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## Research on earnings management based on corporate governance and business performance

Long-Zhong Su<sup>1</sup>, Hai Tao Wang<sup>2</sup>, Qi Chen<sup>1</sup>  
<sup>1</sup>Education Foundation

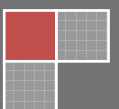
<sup>2</sup>Department of Information Management, University of International Business and Economics, Beijing 100029, (CHINA)  
E-mail: dsulongzhong@163.com

### ABSTRACT

In this paper, China's securities market data for 2010-2012 were investigated, using the adjusted cash flow model metering section of Jones accruals manipulation, analysis of earnings management between the private listed companies and state-owned listed companies and their differences decisive factor. The study found that earnings management of private listed companies is significantly higher than the stateowned listed companies. Further empirical evidence also shows that the decisive factor in restricting the role of differences in earnings management incentives from business performance, rather than corporate governance.

### KEYWORDS

Earnings management; Corporate governance; Performance.



## INTRODUCTION

Listed companies have varying degrees of earnings management behavior in China. It can be said that a lot of earnings management of listed companies has become a common means of escape cater or regulation<sup>[1-4]</sup>. Efficiency of resource allocation is no doubt that excessive earnings management will damage the capital market and thus disrupt the order of the market economy. Therefore, how to suppress earnings management of listed companies has become an important part of protecting the interests of investors. Numerous studies show that, on the one hand, listed companies in China generally have based IPO, insurance cards and earnings management behavior allotment motivation; on the other hand, good corporate governance structure may inhibit the company's earnings management behavior to a certain extent, and thus lead to more high-quality financial and accounting reports. Based on this, it seems that it restricts incentive business performance and corporate governance of the Company's common affect earnings management.

However, previous studies have mostly ignored the heterogeneous nature of the company under different ownership behavior. And a large number of state-controlled listed companies and private holding listed companies exist is one of the distinctive features of this stage of the market economy. Therefore, we are interested in is that if systematic differences exist between the degree of earnings management of state-owned listed companies and private listed companies, and that it is determined by what factors.

## THEORETICAL ANALYSIS AND ASSUMPTIONS ESTABLISHED

### Corporate governance and earnings management

Since Berlet and Means proposed separation of ownership and management since the topic of how to solve the principal-agent problem and improve the operating efficiency will become the core of corporate governance research<sup>[5-7]</sup>. In theory, corporate governance can ensure the quality of accounting information through a set of institutional arrangements, and its degree of perfection restricting the earnings management companies. A large number of empirical studies also confirmed the above conclusions. Existing research shows that systematic differences exist between private listed companies and state-owned listed company governance structure in China. So it is worth thinking about is whether the difference between the two types of corporate governance structure constitutes a decisive factor in its earnings management differences? In other words, if it is given the same governance structure whether a significant difference between their earnings management will disappear. There is no doubt that the interests of all internal members on major issues such as insurance cards or allotment is prosperity or a loss for both sides. Therefore, the internal member companies expect earnings management behavior provides an effective constraint is unrealistic. Third, China's weak legal risks greatly reduce the cost of the responsible person of the violation, not to publish or major shareholder of the company is not conducive to the views become rational behavior of external supervisors. Based on this, we get a hypothesis of this paper: the lack of appropriate institutional background to support the corporate governance mechanism does not constitute a decisive influence on the extent of the difference between earnings management of state-owned listed companies and private listed companies.

### Performance and earnings management

On China's securities market, the majority of listed companies are under pressure demands and Paul licenses refinancing. In the early induction of regulatory policy, return on net assets of listed companies and even appeared astonishing 10 percent and 6 percent phenomena phenomenon. Thus, the intended target operating performance of the company's earnings management behavior has a huge role.

Recent studies show that China's private listed company's operating performance generally inferior to the state-controlled listed companies. It is expected that in the case of poor performance of the overall business context, private listed companies must be more hopes on accounting earnings management. In addition, compared with the state-owned listed companies, China's private listed companies are mostly small and difficult to achieve a competitive advantage in terms of size. Therefore, its refinancing needs it more urgent. In other words, faced with the temptation to refinance, private listed companies compared with the state-owned listed companies, there is a stronger earnings management motivation. Based on this, we get the hypothesis of this paper two: a decisive impact on the operating results of the existence of differences in earnings management differences between private and state-owned listed companies listed company.

## STUDY AND DESIGN

### The basic idea of the study

According to the research question, empirical test is divided into two parts. The first part is for earnings management significant difference test. We will use the single-variable regression model to make the mean difference between the test samples. This is the second part of the foundation; empirical tests will be committed to finding a decisive factor in the degree of difference between earnings management of listed companies and state-owned private listed companies. Conversely, if the ID is no longer significant statistical test, it means earnings management in corporate governance differences between sample groups under the same circumstances will cease to exist, that corporate governance is the decisive factor in this difference. Similarly, when we control for operating performance factors, if the ID statistical test significant operating performance is not a decisive factor in this difference. Conversely, if the ID is no longer significant statistical test, it indicates that business performance is the decisive factor for this difference.

**Sample selection and data sources**

We selected all private companies January 1, 2010 in Shanghai Stock Exchange and Shenzhen Stock Exchange as the initial samples. To achieve the purpose, we first performed the following screening procedures: (1). Excluding the financial industry companies, because these companies exist industry particularity; (2). In order to better reflect the overall sample characteristics, we excluded those private companies by state-owned enterprises through equity change the formation, the sample is retained only from the date of the private-owned listed; (3). Excluding the 2010-2012 incomplete information company. Then, we identified a control sample matched the initial sample of each company. Control samples to determine the principles as follows: (1). Since the date of listing are still state-owned holding; (2). The same initial sample company's industry; (3). The total asset size of the initial sample of the most accessible and in the same order of magnitude; (4). There is no missing data between 2010-2012. Finally, we obtained 306 companies from China's securities market of the three-year panel data (total of 918 samples).

According to corporate governance database Xenophon companies, access to the relevant information about the controlling shareholder and its stake in nature. Listed companies' financial data and governance structure of the data we use all taken from the Hong Kong Polytechnic University and Shenzhen GTA Information Technology Co., Ltd. jointly developed CSMAR database query system. For suspicious controlling shareholder data, we will come from information and information from CSMAR the CCER were checked. Data processing of this article all use EVIEWS3.1 econometric analysis software.

**Variables and measurement methods to characterize the degree of earnings management**

Experts believe that was widely used by industry and using the estimated total accruals as the dependent variable estimate parameters of the basic Jones model may exist for any deviation calculated accruals before the next line item. At the same time, they found that in our securities market, Jones modified cash flow model to reveal the most effective earnings management. Also, features an integrated sample estimate coefficients obtained conclusions to be superior to the results of sample estimates by industry. In view of this, we use this model to estimate the company handling accruals, and use it to measure the absolute value of the Company's earnings management.

Specifically, we use |Deist| indicates the extent of the year through the end of the absolutevalue of accruals profits, earnings management company on behalf of the company's total assets adjusted i. There:  $DA_{i,t} = TA_{i,t} / Ai_{t-1} - NDA_{i,t}$ . Among them,  $TA_{i,t}$  for firm i year total accruals included under the line item that  $TA_{i,t} = NI_{i,t} - CFO_{i,t}$ , which  $NI_{i,t}$  i net profit for the company,  $CFO_{i,t}$  for firm i year net cash flow from operating activities;  $Ai_{t-1}$  for firm i's total assets at the end of last year;  $NDA_{i,t-1}$  through the end of last year as the company's total assets adjusted for non-i then manipulated accruals.  $NDA_{i,t-1}$  (1) is calculated according to the following equation is obtained:

$$NDA_{i,t-1} = a_1 + a_2 (REVi,t - RECi,t) / Ai_{t-1} + a_3 (PPEi,t / Ai_{t-1}) + a_4 (CFOi,t / Ai_{t-1}) \tag{1}$$

**TABLE 1 : Variable description**

	<b>Variable name</b>	<b>Symbol</b>	<b>Variable Description</b>
Explanatory variables	nature of the company's ownership	ID	If it is private listed companies, ID = 1, otherwise 0
	Board Independence	DI	Number of independent directors/total number of directors
	Board meetings	DM	The natural logarithm of the total number of board meetings within the year, said the diligence of the Board
	Board size	DS	The natural logarithm of the total number of Board of Directors
Control variable 1: Corporate governance variables	The number of meetings of the Supervisory Committee	JM	During the year the total number of natural Supervisory Board meeting on value representing the diligence of the Supervisory Board
	Supervisory Board size	JS	The natural logarithm of the total number of Supervisory Board
	Institutional investors	JG	If the presence of institutional investors in the top ten shareholders of circulation, JG =1, otherwise 0
	Shares Liquidity	LIUT	Number of shares in circulation /total number of shares
	Ownership concentration	JZH	The ratio of the largest shareholder
	Equity balance degree	ZHH	The ratio between the second and third largest shareholder and /largest shareholder
Control variable 2: Performance Variables	Asset-liability ratio	LEV	Year-end total liabilities / total assets at the end
	Main business returns	ROA	Year operating profit / total assets at the end
	Placement company	ROEhigh	If it was ROE greater than 6%,ROEhigh = 1, otherwise 0
	Large losses of the company	ROElow	If it was less than ROE - 6%,ROElow = 1, otherwise 0
	Control variable 3	Company Size	LNA

Among them,  $REVi,t$  is the difference between the main business income  $i$  year and last year the main business income of the company,  $\Delta REC_{it}$  company  $i$   $t$  annual year-end balance in the year-end accounts receivable and accounts receivable,  $PPE_{i,t}$  is the company  $i$  when the end of plant, equipment and other fixed assets,  $A_{i,t-1}$  for the previous year's total assets  $i$ . Coefficients  $a_1$ ,  $a_2$ , the estimated value of  $a_3$ ,  $a_4$  is the use of the equation (2) obtained by regression:

$$A_{i,t-1} = a_1 + a_2(REV_{i,t} - REC_{i,t})/A_{i,t-1} + a_3(PPE_{i,t}/A_{i,t-1}) + a_4(CFO_{i,t}/A_{i,t-1}) + i,t e \quad (2)$$

### Definition of corporate governance and business performance variables

We characterize the variable definitions and estimation methods on corporate governance and business performance as shown in TABLE 1.

### SIGNIFICANT DIFFERENCES IN EARNINGS MANAGEMENT TEST

We introduce a dummy variable to characterize the nature of ownership ID, and it's for the explanatory variables on the dependent variable  $|DA|$  do univariate regression analysis, in order to test the extent of earnings management from the mean difference between the private and state-owned listed companies in 2010 to 2012. The results are shown in TABLE 2.

TABLE 2 : One-dimensional regression test results

Equation: $ DA  = C + A_0 * ID + e$								
Variables	2010		2011		2012		Panel Data	
	Coefficient	T values	Coefficient	T values	Coefficient	T values	Coefficient	T values
ID	0.007	1.233	0.025	1.778	0.024	2.248	0.019	2.994
Costant	0.032	7.988	0.049	4.862	0.050	6.607	0.043	9.835
N	306		306		306		918	
F	1.521		3.160		5.052		8.962	
ADJ- R <sup>2</sup>	0.0017		0.0070		0.0131		0.0086	

From the test results, except for 2003,  $|DA|$  and ID were significantly positive correlation. This result further shows that earnings management of private listed companies is significantly higher than the state-owned listed companies. More specifically, according to the results of the panel data regression shows that the average assets of the company because of all samples is 1, 602,743, 900.37 yuan, therefore, every private company handling accruals than the state-owned companies on average about 1, 602, 743, 900.37  $\times$  0.018808 = 30, 144, 407.28 yuan.

### DETERMINE THE EXTENT OF THE REASONS FOR DIFFERENCES IN EARNINGS MANAGEMENT: MULTIPLE REGRESSION ANALYSIS

#### Sample selection and model specification

We still above data as a sample, the following linear regression model was constructed based on the above analysis and variable definitions and use OLS regression analysis to test the hypothesis proposed above:

$$|DA_i| = A_0 + A_1 * ID_i + B_1 * DI_i + B_2 * DM_i + B_3 * DS_i + B_4 * JM_i + B_5 * JS_i + B_6 * JG_i + B_7 * LIUT_i + B_8 * JZHI_i + B_9 * ZHH_i + C_1 * LNA_i + e \quad (3)$$

$$|DA_i| = a_0 + a_1 * ID_i + b_1 * LEV_i + b_2 * adjROA_i + b_3 * ROE_{high} + b_4 * ROE_{low} + r * LNA_i + e \quad (4)$$

Among them, the model (3) to test the hypothesis 1, we expect the coefficient of the dummy variable ID  $A_1$  is positive and statistically significant. Coefficient  $a_1$  statistical test model (4) to test the hypothesis 2, according to the analysis above, we expect dummy variable ID is not significant, that  $a_1$  is not significantly different from zero statistically.

#### Multiple regression analysis

The regression results shown in TABLE 3. In model 3, the characterization of the nature of ownership of dummy variables ID on the 5% statistical significance level, indicating that even if private listed companies and state-owned listed companies the same governance arrangements, significant differences earnings management degree will still exist between the two companies. This is a hypothesis consistent with our corporate governance structure on the degree of difference between the two types of earnings management company does not have a decisive impact. In model 4, after controlling operating performance, dummy variables characterizing the nature of ownership is no longer significant, indicating that when the private and state-owned listed companies listed on the same level of performance, their earnings management significant

differences no longer exist. This two consistent with our hypothesis, the regression results show that two types of operating performance is the deciding factor differences in the degree of earnings management. In addition, we also found that company size and the degree of negative correlation between earnings management. This may be because the company suffered massive social concerns, the regulatory focus on the bigger reason; it may be more massive coordination across the company, the cost of the financial statements together whitewash. The extent of earnings management and the company's asset-liability ratio is not relevant, suggesting that the assumption of Western debt covenants under our special banking system may not be applicable.

**TABLE 3 : Multiple regression results**

Variables	Model 3		Model 4	
	Coefficient	T values	Coefficient	T values
ID	0.01328	2.16299	0.00323	0.8460
LEV			0.01689	1.4755
ROA			-0.20075	-3.0906
ROEHIGH			0.01964	4.1001
ROELOW			0.02253	2.1978
DI	0.04527	1.34694		
DM	-0.00798	-1.01547		
DS	-0.01593	-1.02594		
JG	0.01022	1.83084		
JM	0.00879	1.62689		
JS	0.00496	0.49733		
JZH	-0.01318	-0.25554		
LIUT	0.01950	0.44283		
ZHH	0.00381	0.21366		
LNA	-0.03817	-4.02304	-0.01076	-2.4641
Constant	0.85720	4.00354	0.25671	2.8063
N		918		918
F		10.8066		131.5733
ADJ-R <sup>2</sup>		0.1053		0.4607

## CONCLUSION

As the hot issues of financial reveals, earnings management has been widespread concern and foreign scholars. However, previous studies have mostly ignored the heterogeneous nature of the company under different ownership earnings management behavior. Research clearly relevant experts ownership properties under different management levels of the company earnings disparities, but they did not make a study of the reasons for this difference. To make up for this shortfall, we use data from 2010-2012, China's securities market once again examines the difference between earnings management of state-owned listed companies and private listed companies. We conclude with a certain policy implications. First, although since the Asian financial crisis and the Enron scandal, corporate governance seems to have become the academic school of learning, but in a special regime of transition economies in the background, the effect of exaggerating the actual corporate governance is not desirable. This study also shows once again that the weakening of the governance structure of listed companies in the supervisory role. We believe that the appropriate threshold is beneficial to improve the listing foster healthy and benign capital markets, while reducing the listing threshold for various purposes approach is not feasible at this stage.

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