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Does Mixed-Ownership Reform Catalyzes High-Quality Enterprise Development? Evidence from China

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Abstract: The high-quality development of a nation's economy fundamentally relies on the high-quality development of every micro-enterprise. As a critical institutional innovation in China's economic system, clarifying the relationship between mixed-ownership reform and corporate high-quality development is essential. This study empirically examines the impact of mixed-ownership reform on enterprise high-quality development using 2013–2023 Chinese A-share listed companies as the sample. Research findings demonstrate that mixed-ownership reform promotes enterprise high-quality development, while ownership concentration exerts an inhibitory effect. Further analysis reveals that the marginal benefits of mixed-ownership reform on enterprise high-quality development are stronger in private-owned enterprises； Mixed-ownership reform improves corporate performance by inhibiting corporate financialization. These discoveries provide valuable insights for deepening the understanding of mixed-ownership reform.

Keywordt: Mixed-ownership reform; High-Quality Enterprise Development; Firm performance; State-owned enterprise

1. Introduction

The CPC Central Committee Decision on Further Comprehensively Deepening Reforms to Advance Chinese Modernization (hereinafter "the Decision") unequivocally identifies high-quality development as the paramount task in fully building a modern socialist country. Its essence lies in establishing effective incentive-constraint mechanisms through deepened SOE reforms and improved private enterprise governance. The Decision emphasizes that the institutional core of current reforms rests on "unswerving consolidation of both public and

non-public sectors"—advancing synergistic development between state and private economies. This constitutes the foundation for a high-standard socialist market economy and the fundamental objective of mixed-ownership reform.

The Third Plenum of the 18th CPC Central Committee positioned hybrid ownership as an "essential manifestation of the basic economic system." Subsequent guidelines (Implementation Opinions on Supporting Private Enterprises' Accelerated Reform, Development, and Transformation) institutionalized "two-way hybrid reform" arrangements. As a pivotal institutional innovation in China's economic restructuring, hybrid reform has evolved from unidirectional SOE restructuring ("grasping the large, releasing the small") to bidirectional institutional embedding—fundamentally designed to integrate heterogeneous shareholders for resource fusion and complementary advantages. This deep state-private capital integration (hereafter "state-private integration") forms the core mechanism driving enterprise high-quality development.

China's pursuit of high-quality economic development finds its micro-foundations in enterprise transformation, where mixed-ownership reform serves as a pivotal institutional vehicle for integrating state and private capital. This study examines how such reform reshapes corporate development trajectories, analyzing 2013–2023 A-share listed firms through three lenses: presence of state shareholders, depth of heterogeneous ownership integration, and concentration of equity control. Empirical evidence robustly confirms that reform participation and ownership diversity significantly enhance high-quality development metrics, whereas heightened ownership concentration exerts substantial suppression—effects particularly pronounced in private enterprises due to administrative constraints within state-owned entities.

Most of the existing studies confirms that during state-private integration, heterogeneous capital fusion alleviates internal agency conflicts through external media oversight[1] and employee board chair, thereby enhancing internal control quality[2]. Also, some research confirms that agency costs increase as the parties become less cost conscious, and inefficiency tends to be the result[3], which directors deepen equity checks-and-balances. Through two-way hybrid reform, non-state capital (private/foreign) participates in SOEs' internal governance, resolving issues like excessive agency costs, policy burdens, and weak oversight. Concurrently, regulatory bodies (SASAC, audit, finance departments) impose multi-level supervision on private enterprises, compelling them to establish sustainable internal control systems. Ultimately, state-private integration introduces high-quality capital to optimize governance structures, achieving oversight equilibrium and process reengineering[4] . This transforms static ownership fusion into dynamic risk control capabilities, reducing agency costs while strengthening risk resilience—collectively advancing high-quality development.

These findings illuminate the dualistic nature of ownership restructuring: while capital integration unlocks synergistic gains, unchecked power consolidation undermines its potential. For policymakers, this underscores the urgency of sector-specific reform calibrations—establishing state-capital safeguards in public domains while optimizing governance flexibility. For corporate leaders, embracing state-private collaboration emerges as a strategic imperative to harness policy advantages and dismantle institutional barriers, ultimately translating reform dividends into sustainable advancement.

2. Theoretical analysis and research hypotheses

2.1. Mixed-ownership reform and High-Quality Development of enterprise

Mixed-ownership reform fundamentally reconstitutes capital bargaining dynamics and resource integration beyond equity diversification. Extant empirical focus on superficial dimensions—state shareholding presence and ownership diversity—yields contradictory findings: while confirming performance gains in some contexts[5–7], it fails to alleviate policy burdens in state-owned enterprises (SOEs) and may even incentivize tunneling behaviors[8]. These paradoxes suggest reform efficacy hinges not on ownership heterogeneity per se, but on synergistic resource alignment and governance innovation.

The ownership rationalization dimension redefines corporate governance through state-private equilibrium. Introducing private capital into SOEs mitigates institutional path dependency, whereas state participation in private-owned enterprises (POEs) dismantles market access barriers and alleviates financing constraints via signaling effects. Critically, heterogeneous capital forms an inverted U-shaped monitoring relationship that simultaneously constrains majority shareholders' expropriation risks and bureaucratic intervention.

Complementary resource reallocation mechanisms suppress value-destructive investments: SOEs reduce policy-driven overinvestment while POEs curb financial arbitrage, collectively redirecting capital toward productive assets[9]. When resource misallocation exceeds tolerance thresholds, it conversely compels effective ownership integration—establishing self-reinforcing governance cycles that optimize capital efficiency.

Hypothesis 1. Mixed-ownership reform significantly promotes corporate high-quality development through the integrated four-dimensional framework of ownership rationalization, resource allocation efficiency, profit-sharing incentives, and internal control optimization.

2.2. The Mechanism of Mixed-ownership reform and firm performance

The core of high-quality enterprise development lies in improving resource allocation and utilization efficiency. Mixed-ownership reform operates through dual pathways: "equity diversification" and "resource integration." When private enterprises undergo control transfer to state-owned controlling entities, the state controller reduces financialization levels by providing richer resources and imposing stricter supervision. First, post-reform private enterprises gain enhanced trust from external investors and banks, broadening financing channels and alleviating constraints. State shareholders' financing advantages increase cash flow abundance, boosting confidence in real-sector investments while weakening incentives for financial asset allocation[10]. Second, mixed-ownership reform constrains financial speculation. Under signaling theory, reform releases positive market signals attracting substantial external scrutiny (media/analysts). State shareholders' participation comprehensively improves internal governance, reducing Type II agency problems and curbing controlling shareholders' opportunistic behaviors. This effectively suppresses financialization, refocusing enterprises on core business priorities to achieve high-quality development.

Hypothesis 2. Mixed-ownership reform promotes high-quality development of enterprises

by curbing their financialization.

3. Research design

3.1. Data

The A-shares of all companies listed on the Shanghai exchanges from 2013 to 2023 were selected as the research sample. Data on the categories of shareholders were derived from the RESSET database, while other data were derived from the CSMAR database. The year 2013 was selected as the empirical inception point, coinciding with the Third Plenum's Decision on Comprehensively Deepening Reforms—a policy watershed that institutionalized national-private integration.

To screen the initial sample, this study referred to the data screening methods of most existing literature, including the specific exclusion of financial companies. Additional considerations in this study involved:

(1) Excluding Special Treatment (ST) companies, which are officially identified as experiencing exceptionally bad performance or were subject to an accident of some sort.

(2) Excluding companies that have been listed for less than two years.

(3) Excluding insolvent companies and samples with missing variables.

Additionally, the methods of exiting literature were used to remove all observed values higher than 99% and lower than 1% to eliminate the impact of extreme variables on the current analysis. After the above exclusions, we obtained the observation values of 13,418 samples (i.e., 46 industries, 1,640 companies in total, 554 state-owned companies and 1,209 private-owned companies).

3.2. Variables

Companies' high-quality development (HQD). To measure the *HQD* index, this study integrates the conceptualization articulated in key CPC and State Council policy directives with established research paradigms. We construct a composite *HQD* metric through principal component analysis (PCA), evaluating two dimensions:

(1) Resource Utilization Capacity: total asset turnover, ROA, ROE, operating profit margin, core business profit margin, current asset turnover, total asset growth rate, net profit growth rate, total assets, employee count, sustainable growth rate, R&D intensity ratio, intangible assets ratio, intangible assets growth rate.

(2) Corporate Governance Capacity: Proportion of independent directors, internal control index.

Ten principal factors were extracted with cumulative variance contribution exceeding 90% (91.32% total). The definition and measurement of indicators for high-quality enterprise development are listed in Table 1.

Table 1. Indicators for high-quality enterprise development

First - level Indicator	Second - level Indicator	Third - level Indicator	Indicator Explanation

Resource Utilization Capacity	Enterprise Operational Capacity	Total Asset Turnover	Operating Income / Ending Balance of Total Assets
		ROA	Net Profit / Ending Balance of Total Assets
		ROE	Net Profit / Balance of Shareholders' Equity
		Net Operating Margin	Net Profit / Operating Income
		Main Business Profit Margin	(Operating Income - Operating Cost) / Total Profit
		Current Asset Turnover	Operating Income / Ending Balance of Current Assets
		Total Asset Growth Rate	(Ending Balance of Total Assets in Current Year - Ending Balance of Last Year) / Ending Balance of Total Assets of Last Year
		Net Profit Margin Growth Rate	(Ending Balance of Net Profit in Current Year - Ending Balance of Last Year) / Ending Balance of Net Profit of Last Year
		Total Assets	Natural logarithm of the ending balance of assets
		Number of Employees	Natural logarithm of the ending number of employees
		Sustainable Growth Rate	(Net Profit Margin on Sales × Total Asset Turnover × Profit Retention Rate × Equity Multiplier) / (1 - Net Profit Margin on Sales × Total Asset Turnover × Profit Retention Rate × Equity Multiplier)
	Enterprise Innovation Capacity	R & D Investment Ratio	R & D Investment / Operating Income
		Intangible Asset Ratio	Ending Balance of Intangible Assets / Ending Balance of Total Assets
		Intangible Asset Growth Rate	(Ending Balance of Intangible Assets in Current Year - Ending Balance of Last Year) / Ending Balance of Intangible Assets of Last Year
Corporate Governance Capacity	Enterprise Governance Level	Proportion of Independent Directors	Number of Independent Directors / Total Number of Board Directors
		Internal Control Index	DIB Internal Control Index

Mixed-ownership reform. The mixed-ownership reform represents a crucial institutional innovation in China's economic system reform. This paper selects three explanatory variables to comprehensively assess the influence of Mixed-ownership reform on the high-quality development of enterprises. These variables are: whether there is a state - owned shareholder (Reform1), the equity integration degree (Reform2), and the equity balance degree (Reform3). Specifically defined as follows: Reform1 is assigned a value of 1 when there is a state - owned shareholder among the top ten shareholders, and 0 otherwise. Reform2 is defined as the ratio of the smaller value to the larger value between the total shareholding ratio of state-owned shareholders and the total shareholding ratio of non-state-owned shareholders among the top ten shareholders. Reform3 is defined as the Herfindahl Index among the top ten shareholders. The selection of control variables and the specific definitions of variables are presented in Table 2.

Table 2. Variable Definitions

Variable Type	Variable Name	Variable Symbol	Variable Measurement
Explained Variable	High - Quality Enterprise Development	*HQD*	Comprehensive index of high - quality enterprise development

Explanatory Variable	Reform1	Reform1	assigned a value of 1 when there is a state - owned shareholder among the top ten shareholders, and 0 otherwise.
	Reform2	Reform2	the ratio of the smaller value to the larger value between the total shareholding ratio of state-owned shareholders and non-state-owned shareholders among the top ten shareholders.
	Reform3	Reform3	the Herfindahl Index among the top ten shareholders.
Control Variable	Firm Size	Size	Natural logarithm of total assets
	Firm Age	Age	Natural logarithm of firm establishment time
	Total Asset Turnover	ATO	Operating income/total average assets
	Operating Income Growth Rate	Growth	Operating income growth rate
	Board Size	Board	Natural logarithm of board members
	Board Independence	Indep	Independent directors/total board members
	Largest Shareholder's Ratio	Top1	First largest shareholder's shares/total shares
	Dual Positions	Dual	1 if chairman and CEO are the same, 0 otherwise
	Executive Compensation	Salary	Natural logarithm of total compensation of top three executives
	Equity Balance	Balance	Ratio of second to fifth largest shareholders' shareholding ratio to first largest shareholder's shareholding ratio
	Industry	Industry	Industry fixed effect
	Year	Year	Year fixed effect

3.3. Empirical model

To verify the promoting effect of mixed ownership reform on the high-quality development of enterprises, this paper constructs the following model:

$$HQD_{i,t} = \alpha_0 + \alpha_1 \times Reform_{n,t} + \alpha_2 \times Controls_{i,t} + \sum Year + \sum Industry + \varepsilon_{i,t} \quad (1)$$

In this model, *HQD* is the explained variable. $Reform_n$ represents the three core explanatory variables, *i* and *t* denote firm *i* in year *t*, and α_0 is the intercept term. α_1 and α_2 are the coefficients of the explanatory variables and control variables, respectively. If the coefficient is positive, it indicates a promoting effect on the high - quality development of enterprises, meaning that the variable can boost the high - quality development of enterprises. Meanwhile, we also implement two - way fixed effects control for year effects and industry

effects.

4. Empirical analysis

4.1. Sample and descriptive statistics

Table 3 reports the descriptive statistics results for the main variables in the baseline regression. It deserves noting that the overall mean value of the high-quality development index of listed enterprises in China is -0.002, the median is -0.013, the standard deviation is 0.260, and the range is relatively large. Meanwhile, we can find that the mean is nearly positive while the median is negative, indicating that the overall level of development quality of Chinese enterprises is relatively high, but most enterprises have not yet reached the state of high-quality development, and the development quality of enterprises varies significantly. This evidence, on the one hand, conforms to the current situation of the exploratory stage of enterprises' high-quality development, and on the other hand, indicates that promoting the high-quality development of enterprises is one of the important issues that listed enterprises urgently need to address in the context of the current economic era, providing strong practical significance for this paper.

Table 3. Descriptive statistics of main variables

Variable	N	Mean	Median	SD	Min	Max	Range
HQD	13418	-0.002	-0.015	0.260	-0.905	0.843	1.749
Reform1	13418	0.492	0	0.500	0	1	1
Reform2	13418	0.121	0.031	0.204	0	1	1
Reform3	13418	0.146	0.118	0.107	0.001	0.810	0.808
Growth	13418	0.153	0.103	0.352	-0.706	4.519	5.225
Size	13418	22.23	22.09	1.150	19.29	26.96	7.667
Salary	13418	14.70	14.66	0.665	12.42	16.85	4.430
Dual	13418	0.292	0	0.455	0	1	1
Top1	13418	0.326	0.305	0.143	0.075	0.750	0.675
Age	13418	24.70	24	5.095	10	39	29
Indep	13418	0.375	0.333	0.0520	0.286	0.571	0.286
Board	13418	2.111	2.197	0.190	1.609	2.708	1.099
Balance	13418	0.763	0.590	0.610	0.020	2.991	2.970

4.2. Baseline multivariate analysis

The results in Table 4 show that the regression coefficients of the three explanatory variables (Reform1, Reform2, and Reform3) are all significant at the 1% level, with Reform1 and Reform2 being positive. This indicates that regardless of whether the presence of state-owned shareholders or the integration degree of heterogeneous shareholders is used as the explanatory variable, mixed-ownership reform can promote high-quality development of enterprises, thus validating Hypothesis H1a. Meanwhile, it is noteworthy that the coefficient of Reform3 is significantly negative, suggesting that an increase in the Herfindahl Index among

the top ten shareholders (i.e., a decrease in the degree of checks and balances) significantly inhibits the high-quality development of enterprises, thereby validating Hypothesis H2a.

The reasons for these opposing coefficients are as follows: On the one hand, the integration of heterogeneous equity improves enterprises' investment efficiency and significantly curbs the degree of corporate financialization, enabling enterprises to focus on their core businesses and main responsibilities. On the other hand, a highly concentrated ownership structure weakens the equity checks-and-balances effect brought by mixed-ownership reform; instead, it crowds out resources required for enterprises' high-quality development, thereby inhibiting such development.

From an economic perspective, compared with enterprises that have not undergone mixed-ownership reform, the high-quality development index of those that have undergone such reform increases by 2.3% (0.012 × 0.5 / 0.26). For every 1% increase in the integration degree of heterogeneous shareholders among the top ten shareholders, the high-quality development index rises by (0.027 × 0.204 / 0.26). For every 1% decrease in the degree of checks and balances among the top ten shareholders, the high-quality development level of enterprises decreases by 12% (0.294 × 0.107 / 0.260). In other words, mixed-ownership reform has significant economic implications for enterprises' achievement of high-quality development.

Table 4. Baseline regression results

Variables	HQD	HQD	HQD
	Full sample		
	(1)	(2)	(3)
Reform1	0.012***		
	(2.965)		
Reform2		0.027***	
		(2.956)	
Reform3			-0.294***
			(-3.704)
Growth	0.179***	0.179***	0.178***
	(35.020)	(35.053)	(34.814)
Size	0.088***	0.089***	0.090***
	(45.130)	(46.612)	(46.995)
Salary	0.088***	0.087***	0.088***
	(27.347)	(27.218)	(27.518)
Dual	0.011***	0.011***	0.009**
	(2.770)	(2.661)	(2.379)
Top1	0.298***	0.298***	0.548***
	(16.758)	(16.755)	(7.657)
Age	-0.000	-0.000	-0.000
	(-1.167)	(-0.856)	(-0.645)
Indep	1.340***	1.339***	1.342***
	(31.537)	(31.524)	(31.588)
Board	0.038***	0.038***	0.042***

	(3.108)	(3.164)	(3.512)
Balance	0.037***	0.036***	0.051***
	(9.138)	(8.837)	(8.828)
_cons	-3.990***	-4.006***	-4.095***
	(-69.141)	(-70.422)	(-68.738)
N	13418	13418	13418
Adj-R^2	0.401	0.401	0.401
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

This table reports the results of the baseline regressions. Reform are the main explanatory variables denoting mixed-ownership reform, respectively. The industry and year fixed effects are included in the model. The numbers in parentheses are *t*-statistics. *, **, and *** indicate significance at the 10%, 5% and 1% levels, respectively.

4.3. Robustness analysis

(1) Placebo test.

To verify the robustness of the baseline regression results, this paper employs the placebo test method[11]. The specific procedures are as follows: 1000 random permutation samplings were conducted for each of the three core explanatory variables. After each sampling, the model was refitted and the estimated coefficients were recorded. By examining the kernel density distribution of the randomized coefficients (as shown in Figure1), the following findings are observed: 1. The pseudo-estimated coefficients of all variables are tightly distributed around zero; 2. Their distribution ranges significantly deviate from the true estimated values. This indicates that the significant effects of the explanatory variables in the baseline regression are not driven by unobservable confounding factors. The placebo test is passed, and the conclusions are robust.

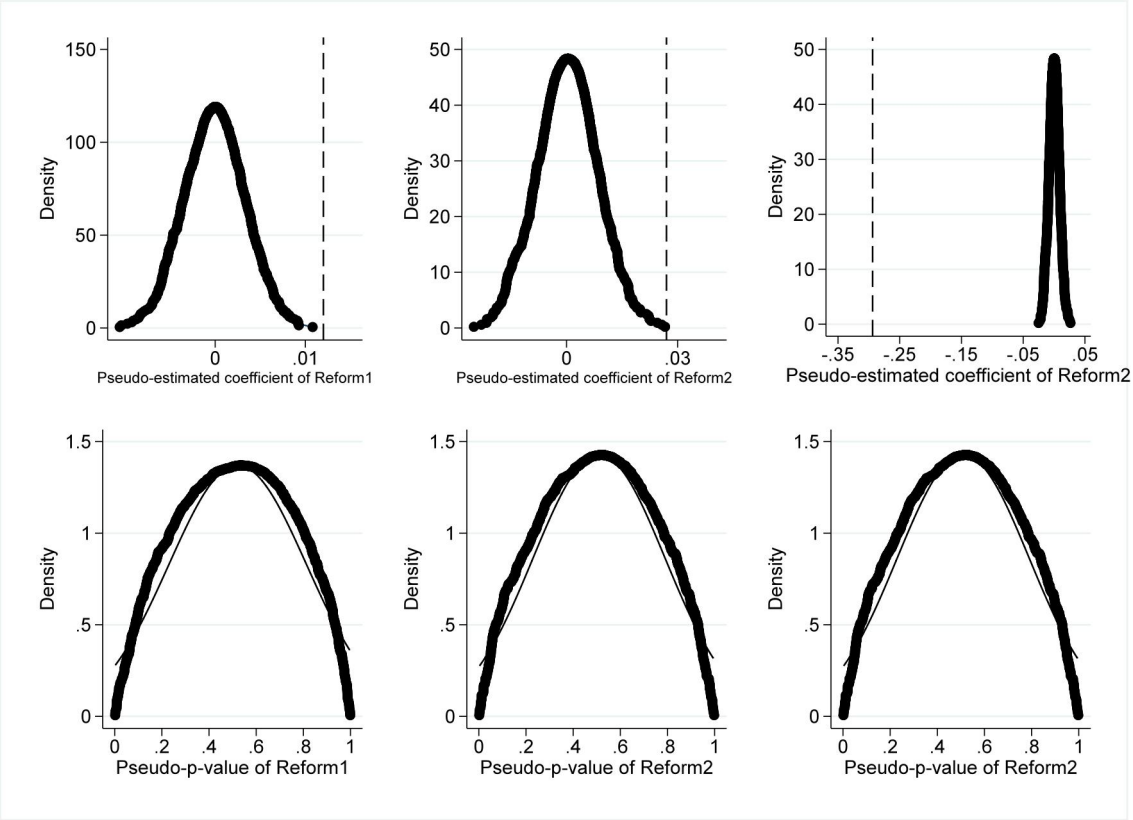

Figure 1. Placebo Test: Kernel Density of Randomized Coefficients for Core Explanatory Variables

(2) An alternative measure of the sample preiod

The 2017 Government Work Report's mandate to "strengthen, improve, and expand state capital" elevated mixed-ownership reform as a policy enforcement priority. We consequently adjust the sample period to 2017–2023. Regression results using this restricted timeframe (Table 5) show coefficients of 0.017 (Reform1), 0.029 (Reform2), and -0.289 (Reform3), all statistically significant and larger in magnitude than baseline estimates. This confirms:

(i) The policy amplified reform efficacy in driving enterprise development;

(ii) Robustness of our core findings.

Table 5. An alternative measure of the sample preiod

Variables	HQD	HQD	HQD
	(1)	(2)	(3)
Reform1	0.017***		
	(3.548)		
Reform2		0.029***	
		(2.669)	
Reform3			-0.289***
			(-3.111)
Growth	0.210***	0.211***	0.210***
	(30.695)	(30.705)	(30.611)
Size	0.089***	0.090***	0.091***

	(38.336)	(39.785)	(40.060)
Salary	0.084***	0.083***	0.084***
	(21.727)	(21.585)	(21.845)
Dual	0.007	0.006	0.005
	(1.538)	(1.345)	(1.026)
Top1	0.348***	0.346***	0.591***
	(16.345)	(16.237)	(7.059)
Age	-0.000	-0.000	-0.000
	(-0.815)	(-0.393)	(-0.225)
Indep	1.347***	1.347***	1.350***
	(26.377)	(26.375)	(26.429)
Board	0.053***	0.055***	0.060***
	(3.672)	(3.836)	(4.196)
Balance	0.041***	0.040***	0.055***
	(8.493)	(8.175)	(8.002)
_cons	-4.019***	-4.047***	-4.134***
	(-58.662)	(-59.839)	(-58.587)
N	9733	9733	9733
Adj-R^2	0.411	0.411	0.411
Industry FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes

This table reports the results of the 4.3 robustness analysis regressions. Reform are the main explanatory variables denoting mixed-ownership reform, respectively. The industry and year fixed effects are included in the model. The numbers in parentheses are *t*-statistics. *, **, and *** indicate significance at the 10%, 5% and 1% levels, respectively.

5. Further analysis

5.1. heterogeneity analysis

Under China's unique institutional backdrop, state-owned enterprises (SOEs) exhibit pronounced bureaucratic features. The impact of mixed-ownership reform on high-quality corporate development may thus vary by ownership type[12]. We partition the sample into two groups based on ownership nature and examine this heterogeneity. Results in Table 6 show:

(i) For SOEs, both Reform2 and Reform3 coefficients are statistically insignificant compared to the private-owned group.

(ii) This indicates that reform depth (shareholding ratio) and ownership concentration pathways only significantly affect private enterprises.

The likely explanation lies in SOEs' inherent political attributes and bureaucratic nature: heterogeneous shareholders cannot fundamentally alter administrative decision-making, failing to generate positive performance incentives.

Table 6. heterogeneity analysis

Variables	HQD	HQD	HQD	HQD	HQD	HQD
	State-owned sample			Private-owned sample		
	(1)	(2)	(3)	(4)	(5)	(6)
Reform1	0.064***			0.017***		
	(3.735)			(3.535)		
Reform2		0.025*			0.095***	
		(1.696)			(5.399)	
Reform3			-0.121			-0.343***
			(-0.812)			(-3.620)
Growth	0.176***	0.177***	0.177***	0.178***	0.179***	0.177***
	(17.818)	(17.871)	(17.870)	(29.885)	(30.110)	(29.671)
Size	0.089***	0.089***	0.089***	0.089***	0.089***	0.091***
	(26.723)	(26.685)	(26.630)	(35.176)	(35.814)	(36.418)
Salary	0.101***	0.101***	0.102***	0.085***	0.086***	0.087***
	(16.724)	(16.594)	(16.934)	(22.100)	(22.220)	(22.524)
Dual	-0.006	-0.010	-0.008	0.011**	0.011**	0.011**
	(-0.522)	(-0.845)	(-0.712)	(2.511)	(2.459)	(2.487)
Top1	0.142***	0.133***	0.229	0.351***	0.348***	0.632***
	(4.230)	(3.893)	(1.641)	(16.014)	(16.063)	(7.516)
Age	0.001	0.001	0.001	-0.001**	-0.001**	-0.001*
	(1.299)	(1.611)	(1.485)	(-2.360)	(-2.275)	(-1.779)
Indep	1.338***	1.320***	1.316***	1.356***	1.358***	1.358***
	(18.074)	(17.853)	(17.807)	(25.634)	(25.694)	(25.676)
Board	0.029	0.027	0.026	0.051***	0.050***	0.056***
	(1.409)	(1.285)	(1.224)	(3.346)	(3.264)	(3.652)
Balance	-0.015	-0.019**	-0.009	0.048***	0.045***	0.064***
	(-1.635)	(-2.136)	(-0.702)	(10.380)	(9.784)	(9.697)
_cons	-4.180***	-4.117***	-4.135***	-4.004***	-4.015***	-4.138***
	(-40.332)	(-40.279)	(-38.989)	(-55.555)	(-56.456)	(-55.257)
N	3912	3912	3912	9505	9505	9505
Adj-R^2	0.447	0.445	0.445	0.392	0.393	0.392
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results of the 5.1 heterogeneity analysis regressions. Reform are the main explanatory variables denoting mixed-ownership reform, respectively. The industry and year fixed effects are included in the model. The numbers in parentheses are *t*-statistics. *, **, and *** indicate significance at the 10%, 5% and 1% levels, respectively.

5.2. Mechanism Analysis

According to the theoretical analysis mentioned above, we measure financialization (Fin) as the ratio of financial assets to total assets, incorporating it as a mediator in regression models[13]. Table 7 results confirm that mixed-ownership reform significantly curbs financialization and this channels enterprises toward core-business-focused high-quality

development.

Table 7. Mechanism Analysis

Variables	Fin	Fin	Fin	Fin	Fin	Fin
	Full Sample		State-owned sample		Private-owned sample	
	(1)	(2)	(3)	(4)	(5)	(6)
Reform1	-0.034***		-0.070***		-0.016*	
	(-5.375)		(-2.677)		(-1.947)	
Reform2		-0.043***		-0.017		0.012
		(-2.956)		(-0.762)		(0.416)
Growth	-0.027***	-0.027***	0.001	0.000	-0.036***	-0.036***
	(-3.310)	(-3.315)	(0.059)	(0.003)	(-3.678)	(-3.663)
Size	0.056***	0.053***	0.050***	0.050***	0.064***	0.063***
	(17.935)	(17.308)	(9.963)	(9.913)	(15.625)	(15.443)
Salary	0.025***	0.025***	0.049***	0.049***	0.006	0.005
	(4.865)	(4.961)	(5.365)	(5.277)	(0.986)	(0.871)
Dual	0.011*	0.014**	0.014	0.018	0.003	0.003
	(1.737)	(2.160)	(0.792)	(0.992)	(0.460)	(0.428)
Top1	-0.129***	-0.119***	-0.212***	-0.196***	-0.031	-0.018
	(-4.530)	(-4.196)	(-4.150)	(-3.787)	(-0.874)	(-0.494)
Age	0.005***	0.005***	0.005***	0.004***	0.005***	0.005***
	(8.597)	(7.908)	(4.478)	(4.274)	(6.931)	(6.602)
Indep	-0.105	-0.103	-0.081	-0.059	-0.047	-0.043
	(-1.543)	(-1.516)	(-0.719)	(-0.530)	(-0.544)	(-0.494)
Board	-0.010	-0.018	-0.026	-0.023	0.021	0.017
	(-0.534)	(-0.931)	(-0.825)	(-0.738)	(0.841)	(0.691)
Balance	-0.022***	-0.018***	-0.035**	-0.031**	-0.012	-0.011
	(-3.411)	(-2.813)	(-2.566)	(-2.226)	(-1.613)	(-1.503)
_cons	-0.968***	-0.898***	-1.093***	-1.164***	-0.993***	-0.947***
	(-10.483)	(-9.860)	(-6.944)	(-7.500)	(-8.430)	(-8.139)
N	13416	13416	3910	3910	9505	9505
Adj-R^2	0.105	0.103	0.123	0.121	0.119	0.118
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes

This table reports the results of the 5.2 Mechanism Analysis regressions. Reform are the main explanatory variables denoting mixed-ownership reform, respectively. The industry and year fixed effects are included in the model. The numbers in parentheses are *t*-statistics. *, **, and *** indicate significance at the 10%, 5% and 1% levels, respectively.

6. Conclusions and suggestions

The high-quality development of a nation's economy relies on the high-quality development of its enterprises. Achieving the integration of state-owned capital and private capital through mixed-ownership reform is a characteristic of China's socialist market economy and represents one pathway to enterprise high-quality development. Using

2013-2023 Chinese A-share listed companies as the sample, this study examines the impact of mixed-ownership reform on enterprise high-quality development, reaching the following conclusions:

First, empirical evidence demonstrates that regardless of using reform status (Reform1) or ownership integration depth (Reform2) as explanatory variables, mixed-ownership reform significantly improves Companies' high-quality development (*HQD*). Conversely, ownership concentration (Reform3) significantly inhibits enterprise high-quality development. These findings remain valid after robustness tests.

Second, further analysis indicate that mixed-ownership reform has stronger promoting effects on private-owned enterprises. These discoveries provide new insights for understanding the specific pathways through which mixed-ownership reform drives enterprise high-quality development. Meanwhile, Mixed-ownership reform improves high-quality development of enterprises by inhibiting corporate financialization.

The research conclusions offer suggestions for advancing mixed-ownership reform:

First, China's high-quality economic development is in an exploratory stage where resources and capital cannot fully grasp the direction of enterprise high-quality development. What constitutes high-quality development and how to achieve it require in-depth exploration across industries to provide recommendations for China's high-quality economic development. For policymakers, refining industry-specific characteristics of mixed ownership is essential—setting minimum state capital thresholds in public sectors to preserve public attributes, improving legal safeguards for shareholder exit mechanisms, and compelling optimization of equity governance structures.

Second, state-private integration represents a unique development opportunity for both SOEs and private enterprises. SOE executives, private enterprise managers, and shareholders should actively leverage the resources and opportunities brought by state-private integration, seize policy dividends, eliminate enterprise development obstacles, and ultimately achieve high-quality enterprise development.

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