

Cuadernos de economía



www.cude.es

ARTÍCULO

The Impact of Corporate Governance on the Internal Control Objectives: Evidence from China's Listed Financial Companies

Zhou Jiayao^{1*}, Muhammad Sadiq², Tye Wei Ling³

Email: Muhammad.Sadig@taylors.edu.my

Email: WeiLing. Tye@taylors.edu.my

*Corresponding Author Email: zhoujiayao@sd.taylors.edu.my

Jel Codes:

Keywords:

Corporate Governance, Internal control Objectives, Company Characteristics Abstract: This paper selects data from 122 listed financial companies in Shanghai and Shenzhen A-shares from 2011 to 2022, analyzes the impact of corporate governance on internal control objectives, and provides recommendations for optimizing internal control and enhancing company management based on the research findings. The study demonstrates that the "lower proportion of state-owned shares," the "lower degree of Check-and-balance of stock ownership," and the presence of "two-way entry" of party organizations all contribute to the achievement of operational objectives of internal control. Second, the greater the number of professional committees and executives' financial compensation that can aid in achieving the reporting objectives of internal control, the lower the degree of Check-and-balance of stock ownership and the share of executives' equity. Lastly, the higher equity concentration, number of professional committees, financial remuneration for executives, and the existence of "two-way entry" and "cross-appointment" of party organizations can aid in achieving the internal control compliance objective.

¹ PhD Candidate, Taylor's University Malaysia. Email: zhoujiayao@sd.taylors.edu.my

² School of Accounting and Finance, Faculty of Business and Law, Taylor's University Malaysia.

³ School of Accounting and Finance, Faculty of Business and Law, Taylor's University Malaysia.

1. Introduction

The primary objective of corporate governance is to protect the rights and interests of shareholders, to ensure that day-to-day business activities are conducted correctly, to ensure that the enterprise conducts its business management activities legally and compliantly, and to ensure that the company's growth strategy can be achieved steadily. The objectives of internal control are to increase operational effectiveness and efficiency, to provide reasonable assurance that business management is legal and compliant, that financial reports and related information are accurate and complete, to ensure the security of assets, and to facilitate the achievement of the enterprise's development strategy. Corporate governance and internal control objectives are congruent, making studying this relationship extremely practical. In the Integrated Framework published by COSO in 1992, it is stated that the effectiveness of internal controls is measured by "the ability to provide reasonable assurance that the subject achieves operational efficiency, effectiveness, reliability of financial reporting, and compliance with laws and regulations." Few empirical studies primarily focus on corporate governance characteristics and financial reporting reliability, with indepth research on the relationship between corporate governance characteristics and other internal control objectives. Due to the differences between financial listed companies and other listed companies in terms of their business models, many academics tend to exclude financial listed companies from their research on the influencing factors of internal control objectives of listed companies. From the perspective of index selection, corporate governance refers narrowly to the "corporate governance structure formed by shareholders' meetings, the supervisory board, the board of directors, and the managerial level to ensure the maximization of shareholders' rights and interests." Faced with the fundamental national conditions of socialism with Chinese characteristics and the pertinent provisions of the Company Law, corporate governance structures in the narrow sense can no longer meet the requirements of many Chinese publicly traded companies. Incorporating party organizations into corporate governance will better reflect the reality of publicly traded financial companies. This paper elaborates on the internal control objectives derived from prior research. It empirically examines the relationship between corporate governance characteristics and operational goals, reporting purposes, and compliance objectives of listed financial companies operating under socialist national conditions with Chinese characteristics. It also offers recommendations for optimizing internal control and enhancing corporate management based on the findings.

2. Theoretical Analysis

Even though the proprietor is directly involved in the management of modern businesses, the shareholders bear the risks deriving from his business conduct. Because the agent's and the principal's interests do not align, the principal-agent problem arises: how to motivate the agent to take the initiative to maximize the principal's interests. Due to the principal-agent relationship, enterprises develop corporate governance structures such as shareholder meetings, the board of directors, the supervisory board, and the managerial level. It enables the enterprise to effectively restrict the operator's behavior when the owner separates the operation right, allowing the

operator to take the initiative to safeguard the principal's rights and interests and maximize shareholder interests as the management objective. Principal-agent theory encourages the optimization of equity, board of directors, and supervisory board structures, as well as the implementation of effective incentive mechanisms for senior management.

The theories of embedding and stakeholders provide theoretical support for incorporating party organizations into corporate governance structures. The economic sociologist Polanyi (2002) was the first to propose the embedding theory, arguing that the economy is not a distinct domain but entrenched in social, religious, and political systems. On this basis, numerous subsequent scholars have expanded the embedding theory. L. Liu and Qiu (2019) note that in the practice of party building in social organizations, party organizations maximize their political, organizational, and resource advantages to increase their influence on social organizations through political, cultural, and cognitive embedding. The central tenet of stakeholder theory is to reform the corporate governance structure of a company to accomplish the goal of joint governance by stakeholders. It is believed that the modern corporation's objective and raison d'être is to maximize all stakeholders' interests. The Chinese Communist Party represents the fundamental interests of the largest number of individuals and has no special interests. Almagtome et al. (2020) note that incorporating the party organization into the corporate governance structure of an enterprise is conducive to maximizing the stakeholder interests of the enterprise.

3. Literature Review and Hypothesis Development

This paper analyzes the impact of a socialist corporate governance structure with Chinese characteristics, consisting of five levels, including shareholding structure, board of directors, supervisory board, management, and party organization, on internal control operations, reporting, and compliance goals.

3.1 Shareholding Structure

3.1.1 The Percentage of State-owned Shares

Feng, Jiang, and Cai (2016) note that as an "agent" of state shares, the state-owned asset management agency is not an active supervisor in the corporate governance structure, which makes it difficult to supervise effectively and discipline managers, resulting in less efficient allocation of corporate resources and weaker internal control effectiveness. Sari (2021) used a sample of 1,465 publicly traded companies from 2002-2006 and discovered that non-state capital holding was significantly and positively correlated with business performance and financial reporting reliability but did not increase compliance with laws and regulations. Consequently, the following hypothesis is formulated:

H1a: The percentage of state-owned shares negatively correlates with achieving operational objectives.

H1b: The proportion of state-owned shares negatively correlates with achieving reporting objectives.

H1c: The proportion of state-owned shares negatively correlates with achieving compliance objectives.

3.1.2 Equity Concentration

Concentration is a quantitative indicator of whether shareholders' equity is concentrated or dispersed due to various shareholdings, and it is a crucial indicator of a company's stock distribution. Chen (2018) notes that a high concentration of equity in publicly traded companies can effectively diminish "free-riding." The operational efficiency of the enterprise and the efficacy of internal control are enhanced when shareholders with a larger share of equity actively participate in the enterprise's operation out of their personal and corporate interests. H. D. Wang and Guan (2016) analyzed a sample of 5,882 listed companies in Shanghai and Shenzhen between 2012 and 2014 and discovered that the firm's business performance goals are met more effectively the more concentrated its shareholding. Mahboub (2017) analyzed 88 annual financial reports of 22 publicly traded Lebanese banks from 2012 to 2015 and discovered that the higher the equity concentration, the more reliable the financial statements. Consequently, the following hypothesis is formulated:

H2a: Equity concentration positively correlates with achieving operational objectives.

H2b: Equity concentration positively correlates with achieving reporting objectives.

H2c: Equity concentration positively correlates with achieving compliance objectives.

3.1.3 The Degree of Check-and-balance of Stock Ownership

The level of Check-and-balance stock ownership reflects the level of mutual control and checks and balances among the company's major shareholders. Q. Li and Yan (2020) used 2,839 A-share listed companies in 2018 as a sample for their research and discovered that a high degree of equity checks and balances tends to lead to a decrease in the shareholding of absolute controlling shareholders, insufficient incentives for controlling shareholders, and decreased motivation to participate in management. High equity checks and balances can also lead to shareholder infighting over their respective interests, resulting in a decline in corporate decision-making, execution, etc., and affecting the efficacy of internal control efficiency. Consequently, the following hypothesis is formulated:

H3a: The degree of Check-and-balance of stock ownership negatively correlates with achieving operational objectives. H3b: The degree of Check-and-balance of stock ownership negatively correlates with achieving reporting objectives.

H3c: The degree of Check-and-balance of stock ownership negatively correlates with achieving compliance objectives.

3.2 Board of Directors

3.2.1 Board Size

Huang and Zhang (2020) used the data of A-share non-financial listed companies from 2007 to 2017 as a sample and discovered that board size influences the achievement of corporate performance objectives positively. The larger the board, the more appropriate the directors' advice on corporate decision-making, fostering corporate growth, and enhancing corporate performance. Mahboub (2017) analyzed 88 annual financial reports of 22 publicly traded Lebanese banks from 2012 to 2015 and discovered that increasing the size of the board of directors improves financial reporting quality. Ajibulu, Yahaya, and Agbi (2021) utilized a sample of 12 Nigerian institutions for their research and discovered that the quality of financial reporting increases as board size increases. Consequently, the following hypothesis is formulated:

H4a: Board size positively correlates with achieving operational objectives.

H4b: Board size positively correlates with achieving reporting objectives.

H4c: Board size positively correlates with achieving compliance objectives.

3.2.2 Number of Board Meetings

Frequently, board meetings focus on significant corporate events and urgent matters. Their frequency can indicate the effectiveness of corporate governance and the degree of internal control. Using a sample of all non-financial insurance listed companies from 2011-2013, Shi and Zhang (2016) discovered that board meetings help directors learn more about the company's situation, promote board and management effective communication and exchange, reduce directors' information asymmetry, and enhance the level of internal control. Consequently, the following hypothesis is formulated:

H5a: The number of board meetings positively correlates with achieving operational objectives.

H5b: The number of board meetings positively correlates with achieving reporting objectives.

H5c: The number of board meetings positively correlates with achieving compliance objectives.

3.2.3 The Percentage of Independent Directors

Huang and Zhang (2020) use the data of A-share nonfinancial listed companies from 2007 to 2017 as a sample and conclude that the proportion of independent directors influences firm performance positively. In addition to enhancing the supervision of company insiders, protecting the firm's interests, and promoting corporate development, an increase in the proportion of independent directors enhances the oversight of company insiders and promotes corporate development. Using a sample of Vietnamese-listed energy firms from 2010 to 2018, Phuong and Hung (2020) discovered that the proportion of independent directors positively correlates with the quality of financial reports. Consequently, the following hypothesis is formulated:

H6a: The percentage of independent directors positively correlates with achieving operational objectives.

H6b: The proportion of independent directors positively correlates with achieving reporting objectives.

H6c: The proportion of independent directors positively correlates with achieving compliance objectives.

3.2.4 CEO Duality

Huang and Zhang (2020) use the data of A-share non-financial listed companies from 2007-2017 as a sample and conclude that the dual role of chairman and general manager will directly lead to a weakened supervisory function of the board of directors over the general manager, which may allow the general manager to make personal gains and hinder the achievement of corporate performance goals. Nguyen, Pham, Dao, and Nguyen (2022) used a sample of 747 listed Vietnamese companies from 2008 to 2020. He discovered that the financial performance of publicly traded companies with a chairman who also functions as the general manager is less reliable. Consequently, the following hypothesis is formulated:

H7a: CEO duality negatively correlates with achieving operational objectives.

H7b: CEO duality negatively correlates with achieving reporting objectives.

H7c: CEO duality negatively correlates with achieving compliance objectives.

3.2.5 Number of professional committees

In general, the greater the number of professional committees, the greater their utility in assisting the board

of directors to perform their duties more effectively and filling governance gaps, which in turn provides the board with more resources to make scientific decisions and promote the achievement of internal control objectives. Using a sample of 854-panel data from 2007-2013, Lu and Zhao (2016) discovered that the greater the number of professional committees, the more useful they are in assisting the board of directors to fulfill its disclosure responsibilities, and the more it helps to reduce the likelihood of internal control failure. Thus, the following hypothesis is stated:

H8a: The number of professional committees positively correlates with achieving operational objectives.

H8b: The number of professional committees positively correlates with achieving reporting objectives.

H8c: The number of professional committees positively correlates with achieving compliance objectives.

3.3 Supervisory Board

3.3.1 The Size of the Supervisory Board

The size of the supervisory board reflects, in part, the competence and caliber of the board to carry out its supervisory responsibilities. A large supervisory body can supervise all enterprise aspects more effectively than a small one. Ahmed et al. (2018) note that the larger the supervisory board, the more independent it is, the less likely it is to collude with insiders, and the more reliable the implementation of internal control. Nomran, Haron, and Hassan (2018) uses 15 Malaysian Islamic banks from 2008 to 2015 as a study sample and discovers that larger supervisory boards have a greater variety of specialists, enhancing the performance of Islamic banks. Consequently, the following hypothesis is formulated:

H9a: The size of the supervisory board positively correlates with achieving operational objectives.

H9b: The size of the supervisory board positively correlates with achieving reporting objectives.

H9c: The size of the supervisory board positively correlates with achieving compliance objectives.

3.4 Management

3.4.1 Monetary Compensation for Executives

C. Wang, Zhang, Ullah, Ullah, and Ullah (2021) examined 121 publicly traded energy companies globally. According to the principal-agent theory, they discovered that providing executives with more advantageous cash compensation facilitates lower agency costs and thus increases firm performance. Using a sample of Chinese listed companies from 2005-2010, Conyon and He (2016) find that the firm's likelihood of committing fraud is greater when the CEO's cash compensation is lesser. Through an analysis of Chinese listed companies, Zhou, Zhang, Yang, Su, and An (2018) discovered that executives with inadequate financial compensation are more likely to commit fraud, regardless of whether their companies are under delisting pressure. Consequently, the following hypothesis is formulated:

H10a: Executive Monetary compensation positively correlates with achieving operational objectives.

H10b: Executive Monetary compensation positively correlates with achieving reporting objectives.

H10c: Executive Monetary compensation positively correlates with achieving compliance objectives.

3.4.2 Senior Management' Shareholding Ratio

Zheng and Zhang (2021) chose non-financial A-share listed companies from 2011 to 2019 as their research

subjects and discovered that the stronger a company implements executive equity incentives, the greater its corporate performance. F. Li (2017) used listed companies that implemented equity incentive plans in China between 2006 and 2015 as a research sample and discovered that the implementation of executive equity incentive plans is highly likely to trigger or intensify short-sighted behaviors such as accounting fraud by executives, which has a severe negative impact on the quality of accounting information of the company. Using a study sample of 1805 executives, Davidson (2022) discovered that within firms, executives implemented equity incentives were more likely to be involved in financial reporting fraud cases; across firms, the greater the intensity of executive equity incentives, the greater the likelihood of the firm being involved in a financial fraud case. Consequently, the following hypothesis is formulated:

H11a: The percentage of executive ownership positively correlates with achieving operational objectives.

H11b: The percentage of executive ownership negatively correlates with achieving reporting objectives.

H11c: The percentage of executive ownership negatively correlates with achieving compliance objectives.

3.5 Party Organization

L. F. Liu, Cai, and Ran (2019) demonstrate, using a sample of A-share listed state-owned companies from 2008-2016, that the participation of the party committee in corporate governance can promote the growth of state-owned enterprises, both by promoting the upgrading of diversification strategies and by ensuring that companies can make scientific decisions to improve corporate performance. Using a sample of Chinese-listed private companies from 2004-2017, Ma, Huang, and Liang (2021) discover that the political leadership of the party organization over the company improves the supervision of corporate executives, reduces agency costs, and prevents corporate executives from pursuing their personal goals at the expense of the company's interests. W. H. Wang (2022) found, using a sample of A-share listed companies from 2010 to 2019, that the participation of party organizations in corporate governance can significantly improve the reliability, relevance, robustness, and timeliness of accounting information by reducing corporate business risks and limiting management selfinterest. Using a sample of A-share non-financial listed companies from 2010 to 2016, Zhang and Yao (2021) discovered that cross-employment in party organizations and two-way entry effectively reduced firms' violations. This study refers to H. M. Li and Cheng (2020) and Mengkai, Yilin, Liangwei, and Defang (2022) to measure party organizational characteristics using two indicators, "twoway entry" and "cross-appointment," to assess their impact on internal control objectives.

3.5.1 Two-Way Entry

The two-way entry of the Party organization signifies that Party members of the Board of Directors, the Supervisory Board, and the management can enter the Party organization through statutory procedures and vice versa. Consequently, the following hypothesis is formulated:

H12a: Two-way entry positively correlates with achieving operational objectives.

H12b: Two-way entry positively correlates with achieving reporting objectives.

H12c: Two-way entry positively correlates with achieving compliance objectives.

3.5.1 Cross-Appointment

Cross-appointment mostly refers to the party secretary and chairman of the board of directors being served by one person. The following hypothesis is thus formulated:

H13a: Cross-appointment positively correlates with achieving operational objectives.

H13b: Cross-appointment positively correlates with achieving reporting objectives.

H13c: Cross-appointment positively correlates with achieving compliance objectives.

Table 1. Variable definition

4. Research design

4.1 Data source and sample selection

This study's sample comprises 122 financial companies listed in Shanghai and Shenzhen's A-share markets, excluding absent companies. Data were obtained from CSMAR, annual financial statements, and the official website of the company, as well as biographical information of directors, supervisors, and executives painstakingly gathered from across the web. This study used the winsorize method in STATA to pre-process the data for ROA and make the data smoother to prevent anomalies from influencing the study's results.

Types	Name	Definition	Variable Symbol			
	Return on Asset	sNet profit/Assets* 10	ROA			
Dependent Variables	Report Objectives	This is a binary dependent variable. It is determined based on the audit opinion of the current year's financial statements, and is taken as 1 if the CPA issues a standard unqualified audit report and 0 for the others.				
Variables	Compliance Objectives	This is a binary dependent variable. If the company was dealt with or publicly condemned by the judiciary, SEC or stock exchange in the year, it is taken as 0, otherwise it is taken as 1.	LEG			
	The nature of equity	Number of stated-owned shares/total number of shares /100	NS			
	Ownership Concentration	The shareholding ratio of the largest shareholders/100	OC			
		The second to tenth largest shareholders combined shareholding ratio/ Share ratio of the largest Number of directors	ECB BS			
	Number of meetings The proportion	Number of board meetings	NBM			
		Number of independent directors/ total number of directors	PID			
	CEO duality Number of	Yes 1, No 0	DUA			
Independent Variables	cnocial	Number of special committees under board of directors	COM			
	supervisory board Monetary	Number of members of the board of supervisors	SS			
		Natural logarithm of total compensation of the companies' top three executives	PAY			
	equity incentives	Number of share held by the executives/ the total number of shares	MEI			
	Two-Way Entry	illallager, I'w takes the value of 1, otherwise it takes the value of 0.	TW			
		If the secretary of the party committee is also the chairman of the company, or if the vice chairman is also the secretary of the party committee when the chairman is also the deputy secretary of the party committee, CA takes the value of 1, otherwise it takes the value of 0	CE			
	Length of time on the market		ΥE			
	Firm size Ability to	Natural logarithm of total assets of listed companies	SIZE			
Control	increase and preserve the	Standardized treatment of Net Assets Growth Rate	NAGR			
Variables	value of assets Company Growth	Standardized treatment of profit after tax growth rate	GROWTH			
	Leverage	Ratio of total liabilities to total assets Shanghai 1, Shenzhen 0 Annual report audit by Big Four accounting firms will take 1, no 0	ALR EL BF			

4.2 Model building

This study is panel data and involves three models, all analyzed by STATA software, with the following models:

$$\begin{split} ROA_{it} &= \alpha_1 NS_{it} + \alpha_2 OC_{it} + \alpha_3 ECB_{it} + \alpha_4 BS_{it} + \alpha_5 NBM_{it} + \alpha_6 PID_{it} + \alpha_7 DUA_{it} + \alpha_8 COM_{it} + \alpha_9 SS_{it} + \alpha_{10} PAY_{it} + \alpha_{11} MEI_{it} + \alpha_{12} TW_{it} + \alpha_{13} CE_{it} + \alpha_{14} YE_{it} + \alpha_{15} SIZE_{it} + \alpha_{16} NAGR_{it} + \alpha_{17} GROWTH_{it} + \alpha_{18} ALR_{it} + \alpha_{19} EL_{it} + \alpha_{20} BF_{it} + \lambda_t + \mu_i + \varepsilon_{it} \end{split}$$

(μ_i denotes individual fixed effects, λ_t denotes time-fixed effects, ε_{it} denotes error term)

$$\begin{split} &In\frac{P(RA_{it}=1)}{1-P(RA_{it}=1)} = \beta_0 + \beta_1 NS_{it} + \beta_2 OC_{it} + \beta_3 ECB_{it} + \beta_4 BS_{it} + \\ &\beta_5 NBM_{it} + \beta_6 PID_{it} + \beta_7 DUA_{it} + \beta_8 COM_{it} + \beta_9 SS_{it} + \\ &\beta_{10} PAY_{it} + \beta_{11} MEI_{it} + \beta_{12} TW_{it} + \beta_{13} CE_{it} + \beta_{14} YE_{it} + \\ &\beta_{15} SIZE_{it} + \beta_{16} NAGR_{it} + \beta_{17} GROWTH_{it} + \beta_{18} ALR_{it} + \\ &\beta_{19} EL_{it} + \beta_{20} BF_{it} + v_i + \epsilon_{it} \end{split}$$

(v_i denotes the individual random effect, and ϵ_{it} denotes the error term)

$$\begin{split} & \ln \frac{P(\text{LEG}_{it}=1)}{1-P(\text{LEG}_{it}=1)} = \eta_1 N S_{it} + \eta_2 O C_{it} + \eta_3 E C B_{it} + \eta_4 B S_{it} + \\ & \eta_5 N B M_{it} + \eta_6 P I D_{it} + \eta_7 D U A_{it} + \eta_8 C O M_{it} + \eta_9 S S_{it} + \\ & \eta_{10} P A Y_{it} + \eta_{11} M E I_{it} + \eta_{12} T W_{it} + \eta_{13} C E_{it} + \eta_{14} Y E_{it} + \\ & \eta_{15} S I Z E_{it} + \eta_{16} N A G R_{it} + \eta_{17} G R O W T H_{it} + \eta_{18} A L R_{it} + \\ & \eta_{19} E L_{it} + \eta_{20} B F_{it} + \lambda_t + \mu_i + \varepsilon_{it} \end{split}$$

(μ_i denotes individual fixed effects, λ_t denotes time-fixed effects, ε_{it} denotes error term)

5. Results

5.1 Descriptive statistics

Table 2. Descriptive statistics

VARIABLES	N	mean	sd	min	max
ROA	854	0.196	0.497	-2.016	2.623
RA	854	0.96	0.196	0	1
LEG	854	0.717	0.451	0	1
OC	854	0.318	0.166	0.0607	0.739
NS	854	0.332	0.262	0	0.878
ECB	854	1.343	1.018	0.0329	4.899
BS	854	13.2	4.413	5	24
NBM	854	10.22	3.72	2	33
PID	854	0.365	0.0589	0.232	0.551
DUA	854	0.179	0.384	0	1
COM	854	5.502	1.555	2	8
SS	854	6.721	3.247	3	17
PAY	854	15.18	0.963	12.87	17.04
MEI	854	0.0268	0.0923	0	0.582
TW	854	0.728	0.445	0	1
CE	854	0.686	0.464	0	1
YE	854	13.09	7.413	2	27
SIZE	854	25.06	2.863	19.95	30.83
NAGR	854	-0.0223	0.645	-0.462	5.171
GROWTH	854	-0.0519	0.166	-0.653	0.944
ALR	854	0.68	0.243	0.0491	0.95
EL	854	0.651	0.477	0	1
BF	854	0.39	0.488	0	1

The descriptive statistics reveal an industry-specific disparity in ROA. The reporting objective average is 0.96, indicating that many CPAs have issued unqualified audit opinions. The average compliance target is 0.717%, indicating that most businesses have not been publicly sanctioned. The concentration of

equity, the proportion of state-owned shares, and the degree of Check-and-balance stock ownership vary considerably. Following the Company Law, the minimum size of the board of directors has attained the lower limit of five members. The minimum value of the percentage of independent directors is 0.232, which is lower than the minimum requirement of 1/3 as stated in the Company Law. The average value of CEO duality is 0.179, indicating that this situation still represents a negligible proportion. There substantial variations in the number of professional committees, the supervisory board size, and the executive shareholding rate. The mean value of twoway access is 0.728, whereas the mean value of crossappointment is 0.686, indicating that two-way access is more prevalent than cross-appointment in the financial industry.

5.2 Multicollinearity test

In this investigation, multicollinearity among explanatory variables was identified using the VIF. The VIF values for all three models are less than ten, and the Tolerance values for the independent variables are greater than 0.1, indicating no significant covariance issue among the independent variables.

Table 3. Multicollinearity test

Variable	VIF	SQRT VIF	Tolerance	R-Sq
NS	1.80	1.34	0.5559	0.4441
OC	2.66	1.63	0.3756	0.6244
ECB	2.72	1.65	0.3682	0.6318
BS	2.79	1.67	0.3587	0.6413
NBM	1.10	1.05	0.9095	0.0905
PID	1.02	1.01	0.9760	0.0240
DUA	1.21	1.10	0.8255	0.1745
COM	1.26	1.12	0.7955	0.2045
SS	2.25	1.50	0.4450	0.5550
PAY	1.49	1.22	0.6693	0.3307
MEI	1.53	1.24	0.6530	0.3470
TW	1.29	1.14	0.7734	0.2266
CE	1.52	1.23	0.6563	0.3437
YE	1.40	1.18	0.7139	0.2861
SIZE	7.15	2.67	0.1399	0.8601
NAGR	1.14	1.07	0.8748	0.1252
GROWTH	1.11	1.05	0.9021	0.0979
ALR	3.40	1.84	0.2938	0.7062
EL	1.33	1.16	0.7495	0.2505
BF	2.79	1.67	0.3585	0.6415
Mean VIF	2.05			

5.3 Hausman test

This study used the STATA software to implement the Hausman test with the original hypothesis that random effects model estimations are more accurate than fixed effects model estimations. At the 1% significance level, the Hausman test for ROA and LEG indicates that the original hypothesis is rejected (see Table 4). The Hausman test P-value for RA is greater than 0.05, so the original hypothesis cannot be rejected.

Table 4. Hausman test

Hausman test for ROA	Prob>chi ² =0.0000
Hausman test for RA	Prob>chi ² =0.8373
Hausman test for LEG	$Prob>chi^2 = 0.0000$

5.4 Regression analysis results and empirical findings

Table 5. Regression results

NS		Table 5. Regression results					
OC -0.568 -3.627 5.086*	VARIABLES	ROA		LEG			
OC	NS	-0.560*	1.196	-2.626			
ECB		(-1.94)	(0.717)	(-1.27)			
ECB	OC	-0.568	-3.627	5.086*			
C-2.48			(-1.298)	(1.69)			
BS	ECB	-0.104**	-1.250***	0.254			
NBM 0.001 0.085 -0.017 (0.12) PID 0.237 2.915 -1.615 (0.78) (0.78) (0.746) (-0.78) DUA -0.033 0.128 0.2 (-0.62) (0.198) (0.56) COM 0.000 0.297* 0.217** (-0.33) (1.898) (2.03) SS -0.009 0.0846 0.065 (-0.69) (0.443) (0.76) PAY 0.005 0.711* 0.733** (0.15) (1.809) (2.45) MEI -0.111 -4.224* 2.418 (0.05) TW 0.112** 0.637 1.594*** (2.13) (1.174) (4.20) CE -0.059 0.113 2.120*** (4.59) YE -0.02 -0.0879* 0.348 (-0.91) (0.142) (4.59) YE -0.02 -0.0879* 0.348 (-0.18) (1.680) (0.35) SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) BF -0.014 -0.197 -0.172 (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - (-0.20) Constant -2.197** -23.31*** - (-0.20) (-0.561) - (-0.20) R-squared 0.148 - (-0.561) -		(-2.48)	(-2.845)	(0.74)			
NBM	BS	-0.009	-0.134	-0.013			
(0.12)		(-1.06)	(-1.200)	(-0.22)			
PID	NBM	0.001	0.085	-0.017			
DUA		(0.12)	(1.092)	(-0.40)			
DUA	PID	0.237	2.915	-1.615			
COM 0.000 0.297* 0.217** (-0.03) (1.898) (2.03) SS -0.009 0.0846 0.065 (-0.69) (0.443) (0.76) PAY 0.005 0.711* 0.733** (0.15) (1.809) (2.45) MEI -0.111 -4.224* 2.418 (-0.34) (-1.884) (1.05) TW 0.112** 0.637 1.594*** (2.13) (1.174) (4.20) CE -0.059 0.113 2.120*** (-0.91) (0.142) (4.59) YE -0.02 -0.0879* 0.348 (-0.18) (-1.680) (0.35) SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (-0.91) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - Insig2u - 0.420 - (-0.561) - R-squared 0.148 Company FE YES - YES		(0.78)	(0.746)	(-0.78)			
COM	DUA	-0.033	0.128	0.2			
SS		(-0.62)	(0.198)	(0.56)			
SS	COM	0.000	0.297*	0.217**			
(-0.69) (0.443) (0.76) PAY 0.005 0.711* 0.733** (0.15) (1.809) (2.45) MEI -0.111 -4.224* 2.418 (-0.34) (-1.884) (1.05) TW 0.112** 0.637 1.594*** (2.13) (1.174) (4.20) CE -0.059 0.113 2.120*** (-0.91) (0.142) (4.59) YE -0.02 -0.0879* 0.348 (-0.18) (-1.680) (0.35) SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - Insig2u - 0.420 - (-0.561) - R-squared 0.148 Company FE YES - YES		(-0.03)	(1.898)	(2.03)			
PAY	SS	-0.009	0.0846	0.065			
(0.15) (1.809) (2.45) MEI -0.111 -4.224* 2.418 (-0.34) (-1.884) (1.05) TW 0.112** 0.637 1.594*** (2.13) (1.174) (4.20) CE -0.059 0.113 2.120*** (-0.91) (0.142) (4.59) YE -0.02 -0.0879* 0.348 (-0.18) (-1.680) (0.35) SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (1.208) - EL - 0.825 - (1.208)		(-0.69)	(0.443)				
MEI	PAY	0.005	0.711*	0.733**			
TW 0.112** 0.637 1.594*** (2.13) (1.174) (4.20) CE -0.059 0.113 2.120*** (-0.91) (0.142) (4.59) YE -0.02 -0.0879* 0.348 (-0.18) (-1.680) (0.35) SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (1.20		(0.15)	(1.809)	(2.45)			
TW 0.112** 0.637 1.594*** (2.13) (1.174) (4.20) CE -0.059 0.113 2.120*** (-0.91) (0.142) (4.59) YE -0.02 -0.0879* 0.348 (-0.18) (-1.680) (0.35) SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (1.20	MEI	-0.111	-4.224*	2.418			
(2.13) (1.174) (4.20) CE		(-0.34)	(-1.884)	(1.05)			
CE	TW	0.112**	0.637	1.594***			
YE		(2.13)	(1.174)	(4.20)			
YE	CE	-0.059	0.113	2.120***			
(-0.18)		(-0.91)	(0.142)	(4.59)			
SIZE 0.160*** 0.843*** -0.213 (4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - - (1.208) - BF -0.014 -0.197 -0.172 (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - Insig2u - 0.420 - - (0.561) - R-squared 0.148 - - Company FE YES - YES	YE	-0.02	-0.0879*	0.348			
(4.55) (2.590) (-0.70) NAGR -0.002 1.444 0.042 (-0.06) (1.046) (0.24) GROWTH 0.426*** -0.473 0.685 (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (1.208) - BF -0.014 -0.197 -0.172 (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - Insig2u - 0.420 - R-squared 0.148 Company FE YES - YES		(-0.18)	(-1.680)	(0.35)			
NAGR	SIZE	0.160***	0.843***	-0.213			
GROWTH (-0.06) (1.046) (0.24) 0.426*** (4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (1.208) - (1.208) - (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - Insig2u - (-2.01) R-squared 0.148 Company FE YES (0.24) (-0.473 (-0.520) (-0.24) (-0.24) (-0.136) (-0.20) (-0.20) (-0.561) - YES		(4.55)	(2.590)	(-0.70)			
GROWTH 0.426***	NAGR	-0.002		0.042			
(4.25) (-0.526) (1.10) ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 -		(-0.06)	(1.046)	(0.24)			
ALR -1.142*** -3.075** -2.155* (-6.97) (-2.293) (-1.85) EL - 0.825 (1.208) - BF -0.014 -0.197 -0.172 (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - Insig2u - 0.420 (0.561) - R-squared 0.148 Company FE YES - YES	GROWTH	0.426***	-0.473	0.685			
(-6.97) (-2.293) (-1.85) EL - 0.825 - (1.208) - (1.208) BF -0.014 -0.197 -0.172 (-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** - (-2.01) (-3.484) - (1.208) Insig2u - 0.420 - (0.561) - (1.208) R-squared 0.148 - YES - YES				(1.10)			
EL - (0.825 - (1.208) - (1	ALR						
- (1.208) - (1.2		(-6.97)	(-2.293)	(-1.85)			
BF	EL	-		-			
(-0.10) (-0.136) (-0.20) Constant -2.197** -23.31*** -		-	(1.208)	-			
Constant -2.197** -23.31*** -	BF	-0.014	-0.197				
(-2.01) (-3.484) - Insig2u - 0.420 (0.561) - R-squared 0.148 - Company FE YES - YES				(-0.20)			
Insig2u - 0.420 (0.561) - R-squared 0.148 - Company FE YES - YES	Constant			-			
- (0.561) - R-squared 0.148 - Company FE YES - YES		(-2.01)		-			
R-squared 0.148 - Company FE YES - YES	Insig2u	-		-			
Company FE YES - YES		-	(0.561)	-			
	•		-				
Year FE YES - YES	' '		-				
	Year FE	YES	-	YES			

The regression mentioned above analysis permits the following inferences: First, at the 10% level, the proportions of state-owned shares are negatively associated with the operational objectives of internal control, so H1a holds. Second, at the 10% level, equity concentration is positively associated with the compliance objective of internal control, so H2c holds. Third, the degree of Check-and-balance of stock ownership is significantly and negatively related to the operational objectives of internal control at the 5% level. Thus H3a is true; however, the degree of Checkand-balance of stock ownership is significantly and negatively related to the reporting objectives of internal control at the 1% level. Thus H3b is true. Fourth, the number of professional committees is positively correlated with the reporting objective of internal control, while it is also positively correlated with the compliance objective of internal control. Fifth, executive cash compensation positively correlates with internal control reporting objectives at 10% and compliance objectives at 5%. Sixth, the proportion of executive equity is significantly and negatively related to the reporting objective of internal control at the 10% level. Thus H11b holds. Seventh, the emergence of a two-way entry situation of party organizations is significantly and positively related to the operational objective of internal control at the 5% level, thereby supporting H12a; meanwhile, the emergence of a two-way entry situation of party organizations is significantly related to the compliance objective of internal control at the 1% level, thereby supporting H12c. Eighth, the crossemployment situation of party organizations is significant at the 1% level concerning the internal control compliance objective, which H13c holds.

5.5 Robustness tests

This study chose to conduct a robustness test by substituting the independent variables to determine the dependability of the results. In this paper, ECB and PAY are substituted separately and denoted by ECB2 and PAY2, respectively. ECB2 is calculated by dividing the sum of the shareholdings of the second through fifth-largest shareholders by the percentage of the first largest shareholder. PAY2 represents the total compensation of all executives. The significance and direction of the variables are generally consistent, indicating that the conclusions mentioned above pass the robustness test.

Table 6. Robustness tests

Variables	ROA	ROA	RA	RA	LEG	LEG
NS	-0.532*	-0.559*				
	(-1.84)	(-1.94)				
OC					5.203*	5.062*
					(1.77)	(1.65)
ECB		-0.104**		-1.196***		
		(-2.49)		(-2.764)		
ECB2	-0.159***		-1.650***			
	(-2.62)		(-2.746)			
COM			0.294*	0.278*	0.220**	0.202*
			(1.879)	(1.782)	(2.06)	(1.86)
PAY			0.677*		0.728**	
			(1.742)		(2.43)	
PAY2				0.691**		0.727***
				(2.251)		(3.03)
MEI			-4.131*	-4.349*		
			(-1.836)	(-1.944)		
TW	0.110**	0.111**			1.604***	1.575***
	(2.11)	(2.13)			(4.21)	(4.15)
CE					2.106***	2.153***
					(4.57)	(4.63)

6. Conclusions and Recommendations

First, a reasonable shareholding structure can enhance corporate governance and facilitate achieving internal control goals. Listed financial companies should first consider reducing the proportions of state-owned shares, decreasing the proportion of non-circulating shares, and diversifying equity owners. Financial companies with more fragmented equity can establish a relatively concentrated equity model by introducing strategic investors. Then, listed financial companies can take the necessary steps to form relatively controlling shareholders, mobilize the enthusiasm of controlling shareholders, and enhance the efficacy of enterprise operations.

Second, the board of directors is the central governing body of a corporation and is crucial to corporate governance. It is suggested that publicly traded financial institutions ensure the implementation of the professional committee system, increase its diversity and maximize its role.

Thirdly, an effective compensation incentive mechanism promotes the work motivation of management. First, monetary incentive compensation is the most direct method of motivation, providing executives with the most tangible economic benefits and boosting their professional enthusiasm and motivation. Without sufficient external constraints, equity incentives can rapidly become a tool for internal controllers of listed companies to obtain more personal benefits; therefore, it is recommended that listed financial companies develop scientific and reasonable equity incentive policies.

Fourth, the participation of party organizations in corporate governance is a significant innovation with Chinese characteristics in corporate governance theory and practice. It is suggested that publicly traded financial companies provide organizational and institutional guarantees for incorporating party organizations into the corporate governance structure by enhancing the party organization system and incorporating party construction into their articles of incorporation.

Reference

- Ajibulu, F. G., Yahaya, O. A., & Agbi, S. E. (2021). Board of directors and quality of financial reports of quoted banks: Evidence from Nigeria. *Umaru Musa Yar'adua University Journal of Accounting and Finance Research*, 1(1), 79-99. doi: https://doi.org/10.5281/zenodo.6814225
- Ahmed, E. R., Islam, M. A., & Alabdullah, T. T. Y. (2018). The moderating role of Shariah supervisory board on sukuk pricing benchmark. *International Journal of Excellence in Islamic Banking and Finance*, 6(2), 1-32. Retrieved from https://www.researchgate.net/publication/327700693
- Almagtome, A., Khaghaany, M., & Önce, S. (2020). Corporate governance quality, stakeholders' pressure, and sustainable development: An integrated approach. International Journal of Mathematical Engineering and Management Sciences, 5(6). doi: http://doi.org/10.33889/ijmems.2020.5.6.082
- Chen, H. R. (2018). Study on the effect of stock ownership structure of listed companies on the effectiveness of internal control (Master's thesis, Xi'an University of Science and Technology). Retrieved from https://wap.cnki.net/touch/web/Dissertation/Article/10077-1014016025.nh.html
- Conyon, M. J., & He, L. (2016). Executive compensation and corporate fraud in China. *Journal of Business Ethics*, 134, 669-691. doi: https://doi.org/10.1007/s10551-014-2390-6

- Davidson, R. H. (2022). Who did it matters: Executive equity compensation and financial reporting fraud. *Journal of Accounting and Economics*, 73(2-3), 101453. doi: https://doi.org/10.1016/j.jacceco.2021.101453
- Feng, Y. X., Jiang, Y. T., & Cai, Y. H. (2016). The influence of the characteristics of the board of directors and the ownership structure on the effectiveness of the internal control of listed manufacturing companies. *Enterprise Reform and Management*, (2), 1-3. doi: https://doi.org/10.13768/j.cnki.cn11-3793/f.2016.0373
- Huang, D. Y., & Zhang, X. (2020). Study on the Impact of Board Structure on Corporate Performance. *Journal* of Shandong University of Technology (Social Sciences), 36(1), 25-30.
- Li, F. (2017). Research on the impact of executive equity incentives on company performance and accounting information quality (Master's thesis, North China Electric Power University). Retrieved from https://wap.cnki.net/touch/web/Dissertation/Article/10079-1017222718.nh.html
- Li, H. M., & Cheng, Y. H. (2020). Influence of the CPC's Participation in Corporate Governance on Risk—Taking of Listed Companies. *Economic Review*, (5), 17-31. doi: https://doi.org/10.19361/j.er.2020.05.02
- Li, Q., & Yan, G. S. (2020). Research on the Influence of Corporate Governance on Internal Control Index. *Jilin University Journal Social Sciences Edition*, 60(6), 167-178. doi: https://doi.org/10.15939/j.jujsse.2020.06.jj4
- Liu, L., & Qiu, B. X. (2019). The Party Building of Social Organizations: Embedded Development and the Improvement of Organizing Capacity. *Journal of Beijing Administrative College*, (6), 31-38. doi: https://doi.org/10.16365/j.cnki.11-4054/d.2019.06.004
- Liu, L. F., Cai, Y. W., & Ran, J. L. (2019). Party Committee Participation in Corporate Governance, Diversification Strategy and Corporate Performance. Friends of Accounting, (22), 37-43. Retrieved from http://www.cqvip.com/qk/81123x/201922/7003093141.html
- Lu, S. J., & Zhao, M. Y. (2016). A Study on the Impact of Board Characteristics on Internal Control Failures - An Analysis of Data Based on Chinese Listed Companies. China Soft Science, (5), 93-106. Retrieved from http://www.cqvip.com/qk/91678x/201605/668983958.html
- Ma, J., Huang, L. Z., & Liang, C. J. (2021). Participation of Party Organizationin Corporate Governance and Corruption of Private Enterprise Executives. South China Journal of Economics, 40(7), 105-127. doi: https://doi.org/10.19592/j.cnki.scje.381186
- Mahboub, R. (2017). Main Determinants of Financial Reporting Quality in the Lebanese Banking Sector. *European Research Studies Journal*, 20(4B), 706-726. Retrieved from https://www.ersj.eu/dmdocuments/2017-xx-4-b-53.pdf
- Mengkai, W., Yilin, L., Liangwei, L., & Defang, M. (2022).
 Can the "Two-way Entry and Cross-serving" of Party Organizations Restrain Corporate Information Disclosure Violations? Foreign Economics & Management, 44(12), 19-34. doi: https://doi.org/10.16538/j.cnki.fem.20220905.201
- Nguyen, H. T. X., Pham, H. T., Dao, N. T., & Nguyen, N. T. (2022). Impact of characteristics of the board of directors on the truthfulness of financial statement information of listed firms in Vietnam. *Cogent Business & Management*, 9(1), 2148870. doi: https://doi.org/10.1080/23311975.2022.2148870
- Nomran, N. M., Haron, R., & Hassan, R. (2018). Shari'ah supervisory board characteristics effects on Islamic banks' performance: Evidence from Malaysia. *International Journal of Bank Marketing*, 36(2), 290-304. doi: https://doi.org/10.1108/IJBM-12-2016-0197

- Phuong, N. T. T., & Hung, D. N. (2020). Board of directors and financial reporting quality in Vietnam listed companies. *International Journal of Financial Research*, *11*(4), 296-305. doi: https://doi.org/10.5430/ijfr.v11n4p296
- Polanyi, K. (2002). The Great Transformation. In *Readings in Economic Sociology* (pp. 38-62). Blackwell Publishers Ltd. doi: https://doi.org/10.1002/9780470755679.ch4
- Sari, R. (2021). Analysis of the Effect of Earnings per share, Price earning ratio and Price to book value on the stock prices of state-owned enterprises. Golden Ratio of Finance Management, 1(1), 25-32. doi: https://doi.org/10.52970/grfm.v1i1.117
- Shi, F., & Zhang, Y. (2016). The Empirical Research on the Efficiency of Board of Directors and the Effectiveness of Internal Control. *Journal of Guangxi University of Finance and Economics*, 29(4), 69-78. Retrieved from http://www.cqvip.com/qk/83249a/201604/670112952.html
- Wang, C., Zhang, S., Ullah, S., Ullah, R., & Ullah, F. (2021). Executive compensation and corporate performance of energy companies around the world. Energy Strategy Reviews, 38, 100749. doi: https://doi.org/10.1016/j.esr.2021.100749
- Wang, H. D., & Guan, S. S. (2016). Mediating Effect of Internal Control on the Influence of Ownership Structure on Firm Performance. Journal of Hunan Finance and Economics University, 32(163), 60-70. doi: https://doi.org/10.16546/j.cnki.cn43-1510/f.2016.05.008
- Wang, W. H. (2022). Research on the Influence of Party Organization Participation in Corporate Governance on Accounting Information Quality (Doctoral dissertation, Yunnan University of Finance and Economics).
- Zhang, X. T., & Yao, X. (2021). Can the Participation of Party Organizations in Corporate Governance Reduce Corporate Irregularities? *Economic Vision*, (2), 1-15. doi: https://doi.org/10.3969/j.issn.1672-3309(s).2021.02.01
- Zheng, L., & Zhang, Z. (2021). An Empirical Analysis of the Impact of Executive Equity Incentives on Enterprise Performance Based on the Moderating Effect of Occupational Background Heterogeneity. Converter, 2021(8), 77-87. Retrieved from http://converter-magazine.info/index.php/converter/article/view/614
- Zhou, F., Zhang, Z., Yang, J., Su, Y., & An, Y. (2018). Delisting pressure, executive compensation, and corporate fraud: Evidence from China. Pacific-Basin Finance Journal, 48, 17-34. doi: https://doi.org/10.1016/j.pacfin.2018.01.003