World Journal of Economics and Business Research
Print ISSN: 2960-0073
Online ISSN: 2960-0081
DOI: https://doi.org/10.61784/wjebr3127

THE IMPACT OF ESG DISCLOSURE ON STOCK PRICE SYNCHRONICITY

YunWei Shen
International Business College, Dongbei University of Finance and Economics, Dalian 116025, Liaoning, China.

Abstract: Against the dual context of global sustainable development and the high-quality development of China's capital market, ESG disclosure has gradually become an important mechanism for mitigating information asymmetry and improving resource allocation efficiency, which carries substantial theoretical and practical importance for fostering the stable and effective functioning of the capital market. Using panel data of Chinese A-share listed firms spanning from 2011 to 2023 as the research sample, this paper empirically investigates the impact of ESG disclosure on stock price synchronicity and its heterogeneous effects across different firm characteristics. The empirical results demonstrate that ESG disclosure significantly reduces stock price synchronicity, and this negative impact exhibits noticeable heterogeneity: it is more conspicuous in non-manufacturing enterprises and state-owned enterprises. Further dimensional analysis reveals that environmental (E) and social (S) dimensions play a significant role in lowering stock price synchronicity, whereas the corporate governance (G) dimension shows no significant effect. By distinguishing industry attributes, property rights and three-dimensional differences of ESG, this study enriches research on the capital market consequences of ESG disclosure and supplements the influencing factors of stock price synchronicity, providing empirical evidence for regulatory authorities and listed companies to improve information disclosure quality.
Keywords: ESG disclosure; Stock price synchronicity; Heterogeneity analysis; A-share listed companies

1 INTRODUCTION

As a core part of corporate non-financial information, ESG disclosure embodies sustainable development in capital markets and supports China's green development strategy. With regulatory policies pushing ESG disclosure from voluntary to mandatory, it has become a key basis for investor decisions and corporate governance. As an emerging market, China's capital market is plagued by high stock price synchronicity and insufficient firm-specific information, limiting resource allocation efficiency. In this context, whether ESG disclosure can reduce stock price synchronicity and improve information efficiency has become an important issue to be addressed.

Accordingly, this paper takes Chinese A-share listed firms from 2011 to 2023 as the sample, uses the Bloomberg ESG Disclosure Score as the key explanatory variable, measures stock price synchronicity following Morck et al. (2000), and empirically examines its relationship with ESG disclosure [1]. The study finds that ESG disclosure significantly reduces corporate stock price synchronicity.

Compared with existing literature, the contributions and distinctive features of this study are chiefly manifested in three dimensions:

(1) This study enriches research on the economic consequences of ESG disclosure. While existing literature explores its impact on firm value and analyst attention, few examine its effect on capital market resource allocation efficiency, especially stock price synchronicity [2-3]. This limits understanding of ESG's governance role and hinders research in this field. This paper empirically tests how ESG disclosure affects stock price synchronicity, extending research on non-financial disclosure and price informativeness.

(2) This study extends research on the drivers of stock price synchronicity. Existing studies have mainly analyzed it from perspectives such as stock connect programs, government intervention, board characteristics and analyst behavior, with little attention to the link between ESG disclosure and market pricing efficiency [4-6]. This hinders a comprehensive understanding of the mechanisms underlying stock price synchronicity and makes it difficult to fully identify the role of non-financial information in capital market pricing.

This paper examines the impact of ESG disclosure on stock price synchronicity, thereby enriching the research on the determinants of stock price synchronicity.

This paper enriches the literature on non-financial disclosure and stock price synchronicity from multiple perspectives. Existing heterogeneity analyses have mainly focused on external contexts including marketization, regional rule of law, firm size and other general corporate characteristics [7-11]. This study investigates the effect of ESG disclosure on stock price synchronicity and its heterogeneity across ESG dimensions, ownership, and industry. It provides detailed evidence on the pricing impact of non-financial information, with clear implications for policy and corporate practice.

2 THEORETICAL ANALYSIS AND RESEARCH HYPOTHESES

2.1 Theoretical Framework

To analyze the mechanism of ESG disclosure on stock price synchronicity, this paper integrates Signaling Theory, Principal-Agent Theory, and Stakeholder Theory, supported by the Efficient Market Hypothesis. These theories form a consistent framework: Signaling Theory explains how ESG conveys firm-specific information; Principal-Agent Theory addresses how it reduces asymmetry from agency concerns; Stakeholder Theory defines the legitimacy of ESG disclosure; and the Efficient Market Hypothesis ensures ESG information is efficiently priced. Together, they provide a solid theoretical basis for hypothesis development.

2.1.1 Signaling theory

Proposed by Spence (1973), Signaling Theory is the core theoretical basis for explaining voluntary information disclosure in capital markets [12]. Its core view is that under information asymmetry, high-quality firms proactively send credible, hard-to-imitate signals to the market. This distinguishes them from others, reduces frictions from information asymmetry, and improves resource allocation efficiency.

In China's A-share market with high information asymmetry, ESG disclosure serves as a costly, credible signal consistent with Signaling Theory. Sustained, standardized ESG disclosure requires heavy investment in environment, social responsibility and governance. Only high-quality, well-governed firms can afford such long-term costs, making ESG performance difficult for low-quality firms to imitate [13]. More importantly, ESG disclosure conveys incremental qualitative information about a company's long-term value, risk level, governance capabilities, and sustainable operational potential—information that cannot be captured by traditional financial statements [14]. When investors incorporate this incremental information into pricing, stock prices reflect firm-specific traits rather than merely following market or industry trends, directly lowering synchronicity. This logic forms the foundation for analyzing the relationship between ESG disclosure and stock price synchronicity.

2.1.2 Principal-agent theory

Principal-Agent Theory highlights agency concerns from ownership-management separation. Managers' opportunism reduces information transparency, forcing investors to rely on market and industry information, thereby raising stock price synchronicity. ESG disclosure alleviates such concerns: the G dimension restrains management behavior, while E and S dimensions expand disclosure and reduce information asymmetry. Higher transparency incorporates more firm-specific information into stock prices, reducing synchronicity.

2.1.3 Stakeholder theory

Stakeholder Theory moves beyond shareholder primacy to support ESG practice and disclosure. It holds that corporate development relies on diverse stakeholders, whose demands shape risk, reputation and long-term value. ESG disclosure addresses multi-stakeholder needs and delivers long-term value information beyond financial data. Against China's improving ESG regulation and rising investor attention, it helps stock prices reflect firm-specific risks and value rather than market trends alone, thus lowering synchronicity. This theory extends the mechanism linking ESG disclosure to stock price synchronicity.

2.2 The Underlying Theoretical Basis of the Efficient Market Hypothesis

The Efficient Market Hypothesis categorizes market efficiency into three forms. Under semi-strong-form efficiency, stock prices fully reflect all public information in a timely manner. As important public information, ESG disclosure influences synchronicity based on market efficiency. China's market is moving toward semi-strong-form efficiency, supporting ESG information to be quickly priced into stocks. Improved ESG disclosure enriches firm-specific information, reduces reliance on market and industry data, and lowers synchronicity. EMH thus provides essential institutional support for the study's logic.

2.3 Research Hypotheses

Based on the four theories, this paper clarifies the mechanism: ESG disclosure, as a credible costly signal, eases agency concerns, meets stakeholder needs, improves transparency and delivers incremental firm-specific information, reducing information asymmetry. In a semi-strong-form efficient market, such information is rapidly priced, making stocks reflect firm characteristics and lowering synchronicity. Combining theoretical analysis with baseline regression, we propose the research hypothesis.

2.3.1 Hypothesis on the impact of ESG disclosure on stock price synchronicity

From the Stakeholder Theory perspective, ESG disclosure responds to multi-stakeholder demands and transmits incremental information on corporate long-term resilience and sustainability. Based on Resource Dependence Theory, it helps firms gain stakeholder support and ease financing constraints. More importantly, ESG disclosure provides incremental non-financial information, reduces investor uncertainty, and lowers reliance on market-level information, thereby weakening synchronous stock price movements. Integrating the four theories and the significantly negative coefficient from baseline regression, this paper proposes the core hypothesis:

H1: An increase in the level of ESG information disclosure will significantly reduce stock price synchronicity.

3 RESEARCH DESIGN

This section examines the impact of ESG disclosure on stock price synchronicity by constructing a fixed-effects regression model, thereby providing a solid methodological foundation and data support for subsequent empirical analysis.

3.1 Model Specification and Variable Selection

To test the impact of ESG disclosure on stock price synchronicity, we follow the standard approach in the literature and first estimate the following market model to decompose stock return variation into market-wide and firm-specific components [1]:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \gamma_i R_{ind,t} + \varepsilon_{i,t} \quad (1)$$

In Equation (1), this two-factor market model decomposes the daily returns of stock i at time t ($R_{i,t}$) into three parts: a constant term (α_i), the component explained by market-wide factors (β_i, $R_{m,t}$), the component explained by industry-wide factors (γ_i, $R_{ind,t}$), and the residual firm-specific variation ($\varepsilon_{i,t}$). The R^2 from this regression is then log-transformed to construct the stock price synchronicity variable $SYN_{i,t}$, which is used as the dependent variable in the subsequent analysis.

3.1.1 Model specification

$$SYN_{i,t} = \alpha_0 + \alpha_1 ESG_{i,t} + \alpha_2 Controls_{i,t} + \gamma_j + \delta_t + \varepsilon_{i,t} \quad (2)$$

In Equation (2), $SYN_{i,t}$ represents the stock price synchronicity of firm i in year t, calculated as the logistic transformation of the R^2 from the market model regression; $ESG_{i,t}$ is the core explanatory variable, denoting the ESG disclosure score of firm i in year t; $Controls_{i,t}$ refers to a set of firm-level control variables; γ_j and δ_t capture province fixed effects and year fixed effects, respectively, to account for unobserved time-invariant provincial disparities and shared macroeconomic shocks. And $\mathcal{E}_{i,t}$ is the idiosyncratic error term.

3.1.2 Variable selection

(1) Dependent Variable: Stock Price Synchronization

Drawing on Morck et al. (2000), the regression coefficient reflects the influence of the market and industry on stock i [1]. Therefore, R^2 serves as a positive measure of stock price synchronicity; a larger value of R^2 indicates that the stock is more influenced by market and industry factors, contains less firm-specific information, and exhibits higher stock price synchronicity. By taking the logarithm of R^2, we obtain the proxy variable for stock price synchronicity, SYN.

$$SYN_{i,t} = ln\,(R^2/(1-R^2)) \quad (3)$$

In Equation (3), $SYN_{i,t}$ represents the stock price synchronicity of firm i in year t, calculated as the natural logarithm of the ratio of the coefficient of determination (R^2) from the market model regression to one minus R^2. This logistic transformation is applied to convert the bounded R^2 into a continuous variable that follows a normal distribution, facilitating subsequent regression analysis.

A higher SYN means stock returns move more with market and industry trends, reflecting less firm-specific information; a lower SYN indicates returns are driven more by company-level traits, with higher information efficiency.

(2) Explanatory Variable: ESG Disclosure

Corporate ESG disclosure data is sourced from Bloomberg ESG scores. On one hand, using third-party Bloomberg scores ensures consistency in measuring ESG disclosure. On the other, Bloomberg's rating is based on standardized evaluation of public ESG disclosures, enabling a comprehensive and accurate measure of corporate ESG disclosure.

(3) Control Variables

Following the study by Hu et al. (2023), the following variables were selected as control variables: Return on Assets (ROA), Revenue Growth Rate (GROW), Firm Size (SIZE), Debt-to-Equity Ratio (LEV), and Return on Equity (ROE) [10]. The specific definitions of these variables are presented in Table 1.

Table 1 Variable Descriptions

Variable Type	Variable Name	Variable Symbol	Variable Definition
Dependent Variable	Stock Price Synchronization	SYN	Stock price synchronicity of firms based on model fitting
Explanatory variables	ESG Disclosure	ESG	ESG disclosure ratings of firms as estimated by the model
Control variables	Company Size	Size	Natural logarithm of the market capitalization of listed companies
	Company Debt Ratio	Lev	Ratio of total liabilities to total assets at the end of the period
	Return on Total Assets	ROA	Net Income / Total Assets
	Revenue Growth Rate	Grow	(Current Year Revenue-Previous Year Revenue) / Previous Year Revenue
	Return on Equity	ROE	Net Income for the Current Year to Shareholders' Equity to the average balance of shareholders' equity

3.2 Data Sources and Sample Selection

Most of the data employed in this study comes from the CSMAR database. Variables related to stock price synchronicity primarily comes from the CSMAR database and the official website of the People's Bank of China, while corporate ESG disclosures and data across its three dimensions are sourced from the Bloomberg database. The official website of the People's Bank of China is excluded for irrelevance to the research variables.

This study focuses on the time span from 2011 to 2023. To guarantee the dependability of the subsequent multiple regression outcomes, this study selects companies listed on the Shanghai and Shenzhen A-share markets as the research sample and performs the following data cleaning procedures: (1) Omit ST - listed companies, delisted companies, and companies that made their debut in the current year; (2) Rule out companies in the financial and real estate industries; (3) Disregard observations with absent data in the control variables. Additionally, to mitigate the influence of outliers, the primary continuous variables were cropped at the 1% level.

4 EMPIRICAL RESULTS AND ANALYSIS

4.1 Descriptive Statistics

The final sample consists of 7,848 firm-year observations with complete data across variables. Table 2 presents the descriptive statistics for the main variables. The core explanatory variable ESG has a mean of 29.729 and a standard deviation of 9.761, reflecting substantial cross-firm differences in ESG performance. The dependent variable, stock price synchronicity, averages -0.391, consistent with prior literature. All other control variables exhibit reasonable ranges without extreme outliers. Overall, the sample is of sound quality and suitable for the empirical analysis.

Table 2 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ESG	7848	29.729	9.761	10.764	78.413
SYN	7848	-0.391	0.933	-3.596	1.464
Size	7848	23.325	1.249	19.742	26.452
Lev	7848	0.501	0.194	0.030	0.908
ROA	7848	0.041	0.057	-0.556	0.222
ROE	7848	0.071	0.140	-1.711	0.352
Growth	7848	0.149	0.383	-0.673	5.076

4.2 Baseline Regression

Table 3 reports the baseline regression results. Columns (1)–(6) show estimations with controls added sequentially, and the ESG coefficient remains significantly negative throughout. In the full specification, the ESG coefficient is -0.004 and significant at the 10% level, supporting Hypothesis H1 that improved ESG disclosure significantly reduces stock price synchronicity. Economically, a one-unit increase in ESG score is associated with a 0.004 decrease in synchronicity. This suggests that stronger ESG disclosure weakens the co-movement of stock prices with market and industry fluctuations, allowing prices to reflect more firm-specific information. While the effect size is modest, it is economically meaningful among Chinese listed firms and indicates improved stock price informativeness.

Table 3 Baseline Regression

	(1) SYN	(2) SYN	(3) SYN	(4) SYN	(5) SYN	(6) SYN
ESG	-0.009***	-0.009***	-0.008***	-0.007***	-0.007***	-0.004*
	(-4.805)	(-4.803)	(-4.240)	(-3.420)	(-3.428)	(-1.837)
ROA		0.175	-1.609*	-0.790	-0.713	-1.036
		(0.398)	(-1.784)	(-1.058)	(-0.949)	(-1.501)
ROE			0.964***	0.686***	0.744***	0.500**
			(3.015)	(3.016)	(3.187)	(2.170)
Lev				0.188	0.211	-0.423***
				(1.337)	(1.482)	(-3.792)
Growth					-0.121***	-0.065*
					(-3.293)	(-1.906)
Size						0.183***
						(16.293)
cons	0.243***	0.238***	0.227***	0.228***	0.232***	0.310***
	(6.207)	(5.852)	(5.455)	(5.449)	(5.644)	(7.422)
Province FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	7848	7848	7848	7848	7848	7848
R2	0.2420	0.2421	0.2447	0.2455	0.2468	0.2843

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively; the values in parentheses are t-values calculated using firm-level clustered robust standard errors.

As the core vehicle for disclosing firms' non-monetary characteristics, ESG disclosure effectively alleviates capital market information asymmetry, guides investors to explore firms' heterogeneous value, and reduces stock prices' tracking of systemic market information.

4.3 Robustness Analysis

4.3.1 Lagged core explanatory variables

Table 4 presents robustness results using the lagged ESG to address reverse causality. The coefficient of L.ESG is significantly negative at 5% level, consistent with baseline results and with higher significance. This eliminates reverse causality and confirms the robust and persistent effect of ESG disclosure in reducing stock price synchronicity.

Table 4 Robustness Tests

	(1) SYN	(2) SYN	(3) SYN	(4) SYN	(5) SYN	(6) SYN
L.ESG	-0.011***	-0.011***	-0.010***	-0.009***	-0.009***	-0.005**
	(-5.700)	(-5.673)	(-5.158)	(-4.189)	(-4.145)	(-2.115)
ROA		0.271	-1.422	-0.800	-0.750	-1.109
		(0.639)	(-1.511)	(-0.985)	(-0.918)	(-1.448)
ROE			0.902**	0.693**	0.737***	0.525*
			(2.563)	(2.653)	(2.763)	(1.969)
Lev				0.145	0.162	-0.440***
				(0.930)	(1.041)	(-3.471)
Growth					-0.091**	-0.048
					(-2.543)	(-1.402)
Size						0.173***
						(14.460)
cons	-0.034	-0.038	-0.043	-0.040	-0.044	0.008
Province FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
	(-0.781)	(-0.864)	(-0.975)	(-0.920)	(-1.032)	(0.181)
N	6982	6982	6982	6982	6982	6982
R2	0.2368	0.2370	0.2393	0.2398	0.2404	0.2731

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The t-values in parentheses next to the regression coefficients are calculated using firm-level clustered robust standard errors. The same applies to the table below.

4.3.2 Adding control variables

Table 5 presents the results of robustness tests with additional control variables. After gradually incorporating the control variables of ownership type (SOE) and industry (Industry) into the baseline model, the ESG coefficient remains significantly negative at the 5% level, fully consistent with the core conclusions of the baseline regression. This validates the robustness of ESG's dampening effect on stock price synchronicity. The signs of the newly added control variables are as expected, and the results for the remaining control variables are highly consistent with the baseline regression, indicating a stable model specification.

Table 5 Robustness Tests

	(1) SYN	(2) SYN
ESG	-0.004**	-0.003**
	(-2.494)	(-2.133)
Size	0.187***	0.185***
	(18.845)	(18.627)
Lev	-0.355***	-0.364***
	(-5.556)	(-5.677)
ROA	-0.198	-0.154
	(-0.620)	(-0.480)
ROE	0.128	0.116
	(1.236)	(1.118)
Growth	-0.097***	-0.098***
	(-3.646)	(-3.696)
Soe	0.137***	0.137***
	(6.894)	(6.912)
Industry		0.001*
		(1.945)
_cons	-3.942***	-3.959***
	(-19.276)	(-19.329)
Province FE	Yes	Yes
Year FE	Yes	Yes
N	7848	7848

	(1) SYN	(2) SYN
R2	0.2843	0.2857

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively. The t-values in parentheses below the regression coefficients are calculated using firm-level clustered robust standard errors.

4.3.3 Industry-year higher-order fixed effects

Table 6 presents the results of robustness tests conducted by progressively incorporating control variables; all regressions are standardized to include industry-year high-order fixed effects. After sequentially adding firm-level control variables from column (1) to column (6), the coefficient of the core explanatory variable ESG stayed consistently negative and significant at the 5% level. The magnitude of the coefficient was stable with no significant fluctuations, which is highly consistent with the core conclusions of the baseline regression, verifying that the negative inhibitory effect of ESG on stock price synchronicity possesses good robustness; the signs and significance of the coefficients for each control variable are in line with theoretical expectations, indicating a reasonable model specification.

Table 6 Robustness Tests

	(1) SYN	(2) SYN	(3) SYN	(4) SYN	(5) SYN	(6) SYN
ESG	-0.00429**	-0.00436**	-0.00428**	-0.00428**	-0.00428**	-0.00428**
	(0.00201)	(0.00201)	(0.00201)	(0.00201)	(0.00201)	(0.00201)
Size		0.194***	0.195***	0.195***	0.195***	0.195***
		(0.0154)	(0.0154)	(0.0154)	(0.0154)	(0.0154)
Lev			-0.383***	-0.383***	-0.383***	-0.383***
			(0.0896)	(0.0896)	(0.0896)	(0.0896)
Growth				-0.103***	-0.103***	-0.103***
				(0.0289)	(0.0289)	(0.0289)
ROE					0.309**	0.309**
					(0.136)	(0.136)
ROA						-0.713
						(0.435)
_cons	-4.676***	-4.639***	-4.624***	-4.624***	-4.624***	-4.624***
	(0.319)	(0.321)	(0.322)	(0.322)	(0.322)	(0.322)
Province × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	7848	7848	7848	7848	7848	7848
R2	0.270	0.270	0.270	0.271	0.271	0.271

Note: ***, **, * indicate significance at the 1%, 5%, and 10% levels, respectively; the t-values in parentheses next to the regression coefficients are calculated using firm-level cluster-robust standard errors.

4.4 Heterogeneity Analysis

4.4.1 Different ESG dimensions

Table 7 presents heterogeneity results for ESG sub-dimensions. The coefficients for E and S are −0.003 and −0.005, both significantly negative at the 1% level, indicating they significantly reduce stock price synchronicity, with the social dimension showing a stronger effect. The G coefficient is −0.001 and statistically insignificant, showing no significant impact.

Table 7 Heterogeneity Test-Different ESG Dimensions

	(1) SYN	(2) SYN	(3) SYN
E	-0.003***		
	(-3.223)		
S		-0.005***	
		(-3.372)	
G			-0.001
			(-0.840)
Size	0.205***	0.205***	0.196***
	(20.768)	(20.790)	(20.439)
ROA	-0.250	-0.219	-0.271
	(-0.728)	(-0.638)	(-0.791)
ROE	0.143	0.145	0.142
	(1.203)	(1.222)	(1.189)
Lev	-0.382***	-0.378***	-0.358***
	(-5.771)	(-5.723)	(-5.419)
Growth	-0.113***	-0.113***	-0.111***
	(-4.288)	(-4.307)	(-4.242)
_cons	-4.512***	-4.458***	-4.270***

	(1) SYN	(2) SYN	(3) SYN
	(-21.085)	(-21.215)	(-20.707)
Province FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
N	7848	7848	7848
R2	0.2773	0.2774	0.2763

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively; the t-values in parentheses following the regression coefficients are calculated using firm-level clustered robust standard errors.

The findings indicate that ESG disclosure reduces stock price synchronicity mainly through incremental firm-specific information from the environmental and social dimensions. As investors increasingly focus on E and S performance, such information eases information asymmetry and reflects corporate heterogeneity. In contrast, governance disclosure is more standardized with limited incremental information, showing no significant effect.

4.4.2 Different ownership structure

Table 8 reports heterogeneity test results by ownership structure. The sample is divided into state-owned enterprises (SOEs) and non-SOEs according to the ultimate controller. The ESG coefficient is −0.007 and significantly negative at the 1% level for SOEs, while it is −0.003 and statistically insignificant for non-SOEs. This indicates that ESG disclosure significantly reduces stock price synchronicity only in SOEs, suggesting pronounced ownership heterogeneity in the baseline conclusion.

Table 8 Heterogeneity Test-Different Ownership Structure

	(1) SYN SOE=1	(2) SYN SOE=0
ESG	-0.007***	-0.003
	(-3.455)	(-1.457)
Size	0.217***	0.159***
	(17.270)	(8.827)
ROA	0.271	-0.824
	(0.569)	(-1.643)
ROE	-0.015	0.359**
	(-0.092)	(2.074)
Lev	-0.405***	-0.351***
	(-4.800)	(-3.219)
Growth	-0.066**	-0.140***
	(-1.982)	(-3.467)
cons	-4.647***	-3.471***
	(-17.804)	(-9.336)
Province FE	Yes	Yes
Year FE	Yes	Yes
N	4660	3188
R2	0.2851	0.2745

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively; the t-values in parentheses following the regression coefficients are calculated using firm-level clustered robust standard errors.

Ownership heterogeneity tests show that ESG disclosure significantly reduces stock price synchronicity in SOEs but has an insignificant effect in non-SOEs. This supports the theoretical role of ownership in ESG implementation and provides evidence for policy and practice.

4.4.3 Different industry characteristics

Table 9 presents industry heterogeneity test results. The sample is split into manufacturing and non-manufacturing subgroups, with regressions controlled for province and year fixed effects as well as firm-level variables. The ESG coefficient is −0.011 and significantly negative at the 1% level for non-manufacturing firms, but −0.002 and insignificant for manufacturing firms. This shows that ESG disclosure only significantly reduces stock price synchronicity in non-manufacturing industries, demonstrating strong industry heterogeneity.

Table 9 Heterogeneity Test-Different Industry Characteristics

	(1) SYN Manuf	(2) SYN Non-manufacturing
ESG	-0.002	-0.011***
	(-0.955)	(-4.397)
Size	0.197***	0.210***
	(13.966)	(14.227)
ROA	-0.003	-0.370
	(-0.007)	(-0.638)

	(1) SYN Manuf	(2) SYN Non-manufacturing
ROE	0.051	0.180
	(0.298)	(1.083)
Lev	-0.349***	-0.418***
	(-3.761)	(-4.261)
Growth	-0.138***	-0.092***
	(-3.587)	(-2.632)
cons	-4.318***	-4.371***
	(-14.746)	(-14.205)
Province FE	Yes	Yes
Year FE	Yes	Yes
N	4449	3399
R2	0.2858	0.2843

Note: ***, **, and * indicate significance at the 1%, 5%, and 10% levels, respectively; the t-values in parentheses following the regression coefficients are calculated using firm-level clustered robust standard errors.

Industry heterogeneity tests show that ESG disclosure significantly reduces stock price synchronicity only in non-manufacturing firms, with no significant effect in manufacturing firms. This provides targeted empirical evidence for understanding ESG's information transmission across industries.

5 CONCLUSIONS

With the global push for sustainable development and the high-quality advancement of China's capital markets, ESG disclosure has emerged as a pivotal concern in the capital markets. Using a sample of A-share listed companies on the Shanghai and Shenzhen stock exchanges from 2010 to 2023, this study employs Bloomberg ESG scores and the classic methodology of Morck et al. (2000) to measure key variables, empirically testing the impact, mechanisms, and heterogeneity of ESG disclosure on stock price synchronicity [1].

This study finds that ESG disclosure significantly reduces stock price synchronicity and strengthens firm-specific information. Results are robust to lagged variables and alternative controls. The effect is stronger in non-manufacturing and state-owned enterprises, driven mainly by environmental and social dimensions, while the governance dimension is insignificant.

Enterprises should implement systematic and differentiated ESG disclosure with a focus on environmental and social information. Investors should incorporate ESG into decision-making with differentiated weights. Regulators should establish unified disclosure rules, strengthen supervision and penalties, and align domestic ESG ratings with international standards.

The research is limited by its reliance on Bloomberg data, focus on average effects and insufficient mechanism tests. Future studies may adopt multi-source data and conduct in-depth mechanism analyses.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

REFERENCES

[1] Morck R, Yeung B, Yu W. The Information Content of Stock Markets: Why Do Emerging Markets Have Synchronous Stock Price Movements? Journal of Financial Economics, 2000, 58(1-2): 215-260.
[2] Yu E P Y, Guo C Q, Luu B V. Environmental, social, and governance transparency and firm value. Business Strategy and the Environment, 2018, 27(7): 987-1004.
[3] Fallah M, Han S, Zhao L. Forecast Bias in Analysts' Initial Coverage: The Influence of Firm ESG Disclosures. Journal of Risk and Financial Management, 2025, 18(10): 585.
[4] Fan Q, Wang T. The impact of the Shanghai-Hong Kong Region Stock Connect policy on the A/H share price premium. Finance Research Letters, 2017, 21: 222-227.
[5] Firth M, Rui O M, Wu W. The Effects of Political Connections and State Ownership on Corporate Litigation in China. The Journal of Law and Economics, 2011, 54(3): 573-607.
[6] Wu W, Rui O M. Retail Investors and Stock Price synchronicity. Review of Pacific Basin Financial Markets and Policies, 2022, 25(3): 2250018.
[7] Gao H, Du J, Wen H. Public data access and stock price synchronicity: evidence from China. 2023.
[8] Chen J, Liu X. Environmental regulation and stock price synchronicity: evidence from a quasi-natural experiment in China. International Review of Economics and Finance, 2023, 88: 1513-1528.
[9] Escobar-Saldívar L J, Villarreal-Samaniego D, Santillán-Salgado R J. ESG and its components: impact on stock returns across firm sizes in Europe and the United States. Risks, 2026, 14(1): 4.
[10] Hu J, Zou Q, Yin Q. Research on the effect of ESG performance on stock price synchronicity: empirical evidence from China's capital markets. Finance Research Letters, 2023, 55: 103847.

[11] Potharla S, Kumar N, Choudhary P, et al. Is ESG data financially viable? a case of stock price synchronicity. Management and Labour Studies, 2024, 49(1): 62-81.
[12] Spence A M. Labor Market Signaling. Quarterly Journal of Economics, 1973, 87(3): 355-374.
[13] Talha M. Mandatory ESG disclosure and corporate performance: evidence from the EU CSRD. Corporate Social Responsibility and Environmental Management, 2026.
[14] Parhi A. Beyond the Balance Sheet: synergizing financial sustainability and information disclosure index with ESG performance metrics in Indian corporations. Available at SSRN 5559441, 2024.