

# Corporate Sustainability and Corporate Value

Ziqi Wang

School of Tropical Agriculture and Forestry, Hainan University, Danzhou, China

20213005807@hainanu.edu.cn

**Abstract.** In recent years, the concept of sustainable development has gradually lodged itself in the public mind, and there is increasing emphasis on companies' performance in environmental, social, and corporate governance (ESG) aspects. This paper empirically investigates the impact of corporate ESG performance on firm value based on all A-share listed companies in China from the first quarter of 2015 to the fourth quarter of 2020 as the initial research sample. The research results indicate that the better the corporate ESG performance, the higher the firm value. The study provides clear insights: firstly, ESG performance can enhance firm value, revealing that ESG can reduce information asymmetry and reduce financial risks for enterprises. Secondly, ESG performance is an endogenous driving force for companies to promote environmental protection, social responsibility, and corporate governance construction, prompting companies to establish a sound ESG information disclosure system. Thirdly, it provides crucial evidence for ESG investors, compelling corporate managers to pay more attention to the impact of ESG management principles on the company and consider the company's future sustainable development.

**Keywords:** ESG Performance; Sustainability; Corporate Value.

## 1. Introduction

ESG, an investment concept that incorporates a company's environmental, social, and governance performance into investment decisions, is an extension and enrichment of responsible investment philosophy. In evaluating whether a company is worth investing in, financial indicators are no longer the sole criteria, and the performance of companies in environmental, social, and governance aspects is increasingly valued. The shift in evaluating companies from financial performance systems to ESG systems represents a significant transformation in business civilization. As micro subjects in ESG construction, companies need to adapt to the trend of the times, meet the requirements of social development, actively practice ESG principles, re-examine their business models and operations, and make corresponding adjustments and optimizations to maximize shareholder and social value.

According to existing literature, scholars hold diverse views on the impact of ESG performance on enhancing corporate value. One perspective believes that ESG performance positively promotes a company's profitability. For instance, Xu Jianzhong and his colleagues argue that companies, in the process of environmental protection, increase research and development innovation, promote clean manufacturing, enhance product competitiveness, and add value, thereby positively influencing profit levels (Xu, 2018). Another viewpoint suggests that ESG activities increase corporate expenses, showing a negative correlation with corporate value. In other words, companies with good ESG performance may not necessarily have high financial performance (Wang, 2022). A third category of research contends that ESG performance has no impact on corporate value (Chen Y, 2023). So, what economic consequences will ESG performance actually bring about? What impact does it have on corporate value? Delving into a thorough investigation of these questions cannot only provide a theoretical basis for improving ESG evaluation mechanisms in our country but also offer valuable insights for investors in their investment activities.

For this purpose, this paper leverages data from the MSCI database to obtain ESG ratings. Using all A-share listed companies in China from the first quarter of 2015 to the fourth quarter of 2020 as the initial research sample, the study empirically investigates the impact of ESG performance on corporate value. The examination reveals that good ESG performance can alleviate corporate

financing constraints, improve operational efficiency, and reduce operational risks. ESG performance plays a positive role in enhancing corporate value. The marginal contributions of this paper are as follows: (1) Quantifying ESG data addresses the drawbacks arising from the current research's insufficient ESG data. (2) Exploring whether ESG performance has a positive impact on corporate value. It clarifies that ESG performance can enhance corporate value, identifies ESG's ability to reduce information asymmetry and lower corporate financial risks. This will contribute to the intrinsic motivation of companies to advance environmental protection, social responsibility, and corporate governance. (3) Providing crucial evidence for ESG investors, prompting corporate managers to pay more attention to the impact of ESG management principles on the company and consider the company's sustainable development in the future.

The paper is structured as follows: Section 2 offers a literature review and establishes hypotheses, followed by section 3 outlining the research design. Section 4 discusses the baseline empirical results, leading to the conclusion in Section 5.

## **2. Literature Review and Hypotheses Development**

### **2.1. Literature Review**

#### **2.1.1. Research Background of ESG Performance**

In response to the increasingly severe issues related to sustainable development such as environment, society, and financial markets, international organizations and countries worldwide have put forward action plans for sustainable development, including ESG, aiming to construct a framework for the comprehensive and sustainable development of human society. ESG, composed of Environmental, Social, and Governance aspects, has become a popular concept in recent years within the realms of corporate management and financial investment. The ESG philosophy encourages investors to focus more on a company's non-financial information, emphasizing that companies should not only consider financial performance but also integrate environmental, social, and corporate governance factors. It advocates balancing economic, social, environmental, and governance benefits.

By incorporating a company's performance in the areas of environment, society, and governance as one of the criteria for stock selection and investment, the ESG approach considers the impact of ESG practices on the company's development prospects. This allows the quantification of a company's performance in fulfilling social responsibility, making it measurable, comparable, and subject to continuous improvement. ESG represents a systematic examination of environmental, social responsibility, and corporate governance factors in investment philosophy, symbolizing a greener development approach, a more responsible corporate image, and more effective corporate governance mechanisms, aligning well with the requirements of high-quality development.

#### **2.1.2. Review of Research on ESG and Corporate Value**

Existing literature has conducted effective research on the impact of ESG performance on various aspects of corporate production and operation, financial decision-making, and risk control. The majority of scholars both domestically and internationally believe that the disclosure level of ESG information and good ESG performance have a positive influence on corporate value. Based on data from 417 A-share listed companies from 2015 to 2017, Zhang and Zhao (2019) explored the impact of environmental responsibility, social responsibility, and corporate governance performance on corporate value. Their study found that ESG performance significantly contributes positively to corporate value. Liu and Zhu (2011) discovered that sound corporate governance enhances a company's future financial security, beneficial for improving profitability. This leads investors to be willing to pay a higher premium for companies with good governance, ultimately increasing the company's value. Research by Friede and his colleagues (2015) indicated a 42.7% correlation between North American ESG and financial performance. ESG information plays a crucial role in warning about the stability of listed companies' performance, revealing additional corporate information. Gregory and his colleagues (2016) demonstrated that companies with higher ESG ratings

can more effectively utilize resources, develop human capital, and incentivize executives, ultimately achieving higher profits. Clark and his colleagues (2015) study suggested that long-term investments in social, environmental, and corporate governance aspects can reduce a company's financing costs, enhance operational efficiency, and lower operational risks.

With the application of ESG in investments, the content of this concept is gradually becoming richer. Deng and Bai (2022) point out that ESG is ultimately a new corporate evaluation method, including three aspects such as ESG information disclosure, which can effectively encourage companies to take responsibility for the environment and society. Zhao Yue (2022) indicates that ESG is a concept of non-financial performance and a corporate evaluation standard. Investors can make decisions based on the ESG information disclosed by companies, prompting companies to actively engage in green transformation. In other words, ESG has evolved into a corporate evaluation standard, which can both internally incentivize companies to proactively incorporate ESG issues into strategic planning for long-term benefits and externally supervise companies to achieve sustainable development performance from the perspective of stakeholders.

At the same time, some scholars believe that the performance of ESG has an adverse impact on corporate value. These views argue that the primary social responsibility of a company is to seek profits for shareholders, and investments in external factors with strong social and environmental responsibilities will increase additional expenses for the company, waste corporate resources, weaken competitiveness, thereby harming shareholder interests, and reducing corporate value. Brammer and Pavelin (2006) found that companies with good ESG performance have poorer corporate value. McWilliams and Siegel (2001) argue that there is no relationship between corporate social responsibility and company value. Wen Subin and Fang Yuan (2008) found that the impact of corporate social responsibility on current financial value is negative, while the long-term impact is positive. Yu and Wu (2014) found that fulfilling social responsibility has a significant negative impact on current corporate value, but it is significantly positively correlated with subsequent corporate value.

## **2.2. Hypothesis Development**

The sustainable development of a company can enhance its corporate value. The ESG concept emerged in response to the demand for sustainable development, as societal awareness shifted from a focus on "maximizing shareholder interests" to considering the perspective of "stakeholders." By integrating economic value with social value, the close connection between corporate social responsibility and company strategy is more conducive to the sustainable development of the enterprise. ESG practices contribute to a company's ability to achieve long-term value creation, rather than merely pursuing short-term profits. By taking into account environmental, social, and governance factors, companies can better plan and manage long-term risks and opportunities, avoiding potential crises and maintaining resilience across different economic cycles. This long-term perspective helps companies respond more effectively to market competition and uncertainty.

Classifying the level of corporate information disclosure into three tiers (low, medium, and high) through analysis, it is observed that when companies with a medium level of information disclosure proactively disclose information related to corporate governance, the improvement in transparency promotes the efficiency of corporate governance, thereby enhancing corporate value. ESG performance serves as an explanatory variable to study its impact on corporate value. This paper believes that ESG performance primarily enhances corporate value through the following two mechanisms.

On the one hand, when it comes to environmental issues, companies that reduce carbon emissions and implement sustainable production can attract an increasing number of environmentally conscious consumers and investors. This makes them more willing to actively choose the products and services of such companies to express support. Moreover, companies that prioritize ESG principles tend to place a greater emphasis on innovation, whether in product design, service models, or business processes. This innovative capability can help companies stand out in the market. Simultaneously,

high ESG scores convey more information to stakeholders, especially regarding non-financial aspects of the company that they are eager to understand. Good corporate governance, including transparent decision-making processes, effective risk management, and robust internal controls, can boost investor confidence. This increased confidence attracts more investments, strengthens the company's capital base, improves financial conditions, and further enhances economic performance. ESG contributes to an increase in the company's economic returns, thereby elevating its corporate value.

On the other hand, positive ESG performance contributes to improving a company's social acceptance, which is crucial for brand building and customer attraction. Enhanced social acceptance can increase customer loyalty, attract new customers, and give the company greater pricing power. It also helps companies attract high-quality employees and retain top talent, thereby elevating the company's value. Companies with higher ESG ratings are seen as actively fulfilling social responsibilities, improving internal governance structures, operating in an environmentally friendly manner, responding to the calls for high-quality development and sustainability in the era, and enjoying a higher reputation in the market. They are more likely to win the recognition of market investors compared to companies with lower ESG performance, which tend to attract the attention of institutional investors. Under the ESG concept, companies are subject to more external scrutiny, leading to an increased sense of self-regulation. In such situations, companies are willing to forego some short-term economic benefits to take on more social responsibility in exchange for long-term sustainable returns. These actions, viewed favorably by institutional investors preferring long-term investments, make companies more attractive and likely to receive increased investments. The improvement in ESG brings about social acceptance, thereby enhancing the company's value.

Based on the above analyses, this study proposes a hypothesis: ESG performance has the potential to enhance corporate value.

### 3. Research Design

#### 3.1. Sample and Data Sources

##### 3.1.1. Sample Selection and Data Sources

This study initially selected all A-share listed companies in China from 2015 to 2020 as the research sample. Financial industry companies, ST and PT companies, as well as companies with missing data were excluded, resulting in a total of 19,752 valid observational samples. Data on ESG were sourced from the Wind database, while other data were obtained from the China Stock Market & Accounting Research Database (CSMAR). To mitigate the impact of extreme values, all continuous variables in this study underwent Winsorization.

#### 3.2. Empirical Model

##### 3.2.1. Baseline Regression Model (OLS Model)

To preliminarily assess the impact of corporate ESG performance on corporate value, an Ordinary Least Squares (OLS) regression model was established as follows:

$$Tbq_i = \beta_0 + \beta_1 ESG_i + \beta_2 Size_i + \beta_3 PPE_i + \beta_4 Cfo_i + \beta_5 Lev_i + \beta_6 Indep_i + \beta_7 Board_i + \beta_8 Firm FE_i + \beta_9 Year FE_i + \sigma_i$$

In the equation,  $EV_i$  represents the corporate value of the company,  $ESG_i$  serves as the independent variable representing the performance of company  $i$ ,  $Size_i$  represents the company's size,  $PPE_i$  represents the net amount of fixed assets,  $Cfo_i$  represents operating cash flow,  $Lev_i$  represents the debt ratio,  $Indep_i$  represents the proportion of independent directors,  $Board_i$  represents the board size,  $Firm FE_i$  represents the company's fixed effects,  $Year FE_i$  represents the annual fixed effects,  $\sigma_i$  is the error term.

### 3.2.2. Variables and Data

1. Corporate value (Tbq). This study employs Tobin's Q value as a proxy variable for corporate value. Compared to other indicators such as total market capitalization, price-to-book ratio, and total assets, Tobin's Q has the advantage of simultaneously considering book value and market value, as well as liabilities and equity. It provides a more comprehensive reflection of a company's market value.
2. ESG performance. ESG performance is evaluated based on three dimensions: environmental performance, social responsibility, and corporate governance. Scholars, using the ESG rating system from the Commercial Road Green Finance (which assesses the management level and risk exposure of the evaluation object in the three dimensions of environment, society, and corporate governance in each rating cycle), have established an ESG\_Rank variable. ESG\_Rank variable equals 3, 2 and 1 for firms with high ESG fulfilment, medium ESG fulfilment, and low ESG fulfilment, respectively. Furthermore, assign levels 1-9 in sequence, the higher the better (Luo and Wu, 2022).
3. Control variables. We control Firm Size(Natural Logarithm of the total assets of the company), Property, Plant and Equipment(The net amount after deducting depreciation from the original value of fixed assets), Cash Flow From Operation(Cash flows generated from all transactions and events other than corporate investment and financing activities), Leverage(Total debts divided by total assets), Independence(Proportion of independent directors on the board), Board(Total Number of Directors) serves as a control variable, as shown in Table 1.

**Table 1.** Control variable

Variable Type	Variable Name	Variable Value Description
Explained Variables	Tobin's Q	A financial indicator evaluation that evaluates the relationship between a company's market value and its asset replacement cost. Tobin's Q is the ratio of a company's stock market value to its total reset assets
Explanatory Variables	ESG	Comprehensive evaluation of environmental performance index, social responsibility index, and corporate governance index
Control Variables	Firm Size	Natural Logarithm of the total assets of the company
	Property, Plant and Equipment(PPE)	The net amount after deducting depreciation from the original value of fixed assets
	Cash Flow From Operation(CFO)	Cash flows generated from all transactions and events other than corporate investment and financing activities
	Leverage(Lev)	Total debts divided by total assets
	Independence(Indep)	Proportion of independent directors on the board
	Board	Total Number of Directors

## 4. Empirical Results

### 4.1. Descriptive Statistics

Table 1 presents the descriptive statistics. The mean (median) value of TobinQA is 2.135 (1.639). The standard deviation of TobinQA is 1.537. The mean (median) value of TobinQB is 2.377 (1.811). The standard deviation of TobinQB is 1.763. The mean (median) value of TobinQC is 2.717 (1.98). The standard deviation of TobinQC is 2.183. The mean (median) value of TobinQD is 3.021 (2.191). The standard deviation of TobinQD is 2.473, which is largely consistent with prior literature. Table 2 shows that ESG has a mean (median) of 6.418 (1.199), suggesting great variance in ESG ratings.

**Table 2. Descriptive Statistics**

Variable	N	Mean	SD	p25	p50	p75
TobinQA	19752	2.135	1.537	1.231	1.639	2.401
TobinQB	19752	2.377	1.763	1.332	1.811	2.716
TobinQC	19752	2.717	2.183	1.322	1.98	3.231
TobinQD	19752	3.021	2.473	1.442	2.191	3.625
ESG	19752	6.418	1.199	6	6	7
Size	19752	22.331	1.438	21.334	22.112	23.065
PPE	19752	0.197	0.159	0.073	0.163	0.284
Cfo	19752	0.047	0.071	0.009	0.047	0.088
Lev	19752	0.43	0.215	0.259	0.416	0.582
Indep	19752	0.382	0.073	0.333	0.375	0.429
Board	19752	2.288	0.264	2.197	2.303	2.485

#### 4.2. Annual Distribution

Table 3 reports the annual distribution from 2015 to 2020 was 12.93%, 14.06%, 16.31%, 17.73%, 18.51%, 20.45%. The distribution of years is relatively even.

**Table 3. Annual Distribution**

Accounting period	Frequent	Percent
2015	2,554	12.93
2016	2,778	14.06
2017	3,221	16.31
2018	3,502	17.73
2019	3,657	18.51
2020	4,040	20.45
Total	19,752	100

#### 4.3. Baseline Results

Tobin's Q value is an indicator used to measure whether the market value of an asset is overvalued or undervalued. The higher the Tobin's Q value, the better the growth potential and investment opportunities of the enterprise, indicating that investors are more accepting of the growth ability of the enterprise and the financing success of the company.

The lower the cost, the more funds the enterprise will receive, which can effectively support green technology innovation and sustainable development.

Table 4 reports the regression results of the effect of ESG on corporate value. Columns 1-4 are TobinQA, TobinQB, TobinQC, TobinQD. This paper includes Year Fixed Effects and Firm Fixed Effects in all columns. Column 1 shows the coefficient of ESG is positive (8.31) and significant at the 1% level. Column 2 shows the coefficient ESG is positive (7.81) and significant at the 1% level. Column 3 shows the coefficient ESG is positive (7.32) and significant at the 1% level. Column 4 shows the coefficient ESG is positive (7.20) and significant at the 1% level. PPE, Cfo, are positively

correlated with corporate value, both significant at the 1% level. These results suggest that ESG performance can enhance corporate value.

In addition, the corporate size associated with corporate value is negative (-0.673, -0.587, -1.083, -0.980) and significant at the 1% level. Lev is negative and significant at the 1% level. Indep is positive and significant at the 1% level. Constant is positive and significant at the 1% level.

**Table 4. Baseline Results**

	TobinQA	TobinQB	TobinQC	TobinQD
ESG	0.084***	0.091***	0.096***	0.109***
	(8.31)	(7.81)	(7.32)	(7.20)
Size	-0.673***	-0.587***	-1.083***	-0.980***
	(-28.90)	(-21.77)	(-35.66)	(-27.90)
PPE	0.299**	-0.143	-0.795***	-1.353***
	(2.39)	(-0.99)	(-4.89)	(-7.20)
Cfo	0.873***	1.061***	1.169***	1.438***
	(6.99)	(7.34)	(7.18)	(7.63)
Lev	-0.009	-0.232**	-1.246***	-1.707***
	(-0.11)	(-2.45)	(-11.64)	(-13.80)
Indep	0.166	0.160	0.061	0.055
	(1.34)	(1.12)	(0.38)	(0.29)
Board	-0.020	-0.025	0.032	0.039
	(-0.50)	(-0.56)	(0.63)	(0.66)
Constant	16.537***	14.998***	26.824***	25.027***
	(32.01)	(25.08)	(39.83)	(32.13)
Year Fixed Effects	YES	YES	YES	YES
Firm Fixed Effects	YES	YES	YES	YES
N	19371	19371	19371	19371
R <sup>2</sup>	0.673	0.667	0.715	0.705

Note: \*\*\*, \*\*, \* represents significance at the 1%, 5%, and 10% levels, respectively.

## 5. Conclusion

Since the 1970s and 1980s, environmental protection issues have become increasingly prominent. In order to achieve sustainable development of the global economy, it is necessary to consider the impact of ecological environment changes on enterprise development. After the official launch of the ESG concept, a complete evolutionary chain and system have been formed from theory to practice, from standards to applications. More and more investment institutions in countries and regions around the world strongly agree that while pursuing economic benefits, enterprises need to build a complete ESG evaluation system that covers ecological environment, social responsibility, and corporate governance from a sustainable development perspective. This evaluation system is a refinement and development of the traditional corporate evaluation system.

Some people think that improving ESG performance will incur many costs, which is a process of capital consumption and a behavior that is not conducive to the company's profitability goals. But there are also many benefits to improving ESG. This paper aims to reconcile the debate on ESG performance.

Key findings and inspiration reveal that ESG performance can enhance the corporate value. For enterprises, it is necessary to build and improve ESG management from the perspective of corporate

strategy and systems. Enterprises should actively introduce ESG talents, apply and implement ESG in every aspect of production, operation, and management, and improve the efficiency of sustainable development, decision-making, and management. At the same time, enterprises should strengthen the effective integration of ESG and their own business models, which can not only serve national strategies, meet government and social needs, but also tap into the commercial value of ESG. ESG should be regarded as the internal driving force for business development, promote sustainable long-term development, and achieve a balance between short-term economic benefits and long-term ESG goals.

As for the limitation and future research directions, China's samples can only represent certain developing countries. future research should consider using some international samples for increased representativeness. The research covered in this article concludes in 2020, and future studies could explore the influence of COVID-19 on ESG performance.

## References

- [1] Brammer, S., & Pavelin, S. (2006). Voluntary environmental disclosures by large UK companies. *Journal of Business Finance & Accounting*, 33(7-8), 1168-1188.
- [2] Chen, Y., Li, T., Zeng, Q., & Zhu, B. (2023). Effect of ESG performance on the cost of equity capital: Evidence from China. *International Review of Economics & Finance*, 83, 348-364.
- [3] Clark, G. L., Feiner, A., & Viehs, M. (2015). From the stockholder to the stakeholder: How sustainability can drive financial outperformance. Available at SSRN 2508281.
- [4] Deng, J., & Bai, Y. (2022). Review and Implications of Overseas ESG Disclosure Systems. *Finance and Accounting Monthly*, 12, 75-80. doi:10.19641/j.cnki.42-1290/f.2022.12.009.
- [5] Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: aggregated evidence from more than 2000 empirical studies. *Journal of sustainable finance & investment*, 5(4), 210-233.
- [6] Gregory, A., Whittaker, J., & Yan, X. (2016). Corporate social performance, competitive advantage, earnings persistence and firm value. *Journal of Business Finance & Accounting*, 43(1-2), 3-30.
- [7] Liu, Y., & Zhu, L. (2011). An Empirical Study on Corporate Governance and Corporate Value. *Management Review*, 2, 45-52. doi:10.14120/j.cnki.cn11-5057/f.2011.02.006.
- [8] Luo, K., & Wu, S. (2022). Corporate sustainability and analysts' earnings forecast accuracy: Evidence from environmental, social and governance ratings. *Corporate Social Responsibility and Environmental Management*, 29 (5), 1465-1481.
- [9] McWilliams, A., & Siegel, D. (2001). Corporate social responsibility: A theory of the firm perspective. *Academy of management review*, 26(1), 117-127.
- [10] Wang, B., & Yang, M. (2022). Research on the Mechanism of the Impact of ESG Performance on Corporate Value: Empirical Evidence from Listed Companies on China's A-Share Market. *Soft Science*, 6, 78-84. doi:10.13956/j.ss.1001-8409.2022.06.11.
- [11] Wen, S., & Fang, Y. (2008). An Empirical Study on the Relationship between Corporate Social Responsibility and Financial Performance: Panel Data Analysis from the Stakeholder Perspective. *China Industrial Economics*, 10, 150-160. doi:10.19581/j.cnki.ciejournal.2008.10.015.
- [12] Xu, J., Guan, J., & Lin, Y. (2018). A Study on the Relationship between Corporate Environmental Performance and Financial Performance Based on Meta-Analysis. *Management Journal*, 2, 246-254.
- [13] Yu, X., & Wu, W. (2014). Research on Corporate Governance, Social Responsibility, and Corporate Value. *Contemporary Economic Research*, 5, 74-78.
- [14] Zhang, L., & Zhao, H. (2019). Does Environmental, Social, and Corporate Governance (ESG) Performance Impact Corporate Value? An Empirical Study Based on A-Share Listed Companies. *Wuhan Finance*, 10, 36-43.
- [15] Zhao, Y. (2022). Integrating Chinese Characteristics and Exploring the Implementation Path of ESG. *International Business Finance and Accounting*, 8, 44-46.