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The impact of corporate governance on financial control —Evidence from Chinese listed companies in the manufacturing industry

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Abstract This study explores the impact of corporate governance on financial control by studying manufacture industry. Results show that factors such as the percentage of shares held by the controlling shareholder, independent directors system, and the degree of activeness of the board of directors all have marked influences on financial control. Suggestions for financial management improvement are also discussed.

Keywords corporate governance, financial control, effectiveness

摘要 以代理理论为指导,运用我国制造业上市公司调查数据和公开数据,考察了公司治理对财务控制的影响。实证研究发现,第一大股东持股比例、独立董事制度、董事会活跃程度等因素对财务控制效果有显著影响,据此提出相关建议。

关键词 公司治理, 财务控制, 效果

1 Introduction

Financial control is one of the critical components of a firm's internal control. Firms with effective financial control are considered to have lower financial risk and thus gain certain competitive advantages over firms with poor financial control. Prior research has revealed that there are a number of influencing factors

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of financial control, especially the corporate governance factors, such as share structure, independent directors system, and the meeting frequency of the board.

Research on the effectiveness of financial control from the perspective of corporate governance is a new approach. To date, there has been little research focusing on the relationship between corporate governance and financial control. To fill the gap, we develop an empirical model to explore the explicit effects of corporate governance on financial control.

The paper proceeds as follows. First, we give a brief discussion of corporate governance and financial control, and develop testable hypotheses (Section 2). Section 3 describes our research design, the sample data and variables. The results are reported and discussed in Section 4, and presented in Section 5 are the conclusions.

2 Corporate governance, financial control, and testable hypotheses

When one or more persons (the principals) engage another person (the agent) to perform services on their behalf, some decision making authority is delegated to the agent, and there will be an agency relationship and agency problem (Jensen and Meckling, 1976). The main cause of the agency problem is the separation of ownership and control. There are two kinds of agency problems. One is between managers and shareholders, and the other is between controlling and minority shareholders (Pagano et al., 1998). In their paper *The distribution of power: among corporate managers, shareholders, and directors*, Jensen and Warner (1988) discussed the problem of power distribution among managers, shareholders and directors. Corporate governance and financial control are two methods to solve agency problems and reduce control agency costs.

Effective financial control mechanisms shall be able to protect the lawful interests of large and small investors alike, rather than protecting only the interests of big investors or a certain type of investors. Hart (1995) and Shleifer et al. (1997) found that large shareholders play a central role in corporate governance, and large investors incline to compel managers to distribute dividends. An investor's top priority is to maximize his own interests, which sometimes may not coincide with the interests of other investors in the firm. In the process of using his control rights to maximize his own welfare, a large investor may snatch wealth from others. La Porta et al. (1999), Claessens et al. (2000), Faccio and Lang (2002) suggested that the result of ownership concentration is a consequence of poor legal protection of minority shareholders. And the controlling shareholders usually have great power over firms, primarily

through the use of pyramids or cross share-holding methods. Diane et al. (2003) thought that boards dominated by controlling shareholders may represent their own interests, instead of the interests of all shareholders. How to reduce the agency conflict between the controlling and the minority shareholders is a serious problem.

In China, there are few laws covering commercial transactions and property rights. Consequently, protection of the interests of minority shareholders and supervision on controlling shareholders remain unsolved problems. Cheng (2003) pointed out that financial control system dominated by managers or controlling shareholders may enhance insider control, and thus threatens the benefits of minority shareholders. Chen, et al. (2005) suggested that the core agency problem in China is between controlling and minority shareholders. Since controlling shareholders have nearly full control over listed firms, there is a possibility that they may infringe the interests of minor shareholders in order to maximize their own welfare. So we propose that:

Hypothesis 1 The percentage of shares held by the largest shareholder is negatively related to the effectiveness of financial control.

Fama (1980) argued that independent directors should be regarded as professional referees whose task is to stimulate and oversee the competition among the firm's top managers. And a board dominated by security holders can not be optimal or endowed with good survival properties. Weisbach (1988) and Beasley (1996) also suggested that outside directors (independent directors) represent shareholder interests better than inside directors. A report issued by COSO (1994) confirmed that an objective and capable board are better at detecting and refraining managers' possible internal control behaviours. Paul (2004) explored the relationship between management team characteristics and a firm's propensity to commit fraud. He found that firms with a large proportion of outside directors commit less fraud, indicating that outside directors help monitor a firm's actions and deter fraud.

"Guidelines for Introducing Independent Directors to the Board of Directors of Listed Companies" formulated by the China Securities and Regulatory Commission (CSRC) in 2001 requires that listed companies shall introduce independent directors to their boards of directors. Major related party transactions should be approved by the independent director before being submitted to the board of directors for discussion. Before the independent director makes his or her judgment, an intermediary agency can be employed to produce an independent financial advisory report, which will serve as the basis for his or her judgment. The independent directors can put forward the proposal to the board of directors relating to the appointment or removal of the accounting firm. Therefore, we suggest:

Hypothesis 2 The percentage of independent directors on board is positively related to the effectiveness of financial control.

Some corporate boards may be more active and vigilant than others. However, it is impossible to directly measure activity and vigilance. What can be measured is the number of board meetings per year and this can be used as an admittedly rough proxy for board activity. Frequent board meetings may be a signal of increased vigilance and oversight on top management. Alternatively, the frequency of board meetings may increase the times of financial distress or the times of controversial decisions that may involve illegal or questionable activities (Chen et al., 2005). Using the data from US, Vafeas et al. (1999) found that the frequency of board meetings is an important index of board activeness. When a firm runs into trouble, the firm's board of directors tends to hold meetings more frequently, which is usually followed by certain improvement in firm performance. Generally speaking, the higher frequency of board meeting, the more likely a board works as effective supervisor over management. Biao et al. (2003) supported empirically that firms with more frequent board meetings and audit committee meetings tend to have less serious earnings management problems. Li et al. (2004) also confirmed a positive relationship between the number of board meetings and earnings management. Drawing on this rationale, we propose that:

Hypothesis 3 The number of board meetings is positively related to the effectiveness of financial control.

As a rule, the supervisory board tends to have little influence on a firm's activities. One of the functions of the supervisory board is to review the financial statements and auditor's report. In this sense, supervisory board can monitor a firm's financial and operating activities, and can help deter fraud. Li et al. (2004) found that supervisory board governance has a positive effect on financial safety factors. As above, the number of supervisory board meetings can be used as a proxy for its activeness. Frequent supervisory board meetings may be a signal of effective monitoring. So we propose:

Hypothesis 4 The number of supervisory board meetings is positively related to the effectiveness of financial control.

3 Research design

3.1 Samples

The original data are collected from a number of databanks (such as the Corporate Governance Research Database of Nankai University, CCER, and CSMAR) and a website (www.Cninfo.com.cn). In 2003, the Research Center for

Corporate Governance of Nankai University conducted a survey on modern enterprise system, corporate governance, and internal control (including financial control) among Chinese listed companies. Questionnaires were mailed to 1307 listed companies by relative department of CSRC. A total of 931 copies were returned. Of the initial 931 samples, 618 were eliminated either for from non-manufacturing industries or with abnormal values, leaving us with a final sample of 313 observations. The reason we chose manufacture industry is that competition is more intense and financial management system is better in this industry than in other industries, the results may be more reliable.

3.2 Variables

We measured the effectiveness of financial control by the following items: self-assessment in financial management system, internal control evaluation from CPA, analysis of independence of financial department, branch finance manager, financial system for branches, administrative examination and approval system, and accounting inspection by Corporate Governance Research Center of Nankai University. Results shows that 82.43% (258/313) of our sample firms have good financial control, while 17.57% (55/313) need to further improve their financial control.

We chose ownership characteristics, board characteristics, and supervisory board characteristics as independent variables, and total assets, industries, ROS as control variables to analyse the influence of corporate governance on financial control. The variables are shown in Table 1.

Table 1 Variables, definitions and expected signs

Variable	Symbol	Expected sign	Name	Definition
Dependent variables	<i>YOT</i>		Effectiveness of financial control	0, if financial control is not good; 1, otherwise
	<i>SI</i>	-	The percentage of shares held by the largest shareholder	Shares held by the largest shareholder/total capital stock
	<i>ID</i>	+	Percentage of independent directors	Number of independent directors/number of directors on the board
Independent variables	<i>CDC</i>	+	Number of board meetings held in a year (standardized)	Number of board meetings/average number of meetings
	<i>CJC</i>	+	Number of supervisory board meetings held in a year (standardized)	Number of supervisory board meetings/average number of meetings

(To be continued)

(Continued)

Variable	Symbol	Expected sign	Name	Definition
Control variables	<i>INDUS</i>	-	Number of industries	Diversification and complication of financial control
	<i>ASSETS</i>	-	Total assets	The natural logarithm of total assets
	<i>ROS</i>	+	Return on sales	EBIT/Sales

Note: *CDC*, *CJC* are standardized in order to make it easier to compare with other companies.

3.3 Model

Effectiveness of financial control (*YOT*) is a dummy variable, so logistical regression model was used. *YOT* equals 0 when financial control is not good and 1 otherwise. The regression model is as follows:

$$YOT = \beta_1 + \beta_2 * S1 + \beta_3 * ID + \beta_4 * CDC + \beta_5 * CJC + \beta_6 * INDUS + \beta_7 * ASSETS + \beta_8 * ROS + \varepsilon$$

4 Results

4.1 Descriptive statistics

Table 2, 3, and 4 report the descriptive statistics for the variables for ownership, board, supervisory board and control variables, respectively.

(1) The percentage of shares held by the largest shareholder. Table 2 indicates that for sample firms with good financial control, the mean of the percentage is 0.44, and most of the sample firms with a percentage of 0.3. For sample firms with no-good financial control, the mean of the percentage is 0.49, and most of which with the percentage 0.66. The independent-samples *T*-test shows that there are significant differences in the percentage of shares held by the largest shareholder for good and no-good financial control firms.

Table 2 Descriptive statistics for the percentage of shares held by the largest shareholder

Ownership variable		Effectiveness of financial control	
		Good(55), Y=0	No-good(258), Y=1
The percentage of shares held by the largest shareholder	Mean	0.49	0.44
	Maximum	0.74	0.75
	Minimum	0.13	0.11
	Std. Deviation	0.17	0.18
	Mode	0.66	0.3
Z-value		-1.77*	
Asymp. Sig. (2-tailed)		0.08	

Note: *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

(2) The characteristics of board and supervisory board. In Table 3, the independent-samples *T*-test shows that there are significant differences in the percentage of independent directors and number of board meetings held in a year (standardized) between the firms with good financial control and those without. The former has more independent directors in the board and less board meetings held in a year. There are no significant differences between good and no-good financial control firms for the number of supervisory board meetings held in a year.

(3) Control variables. Theoretically, in highly diversified big-sized firms, managers generally have little first-hand knowledge of the operating affairs of any certain industry or technology. As a result, their financial control should not be as good as those smaller and more focused firms. And financial control for firms with good performance should be better than those with bad performance. In Table 4, the independent-samples *T*-test shows that there are significant differences in the number of industries between the firms with good financial control and ones with no-good financial control, while the difference in total assets and return on sales are not significant.

Table 3 Descriptive statistics for board of directors and supervisory board characteristics

Variables	No-good (N=55), Y=0				Good (N=258), Y=1				Z-value	Asymp. Sig. (2-tailed)		
	Mean	Mode	Minimum	Maximum	Std. Deviation	Mean	Mode	Minimum			Maximum	Std. Deviation
<i>ID</i>	0.25	0.24	0.08	0.44	0.07	0.33	0.33	0.11	0.68	0.07	-2.09**	0.04
<i>CDC</i>	1.31	1	0.21	2.61	0.98	1.12	1	0.21	2.45	1.01	-2.18**	0.03
<i>CJC</i>	1.12	1	0.13	1.86	0.145	1.11	1	0.13	1.86	0.122	-0.23	0.82

Table 4 Descriptive statistics for control variables

Variables	Good, Y=0				No-good, Y=1				Z-value	Asymp. Sig. (2-tailed)
	Mean	Minimum	Maximum	Std. Deviation	Mean	Minimum	Maximum	Std. Deviation		
<i>INDUS</i>	2.22	1	6	1.53	1.69	1	6	0.92	-1.85*	0.06
<i>ASSETS</i>	1.7E+09	2.0E+08	9.2E+09	1.6E+09	1.6E+09	1.4E+08	1.2E+10	1E+09	-0.21	0.84
<i>ROS</i>	23.90%	4.36%	61.92%	0.12	21.73%	-16.06%	58.90%	0.11	-0.95	0.34

4.2 Multivariate tests

Table 5 reports the intercorrelations among key study variables. Stone and Rasp's (1991) similar study showed that this intercorrelation should be less than 0.5 (included) in logistic regression. As Table 5 shows, the intercorrelations among the full set of independent variables were sufficiently low to preclude the problem of unstable coefficients in the regression. Therefore, the results do not show severe multi-collinearity.

Table 5 Intercorrelations among all variables (Pearson correlation)

Variables	Correlations	<i>SI</i>	<i>ID</i>	<i>CDC</i>	<i>CJC</i>	<i>INDUS</i>	<i>ASSETS</i>	<i>ROS</i>
<i>SI</i>	Correlation Coefficient	1.00						
	Sig. (2-tailed)	0.0						
<i>ID</i>	Correlation Coefficient	0.02	1.00					
	Sig. (2-tailed)	0.77	0.0					
<i>CDC</i>	Correlation Coefficient	0.04	0.04	1.00				
	Sig. (2-tailed)	0.53	0.47	0.0				
<i>CJC</i>	Correlation Coefficient	-0.01	0.13**	0.12**	1.00			
	Sig. (2-tailed)	0.83	0.05	0.04	0.0			
<i>INDUS</i>	Correlation Coefficient	-0.14**	0.00	-0.05	-0.10*	1.00		
	Sig. (2-tailed)	0.02	0.99	0.38	0.09	0.0		
<i>ASSETS</i>	Correlation Coefficient	0.14**	0.01	0.11**	0.14**	-0.12**	1.00	
	Sig. (2-tailed)	0.02	0.89	0.05	0.03	0.05	0.0	
<i>ROS</i>	Correlation Coefficient	-0.11**	0.02	-0.02	0.10*	-0.02	-0.11*	1.00
	Sig. (2-tailed)	0.05	0.71	0.72	0.09	0.77	0.06	0.0

Spss13.0 was used to build up our logistic model. Results of the logistic regression of 313 Chinese listed companies in manufacturing industry indicate that the overall model was statistically significant ($F=31.19$, $P=0.003<0.01$), with R^2 equals 0.121 (Cox and Snell R Square) and 0.204 (Nagelkerke R Square), respectively, as shown in Table 6.

Table 6 Chi-square test and Model (*YOT*) significant test

		<i>Chi-square</i>	<i>df</i>	<i>Sig.</i>
Step 1	Step	31.19	12	0.003
	Block	31.19	12	0.003
	Model	31.19	12	0.003
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square	
	1	193.831	0.121	0.204

The results of the logistic regression are shown in Table 7. The first column lists the variables. The second, third and fourth columns show the coefficients, Wald-value, and t -statistics of the regression model, respectively.

The number of industries (*INDUS*) has a negative sign in the regression and is statistically significant at the 0.01 level. More diversified firms tend to face more difficulties in financial control, and have higher financial risk, so the effectiveness of their financial control is not good as those more focused firms. The natural logarithm of total assets is not significant although it has the expected sign. *ROS* is not significant in the regression and its sign is not consistent with our expectation.

Table 7 Results of Logistic regression analysis and collinearity test

Variables	Coefficient	Wald-value	Sig.
<i>SI</i>	-2.122*	3.341	0.075
<i>ID</i>	6.112**	4.606	0.024
<i>CDC</i>	-0.366*	2.583	0.081
<i>CJC</i>	-0.167	1.863	0.142
<i>INDUS</i>	-0.520***	10.222	0.005
<i>ASSETS</i>	-0.131	0.215	0.636
<i>ROS</i>	-2.372	2.540	0.111
Constant	3.142	10.119	0.005

Note: *, ** and *** represent significance levels of 10%, 5% and 1%, respectively.

The ownership variable (the percentage of shares held by the largest shareholder) is statistically significant at the 0.10 level and has a negative sign in the regression. The largest shareholder has a high agency risk, showing that ownership centralization is detrimental to financial control. Thus H1 is supported. The percentage of independent directors on board has a positive sign in the regression and is statistically significant at the 0.05 level. Independent directors monitor a firm's actions and help refrain possible fraud. Thus firms with a large percentage of independent directors commit less fraud and face lower financial risk, which in turn leads to better financial control.

The number of board meetings (*CDC*) has a negative sign in the regression and is statistically significant at the 0.10 level, indicating that the more board meetings are held, the worse the financial control. This result seems quite counterintuitive. Possible explanation is that the directors know there are some questionable activities that the firm has engaged in (or about to engage in) and this requires a lot of debate, which results in more meetings. In this case, more meetings herald more financial problems. There might also be some lag effects of corporate governance on financial control.

Number of supervisory board meetings held in a year has a negative sign and is not significant. The result provides no support for H4. Our explanation is that in Chinese listed companies in manufacturing industry, the supervisory board governance is not effective. In addition, possible lag effect may also exist.

5 Conclusions

Based on a sample of 313 firms, this study proves that both the percentage of shares held by the largest shareholder and the number of board meetings have a negative correlation with the effectiveness of financial control, while the percentage of independent directors on board has a positive relationship with the effectiveness of financial control. To improve financial control, we need to work on both internal governance and external governance. Supervisory department should monitor the behaviour of controlling shareholders and set up supervising mechanism on controlling these shareholders. Advancing the board efficiency and improving the independent directors system are effective ways to improve financial control. We have to focus on the governance effectiveness of the board and pay attention to the internal governance, especially in those diversified companies.

This paper explores the effectiveness of financial control from the perspective of corporate governance and obtains important results for the financial control improvement. We find that the system of independent directors helps improve the effectiveness of financial control and the board of directors lies in the core of corporate governance. Thus to improve financial control, it is important to strengthen the system of independent directors and board of directors. It is also necessary to improve the monitoring function of supervisory board, so as to form a useful supplement to the board of directors and other governance institutes.

This research also has the following limitations. First, there may be a lag effect of corporate governance on financial control, and this effect may not manifest itself until several years later. Second, financial control may have a counteractive on corporate governance too, which should be taken into consideration in future researches.

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