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The Impact of Corporate ESG Performance on Corporate Tax Avoidance

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Abstract

ESG performance has increasingly become an important means for firms to reconcile short-term financial objectives with long-term sustainable development. Nevertheless, the informational role and economic consequences of ESG performance have not yet been sufficiently examined in existing theoretical research. This study finds that firms with better ESG performance are associated with significantly lower levels of tax avoidance. Further mechanism analysis shows that strong ESG performance helps ease firms' financing constraints, thereby weakening the incentive to rely on tax avoidance for capital accumulation. Additional heterogeneity analyses indicate that this inhibitory effect is more evident in non-state-owned enterprises, firms with higher-quality internal controls, and firms receiving greater analyst attention. The findings enrich the literature on the economic consequences of ESG performance and provide empirical support for promoting corporate ESG governance as a means of restraining aggressive tax avoidance behavior.

Keywords

ESG performance, corporate tax avoidance, financing constraints, mechanism analysis

1. Introduction

The 15th Five-Year Plan identifies carbon peaking and carbon neutrality as core guiding objectives, aiming to coordinate efforts in carbon reduction, pollution control, ecological expansion, and economic growth, while strengthening ecological security and enhancing the internal drivers of green development. In April 2026, the General Office of the CPC Central Committee and the General Office of the State Council issued the Opinions on Advancing Energy Conservation and Carbon Reduction at a Higher Level and with Higher Quality, further underscoring the Party and government's strong commitment to energy conservation, carbon peaking and neutrality, and the green transformation of development patterns. In this policy context, ESG performance has become increasingly important in corporate strategic planning and investment decision-making, and is now widely regarded as an important driver of green transformation and high-quality economic development.

Taxation constitutes the primary source of fiscal revenue, underpins government operations, and functions as an important tool for macroeconomic regulation and income redistribution [1]. Corporate tax avoidance has long been a focal issue for various stakeholders. However, few studies have examined tax avoidance from an ESG perspective. China's current tax audits primarily focus on compliance and the authenticity of financial reporting, with limited attention paid to firms' performance in environmental, social, and governance dimensions. Incorporating ESG factors into the assessment of corporate tax behavior may help improve existing frameworks for evaluating tax compliance. Against this background, this study examines whether corporate ESG performance affects firms' tax avoidance behavior and further explores the mechanisms through which such effects may arise.

The marginal contributions of this paper are threefold. First, this paper extends the literature on the determinants of corporate tax avoidance by introducing ESG performance into the analytical framework. By showing that firms with stronger ESG performance tend to engage in less tax avoidance, this study broadens existing research on the drivers of tax behavior and provides a useful reference for tax authorities seeking to incorporate ESG information into tax risk identification. Second, it complements the literature on the economic consequences of ESG performance. Prior studies have largely focused on the effects of ESG on firm value, stock returns, investment efficiency, financing costs, and green development [2–6]. In contrast to existing studies, this paper investigates the economic implications of ESG performance from the perspective of corporate tax behavior, thereby extending the scope of ESG-related research. Third, in the context of promoting green, low-carbon, and sustainable development, ESG has become a vital metric for assessing corporate value and social responsibility. While enhancing ESG performance entails governance costs, this study provides policy insights—viewed through the lens of tax avoidance—on how to better integrate ESG into corporate governance. The findings may also provide support for better coordination between tax governance and sustainable development policies.

2. Literature Review and Research Hypotheses

2.1 Literature Review

2.1.1 Determinants of Corporate Tax Avoidance

Corporate tax avoidance refers to the reduction of tax liabilities to the minimum level permitted by law. Existing studies have examined the determinants of corporate tax avoidance from both internal corporate factors and external institutional environments. Internal determinants include corporate governance mechanisms [7], managerial characteristics [8], and financing constraints [9]. External studies have primarily explored inter-jurisdictional tax competition among local governments [10] and the efficiency of tax enforcement. Notably, few studies have investigated the impact of ESG governance on corporate tax avoidance.

2.1.2 Economic Consequences of Corporate ESG Performance

ESG is a sustainability evaluation framework proposed by the United Nations Principles for Responsible Investment, encompassing environmental, social, and governance dimensions. It serves as a key indicator of non-financial performance. The literature has systematically documented various economic outcomes associated with ESG performance, such as reduced financing costs [3], enhanced firm value [2], facilitation of green transformation [4], and improved liquidity through ESG disclosure [11]. Although the literature on the economic consequences of ESG performance has expanded rapidly in recent years, relatively little attention has been paid to its relationship with corporate tax avoidance. This study therefore investigates the relationship between ESG performance and corporate tax avoidance, offering a meaningful extension to the literature and exploring the underlying mechanisms.

2.2 Theoretical Analysis and Research Hypotheses

2.2.1 Corporate ESG Performance and Tax Avoidance

Corporate ESG performance is closely linked not only to sustainable development but also to tax avoidance behavior. First, firms that actively embrace ESG principles maintain higher standards in environmental management, social responsibility, and internal governance. Firms with strong ESG performance are generally more likely to obtain green credit, attract ESG-oriented investment, and gain support from long-term institutional investors, which helps reduce both debt and equity financing costs. In addition, as regulators and stock exchanges place greater emphasis on ESG disclosure in financing reviews, firms with better ESG performance may find it easier to access external financing at lower cost, thereby weakening incentives to rely on tax avoidance. Second, strong ESG performance signals operational stability, which mitigates information asymmetry between the firm and capital providers. As a result, firms are more capable of meeting financing needs through conventional channels instead of adopting aggressive tax avoidance strategies that may damage corporate legitimacy and reputation. Third, superior ESG performance builds positive market reputation and moral capital. Once tax avoidance behavior is exposed, inconsistencies between a firm's ESG commitments and its actual tax practices may lead to substantial reputational damage. A firm that actively promotes environmental and social responsibility while simultaneously engaging in aggressive tax practices may face accusations of inconsistency or hypocrisy, thereby undermining its reputational capital. To maintain reputational credibility and preserve stakeholder trust, firms with strong ESG reputations are more likely to restrain tax avoidance behavior and keep their tax practices consistent with their public ESG commitments. Based on the above analysis, this paper proposes the following hypothesis:

H1: Ceteris paribus, firms with better ESG performance engage in lower levels of tax avoidance.

3. Research Design

3.1 Sample Selection and Data Sources

This study takes A-share listed companies on the Shanghai and Shenzhen Stock Exchanges from 2009 to 2024 as the research sample to examine the relationship between corporate ESG performance and tax avoidance behavior. To improve the reliability of the empirical results, the sample is screened using the following criteria: (1) exclusion of firms with ST or *ST designations; (2) exclusion of financial firms; and (3) exclusion of observations with missing data or extreme values for key variables. After applying these filters, the final sample consists of 36,586 firm-year observations. To alleviate the influence of extreme observations, all continuous variables are winsorized at the 1% and 99% levels. The data are sourced from the CSMAR and Wind databases.

3.2 Variable Definitions

3.2.1 Dependent Variable

The dependent variable is the degree of corporate tax avoidance (BTD). Existing studies generally measure corporate tax avoidance using either book-tax differences (BTD) or effective tax rates (ETR). Following Li Qingyuan and Chen Shilai [12], this study measures tax avoidance using the book-tax difference. Specifically, BTD is calculated as (pre-tax accounting profit − taxable income) / beginning-of-period total assets. A larger BTD value indicates a higher level of corporate tax avoidance.

3.2.2 Independent Variable

Corporate ESG performance is measured using the ESG rating data developed by Huazheng Index Information Service Co., Ltd. (Huazheng). This indicator serves as the core explanatory variable (ESG). Huazheng's ESG rating system draws on international ESG evaluation standards while taking into account the characteristics of China's capital market, and provides comprehensive assessments of firms' environmental, social, and governance performance.

3.2.3 Control Variables

Following Wang Yao [13], Li Shigang [14], Wang Linlin [2], and others, this study controls for the following variables: firm size (Size), leverage (LEV), profitability (ROA), fixed asset intensity (Fixed), inventory intensity (INV), cash flow (CFO), growth (GRO), ownership concentration (FIR), and ownership nature (SOE). Detailed variable definitions are presented in Table 1.

3.3 Model Specification

To test the effect of ESG performance on corporate tax avoidance, this study constructs the following baseline regression model, drawing on Liu Xing and Ye Kangtao [15]:

$$BTD_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 Controls_{i,t} + \varepsilon_{i,t} \tag{1}$$

In Model (1), ESG represents the firm's ESG score and BTD denotes the degree of tax avoidance. If the coefficient β_1 is significantly negative, it suggests that stronger ESG performance is associated with lower levels of tax avoidance, thereby supporting Hypothesis H1.

Table 1: Variable Definitions

Variable Name	Symbol	Description
Corporate Tax Avoidance	BTD	(Pre-tax accounting profit − Taxable income) / Total assets
ESG Performance	ESG	Huazheng comprehensive ESG score
ESG Rating	ESGpj	Huazheng ESG rating
Firm Size	Size	Natural logarithm of total assets
Leverage	LEV	Total liabilities / Total assets
Profitability	ROA	Net profit / Total assets
Fixed Asset Intensity	Fixed	Fixed assets / Total assets
Inventory Intensity	INV	Net inventory / Total assets
Cash Flow	CFO	Net cash flow from operating activities / Total assets
Growth	GRO	Operating revenue growth rate
Ownership Concentration	FOR	Shareholding percentage of the largest shareholder
Ownership Nature	SOE	1 for state-owned enterprises, 0 otherwise

4. Empirical Results and Analysis

4.1 Descriptive Statistics

Table 2 reports the descriptive statistics of the main variables. For the tax avoidance measure (BTD), the mean is 0.003, the standard deviation is 0.028, and the median is 0.001, suggesting that the overall level of tax avoidance among sample firms is relatively low with moderate variation and a roughly symmetric distribution. The mean ESG score is 74.09, with a standard deviation of 5.093 and a median of 74.10, indicating that ESG performance is generally moderate and concentrated in the 75–80 range. ESG scores range from a minimum of 41.19 to a maximum of 100, reflecting substantial variation across firms. The distributions of the control variables are generally reasonable and consistent with those reported in previous studies.

Table 2: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Min	Median	Max
BTD	25608	0.003	0.028	-0.083	0.001	0.171
ESG	25608	74.09	5.093	41.19	74.10	100
SOE	25608	0.337	0.473	0	0	1
CFO	25608	0.060	0.072	-0.742	0.058	0.850
Fixed	25608	0.212	0.158	0	0.180	0.954
LEV	25608	0.412	0.196	0.008	0.408	1.255
ROA	25608	0.059	0.048	-0.015	0.049	2.637
FIR	25608	34.89	15.12	2.197	32.88	89.99
GRO	25608	3.010	371.5	-2.897	0.117	59412
INV	25608	0.139	0.126	0	0.110	0.943
Size	25608	22.50	1.368	15.71	22.30	28.79

4.2 Baseline Regression Analysis

Table 3 presents the regression results examining the effect of ESG performance on corporate tax avoidance. The coefficient on the key explanatory variable ESG is significantly negative at the 1% level (t = -2.65). The results suggest that firms with better ESG performance tend to engage in less tax avoidance, possibly because stronger ESG governance improves information transparency, enhances external supervision, and alleviates agency problems. These findings provide empirical support for Hypothesis H1. The coefficients of the control variables are generally in line with expectations and consistent with prior research.

4.3 Endogeneity and Robustness Tests

4.3.1 Instrumental Variable Approach

To alleviate potential endogeneity concerns, this study adopts an instrumental variable approach. Management shareholding ratio (MSL) is chosen as the instrumental variable because it may affect ESG performance through managerial incentive mechanisms, while having no direct theoretical relationship with corporate tax avoidance. Table 4 reports the two-stage least squares (2SLS) results. In the first stage, MSL is significantly positively related to ESG (coefficient = 0.0235, $p < 0.01$), indicating that the relevance requirement for the instrumental variable is satisfied. In the second stage, the coefficient on ESG remains significantly negative at the 1% level (-0.0024), suggesting that the baseline conclusions remain robust after controlling for potential endogeneity.

Table 3: Baseline Regression Results

Variable	BTD
ESG	-0.000***
	(-2.65)
SOE	0.001
	(0.74)
CFO	-0.010
	(-1.59)
Fixed	0.006***
	(2.77)
LEV	-0.014***
	(-5.42)
ROA	0.185***
	(6.89)
FIR	-0.000***
	(-6.02)
GRO	-0.000***
	(-21.78)
INV	-0.008***
	(-3.12)
Size	0.004***
	(11.96)
Constant	-0.070***
	(-9.96)
N	25,608
R^2	0.1105

*Notes: t-statistics in parentheses; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.*

Table 4: Instrumental Variable Regression

Variable	ESG	BTD
MSL	0.0235***	
	(13.04)	
ESG		-0.0024***
		(-5.33)
Control variables	Yes	Yes
N	25,608	25,608
R^2	0.1045	0.02807

4.3.2 Fixed Effects Models

To further control for unobservable firm-level factors, this study additionally employs firm fixed effects and two-way fixed effects models. As shown in Table 5, the coefficient on ESG remains significantly negative at the 1% level in both specifications, consistent with the baseline results and supporting the robustness of our findings.

Table 5: Fixed Effects Models

Variable	(1) ESG	(2) ESG

ESG	-0.000**	-0.000**
	(-2.33)	(-2.17)
Control variables	Yes	Yes
N	25,608	25,608
R^2	0.113	0.137

4.3.3 Alternative Measure of the Independent Variable

As an additional robustness check, the continuous ESG score is replaced with the categorical ESG rating (ESGpj) issued by Huazheng. The rating consists of nine grades: AAA (score ≥ 95), AA (90–94), A (85–89), BBB (80–84), BB (75–79), B (70–74), CCC (65–69), CC (60–64), and C (score < 60). As reported in Table 6, the coefficient on ESGpj is significantly negative at the 1% level, further supporting the robustness of the empirical findings.

Table 6: Robustness Test: Alternative ESG Measure

Variable	BTD
ESGpj	-0.000**
	(-2.25)
Control variables	Yes
N	25,608
R^2	0.1103

4.3.4 Alternative Sample Period

To eliminate possible interference from the COVID-19 pandemic, the sample period is further restricted to the years before 2020. The results in Table 7 show that the coefficient on ESG remains significantly negative at the 1% level, indicating that our findings are robust.

Table 7: Robustness Test: Pre-Pandemic Sample

Variable	BTD
ESG	-0.000***
	(-3.05)
Control variables	Yes
N	16,208
R^2	0.0895

4.4 Mechanism Test

According to the theoretical analysis, ESG performance may reduce corporate tax avoidance by easing firms' financing constraints (SA). Firms with stronger ESG performance are generally able to obtain external financing at lower cost, which in turn reduces the incentive to rely on tax avoidance to ease financing pressure. Table 8 presents the mechanism test results following the "ESG performance–financing constraints–tax avoidance" pathway. Column (1) replicates the baseline result. Column (2) shows that ESG is significantly negatively associated with financing constraints (coefficient = -0.002, $p < 0.01$). In Column (3), when both ESG and SA are included, the coefficient on ESG remains significantly negative, while SA is significantly positive. The above results indicate the existence of a mediating effect: firms with better ESG performance tend to face fewer financing constraints, thereby weakening their incentives to obtain additional internal funds through tax avoidance activities.

Table 8: Mechanism Test

Variable	(1) BTD	(2) SA	(3) BTD
ESG	-0.000***	-0.002***	-0.000**
	(-2.65)	(-6.16)	(-2.11)
SA			0.013***
			(12.35)
Control variables	Yes	Yes	Yes
N	25,608	25,608	25,608
R^2	0.1105	0.0014	0.1185

4.5 Heterogeneity Analysis

4.5.1 Ownership Type

The effect of ESG performance on tax avoidance may vary across ownership types. State-owned enterprises face both economic and political costs of tax avoidance [16], whereas non-state-owned enterprises encounter greater resource constraints and competitive pressure [17]. Accordingly, the restraining effect of ESG performance on tax avoidance is expected to be more pronounced among non-SOEs. As shown in Table 9, in non-SOEs, the ESG coefficient is significantly negative at the 1% level, consistent with the baseline regression results. However, in SOEs, the ESG coefficient is insignificant. These results suggest that ownership structure moderates the relationship between ESG performance and corporate tax avoidance.

Table 9: Heterogeneity Analysis: Ownership Type

Variable	BTD	
	SOEs	Non-SOEs
ESG	-0.000	-0.000**
	(-0.85)	(-2.30)
Control variables	Yes	Yes
N	8,627	16,981
R^2	0.1128	0.1134

4.5.2 Internal Control Quality

Corporate tax avoidance involves substantial tax costs and risks, which require robust internal control systems for effective risk management. Existing studies show that internal control quality exerts a constraining effect on the extent of tax avoidance [18]. Accordingly, the constraining effect of ESG performance on tax avoidance is expected to be stronger among firms with effective internal controls. As reported in Table 10, the coefficient on ESG is significantly negative at the 1% level for firms with effective internal controls, consistent with the baseline regression results. However, the coefficient becomes insignificant for firms with internal control weaknesses. These findings suggest that the effectiveness of ESG performance in curbing tax avoidance depends, to some extent, on the quality of firms' internal control systems.

Table 10: Heterogeneity Analysis: Internal Control Quality

Variable	BTD	
	No IC Weakness	IC Weakness
ESG	-0.000***	0.000
	(-3.30)	(0.49)
Control variables	Yes	Yes
N	18,789	6,819
R^2	0.1089	0.1218

4.5.3 Analyst Coverage

Analyst coverage enhances corporate information transparency [19] and increases both the difficulty and risk of tax avoidance. Following the approach of Wang Yao et al. [20], this study measures analyst coverage using the number of analyst teams following the firm during the sample period. A dummy variable is constructed that equals 1 if the number of analysts exceeds the sample median, and 0 otherwise. Table 11 reports the subsample regression results. In the high analyst coverage group, the coefficient on ESG is significantly negative at the 1% level, consistent with the baseline findings. In contrast, the coefficient is insignificant in the low analyst coverage group. These findings imply that analyst coverage strengthens the restraining effect of ESG performance on corporate tax avoidance.

Table 11: Heterogeneity Analysis: Analyst Coverage

Variable	BTD	
	High Coverage	Low Coverage
ESG	-0.000**	-0.000
	(-2.33)	(-0.91)
Control variables	Yes	Yes
N	13,132	12,476
R^2	0.1170	0.1110

5. Conclusions and Policy Implications

Using a sample of A-share listed companies on the Shanghai and Shenzhen Stock Exchanges from 2009 to 2024, this study examines the relationship between corporate ESG performance and tax avoidance, as well as the mechanisms underlying this relationship. The empirical results indicate that: first, firms with superior ESG performance exhibit significantly lower levels of tax avoidance; second, the mechanism test shows that firms with better ESG performance face lower financing constraints, which in turn reduces their incentive to raise funds through tax avoidance; and third, the heterogeneity analysis reveals that the negative impact of ESG performance on tax avoidance is more pronounced among non-state-owned enterprises, firms with higher internal control quality, and firms with greater analyst coverage. A series of robustness checks, including alternative measures of the key explanatory variable, further support the reliability of the main findings.

Based on the above conclusions, this study offers the following implications:

(1) For listed companies: Strong ESG performance can weaken the incentive to retain internal cash flows through tax avoidance by alleviating financing constraints, while also improving internal control quality and attracting greater analyst scrutiny. Firms should therefore incorporate ESG practices into their long-term strategic planning. Specifically, companies should increase investments in environmental protection, social responsibility, and governance practices, strengthen internal control systems, and enhance information transparency to reduce information asymmetry. Greater scrutiny from analysts and institutional investors may also help discourage overly aggressive tax avoidance practices. Continuous improvement in ESG performance can help firms reduce financing costs, improve access to external capital, and enhance their reputation for tax compliance, thereby supporting more sustainable long-term development.

(2) For investors: ESG performance can serve as a valuable indicator when assessing potential investees' tax behavior and compliance risks. Investors should prioritize firms with strong ESG ratings, reasonable and stable effective tax rates, and sound governance. By contrast, firms with consistently poor ESG performance may face higher risks associated with aggressive tax practices and should therefore be evaluated with caution.

(3) For government authorities: The finding that ESG performance is associated with lower tax avoidance suggests that regulators may strengthen tax governance indirectly through improved ESG-related incentive and supervisory mechanisms. One possible approach is to incorporate ESG indicators into tax administration practices by granting firms with consistently strong ESG performance certain compliance conveniences, while increasing scrutiny of firms with weak ESG records and abnormal tax behavior. In addition, regulators should continue improving ESG disclosure standards and strengthen information sharing among tax authorities, environmental regulators, and third-party rating agencies in order to enhance the effectiveness of tax supervision and policy implementation.

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Conflicts of Interest

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