechow and Sloan, 1995; Kothari et al.,

2005).<sup>2</sup> The estimation model is as follows:

$$TA_{it} / A_{it-1} = \alpha_i [1 / A_{it-1}] + \beta_{1i} [(\Delta REV_{it} - \Delta REC_{it}) / A_{it-1}] + \beta_{2i} [PPE_{it} / A_{it-1}] + \xi_{it} \quad (1)$$

Where TA denotes total accruals, A represents asset, REV denotes annual revenue, REC represents accounting receivables, PPE refers to the property of permanent equipment, and subscripts *i* and *t* represent firm and year, respectively.

We compute TA as post-tax operating profit, minus the net cash flow from operating activities.<sup>3</sup> To ensure comparability, every variable is divided by the total assets at the beginning of the year. We estimate Equation (1) for firms in the same industry to estimate NDA.

### 3.1.2 Real Earnings Management

We rely on the studies of Roychowdhury (2006) and Cohen and Zarowin (2010) for the level of real earnings management, and consider three metrics to represent the level of real activities' manipulation: the abnormal levels of cash flow from operations (CFO), discretionary expenses, and production costs.

The abnormal CFO, abnormal discretionary expenses, and abnormal production costs are computed as the differences between actual values and the normal levels predicted from Equations (2)-(4). First, we generate the normal levels of CFO, discretionary expenses, and production costs using models (2)-(4) (Roychowdhury, 2006), then deduct them from the actual CFO, actual discretionary expenses, and production cost, respectively, to obtain the abnormal CFO, discretionary expenses, and production costs.

$$CFO_{it} / A_{it-1} = \alpha_i [1 / A_{it-1}] + \beta_{1i} [REV_{it} / A_{it-1}] + \beta_{2i} [\Delta REV_{it} / A_{it-1}] + \xi_{it} \quad (2)$$

$$PROD_{it} / A_{it-1} = \alpha_i [1 / A_{it-1}] + \beta_{1i} [REV_{it} / A_{it-1}] + \beta_{2i} [\Delta REV_{it} / A_{it-1}] + \beta_{3i} [\Delta REV_{it-1} / A_{it-1}] + \xi_{it} \quad (3)$$

<sup>2</sup> Industry classification is based on the "Classification Guidance of Chinese Listed Companies" issued by the CSRC in 1998. We group all listed companies following the CSRC industry classification standard. However, because most companies belong to the manufacturing industry, we use subcategories for the manufacturing industry, which results in a total of 21 industry categories.

<sup>3</sup> There are two methods that can be used to calculate total accruals: the balance sheet method and the cash flow statement method. Collins and Hribar (2000) believe that it is occasionally better to use the cash flow statement method, such as in instances of mergers and acquisitions, non-recurring items, currency conversions, etc. Using the balance sheet method to calculate total accruals may include accruals generated from this special circumstance, which may overstate the discretionary accruals.

$$DISEXP_{it} / A_{it-1} = \alpha_i [1 / A_{it-1}] + \beta_{it} [REV_{it-1} / A_{it-1}] + \xi_{it} \quad (4)$$

Where CFO denotes cash flow from operating activities, PROD denotes production costs, DISEX denotes discretionary expenses, A denotes asset, and REV denotes annual revenue.

We compute the level of real earnings management to capture its total effects, as follows (Cohen and Zarowin, 2010):

$$RDA_{it} = DPROD_{it} - DCFO_{it} - DDISEXP_{it} \quad (5)$$

### 3.1.3 Level of Minority Investor Protection

We adopt the minority investor protection data published in the “Report on Minority Investors’ Protection Index of China’s Listed Companies” (Gao et al., 2015), which includes the overall score and four sub-index scores. The higher score indicates a higher level of minority investor protection. The natural logarithm of the index is the measure for the level of minority investor protection noted in this paper.

## 3.2 Research Design

Following the work of Lacker et al. (2007), we set the research model as follows:

$$DA_{it} \text{ or } RDA_{it} = \alpha + \beta CCMI_{it}^{BNU} + \phi Controls_{it} + Industry + \xi_{it} \quad (6)$$

Where DA and RDA represent the degree of accrual earnings management and real earnings management, respectively, and  $CCMI^{BNU}$  refers to the level of minority investors’ protection. Based on the definition above,  $CCMI^{BNU}$  can be further deconstructed into four sub-indices: (1) minority investors’ right to know (MIK); (2) minority investors’ right to exercise decision-making and supervision (MIE); (3) minority investors’ right to receive returns (MIR); and (4) minority investors’ right implementation environment (MII).

We also established five control variables: (1) company size (Size), represented by the natural logarithm of total assets at the end of the year; (2) financial leverage (Lev), computed as the end of the year’s total assets divided by the total liabilities; (3) company’s growth (MB), calculated as the year-end market value of the company divided by the book value of the company’s net assets; (4) the first largest shareholding ratio (Top1); and (5) profitability, denoted as return on assets (ROA).

Existing research suggests the following: (1) The larger the company, the more likely it will be subject to more oversight by, and concern from, government departments, institutional investors, securities analysts, and investors. This condition may make these firms more inclined to provide more information to the public, resulting in greater costs for

**Table 1. Definition of Variables**

Variables	Definition
DA	the degree of accrual earnings management
RDA	the degree of real earnings management
Fsize	the natural logarithm of total assets at the end of the year
Lev	the ratio of total liabilities at the end of the year to total assets at the end of the year
MB	the book value of the company's net assets divided by the year-end market value of the company
Top1	the first largest shareholding ratio
ROA	return on total assets
LnCCMII <sup>BNU</sup>	the level of minority investors protection
LnMIK	the level of minority investors' right to know
LnMIE	the level of minority investors' right to exercise decision-making and supervision
LnMIR	the level of minority investors' right to receive returns
LnMII	the level of minority investors' right implementation environment

implementing earnings manipulation practices (Rajan and Zingdes, 1995; Dechow and Dichev, 2002). Therefore, there may be a negative correlation between company size and earnings management. (2) Debt covenants may encourage enterprises to implement upward earnings manipulation, as companies with mandatory provisions incorporated into loan contracts usually have high discretionary accruals (Defond and Jiambalvo, 1994; Sweeney, 1994). (3) Companies with higher growth opportunities are more likely to achieve profit targets through earnings management (Klein, 2002; Matsumoto, 2002; Cheng and Warfield, 2005). (4) Higher first largest shareholder ratios result in stronger motivation and the ability to manipulate earnings (Ming and Wong, 2003; Meng and Zhang, 2006; Wang and Tong, 2006; Zhang, 2010). (5) Dechow and Sloan (1995) argue that the return on total assets should be controlled for the impact of firm performance on earnings management when the discretionary accrual is related to the firm's performance. Lei and Liu (2006) found that the return on total assets has a positive relationship with earnings management. We also controlled for the industry factor in the model.

We also controlled for the industry effect in the model. The variables we use are summarized in Table 1.

### 3.3 Sample Selection and Data Source

We chose all companies listed on the Chinese A-share market during 2014.<sup>4</sup> Consistent with similar studies, we excluded financial companies, and companies without necessary data. As a result of these procedures, 2,376 observations were adopted for our final sample. The minority investors' protection index, including the sub-index of minority investors' right to know (MIK), right to exercise decision-making and supervision (MIE), right to receive returns (MIR), and rights' implementation environment (MII), are obtained from the "Report on Minority Investors Protection Index of China's Listed Companies" (Gao et al., 2015). All data originates from the listed companies' annual financial reports. Other financial data derives from the WIND database.

## 4. Empirical Analysis

### 4.1 Descriptive Statistics

Table 2 presents the summary statistics for all variables, and illustrates that in 2014, the minority investors' protection by China's A-share listed companies is poor, and the average score for minority investors' protection (CMII) is only 44.79. From the perspective of the

**Table 2. Descriptive Statistics**

Variable	Obs	Min	Mean	Max	P50	SD
DA	2374	-1.386	0.002	1.464	-0.001	0.108
RDA	2374	-3.786	0.006	1.472	0.015	0.203
FSIZE	2374	17.757	22.161	30.657	21.926	1.468
LEV	2374	0.0097	0.446	0.996	0.435	0.218
MB	2374	0.456	4.801	533.045	3.030	16.755
TOP1	2374	0.022	0.354	0.894	0.334	0.153
ROA	2374	-0.484	0.037	0.346	0.031	0.052
CCMIBNU	2374	24.326	44.794	61.312	44.897	5.512
MIK	2374	27.520	55.994	75.060	57.590	6.835
MIE	2374	3.182	35.583	75.909	36.818	11.039
MIR	2374	14.286	28.353	57.372	28.614	9.606
MII	2374	22.222	59.258	88.889	57.222	11.533

<sup>4</sup> We use one year of data because information concerning the key variable for the level of minority investors protection is available for only one year, which is the most comprehensive and systematic evaluation index developed in 2014 by the Research Center for Corporate Governance and Enterprise Development at Beijing Normal University.



sub-index, the level of minority investors' right to know (MIK) and minority investors' right implementation environment (MII) are relatively higher than in the other two sub-indexes. The average degree of accrual earnings management is 0.002, while that of real earnings management is 0.006, for the measurement of companies' earnings management level.

## **4.2 Empirical Results and Analysis**

### **4.2.1 Minority Investors' Protection and Accrual Earnings Management**

Table 3 reports the OLS regression results for Hypothesis 1, and notes the result of the impact of minority investors' protection on the degree of accrual earnings management (DA). We report the regression results of the minority investors' protection index in column 1, and the four sub-indices in columns 2-5 as the independent variables. Table 3 demonstrates that the regression coefficient of the minority investors' index (CMII) is -0.045, which is at the 1% significance level, indicating that there is a significant negative correlation between minority investor protection and the degree of accrual earnings management. Furthermore, because the degree of accrual earnings management has a negative and significant coefficient in the regressions of minority investors' right to know (MIK) and minority investors' right implementation environment (CMII), yet no significant relationship with minority investors' right to exercise decision-making and supervise (MIE) and minority investors' right to receive returns (MIE), we interpret these results to indicate that the governance mechanism of protection for minority investors' rights to know, and the environmental construction for them to implement their rights, play a key role in reducing the degree of accrual earnings management.

### **4.2.2 Minority Investors' Protection and Real Earnings Management**

Table 4 reports the OLS regression results for hypotheses 2-4, and relays the result of the impact of minority investors' protection on the degree of real earnings management (RDA). We report the regression results of the minority investors' protection index in column 1, and four sub-indices in columns 2-5 as the independent variables. Table 4 demonstrates that the regression coefficient of the minority investors index (CMII) is 0.008, which does not reach a significant level, indicating that there is no significant correlation between minority investors' protection and the degree of real earnings management. Furthermore, there are no significant correlations between minority investors' rights and the four sub-indexes. These empirical results support the suggestion in hypothesis 2c, which is that there is no significant relationship between the level of minority investors' protection and the degree of real earnings management.

**Table 3. Regression Results of Minority Investors' Protection and Accrual Earnings Management (DA)**

Variables	DA	DA	DA	DA	DA
LnCCMI <sup>BNU</sup>	-0.045*** (-2.580)				
LnMIK		-0.027* (-1.657)			
LnMIE			-0.001 (-0.208)		
LnMIR				-0.001 (-0.147)	
LnMII					-0.031*** (-3.003)
Fsize	0.001 (0.512)	0.001 (0.302)	0.000 (0.048)	0.000 (0.033)	0.001 (0.517)
Lev	-0.012 (-0.871)	-0.013 (-0.927)	-0.011 (-0.832)	-0.012 (-0.847)	-0.012 (-0.913)
MB	0.000 (1.215)	0.000 (1.115)	0.000 (1.263)	0.000 (1.258)	0.000 (1.319)
Top1	-0.015 (-1.042)	-0.014 (-0.945)	-0.014 (-0.989)	-0.014 (-0.980)	-0.016 (-1.084)
ROA	0.475*** (10.297)	0.461*** (10.098)	0.457*** (10.010)	0.459*** (9.744)	0.459*** (10.079)
Industry	Y	Y	Y	Y	Y
_cons	0.148** (2.035)	0.097 (1.314)	0.003 (0.058)	0.002 (0.044)	0.104* (1.845)
N	2374	2374	2374	2374	2374
Adj-R <sup>2</sup>	10.91	10.77	10.66	10.66	11.00
F	17.149	16.904	16.735	16.733	17.297

Note: \*\*\* represents significance at the 1% level. \*\* represents significance at the 5% level.

\* represents significance at the 10% level.

#### 4.2.3 Minority Investors' Protection and Accrual Earnings Management: Divided by the Nature of Ownership

We further divide the samples by the nature of ownership to check if there are differences between state-owned enterprises (SOE) and non-state-owned enterprises (NSOE) to calculate the effect of minority investors' protection on accrual earnings management.

**Table 4. Regression Results of Minority Investors' Protection and Real Earnings Management (RDA)**

Variables	RDA	RDA	RDA	RDA	RDA
LnCCMI <sup>BNU</sup>	0.008 (0.241)				
LnMIK		0.015 (0.467)			
LnMIE			0.003 (0.290)		
LnMIR				-0.010 (-0.839)	
LnMII					0.013 (0.648)
Fsize	-0.001 (-0.201)	-0.001 (-0.233)	-0.001 (-0.183)	-0.001 (-0.143)	-0.001 (-0.262)
Lev	0.057** (2.135)	0.058** (2.154)	0.057** (2.116)	0.056** (2.117)	0.057** (2.147)
MB	-0.000 (-0.376)	-0.000 (-0.339)	-0.000 (-0.383)	-0.000 (-0.399)	-0.000 (-0.392)
Top1	0.016 (0.559)	0.015 (0.543)	0.016 (0.564)	0.016 (0.567)	0.016 (0.575)
ROA	-0.797*** (-8.871)	-0.796*** (-8.946)	-0.794*** (-8.932)	-0.775*** (-8.459)	-0.795*** (-8.944)
Industry	Y	Y	Y	Y	Y
_cons	-0.027 (-0.193)	-0.054 (-0.375)	-0.009 (-0.099)	0.029 (0.312)	-0.044 (-0.403)
N	2374	2374	2374	2374	2374
Adj-R <sup>2</sup>	4.43	4.44	4.44	4.46	4.45
F	7.117	7.127	7.119	7.155	7.138

Note: \*\*\* represents significance at the 1% level. \*\* represents significance at the 5% level.  
\* represents significance at the 10% level.

Table 5 notes the test results for state-owned enterprises and non-state-owned enterprises in column 1 and column 2, respectively. We can observe from the first column of Table 5 a significant negative coefficient on minority investors' protection (CMII) and discretionary accruals (DA) for state-owned enterprises. However, in column 2 of Table 5, the coefficient on minority investors' protection (CMII) and discretionary accruals (DA) for non-state-owned

**Table 5. Minority Investors' Protection and Accrual Earnings Management, Divided by Nature of Ownership**

	DA SOE	DA NSOE	DA SOE	DA SOE	DA SOE	DA SOE
LnCCMI <sup>BNU</sup>	-0.079*** (-2.914)	-0.020 (-0.873)				
LnMIK			-0.020 (-0.843)			
LnMIE				-0.018* (-1.778)		
LnMIR					-0.007 (-0.815)	
LnMII						-0.035** (-2.159)
Fsize	-0.001 (-0.408)	0.002 (0.552)	-0.002 (-0.676)	-0.002 (-0.720)	-0.002 (-0.792)	-0.002 (-0.596)
Lev	0.027 (1.425)	-0.054*** (-2.636)	0.029 (1.500)	0.030 (1.556)	0.029 (1.526)	0.027 (1.438)
MB	0.000** (2.236)	-0.000 (-1.471)	0.000** (2.256)	0.000** (2.358)	0.000** (2.340)	0.000** (2.363)
Top1	-0.024 (-1.195)	-0.002 (-0.080)	-0.021 (-1.019)	-0.023 (-1.144)	-0.021 (-1.021)	-0.022 (-1.088)
ROA	0.700*** (9.637)	0.304*** (5.075)	0.671*** (9.306)	0.664*** (9.232)	0.680*** (9.218)	0.673*** (9.363)
Industry	Y	Y	Y	Y	Y	Y
_cons	0.301*** (2.702)	0.046 (0.431)	0.094 (0.916)	0.081 (1.226)	0.043 (0.690)	0.151* (1.831)
N	1296	1078	1296	1296	1296	1296
Adj-R <sup>2</sup>	11.96	12.81	11.43	11.60	11.42	11.70
F	10.776	9.793	10.282	10.438	10.279	10.533

enterprises is not significant. This result suggests that the significant negative relationship of minority investors' protection and the degree of accrual earnings management is primarily due to the function exerted in state-owned enterprises. The reason may be that the "one big share dominance" phenomenon is taken more seriously in state-owned enterprises in China; therefore, in this type of enterprise, the effect of protection for minority investors will be further emphasized.

Furthermore, from the empirical results illustrated in columns 3-6, we find that the

function of minority investors' protection on inhibiting the degree of accrual earnings management is primarily due to the effect of minority investors' right to exercise decision-making and supervision, and assurance for the right implementation environment.

## 5. Conclusion

In this paper, we use minority investors' protection data from the Corporate Governance and Enterprise Development Research Center of Beijing Normal University to examine the impact of minority investors' protection on earnings management, and further observe the influence of the nature of ownership on their relationship. We find that effective minority investor protection can significantly inhibit accrual earnings management, and there is no effect on real earnings management. In addition, the internal mechanisms to restrain accrual earnings management contribute differently: the mechanism to guarantee investors' right to know and the system construction for rights implementation can significantly lower the degree of accrual earnings management, while the other two have no significant effect.

After considering the nature of ownership, we find that the protection for minority investors of state-owned companies is more effective than that of non-state-owned companies. The reason may be that the "one big share dominance" phenomenon is taken more seriously by Chinese state-owned enterprises, and the effects of protection for minority investors will be emphasized in this type of enterprise. Research indicates that the function of minority investors' protection to inhibit the degree of accrual earnings management occurs primarily because of the effect of minority investors' right to exercise decision-making and supervise, and assurance of the right implementation environment.

This paper's analysis reflects that the level of minority investors' protection has a significant role in improving the quality of accounting earnings information. The construction must be continuously strengthened for minority investors' right to know, rights to exercise decision-making and to supervise, and the right implementation environment, which will further improve the protection mechanism for minority investors in Chinese listed companies. This paper enriches the study on the economic consequences of minority investors' protection, and provides meaningful insight for Chinese listed companies as to how to resolve the agency problem, restrain operators' earnings management, and improve the quality of financial information.

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