Major Individual Shareholders and Stock Price Synchronicity

Yilin Shen

School of International Education,Henan University of Technology,Zhengzhou 450001,China;

15603959005@163.com

Abstract. The phenomenon of"co-movement in rise and fall"of stock prices is prominent in China's capital market.High stock price synchronicity is detrimental to the stable development of the capital market.Using Chinese A-share listed firms from 2007 to 2024 as the research sample,this paper empirically examines the impact of shareholding by major individual shareholders on stock price synchronicity.The results show that the shareholding ratio of major individual shareholders is negatively correlated with stock price synchronicity,and this conclusion remains robust after robustness and endogeneity tests.Heterogeneity analysis indicates that the inhibitory effect is stronger when internal power concentration is higher and shareholding changes are more volatile,while high audit quality and high analyst coverage weaken this effect.Mechanism analysis reveals that major individual shareholders improve information transparency by reducing agency costs and curbing earnings management,thereby lowering stock price synchronicity.This paper clarifies the influence path of major individual shareholders on stock price synchronicity,providing empirical evidence for optimizing ownership structure,enhancing information efficiency in the capital market,and supporting high-quality economic development.

Keywords: Major Individual Shareholder, Stock Price Synchronicity, Information Transparency.

JEL Classification: G32, G14, M41

1. Introduction

Over recent decades,China's market economy has developed rapidly.Drawing on experience from capital markets in developed economies and pursuing continuous innovation,China's capital market has become a key force serving the real economy and driving economic growth.High-quality economic development relies on a stable capital market.General Secretary Xi Jinping has repeatedly stressed the need to"deepen capital market reforms,increase the proportion of direct financing,and promote the steady and healthy development of the capital market".However,stock price synchronicity remains high among listed firms in China,with widespread"co-movement in rise and fall"(Lü et al.,2025).This weakens the ability of stock prices to reflect firm-specific information,reduces the capital market's resource allocation efficiency,and may even amplify systemic risks,threatening capital market stability.Against this backdrop,this paper explores the significance of reducing stock price synchronicity for maintaining capital market stability and achieving high-quality economic development from the perspective of determinants of stock price synchronicity.

As a core indicator measuring capital market pricing efficiency,existing research on stock price synchronicity has mostly focused on macroeconomic and micro-institutional factors.For instance,Yu et al.(2013),Guo and Wang(2023) find that optimistic tone in corporate information disclosure and annual reports reduces information transparency and increases stock price synchronicity.Gong et al.(2022) argue that weakened independence of independent directors impairs their monitoring function and raises stock price synchronicity.Wu et al.(2020) point out that information intermediaries such as auditors and securities analysts accelerate the dissemination of firm-specific information and reduce stock price synchronicity.An et al.(2013) document that institutional investors improve stock price informativeness and lower synchronicity by strengthening monitoring.Xiao and Shen(2021) show that media coverage disseminates firm-specific information into stock prices and mitigates synchronous price movements.Nevertheless,existing literature largely centers on conventional corporate governance structures and external information intermediaries,paying limited

attention to the path through which major individual shareholders—as a special internal governance subject—affect stock price synchronicity.This paper therefore investigates how changes in the shareholding ratio of major individual shareholders influence stock price synchronicity and the underlying logic.

Theoretically,an increase in the shareholding ratio of major individual shareholders helps improve capital market pricing efficiency and reduce firm-level stock price synchronicity.A higher shareholding ratio creates a strong monitoring effect that effectively constrains management behavior(Tan et al.,2019;Wang et al.,2015).Such monitoring alleviates the first-type agency conflict between shareholders and management,reduces inefficient investment and resource waste,and ensures that corporate governance information is more fully reflected in stock prices(Titman and Tsyplakov,2007;Margaritis and Psillaki,2010).Sustained and effective monitoring by large shareholders improves the internal information environment,enhances the timeliness and accuracy of information disclosure,and makes it easier for outside investors to access truthful firm information(Kim and Zhang,2014;Ball,2009).Furthermore,monitoring reduces management incentives to withhold negative news,promotes standardized information disclosure,and curbs information manipulation(Wang et al.,2015;Pan and Dong,2020).The resulting high-quality information environment boosts transparency,mitigates information asymmetry between insiders and outsiders,channels more firmspecific information into stock prices,and lowers stock price synchronicity.

A continuous rise in the shareholding ratio of major individual shareholders may also significantly increase stock price synchronicity.As their control rights strengthen with higher ownership,major individual shareholders become more motivated to pursue private benefits,triggering tunneling effects that negatively impact corporate governance and the information environment(Zheng et al.,2013;Cheng et al.,2020).To cover up expropriation through related-party transactions,fund occupation,or profit transfer,large shareholders actively interfere with information disclosure,suppress negative news,conduct earnings management,and collude with management to protect private gains(Jiang et al.,2010;Li and Dong,2017).Driven by tunneling,the authenticity,timeliness,and completeness of corporate information disclosure decline,making it difficult for outside investors to obtain reliable firm-specific information and exacerbating information asymmetry(Huang et al.,2022;Yu et al.,2013).Deteriorated information transparency blocks the transmission of firm-level idiosyncratic information to stock prices,making stock price movements rely more on market and industry-level systematic information and ultimately raising stock price synchronicity.

Given the dual theoretical effects,existing studies have not reached a consensus on the direction of the impact of major individual shareholder shareholding on stock price synchronicity;its actual effect and internal logic require empirical verification and identification.Using a sample of Chinese A-share listed firms from 2007 to 2024 for baseline regression,this paper confirms a negative relationship between the shareholding ratio of major individual shareholders and stock price synchronicity.This conclusion remains robust after a series of robustness checks,including replacing the measurement of the dependent variable,excluding samples with zero shareholdings,and addressing endogeneity using the instrumental variable method.Heterogeneity analysis further shows that the inhibitory effect of major individual shareholders on stock price synchronicity is pronounced across sub-samples differentiated by ownership share,ownership change,audit quality,and analyst coverage.Empirical results indicate that a higher shareholding ratio of major individual shareholders significantly reduces stock price synchronicity among listed firms.This finding supports the effectiveness of the monitoring effect arising from increased ownership by major individual shareholders and reveals the transmission channel:improved information disclosure environment and higher transparency drive firm-specific information into stock prices and reduce synchronicity.

This paper makes three contributions.First,this study broadens the research horizon on the economic outcomes of ownership by large individual shareholders.It identifies and tests the causal transmission pathway whereby large individual shareholder ownership improves corporate

governance,enhances information transparency,and ultimately reduces stock price synchronicity,thereby enriching the micro-level mechanism literature on the governance effects of large individual shareholders.Second,this research extends the scholarly domain of the determinants of stock price synchronicity in the context of large individual shareholder ownership.Distinct from prior literature that centers on controlling shareholders or institutional investors,this paper focuses on large individual shareholders as a distinctive internal governance force,examines how their ownership behavior shapes stock price synchronicity,and disentangles the relative dominance of the monitoring effect versus the tunneling effect,thus deepening our understanding of the fundamental link between ownership structure and stock price synchronicity.Third,from a practical perspective,this paper verifies that large individual shareholders can exert effective monitoring and significantly lower stock price synchronicity.It provides empirical support for listed firms to optimize ownership structure,motivate active governance participation by large individual shareholders,and improve information disclosure quality.It also delivers policy implications for advancing capital market reforms and fostering high-quality economic development.

The remainder of this paper is structured as follows.Section 2 reviews the literature.Section 3 develops research hypotheses and presents the research design.Section 4 reports empirical results and analysis.Section 5 provides heterogeneity analysis and mechanism tests.Section 6 concludes the paper.

2. Literature Review and Research Hypotheses

2.1. Literature Review

(1) Research on Major Individual Shareholder Shareholding.Major individual shareholders refer to natural-person shareholders who hold a considerable proportion of shares and can exert a material influence on corporate operational decisions(Tan et al.,2019).From the perspective of ownership structure theory,the tradeoff between ownership concentration and dispersion is a core topic in corporate governance research.As an important carrier of concentrated ownership,the behavioral choices of major individual shareholders directly affect corporate governance efficiency and capital market performance.Titman and Tsyplakov(2007) point out that concentrated ownership gives controlling or large shareholders stronger residual claims and thus greater incentives to monitor management,curbing wasteful resource use and inefficient investment.Ball(2009) argues that participation by major individual shareholders strengthens monitoring of management,restricts opportunistic accounting policy choices,and reduces accounting information distortion.With higher ownership stakes and larger capital scales,major individual shareholders do not exhibit the“free-riding”mentality of small shareholders.Compared with institutional investors,they enjoy more flexible decision-making processes and more direct interest alignment.Consequently,major individual shareholders have stronger incentives to monitor management,participate actively in corporate governance,and mitigate principal-agent conflicts between shareholders and management(Tan et al.,2019),providing theoretical support for the monitoring effect of major individual shareholders(Zeng,2014).

The literature has reached a broad consensus on the positive impacts of the monitoring effect of major individual shareholders on corporate governance and management behavior.Margaritis and Psillaki(2010)show that constraints on inefficient investment due to higher large shareholder ownership directly boost firm value.Kim and Zhang(2014) find that monitoring by major individual shareholders reduces management incentives to hide negative information,improves stock price informativeness,and lowers the likelihood of stock price crashes.Chen et al.(2014) document that higher large shareholder ownership curbs managerial myopia,encourages long-term growth focus,increases R&D investment,and improves innovation output.Wang et al.(2015)show that a larger ownership share of large shareholders weakens management incentives to suppress negative news,mitigates information asymmetry,and reduces future stock price crash risk.Pan and Dong(2020) find that higher controlling shareholder ownership strengthens monitoring incentives,improves management quality,and promotes sustained productivity growth.Jia and Li(2023) further confirm

that in well-governed firms,major individual shareholders reduce fund occupation through appropriate dividend distributions,corroborating the positive monitoring effect.

As ownership rises,major individual shareholders may pursue private gains through related-party transactions and fund occupation,expropriate minority shareholders,tunnel the firm,and damage firm value—known as the“tunneling effect”of major individual shareholders(Tan et al.,2019).Li and Dong(2017)argue that the control rights of large shareholders often exceed their cash flow rights,making private benefits from resource transfer larger than normal dividend income and strengthening expropriation incentives.Huang et al.(2022)add that large or inside shareholders are more likely to tunnel in complex and opaque information environments.

The tunneling effect of major individual shareholders triggers multiple governance problems,disrupts normal operations,and harms stakeholders.Existing literature reveals its negative impacts and transmission channels from various dimensions.Jiang et al.(2010) and Bao and Lewellyn(2017) find that to cover tunneling,large shareholders cut managerial compensation,conduct earnings management,distort accounting information,and undermine governance standardization.Zheng et al.(2013) show that controlling shareholders engage in diversified tunneling to expropriate resources and impair operations.Li et al.(2014) document that large shareholder tunneling weakens pay-for-performance sensitivity,reduces managerial incentives,and hurts operating efficiency.Jiang et al.(2018) and Cheng et al.(2020) find that controlling shareholders collude with other large shareholders via concerted action agreements to strengthen control and directly infringe on minority shareholders’rights,eroding trust in the capital market.

(2) Research on Stock Price Synchronicity.Stock price synchronicity refers to the co-movement between individual stock returns and market-wide returns,namely the“co-movement in rise and fall”of stock prices in the capital market.Its core measure is R^2,which is closely linked to firm-level information:a higher R^2indicates less firm-specific information in stock prices and stronger synchronicity(Li et al.,2024).Jin and Myers(2004) state that the core feature of stock price synchronicity is the“degree of idiosyncratic information opacity”:high synchronicity means firm-specific information is concealed,while low synchronicity means such information is fully released.This leads to two outcomes:first,it affects stock price informativeness(Morck et al.,2000);second,it determines differences in the determinants of stock price synchronicity(Zhou,2014).

A consensus has formed in the literature regarding the link between stock price synchronicity and informativeness.Morck et al.(2000) argue that synchronicity directly determines informativeness:excessive synchronicity prevents stock prices from efficiently conveying firm-specific information,leading to insufficient informativeness and lower resource allocation efficiency;excessively low synchronicity may reflect excessive noise trading,which also harms stability.Kim and Zhang(2014) support this logic,showing that monitoring by major individual shareholders reduces synchronicity by shaping the transmission of firm-specific information.

Existing literature has identified internal and external determinants of stock price synchronicity and their mechanisms.From internal micro factors,Zhou(2014) finds that when the separation of control and cash flow rights exceeds a threshold,noise trading becomes more important,reducing stock price synchronicity,reflecting the role of corporate governance.Gong et al.(2022) show that weaker independent director monitoring reduces disclosure quality and raises synchronicity,highlighting internal monitoring.Yu et al.(2013),Guo and Wang(2023) indicate that optimistic disclosure tone reduces transparency,weakens stock price responses to firm-specific information,and increases synchronicity.From external macro factors,Chen et al.(2018) and Chen et al.(2021) confirm that property rights protection,political stability,and transportation infrastructure lower information acquisition costs for arbitrageurs,accelerate idiosyncratic information incorporation,and affect synchronicity.An et al.(2013) find that institutional investors curb idiosyncratic risk hiding and conduct informed trading to increase informativeness.Hu and Wang(2015) show that social media platforms like Weibo enable firms to disclose non-financial idiosyncratic information and significantly reduce synchronicity.Wu et al.(2020) emphasize that

auditors and analysts act as information intermediaries to speed up firm-specific information dissemination and lower synchronicity,reflecting the role of the external information environment.

In summary,major individual shareholder shareholding has dual effects:on the one hand,the monitoring effect mitigates agency conflicts,curbs managerial myopia,and enhances firm value;on the other hand,when control and cash flow rights are highly separated,major individual shareholders may tunnel to expropriate minority shareholders,distort accounting information,and damage governance.The core feature of stock price synchronicity is the opacity or disclosure of firm-specific information:high synchronicity usually means low informativeness,shaped by internal and external governance,disclosure tone,and information intermediaries.However,existing studies have not reached a unified conclusion on the specific impact of major individual shareholder shareholding on stock price synchronicity.They neither clarify how monitoring and tunneling effects separately shape synchronicity nor fully consider information transparency as a key mediating or moderating variable.Therefore,this paper studies the impact and mechanism of major individual shareholder shareholding on stock price synchronicity from the perspective of information transparency,helping to fill gaps in the literature with important theoretical and practical value.

2.2. Research Hypotheses

An increase in the shareholding ratio of large individual shareholders strengthens monitoring over management and improves corporate governance.As Tan et al.(2019)point out,large individual shareholders with substantial ownership and capital have stronger incentives to actively collect information and monitor managerial decisions and operations.They avoid the free-riding problem and insufficient monitoring incentives typical of small shareholders,thereby effectively mitigating Type I agency conflicts between shareholders and managers.This positive governance role is widely known as the monitoring effect in the literature.To exert this monitoring effect,large individual shareholders participate in corporate governance through multiple channels.

As a key reflection of governance quality,information transparency ensures truthful,complete,and timely disclosure to reduce information asymmetry.Monitoring by major individual shareholders effectively optimizes the information environment and significantly boosts transparency.Hu(2024)shows that active shareholder participation promotes standardized disclosure systems and pushes management to release timely and accurate information.Wang et al.(2015)argue that constraints on opportunism weaken management incentives to hide negative news and manipulate disclosure,improving authenticity and completeness and helping investors understand true performance.Huang et al.(2022)indicate that sound investment decisions feature high disclosure standardization and enhance transparency;checks on disclosure behavior directly standardize processes,prevent selective or vague disclosure from misleading investors,and ensure accurate information transmission.

Morck et al.(2000)point out that stock price synchronicity reflects co-movement with the market and depends on how much firm-specific information is incorporated.Higher synchronicity means stock prices are driven more by market systematic information and contain less idiosyncratic information about operations and growth potential.Jin and Myers(2004)and Zhang et al.(2016)show that information transparency is a critical determinant of synchronicity and is negatively correlated:higher transparency accelerates idiosyncratic information transmission,allows investors to access firm-specific information easily,and drives such information into prices,reducing reliance on systematic information and lowering synchronicity.Thus,the monitoring effect from higher major individual shareholder ownership improves transparency,facilitates idiosyncratic information incorporation,and ultimately reduces stock price synchronicity.

Accordingly,this paper proposes the first hypothesis:

H1:Ceteris paribus,a higher shareholding ratio of major individual shareholders is associated with lower stock price synchronicity.

A higher ownership stake by large individual shareholders does not generate only the positive monitoring effect.When their ownership reaches a certain level,concentrated control coupled with

insufficient external oversight intensifies agency conflicts between large individual shareholders and minority shareholders,thereby triggering the tunneling effect.As Zheng et al.(2013)argue,large individual shareholders,with de facto control over listed firms,can engage in various forms of tunneling to pursue private benefits through related-party transactions(Liu et al.,2008),fund occupation(Ye et al.,2007),tunneling dividends(Wen et al.,2020),and profit transfer(Deng,2016).

To conceal such tunneling activities,large individual shareholders typically engage in information manipulation that degrades the firm's information environment and impairs transparency.As a key tool to hide expropriation,information manipulation takes diverse and concealed forms.Jiang et al.(2010)and Bao and Lewellyn(2017)show that large individual shareholders induce managers to conduct earnings management to distort accounting profits and mask true performance and expropriation.Earnings management is significantly negatively associated with information transparency:higher earnings management reduces accounting reliability and transparency.

Regarding stock price synchronicity,Jin and Myers(2004)and Yu et al.(2013)confirm that information transparency is a critical determinant and is significantly negatively related to synchronicity.Therefore,the tunneling effect arising from increased ownership by large individual shareholders motivates information manipulation,reduces transparency,impedes the incorporation of firm-specific information into stock prices,and consequently raises stock price synchronicity.

Accordingly,this paper proposes the second hypothesis:

H2:Ceteris paribus,a higher shareholding ratio of major individual shareholders is associated with higher stock price synchronicity.

3. Research Design

3.1. Variable Definitions

To test the impact of increased major individual shareholder ownership on stock price synchronicity,this paper follows model specifications in studies by Lü et al.(2025) and Xia et al.(2025) and constructs the following regression model:

$$SYN_{i,t} = \alpha_0 + \alpha_1 IndHold_{i,t} + \alpha_2 Controls_{i,t} + \sum Year + \sum Industry + \varepsilon_{i,t} \quad (1)$$

SYN denotes stock price synchronicity.Following Gul et al.(2010) and Xu et al.(2013),weekly stock returns are used to estimate the following regression:

$$R_{i,w,t} = \beta_0 + \beta_1 R_{M,w,t} + \beta_2 R_{M,w-1,t} + \beta_3 R_{I,w,t} + \beta_4 R_{I,w-1,t} + \varepsilon_{i,w,t} \quad (2)$$

To ensure normality,$R^2$is log-transformed to compute stock price synchronicity:

$$SYN_{i,t} = Ln\left(\frac{R_{i,t}^2}{1-R_{i,t}^2}\right) \quad (3)$$

IndHold represents major individual shareholder shareholding.Following Zheng(2021),it is defined as the annual average of the sum of shareholding ratios of all natural-person shareholders in the top10 tradable shareholders,excluding the actual controller and direct controlling shareholder,in each quarter.The coefficient α reflects the effect of increased ownership on synchronicity.

Controls are a set of control variables.Following Wang et al.(2015),Li et al.(2024),and Xia et al.(2025),this paper controls Firm Size(Size),Leverage Ratio(Leverage),Return on Assets(ROA),Board Size(Boardsize),Independent Director Ratio(IndRate),Largest Shareholder Ownership(Top1),Annual Stock Return(Return),Stock Turnover(Turnover),Tobin's Q(TobinQ),Management Shareholding(Mshare),Firm Age(FirmAge).Year and Industry denote year and industry fixed effects.To control for potential cross-sectional correlation,standard errors are clustered at the firm level in all regressions.Detailed variable definitions are shown in Table1.

Table 1. Variable Definitions

Symbol	Variable Name	Definition
SYN	Stock Price Synchronicity	Calculated via Models(2) and (3)
IndHold	Major Individual Shareholders	Annual average of the sum of shareholding ratios of natural-person shareholders in the top 10 tradable shareholders(excluding actual controller and direct controlling shareholder)across quarters
Size	Firm Size	Natural logarithm of total assets at year-end
Leverage	Leverage Ratio	Total liabilities/total assets at year-end
ROA	Return on Assets	Net income/total assets
Boardsize	Board Size	Natural logarithm of the number of directors
IndRate	Independent Director Ratio	Independent directors/total directors
Top1	Largest Shareholder Ownership	Shares held by the largest shareholder/total shares
Return	Annual Stock Return	Individual stock return in the current period
Turnover	Stock Turnover	Trading volume/total outstanding shares
TobinQ	Tobin's Q	(Market value of tradable shares+Non-tradable shares×Net asset per share+Book value of liabilities)/Total assets
Mshare	Management Shareholding	Shares held by directors,supervisors,and executives/total shares
FirmAge	Firm Age	ln(Current year−Establishment year+1)

3.2. Data Source

This paper takes A-share listed firms as the research object and explores the impact of increased major individual shareholder ownership on stock price synchronicity using data from 2007 to 2024.All data are sourced from the China Stock Market&Accounting Research(CSMAR) Database.To ensure sample validity and regression accuracy,the following filters are applied:(1)exclude financial firms;(2)exclude ST,ST,and other abnormally listed firms;(3)exclude observations with severe data missing;(4)winsorize all variables at the 1%and 99%levels.The final sample consists of 46,956 firm-year observations.

3.3. Descriptive Statistics

Table2 presents descriptive statistics for the main variables.The mean of stock price synchronicity(SYN) is 0.240,with a standard deviation of 0.929 and a range from3.077 to 1.651,indicating generally low synchronicity and large cross-firm variation in informativeness.The mean of major individual shareholder ownership(IndHold) is 0.103,with a standard deviation of 0.112,meaning an average ownership of 10.3%,with substantial cross-firm differences(from 0 to 47.1%).Control variables fall within reasonable ranges without extreme outliers,consistent with typical features of A-share listed firms.

Table 2. Descriptive Statistics

Variable	N	mean	sd	min	max
SYN	46,956	-0.240	0.929	-3.077	1.651
IndHold	46,956	0.103	0.112	0.000	0.471
Size	46,956	22.220	1.282	19.880	26.230
Leverage	46,956	0.430	0.204	0.057	0.892
ROA	46,956	0.032	0.064	-0.248	0.194
Boardsize	46,956	2.120	0.201	1.609	2.708
IndRate	46,956	0.377	0.054	0.333	0.571
Top1	46,956	0.335	0.148	0.081	0.739
Return	46,956	0.140	0.595	-0.664	2.726
Turnover	46,956	654.300	508.400	63.620	2623.000
TobinQ	46,956	2.019	1.264	0.836	8.242
Mshare	46,956	0.127	0.188	0.000	0.675
FirmAge	46,956	2.951	0.340	1.946	3.638

4. Empirical Results and Analysis

4.1. Baseline Regression Analysis

Table3 reports baseline regression results of major individual shareholder ownership on stock price synchronicity.In Regression(1) without controls or fixed effects,the coefficient of IndHold is 0.995 and significant at the 1% level.In Regression(2) controlling for industry and year fixed effects,IndHold remains significantly negative at the 1% level.In Regression(3) adding control variables,the coefficient rises to 1.075 and is still significant at 1%.In Regression(4) including controls and fixed effects,the conclusion holds.For controls,Leverage is significantly positive,while Size,ROA,Top1,TobinQ,and Mshare are significantly negative,consistent with existing literature.

These results indicate a negative relationship between major individual shareholder ownership and stock price synchronicity:higher ownership significantly reduces synchronicity,supporting H1 and rejecting H2.

Table 3. Baseline Regression Results

Variable	*SYN*			
	(1)	**(2)**	**(3)**	**(4)**
IndHold	-0.995	-0.339	-1.075	-0.685
	(-17.457)	(-6.723)	(-15.235)	(-11.489)
Size			-0.070	-0.078
			(-8.915)	(-11.226)
Leverage			-0.151	-0.198
			(-4.268)	(-6.293)
ROA			-0.569	-0.282
			(-5.985)	(-3.478)
Boardsize			0.308	0.039
			(7.902)	(1.268)
IndRate			0.372	0.077
			(2.754)	(0.729)
Top1			-0.055	-0.270
			(-1.137)	(-6.926)
Return			-0.233	-0.345
			(-30.985)	(-34.500)
Turnover			-0.000	-0.000
			(-1.350)	(-15.611)
TobinQ			-0.127	-0.139
			(-20.494)	(-24.701)
Mshare			-0.171	0.136
			(-4.328)	(3.933)
FirmAge			-0.346	-0.045
			(-18.765)	(-2.443)
Constant	-0.137	0.324	2.072	3.347
	(-13.793)	(4.657)	(10.158)	(17.261)
N	46,956	46,956	46,956	46,956
R^2	0.014	0.267	0.098	0.346
Industry	NO	YES	NO	YES
Year	NO	YES	NO	YES

Note:tstatistics in parentheses;,,,denote significance at the 10%,5%,and 1%levels,respectively.The same applies hereinafter.

4.2. Robustness Checks

(1) Alternative Dependent Variable.To avoid bias from a single measure,this paper follows Wang et al.(2015) and replaces the dependent variable with stock price crash risk,measured by the negative coefficient of skewness(NCSKEW) and the down-to-up volatility ratio(DUVOL).Results in Table4 show that IndHold coefficients are 1.157 and 0.686,both significantly negative at 1%,confirming the negative relationship after variable replacement.

(2) Alternative Sample.The baseline sample includes observations with zero major individual shareholder ownership.To exclude potential interference,this paper drops such observations and retains only firms with positive ownership.Results in Table4 show that IndHold remains significantly negative at 1% after controlling for firm characteristics and fixed effects,confirming robustness.

(3) Propensity Score Matching(PSM).Considering that major individual shareholder ownership decisions are nonrandom,baseline regression may suffer from selection bias.This paper uses PSM:the treatment variable equals 1 if ownership is above the sample median,and matching variables include firm size,leverage,and firm age.The matched sample has 44,291 observations.Re-regression results in Table4 show that IndHold coefficients are significantly negative at 1%,confirming robustness.

Table 4. Robustness Checks

	Alternative Dependent Variable		Alternative Sample				Propensity Score Matching			
Variable	***NCSKEW***	***DUVOL***	***SYN***				***SYN***			
	(1)	**(2)**	**(1)**	**(2)**	**(3)**	**(4)**	**(1)**	**(2)**	**(3)**	**(4)**
IndHold	-1.157	-0.686	-1.064	-0.504	-1.154	-0.780	-0.979	-0.378	-1.093	-0.691
	(-23.710)	(-22.308)	(-18.793)	(-9.993)	(-16.096)	(-12.832)	(-16.978)	(-7.358)	(-15.152)	(-11.265)
N	46,956	46,956	41,916	41,916	41,916	41,916	44,291	44,291	44,291	44,291
R^2	0.084	0.087	0.017	0.264	0.097	0.347	0.013	0.266	0.097	0.346
Industry	YES	YES	NO	YES	NO	YES	NO	YES	NO	YES
Year	YES	YES	NO	YES	NO	YES	NO	YES	NO	YES

4.3. Endogeneity Test

Although baseline results show that major individual shareholder ownership significantly reduces synchronicity,estimation may be biased due to endogeneity,such as omitted variables or self-selection(ownership depends on firm conditions).To address this,this paper follows Tan et al.(2019) and Wang et al.(2015) and uses the annual industry-average major individual shareholder ownership of other firms as the instrumental variable(IV).Results in Table5 show that in the first stage,IV is significantly positive at 1%,satisfying the relevance condition.In the second stage,IndHold is significantly negative at 5%,consistent with baseline results.

Table 5. Instrumental Variable Method

Variable	***IndHold*** **(1)**	***SYN*** **(2)**
IV	0.478	
	(12.183)	
IndHold		-1.284
		(-2.399)
N	46,956	46,956
R^2	0.522	0.342
Industry	YES	YES
Year	YES	YES

5. Further Analysis

5.1. Heterogeneity Analysis

(1) Ownership share among major individual shareholders.A higher share of a firm's ownership in a major individual shareholder's total portfolio aligns personal wealth with long-term performance and governance,strengthening incentive alignment,monitoring motivation,and riskbearing(Tan et al.,2019).With higher alignment,major individual shareholders have stronger incentives to collect internal information,participate in decisions,constrain opportunism and manipulation,and improve disclosure standardization and timeliness.A better information environment accelerates idiosyncratic information incorporation,reduces reliance on market/industry information,and weakens co-movement(Lüet al.,2025).Thus,higher internal power concentration strengthens the inhibitory effect.

Following Zheng(2021),this paper uses the ratio of a major individual shareholder's ownership to total major individual shareholder ownership(IndHold_Ratio) and includes an interaction term.Results in Table6 Column(1) show that IndHold is significantly positive at 5%,meaning weak inhibition at zero ratio;the interaction is significantly negative at 1%,meaning stronger inhibition with higher concentration.

(2) Ownership change.Larger ownership changes,especially continuous increases,reflect active governance and sustained monitoring(Wang et al.,2015).Positive ownership changes compress room for information hiding,earnings management,and inefficient investment,mitigate agency conflicts,reduce asymmetry,and help the market recognize and price idiosyncratic information(Kim and Zhang,2014).Thus,larger changes strengthen the inhibitory effect.

This paper uses the absolute annual change in ownership(IndHold_Change) and includes an interaction term.Results in Table6 Column(2) show that IndHold is significantly negative at 1%(inhibition at zero change);the interaction is significantly negative at 1%,meaning stronger inhibition with larger changes.

(3) Audit quality.High-quality external auditing constrains earnings management,improves accounting reliability and disclosure transparency,and reduces asymmetry(Wu et al.,2020;Zeng et al.,2026).Strong external monitoring partially substitutes internal monitoring,weakening the effect of major individual shareholder ownership.Thus,the negative effect is weaker in high-audit-quality firms.

Following Wu et al.(2020),audit quality is measured by Big 4 auditors(Big4=1).The interaction term in Table6 Column(1) shows that IndHold is significantly negative at 1%(strong inhibition in nonBig4 firms);Big4 is significantly negative at 1%(auditing reduces synchronicity);the interaction is significantly positive at 5%,meaning high audit quality weakens the effect,confirming substitution.

(4) Analyst coverage.As key information intermediaries,analysts interpret public information,uncover private idiosyncratic information,and disseminate it via reports,lowering investor information costs and accelerating incorporation(Xiao and Shen,2021;Zeng et al.,2026).High coverage means sufficient external information transmission and abundant idiosyncratic information in prices,reducing the marginal effect of internal monitoring(Yi et al.,2019).Thus,the inhibitory effect is weaker in high-coverage firms.

Following Xiao and Shen(2021),coverage is measured by analyst count.The interaction term in Table6 Column(2) shows that IndHold is significantly negative at 1%(inhibition at zero coverage);Analyst is significantly negative at 1%(coverage reduces synchronicity);the interaction is significantly positive at 1%,meaning high coverage weakens the effect,confirming substitution.

Table 6. Heterogeneity Analysis

Variable	*SYN*			
	(1)	**(2)**	**(3)**	**(4)**
IndHold	0.684	-0.693	-0.698	-0.913
	(2.576)	(-11.450)	(-11.670)	(-12.080)
IndHold×IndHold_Ratio	-1.570			
	(-5.415)			
IndHold×IndHold_Change		-0.203		
		(-3.151)		
IndHold×Big4			0.635	
			(2.536)	
IndHold×Analyst				0.148
				(3.844)
Big4			-0.143	
			(-4.706)	
Analyst				-0.088
				(-13.433)
N	46,956	46,956	46,956	46,956
R^2	0.347	0.346	0.347	0.351
Industry	YES	YES	YES	YES
Year	YES	YES	YES	YES

5.2. Mechanism Analysis

Empirical results confirm the negative relationship,but the transmission channel remains unclear.Existing research suggests information transparency is a key mediator:major individual shareholders monitor management,reduce manipulation,improve disclosure quality,and mitigate asymmetry(Ren,2021).Higher transparency facilitates idiosyncratic information incorporation,reduces reliance on systematic information,and lowers synchronicity.This paper uses information transparency as the mediator to test the mechanism.

(1) Agency Cost.Following Luo(2012),agency cost(AC4) is measured by other receivables to total assets,reflecting large shareholder fund occupation.Higher AC4 means more severe agency problems,lower disclosure quality,and lower transparency.Results in Table10 Column(1) show that IndHold is significantly negative at 5%,meaning major individual shareholders reduce agency costs via monitoring,improving governance and transparency.

(2) KV Index.Xu and Xu(2015) find that better disclosure reduces investor reliance on trading volume and increases reliance on public information,weakening the volume-return relationship.The KV index measures this reliance:higher KV means lower disclosure quality and transparency;lower KV means higher transparency.The KV index is constructed as:

$$Ln\left|P_t - P_{t-1}\right| = \lambda_0 + \lambda(Vol_t / Vol_0 - 1) + \varepsilon \tag{4}$$

Where P_t is daily closing price,Vol_t is daily trading volume,and Vol_0 is average daily volume.Results in Table10 Column(2) show that IndHold is significantly negative at 1%,meaning higher ownership reduces KV and improves transparency by standardizing disclosure and increasing accounting reliability.

(3) Earnings Management.Following Wang et al.(2015),earnings management(absDA) is measured by the absolute value of discretionary accruals from the modified Jones model.Higher absDA means more severe manipulation,lower accounting quality,and lower transparency.Results in Table7 Column(3) show that IndHold is significantly negative at 1%,meaning higher ownership curbs earnings management,improves accounting authenticity,and enhances transparency.

Table 7. Mediating Mechanism Tests

Variable	*AC4* (1)	*KV* (2)	*absDA* (3)
IndHold	-0.004	-0.057	-0.100
	(-2.131)	(-4.751)	(-25.940)
N	46,936	46,886	46,481
R^2	0.162	0.306	0.149
Industry	YES	YES	YES
Year	YES	YES	YES

6. Conclusion

As a key indicator of stock price informativeness,stock price synchronicity directly affects capital market pricing efficiency and stability.Higher synchronicity means less firm-specific information in prices,weakening the price mechanism's resource allocation function and amplifying systemic risk accumulation.Given persistent"co-movement in rise and fall"and room for improving information efficiency,optimizing internal governance to boost idiosyncratic information incorporation has become a focus for academia and practice.Using a sample of A-share listed firms from 2007 to 2024,this paper examines the impact of major individual shareholder ownership on stock price synchronicity from an ownership structure perspective and reveals the mediating role of information transparency.Results show a significant negative relationship:higher ownership reduces synchronicity,robust to alternative variables,sample exclusion,PSM,and instrumental variable methods.Heterogeneity analysis indicates that the inhibitory effect is stronger with higher internal power concentration and larger ownership changes,while high audit quality and analyst coverage weaken the marginal effect.Mechanism tests confirm that information transparency mediates the relationship:major individual shareholders enhance transparency by reducing agency costs and curbing earnings management,facilitating idiosyncratic information incorporation and lowering synchronicity.

This paper clarifies the dual effects of major individual shareholder ownership—monitoring for good governance versus tunneling for private gains—and empirically proves that monitoring dominates,identifying the impact path.The findings enrich literature on ownership governance and synchronicity determinants,providing actionable evidence for listed firms to optimize ownership,strengthen governance,and improve disclosure.They also help regulators refine rules for individual large shareholders,improve information efficiency,protect investors,prevent systemic risk,and support capital market reforms and high-quality economic development.

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