

Research on the Impact Mechanism of Institutional Investors on Corporate Earnings Management—With Corporate Financialization as the Mediator

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Abstract. As China's capital market evolves and institutional investors expand, their influence on corporate governance has grown significantly. In this context, it is crucial to examine the influence mechanism of institutional investors on corporate earnings management via the intermediary pathway of corporate financialization. This study focuses on "The Influence Mechanism of Institutional Investors on Corporate Earnings Management." It adopts a method combining theoretical analysis and empirical testing. The theoretical part reviews the literature and theoretical basis, and the empirical part uses STATA software and methods such as the Hausman test and regression analysis to verify the hypotheses. Finally, there exists a significant inverted U-shaped relationship between institutional investor holdings and corporate financialization, with a quadratic coefficient of -7.337 and a linear coefficient of 5.346, where institutional investors promote moderate financialization and curb excessive financialization. For excessively financialized firms, institutional investors reduce earnings management by restraining financialization; for moderately financialized firms, institutional investors may strain earnings management by promoting financialization.

Keywords: Institutional investors, Earnings management, Financialization

1. Introduction

In the context of economic globalization and a fluctuating market environment, institutional investors, as crucial financial intermediaries and key participants in corporate governance, exert a progressively significant influence on China's economic development and the operational quality of enterprises. Strategic institutional investors can mitigate accumulated earnings management and actual active earnings management of publicly traded firms through the allocation of financial assets. When participating in corporate governance, they can supervise the abnormal production activities of listed companies and lower actual active earnings management [1]. Moreover, the degree of enterprise financialization is significantly correlated with earnings management behavior. Corporate financialization will give managers more motivation to manipulate profits. Enterprises will use more hidden spaces such as non-recurring gains and losses for earnings management of financial activities [2]. Although existing studies have confirmed the supervisory role of institutional

investors and the association between corporate financialization and earnings management, the mediating paths through which institutional investors influence earnings management through corporate financialization have not been systematically revealed yet. Especially in the context of ESG, the dynamic relationship among the three still awaits in-depth exploration.

This study focuses on the influence mechanism of institutional investors on corporate earnings management and takes corporate financialization as the intermediary. Its significance lies in innovatively constructing the transmission chain of "institutional investors—corporate financialization—earnings management", improving the theoretical framework of corporate governance, deepening the conditional understanding of the controversy over the "active supervision" and "passive voting" of institutional investors, and expanding the research on the inverted U-shaped relationship between institutional investors and corporate financialization and the transmission mechanism between corporate financialization and earnings management; This study, by reviewing relevant domestic and foreign literature, analyzing the theoretical basis and defining the concepts, provides theoretical support for proposing research hypotheses and empirical tests. Subsequently, professional statistical software such as STATA was used. The rationality of the model was judged through the Hausman test. Subsequently, utilizing correlation and regression analysis, the correlations among variables were examined from various perspectives, and the study hypotheses and theoretical models were systematically validated.

2. Literature review

Institutional Investors and Earnings Management: Current research presents two contrasting perspectives regarding the involvement of institutional investors in corporate governance. The active supervision concept posits that institutional investors actively oversee the company's management. Existing research has found that companies held by institutional investors will disclose more public information, and the disclosed information is more timely and accurate [3]. Moreover, from the perspective of the investment portfolio, the research shows that institutional investors' shareholding can detect in advance the earnings manipulation behavior of enterprises with a higher weighting in the investment portfolio and take appropriate measures in advance. Thereby reducing the possibility of earnings management occurring [4]. Data indicates that a 1% rise in the shareholding ratio of institutional investors correlates with a significant 0.6% reduction in earnings management levels at a 99% confidence level [5]. The other is a passive voting hypothesis, that is, institutional investors deal with the governance issues of the company passively instead of taking active measures to improve the corporate governance [6]. In mature markets, active supervision works for transparent firms; in emerging markets or opaque SMEs, it's weaker. Equity dispersion boosts it, but concentration hinders, and poor performance can shift passive to active oversight.

Corporate Financialization: Enterprise financialization denotes the trend wherein enterprises augment the allocation of resources to financial assets during asset distribution, resulting in a gradual transition of their profit composition towards dependence on financial avenues rather than conventional production and operational activities[7]. It is precisely under the financialization of enterprises that the corporate governance structure of enterprises has been affected. In order to distort or smooth profits to maximize shareholder interests, management will increase earnings management behaviors [8]. On the other hand, research shows that the buffer reserve function of enterprise financialization is mainly reflected in enterprises with a moderate degree of financialization, while the investment replacement effect mostly occurs in enterprises with excessive financialization [9]. However, when an enterprise is at an excessive level of corporate financialization, earnings management will act as a supplementary means of financialization, with

the boosting effect greater than the substitution effect, which is comprehensively manifested as a promoting effect. The final empirical results reflect that the quadratic term of the enterprise financialization level is significantly positively correlated with the earnings management level at the 1% statistical level, with a coefficient of 0.064. This U-shaped relationship holds [10].

Critical Literature Review: Currently, two competing perspectives persist in the examination of the governance impact of institutional investors: "supervision" and "pressure." The conclusion remains fragmented, and research on the varied effects of distinct types of institutional investors on earnings management across diverse market conditions and business contexts is inadequate. For enterprise financialization, recent studies focus on the financialization motives linked to the sustainability of surplus and found that due to "market arbitrage motivation," financialization inhibits surplus sustainability and promotes the surplus management level. "Capital reserve motivation" is increasing internal cash flow, but it did not promote the surplus. However, there is still a lack of in-depth analysis on how corporate financialization affects earnings management by influencing the internal governance mechanism of the company. The driving factors, manifestations and influence paths on earnings management of enterprise financialization in different industries may vary significantly. The existing research on the industry comparative analysis of this is still insufficient. From the point of view of the whole research, the institutional investors' holding, enterprise financialization, and earnings management into the unified frameworks are less comprehensive analyses of the literature. Although it is known that institutional investors have a constraining or promoting effect on corporate financialization, and corporate financialization in turn affects earnings management, and institutional investors can also directly act on earnings management, the complex interaction mechanism among the three has not yet been clearly revealed. Existing research at home and abroad has focused on some microscopic path; few research will "financialization institutional investors—enterprise" and "financialization, surplus management," two paths combining research. This paper creatively combines contact and aims to study the following questions:

1. How does the emergence of institutional investors affect the business decisions and governance structures of enterprises, especially their impact on corporate earnings management? What is its specific mechanism of action?
2. Enterprise financialization between institutional investors and earnings management played what kind of intermediary role?

Based on the active supervision theory, as institutional investors' shareholding in listed companies rises and their governance influence grows, to secure better returns, they will participate in corporate governance. This improves governance structures, enhances firm performance, and for companies with sound governance, stronger earnings information timeliness and lower earnings management strengthen institutional supervision [11]. Yet under the "passive voting" hypothesis, institutional investors passively engage in governance after cost-benefit analysis. Imperfect legal protection may drive some to focus on short-term speculation, increasing management's short-term performance pressure and firms' earnings management motivation. Based on these, hypotheses H1 and H2 are proposed.

H1: The institutional investors in corporate governance are positive supervision, surplus management level and institutional investor shareholding which were positively correlated.

H2: Earnings management level and a negative correlation relationship with institutional investor shareholding.

Existing research shows that moderate corporate financialization can substitute for earnings management due to the liquidity and profitability of financial assets, thus inhibiting earnings

manipulation, while excessive financialization may promote earnings management due to speculative risks. In addition, institutional investors can promote the level of corporate financialization to approach the optimal state, thereby restraining earnings management. Based on this, the following hypotheses are proposed. In conclusion, this paper put forward assumption H3 and hypothesis H4.

H3: Institutional investors and enterprises have an inverted U-shaped relationship between financialization and institutional investors. They promote moderate enterprise financialization and inhibit excessive financialization.

H4: Enterprise plays a role in intermediary financialization; institutional investors can, through financialization, restrain enterprise surplus management level.

3. Research design

Theoretical Foundation: 1) The principal-agent theory: The core of the theory lies in designing the optimal incentive contract and establishing the supervision mechanism to bridge the information gap and make the agent's behavior conform to the client's goals. 2) The theory of corporate governance takes solving the agency problems between shareholders (the principal party) and management (the agent party) as the core, and constructs the system and relationship framework for regulating the operation of enterprises. In contemporary times, this theory also integrates environmental, social and governance (ESG) elements to promote the sustainable development of enterprises. 3) The theory of information asymmetry explains the economic contradictions caused by the uneven possession of information in transactions.

3.1. Data sources and variable selection

The data of this article is sourced from the CSMAR database [12]. The listed companies of the Shanghai and Shenzhen stock markets during the 10 years from 2014 to 2023 are taken as the research objects. The screening steps of the research samples are as follows: 1) Eliminate all samples of financial listed companies; 2) Exclude A-shares marked as ST and those in the financial industry (as classified by the China Securities Regulatory Commission in 2012); 3) Eliminate listed companies with missing data. In addition, this paper also performs 1% tailing processing on some abnormal continuous variables to eliminate the influence of extreme values, and finally 13,550 observed values are obtained.

3.2. Variable definitions

(1) Explained Variable

Earnings management (DA), and earnings manipulation abuse cause serious distortion of accounting information in our country. Non-recurring gains and losses refer to one-off or occasional gains or losses that do not occur frequently during the normal operation of an enterprise. These gains and losses are usually unrelated to the enterprise's daily business activities. The proportion of non-recurring gains and losses to the total assets at the end of the period (DA) reflects the relative level of such gains and losses generated by an enterprise during its operation. Referring to the research methods of Wang and Xie, this article uses this proportion (DA) to reflect the earnings management level of the enterprise [13].

(2) Explanatory Variable

Institutional investors (Inv): In this paper, the proportion of shares held by institutional investors to the total share capital is adopted for measurement.

(3) Mediating Variable

Corporate financialization (Fin): In this paper, the ratio of narrow financial liabilities to total liabilities is selected for measurement. Traditional financing of physical enterprises relies on operating liabilities linked to business scale, while financial liabilities incur interest but allow flexible allocation to financial investments. A higher financial liability ratio indicates funds are raised for financial assets instead of productive reinvestment, a hallmark of financialization. For real industries, this ratio reflects financing structure deviation from core operations, and correlates positively with financialization due to associated leverage and risk appetite. The variables defined in detail are shown in Table 1.

Table 1. Main variables

Variable	Leading indicator	Measurement method	Units
Independent Variable	Institutional Investors Ownership(Inv)	Institutional investors hold shares/total share capital	
Mediating Variable	The degree of financialization (Fin)	Fin = Financial liabilities/Total liabilities	
Dependent Variable	earnings management (DA)	DA =Non-recurring gains and losses/Total assets at the end of the period	
	capital-intensity (Cap)	Total assets/Operating income	Percentage
	asset-liability ratio (lev)	Total liabilities/Total assets of the enterprise	
Control Variable	enterprise age (Listage)	Ln(Research year - Establishment year +1)	
	return on assets (ROA)	Net profit/Balance of total assets	
	Tobin Q value (Tbq)	The ratio of market value to total assets at the end of the year	
	Year	Annual dummy variable	Year

3.3. Model construction

In this paper, by constructing a bidirectional fixed effects model, to explore institutional investors' holding and the relationship between the enterprise surplus management level:

$$DA_{it} = \lambda_0 + \lambda_1 Inv_{it} + \lambda_2 ROA_{it} + \lambda_3 Cap_{it} + \lambda_4 Lev_{it} + \lambda_5 Tbq_{it} + \lambda_6 Listage_{it} + \nu_t + \mu_i + \varepsilon \quad (1)$$

i and t respectively represent the variables of enterprise i in the t year. DA is explained variable. Other variables are the control variables that may affect the explained variable, and are the enterprise and time fixed effects respectively, and is the error term.

Based on Model a, Model b with a mediating variable (Fin) is added to test the influence of the explanatory variable on the explained variable after controlling for the influence of the mediating variable:

$$DA_{it} = \lambda_0 + \lambda_1 Inv_{it} + \lambda_2 Fin_{it} + \lambda_3 ROA_{it} + \lambda_4 Cap_{it} + \lambda_5 Lev_{it} + \lambda_5 Tbq_{it} + \lambda_6 Listage_{it} + \nu_t + \mu_i + \varepsilon \quad (2)$$

To test the inverted "U"-shaped relationship between institutional investors and corporate financialization, the following model c is established:

$$Inv_{it} = \lambda_0 + \lambda_1 Fin_{it}^2 + \lambda_2 Fin_{it} + \lambda_3 ROA_{it} + \lambda_4 Cap_{it} + \lambda_5 Lev_{it} + \lambda_6 Tbq_{it} + \lambda_7 Listage_{it} + \nu_t + \mu_i + \varepsilon \quad (3)$$

4. Empirical analysis

4.1. Descriptive statistical analysis

After performing 1% tailing processing on all variables with extreme values, the following unbalanced panels are obtained, as shown in Table 2. The proportion of observed values for each year from 2014 to 2023 is shown in Table 3.

Table 2. Descriptive statistics

Variable	N	Mean	SD	Min	Max
DA w	13,550.0000	0.0094	0.0164	-0.0244	0.1065
Inv w	13,550.0000	46.2897	24.8044	0.3563	92.1687
fin w	13,244.0000	0.3570	0.2392	0.0000	0.8557
ROA w	13,550.0000	0.0329	0.0654	-0.3091	0.2062
Cap w	13,550.0000	2.5830	2.2613	0.3643	14.6130
Lev w	13,550.0000	0.4470	0.2020	0.0614	0.9222
Tbq w	13,550.0000	2.0979	1.4591	0.8121	9.3343
Listage	13,550.0000	3.0014	0.3181	1.3863	4.2485

Table 3. Sample time span distribution

Year	Freq.	Percent	Cum.
2014	2,191	16.17	16.17
2015	2,369	17.48	33.65
2016	626	4.62	38.27
2017	474	3.50	41.77
2018	646	4.77	46.54
2019	1,090	8.04	54.58
2020	1,260	9.30	63.88
2021	1,475	10.89	74.77
2022	1,652	12.19	86.96
2023	1,767	13.04	100.00
Total	13550	100.0	

4.2. Correlation analysis and hausman test

After collating all the variables, this paper conducts the following correlation tests and finds that the correlations among most of the variables are not strong (Table 4). Subsequently, we further used the variance inflation factor (VIF) to diagnose multicollinearity for each variable (Table 5). The mean VIF of each variable was 1.16, which was much smaller than 10, indicating that there was no significant multicollinearity among the variables in the regression model.

Table 4. Results of correlation analysis

	DA w	Inv w	fin w	ROA w	Cap w	Lev w	Tbq w	Listage
DA w	1.0000							
inv w	-0.0534	1.0000						
fin w	-0.0561	0.0442	1.0000					
ROA w	0.1454	0.1345	-0.2115	1.0000				
Cap w	0.0349	-0.0038	0.1467	-0.1960	1.0000			
Lev w	-0.0745	0.2044	0.3922	-0.3431	-0.0363	1.0000		
Tbq w	0.1397	-0.0972	-0.2430	0.1151	0.0178	-0.2976	1.0000	
Listage	0.0024	0.0575	0.0905	-0.0787	0.0543	0.1973	-0.1530	1.0000

Table 5. Results of multicollinearity analysis

Variable	VIF	1/VIF
Lev_w	1.36	0.737838
ROA_w	1.26	0.792778
Tbq_w	1.11	0.902782
Inv_w	1.10	0.905544
Cap_w	1.07	0.938363
Listage	1.05	0.948700
Mean VIF		1.16

To select the appropriate measurement model, after processing the panel data of each variable, the following Hausman test is designed:

Null hypothesis H0: $Cov(\alpha, x)=0$ alternative hypothesis H1: $Cov(\alpha, x) \neq 0$

The probability that the p-value of its test result is greater than chi2 is less than 0.0001, significantly rejecting the null hypothesis, that is, $Cov(\alpha, x) \neq 0$, and α is related to x .

4.3. Main effect test

The sample data will be substituted into the bidirectional fixed effects model for regression, and the results are shown in Table 6. It can be seen that among the control variables, ROA, capital intensity, capital debt ratio, and the years of enterprise establishment all have a significant positive relationship with enterprise earnings management. Specifically, ROA—a core indicator of asset profit efficiency—drives management to inflate profits via revenue/expense manipulation under performance pressure or market expectation management, while listed companies smooth ROA fluctuations through earnings management to maintain stock prices. High capital-intensive firms

exploit accounting policies for earnings manipulation to mask underutilized capacity due to substantial fixed/intangible assets. Firms with high debt ratios face strict debt contract constraints, prompting earnings management via interest capitalization manipulation or profit inflation to avoid default. Longer-established enterprises, hindered by historical issues or managerial opportunism, use earnings management to maintain a "prudent" image and disguise operational inefficiencies. The results of the variable regression analysis of "institutional investor shareholding ratio" indicate that management earnings have a significant negative impact on institutional investor shareholding ratio. Hypothesis H2 was verified while Hypothesis H1 was rejected.

Table 6. Main effect regression results

VARIABLES	DA	
Inv_w	-0.000***	(-4.73)
ROA_w	0.095***	(13.14)
Cap_w	0.001***	(4.14)
Lev_w	0.009***	(3.06)
Tbq_w	0.000	(0.19)
Listage	0.013***	(3.40)
Constant	-0.031***	(-2.91)
Observations	13,550	
Number of ID	3,280	
R-squared	0.101	
Firm FE	Yes	
Year FE	Yes	

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

4.4. Mediating effect test of enterprise financialization

This paper adopts the bootstrap mediating effect test, conducting non-parametric statistics with repeated sampling based on sample data. It sets the seeds to 123 and repeats the sampling test 1000 times, thereby constructing a more accurate empirical distribution of indirect and direct effects. In the relationship chain of "institutional investors' shareholding—corporate financialization—earnings management level", both the indirect effect and the direct effect are significant at the 99% level, and the significance coefficients are -0.0036608 and -0.0000336, respectively (Table 7). In this test, the distribution constructed by bootstrap through 1,000 repeated samplers, specifically regarding the variable relationship, showed that the coefficients of both the indirect effect and the direct effect were negative and passed the 1% significance level test. The confidence intervals did not contain 0. This indicates that institutional investors' shareholding has a significant direct negative impact on the earnings management level. With stronger professional capabilities and supervisory motivation, institutional investors can, on the one hand, directly reduce the opportunities and motivations for management to conduct earnings management by participating in corporate governance and supervising management decisions, etc. On the other hand, institutional investors pay more attention to the physical performance of enterprises and tend to curb the excessive financialization of enterprises. The reduction in the degree of enterprise financialization reduces the channels for

manipulating profits through items such as changes in the fair value of financial assets, thereby indirectly weakening the earnings management level of enterprises. Furthermore, the magnitude of the indirect effect significantly surpasses that of the direct effect, suggesting that corporate financialization serves as a crucial mediating factor in the relationship between institutional investors' shareholdings and the extent of earnings management. This might be because although institutional investors can directly supervise the management and have a direct negative impact on earnings management, they are restricted by factors such as information asymmetry and governance costs, and direct supervision has limitations. The indirect path of institutional investors suppressing the financialization of enterprises has significant advantages. On the one hand, corporate financialization is closely related to earnings management. The accounting treatment characteristics of financial assets provide operational space for earnings management. Institutional investors reducing the degree of financialization of enterprises can reduce earnings management methods from the source. On the other hand, the intervention of institutional investors in the financialization decisions of enterprises is forward-looking and structural. Their investment preferences guide enterprises to adjust asset allocation, and the governance agreements signed can limit the proportion of financial investment. This result verifies the supervisory and governance role of institutional investors, and at the same time reveals the complete transmission mechanism of "institutional investors' shareholding—enterprise financialization—earnings management level", and Hypothesis H4 is verified.

This study introduces the squared term fin_w2 of financialization and creates econometric model C to validate the inverted U-shaped relationship between institutional investors and corporate financialization in Hypothesis H3. The regression outcomes are presented in the subsequent table. Both the linear term and the quadratic term of corporate financialization are significant; the coefficient of the linear term is positive, whereas the coefficient of the quadratic term is significantly negative, suggesting that this quadratic function exhibits an inverted U-shape with the concavity directed downward. When enterprise financialization reaches an extreme degree, a negative association exists between the holdings of institutional investors and enterprise financialization. Nonetheless, when the enterprise experiences a moderate level of financialization, a positive correlation exists between the two variables. Hypothesis H3 holds.

Table 7. Bootstrap test result

	Observed coefficient	Bootstrap std. err.	z	P> z	Normal based [95% conf.interval]
$_bs_1$ (Indirect Effect)	-.0036608	.0005722	-6.40	0.000	-.0047823
$_bs_2$ (Direct Effect)	-.0000336	5.32e-06	-6.31	0.000	-.000044

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8. Inverted U-shaped relationship test

Variables	Inv		Others	
fin_w2	-7.337**	(-2.23)	Observations	13,244
fin_w	5.346**	(2.07)		
ROA_w	23.530***	(8.75)	Number of ID	3,272
Cap_w	0.151	(1.04)		
Lev_w	-0.512	(-0.25)	R-squared	0.041
Tbq_w	0.738***	(4.50)		
Listage	-8.424**	(-2.36)	Year&Firm FE	Yes
Constant	67.077***	(6.76)		

Robust t-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

5. Discussion

Guide institutional investors to go long-term and enhance supervisory effectiveness: Implement policies linking the holding period of long-term institutional investors such as social security and pension funds with tax reduction and exemption to reduce their short-term speculative motives and deepen their involvement in the long-term strategies of enterprises. Establish an ESG governance scoring mechanism for institutional investors, incorporate indicators such as curbing excessive financialization and improving the quality of accounting information into the rating system, and link them to the business qualifications of institutions, thereby compelling them to fulfill their active supervision functions. Improve the corporate governance structure and increase the cost of earnings management: The policy should require listed companies to establish a "Financialization Governance Committee" composed of independent directors of financial experts, which is responsible for reviewing the rationality of financial investment decisions and has the right of veto over excessive financialization plans. In addition, earnings management indicators should be included in the deduction items for management compensation. The research is mainly based on the data of Chinese A-share listed companies, and the conclusion lacks verification for non-listed companies or other capital markets with different regulatory environments. Future related research can incorporate cross-national comparative studies or expand the sample of non-listed companies to verify the universality of the inverted U-shaped relationship and to explore the influence mechanism between corporate financialization and earnings management.

6. Conclusion

The empirical results show that an increase in the proportion of institutional investors' holdings can significantly suppress corporate earnings management behavior, and corporate financialization plays a key mediating effect in this process. Specifically, there is a non-linear inverted U-shaped relationship between institutional investors and corporate financialization. It promotes moderate financialization of the enterprise but inhibits excessive financialization. For enterprises with excessive financialization, institutional investors reduce the level of earnings management by constraining speculative financial asset allocation; for enterprises with moderate financialization, institutional investors may further limit earnings management by promoting financialization and

setting financial assets as the capital source. The above research reveals the dual role of financialization in balancing institutional investors and corporate governance.

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