

Hong, Yizhao; Cao, Chongyan

Article

Institutional investors' distraction and executive compensation stickiness based on multiple regression analysis

Journal of Risk and Financial Management

Provided in Cooperation with:

MDPI – Multidisciplinary Digital Publishing Institute, Basel

Suggested Citation: Hong, Yizhao; Cao, Chongyan (2023) : Institutional investors' distraction and executive compensation stickiness based on multiple regression analysis, Journal of Risk and Financial Management, ISSN 1911-8074, MDPI, Basel, Vol. 16, Iss. 2, pp. 1-21, <https://doi.org/10.3390/jrfm16020120>

This Version is available at:

<https://hdl.handle.net/10419/275188>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

Article

Institutional Investors' Distraction and Executive Compensation Stickiness Based on Multiple Regression Analysis

Yizhao Hong *  and Chongyan Cao

School of Management, University of Science and Technology of China, Hefei 230026, China

* Correspondence: hongyizhao00@mail.ustc.edu.cn

Abstract: Based on the impact of industry extreme return on the attention of institutional investors, taking Chinese A-share listed companies from 2011 to 2020 as a sample, this paper empirically tests the relationship between institutional investors' distraction and executive compensation stickiness based on multiple regression analysis. The study finds that institutional investors' distraction promotes the executive compensation stickiness, which is more significant in the group of pressure-resistant institutional investors. The mechanism test finds that based on the governance effect, information effect and psychological effect, corporate external governance, stock price information content and management anxiety play a partial intermediary role between institutional investors' distraction and executive compensation stickiness. The moderating effect finds that the level of corporate internal governance and managerial overconfidence will weaken the impact of institutional investors' distraction on executive compensation stickiness. In addition, the distraction behavior in non-state-owned and western companies has a more significant economic impact.

Keywords: institutional investors' distraction; executive compensation stickiness; multiple regression analysis; governance effect; information effect; psychological effect



Citation: Hong, Yizhao, and Chongyan Cao. 2023. Institutional Investors' Distraction and Executive Compensation Stickiness Based on Multiple Regression Analysis. *Journal of Risk and Financial Management* 16: 120. <https://doi.org/10.3390/jrfm16020120>

Academic Editor: Thanasis Stengos

Received: 29 December 2022

Revised: 31 January 2023

Accepted: 11 February 2023

Published: 14 February 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Recently, the China Federation of Industry and Commerce issued a notice on further supporting the healthy development of listed companies, encouraging and supporting long-term institutional investors to enter the market, improving the structure of market investors and improving the quality of listed companies. Thus, with the continuous improvement of the Chinese capital market, the importance of institutional governance in enterprise development and economic operation has become increasingly prominent. Take 2011–2020 as an example: institutional investors' holding ratios are more than half is as high as 47.6%, and there are many kinds of them. Therefore, they have a strong motivation to invest time and resources to help companies develop (Amin et al. 2015). However, institutional investors' attention is limited, and they can only use scarce cognitive resources to maximize the return on asset allocation (Ni et al. 2020), which will produce a series of economic consequences related to weak attention to stocks. At present, most of the literature focuses on the institutional role in corporate governance and decision-making (Shleifer and Vishny 1986; Xia Chen et al. 2007; Kim et al. 2019), but there is little research on the relationship between the limited attention of institutional investors and corporate governance.

At the beginning of the 21st century, the OECD stressed in its public report that the core of enterprises is shareholders, and the interests of shareholders are fundamental. However, due to the essential differences of interests between the governance and management, the relevant behaviors of the management will violate the core and fundamental interests of the enterprise. Until now, the most authoritative modern theory believes that a company is a set of expected values for the relationship between each stakeholder and

the enterprise (Claessens 1997). Therefore, no matter whether the ultimate focus of the enterprise is shareholders or stakeholders, it needs to balance the interest conflicts among the governance, management and even stakeholders through a certain mechanism. Among them, the executive compensation incentive is a topic of great concern. Fang (2009) took Chinese listed companies from 2001 to 2007 as a sample, and used the Change and Level model to propose for the first time that there is an asymmetric feature of executive compensation to performance sensitivity. Later, this method and conclusion were widely used, but most of them focused on the influencing factors of executive pay stickiness, such as the independence of the board of directors, the nature of equity, the power of management and other internal governance mechanisms (Xiude Chen et al. 2014; Brüggem and Zehnder 2014; Lu et al. 2015; Lei and Guo 2017), and did not study the exogenous behavior of institutional investors' distraction.

Based on this, this paper refers to the research methods of Kempf et al. (2017), measures the degree of distraction of institutional investors from the exogenous perspective of industry extreme return, and then studies its impact on executive compensation stickiness of Chinese listed companies. The study finds that the degree of institutional investors' distraction significantly increases the executive compensation stickiness, and corporate internal governance plays a negative regulatory role between the two. In addition, the significant positive correlation between the two is more obvious in the group of pressure-resistant institutional investors. In the test of influence mechanism, this paper finds that institutional investors' distraction affects executive compensation stickiness through three paths: external governance, stock price information content and management professional anxiety. In the robustness test, by changing the measurement method of executive compensation stickiness, PSM and the instrumental variable method, the conclusion is still valid. Further in the analysis, this paper introduces managerial overconfidence as a regulating variable, which weakens the positive impact of institutional investors' distraction on executive compensation stickiness. In addition, the sample is divided into state-owned companies, non-state-owned companies, western and eastern companies according to the nature of equity and the region where the company is located. It is found that the positive effect of institutional investors' distraction and executive compensation stickiness is more obvious in non-state-owned and western companies.

Compared with existing research, the marginal contributions of this paper are, firstly, that it enriches the research perspective of institutional investors, which is different from the existing institutional investor shareholding ratio (Dong and Ozkan 2008; H. Gao et al. 2020), institutional investor sentiment (Verma and Soydemir 2009; X. Gao et al. 2021) and field research of institutional investors (Hartzell and Starks 2003; Janakiraman et al. 2010) as explanatory variables to explore the research on listed companies, which this paper does by taking the degree of institutional investors' distraction—which is not easy to observe—as the explanatory variable, by taking the extreme rate of return of the industry as the starting point to measure the degree of attention constraint of institutional investors and by discussing the impact of this uneven distribution of attention on listed companies. Secondly, it broadens the influencing factors of stickiness, and introduces the attention on the basis of corporate governance at home and abroad (Bebchuk and Fried 2003; Jackson et al. 2008), which is supplemented in the direction of stakeholders. Thirdly, the principal–agent theory, information asymmetry theory and behavioral finance theory are organically combined to verify the influence path of institutional investors' distraction and executive compensation stickiness, which is conducive to the integration of different disciplines in the research. In addition, it also provides thinking for the financial supervision department to supervise listed companies and stakeholders, improve the quality of listed companies and improve the operating mechanism of the Chinese capital market.

2. Theoretical Analysis and Research Assumptions

2.1. Institutional Investors' Distraction and Executive Compensation Stickiness

According to the relevant contents of the optimal contract theory and the incentive theory, there is a contractual relationship between shareholders and senior executives to maintain and restrict the trading cooperation of both parties and seek the development of the company on the premise of sharing the responsibility of risk (Gabaix and Landier 2008; Edmans and Gabaix 2010). At the same time, shareholders need to pay certain amounts of compensation to senior executives as incentives and warnings (Anderson et al. 2003). According to the incentive theory, the compensation of executives should be highly positively correlated with the performance they create; that is, when the performance they create rises, the compensation they receive should also rise relatively, which is the comprehensive effect of positive reinforcement and negative reinforcement (Abudy et al. 2020). However, according to the descriptions of principal–agent theory and manager opportunism theory, in fact, the management is responsible for the actual operation, development and governance of the company, and there is a conflict of interest between the management and shareholders. The motivation to pursue short-term interests will lead to the failure to effectively perform the executive compensation contract (Sabac 2007). Balakrishnan et al. (2014) showed that past decisions on cost structure determine the magnitude of costs controllable in the short-term and induce non-stationarity in the elasticity of sales, general and administrative costs. Thus, long-run cost structure decisions impact the ability to detect short-term cost management decisions (Banker and Byzalov 2014; Shust and Weiss 2014). Ibrahim and Ezat (2017) summarized the existing explanations of stickiness into adjustment costs, managerial expectations and opportunism. When corporate performance declines, if shareholders impose excessive punishment, it will cause professional managers to leave, which will increase the transaction cost of rehiring senior executives and the potential cost of the handover. Therefore, shareholders generally have a “failure tolerance” mentality towards senior executives (Gibbons and Murphy 2004). Guenther et al. (2014) pointed out that managerial expectations also affect stickiness, and optimistic and pessimistic managers show different coping modes when facing performance fluctuations. In contrast, managerial opportunism is more appropriate to explain the stickiness of executive compensation. Sun and Liu (2004), based on the concept of contract, efficiency and opportunism, believed that senior executives are self-interested and risk-averse, and they will maximize their own interests from the salary and resources they can control in the face of performance fluctuations.

Institutional activism theory pointed out that after the 1980s, institutional investors, with their excellent investment management teams, rich market resources and their own objectivity and completeness, helped the corporate all-round development of operations and management (Mahoney and Mahoney and Mahoney 1993). However, attention is a scarce resource, and institutional investors will pay special attention to some key companies affected by exogenous shocks, resulting in uneven distribution of attention and affecting enterprise operations (Alnaes et al. 2014). Firstly, based on the governance effect of principal–agent theory, institutional investors' distraction weakens external governance, thus reducing the role of supervision and restraint on the company, and provides conditions for managerial opportunism. Moreover, institutional investors, as “wind vanes”, have a guiding influence on the government, individual investors, enterprise consumers, etc. When institutional investors pay less attention to companies, the degree of supervision of companies by some stakeholders decreases, weakening the effectiveness of the board of directors (Yang et al. 2021). Chan et al. (2021) also proposed that the weakening of institutional investor supervision will also affect the work quality of external auditors and reduce the audit effectiveness. In this regard, managers are more qualified to start from their own interests, improve the room for speculation, attribute the rise of performance to their own efforts, and instead attribute the decline of performance to external macro conditions.

Secondly, based on the information effect of information asymmetry theory, institutional investors' distraction will reduce the amount of information they collect from companies with weak attention, weaken external supervision, reduce the degree of corporate information disclosure and increase information asymmetry. The institutional team has rich information, which can optimize the supply chain and reduce internal and external corporate information asymmetry (Spicer 1978). In addition, the interests of institutional investors and shareholders are more consistent. In terms of company operation, management and market conditions, shareholders can be informed through voting at the general meeting of shareholders, private negotiation, explanatory letters and other methods, so that they can have a more comprehensive understanding of corporate information (Wang et al. 2009). Institutional research reports are more authoritative and comprehensive, and have the function of guiding investors. When institutional investors are distracted, the amount of research information reports on companies with weak attention decreases, and the information asymmetry with shareholders increases. For the management, in order to protect their own interests, they are motivated to disclose opportunistic reports and falsely increase the business performance of the enterprise; for shareholders, external supervision is weakened. In order to save information costs, they are motivated to reduce the terms of the information disclosure report, especially the voluntary disclosure part (Abramova et al. 2021). This will reduce the information content of listed corporate share prices and increase the asymmetry with external information, so as to facilitate the management to improve performance and compensation.

Finally, based on the psychological effect of behavioral finance theory, institutional investors' distraction affects the operation and development of the company. As managers, they inevitably form professional anxiety, reduce the development expectations of the company and further promote their short-sighted interests. When institutional investors' attention decreases, their attention to the corporate market decreases, reducing the corporation's precise control over external operations and affecting corporate performance (Li et al. 2014). Its attention to the overall operation of the company is reduced, its contact with shareholders is reduced and the conflict of interest between the management and the investors is increased. Its supervision is weakened and the authenticity, effectiveness and integrity of the corporate external information disclosure are reduced—especially the voluntary disclosure, which reduces public trust. Faced with all kinds of adverse factors, the management of listed companies, in order to ensure stable business performance and maintain their reputation, often show professional anxiety, which is the response brought by the role effect. Because institutional governance belongs to the third-party's governance, the management cannot predict the behavior of the institutional investors in time. When institutional investors are distracted, this has a confirmation deviation from the psychological expectations of the management. This is especially so for pessimistic managers, as they have more decision-making motivation, adopt short-sighted behavior, use their power to improve compensation and maintain good public awareness (Anderson et al. 2003). Accordingly, this paper proposes the hypothesis H1:

Hypothesis H1: *institutional investors' distraction promotes executive compensation stickiness.*

2.2. The Moderating Role of Corporate Internal Governance

The corporate internal governance mainly involves the allocation of rights, responsibilities and mutual checks and balances between the governance subjects within the organizational boundaries (Hu et al. 2010). There are various connections between listed companies and their controlling shareholders. For example, if the controlling shareholders are "dominated by one", the management will have the opportunity to use the controlling shareholders to carry out "tunneling behavior" and damage the interests of the group. When the equity structure of listed companies is reasonable, shareholders will take the coordinated development of the group as the main goal, and do not focus on individual cost-effectiveness, so as to better alleviate the agency contradiction. The board of directors

play the core role in corporate governance, which is not only as the agent of shareholders, but also as the trustor and supervisor of managers (Solomon 2020). As an independent director, they have no important business connection with the company, but they can judge the important affairs of the company, and with their professional ability, they can find out the short-sighted behavior of managers in time and curb it (K. Ye et al. 2007). It can also put forward optimization suggestions for management decisions, improve management expectations and alleviate career anxiety (Aghion et al. 2013). In addition, independent directors can also exert social influence, effectively supervise the corporate information disclosure behavior, alleviate the internal and external corporate information asymmetry and make up for the economic impact caused by the attention to a certain extent. The board of supervisors mainly supervises the corporate activities, prevents the board of directors and the management from abusing power, effectively reduces the opportunism of managers and protects the interests of employees and shareholders (El-habashy 2019). Finally, as the trustee of shareholders' wealth, the management is also an economic person who pursues the maximization of interests. If shareholders set up a good incentive and restraint mechanism, it will effectively alleviate the agency conflict (Shleifer and Vishny 1997). Accordingly, this paper proposes the hypothesis H2:

Hypothesis H2: *a high level of corporate internal governance will weaken the role of institutional investors' distraction in promoting executive compensation stickiness.*

3. Research Design

3.1. Sample Selection and Data Sources

This paper selects A-share listed companies in Shanghai and Shenzhen from 2011 to 2020 as the research sample and mainly researches the relationship between institutional investors' distraction and executive compensation stickiness. This paper mainly adopts the following processing to ensure the validity of the data and empirical results: companies that exclude ST and *ST, exclude financial and insurance companies, eliminate companies with incomplete data of relevant variables. Through the above processing, a total of 11,920 samples were screened. The data were from the CSMAR database.

3.2. Definition of Major Variables

(1) Executive compensation stickiness (NX). The stickiness of executive compensation refers to a phenomenon that the sensitivity of executive compensation to corporate performance when corporate performance rises is greater than that of executive compensation to corporate performance when corporate performance declines (Fang 2009). According to the definition, this paper calculates the sensitivity and mean value of executive compensation to the corporate performance during the rise and decline of performance in five years. The difference between the two means is the executive compensation stickiness.

(2) Institutional investors' distraction (Inatt). Referring to the method of Kempf et al. (2017), this paper constructs the degree of distraction based on the extreme rate of return of the industry, and the formula is as follows:

$$R_{Ind,i,t} = \frac{\sum_i z_{Ind,i,t} \times r_{Ind,i,t}}{\sum_i z_{Ind,i,t}} \tag{1}$$

$$Inatt_{i,t} = \sum_{n \in N_{t-1}} \sum_{Ind \neq Ind_t} w_{i,n,t-1} \times w_{n,t-1}^{Ind} \times D_t^{Ind} \tag{2}$$

$R_{Ind,i,t}$ is the industry Ind 's yield in year t , $Z_{Ind,i,t}$ is the total market value of company i in industry Ind in year t and $r_{Ind,i,t}$ refers to the individual stock return rate of company i in industry Ind in year t . If the industry Ind company i belongs to different industries, and the yield of industry Ind in period t is the highest or lowest among all industries in the current period, D_t^{Ind} takes 1 and vice versa takes 0. N_{t-1} refers to all institutional investors

owned by company i at the end of $t - 1$. $w_{n,t-1}^{Ind}$ refers to the proportion of the market value of industrial Ind companies held by institutional investors in the total market value of the stock portfolio at the end of $t - 1$. $w_{i,n,t-1}$ is the importance of institutional investor n to company i , which is jointly determined by the shareholding ratio of institutional investor n to company i at the end of $t - 1$ and the proportion of the market value of company i shares held by institutional investor n to the total market value of its stock portfolio. The formula is as follows:

$$w_{i,n,t-1} = \frac{QPIweight_{i,n,t-1} + QpercOwn_{i,n,t-1}}{\sum_{n \in N_{i-1}} (QPIweight_{i,n,t-1} + QpercOwn_{i,n,t-1})} \tag{3}$$

$QPIweight_{i,n,t-1}$ and $QpercOwn_{i,n,t-1}$ is the proportion of the market value of company i shares held by institutional investor n in the total market value of its stock portfolio and the proportion of institutional investors' holdings of company i at the end of $t - 1$, which is divided into five equal parts in descending order and assigned 1–5 in order to prevent the impact of extreme values on the model. Finally, put $w_{i,n,t-1}$ into (1) to obtain the final distraction degree.

(3) Internal corporate governance ($Ingov$). This paper refers to Florackis's (2005) summary of corporate governance, and uses the principal component analysis method to build the internal governance index $ingov$ according to four dimensions and eight indicators: the general meeting of shareholders (shareholding ratio of major shareholders, equity checks and balances), the board of directors (size of the board of directors, independence of the board of directors), the board of supervisors (size of the board of supervisors), and the management (shareholding ratio of senior executives, whether the chairman and general manager hold concurrent posts, and the number of senior executives).

(4) See Table 1 for the specific definitions of control variables.

Table 1. Variable definition table.

Variable Category	Variable Name	Variable Symbol	Variable Measure
Explained Variable	Executive compensation stickiness	NX	3.2
Explanatory Variable	Institutional investors' distraction	$Inatt$	Formula (2)
Moderating Variable	Internal governance of the company	$Ingov$	3.2
Control Variable	Hold two jobs	$Dual$	If chairman and general manager are the same, 1; otherwise, 0
	Share	$Share$	Shareholding ratio of the largest shareholder
	Equity checks and balances	$Balance$	Total shareholding ratio of the second to tenth largest shareholders/shareholding ratio of the first largest shareholder
	Shareholding ratio of institutional investors	IIS	Number of shares held by institutional investors at the end of the year/number of outstanding shares at the end of the year
	Central government control	CG	The ultimate controllers are national institutions, 1; otherwise, 0
	Board independence	$Indd$	Number of independent directors/number of total directors
	Audit quality	AQ	Auditors from the big four, 1; otherwise, 0
	Place	$Place$	If the company is in the west, 1; otherwise, 0
	Company size	$Lnsize$	Natural logarithm of total assets of the company
	Capital intensity	CAP	Total assets/total revenue
	Asset-liability ratio	Lev	Total liabilities at the year end/total assets at the year end
	Rate of return on common stockholders' equity	ROE	Total net profit/total net assets at the year end
	Cash asset ratio	$Cash$	Total cash at the year end/total assets at the year end
Growth ability	$Growth$	Growth rate of operating revenue	

3.3. Model Construction

(1) In order to verify the executive compensation stickiness, and referring to the research method of Fang (2009), the model is as follows:

$$\begin{aligned} \ln pay_{i,t} = & \alpha_0 + \alpha_1 \ln perf_{i,t} + \alpha_2 \ln perf_{i,t} \times Down_{i,t} + \alpha_3 Down_{i,t} \\ & + \alpha_4 Dual_{i,t} + \alpha_5 Share_{i,t} + \alpha_6 CG_{i,t} + \alpha_7 Indd_{i,t} + \alpha_8 Place_{i,t} + \alpha_9 Lnsiz_{i,t} \\ & + \alpha_{10} ROE_{i,t} + \alpha_{11} \sum Year_{i,t} + \alpha_{12} \sum Industry_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (4)$$

$\ln pay$ means the natural logarithm of the total remuneration of the top three executives; $\ln perf$ means the natural logarithm of the corporate operating income; $Down$ means when the company's year-on-year performance decreases, take 1, and vice versa, take 0. If $\alpha_1 > \alpha_1 + \alpha_2$, it indicates that the executive compensation stickiness exists.

(2) In order to verify the main effect hypothesis proposed by H1, constructing a multiple regression model is as follows:

$$\begin{aligned} NX_{i,t} = & \beta_0 + \beta_1 Inatt_{i,t} + \beta_2 Dual_{i,t} + \beta_3 Share_{i,t} + \beta_4 Balance_{i,t} + \beta_5 IIS_{i,t} \\ & + \beta_6 CG_{i,t} + \beta_7 Indd_{i,t} + \beta_8 AQ_{i,t} + \beta_9 Place_{i,t} + \beta_{10} Lnsiz_{i,t} + \beta_{11} CAP_{i,t} + \beta_{12} Lev_{i,t} \\ & + \beta_{13} ROE_{i,t} + \beta_{14} Cash_{i,t} + \beta_{15} Growth_{i,t} + \beta_{16} \sum Industry_{i,t} + \beta_{17} \sum Year_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (5)$$

In Formula (5), if β_1 is significantly positive, it indicates that the institutional investors' distraction promotes the executive compensation stickiness.

(3) In order to verify the hypothesis of the regulatory effect of corporate internal governance proposed by H2, and in constructing an interactive term ($Inatt \times Ingov$), the regression model is as follows:

$$\begin{aligned} NX_{i,t} = & \gamma_0 + \gamma_1 Inatt_{i,t} + \gamma_2 Inatt_{i,t} \times Ingov_{i,t} + \gamma_3 Ingov_{i,t} + \gamma_4 Dual_{i,t} \\ & + \gamma_5 Share_{i,t} + \gamma_6 Balance_{i,t} + \gamma_7 IIS_{i,t} + \gamma_8 CG_{i,t} + \gamma_9 Indd_{i,t} + \gamma_{10} AQ_{i,t} \\ & + \gamma_{11} Place_{i,t} + \gamma_{12} Lnsiz_{i,t} + \gamma_{13} CAP_{i,t} + \gamma_{14} Lev_{i,t} + \gamma_{15} ROE_{i,t} \\ & + \gamma_{16} Cash_{i,t} + \gamma_{17} Growth_{i,t} + \gamma_{18} \sum Industry_{i,t} + \gamma_{19} \sum Year_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (6)$$

In Formula (6), if γ_2 and Formula (5) β_1 when the coefficient is opposite—that is, it is significantly negative—it indicates that high-level corporate internal governance will weaken the promotion of distraction on stickiness.

(4) In order to verify the heterogeneity of institutional investors and referring to Brickley et al. (1988), we divided institutional investors into pressure-resistant institutional investors and pressure-sensitive institutional investors for grouping regression. The model is as follows:

$$\begin{aligned} NX_{i,t} = & \lambda_0 + \lambda_1 Rinatt_{i,t} + \lambda_2 Dual_{i,t} + \lambda_3 Share_{i,t} + \lambda_4 Balance_{i,t} + \lambda_5 IIS_{i,t} \\ & + \lambda_6 CG_{i,t} + \lambda_7 Indd_{i,t} + \lambda_8 AQ_{i,t} + \lambda_9 Place_{i,t} + \lambda_{10} Lnsiz_{i,t} + \lambda_{11} CAP_{i,t} + \lambda_{12} Lev_{i,t} \\ & + \lambda_{13} ROE_{i,t} + \lambda_{14} Cash_{i,t} + \lambda_{15} Growth_{i,t} + \lambda_{16} \sum Industry_{i,t} + \lambda_{17} \sum Year_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (7)$$

$$\begin{aligned} NX_{i,t} = & \mu_0 + \mu_1 Sinatt_{i,t} + \mu_2 Dual_{i,t} + \mu_3 Share_{i,t} + \mu_4 Balance_{i,t} + \mu_5 IIS_{i,t} \\ & + \mu_6 CG_{i,t} + \mu_7 Indd_{i,t} + \mu_8 AQ_{i,t} + \mu_9 Place_{i,t} + \mu_{10} Lnsiz_{i,t} + \mu_{11} CAP_{i,t} + \mu_{12} Lev_{i,t} \\ & + \mu_{13} ROE_{i,t} + \mu_{14} Cash_{i,t} + \mu_{15} Growth_{i,t} + \mu_{16} \sum Industry_{i,t} + \mu_{17} \sum Year_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (8)$$

$Rinatt_{i,t}$ refers to the pressure-resistant institutional investors' distraction, and $Sinatt_{i,t}$ refers to the pressure-sensitive institutional investors' distraction. If the two groups pass the SUR test of seemingly unrelated models, this indicates that there is a significant difference between the two groups (Lian and Liao 2017).

4. Empirical Analysis

4.1. Descriptive Statistics

According to Table 2, the companies selected are universal, cover the basic situation and conform to modern corporate governance theory.

Table 2. Descriptive Statistics of Main Variables.

Variable	Observed Value	Mean	SD	Min	Max
<i>NX</i>	11,920	2.5077	7.3508	−9.6287	59.5277
<i>Inatt</i>	11,920	0.0434	0.0292	0.0002	0.1248
<i>Ingov</i>	11,920	0	0.5183	−2.0235	1.7991
<i>Dual</i>	11,920	0.2348	0.4329	0	1
<i>Share</i>	11,920	0.3336	0.1492	0.0029	0.8999
<i>Balance</i>	11,920	0.6985	0.5993	0.0056	3.9218
<i>IIS</i>	11,920	0.4668	0.2274	0.0001	0.9800
<i>CG</i>	11,920	0.4168	0.4930	0	1
<i>Indd</i>	11,920	0.3703	0.0585	0	0.8571
<i>AQ</i>	11,920	0.0694	0.2542	0	1
<i>Place</i>	11,920	0.2533	0.7544	0	1
<i>Lnsiz</i>	11,920	3.1133	0.0579	2.7826	3.3413
<i>CAP</i>	11,920	2.8126	4.9112	0.0886	221.1010
<i>Lev</i>	11,920	0.4726	0.2567	−0.1946	8.6117
<i>ROE</i>	11,920	0.0611	0.2279	−7.0914	8.7151
<i>Cash</i>	11,920	0.1496	0.1181	0.0002	0.9927
<i>Growth</i>	11,920	0.3054	0.8229	−2.6833	9.9705

4.2. Correlation Analysis

Table 3 shows that executive compensation stickiness (*NX*) is significantly positively correlated with institutional investors’ distraction (*Inatt*) and negatively correlated with corporate internal governance (*Ingov*). It also preliminarily shows that institutional investors’ distraction may promote executive compensation stickiness, and the level of corporate internal governance will affect the relationship between the two, which needs further empirical research. In addition, the correlation coefficients between most variables are below 0.5, which indicates that the probability of multicollinearity between variables in the regression model is very low.

Table 3. Correlation coefficient matrix.

	<i>NX</i>	<i>Inatt</i>	<i>Ingov</i>	<i>Dual</i>	<i>Share</i>	<i>Balance</i>	<i>IIS</i>
<i>NX</i>	1.0000						
<i>Inatt</i>	0.0207 ***	1.0000					
<i>Ingov</i>	−0.0022 **	−0.0047	1.0000				
<i>Dual</i>	0.0060	0.0069	0.5228 ***	1.0000			
<i>Share</i>	0.0217 **	0.0448 ***	−0.5181 ***	−0.0699 ***	1.0000		
<i>Balance</i>	−0.0119	−0.0432 ***	0.6197 ***	0.0544 ***	−0.6641 ***	1.0000	
<i>IIS</i>	−0.0092	−0.0074	−0.5400 ***	−0.1790 ***	0.5801 ***	−0.1921 ***	1.0000

Table 3. Cont.

	<i>NX</i>	<i>Inatt</i>	<i>Ingov</i>	<i>Dual</i>	<i>Share</i>	<i>Balance</i>	<i>IIS</i>			
	<i>NX</i>	<i>Inatt</i>	<i>Ingov</i>	<i>Dual</i>	<i>Share</i>	<i>Balance</i>	<i>IIS</i>			
<i>CG</i>	−0.0041	−0.0148 **	0.5257 ***	−0.0628 ***	0.2335 ***	0.2226 ***	0.3756 ***			
<i>Indd</i>	−0.0016	−0.0310 ***	−0.0170 *	0.0622 ***	0.0271 ***	−0.0291 ***	−0.0088			
<i>AQ</i>	0.0202 **	−0.0195 **	−0.1348 ***	−0.0560 ***	0.1574 ***	−0.0179 **	0.2537 ***			
<i>Place</i>	0.0262 ***	0.0768 ***	−0.0997 ***	−0.0505 ***	0.0161 *	−0.0369 ***	0.0256 ***			
<i>Lnsiz</i>	0.0020	−0.1242 ***	−0.2941 ***	−0.1203 ***	0.2130 ***	−0.0418 ***	0.4418 ***			
<i>CAP</i>	−0.0189 **	0.0020	0.0310 ***	0.0065	−0.0499 ***	0.0620 ***	−0.0012			
<i>Lev</i>	−0.0241 ***	−0.0115	0.2270 ***	−0.0753 ***	0.0695 ***	−0.0816 ***	0.1787 ***			
<i>ROE</i>	0.0235 ***	0.0014	−0.0127	−0.0013	0.0800 ***	−0.0194 **	0.1127 ***			
<i>Cash</i>	0.0329 ***	0.0328 ***	0.1075 ***	0.0710 ***	0.0479 ***	0.0123	0.0047			
<i>Growth</i>	−0.0343 ***	0.0052	0.0270 ***	0.0068	0.0148	0.0088	0.0134			
	<i>CG</i>	<i>Indd</i>	<i>AQ</i>	<i>Place</i>	<i>Lnsiz</i>	<i>CAP</i>	<i>Lev</i>	<i>ROE</i>	<i>Cash</i>	<i>Growth</i>
<i>CG</i>	1.0000									
<i>Indd</i>	−0.0321 ***	1.0000								
<i>AQ</i>	0.1317 ***	0.0538 ***	1.0000							
<i>Place</i>	0.0355 ***	−0.0079	−0.0307 ***	1.0000						
<i>Lnsiz</i>	0.2901 ***	0.0507 ***	0.3525 ***	−0.0240 ***	1.0000					
<i>CAP</i>	−0.0325 ***	0.0180 **	−0.0127	0.0315 ***	−0.0023	1.0000				
<i>Lev</i>	0.2141 ***	0.0008	0.0889 ***	0.0370 ***	0.3943 ***	−0.0248 ***	1.0000			
<i>ROE</i>	−0.0045	−0.0066	0.0488 ***	−0.0015	0.0918 ***	0.0111	−0.1001 ***	1.0000		
<i>Cash</i>	−0.0561 ***	−0.0045	−0.0500 ***	−0.0026	−0.2416 ***	−0.0310 ***	−0.3515 ***	0.1026 ***	1.0000	
<i>Growth</i>	0.0009	0.0072	−0.0020	0.0054	0.0293 ***	0.1028 ***	0.0625 ***	0.0354 ***	0.0633 ***	1.0000

Note: “**”, “***” and “****” are significant at 10%, 5% and 1%, respectively.

4.3. Regression Analysis

In Table 4, the Chinese executive compensation stickiness exists. In Table 5 (1), the regression coefficient institutional investors’ distraction (*Inatt*) is 4.4354, which is significant at the level of 1%, indicating that institutional investors’ distraction (*Inatt*) is significantly positively correlated with executive compensation stickiness (*NX*), and hypothesis H1 is

verified. In Table 5 (2), the interaction term ($Inatt \times Ingov$) is -4.7995 and significant at the level of 1%, which is opposite to the regression coefficient of institutional investors' distraction ($Inatt$) in Table 5 (1), indicating that corporate internal governance plays a negative regulatory role in the main effect, and hypothesis H2 is verified. In Table 5 (3) (4), the pressure-resistant institutional investors' distraction ($Rinatt$) is significantly positively correlated with executive compensation stickiness (NX), but the pressure-sensitive institutional investors' distraction ($Sinatt$) is not significant. Through the SUR test, the corresponding coefficient p -value < 0.01 shows that there is a significant difference in the distraction coefficient between the two groups.

Table 4. Verify the regression results of executive compensation stickiness.

Variable	<i>Ln</i> pay
<i>Lnperf</i>	0.1291 *** (13.92)
<i>Lnperf</i> × <i>Down</i>	-0.0230 *** (-3.13)
<i>Down</i>	0.4318 *** (2.67)
<i>Dual</i>	0.0838 *** (6.23)
<i>Share</i>	-0.5103 *** (-12.89)
<i>CG</i>	-0.0988 *** (-7.96)
<i>Indd</i>	-0.1452 (-1.54)
<i>Place</i>	-0.032 *** (-4.35)
<i>Lnsize</i>	4.0663 *** (17.73)
<i>Lev</i>	-0.3295 *** (-13.78)
<i>ROE</i>	0.0040 (1.19)
<i>Cons</i>	-0.9057 * (-1.72)
<i>Year</i>	YES
<i>Industry</i>	YES
<i>Adj.R²</i>	37.83%
<i>F</i>	202.44 ***

Note: T Value is shown in brackets. The same below. "*" and "***" are significant at 10% and 1%, respectively.

Table 5. Text effect regression results.

Variable	NX			
	(1)	(2)	(3)	(4)
<i>Inatt</i>	4.4354 *** (2.90)	3.6836 ** (2.51)		
<i>Rinatt</i>			9.4353 *** (3.00)	
<i>Sinatt</i>				4.3538 (1.30)
<i>Inatt</i> × <i>Ingov</i>		−4.7995 *** (−3.10)		
<i>Control Variables</i>	YES	YES	YES	YES
<i>Year</i>	YES	YES	YES	YES
<i>Industry</i>	YES	YES	YES	YES
<i>Adj.R²</i>	13.60%	14.30%	13.60%	13.40%
<i>F</i>	3.86 ***	4.00 ***	3.89 ***	3.73 ***

Note: “***” and “**” are significant at 5% and 1%, respectively.

4.4. Mechanism Test

As mentioned above, this paper explores three possible paths that may affect the viscous effect of institutional investors’ distraction on executive compensation, namely, corporate external governance, stock price information content and management professional anxiety.

1. Corporate external governance. Based on the governance effect of the principal–agent theory, the institutional investors’ distraction weakens the external governance, thus reducing the role of supervision and restraint on the company. Managers are more qualified to proceed from their own interests, improve the space for speculation, attribute the rise of performance to their own efforts and instead attribute the decline of performance to external macro conditions. This refers to the method of C. Ye et al. (2015) and uses principal component analysis to build an external governance comprehensive index (*Exgov*) according to two dimensions and seven indicators of stakeholders (institutional investor shareholding ratio, investor confidence index, investors’ sentiment index, consumer confidence index) and economic information regulation (industry regulatory legal level, media attention, financing constraints). The investor confidence index (*ICI*) and consumer confidence index (*CCI*) are directly derived from the CSMAR database, indicating the evaluation of and subjective psychological feelings of investors and consumers towards the current economic situation (Liu 2006). The investor sentiment index (*ISI*) represents the investment willingness and trend expectation of different investors for the future market. The calculation method is shown in Formula (9) (Wei et al. 2014). The law level of industry regulation (*Law*) is the number of regulatory laws related to the industry in a certain year. Media attention (*Media*) refers to the number of media reports of the listed company in a certain year. The statistics in this paper include eight mainstream financial newspapers and more than five hundred other important newspapers and periodicals, and the data come from the eagle eye speed network. Financing constraint (*SA*) refers to the phenomenon that the external financing cost is higher than the internal capital cost. See Formula (10) for the calculation method (Hadlock and Pierce 2010).

$$ISI_t = 0.634NA_t + 0.536Turn_{t-1} + 0.391CCI_{t-1} + 0.272DCEF_{t-1} + 0.079NIPO_t + 0.552RIPO_t \tag{9}$$

$$SA = -0.737Lnsizet + 0.043Lnsizet^2 - 0.040Age \tag{10}$$

In Formula (9), NA_t refers to the number of new accounts opened in the current period, $Turn_{t-1}$ is the market turnover rate of the previous period, CCI_{t-1} is the consumer confidence index of the previous period, $DCEF_{t-1}$ is the discount rate of closed-end funds in the previous period, $NIPO_t$ refers to the number of new shares issued in the current period and $RIPO_t$ refers to the yield on the first day of IPO of the current period. In Equation (10), Age is the current corporate observation year—the corporate establishment year.

It uses the stepwise regression method to test the intermediary role of corporate external governance. In Table 6 (1), the coefficient of institutional investors’ distraction ($Inatt$) is -4.7321 and is significant at the 1% level, the external governance ($Exgov$) coefficient is -0.1886 and is significant at the 1% level, the institutional investor distraction ($Inatt$) coefficient is 3.1429 and is significant at the 5% level (which is lower than the total effect coefficient of 4.4354 in Table 5 (1)) and the intermediary effect is 0.2012 , so the corporate external governance belongs to partial intermediary in the total effect.

Table 6. Regression results of corporate external governance mechanism test.

Variable	<i>Exgov</i>	<i>NX</i>
	(1)	(2)
<i>Inatt</i>	-4.7321^{***} (-28.81)	3.1429^{**} (2.07)
<i>Exgov</i>		-0.1886^{***} (-3.34)
Control Variables	YES	YES
Year	YES	YES
Industry	YES	YES
Adj.R ²	27.06%	13.40%
F	263.84^{***}	3.25^{***}

Note: “***” and “**” are significant at 5% and 1%, respectively.

2. Stock price information content. Based on the information effect of information asymmetry theory, institutional investors’ distraction will reduce the amount of information they collect from companies with weak attention, weaken external supervision, reduce the degree of corporate information disclosure and increase information asymmetry. For institutions, the amount of research information reports on companies with weak attention decreases, increasing the information asymmetry with shareholders. For the management, in order to protect their own interests they are motivated to disclose opportunistic reports and falsely increase the business performance of the enterprise. For shareholders, the external supervision is weakened. In order to save information costs, they are motivated to reduce the terms of information disclosure reports, which will reduce the information content of listed corporate share prices and increase the asymmetry with external information, so as to facilitate the management to improve performance and compensation. Referring to the method of Morck et al. (2000), the stock price information content (PI) is constructed as follows:

$$r_{i,t} = \delta_i + \eta r_{m,t} + \varepsilon_{i,t} \tag{11}$$

$$PI = \log\left(\frac{1 - R^2}{R^2}\right) \tag{12}$$

In Equation (11), $r_{i,t}$ refers to the return rate of individual shares of the i th listed company in week t and $r_{m,t}$ refers to the market return rate of the i company in each sub market in the t week (weighted average method of current market capitalization). Its coefficient of determination R^2 represents the interpretation part of market fluctuations, and $1 - R^2$ represents the corporate characteristic information. Since the value of $1 - R^2$

is between 0–1, it is convenient for empirical testing, so log conversion is carried out as shown in Formula (12) (Venkatesh 1989).

According to Table 7, due to the same reason, the stock price information content (PI) belongs to some intermediaries in the total effect.

Table 7. Regression results of stock price information content mechanism test.

Variable	PI	NX
	(1)	(2)
<i>Inatt</i>	−1.4573 *** (−4.91)	4.3084 ** (2.03)
<i>PI</i>		−0.0355 ** (−2.45)
<i>Control Variables</i>	YES	YES
<i>Year</i>	YES	YES
<i>Industry</i>	YES	YES
<i>Adj.R²</i>	26.37%	13.10%
<i>F</i>	48.36 ***	3.05 ***

Note: “***” and “**” are significant at 5% and 1%, respectively.

3. Management occupational anxiety. Based on the psychological effect of behavioral finance theory, the institutional investors’ distraction affects the operation and development of the company. As the management, they inevitably form professional anxiety and reduce the development expectation of the company. Because institutional governance belongs to the third-party governance, the management cannot predict the behavior of institutional investors in time. When institutional investors are distracted, this has a confirmation deviation from the psychological expectations of the management. Pessimistic managers especially have more decision-making motivation to enact short-sighted behavior and use their power to improve their compensations. This refers to the method of Zhang et al. (2022) and measures management occupational anxiety (ANX) with the excess turnover rate. The higher the excess turnover rate and the more short-term traders, the greater the pressure on short-term performance and career anxiety faced by the management.

According to Table 8, due to the same reason, the management occupational anxiety (ANX) belongs to part of the intermediary in the total effect.

Table 8. Regression results of occupational anxiety mechanism test of management.

Variable	ANX	NX
	(1)	(2)
<i>Inatt</i>	1.7540 *** (14.66)	4.1297 ** (1.97)
<i>ANX</i>		0.1742 *** (2.78)
<i>Control Variables</i>	YES	YES
<i>Year</i>	YES	YES
<i>Industry</i>	YES	YES
<i>Adj.R²</i>	15.93%	13.90%
<i>F</i>	39.23 ***	3.20 ***

Note: “***” and “**” are significant at 5% and 1%, respectively.

5. Robustness Test

5.1. Change the Variable Measurement Method

In order to avoid empirical errors, this paper refers to the method of Fang (2009) and takes the net profit after excluding non-recurring profits and losses as the measurement index of the corporate performance, so as to reverify the existence of executive compensation stickiness in China and calculate executive compensation stickiness (NX). In Tables 9 and 10, the interaction item ($Lnperf \times Down$) is -0.0298 , which is significant at the 1% level. The executive compensation stickiness exists. The main effect of institutional investors' distraction ($Inatt$) and executive compensation stickiness (NX), the moderating effect of corporate internal governance ($Ingov$) and the heterogeneity of institutional investors are still valid.

Table 9. Robustness test: verify the regression results of executive compensation stickiness.

Variable.	$Lnpay$
$Lnperf$	0.1675 *** (21.77)
$Lnperf \times Down$	-0.0298 *** (-4.05)
$Down$	0.5995 *** (4.28)
$Dual$	0.0784 *** (5.63)
$Share$	-0.5879 *** (-14.50)
CG	-0.0379 *** (-2.93)
$Indd$	-0.1422 (-1.47)
$Place$	-0.0299 *** (-3.85)
$Lnsiz$	3.1321 *** (14.61)
Lev	-0.0878 ** (-2.47)
ROE	0.0134 (0.28)
$Cons$	1.4795 *** (2.66)
$Year$	YES
$Industry$	YES
$Adj.R^2$	40.09%
F	199.78 ***

Note: "***" and "**" are significant at 5% and 1%, respectively.

Table 10. Robustness test: change the regression result of executive compensation stickiness measurement.

Variable	NX			
	(1)	(2)	(3)	(4)
<i>Inatt</i>	2.2177 *** (4.65)	2.0922 *** (4.19)		
<i>Rinatt</i>			4.0450 *** (5.93)	
<i>Sinatt</i>				0.9843 (1.02)
<i>Inatt</i> × <i>Ingov</i>		−0.8125 *** (−2.91)		
<i>Control Variables</i>	YES	YES	YES	YES
<i>Year</i>	YES	YES	YES	YES
<i>Industry</i>	YES	YES	YES	YES
<i>Adj.R²</i>	16.80%	17.40%	17.90%	13.50%
<i>F</i>	6.41 ***	6.23 ***	7.32 ***	5.03 ***

Note: “****” is significant at 1%.

5.2. Endogenous Test

1. Propensity score matching PSM method. This paper uses the PSM method, which can alleviate the sample selection bias. Based on the above analysis, this paper selects institutional investor shareholding ratio (*IIS*), investor confidence (*ICI*), investor sentiment (*ISI*), consumer confidence (*CCI*), industry regulatory legal level (*Law*), media attention (*Media*), financing constraints (*SA*), stock price information content (*PI*) and management anxiety (*ANX*) as covariates, and constructs binary dummy variables according to the median of institutional investor distraction (*Inatt*) for one-to-one nearest neighbor matching. The corresponding t value of participants’ average processing effect (*ATT*) is 2.66 and is significant at the 1% level. After matching, the absolute value of standardization deviation decreases sharply and both are less than 10%, indicating that the matching quality is good. In addition, there is no significant difference between the matched control group and the control group, which meets the balance assumption. See Table 11 for the specific results. After matching, the samples continue to be regressed, and the significance and symbol of the main variables have not changed, and the results are robust. See Table 12 for the specific results.

2. Instrumental variable IV method. Referring to the method of Han et al. (2018), it takes the extreme weather in the city where the headquarters of listed companies are located and the explanatory variable (*Linatt*) with a lag of one period as instrumental variables, and solves the endogenous problem caused by the interaction of variables through two-stage least squares regression. Extreme weather is defined as the proportion of the days in which the minimum temperature is lower than −10 °C, the maximum temperature is higher than 38 °C or the precipitation is more than 50 mm in the city where the headquarters of the company is located in that year. The data come from the Chinese Meteorological Science Data Sharing Service Platform (Han et al. 2018). Table 13 shows that the *p* value of Sargan test is greater than 0.1, and the accepted tool variables are exogenous assumptions, so there is no over identification problem. The regression coefficient of institutional investors’ distraction (*Inatt*) is significantly positive, and the result is stable.

Table 11. Robustness test: PSM matching results.

Variable	Match	Average		% Bias	t	p > t
		(Inatt = 1)	(Inatt = 0)			
IIS	Unmatched	0.46	0.47	−1.3	−0.65	0.517
	Matched	0.46	0.46	−0.1	−0.07	0.941
ICI	Unmatched	110.19	111.08	−9.2	−4.69	0.000
	Matched	110.19	110.26	−0.7	−0.36	0.721
ISI	Unmatched	53.58	52.92	3.7	1.89	0.059
	Matched	53.58	53.54	0.3	0.13	0.898
CCI	Unmatched	110.19	111.08	−9.2	−4.69	0.000
	Matched	110.19	110.26	−0.7	−0.36	0.721
Law	Unmatched	5.09	5.49	−6.7	−3.43	0.001
	Matched	5.09	4.98	1.8	0.96	0.338
Media	Unmatched	11.58	11.31	1.2	0.61	0.545
	Matched	11.58	11.55	0.1	0.05	0.960
SA	Unmatched	−3.78	−3.78	1.3	0.64	0.522
	Matched	−3.78	−3.78	0.4	0.19	0.848
PI	Unmatched	−0.34	−0.34	0.3	0.16	0.872
	Matched	−0.34	−0.33	−1.0	−0.54	0.589
ANX	Unmatched	4.85	4.61	6.7	3.42	0.001
	Matched	4.85	4.80	1.5	0.77	0.442

Table 12. Robustness test: Post PSM regression results.

Variable	NX			
	(1)	(2)	(3)	(4)
Inatt	6.8521 *** (2.77)	4.7627 * (1.69)		
Rinatt			10.2402 *** (3.13)	
Sinatt				8.1534 (1.23)
Inatt × Ingov		−14.4421 *** (−2.77)		
Control Variables	YES	YES	YES	YES
Year	YES	YES	YES	YES
Industry	YES	YES	YES	YES
Adj.R ²	13.30%	14.80%	13.30%	12.80%
F	2.24 ***	6.62 ***	2.26 ***	2.05 ***

Note: “**” and “***” are significant at 10% and 1%, respectively.

Table 13. Robustness test: regression results of instrumental variable method.

Variable	NX
Inatt	43.0818 *** (2.77)
Control Variables	YES
Year	YES
Industry	YES
Adj.R ²	17.30%
F	2.22 ***
Sargan test	p = 0.528

Note: “***” is significant at 1%.

6. Further Analysis

6.1. Moderating Effect of Managerial Overconfidence

Based on behavioral finance theory, under uncertain conditions managerial values, cognitive mentality, overconfidence and other characteristics will produce irrational deviations in decision-making and rational economic people who are not completely driven by interests (Alicke et al. 1995). They believe that their ability is far better than the average level and they are highly optimistic about the corporate operation, so they underestimate the risk (Graham et al. 2013). When the distraction of institutional investors brings adverse effects, compared with the Confucian Culture of “Monarch and Minister” thought and the fierce test of economic transformation on managers, managers of Chinese Listed Companies may have overconfidence, maintain optimistic expectations and believe that the benefits of retaining business scale and continuous operation through their own leadership will be greater than the risks brought by institutions, so the motivation to implement opportunism is low (He et al. 2019). Referring to the methods of Salehi et al. (2020), this paper defines managerial overconfidence (OC) as 1 if the number of shares held by managers increases year-on-year and reaches 5%, and otherwise as 0, which is included in the regression model. The Table 14 show that the managerial overconfidence inhibits the promotion of institutional investors’ distraction on executive compensation stickiness.

Table 14. Regression results of regulatory effect of managerial overconfidence.

Variable	NX
<i>Inatt</i>	4.2117 * (1.74)
<i>Inatt</i> × <i>OC</i>	−2.0643 *** (−3.27)
Control Variables	YES
<i>Year</i>	YES
<i>Industry</i>	YES
<i>Adj.R</i> ²	13.50%
<i>F</i>	3.45 ***

Note: “*” and “***” are significant at 10% and 1%, respectively.

6.2. Research on the Heterogeneity of Property Rights and Region

Since the 1980s, the eastern region of China has developed rapidly by virtue of its regional advantages, while the investment in the western region has lagged far behind the eastern region since the “sixth five year plan” period. Based on the above variables’ definitions, this paper researches the heterogeneity of property rights and region. In Tables 15 and 16, the result shows that the distraction behavior in non-state-owned and western companies has a more significant economic impact.

Table 15. Group regression results of heterogeneity of property rights.

Variable	NX	
	CG = 1	CG = 0
<i>Inatt</i>	2.9703 (0.79)	5.4542 *** (2.85)
	<i>p</i> < 0.01	
Control Variables	YES	YES
<i>Year</i>	YES	YES
<i>Industry</i>	YES	YES
<i>Adj.R</i> ²	15.50%	27.60%
<i>F</i>	2.96 ***	9.89 ***

Note: “***” is significant at 1%.

Table 16. Regional heterogeneity grouping regression results.

Variable	NX	
	Place = 1	Place = 0
<i>Inatt</i>	4.3888 *** (2.77)	0.4714 (0.03)
	<i>p</i> < 0.01	
<i>Control Variables</i>	YES	YES
<i>Year</i>	YES	YES
<i>Industry</i>	YES	YES
<i>Adj.R²</i>	15.10%	22.66%
<i>F</i>	4.79 ***	2.47 ***

Note: “****” is significant at 1%.

7. Discussion and Conclusions

7.1. Conclusions

Based on the sample of Chinese listed companies from 2011 to 2020, this paper determines 11920 observations after screening, measures the degree of institutional investors’ distraction through the exogenous impact of industry extreme return, and explores the relationship between it and executive compensation stickiness. The study finds that institutional investors’ distraction will further promote executive compensation stickiness, which is more significant in the group of pressure-resistant institutional investors. The mechanism test finds that corporate external governance, stock price information content and management anxiety play a partial intermediary role between them. The moderating effect finds that the level of corporate internal governance and managerial overconfidence will weaken the impact of institutional investors’ distraction on executive compensation stickiness. In addition, the distraction behavior in non-state-owned and western companies has a more significant economic impact.

7.2. Theoretical Enlightenment and Countermeasures

Firstly, institutional investors should effectively balance income risks and optimize resource allocation. As an investment “weathervane”, they should give the market correct values, adhere to value investment and external supervision and restrict management opportunism. Secondly, as the “basic plate” of the Chinese real economy and the cornerstone of the capital market, listed companies should also actively introduce long-term institutional investors to develop together, achieve mutual benefit and win-win. Listed companies should also optimize the salary structure of senior executives and improve the performance evaluation mechanism. Finally, the government should improve relevant laws and regulations to increase the requirements for company information disclosure and promote the vigorous development of the Chinese capital market.

7.3. Deficiencies and Prospects

This paper also has some research defects. Firstly, in verifying the executive compensation stickiness model, the total compensation of the top three executives disclosed in the database is directly taken as the explained variable, including the self-purchase and incentive parts, which will have some errors in results. Secondly, in the measurement of executive compensation stickiness, there will be a certain sample whose performance has increased or decreased for five consecutive years, so the specific degree of stickiness cannot be calculated. Thirdly, the treatment of missing values according to the annual mean value has a certain distortion and subjectivity. Fourthly, there are many methods to classify the heterogeneity of institutional investors, but this paper only uses the aspect of pressure sensitivity. Lastly, due to the specifics of the Chinese database, this paper only sums up six

different types of institutional investors' distractions instead of every institutional investor distraction, which will ignore some special investor groups.

Future research can choose other ways to measure executive compensation stickiness, such as building a triple interactive term based on the validation of the stickiness model. For a heterogeneity analysis of institutional investors, we can choose to take a multi-dimensional classification basis to construct different distraction indicators to explore the similarities and differences of their impact on executive compensation stickiness. In view of the effect of distraction promoting compensation stickiness, we can further analyze its economic consequences and mechanisms in combination with different disciplines, such as different situations and investor behavior motivation.

Author Contributions: Writing—original draft, Y.H.; Writing—review & editing, C.C. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Data Availability Statement: The data presented in this study are openly available in CSMAR.

Conflicts of Interest: The authors declare no conflict of interest.

References

- Abramova, Inna, John E. Core, and Andrew Sutherland. 2021. Institutional investor attention and firm disclosure. *Accounting Review* 95: 1–21. [\[CrossRef\]](#)
- Abudy, Menachem Meni, Dan Amiram, Oded Rozenbaum, and Efrat Shust. 2020. Do executive compensation contracts maximize firm value? Indications from a quasi-natural experiment. *Journal of Banking & Finance* 114: 105787.
- Aghion, Philippe, John Van Reenen, and Luigi Zingales. 2013. Innovation and institutional ownership. *American Economic Review* 103: 277–304. [\[CrossRef\]](#)
- Alicke, Mark D., Mary L. Klotz, David L. Breitenbecher, Tricia J. Yurak, and Debbie S. Vredenburg. 1995. Personal contact, individuation and the better-than-average effect. *Journal of Personality and Social Psychology* 158: 804–25. [\[CrossRef\]](#)
- Alnaes, Dag, Markus Handal Sneve, Thomas Espeseth, Tor Endestad, Steven Harry Pieter van de Pavert, and Bruno Laeng. 2014. Pupil size signals mental effort deployed during multiple object tracking and predicts brain activity in the dorsal attention network and the locus coeruleus. *Journal of Vision* 14: 56–72. [\[CrossRef\]](#)
- Amin, Abu S., Shantanu Dutta, Samir Saadi, and Premal P. Vora. 2015. Institutional shareholding and information content of dividend surprises: Re-examining the dynamics in dividend-reappearance era. *Journal of Corporate Finance* 31: 152–70. [\[CrossRef\]](#)
- Anderson, Mark C., Rajiv D. Banker, and Surya N. Janakiraman. 2003. Are selling, general, and administrative costs “Sticky”? *Journal of Accounting Research* 41: 47–63. [\[CrossRef\]](#)
- Balakrishnan, Ramji, Eva Labro, and Naomi S. Soderstrom. 2014. Cost structure and sticky costs. *Journal of Management Accounting Research* 26: 91–116. [\[CrossRef\]](#)
- Banker, Rajiv D., and Dmitri Byzalov. 2014. Asymmetric cost behavior. *Journal of Management Accounting Research* 26: 43–79. [\[CrossRef\]](#)
- Bebchuk, Lucian Arye, and Jesse M. Fried. 2003. Executive compensation as an Agency Problem. *Journal of Economic Perspectives* 17: 71–92. [\[CrossRef\]](#)
- Brickley, James A., Ronald C. Lease, and Clifford W. Smith Jr. 1988. Ownership structure and voting on antitakeover amendments. *Journal of Financial Economics* 20: 267–91. [\[CrossRef\]](#)
- Brüggen, Alexander, and Jens Oliver Zehnder. 2014. SG&A cost stickiness and equity-based executive compensation: Does empire building matter? *Journal of Management Control* 25: 169–92.
- Chan, Derek K., Xu Li, and Qian Xin. 2021. Institutional investor inattention and audit quality. *Journal of Accounting and Public Policy* 40: 1–24. [\[CrossRef\]](#)
- Chen, Xia, Jarrad Harford, and Kai Li. 2007. Monitoring: Which institutions matter? *Journal of Financial Economics* 86: 279–305. [\[CrossRef\]](#)
- Chen, Xiude, Yulian Peng, Feiyan Liu, and Jiang Xu. 2014. Research on CEO compensation stickiness of Chinese listed companies. *Frontier in Finance* 1: 1–8. [\[CrossRef\]](#)
- Claessens, Stijn. 1997. Corporate governance and equity prices. *Quarterly Journal of Economics* 118: 107–55.
- Dong, Min, and Aydin Ozkan. 2008. Institutional investors and director pay: An empirical study of UK companies. *Journal of Multinational Financial Management* 18: 16–29. [\[CrossRef\]](#)
- Edmans, Alex, and Xavier Gabaix. 2010. Executive compensation: A modern primer. *Journal of Economic Literature* 54: 1232–87. [\[CrossRef\]](#)
- El-habashy, Hanaa AbdelKader. 2019. The effect of corporate governance attributes on accounting conservatism in Egypt. *Academy of Accounting and Financial Studies Journal* 23: 1–18.
- Fang, Junxiong. 2009. Is there any stickiness in the executive compensation of listed companies in my country? *Economic Research* 44: 110–24.

- Florackis, Chrisostomos. 2005. Internal corporate governance mechanisms and corporate performance: Evidence for UK firms. *Applied Financial Economics Letters* 1: 211–16. [\[CrossRef\]](#)
- Gabaix, Xavier, and Augustin Landier. 2008. Why has CEO pay increased so much? *The Quarterly Journal of Economics* 123: 49–100. [\[CrossRef\]](#)
- Gao, Han, Zhuyi Shen, Yichen Li, Xuxin Mao, and Yukun Shi. 2020. Institutional investors, real earnings management and cost of equity: Evidence from listed high-tech firms in China. *Emerging Markets Finance and Trade* 56: 3490–506. [\[CrossRef\]](#)
- Gao, Xiang, Chen Gu, and Kees Koedijk. 2021. Institutional investor sentiment and aggregate stock returns. *European Financial Management* 27: 899–924. [\[CrossRef\]](#)
- Gibbons, Robert, and Kevin J. Murphy. 2004. Optimal incentive contracts in the presence of career concerns: Theory and Evidence. *Journal of Political Economy* 100: 468–505. [\[CrossRef\]](#)
- Graham, John R., Campbell R. Harvey, and Manju Puri. 2013. Managerial attitudes and corporate actions. *Journal of Financial Economics* 109: 103–21. [\[CrossRef\]](#)
- Guenther, Thomas W., Anja Riehl, and Richard Rößler. 2014. Cost stickiness: State of the art of research and implications. *Journal of Management Control* 24: 301–18. [\[CrossRef\]](#)
- Hadlock, Charles J., and Joshua R. Pierce. 2010. New evidence on measuring financial constraints: Moving beyond the KZ index. *The Review of Financial Studies* 23: 1909–40. [\[CrossRef\]](#)
- Han, Bing, Dongmin Kong, and Shasha Liu. 2018. Do analysts gain an informational advantage by visiting listed companies? *Contemporary Accounting Research* 35: 1843–67. [\[CrossRef\]](#)
- Hartzell, Jay C., and Laura T. Starks. 2003. Institutional investors and executive compensation. *The Journal of Finance* 58: 2351–74. [\[CrossRef\]](#)
- He, Ying, Cindy Chen, and Yue Hu. 2019. Managerial overconfidence, internal financing, and investment efficiency: Evidence from China. *Research in International Business and Finance* 47: 501–10. [\[CrossRef\]](#)
- Hu, Helen Wei, On Kit Tam, and Monica Guo-Sze Tan. 2010. Internal governance mechanisms and firm performance in China. *Asia Pacific Journal of Management* 27: 727–49. [\[CrossRef\]](#)
- Ibrahim, Awad Elsayed Awad, and Amr Nazieh Ezat. 2017. Sticky cost behavior: Evidence from Egypt. *Journal of Accounting in Emerging Economies* 7: 16–34. [\[CrossRef\]](#)
- Jackson, Scott B., Thomas J. Lopez, and Austin L. Reitenga. 2008. Accounting fundamentals and CEO bonus compensation. *Journal of Accounting & Public Policy* 27: 374–93.
- Janakiraman, Surya, Suresh Radhakrishnan, and Albert Tsang. 2010. Institutional investors, managerial ownership, and executive compensation. *Journal of Accounting, Auditing & Finance* 25: 673–707.
- Kempf, Elisabeth, Alberto Manconi, and Oliver Spalt. 2017. Distracted shareholders and corporate actions. *Review of Financial Studies* 30: 1660–95. [\[CrossRef\]](#)
- Kim, Hyun-Dong, Taeyeon Kim, Yura Kim, and Kwangwoo Park. 2019. Do long-term institutional investors promote corporate social responsibility activities? *Social Science Electronic Publishing* 101: 256–69. [\[CrossRef\]](#)
- Lei, Yu, and Jianhua Guo. 2017. Rule Fairness and Employee Efficiency: A Study Based on the Pay Stickiness Gap between Executives and Employees. *Management World* 1: 99–111.
- Li, Zhengguang, Xibu Zhao, Feng Cao, and Xiaoxuan Lu. 2014. Institutional investor heterogeneity and firm performance: Empirical evidence from Chinese listed companies. *Audit and Economic Research* 29: 77–87.
- Lian, Yujun, and Jianping Liao. 2017. How to test the coefficient difference between groups after grouping regression? *Zhengzhou Institution Aeronaut. Industry Management* 35: 97–109.
- Liu, Qiao. 2006. Corporate governance in China: Current practices, economic effects and institutional determinants. *CESifo Economic Studies* 52: 415–53. [\[CrossRef\]](#)
- Lu, Zhiqiang, Sarath Abeysekera, and Hongyue Li. 2015. Executive compensation stickiness and peer group benchmarks: Evidence from Chinese firms. *The International Journal of Business and Finance Research* 9: 25–36.
- Mahoney, James M., and Joseph T. Mahoney. 1993. An empirical investigation of the effect of corporate charter antitakeover amendments on stockholder wealth. *Strategic Management Journal* 14: 17–31. [\[CrossRef\]](#)
- Morck, Randall, Bernard Yeung, and Wayne Yu. 2000. The information content of stock markets: Why do emerging markets have synchronous stock price movements? *Journal of Financial Economics* 58: 215–60. [\[CrossRef\]](#)
- Ni, Xiaoran, Qiyuan Peng, Sirui Yin, and Ting Zhang. 2020. Attention! Distracted institutional investors and stock price crash. *Journal of Corporate Finance* 64: 1–19. [\[CrossRef\]](#)
- Sabac, Florin. 2007. Dynamic agency with renegotiation and managerial tenure. *Management Science* 53: 849–64. [\[CrossRef\]](#)
- Salehi, Mahdi, Mahmoud Lari DashtBayaz, Somayeh Hassanpour, and Hossein Tarighi. 2020. The effect of managerial overconfidence on the conditional conservatism and real earnings management. *Journal of Islamic Accounting and Business Research* 11: 708–20. [\[CrossRef\]](#)
- Shleifer, Andrei, and Robert W. Vishny. 1986. Large shareholders and corporate control. *Journal of Political Economy* 94: 461–88. [\[CrossRef\]](#)
- Shleifer, Andrei, and Robert W. Vishny. 1997. A Survey of Corporate Governance. *The Journal of Finance* 52: 737–83. [\[CrossRef\]](#)
- Shust, Efrat, and Dan Weiss. 2014. Discussion of asymmetric cost behavior—Sticky costs: Expenses versus cash flows. *Journal of Management Accounting Research* 26: 81–90. [\[CrossRef\]](#)

- Solomon, Jill. 2020. *Corporate Governance and Accountability*. Hoboken: Wiley, pp. 88–97.
- Spicer, Barry H. 1978. Investors, corporate social performance and information disclosure: An empirical study. *Accounting Review* 53: 94–111.
- Sun, Zheng, and Hao Liu. 2004. The expense “stickiness” behavior of Chinese listed companies. *Economic Research Journal* 1: 26–34+84.
- Venkatesh, P. C. 1989. The impact of dividend initiation on the information content of earnings announcements and returns volatility. *Journal of Business*, 175–97. [[CrossRef](#)]
- Verma, Rahul, and Gökçe Soydemir. 2009. The impact of individual and institutional investor sentiment on the market price of risk. *The Quarterly Review of Economics and Finance* 49: 1129–45. [[CrossRef](#)]
- Wang, Yaping, Liansheng Wu, and Yunhong Yang. 2009. Does the stock market affect firm investment in China? A price informativeness perspective. *Journal of Banking & Finance* 33: 53–62.
- Wei, Xingji, Weili Xia, and Tongtong Sun. 2014. Research on investor sentiment measurement in A-share market based on BW model. *Management Observer* 33: 71–76.
- Yang, Jingyu, Hai Wu, and Yangxin Yu. 2021. Distracted institutional investors and audit risk. *Accounting and Finance* 61: 3855–81. [[CrossRef](#)]
- Ye, Chengang, Zi Wang, Jianfeng Wu, and Hui Li. 2015. External governance, environmental information disclosure and the cost of equity financing. *Nankai Business Review* 18: 85–96.
- Ye, Kangtao, Zhengfei Lu, and Zhihua Zhang. 2007. Can independent directors curb the “tunneling” of major shareholders? *Economic Research* 4: 101–11.
- Zhang, Xing, Yan Zhou, Fuli Zhou, and Saurabh Pratap. 2022. Internet public opinion dissemination mechanism of COVID-19: Evidence from the Shuanghuanglian event. *Data Technologies and Applications* 56: 283–302. [[CrossRef](#)]

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.