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Safety-First Pension Funds, Governance, and Market Risk: Evidence from China's A-Share Market

Yun'e Xie*

Hebei Oriental University, Langfang 065001, China

**Corresponding author: Yun'e Xie.*

Abstract

This paper examines how Chinese public pension funds affect corporate governance and market risk in a state-capitalist setting. Using A-share firms from 2015 to 2024, we show that pension funds display an ESG screening effect ex ante and are followed by higher post-investment ESG scores. The effect, however, is concentrated in the governance pillar and is more than twice as large in SOEs as in private firms. Despite these governance gains, pension ownership is not associated with lower stock-return volatility. We interpret this pattern as governance-risk decoupling: pension funds appear to promote visible, compliance-oriented governance upgrades, but their small stakes and the retail-dominated market limit their ability to stabilize prices. The findings refine the universal-owner view by showing that, in transitional economies, state-backed patient capital may function more as administrative legitimacy than as a direct mechanism of market-risk reduction.

Keywords

public pension funds, ESG, symbolic management, governance-risk decoupling, state capitalism, China A-share market

1. Introduction

In sustainable finance, institutional investors are often viewed as stewards that internalize externalities and reduce portfolio risk through long-horizon monitoring [1, 2, 3, 4]. That logic is less straightforward in China's A-share market, where concentrated ownership, state influence, and weaker investor protection shape firm behavior [5, 6, 7]. Chinese public pension funds are especially informative because they combine market participation with a Safety-First mandate centered on asset safety and value preservation [8, 9].

We argue that these funds operate less as conventional market disciplinarians than as carriers of administrative legitimacy. Because their holdings are extremely small, their influence is unlikely to come from voting power alone. Instead, pension-fund entry may signal official scrutiny or policy relevance, encouraging managers—especially in SOEs—to strengthen visible governance practices and regulatory compliance rather than undertake deeper changes in risk structure [10, 11, 12, 13].

Using Chinese A-share firms from 2015 to 2024, we document governance-risk decoupling. Pension funds are more likely to hold firms with stronger prior ESG performance, and pension ownership is followed by higher ESG scores. Yet the post-investment effect is concentrated in governance: we find no comparable

improvement in E or S, and the G effect is more than twice as large in SOEs as in private firms. This pattern differs from the conventional ESG-risk literature, which predicts that better governance should lower volatility [14, 15, 16, 17, 18].

The average pension stake in our sample is only about 0.05%, too small to support a standard monitoring story based on concentrated ownership or activism [19, 20]. We therefore interpret the governance response as largely symbolic and compliance-oriented: firms can quickly improve disclosure routines, board procedures, and internal controls that are visible to regulators, even if those changes do not materially alter market risk.

Consistent with this interpretation, pension ownership does not significantly reduce future stock-return volatility. Chinese public pension funds thus appear to generate regulatory safety more readily than market safety.

This paper contributes in three ways. First, it refines the universal-owner perspective by showing that patient capital in a state-capitalist system may operate through administrative signaling rather than market discipline [1, 3, 4]. Second, it identifies state-sector heterogeneity: SOEs respond far more strongly than private firms, consistent with their greater sensitivity to politically salient investors [6, 7, 21]. Third, it shows that visible governance improvement and substantive market-risk reduction can diverge in transitional economies [10, 12].

2. Literature Review

2.1 Institutional Investors, Public Pension Funds, and Corporate Governance in China

Institutional investors are often seen as external monitors, but their effectiveness depends on incentives, horizons, ownership concentration, and legal protection [19, 22]. In China, monitoring takes place in an environment of concentrated ownership, controlling-shareholder power, and relatively weak minority-investor protection, so political connections and administrative hierarchy matter alongside equity stakes [5, 6, 7, 21, 23]. This is especially relevant for public pension funds, which combine a long horizon with a prudential public mandate and typically small holdings. Their presence may therefore operate as both an investment decision and a reputational or administrative signal, especially for SOEs. Recent evidence suggests that institutional shareholders can improve ESG outcomes in China, but the strength and substance of the effect remain context dependent [24].

2.2 ESG Performance, Governance Quality, and the Conventional Expectation of Risk Reduction

A broad literature links ESG performance to firm value, financing conditions, and risk. Nonfinancial disclosure can lower the cost of equity, and sustainability performance seems most relevant when it concerns financially material issues [25, 26, 27]. For governance in particular, the key mechanism is information opacity: when disclosure is poor and bad news is hoarded, firms become more vulnerable to volatility [28, 29]. Consistent with this view, stronger ESG or CSR performance is associated with lower downside risk in several settings, including China, and ESG engagement can also mitigate risk [14, 15, 16, 17, 18, 30, 31]. For public pension funds, this literature implies both ex ante screening for better ESG firms and post-investment pressure for further improvement.

2.3 Symbolic Management, State Capitalism, and Governance-Risk Decoupling

A more skeptical perspective comes from symbolic management and institutional decoupling. Organizations may adopt formal structures to gain legitimacy without substantially changing operating practices [10]. In governance settings, firms often implement visible reforms that satisfy outside audiences while leaving core incentives intact [11, 12]. This concern is especially salient in China, where firms respond not only to markets but also to regulators and politically salient investors. Governance indicators are comparatively easy to standardize, disclose, and verify, so they are well suited to legitimacy-oriented adjustment. Related work on CSR reporting in China similarly shows that sustainability disclosure can serve as symbol or substance depending on institutional context [32].

2.4 Research Gap and Hypotheses Development

These literatures generate competing expectations. One predicts that long-horizon institutional investors and stronger ESG performance should improve governance and reduce downside risk; the other suggests that visible governance reform in a state-dominated market may remain partly symbolic [10, 12, 15, 25, 31, 32]. Existing work has rarely integrated these perspectives for Chinese public pension funds, which combine a prudential mandate with operation in a politically structured market [6, 7, 8]. We therefore ask whether pension funds screen on ESG, whether their influence is concentrated in G rather than E and S, and whether any governance gains translate into lower stock-return volatility.

3. Institutional Background and Hypotheses Development

3.1 The "Safety-First" Mandate and Risk Screening

Chinese public pension funds invest under a Safety-First mandate that stresses market-based operation, diversification, asset safety, and value preservation [8]. In an information-friction environment, this mandate gives managers reason to prefer firms with stronger ESG profiles, which prior research associates with lower risk and a better information environment [14, 15, 16, 17, 18, 30, 33]. We therefore expect an ex ante screening effect.

H1: Pension funds are more likely to hold firms with higher initial ESG performance (the screening effect).

3.2 Administrative Legitimacy and Governance Signaling

Traditional investor influence is usually framed in terms of voting, engagement, or exit, but these channels are constrained here by tiny ownership stakes. In China's state-capitalist system, pension-fund entry may instead serve as a signal of administrative legitimacy. Because SOE managers are embedded in political evaluation and personnel systems, they are especially likely to respond to such signals by strengthening visible governance arrangements—disclosure rules, board procedures, and internal compliance—rather than by making slower, costlier changes in E or S. Recent Chinese evidence that institutional investors can affect ESG outcomes through site visits and other information channels is consistent with this view [6, 7, 21, 34].

H2: Pension fund ownership is positively associated with the Governance (G) scores of portfolio firms, and this effect is significantly stronger in state-owned enterprises (SOEs).

3.3 The Governance-Risk Decoupling

The crucial question is whether these governance gains amount to real market stabilization. Under the standard opacity channel, better governance should reduce bad-news hoarding and therefore lower volatility [15, 28, 29]. But symbolic-management theory predicts that firms may adopt monitorable, politically legible reforms without changing underlying risk drivers [10, 11, 12, 32]. Given the tiny pension holdings and the importance of noise trading in China's market, we expect visible governance improvement without a statistically meaningful decline in subsequent volatility [35].

H3: Pension fund ownership is positively associated with formal governance improvement, but not with a statistically significant reduction in subsequent stock-return volatility (the governance-risk decoupling hypothesis).

4. Research Design

4.1 Sample Selection and Data Source

We study Chinese A-share listed firms from 2015 to 2024. The sample begins in 2015 because the State Council issued the Measures for the Administration of Investment of Basic Pension Insurance Funds in August 2015, which established the regulatory framework for the entrusted investment of provincial basic pension insurance fund balances. Actual entrusted operation began in December 2016, so the early years of the sample capture the institutional transition surrounding policy rollout rather than the first appearance of public pension capital in equities. This distinction matters because the National Social Security Fund had already been

permitted to invest in listed stocks and securities investment funds under the 2001 interim rules [8]. Pension holdings are manually collected from the "Top Ten Shareholders" and "Top Ten Tradable Shareholders" sections of annual and semiannual reports in CSMAR. Our measure captures publicly disclosed holdings attributable to the National Social Security Fund and, where separately identifiable, basic pension insurance funds. We do not include enterprise annuity accounts or other supplementary pension arrangements, because the theoretical mechanism in this paper concerns state-backed public pension capital and its visibility-based legitimacy effects.

ESG data come from the Huazheng (Sino-Securities) ESG database, which is widely used in Chinese ESG research and, crucially, provides both a composite score and separate E, S, and G pillars [16, 18, 36]. We exclude ST and *ST firms, exclude financial firms, drop observations with missing key variables, and winsorize continuous variables at the 1st and 99th percentiles. The final sample contains 19,179 firm-year observations.

4.2 Variable Definitions

4.2.1 Dependent Variables

Our outcomes fall into three groups. For ESG responses, we use the Huazheng composite ESG score and the E, S, and G pillar scores. The pillar decomposition is central to the paper because the theory predicts a concentrated governance response rather than symmetric improvement across ESG dimensions.

For market consequences, we examine future annualized stock-return volatility and, in robustness tests, crash-risk measures, following the bad-news-hoarding literature [15, 18, 28, 29]. We also report ROE as a supplementary accounting outcome.

4.2.2 Independent Variable

The key explanatory variable is Pension_Ratio, defined as the year-end shareholding ratio of publicly disclosed public pension funds in listed firms' shareholder lists, specifically holdings attributable to the National Social Security Fund and, where separately identifiable, basic pension insurance funds. Because the mechanism in this paper is visibility based, disclosed rather than hidden exposure is the theoretically relevant measure. Enterprise annuity accounts and other supplementary pension arrangements are excluded from this measure.

4.2.3 Control Variables

Control variables follow the ESG, crash-risk, and Chinese corporate-governance literature and include firm size, leverage, ROE, Tobin's Q, SOE status, and analyst coverage [7, 15, 16, 29]. These variables capture differences in fundamentals, information environment, and political sensitivity. Unless otherwise stated, regressions include fixed effects and firm-clustered standard errors.

4.3 Empirical Models

4.3.1 Testing the Screening Effect (H1)

To test H1, we regress *Pension_Ratio* on lagged *ESG_Score* with industry and year fixed effects. A positive coefficient on *L.ESG_Score* indicates that pension funds screen toward firms with stronger prior ESG performance.

$$Pension_{i,t}=\alpha_0+\beta_1 ESG\_score_{i,t-1}+\gamma Controls_{i,t-1}+\lambda_j+\delta_t+\epsilon_{i,t} \quad (1)$$

4.3.2 Testing the Governance Watchdog Effect (H2)

To test H2, we regress future ESG outcomes on lagged pension ownership, alternating the dependent variable across the composite ESG score and the three pillar scores. A positive coefficient for G, especially without comparable effects for E or S, is consistent with administrative-legitimacy-based governance upgrading. Firm and year fixed effects are included.

$$Score_{i,t}=\alpha_0+\beta_1 Pension_{i,t-1}+\gamma Controls_{i,t}+\mu_i+\delta_t+\epsilon_{i,t} \quad (2)$$

4.3.3 Testing Economic Consequences (H3)

To test H3, we regress future volatility on lagged pension ownership. Under the governance-risk decoupling hypothesis, the key prediction is that pension ownership improves formal governance but does not have a statistically significant negative effect on subsequent volatility. ROE is reported only as a supplementary accounting outcome. Under the governance-risk decoupling hypothesis, the key prediction is that pension ownership improves formal governance but does not have a statistically significant negative effect on subsequent volatility.

$$Outcome_{i,t+1}=\alpha_0+\beta_1 Pension_{i,t-1}+\gamma Controls_{i,t}+\mu_i+\delta_t+\epsilon_{i,t} \quad (3)$$

4.4 Endogeneity Strategy: Propensity Score Matching (PSM)

Selection is an important concern because pension funds invest in only a small subset of A-share firms. We therefore implement propensity score matching following Rosenbaum and Rubin [37].

Using firm size, leverage, Tobin's Q, and SOE status, we estimate the probability of pension investment and match treated firms to untreated firms through 1:3 nearest-neighbor matching. We then re-estimate the post-investment ESG regressions on the matched sample to assess whether the governance-related results survive observable balancing.

5. Empirical Results Analysis

5.1 Descriptive Statistics

Table 1 summarizes the sample. *Pension_Ratio* has a mean of 0.0536% and a median of zero, showing that pension participation is highly concentrated and that typical holdings are too small to imply strong control rights. The descriptive statistics also show higher average G than E scores, which is consistent with the idea that governance practices are easier to standardize and document than deeper operational change [19, 20].

Table 1: Descriptive Statistics

Variable	N	Mean	SD	Min	Median	Max
Pension_Ratio	19,179	0.0536	0.2656	0.0000	0.0000	1.8138
ESG_Score	19,179	74.31	5.33	56.51	74.27	86.77
G_Score	19,179	79.54	5.95	19.60	80.47	97.33
E_Score	19,179	62.83	7.96	31.08	62.02	92.30
S_Score	19,179	77.62	8.26	9.77	78.17	100.00
Size	19,179	22.74	1.31	20.07	22.54	26.39
Leverage	19,179	0.4184	0.1910	0.0558	0.4145	0.8938
ROE	19,179	0.0799	0.1123	-0.6393	0.0831	0.3614
TobinQ	19,179	2.3584	1.6686	0.8130	1.8370	10.8681
Volatility	19,179	0.4422	0.1279	0.1928	0.4350	2.1252
Analyst_Log	19,179	2.0042	0.9052	1.0000	2.0000	4.0000
SOE	19,179	0.3001	0.4583	0.0000	0.0000	1.0000

Notes: This table presents descriptive statistics for the final sample of Chinese A-share listed firms from 2015 to 2024. The final sample contains 19,179 firm-year observations. Detailed variable definitions are reported in Appendix A.

5.2 Pension Fund ESG Allocation Preference (Testing H1)

Table 2 supports H1. The coefficient on *L.ESG_Score* is positive and significant ($\beta = 0.0019$, $t = 3.41$), indicating that pension funds tilt toward firms with stronger prior ESG performance. This pattern is consistent with prudent screening under a Safety-First mandate. The SOE coefficient is also positive and significant, suggesting state-sector affinity in portfolio allocation, although that result may reflect several channels, including lower political uncertainty and greater institutional compatibility [5, 6, 7].

5.3 Baseline Post-Investment ESG Response (Initial Test of H2)

Table 3 shows that lagged pension ownership is positively associated with subsequent ESG scores ($\beta = 0.4761$, $t = 2.16$). This result suggests a post-investment response, but it does not by itself identify the relevant ESG dimension. Given the tiny average holding, the estimate is more consistent with visible but limited influence than with strong ownership-based intervention [19, 20, 24, 34].

Table 2: Pension Fund Preference (Testing H1)

Variable	(1) Pension_Ratio
L.ESG_Score	0.0019***
	(3.41)
Size	-0.0066**
	(-2.15)
Leverage	-0.0104
	(-0.57)
TobinQ	0.0023
	(1.34)
SOE	0.0390***
	(4.43)
Year FE	Yes
Observations	19,179
R-squared	0.0127

*Notes: The dependent variable is Pension_Ratio. The main independent variable is L.ESG_Score (lagged one year). The regression includes Industry and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.*

Table 3: Baseline Post-Investment ESG Response

Variable	(1) ESG_Score
L.Pension_Ratio	0.4761**
	(2.16)
Size	1.9029***
	(8.68)
Leverage	-6.7594***
	(-9.51)
TobinQ	-0.1524***
	(-3.30)
SOE	0.0828
	(0.18)
Firm FE	Yes
Year FE	Yes
Observations	19,179
R-squared (Within)	0.0374

*Notes: The dependent variable is the ESG composite score (ESG_Score). The key independent variable is the one-year lagged pension fund ownership ratio (L.Pension_Ratio). All models include Firm and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.*

At the same time, the interpretation of this result requires care. The average pension stake in the sample is extremely small, which makes a conventional control-rights explanation less persuasive. It is therefore difficult to attribute the ESG response to strong ownership-based intervention of the type usually associated with concentrated institutional monitoring [19, 20]. A more plausible reading is that even small but publicly visible pension positions can induce firms to respond in ways that improve observable ESG metrics. This interpretation is consistent with recent Chinese evidence showing that institutional investors can affect firms' ESG-related outcomes, although the precise transmission channels may vary across settings [24, 34].

Importantly, Table 3 should be read as a baseline reduced-form result. It establishes that pension ownership is associated with higher subsequent ESG performance, but it does not by itself identify which ESG pillar drives that effect. This distinction matters for the argument of this paper. Our theory predicts that the post-investment response should be concentrated in governance rather than evenly distributed across E, S, and G, and that the governance response should be stronger in SOEs. Those sharper tests are conducted in the next chapter through pillar-level decomposition and ownership heterogeneity analysis.

5.4 Economic Consequences: Profitability and Risk Exposure (Testing H3)

The core test of Hypothesis 3 concerns whether pension-fund-related governance improvement translates into lower subsequent market risk. In line with the research design set out earlier, the main outcome for H3 is future stock return volatility, while ROE is treated as a supplementary accounting outcome.

The central H3 test appears in Table 5. The coefficient on L.Pension_Ratio is negative but statistically insignificant (β = -0.0047, t = -1.46), so pension ownership does not measurably reduce future stock-return volatility. This null result contrasts with the conventional ESG-risk view, under which better governance should improve transparency and lower downside risk [15, 16, 17, 18, 28, 29].

Table 4 provides supplementary evidence on profitability. *L.Pension_Ratio* is also insignificant in the ROE regression (β = -0.0028, t = -0.90), suggesting no detectable short-run operating effect. Taken together, the evidence supports governance-risk decoupling: pension ownership is associated with visible governance-oriented adjustment, but not with statistically significant improvements in market stabilization or near-term profitability [10, 12, 32].

Table 4: Impact on Corporate Profitability

Variable	(1) ROE
L.Pension_Ratio	-0.0028
	(-0.90)
Size	0.0778***
	(14.33)
Leverage	-0.2941***
	(-13.45)
TobinQ	0.0218***
	(21.77)
SOE	-0.0175
	(-1.52)
Firm FE	Yes
Year FE	Yes
Observations	19,179
R-squared (Within)	0.0747

*Notes: The dependent variable is Return on Equity (ROE). The key independent variable is the one-year lagged pension fund ownership ratio (L.Pension_Ratio). All models include Firm and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.*

Table 5: Impact on Stock Price Volatility

Variable	(1) Volatility
L.Pension_Ratio	-0.0047
	(-1.46)
Size	-0.0253***
	(-6.47)
Leverage	0.1084***
	(8.07)
TobinQ	0.0246***
	(18.48)
SOE	0.0061
	(0.74)
Firm FE	Yes
Year FE	Yes
Observations	19,179
R-squared (Within)	0.0816

*Notes: The dependent variable is annualized stock return volatility (Volatility). The key independent variable is the one-year lagged pension fund ownership ratio (L.Pension_Ratio). All models include Firm and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.*

6. Mechanism and Heterogeneity Analysis

The baseline results imply a decoupled pattern: pension ownership raises observed ESG scores without reducing volatility. We therefore examine whether the effect is concentrated in governance, whether it varies by ownership type, whether it operates through analyst attention, and whether it survives matching.

6.1 Pillar Decomposition and State-Sector Heterogeneity

Table 6 shows that the post-investment ESG response is concentrated in governance. *L.Pension_Ratio* is insignificant for E and S, but positive and highly significant for G (β = 0.9577, t = 4.59). This asymmetry fits the argument that governance practices are more visible, standardized, and easier to adjust quickly than environmental or social outcomes, making them especially suitable for legitimacy-oriented responses [10, 12, 32].

The ownership split sharpens the result. Pension ownership is positively related to G in both private firms and SOEs, but the coefficient is much larger in SOEs (1.2889 versus 0.4853). Because holdings are small in both subsamples, this gap is difficult to explain by financial monitoring alone and is more consistent with stronger responsiveness to state-backed signals inside the state sector [6, 7, 21]. These results support H2.

Table 6: Mechanism and Heterogeneity – Decomposing ESG and Ownership Structure

Variable	E_Score	S_Score	G_Score	(4) G_Score	(5) G_Score
Sample	Full	Full	Full	Private (Non-SOE)	State-Owned (SOE)
L.Pension_Ratio	-0.1347	0.1033	0.9577***	0.4853**	1.2889***
	(-0.40)	(0.31)	(4.59)	(2.18)	(3.60)
Size	1.9490***	1.8615***	1.7927***	1.4828***	1.5029***
	(5.64)	(5.31)	(7.37)	(5.38)	(3.18)
Leverage	-4.3359***	-1.2495	-10.105***	-10.242***	-9.6737***
	(-4.12)	(-1.11)	(-12.44)	(-11.18)	(-6.01)
TobinQ	-0.2454***	0.0705	0.0563	0.1143**	-0.13
	(-3.58)	(1.02)	(1.11)	(1.99)	(-1.16)
SOE	-0.0494	0.2978	0.3486	-	-
	(-0.07)	(0.72)	(0.62)	-	-
Observations	19,179	19,179	19,179	13,424	5,755
R-squared (Within)	0.068	0.0347	0.0258	0.0332	0.0094
Firm FE	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes

*Notes: This table reports post-investment ESG regressions by pillar and ownership type. Columns (1)–(3) use E_Score, S_Score, and G_Score as the dependent variables, respectively. Columns (4) and (5) report G_Score regressions for private firms and SOEs, respectively. The regression includes Firm and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.*

6.2 Limited Evidence of a Spotlight Effect

A potential alternative explanation is a spotlight effect: pension ownership may attract analyst attention and thereby improve behavior through greater outside scrutiny. Table 7 provides little support for this mechanism. Although the coefficient on *L.Pension_Ratio* is positive, it is statistically insignificant (β = 0.0373, t = 1.37), suggesting that pension entry does not systematically expand analyst coverage. This does not rule out all forms of external attention, but it weakens the view that the governance effect mainly reflects an analyst-attention channel.

Table 7: Limited Evidence of a Spotlight Effect

Variable	(1) Analyst_Log
L.Pension_Ratio	0.0373
	(1.37)
Controls	Yes
Firm FE	Yes
Year FE	Yes
Observations	19,179
R-squared (Within)	0.0002

*Notes: The dependent variable is the natural logarithm of analyst coverage (Analyst_Log). The key independent variable is the one-year lagged pension fund ownership ratio (L.Pension_Ratio). All models include Firm and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.*

6.3 Robustness Check: Propensity Score Matching (PSM)

We next address observable selection with propensity score matching. Treated firms are matched to untreated firms using 1:3 nearest-neighbor matching on firm size, leverage, Tobin's Q, and SOE status [37].

Table 8 shows that the positive post-investment ESG association remains in the matched sample ($\beta = 0.5124$, $t = 2.31$; 11,204 observations). Because the matched regression uses the composite ESG score, it confirms the baseline post-investment effect rather than the G-specific mechanism by itself. Read together with Table 6, however, the evidence still supports a governance-centered and state-contingent response that is robust to observable selection.

Table 8: Robustness Check – Propensity Score Matching (PSM)

Variable	(1) ESG_Score
L.Pension_Ratio	0.5124**
	(2.31)
Controls	Yes
Firm FE	Yes
Year FE	Yes
Observations (Matched)	11,204
R-squared (Within)	0.0392

*Notes: This table presents the robustness check using a Propensity Score Matching (PSM) sample. We employ a 1:3 nearest-neighbor matching based on firm size, leverage, Tobin's Q, and SOE status to construct a control group. The dependent variable is the ESG composite score (ESG_Score). All models include Firm and Year fixed effects. T-statistics based on robust standard errors clustered at the firm level are reported in parentheses. ***, **, and * denote statistical significance at the 1%, 5%, and 10% levels, respectively.*

7. Conclusion and Implications

This paper studies Chinese public pension funds as state-backed long-horizon investors in a state-capitalist market. Using A-share firms from 2015 to 2024, we find three main results: pension funds screen toward firms with stronger prior ESG performance; pension ownership is followed by higher subsequent ESG scores, but the effect is concentrated in governance and is much stronger in SOEs; and these governance gains are not accompanied by statistically significant declines in volatility or short-run ROE. The overall pattern is consistent with governance-risk decoupling.

These findings qualify the universal-owner view. In this setting, the average disclosed pension stake is too small to support a strong control-rights interpretation [19, 20]. The evidence instead suggests that pension ownership works partly through administrative legitimacy and public visibility. For SOEs in particular, pension entry may signal political salience and induce more formal, compliance-oriented governance responses than deep changes in the underlying drivers of risk [7, 10, 12].

The study contributes by linking institutional investment, Chinese corporate governance, and symbolic management. It shows that state-backed patient capital does not necessarily operate like market-driven institutions, that ownership type conditions firm responses, and that better formal governance scores need not imply lower market risk.

The policy implication is that regulators and pension managers should not treat high governance scores as sufficient evidence of effective risk control. Evaluation frameworks may need to complement process-based metrics with outcome-based measures such as realized volatility, downside exposure, and drawdown resilience. For firms, especially SOEs, visible governance compliance may attract state-backed long-horizon capital, but it is unlikely to reduce market risk without deeper improvements in disclosure quality, internal controls, and operating practice.

Several limitations remain. The design is observational despite the use of lagged regressions and PSM; our ownership measure captures publicly disclosed rather than total exposure; ESG ratings may register formal compliance more readily than deep governance quality; and the paper cannot directly observe informal engagement or administrative coordination. Future research can exploit quasi-natural experiments, examine tail-risk outcomes in more detail, and compare pension funds with insurers, mutual funds, and foreign institutions.

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Conflicts of Interest

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