Proceedings of the 2nd International Conference on Financial Technology and Business Analysis
DOI: 10.54254/2754-1169/52/20230706

Influence of ESG Performance on Fund's Propensity to Hold Shares

-Empirical Evidence from China's A-share Listed Enterprises

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Abstract: With the prevalence of the ESG investment concept in China, the scale of ESG investment continues to grow. Taking A-share listed firms as the study sample, this research study empirically investigates the influence and mechanism of corporate ESG performance on the tendency of fund shareholding. The study findings indicate that corporations with better ESG performances are more inclined to attract funds to hold shares. Further, the impact mechanism analysis shows that ESG affects fund ownership mainly through two paths: reducing the risk of stock price collapse and improving the financial performance of enterprises. Further research finds that ESG performance exerts a stronger impact on increasing fund ownership in non-SOE firms than in state-owned firms. Also, firms with sound ESG performance are more inclined to pay cash dividends to return to shareholders. The extended study finds that the effect of ESG on fund shareholding behavior is mainly due to the enhancing effect of three dimensions: management practices, environmental dimension, and social dimension. The conclusion remains unchanged after passing tests such as endogeneity. This research extends a theoretical reference for comprehending the role of ESG in the capital market.

Keywords: the risk of share price crash, corporate ESG, fund ownership

1. Introduction

Recently, the social, economic, and cultural development in China has been rapid, and the process of socialist modernization has entered a new stage, the enterprise as the main body of the national economic development, has played a vital role in economic development, and the achievement of higher quality, more efficient, more equitable as well as more sustainable development (SD) has become the goal and direction followed by the firms' development [1]. However, with the impact of climate deterioration, COVID-19 pandemic, and other issues on China's economy, as well as the increasing importance of green development and environmental protection in economic development in recent years, the enterprise's single-minded pursuit of profit maximization is no longer able to meet the current social needs. If enterprises pursue profit maximization without restriction, they have a tendency to make behaviors that meet their own short-term interests and harm the overall value of society [2]. Therefore, lowering the degree of corporate ecological pollution, enhancing governance

DOI: 10.54254/2754-1169/52/20230706

capacity, and exercising CSR have also turned out to be the direction substantially supported by all sectors of society [3]. Cultivating a healthy and stable corporate environment and implementing the new development concept are the keys to China's economic transformation. Chinese corporations must undertake different initiatives to conduct relevant CSR practices to solve the current social problems and seek differentiated development of enterprises. In this context, ESG, as a brand-new concept of sustainable development aimed at identifying environmentally concerned and socially responsible enterprises, integrating the performance of firms in the context of social, corporate governance (CG), and environmental aspects, and is increasingly attracting the attention of the Party, the State and all sectors of society. Compared with traditional enterprises that blindly focus on financial performance, ESG advocates long-term value investment rather than short-term value speculation to foster the SD of enterprises and society.

The general structure of this article is as follows. 2nd Chapter performs the review of extant studies whereas 3rd Chapter is based on the two specific theoretical analyses and research hypotheses. Subsequently, 4th Section is a brief introduction to sample selection and data sources as well as the empirical model setting. Thereafter, the 5th Section presents the analysis of empirical inferences and robustness results. Finally, the 6th Chapter sums up the study's conclusions and enlightenment.

2. Literature Review

As early as 2004, the UNEP formally introduced the notion of ESG, which integrates the social, ecological, and CG performance of enterprises to reflect the new development concept, and is a powerful tool for realizing the high-quality development of the Chinese economy and the comprehensive green transformation of social and economic development. Recently, with the active participation of countries around the world, ESG has become an important global investment strategy and corporate evaluation standard and has been increasingly valued by investors in the international capital market.

Meanwhile, the 18th CPC National Congress proposed for the first time to incorporate the development of environmental civilization into the overall layout of the "Five-in-One" socialism with Chinese traits and advocated the vigorous development of environmentally friendly industries. The meeting implemented the "Proposal of the Central Committee of the Communist Party of China on the Formulation of the Thirteenth Five-Year Plan for the Development of National Economy and Society", which combined green development with collaboration, creativity, sharing, and opening up to form the five development concepts, proposed the important role of enterprises in green development and environmental protection, leading the high-quality development of China's economy. The report of the 20th Party Congress emphasized that the construction of a modernized industrial system should not only boost the green transformation of the development mode but also encourage the high-quality development of enterprises. In June 2018, the Code of Governance for Listed Corporations was released, which requires that the behaviors of listed companies be restrained through relevant laws and regulations and that the governance degree of listed firms should be upgraded as a means of securing the legitimate interests and rights of relevant stakeholders and investors. In April 2022, the China Securities Regulatory Commission realized the Opinions on Accelerating the High-Quality Development of the Public Fund Industry, requesting the promotion of fund management companies to further improve the corporate governance mechanism, improve the "three chambers and one layer" system, perform their respective duties in strict accordance with the law, and explore the establishment of a governance system of modern asset management organizations that conforms to Chinese characteristics. Improving the ESG performance of enterprises has become one of the hot topics in today's era, and the relevant policies of the Party and the State are also paying more and more attention to the social, ecological, and CG of enterprises.

For investors, when they make investment decisions, in addition to considering the enterprise's asset scale and operational efficiency, they will also incorporate the enterprise's CG, social, and ecological performance into the framework of their investment-oriented decisions, and assess the firm's contribution to supporting the SD (economic aspect) while discharging its CSR, in order to more comprehensively assess the enterprise's performance in the areas of sustainable development and social responsibility. Enterprises can enhance their ability to cope with crises by improving the level of ESG, reducing the possibility of damaging their reputation due to environmental violations, and at the same time obtain economic benefits, which is highly compatible with the current new development concept.

It has been established that ESG can affect the financing cost [3], investment efficiency [4], and enterprise value [5], but there is no study on the ESG's impact on the shareholding behavior of funds. As one of the important value investors, funds may further emphasize the SD ability of corporations, so those companies with improved ESG performance are more likely to be paid attention to by funds. Therefore, it is necessary to investigate the effect of ESG on the fund's shareholding behavior, which can help to make up for the inadequacy of the extant literature.

This article focuses on the ESG performance's effect on fund-holding propensity and its internal mechanism from the standpoint of empirical evidence from Chinese A-share firms. It is found that the enhancement in the enterprise's ESG performance demonstrates a significant promoting effect on fund shareholding. The mechanism test finds that sound ESG performance effectively attracts more fund holdings as it can reduce the estimated crash risk and enhance the financial performance of firms. Further research tests find that for Non-SOEs, corporate ESG performance is more inclined to increase the fund's shareholding preference. Simultaneously, enterprises with sound ESG performance are more inclined to pay cash dividends to reward stockholders. The expanding study finds that the effect of ESG on fund shareholding behavior is mainly due to the enhancing effect of the three dimensions of management practices, environmental dimensions, and social dimensions. The conclusion remains unchanged after passing tests such as endogeneity. The major offerings of this research are majorly inherited in the given two dimensions:

Firstly, this research paper for the first time examines the requirement of high-quality development of enterprises in the "20th National Congress Report" from the perspective of ESG-centered stock price crashes and fund holdings. Existing literature suggests that good ESG performance can improve firms' innovation performance [6] and business credit [7], which in turn can bring more benefits to firms. As a result, this study not only extends but also complements the existing literature.

Secondly, this paper enriches the existing literature associated with the factors influencing the propensity of funds to hold stocks. Existing literature mainly discusses the impact of stock volatility, turnover rate, firm size, and financial condition on fund-holding propensity. However, few research studies have discussed the mechanism of ESG performance on fund ownership. This research article subdivided ESG ratings into five dimensions: management practices, environmental dimensions, social dimensions, controversial events, and governance dimensions, which better explains the complex relationship between ESG performance, stock price collapse, and fund ownership propensity, and supplements the research literature in this area.

3. Theoretical Analysis and Research Hypotheses

Whether an enterprise can achieve high-quality development depends not only on its financial performance, investment decisions, and other aspects of its ability but also on its ability to assume social responsibility as well as its governance.

From the perspective of stakeholder theory, the healthy development of enterprises cannot be separated from the support of a series of stakeholders, such as shareholders, employees, suppliers, government, etc. The purpose of the existence of a company is not to provide returns to shareholders alone but to maximize the interests of stakeholders instead of maximizing the value of shareholders' interests [8]. By assuming social responsibility to different stakeholders, enterprises can obtain a better business environment to improve their competitiveness [9]. From the perspective of long-term corporate benefit theory, corporate investment in social responsibility can help enterprises achieve sustainable development in the long run [10]. From the perspective of corporate social responsibility theory, enterprises also need to address the requirements of environmental and social benign development in the process of pursuing shareholders' interests [2]. Based on the above theoretical analyses, if enterprises invest in social responsibility in the long term, the competitiveness of enterprises will be improved, corporate reputation can be established, and such enterprises are more likely to attract fund shareholding.

From an analyst's perspective, most investors turn to third-party financial intermediaries before purchasing securities, and financial analysts will issue sound analyst reports based on valid information from the stock market. As the ESG system becomes more and more important in the domestic and international capital markets, analysts analyze securities by examining the size and profitability of the company, while also incorporating the ecological, social, and CG elements of the company into the scope of the examination, so companies with sound ESG are more inclined to draw the focus of analysts. In order to reduce investment risks while striving for greater benefits for their clients, analysts are more likely to provide investors with reasonable analyst reports based on valid information from the stock market. In order to achieve greater benefits for their clients while reducing the risk of investment, analysts are more likely to recommend the stocks of such companies to investors.

Consistent with the aforementioned analysis, this research postulates the below hypotheses:

H1: The higher the ESG performance of a company is, the easier it is to attract fund holdings and the ESG performance is positively associated with fund holdings.

Information transparency of companies carries a strong impact on the risk related to stock price collapse. Since the release of "Guidelines on Environmental Information Disclosure of Listed Companies" (Draft for Public Comments) in 2010, listed firms are warranted to report accurate environmental data to the public in a complete and timely fashion, without material omissions, misleading statements, and inaccurate records, to further develop the transparency of corporate environmental information disclosure and to satisfy the public's and social right to learn regarding the ecological information [11]. Under the guidance of relevant policies, ESG information disclosure of enterprises has been increasingly concerned by all walks of life. According to the "information effect" of ESG information disclosure, the more ESG information disclosed by enterprises and the higher the quality is, the more conducive it is to lower the information asymmetry’s level [12]. As a consequence, enterprises disclose more ESG evidence to the general public, which helps enterprises establish a good communication channel with investors and attract more attention from investors [12]. It not only enhances the information transparency of enterprises but also inhibits the hiding of negative information by managers, and greatly reduces the chances of stock price crashes caused by information asymmetry.

Thus, this research article puts forward the following hypothesis:

H2: The better the ESG performance, the lower the risk of stock price crash.

From the viewpoint of corporate environmental responsibility performance, the extent of corporate ecological/environmental commitment demonstrates a significant positive relationship with corporate financial performance, and the implementation of corporate ecological strategy can significantly realize a win-win case for both economic performance and ecological responsibility commitment [13].

From the perspective of corporate social responsibility (CSR), enterprises move beyond the conventional narrative of financial profitability as the only objective and efficient use of resources to provide products and services needed by society and assume social responsibility for consumers, employees, and other parties. The better the performance of CSR, the better the financial performance, and the higher the stability of the company [14].

In the context of CG, the governance mechanisms involved in corporate governance, such as controlling shareholder governance, information disclosure, stakeholder governance, supervisory board, etc., determine to a large extent whether the company can have a set of scientific decision-making mechanism and decision-making implementation mechanism [15]. The improvement of the governance mechanism of the company in all aspects can enhance the efficiency of each department and then exhibit a positive impact on the enterprise's financial performance.

In line with the above inferences, this study puts forward the following hypothesis:

H3: Enterprises with better ESG performance exhibit better financial performance.

4. Research Design

4.1. Data Source and Sample Selection

The A-share listed Chinese corporations are chosen in this study for a time period ranging from 2015 to 2021 as the study sample. On the one hand, ESG rating data derives from the CSI ESG rating index, while, on the other hand, the remainder of the data comes from the Cathay Pacific database. The reason why 2015 is chosen as the starting point is that there is a serious lack of data from the previous years, and only after 2015 has China paid relative attention to the issue of ESG performance. Furthermore, to ensure the validity of the chosen data and the accuracy of the study results, the author screened the raw data as follows: (1) the financial industry companies are excluded; (2) the firms with missing variables are also not included in this study. Finally, 17,835 sample observations were obtained. Meanwhile, to avoid the interference of outliers on the experimental results, the shrinking of the upper and lower 1% quartiles (Winsorize) is performed for all continuous variables.

4.2. Empirical Model and Variables

In order to confirm H1, the following regression models are constructed by the researcher. Where t represents the year, Fund_h represents the firm's fund ownership, ESG represents the firm's ESG performance level, Control represents the firm's control variables, and εt represents the disturbance term. Hence, it is expected that if β is positive, it indicates that improving a firm's ESG performance will increase the firm's fund holdings; on the contrary, if β is negative, it indicates that improving a firm's ESG performance will reduce the firm's fund holdings. As a result, all regressions in this paper are Cluster-treated in the firm dimension.

$$Fund\_h_{t+1}=\alpha_t+\beta ESG_t+\beta Control_t+\varepsilon_t \quad (1)$$

Fund holding ratio (Fund_h). Fund_h is calculated as the proportion of the number of shares held by a fund compared to the firm's total share capital. The larger the Fund_h is, the easier the company is to attract funds to hold shares. Vice versa.

ESG performance (ESG). This paper adopts the CSI ESG evaluation index. The CSI ESG evaluation system is pillared on the core ESG implication and development experience and joined with the real condition of the domestic market to construct a three-level indicator system from bottom to top. In particular, the proposed system consists of three primary-, 14 secondary-, 26 tertiary indicators, and more than 130 underlying data indicators. In the process of ESG assessment, the ESG scores of all A-share listed corporations over the previous ten years are methodically gauged through a combination of quarterly regular evaluation and dynamic tracking (with 100 points as a maximum score), and accordingly given a nine-grade rating of "AAA-C", with greater the score, the greater the extent of ESG performance of the company.

DOI: 10.54254/2754-1169/52/20230706

Control variables. The following variables are controlled in this study: asset size (Lnsize), gearing ratio (Lev), the net profit margin on total assets (Roa), operating income growth rate (Growth), accounts receivable turnover ratio (Rev), inventory turnover ratio (Crv). Also, this paper controls for year and industry dummy variables. The particular definition of each variable is demonstrated in Table 1.

Table 1: Definition of study variables.

Variable Name	Variable Symbol	Specific Meaning
Fund_h	Fund_h	Fund_housing/Outstanding A-shares x 100%
ESG Performance Rating	ESG	CSI ESG Rating Score
Asset Size	Lnsize	ln (Total Assets)
Gearing Ratio	Lev	Total Liabilities/Total Assets
Total Assets Net Profit Margin	Roa	Net Profit/Total Assets Balance
Operating Income Growth Rate a	Growth	(Operating Income Current Single Quarterly Amount - Operating Income Previous Single Quarterly Amount)/(Operating Income Previous Single Quarterly Amount)
Accounts Receivable Turnover a	Rev	Operating Income/Accounts Receivable Closing Balance
Inventory Turnover a	Crv	Operating Costs/Closing Balance of Inventories
Industry	Industry	Dummy Variable
Year	Year	Dummy Variable

5. Empirical Results and Analyses

5.1. Descriptive Statistics

Table 2 populates the descriptive statistics for each variable. Among them, the mean/average value of fund shareholding is 3.39 and the median stands at 1.41, and the mean is greater than the median, showing a right-skewed distribution phenomenon, which indicates that a small number of sample firms have obtained a larger proportion of institutional investors' fund shareholding in their funds, which raises the mean value of fund shareholding in the total sample. The maximum value of the ESG score is recorded to be 8.00, whereas the minimum is 1.00, with a large difference between the minimum and maximum values which implies that there exist variations in terms of the ESG performance among various firms. The mean of the ESG score is 4.07, the median is reportedly 4.00 and the SD is 1.20, which implies that individual companies possess less variances in ecological/environmental, CG, and social aspects. There are some differences in the control variables among the sample firms.

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Table 2: Descriptive statistics.

Variable	Mean	SD	Min	P25	P50	P75	Max
Ffundholdp~N	3.39	4.92	0.00	0.20	1.41	4.51	145.60
ESG	4.07	1.20	1.00	3.00	4.00	5.00	8.00
Lnsize	22.14	0.95	20.71	21.30	22.06	22.97	23.62
Lev	0.42	0.21	0.06	0.25	0.41	0.57	0.96
Roa	0.03	0.08	-0.42	0.01	0.04	0.07	0.20
Growth	0.39	0.99	-0.79	-0.02	0.15	0.45	6.91
Rev	9.97	11.54	1.60	2.71	4.83	11.03	49.74
Crv	5.67	5.22	0.79	1.96	3.65	7.15	19.62

5.2. Correlation Analysis

Table 3 represents the correlation estimation of the main study variables. The Spearman and Pearson correlation shows that the association coefficient between ESG and FHP is 0.09 (0.12), both of which are significant at the 1% upper level. This means that the ESG performance of the firms displays a positive and significant relationship with the proportion of fund shareholding, which initially supports hypothesis H1 in this paper. Consequently, after controlling other correlated variables, this paper will adopt a multiple regression for further testing.

Table 3: Results of correlation coefficient analysis.

	Ffundh	ESG	Lnsize	Lev	Roa	Growth	Rev	Crv
Ffu	1.00	0.12***	0.26***	0.04***	0.24***	0.00	0.05***	-0.01
ESG	0.09***	1.00	0.15***	-0.05***	0.22***	0.02***	0.08***	0.00
Lnsize	0.13***	0.15***	1.00	0.53***	-0.14***	-0.02***	0.24***	0.12***
Lev	-0.02*	-0.07***	0.53***	1.00	-0.44***	0.04***	0.08***	0.06***
Roa	0.20***	0.21***	-0.03***	-0.34***	1.00	-0.04***	0.10***	0.06***
Growth	-0.02***	0.00	0.02**	0.08***	-0.02***	1.00	-0.22***	-0.20***
Rev	-0.01	0.06***	0.23***	0.13***	0.07***	-0.01	1.00	0.21***
Crv	-0.05***	-0.03***	0.15***	0.09***	-0.02*	-0.13***	0.20***	1.00

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

5.3. Regression Analysis

Table 4 reports the regression results of the effect of ESG performance on firms' fund shareholdings. Among them, Column (1) illustrates the basic regression estimations of ESG performance of firms with fund shareholding ratio, supported by the inclusion of control year- and industry-fixed effects. Reportedly, the regression coefficient between ESG performance and fund shareholding proportion stands at 0.415 and is significant at a 1% level of significance. Additionally, Column (2) is the result of adding control variables such as asset size, gearing ratio, and total assets' net profit margin on the basis of Column (1), which indicates that the ESG's regression coefficient on fund shareholding ratio is recorded to be 0.196 and significant at 1% statistical level. Resultantly, the ESG's coefficient exhibits a positive relation at the 1% significance level, despite of whether control variables are included, thereby, suggesting that firms with sound ESG performance are more inclined to attract fund shareholdings, which proves the establishment of the research hypothesis H1.

Table 4: Basic regression results.

VARIABLES	(1) *F.Fund_h*	(2) *F.Fund_h*
ESG	0.415***	0.196***
	(8.99)	(4.06)
Lnsize		0.993***
		(12.75)
Lev		-0.241
		(-0.63)
Roa		6.937***
		(5.55)
Growth		-0.000***
		(-10.16)
Rev		-0.003
		(-0.52)
Crv		-0.042***
		(-3.53)
Constant	2.377***	-18.558***
	(4.71)	(-11.16)
Year Fixed Influences	*Control*	*Control*
Industry Fixed Influences	*Control*	*Control*
Observations	17835	17613
R-squared	0.052	0.102

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

5.4. Mechanism Study

5.4.1. Reducing the Risk of Stock Price Collapse

Aligned with the previous analyses, this paper argues that ESG performance may affect the fund's shareholding ratio in the following two ways: (1) lowering the stock price collapse's risk; and (2) improving the financial performance of the firm. To verify the existence of the mechanism, this part will test the above two paths of action to reveal the mechanism of action.

First, the negative return skewness coefficient (NCSKEW) and the proportion of upward and downward volatility of returns (DUVOL) are utilized to scale the risk of stock price collapse, respectively. Meanwhile, the NCSKEW and the DUVOL are calculated as shown in models (2) and (3), and the larger the value is, the greater the risk of a firm's stock price collapse. Taking the NCSKEW and the proportion of DUVOL as the explanatory variables, and controlling the variables of asset size (Lnsize), Lev, Roa, and Growth, Table 5 depicts that the performance of ESG and the NCSKEW and DUVOL are all positively linked at the 1 percent level. Thus, the better ESG performance of the company will indeed make its stock price crash risk lower, which proves that the crash risk of the stock price is a mechanism through which ESG performance affects the fund's shareholding tendency.

DOI: 10.54254/2754-1169/52/20230706

$$NCSKEW_{i,t} = -\frac{[n(n-1)^{\frac{3}{2}}\sum W_{i,t}^3]}{[(n-1)(m-2)(\sum W_{i,t}^2)^{\frac{3}{2}}]} \tag{2}$$

$$DUVOL_{i,t} = log\left\{\frac{[(n \quad -1)\sum_{Down} W_{i,t}^2]}{[(n_d-1)\sum_{Up} W_{i,t}^2]}\right\} \tag{3}$$

Table 5: Reducing the risk of a share price collapse.

VARIABLES	(1) *NCSKEW*	(2) *DUVOL*
ESG	-0.020***	-0.005**
	(-4.22)	(-2.31)
Ret	-10.771***	-6.751***
	(-11.84)	(-15.59)
Sigma	-7.481***	-3.153***
	(-22.50)	(-21.09)
Lnsize	-0.052***	-0.033***
	(-7.54)	(-9.43)
Lev	-0.002	0.003**
	(-0.70)	(2.01)
Roa	-0.031	-0.003
	(-1.36)	(-0.54)
Growth	-0.000	0.000
	(-0.47)	(0.06)
Rev	-0.000	-0.000
	(-0.88)	(-0.99)
Crv	0.000	0.000
	(0.38)	(0.42)
Constant	2.123***	1.072***
	(12.84)	(12.81)
Year Fixed Influences	*Control*	*Control*
Industry Fixed Influences	*Control*	*Control*
Observations	21,695	21,695
R-squared	0.107	0.119

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

5.4.2. Improvement of Corporate Financial Performance

In this paper, earnings per share (EPS) is chosen to measure the financial performance of the firm, which is expressed as EPS, and EPS is measured by the current value of the net profit over the latest equity. Table 6 shows that the ESG's regression coefficient stands at 0.144 and is significant at a 1% level. Consequently, the above estimations indicate that ESG performance is able to improve the financial performance of firms by increasing their earnings per share, which in turn attracts more fund holdings, proving that the financial performance of firms is a mechanism through which ESG performance acts on the propensity of fund holdings.

DOI: 10.54254/2754-1169/52/20230706

Table 6: Improving the financial performance of enterprises.

	(1)
VARIABLES	*F.EPS*
ESG	0.144***
	(16.66)
Lnsize	0.057***
	(4.30)
Lev	0.076**
	(2.11)
Roa	0.381
	(1.54)
Growth	0.000***
	(5.42)
Rev	0.010***
	(7.75)
Crv	-0.003
	(-1.01)
Constant	-1.878***
	(-6.27)
Year Fixed Influences	*Control*
Industry Fixed Influences	*Control*
Observations	18,398
R-squared	0.062

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

6. Further Research

6.1. Differences in the Nature of Enterprises

As depicted in Table 7, the corporate nature’s impact on the linkage between ESG performance and fund shareholding ratio depicts that the regression coefficient of ESG in SOEs is insignificant and stands at -0.009. In non-state-owned firms, the ESG’s regression coefficient is significantly positive at 1% level and stands at 0.343; thus, suggesting that Non-SOEs are more inclined to attract fund shareholding by promoting their ESG performance, while the ESG’s effect on fund ownership is not significant in SOEs since the existence of differences in the nature of enterprises makes the future prospects of ESG viewed by companies with diverse property rights also differ significantly. SOEs are funded and operated by the state, which has the unique advantages of large enterprise assets and state-owned asset support, as well as greater social responsibilities. Therefore, institutional investors do not overly include the ESG performance of SOEs in their investment decisions. In addition to this, compared with SOEs, non-SOEs are relatively weak in their ability to resist risks and cope with crises. While evaluating the financial performance of enterprises, some investors, especially certain institutional investors, prefer to invest in enterprises with excellent social responsibility profiles [16]. Therefore, ESG performance exerts a more significant impact on enhancing the fund's shareholding ratio in non-SOEs.

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Table 7: Nature of enterprises.

VARIABLES	(1) *SOEs* *F.Fund_h*	(2) *Non-SOEs* *F.Fund_h*
ESG	-0.009	0.343***
	(-0.11)	(5.74)
Lnsize	0.917***	1.222***
	(6.57)	(12.67)
Lev	-0.478	0.314
	(-0.76)	(0.67)
Roa	12.318***	6.303***
	(6.20)	(5.37)
Growth	-0.000***	0.001
	(-8.70)	(0.39)
Rev	-0.004	0.002
	(-0.52)	(0.22)
Crv	-0.053***	-0.029*
	(-3.38)	(-1.82)
Constant	-16.646***	-23.950***
	(-5.74)	(-11.22)
Year Fixed Influences	*Control*	*Control*
Industry Fixed Influences	*Control*	*Control*
Observations	5,514	12,099
R-squared	0.120	0.118

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

6.2. Cash Dividend Distribution Perspective

Company shareholders' dividends are realized in the form of dividend distribution, while China's dividend distribution is mainly in the form of cash distribution and share delivery. In recent years, there have been more and more listed companies that do not distribute dividends, and some listed companies do not pay cash dividends even if they have a large amount of idle cash [17]. However, cash dividends, as an imperative financial decision of listed corporations, are also a critical part of the interests' balance between controlling shareholders and small and medium-sized shareholders and other related parties [18] and are also susceptible to fund preferences. Consistently, this paper is expected to find that dividend distribution is not only affected by relevant national laws and regulations, corporate operating conditions, and other factors, but also affected by corporate ESG performance. In this paper, the dividend distribution ratio is chosen to measure the dividends of the company's shareholders, which is expressed by Divid, and the measurement method is dividend per share before tax/ (net profit present value/paid-in capital present period-end value). Based on the regression estimations related to the impact of ESG performance on the relationship of dividend payout ratio, it is obvious that the regression coefficient of ESG performance on dividend payout ratio is significant at 1% level, with a value of 0.035 (Table 8). Accordingly, companies with better ESG performance have a higher propensity to distribute dividends to their shareholders, which results in more earnings for shareholders and thus also promotes more holdings by the fund.

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Table 8: Dividend ratio.

VARIABLES	*Divid*
ESG	0.035***
	(4.58)
Lnsize	-0.006
	(-0.84)
Lev	0.014
	(1.38)
Roa	0.131**
	(2.31)
Growth	-0.000***
	(-4.58)
Rev	0.001
	(0.67)
Crv	-0.002
	(-1.42)
Constant	0.291
	(1.64)
Year Fixed Influences	*Control*
Industry Fixed Influences	*Control*
Observations	16,022
R-squared	0.006

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

7. Extended Study

To further confirm the experimental estimations, this section adopts the Wind ESG evaluation system, which comprises a management practice score with a total score of 7 and a controversial event score with a total score of 3, and assigns a rating of "AAA-CCC" on a seven-point scale, which comprehensively reflects the level of the company's ESG management practices as well as the risk of material emergencies.

This section subdivides the ESG ratings into five dimensions: management practices, environmental dimension, social dimension, controversial events, and governance dimension, to further examine the effect of a firm’s ESG performance on the fund's propensity to hold shares. Among them, the management practice score (total score of 7) reflects the firm’s long-term ESG management practice level, which is weighted by the E/S/G dimension score and expressed as ESGGL; the environmental dimension score (total score of 10) is weighted by the substantive issue score of the industry’s environmental dimension in which the enterprise functions and expressed as ESGHJ; the social dimension score (total score of 10) is weighted by the substantive issue score of the industry’s social dimension in which the firm functions and expressed as ESGHJ; and the social dimension score (total score of 10) is weighted by the substantive issue score of the industry’s social dimension in which the corporation operates. Moreover, the social dimension score (total score of 10) is weighted by the score of the industry’s social dimension in which the corporation activates, and is expressed by ESGSH; the controversial event score (total score of 3) reflects the company's risk of short-term emergencies weighted by the event deductions from the three major sources of news and public opinion, regulatory penalties, and lawsuits, and is expressed by ESGZY; and the governance

DOI: 10.54254/2754-1169/52/20230706

dimension score (total score of 10) is weighted by the score of the substantive issues of the industry's governance dimension in which the firm functions, and is expressed by ESGZL. Consistent with this, Table 9 shows the Wind ESG ratings.

Table 9 presents the outcomes of the Wind ESG rating breakdown. The coefficient of ESGHJ in Column (2) is -0.037 and significant at the 5% level; consequently, implying that the improvement of environmental performance not only does not attract the growth of fund holdings but reduces fund holdings. The reason may be that firms need to pay a higher cost for improving the environment after the environmental change, which may bring long-term benefits but does not help to improve the fund's short-term returns. Besides this, the coefficients of ESGGL and ESGSH in Column (1) and Column (3) are both significant at a 1 percent level, with values of 0.262 and 0,133, respectively. This signifies that the greater the level of ESG management practices and the improved ability to deal with social issues, the more the firms are able to attract an increase in the fund's shareholding. The coefficients of ESGZY and ESGZL in Columns (4) and (5) are not significant. This result fully proves that ESG affects fund holdings in three dimensions: management practices, environmental dimension, and social dimension, respectively.

Table 9: Wind ESG rating segmentation indicators.

	(1) *Fund_h* *Management Practices*	(2) *Fund_h* *Environmental Dimensions*	(3) *Fund_h* *Social Dimensions*	(4) *Fund_h* *Controversial Events*	(5) *Fund_h* *Governance Dimensions*
ESGGL	0.262*** (2.72)				
ESGHJ		-0.073** (-1.97)			
ESGSH			0.133*** (3.20)		
ESGZY				0.190 (0.42)	
ESGZL					0.019 (0.30)
Lnsize	1.170*** (12.21)	1.236*** (12.69)	1.192*** (12.59)	1.201*** (12.66)	1.196*** (12.60)
Lev	-0.788 (-1.57)	-0.861* (-1.72)	-0.760 (-1.52)	-0.843* (-1.68)	-0.855* (-1.71)
Roa	6.287*** (4.61)	6.381*** (4.62)	6.293*** (4.64)	6.348*** (4.55)	6.372*** (4.60)
Growth	-0.006*** (-4.69)	-0.006*** (-4.70)	-0.006*** (-4.79)	-0.006*** (-4.70)	-0.006*** (-4.67)
Rev	-0.002 (-0.23)	-0.003 (-0.31)	-0.000 (-0.05)	-0.003 (-0.31)	-0.003 (-0.34)
Crv	-0.037*** (-2.68)	-0.040*** (-2.90)	-0.036*** (-2.60)	-0.039*** (-2.84)	-0.039*** (-2.83)
Constant	-23.828*** (-11.62)	-24.429*** (-11.63)	-24.046*** (-11.75)	-24.314*** (-9.62)	-23.768*** (-11.44)
Year Fixed Influences	*Control*	*Control*	*Control*	*Control*	*Control*

DOI: 10.54254/2754-1169/52/20230706

Table 9: (continued).

Industry Fixed Influences	*Control*	*Control*	*Control*	*Control*	*Control*
Observations	9,461	9,461	9,461	9,461	9,461
R-squared	0.112	0.081	0.112	0.110	0.110

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

8. Robustness Analysis

The impact of ESG on firms is long-lasting, so it may not be fully presented in the current period or have a certain degree of lag. At the same time, the problem of reverse causality that may be brought about by ESG should be taken into account, and there may be an endogeneity problem since fund shareholdings may also affect firms' ESG performance in a reverse way. Parallel to this, this article refers to Li, Siwei and Zheng, Sulan (2022) [11], and chooses the ESG of the lagged period and the ESG performance of other enterprises in a similar industry and the same year as instrumental variables, and sets the variables LESG and HESG, respectively, in order to control the possible endogeneity (Table 10).

Based on the first stage regression estimations in Table 10's Column (1), the instrumental variable LESG demonstrates a significant and positive relationship with ESG at the 1% significance level, and HESG is negatively connected to ESG at the 5% significance level. In addition to this, ESG_P is the fitted value in the first stage. From the results of the second stage regression in Column (2), the coefficient of ESG_P stands positive at the 1% significance level, with the value of 0.283, therefore the main conclusions still hold.

Table 10: Endogeneity test results.

VARIABLES	(1) *First Stage Regression* *ESG*	(2) *Second Stage Regression* *F.Fund_h*
LESG	0.696***	
	(92.55)	
HESG	-0.226**	
	(-2.19)	
ESG_P		0.283***
		(3.66)
Lnsize	0.125***	1.114***
	(12.73)	(12.87)
Lev	-0.350***	-0.471
	(-6.79)	(-1.11)
Roa	0.691***	6.506***
	(4.22)	(4.88)
Growth	-0.001*	-0.004*
	(-1.75)	(-1.95)
Rev	0.001**	-0.001
	(2.00)	(-0.13)
Crv	-0.001	-0.041***
	(-0.92)	(-3.21)
Constant	-0.896**	-21.581***
	(-2.12)	(-11.76)

DOI: 10.54254/2754-1169/52/20230706

Table 10: (continued).

Year Fixed Influences	*Control*	*Control*
Industry Fixed Influences	*Control*	*Control*
Observations	13742	13742
R-squared	0.505	0.112

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

To further ensure the reliability of the findings, this section uses the Wind ESG rating standard to replace the CSI ESG rating standard used in this paper, and the ESG performance of firms is represented by ESG Wind, Table 11 populates the test outcomes of this section. The ESG Wind's coefficient in Column (1) is 0.459 and positive at the 1% significance level. Subsequently, the ESG Wind's coefficient in Column (2) is still positive at the 1% significance level once control variables are included such as asset size and gearing ratio. The results show that under the Wind ESG rating system, the companies' ESG performance is always positively correlated with the fund's shareholding ratio, and the research conclusions obtained in the previous section still hold.

Table 11： Wind ESG wind ESG replacement results.

	(1)	(2)
VARIABLES	*F.Fund_h*	*F.Fund_h*
ESG Wind	0.459***	0.244***
	(5.50)	(2.95)
Lnsize		1.173***
		(12.27)
Lev		-0.774
		(-1.55)
Roa		6.253***
		(4.58)
Growth		-0.006***
		(-4.83)
Rev		-0.002
		(-0.20)
Crv		-0.037***
		(-2.69)
Constant	-0.265	-25.047***
	(-0.37)	(-12.22)
Year Fixed Influences	*Control*	*Control*
Industry Fixed Influences	*Control*	*Control*
Observations	9,562	9,460
R-squared	0.054	0.112

S.E in parentheses
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

DOI: 10.54254/2754-1169/52/20230706

9. Conclusion and Inspiration

In recent years, with the continuous expansion of the ESG investment scale, ESG has rapidly gained attention in both domestic and international markets. It has gradually become a social consensus that enterprises fulfill social responsibilities, which has promoted industrial and economic transformation and sustainable development in China. In this context, it is of vital importance to examine the ESG performance's influence on the tendency of fund shareholding to support the high-quality development and economic growth of the Chinese economy. China's A-share listed corporations for 2015-2021 are chosen as the study sample, and the effect and mechanism of corporate ESG performance on fund shareholding tendency are empirically ascertained by the researcher. Reportedly, the research finds that corporations with satisfactory ESG performance are more inclined to attract funds to hold shares, and the firms' ESG performance is positively correlated with fund shareholding. Furthermore, the impact mechanism analysis highlights that ESG affects fund ownership mainly through two paths: lowering the potential risk of stock price collapse and improving the financial performance of firms. Through further research, we also find that ESG performance exerts a more substantial impact on increasing fund ownership in Non-SOEs, than SOEs. Based on the study findings, this research can get the subsequent insights:

First, from the perspective of enterprises. Companies need to incorporate initiatives to fulfill their social responsibility, pay attention to ESG concepts and actively improve ESG performance in the process of operation, so as to increase the enterprise value and establish a good reputation for the enterprise. Meanwhile, for Non-SOEs and SMEs, owing to the vulnerability of small asset size and weak risk-resistant ability, there is a need to recognize the importance of improving the ESG performance of enterprises and gain more investors' attention by uplifting the companies' ESG performance, which will ultimately boost the firms' SD.

Second, from the government's viewpoint. The state authorities should continue to improve the ESG disclosure system in light of the local conditions and guide enterprises to consciously improve ESG information reporting and enhance the corporate information's transparency, so as to provide investors with real and reliable information. At the same time, investors are encouraged to incorporate ESG information into the scope of their investment decisions and promote investors from short-term value speculation to long-term value investment, so as to promote sustainable economic and social development. Further, the relevant regulatory bodies must strengthen the supervision and management of enterprises, encourage businesses to promote their ESG performance while consciously reporting ESG statistics, continue to promote the construction of ESG and contribute to the Chinese economy's high-quality development.

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