

# Research on the Effectiveness of Financial Supervision of the Supervisory Board

Wang Lu

Sichuan University, No.24 South Section 1, Yihuan Rode, Chengdu 610064, China  
791305410@qq.com

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Abstract: To strengthen system innovation and capacity building of the Supervisory Board, and to promote the modernization of corporate governance, based on the samples of listed companies from 2007 to 2012 in china, through the establishment of the modified Jones model to calculate discretionary accruals and adopted its absolute value as a substitution variable for earnings management, this paper studied the problem of financial supervision effectiveness of the Board of Supervisors. The results show that the age and degree of supervisors are negative related to the company's earnings management while the banking background has a positive correlation. The research did not find their sex or financial background has a significant influence on the earnings management of listed companies. The conclusions show the professionalism of supervisors is limited to exert, but the Supervisory Board still plays an irreplaceable role in corporate governance.

## 1 INTRODUCTION

In the modern corporate system, ownership and management are separated. In order to solve the interest conflict which might exists between the owners and its managers, the new "Company Law" article 54 provides that the Board of Supervisors the right to inspect the company's financial situation. The provision reflects that the financial supervision is an important aspect of the Board of Supervisors to represent the interests of shareholders to exercise supervision functions. In reality, due to the Board of Supervisors is not involved in day-to-day operation and management, irregularities often be found after the damages have happened to the company. Therefore, in order to strengthen the function of the Board of Supervisors, the new "Company Law" article 55 stipulates that supervisors may attend board meetings, and raise questions or suggestions on resolutions or matters of the Board of Directors. As a monitoring mechanism set up within company, the responsibility fulfillment situation of the Board of Supervisors is directly related to the stakeholders in the protection of their interests, good condition of the Board of Supervisors can help company to make the right decisions, to maximize the shareholders' equity.

Then, how about the actual performance effect of the legal power of the Board of Supervisors? This article introduced the empirical data of listed

companies in our country, made an empirical study between characteristics of the Supervisory Board members and company's earnings management level to provide some advices to the listed companies in corporate governance.

## 2 RELATED LITERATURE

At present, a lot of studies suggest that the Board of Supervisors has become a formality in China and its supervision function is weakening. Jia et al., (2009) studied the function of the Board of Supervisors when listed companies were facing legal proceedings, found it did not play a positive role which it should play in corporate governance. Hu et al., (2010) argued that, because of the influence of ownership concentration, the Board of Supervisors had brought negative impact to the operating performance of listed companies. Sun Jingshui, Sun Jinxiu (2005) found that the Board of Supervisors had no significant effect on company's performance through the empirical analysis, and they had a conclusion that it did not work as a role of supervision. Liu Shanmin (2008) selected the negative independent opinion published by the Board of Supervisors as a substitution variables, found that the function of the Board of Supervisors is very weak. Li Lijun, Jin Yuna (2010) selected the size of the Board of Supervisors as the

core, found that supervisory board's constraints on the manager's over-investment behavior is not fully realized. Hu Haichuan, Zhang Xinling (2013) tested the relationship between supervisory board characteristics and the quality of information disclosure of listed company, found that the Board of Supervisors is negligible to improve the quality of information disclosure.

However, there are also some studies suggest that the Supervisory Board continues to play an irreplaceable role in corporate governance. Firth et al., (2007) found that the size of the Supervisory Board, the Board of Supervisors meeting times is positive related to earnings information content. Li Weian, Hao Chen (2006) evaluated the situation of Supervisory Board governance from the characteristic of the Supervisory Board, the evaluation results showed that supervisors lack competence is the cause of the low level of Supervisory Board Governance, but still come to the Supervisory Board as the statutory corporate oversight institutions play an irreplaceable role in supervising. Wang Shuhui, Tong Ning (2009) [9] study showed that in addition to the size of the Board of Supervisors had no significant effect on performance, the annual number of meetings of the Board of Supervisors, the ratio of external supervisors, Board of Supervisors shareholding proportion and Supervisors shareholding proportion was significantly positively correlated with company performance, and indicated since the new "Company Law" implemented, the Board of Supervisors play a larger role in corporate governance.

In summary, research on effectiveness of the Board of Supervisors has not yet formed a clear and consistent conclusion, previous studies mainly focused on the discussion of the relationship between general characteristics of the Board of Supervisors and its financial supervision effect. This paper focused on the individual characteristics of Supervisory Board members, tested its members' impacts on the supervision function. Through manual collection of personal traits of the members of Supervisory Board, this paper tested the influence of their age, gender, degree, financial and banking background on the level of earnings management, provided an important and useful perspective for the existing controversy about the effects of the Board of Supervisors.

### 3 RESEARCH DESIGN

#### 3.1 Samples Selection

In this paper, we selected Shanghai and Shenzhen stock exchange listed companies in China as samples, the research time interval was 2007-2012. Data from CSMAR database, background characteristics of members of the Board of Supervisors mainly based on the manual screening to resumes in CSMAR database. In this paper, I excluded financial, insurance companies; companies with negative net assets; companies listed less than one year; companies without complete financial data and finally got 9732 observations.

#### 3.2 Variables Settings

##### 3.2.1 The Dependent Variable

The dependent variable was the level of earnings management (EM). In this paper, used the modified Jones model (1995) to calculate discretionary accruals, and then adopted its absolute value to measure the level of earnings management.

##### 3.2.2 The Independent Variables

AGE, it obtained by the average age of all the members of the Supervisory Board of the company.

GEND, it obtained by the average data of all the members of the Supervisory Board of the company. Male take 0, female take 1.

DEGRE, it obtained by the average degree level. Less than or equal to high school take 1; college take 2; master take 3; doctor take 4.

FAB, it equalled to the number of supervisors having the financial or auditing background divided by the total number of supervisors.

BSB, it equalled to the number of supervisors having a banking or securities background divided by the total number of supervisors.

##### 3.2.3 Control Variables

Reference existing research, this paper selected the company assets (SIZE), financial leverage (LEV), return on assets (ROA), firm growth (GROWTH), loss situation (LOSS), audit firm rankings (BIG4), the size of board of directors (BOARDSIZE), listed year of the company (LISTAGE), the proportion of the largest shareholder (GENT), actual controller (SOE), industry and year as control variables.

Table 1: Descriptive statistics.

Variable	N	mean	min	P25	median	P75	max	sd
AGE	9732	46.3043	24.3333	42.93	46.5	50	66	5.2715
GEND	9732	0.2457	0	0	0.2	0.3333	1	0.2385
DEGRE	9732	2.1887	1	2	2.1667	2.4	4	0.3980
FAB	9732	0.2460	0	0	0.25	0.3333	1	0.2297
BSB	9732	0.0558	0	0	0	0	1	0.1402

### 3.3 Research Model

To examine the relationship between characteristics of the Supervisory Board and level of earnings management, a multiple regression model was constructed as follows:

$$EM = \alpha_0 + \alpha_1 AGE + \alpha_2 GEND + \alpha_3 DEGRE + \alpha_4 FAB + \alpha_5 BSB + \text{CONTROL VARIABLES} + \varepsilon \quad (1)$$

## 4 RESULTS

### 4.1 Descriptive Statistics

As can be seen from table 1, in the five variables on behalf of supervisor features, the average age of the members of the Board of Supervisors is about 46 years old; the mean of proportion of female members of the Board of Supervisors is about 25%, there are even companies are about 0%, suggesting that the proportion of male and female supervisors is uncoordinated ;the mean degree of the supervisors is about 2, indicating degree of the supervisors focused on college; the mean and median of proportion of supervisors have a financial background in sample firms is 24.6% and 25% respectively, showing that Chinese listed companies have realized that supervisors have background in financial play a special role in financial supervision, and hired them serve as supervisors; the proportion of supervisors With banking background is 5.58%, showing that compared with financial background, the listed companies in China don't tend to hire people have banking background as supervisors.

### 4.2 Regression Analysis

Table 2 reports the test result of the relationship between characteristics of the Board of Supervisors and the level earnings management( EM). (1)~ (5) are regression equations in the presence of five separate variables and control variables. (6) is the regression equation including both all independent variables and control variables. From table 2, there are a significant negative correlation relationship between the average age, average degree of

supervisors and level of earnings management, indicating that the older and higher degree of supervisors, the more constraints on the earnings management behaviours of company. The relationship between the proportion of banking background of supervisors and earnings management level is also significant, indicating that the company is more likely to occur earnings management behaviour with a larger proportion of banking background of supervisors. The regression coefficient of proportions of the members of supervisors financial background and banking background is negative, the reason may be that, our Supervisory Board members are not entirely composed by people independent and outside the company, many supervisors of listed companies include the head of company's accounting or financial manager, etc..Because their independence is difficult to guarantee as insiders, these internal financial or banking experts may be constrained to exert.

## 5 CONCLUSION

This paper studied the relationship between age, gender, degree, financial and banking background of the members of the Board of Supervisors and the earnings management of listed companies in our country. The research results show that the age of the supervisory board members and the company's earnings quality is significantly related. The older the supervisors, the bigger likelihood to inhibit earnings management behaviour of listed companies. Degree and level of earnings management are negatively correlated, suggesting that supervisors with higher degree has higher comprehensive qualities, have better ability to perform financial supervision function. At the same time, banking background of supervisors is positively related to the company's earnings management, showing the professionalism of supervisors is limited in raising the quality of earnings management. The sex and financial background of supervisors has not a significant influence on the earnings quality of listed compa-

Table 2: Characteristics of Supervisory and Earnings Management.

EM	(1)	(2)	(3)	(4)	(5)	(6)
AGE	-0.000 (-2.20)**					-0.000 (-1.90)*
GEBD		0.005 (1.63)				0.004 (1.09)
DEGRE			-0.004 (-2.29)**			-0.006 (-2.95)***
FAB				0.005 (1.60)		0.003 (1.05)
BSB					0.013 (2.23)**	0.015 (2.39)**
SIZE	-0.004 (-5.09)***	-0.004 (-5.20)***	-0.004 (-5.13)***	-0.005 (-5.35)***	-0.004 (-5.28)***	-0.004 (-4.72)***
LEV	0.032 (6.60)***	0.032 (6.71)***	0.033 (6.75)***	0.032 (6.62)***	0.033 (6.82)***	0.033 (6.74)***
ROA	0.167 (7.42)***	0.168 (7.47)***	0.170 (7.52)***	0.168 (7.44)***	0.170 (7.55)***	0.171 (7.58)***
LOSS	0.035 (10.78)***	0.036 (10.79)***	0.036 (10.79)***	0.035 (10.76)***	0.036 (10.81)***	0.036 (10.89)***
BIG4	-0.003 (-1.49)	-0.003 (-1.60)	-0.002 (-1.43)	-0.003 (-1.55)	-0.003 (-1.69)*	-0.003 (-1.49)
GENT	0.016 (2.85)***	0.015 (2.75)***	0.015 (2.79)***	0.015 (2.74)***	0.015 (2.79)***	0.016 (2.86)***
LISTAGE	0.000 (0.72)	0.000 (0.41)	0.000 (0.67)	0.000 (0.45)	0.000 (0.26)	0.000 (0.71)
BOARDSIZE	-0.001 (-2.33)**	-0.001 (-2.38)**	-0.001 (-2.45)**	-0.001 (-2.45)**	-0.001 (-2.55)**	-0.001 (-2.42)**
GROWTH	0.021 (11.15)***	0.022 (11.24)***	0.022 (11.27)***	0.022 (11.23)***	0.021 (11.16)***	0.021 (11.10)***
SOE	-0.008 (-4.41)***	-0.009 (-4.73)***	-0.008 (-4.58)***	-0.009 (-5.00)***	-0.009 (-4.71)***	-0.007 (-3.84)***
YEAR	yes	yes	yes	yes	yes	yes
INDUSTRY	yes	yes	yes	yes	yes	yes
_CONS	0.162 (7.98)***	0.149 (7.48)***	0.157 (7.92)***	0.152 (7.70)***	0.151 (7.65)***	0.164 (7.92)***
N	9732	9732	9732	9732	9732	9732
adj. R <sup>2</sup>	0.171	0.171	0.171	0.171	0.172	0.173
F	30.195	30.209	30.334	30.150	30.371	27.751

nies. Thus, the effectiveness of Board of Supervisors in financial supervision is limited to a certain extent, but the Board of Supervisors still plays an indispensable role.

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