



The Impact of Common Ownership on the Internal Pay Gap: Evidence from China

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Abstract. Common ownership across firms has become an important external governance force. This paper studies the impact of common ownership on the internal pay gap between executives and ordinary employees using a sample of A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2012 to 2024. I find that a denser common ownership network significantly reduces the internal pay gap. Mechanism analyses reveal that common ownership narrows the pay gap by improving managerial efficiency, reducing tunneling behavior, and promoting human capital upgrading. The effect is stronger in firms with higher internal control quality, no analyst coverage, and stronger ownership checks and balances. These findings highlight the role of common ownership in corporate governance and income distribution.

Keywords: Common Ownership, Internal Pay Gap, Corporate Governance.

1 Introduction

With the expansion of institutional investors, common ownership—where investors simultaneously hold shares in multiple intra-industry firms^[1]—has become a vital governance force. While existing studies extensively debate its macro- and meso-level impacts^[2], its effect on internal corporate resource allocation and income distribution remains underexplored. Meanwhile, the internal pay gap is a critical governance issue. Although a moderate gap provides tournament incentives, insider control often leads to excessive executive compensation at the expense of ordinary employees^[3,4]. This raises an important question: Can common ownership act as an external governance mechanism to restrain managerial self-interest and promote a more balanced internal income distribution?

Using a sample of Chinese A-share listed firms from 2012 to 2024, this study finds that a denser common ownership network significantly reduces the executive-employee pay gap. This conclusion remains robust after addressing endogeneity via provincial mean and Bartik instrumental variables, alongside tests such as propensity score matching (PSM) and excluding pandemic years.

Mechanism analyses reveal that common ownership reshapes pay structures through three channels: (1) reducing Type I agency costs by curbing managerial “quiet life”

behaviors; (2) mitigating Type II agency problems by restraining controlling shareholders' tunneling activities; and (3) promoting human capital upgrading, which strengthens ordinary employees' bargaining power. Furthermore, this governance effect is more pronounced in firms with higher internal control quality, lower analyst coverage, and stronger equity checks and balances.

This paper makes three main contributions. First, it extends the literature on the economic consequences of common ownership to micro-level income distribution. Second, it identifies the specific agency and human capital mechanisms driving these compensation changes. Third, it strengthens causal identification using multiple robust strategies, providing fresh evidence on how institutional investors influence internal corporate fairness.

2 Literature Review

The internal pay gap reflects corporate governance outcomes and resource allocation. As common ownership becomes more prevalent, its influence on corporate behavior is gaining attention. This section reviews literature on pay disparities, the economic effects of common ownership, and the governance role of shareholder structure.

2.1 Causes and Economic Consequences of the Corporate Internal Pay Gap

The internal pay gap is typically explained by two competing views. The optimal contracting view posits that a reasonable pay gap reflects executives' human capital and responsibilities, improving performance through tournament incentives^[5]. Conversely, the managerial power view argues that under weak monitoring, executives manipulate compensation for private benefits, leading to excessive disparities and weak pay-performance sensitivity^[6]. Under conditions of information asymmetry, agency conflicts become central to corporate governance^[7]. An excessive pay gap can weaken employees' perceptions of fairness and signal governance failures^[5]. Furthermore, ineffective monitoring due to dispersed ownership or shareholder-manager collusion allows managerial rent-seeking^[8,9], highlighting the need for effective governance.

2.2 Economic Consequences of Common Ownership

The economic consequences of common ownership are debated between two main views. The competitive collusion view argues that shared ownership internalizes competitive externalities and weakens market competition, such as by raising prices^[10]. In contrast, the governance synergy view suggests that common ownership enhances monitoring and information advantages, thereby improving corporate governance and reducing stock price crash risk^[11]. Cross-ownership incentivizes investors to participate in governance^[9], and evidence from China indicates it can improve compensation contract effectiveness and restrain managerial rent-seeking^[5]. Overall, its effects depend on the balance of collusive incentives and governance benefits.

2.3 Shareholder Structure and the Pay Gap

Compensation contracts result from bargaining between shareholders and management^[12] making shareholder structure crucial. Effective governance restrains managerial rent-seeking and reduces the excessive pay disparities that arise when managerial power is weakly constrained^[6]. Common ownership acts as a unique governance mechanism, combining insider information advantages with external independence. This gives common owners stronger incentives and capabilities to monitor management^[13] and, through enhanced information sharing, improve compensation contract efficiency while reducing opportunism^[5,11].

Despite extensive research on the determinants of pay gaps and the consequences of common ownership, the intersection of these literatures remains limited. Most studies focus on macro-level outcomes like market competition, rarely linking common ownership directly to internal income distribution or specific agency problems. To bridge this gap, this paper empirically examines whether and how common ownership shapes the corporate internal pay gap.

3 Theoretical Analysis and Research Hypotheses

3.1 The Theoretical Logic of Common Ownership and the Corporate Internal Pay Gap

As discussed earlier, while a reasonable pay gap provides necessary tournament incentives^[14], an excessive internal pay gap often reflects severe agency conflicts and managerial rent-seeking^[12]. Therefore, effective external monitoring is crucial to address this issue. As common ownership—institutional investors holding shares in multiple intra-industry firms—becomes prevalent, it offers a solution. Unlike dispersed shareholders, common owners possess stronger incentives and capabilities to participate in governance and overcome free-rider problems^[9]. Their cross-firm networks provide rich industry information to benchmark performance and identify unreasonable compensation^[15]. Consequently, common owners exert governance pressure that may narrow the internal pay gap through three channels.

3.2 Common Ownership, Type I Agency Cost Reduction, and the Internal Pay Gap

Under weak external monitoring, severe Type I agency conflicts arise as managers pursue a “quiet life” characterized by risk aversion and inefficient operations^[16]. This behavior weakens pay-performance sensitivity, allowing executives to maintain high salaries despite poor efficiency. Common ownership alleviates this through enhanced monitoring and cross-firm benchmarking, which detects managerial slack. Driven to maximize overall portfolio value, common owners pressure firms to improve operational efficiency, often measured inversely by asset turnover^[17]. As common ownership

improves asset turnover, compensation becomes more closely tied to actual productivity. This curbs excessive executive pay and narrows the internal pay gap^[6]. Accordingly, the following hypothesis is proposed:

H1: Common ownership narrows the corporate internal pay gap by reducing Type I agency costs (improving asset turnover).

3.3 Common Ownership, Type II Agency Problem Mitigation, and the Internal Pay Gap

In markets with concentrated ownership, Type II agency conflicts between controlling and minority shareholders are prominent. Controlling shareholders often engage in tunneling, such as fund misappropriation, forming implicit alliances with executives that convert diverted resources into hidden managerial benefits and widen the effective income gap^[8]. Common owners act as a powerful external balancing force. Their cross-firm networks and information advantages effectively identify abnormal transactions^[18]. By coordinating with other investors and exercising voting rights, they curb opportunistic tunneling behaviors^[13]. Restraining tunneling reduces executives' opportunities to extract hidden benefits, making income distribution more transparent and thereby narrowing the internal pay gap. Based on the above analysis, this paper proposes the second hypothesis:

H2: Common ownership narrows the corporate internal pay gap by mitigating Type II agency problems (curbing tunneling behaviors).

3.4 Common Ownership, Human Capital Structure Upgrading, and the Internal Pay Gap

Strategically, common owners possess long investment horizons and promote cross-firm knowledge spillovers, encouraging long-term competitiveness and innovation^[1,2]. This orientation drives firms to increase investments in high-quality human capital. Upgrading the workforce by recruiting highly skilled employees raises the average compensation of ordinary workers, reducing the relative gap with top executives^[19]. Furthermore, knowledge-intensive firms tend to adopt flatter organizational structures. This structural shift enhances employees' bargaining power and promotes a more balanced compensation system^[6]. Thus, by fostering human capital upgrading, common ownership indirectly narrows the internal pay gap. Therefore, this paper proposes the third hypothesis:

H3: Common ownership narrows the corporate internal pay gap by promoting human capital structure upgrading (increasing the proportion of highly qualified employees).

4 Research Design

4.1 Sample Selection and Data Sources

The empirical analysis relies on an unbalanced panel dataset comprising A-share enterprises publicly traded on the Shenzhen and Shanghai stock exchanges spanning the years 2012 through 2024. The sample period begins in 2012 to align with the implementation of the revised CSRC Industry Classification Guidelines, ensuring consistent industry categorization and compensation disclosure. Financial, corporate governance, and institutional holding data are sourced from the CSMAR database, with empirical analyses conducted via Stata. To ensure data validity, the initial sample is screened by excluding: (1) financial and insurance firms, (2) distressed firms designated as ST, *ST, or PT, and (3) observations with missing key variables. Finally, all continuous variables are winsorized at their top and bottom 1% tails to mitigate outlier effects.

4.2 Variable Definitions

Dependent Variable: Corporate Internal Pay Gap (LnFPG).

Following Liu and Jiao^[4], the internal pay gap (FPG) is defined as the ratio of average executive pay (AMP) to average ordinary employee pay (AEP). Specifically, AMP excludes independent directors and unpaid personnel, while AEP is calculated by deducting aggregate executive compensation from total employee compensation, divided by the number of non-executive employees. Following Faleye et al.^[6], the natural logarithm of FPG is employed to construct the dependent variable, LnFPG.

Independent Variable: Common Ownership (Cross).

According to He and Huang^[1] and Pan et al.^[2], institutional investors holding at least 5% of shares are identified using the top ten shareholder data from the CSMAR database. Industry classification follows the 2012 CSRC standard, with manufacturing further divided at the two-digit level. To capture the intensity of these network connections, Cross is measured as the natural logarithm of the firm's total number of common owners plus one. An alternative dummy variable (Cross_Dum) is constructed for robustness tests.

Control Variables (Controls).

To isolate the main effects, this study controls for a broad array of firm and governance characteristics, including firm size, leverage, profitability, growth, board structure, ownership concentration, and audit quality. Table 1 outlines the specific calculation methods for these metrics.

Table 1. Definitions of Main Variables.

Variable Type	Variable Name	Symbol	Definition and Calculation Method
Dependent Variable Independent Variable Control Variables	Corporate Internal Pay Gap	LnFPG	Natural logarithm of the ratio of average executive pay to average ordinary employee pay
	Common Ownership	Cross	The natural log of (total number of cross-holding institutions for the firm in a given year + 1)
	Firm Size	Size	Natural logarithm of total assets at the end of the period
	Leverage	Lev	Ratio of total end-of-year liabilities over total end-of-year assets.
	Return on Assets	ROA	Net profit / Total end-of-year assets
	Revenue Growth Rate	Growth	The percentage change in operating revenues compared to the prior year
	Board Size	Board	Natural logarithm of the total number of board members
	Independent Directors Ratio	Indep	The percentage of independent directors relative to the entire board size
	CEO Duality	Dual	A binary indicator set to 1 if the CEO also serves as the board chairman, and 0 otherwise
	Largest Shareholder Ownership	Top1	The proportion of outstanding shares owned by the primary (largest) shareholder
	Firm Value	TobinQ	Corporate market value / Replacement cost of assets
	Property Rights Nature	SOE	An indicator variable equaling 1 if the firm is state-controlled (or owned by a state legal entity), and 0 otherwise
	Listing Age	ListAge	The natural log of the firm's total years since its initial public offering
	Audit Quality	Big4	Dummy variable: 1 if audited by an international "Big Four" accounting firm, 0 otherwise

4.3 Model Specification

To evaluate how common ownership networks influence the internal compensation gap within firms, the baseline regression model with multi-dimensional fixed effects is estimated:

$$\text{LnFPG}_{i,t} = \alpha_0 + \alpha_1 \text{Cross}_{i,t} + \sum \beta_k \text{Controls}_{i,t} + \mu_j + \nu_t + \varepsilon_{i,t} \quad (1)$$

in this model, i denotes the firm and t denotes the year. The dependent variable $\text{LnFPG}_{i,t}$ represents the internal pay gap of firm i in year t , while $\text{Cross}_{i,t}$ captures the firm's common ownership characteristics. $\text{Controls}_{i,t}$ represents the set of predefined control variables above. Industry fixed effects (μ_j) are included to capture time-invariant differences across industries, and year fixed effects (ν_t) are integrated to absorb the

impacts of macroeconomic fluctuations and common time trends affecting all firms. $\varepsilon_{i,t}$ is the error term. To address potential heteroscedasticity, robust standard errors are used in all regressions. The analytical focus centers on the estimated value of α_1 . A significantly negative estimate of α_1 indicates that common ownership is associated with a smaller internal pay gap.

5 Empirical Study

5.1 Descriptive Statistics

The summary statistics for main utilized variables are detailed in Table 2. After winso-rization, the final sample includes 39,400 firm-year observations. The internal pay gap (LnFPG) has a mean of 1.395 and a standard deviation of 0.596, reflecting significant cross-firm variation. The primary explanatory variable, Cross, shows a mean of 0.116 (ranging from 0 to 1.609), indicating the presence of common ownership in China’s market. Additionally, the mean equity stake held by the primary shareholder (Top1) is 0.333, consistent with the concentrated ownership structure of Chinese firms. Other control variables align with distributions reported in prior studies.

Table 2. Descriptive Statistics of Main Variables.

	N	Mean	Median	SD	Min	Max
LnFPG	39400	1.395	1.362	0.596	-0.538	3.229
Cross	39400	0.116	0.000	0.270	0.000	1.609
Size	39400	22.310	22.114	1.302	19.563	26.452
Lev	39400	0.425	0.417	0.204	0.035	0.935
ROA	39400	0.034	0.035	0.067	-0.375	0.255
Growth	39400	0.133	0.080	0.377	-0.654	3.808
Board	39400	2.109	2.197	0.197	1.609	2.708
Indep	39400	37.811	36.360	5.414	28.570	60.000
Dual	39400	0.293	0.000	0.455	0.000	1.000
Top1	39400	0.333	0.309	0.147	0.074	0.758
TobinQ	39400	2.037	1.611	1.359	0.789	16.647
SOE	39400	0.354	0.000	0.478	0.000	1.000
ListAge	39400	2.238	2.303	0.775	0.693	3.466
Big4	39400	0.060	0.000	0.237	0.000	1.000
ATO	38732	0.457	0.391	0.374	0.000	2.548
Tunnel	39379	0.014	0.006	0.023	0.000	0.202
HumanCap	31274	0.465	0.426	0.247	0.000	1.000
IC	39316	632.896	658.110	131.172	0.000	985.600
Analyst	39400	6.423	2.000	9.556	0.000	75.000
Balance1	39398	0.371	0.293	0.285	0.006	1.000

5.2 Baseline Regression Analysis

The primary regression outputs assessing the link between institutional cross-holdings and intra-firm compensation disparities are provided in Table 3. A stepwise specification is adopted, and robust standard errors are used in all regressions. The first column displays the initial findings excluding both covariates and fixed effects. The coefficient of Cross is significantly positive, which may reflect omitted variable bias. For instance, large and profitable firms are more likely to attract institutional investors^[20] and such firms often exhibit wider internal pay disparities due to greater organizational complexity^[4].

After introducing firm-level control variables in Column (2), the coefficient of Cross becomes -0.027 and is significant at the 5% level, indicating that the governance effect of common ownership emerges once firm characteristics are controlled for. Column (3) reports the full specification including all control variables and industry and year fixed effects. The coefficient of Cross remains significantly negative (-0.036 , significant at the 1% level), while the model's explanatory power improves ($R^2 = 0.199$). These results imply that firms embedded in denser common ownership networks tend to exhibit smaller executive–employee pay gaps.

This finding aligns with the perspective that common owners strengthen external monitoring and alleviate the free-rider problem associated with dispersed ownership^[1,2]. As a result, managerial rent extraction in compensation arrangements is more effectively constrained, contributing to a more balanced internal pay structure^[4,6]. For brevity, the coefficients of control variables are not fully reported in the table, but their signs and significance are generally consistent with established findings.

Table 3. Baseline Regression Results.

	(1)	(2)	(3)
	Model 1	Model 2	Model 3
Cross	0.124*** (10.13)	-0.027** (-2.25)	-0.036*** (-3.02)
_cons	1.380*** (432.94)	-1.605*** (-18.64)	-2.139*** (-24.95)
Controls	No	Yes	Yes
N	39400	39400	39400
R2	0.003	0.143	0.199
adj. R2	0.003	0.143	0.198

Note: Robust t-statistics in parentheses. *, **, *** denote significance at the 10%, 5%, and 1% levels.

5.3 Heterogeneity Analysis

To explore the boundary conditions of the governance effect of common ownership on internal pay gaps, this section conducts heterogeneity analyses from three perspectives: internal control quality, analyst coverage, and ownership checks and balances. The results are reported in Table 4.

Table 4. Heterogeneity Analysis.

	(1)	(2)	(3)	(4)	(5)	(6)
	High IC	Low IC	Analyst>0	Analyst=0	High Bal	Low Bal
Cross	-0.050*** (-3.00)	-0.015 (-0.89)	-0.022 (-1.49)	-0.074*** (-3.69)	-0.090*** (-5.66)	0.019 (1.06)
_cons	-1.976*** (-16.35)	-2.213*** (-17.61)	-1.848*** (-16.62)	-1.884*** (-11.20)	-2.538*** (-20.69)	-1.735*** (-14.38)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
N	19704	19612	25792	13608	19665	19733
R ²	0.211	0.175	0.195	0.131	0.223	0.182
adj. R ²	0.209	0.173	0.194	0.128	0.222	0.180

Note: Robust t-statistics in parentheses. *, **, *** denote significance at the 10%, 5%, and 1% levels.

Heterogeneity in the Internal Control Environment.

Internal control enhances transparency and constrains managerial opportunism^[21]. Using the DIB Internal Control Index, we split the sample by the annual median into high- and low-IC groups. According to the first two columns of Table 4, the negative effect of common ownership (Cross) is significant only in the high-IC group, with a coefficient of -0.050 at the 1% level. This suggests that strong internal control facilitates the governance role of common owners by reducing information asymmetry and monitoring costs.

Heterogeneity in the External Information Environment.

Analysts serve as key information intermediaries and provide crucial external monitoring^[22]. Columns (3) and (4) show that Cross significantly reduces the pay gap only in firms without analyst coverage (coefficient = -0.074, $p < 0.01$). This implies that common ownership substitutes for weak external monitoring by leveraging cross-firm information networks, but its marginal effect diminishes when analyst oversight is already present.

Heterogeneity in Ownership Checks and Balances.

Ownership concentration is a salient feature of China’s capital market. Using Balance1—calculated by dividing the combined equity of the second through fifth largest investors by the dominant shareholder’s stake—to categorize the sample into strong and weak balance categories. Columns (5) and (6) indicate that Cross significantly reduces the pay gap only in the high-balance group (coefficient = -0.090, $p < 0.01$). This supports the alliance check-and-balance hypothesis^[13,23], where common owners are more effective when other large shareholders can counterbalance the controlling shareholder.

5.4 Endogeneity Tests

Despite controlling for firm-level covariates and fixed effects, endogeneity concerns—such as omitted variables (e.g., corporate culture) and reverse causality—may persist. To tackle these methodological challenges, this study employs two instrumental variable (IV) strategies using two-stage least squares (2SLS). The outcomes of these estimations are displayed in Table 5.

Table 5. Endogeneity Test Results.

	(1)	(2)
	Province IV	Bartik IV
Cross	-2.668*** (-7.24)	-0.191*** (-9.30)
Controls	Yes	Yes
<i>N</i>	39400	39390
widstat	87.680	4989.509

Note: Robust t-statistics are reported in parentheses. *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively. Widstat is the Kleibergen–Paap rk Wald F-statistic for weak instrument tests.

Province-Level Instrumental Variable.

Following geographic peer instrument approaches^[24], the first IV is constructed as the average common ownership of other firms in the same province-year (IV_Prov). This instrument is relevant due to local investment preferences and regional clustering of institutional investors^[25], while the provincial aggregate is unlikely to directly affect firm-level compensation, satisfying exogeneity.

As shown in Column (1) of Table 5, the Kleibergen–Paap rk Wald F-statistic is 87.680, well above the weak-instrument threshold^[26]. The second-stage coefficient of Cross remains significantly negative, confirming that common ownership reduces the internal pay gap after addressing endogeneity.

Bartik Instrumental Variable.

To further address endogeneity, a Bartik (shift–share) IV is constructed following Goldsmith-Pinkham et al.^[27]. The share component is the firm’s initial common ownership level, and the shift component is the industry-average common ownership (excluding the focal firm) each year. This design combines firm-level historical exposure with exogenous industry-level variation.

Column (2) of Table 5 reports a Kleibergen–Paap rk Wald F-statistic of 4989.509, indicating strong instrument relevance. The second-stage coefficient of Cross is –0.191 and significant at the 1% level, suggesting that the negative relationship is robust and that baseline estimates may underestimate the governance effect.

5.5 Robustness Checks

To confirm the stability of the primary results and rule out potential biases arising from variable measurement, macroeconomic shocks, and sample selection, several additional tests are conducted. Table 6 summarizes these outcomes.

Table 6. Robustness Checks.

	(1)	(2)	(3)
	Dummy Var	Excl. 2020-2022	PSM Sample
Cross_Dum	-0.014* (-1.68)		
Cross		-0.037** (-2.11)	-0.028* (-1.81)
_cons	-2.115*** (-24.67)	-2.319*** (-18.35)	-1.763*** (-12.49)
Controls	Yes	Yes	Yes
N	39400	20028	11748
R ²	0.198	0.169	0.230
adj. R ²	0.198	0.167	0.227

Note: Robust t-statistics in parentheses. *, **, *** denote significance at the 10%, 5%, and 1% levels.

Alternative Measure of Common Ownership.

To address potential measurement concerns, an alternative proxy for common ownership is adopted. Specifically, a dummy variable (Cross_Dum) is constructed that equals 1 if a firm shares common institutional investors with other firms in the same industry in a given year, and 0 otherwise. This indicator captures the presence of common ownership rather than its intensity.

The first column of Table 6 demonstrates that the coefficient on Cross_Dum remains significantly negative, suggesting that even the presence of common ownership is associated with a reduction in the internal pay gap. This finding indicates that the baseline results are not sensitive to the measurement of the key explanatory variable.

Excluding Pandemic Years.

Major macroeconomic shocks may lead firms to temporarily adjust compensation policies. During the COVID-19 pandemic, many firms experienced severe operational disruptions and adopted measures such as executive pay cuts or employee furloughs^[28], which may distort compensation structures.

To mitigate this concern, observations from 2020 to 2022 are excluded and the baseline regression is estimated again. As reported in Column (2) of Table 6, the coefficient on Cross remains significantly negative, indicating that the main findings are not driven by pandemic-related compensation adjustments.

Propensity Score Matching (PSM).

Institutional investors may exhibit selection preferences by investing in firms with certain features, such as larger size or better governance, potentially leading to sample selection bias. To deal with this issue, a propensity score matching (PSM) approach is employed^[29].

Using the presence of common ownership (Cross_Dum) as the treatment variable and all control variables as covariates, firms are matched using 1:1 nearest-neighbor matching with a caliper of 0.05. Column (3) of Table 6 presents the regression results based on the matched sample. The coefficient on Cross remains significantly negative, confirming that the baseline results are robust after accounting for observable firm characteristics.

6 Further Analysis: Mechanism Tests

The baseline regressions and endogeneity tests show that common ownership significantly reduces the corporate internal pay gap. To further explore the transmission channels of this governance effect, this section examines the mechanisms suggested by the theoretical analysis.

Traditional stepwise mediation regressions may suffer from over-controlling and intermediate variable bias, which can introduce additional endogeneity. Following the recommendations of Jiang^[30] for mechanism analysis in causal inference studies, this paper focuses on testing whether common ownership affects the proposed mechanism variables directly.

Three mechanism variables are constructed as follows:

Type I Agency Costs (ATO): Following Ang et al.^[17], the asset turnover ratio is used as an inverse proxy. A higher value indicates greater operating efficiency and lower Type I agency costs.

Type II Agency Problems (Tunnel): Measured by the proportion of funds occupied by controlling shareholders, calculated as net other receivables divided by total assets. A larger value indicates more severe tunneling behavior.

Human Capital Structure (HumanCap): Following Bena et al.^[19], this variable measures the proportion of high-quality employees, defined as the ratio of personnel holding at least an undergraduate diploma (or R&D personnel) to the firm's overall employee headcount.

The regression results are presented in Table 7.

Table 7. Mechanism Analysis.

	(1)	(2)	(3)
	ATO	Tunnel	HumanCap
Cross	0.016** (2.21)	-0.004*** (-9.61)	0.034*** (6.89)
_cons	1.049*** (20.51)	0.010*** (2.78)	-0.016 (-0.47)
Controls	Yes	Yes	Yes
N	38732	39379	31274

R^2	0.212	0.138	0.289
adj. R^2	0.211	0.137	0.288

Note: Robust t-statistics in parentheses. *, **, *** denote significance at the 10%, 5%, and 1% levels.

6.1 Mechanism 1: Reducing Type I Agency Costs

The “quiet life hypothesis” suggests that, without effective monitoring, managers tend to avoid risk and effort, resulting in low operating efficiency^[16]. Column (1) of Table 7 examines whether common ownership affects firms’ Type I agency costs.

The coefficient of Cross is 0.016, significant at the 5% level, indicating that firms with stronger common ownership networks exhibit higher asset turnover. This suggests that common owners help discipline managerial slack and improve operating efficiency. As firm productivity improves, excess compensation arising from managerial slack is reduced, while employees benefit from performance-based income growth. As a result, the internal pay gap is narrowed. These results support the channel of reducing Type I agency costs.

6.2 Mechanism 2: Mitigating Type II Agency Problems

In China’s capital market, controlling shareholders may expropriate corporate resources through tunneling activities such as fund misappropriation^[31]. Such practices not only damage firm resources but also create opportunities for insiders to obtain hidden benefits, thereby widening the internal pay gap.

Column (2) of Table 7 tests whether common ownership restrains tunneling behavior. The coefficient of Cross is -0.004, significant at the 1% level, indicating that common ownership significantly reduces fund occupation by controlling shareholders. This suggests that common owners can effectively constrain tunneling through information advantages and coordinated monitoring. By limiting hidden benefit transfers, common ownership helps bring compensation distribution back into a more transparent and formal system, thereby narrowing the internal pay gap. The mitigation of Type II agency problems is therefore supported as a mechanism.

6.3 Mechanism 3: Human Capital Structure Upgrading

Beyond monitoring, common owners may also influence firms’ long-term development strategies. Prior research suggests that common owners tend to have longer investment horizons and can promote knowledge spillovers across firms^[1,2].

Column (3) of Table 7 examines whether common ownership promotes the upgrading of the human capital structure. The coefficient of Cross on HumanCap is 0.034, significant at the 1% level, indicating that common ownership is associated with a higher proportion of highly skilled employees.

An improved human capital structure can reduce the internal pay gap through two channels. First, the recruitment of highly educated or skilled workers raises the overall compensation level of ordinary employees. Second, knowledge-intensive organizations

tend to adopt flatter organizational structures, which enhance employees' bargaining power in compensation contracts. Together, these effects help narrow the internal pay gap. The human capital upgrading channel is therefore confirmed.

7 Conclusions and Policy Implications

7.1 Conclusions

Using a panel of Chinese A-share listed companies from 2012 to 2024, this paper investigates the impact of common ownership on the corporate internal pay gap. The results demonstrate that a denser common ownership network significantly reduces the pay gap between executives and ordinary employees. By overcoming the free-rider problem, common ownership serves as an effective external governance mechanism that strengthens the monitoring of managerial power. These findings remain robust against endogeneity and robustness tests, including propensity score matching (PSM), the exclusion of pandemic years, and instrumental variable estimations (provincial mean and Bartik).

Mechanism analyses reveal that common ownership narrows the pay gap via three pathways: reducing Type I agency costs by constraining managerial slack, mitigating Type II agency problems by suppressing controlling shareholders' tunneling behaviors, and promoting the upgrading of human capital structures. Furthermore, heterogeneity tests indicate that this governance effect is maximally realized within firms with high internal control quality, a lack of analyst coverage, and stronger ownership checks and balances.

7.2 Policy Implications

These findings offer practical implications for corporate governance and fair income distribution: First, regulators should encourage the development of long-term institutional investors, allowing them to build cross-firm networks that generate governance synergies^[32]. Simultaneously, regulators could strengthen look-through disclosure rules for complex ownership structures to prevent potential collusion. Second, listed companies should improve internal controls and transparency to lower external monitoring costs. Firms with highly concentrated ownership should actively introduce institutional investors to enhance equity checks and balances, thereby reducing the risk of management-shareholder collusion. Third, common owners must actively fulfill their governance roles rather than remaining passive. By utilizing their professional expertise to participate in voting and management engagement^[33], they can protect employee and minority shareholder interests, particularly in firms where external analyst monitoring is limited.

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