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## The Effect of ESG Practices on Corporate Tax Avoidance: Evidence from Non-Financial Firms in Indonesia

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**Abstract:** This study analyzes the effect of Environmental, Social, and Governance (ESG) performance on corporate tax avoidance among non-financial firms listed on the Indonesian Stock Exchange during 2015–2024. Based on stakeholder theory, companies with stronger ESG practices are expected to engage in lower tax avoidance due to higher commitments to transparency, accountability, and stakeholder interests. Using a quantitative approach, this research applies panel data regression to 463 firm-year observations. Tax avoidance is measured by the Cash Effective Tax Rate (CETR), reflecting actual cash tax payments relative to pre-tax income, while ESG data are sourced from Refinitiv’s LSEG database. The analysis employs the Fixed Effects Model (FEM) and the First Difference Generalized Method of Moments (FD-GMM) to address potential endogeneity. The FEM results show no significant relationship between ESG and CETR. However, FD-GMM findings indicate a positive and significant effect, suggesting that better ESG performance leads to higher cash tax payments and lower tax avoidance. Overall, the results emphasize that ESG plays an important role in shaping corporate tax behavior, although the relationship is sensitive to the estimation method used.

**Keyword:** Environmental, Social, and Governance (ESG), Indonesia Stock Exchange, Tax Avoidance.

### INTRODUCTION

Taxes constitute the primary source of government revenue and play a strategic role in financing national development and improving public welfare. In emerging economies such as Indonesia, tax revenue consistently represents the largest proportion of state income and demonstrates a long-term upward trend, reflecting its importance in maintaining fiscal sustainability. Despite its macroeconomic importance, from a corporate perspective, taxes are often perceived as a financial burden that reduces after-tax profits and constrains firm performance. This condition encourages firms to engage in tax planning strategies, including tax avoidance, to minimize their tax liabilities (Slemrod & Gillitzer, 2013; OECD, 2020). Tax avoidance has become a global phenomenon, occurring in both developed and

developing countries, and is often associated with managerial discretion and regulatory loopholes (Hanlon & Heitzman, 2010).

In the context of prior research, most studies on tax avoidance have been conducted in developed countries characterized by relatively strong tax law enforcement, higher levels of monitored compliance, and more oversight established institutions. As a result, existing findings may not be directly generalized to developing countries. This study seeks to address this gap by focusing on Indonesia as an emerging market, which exhibits distinct institutional characteristics, particularly in terms of relatively weaker tax enforcement and a regulatory environment that in practice still allows considerable discretion. Under such conditions, tax avoidance behavior is likely to be influenced not only by firm specific internal factors but also by regulatory complexity, information asymmetry, and the quality of law enforcement. In line with this, recent studies highlight that weak enforcement and high information asymmetry in developing countries can exacerbate aggressive tax behavior (Jiang et al., 2024; Zhang et al., 2023). Therefore, Indonesia provides a relevant context for offering more nuanced and contextual insights into the determinants of tax avoidance, both for academics and policymakers.

The distinct institutional characteristics of Indonesia may lead to different outcomes in the relationship between ESG performance and corporate tax avoidance compared to those observed in developed economies. Indonesia is characterized by relatively lower regulatory enforcement effectiveness, higher information asymmetry, varying levels of corporate governance quality, and a tax administration system that continues to undergo institutional reforms. In such an environment, ESG practices may not always function as a strong monitoring mechanism capable of constraining aggressive tax behavior. Instead, firms may adopt ESG initiatives primarily to enhance legitimacy and reputation while maintaining flexibility in tax planning activities. Furthermore, differences in investor protection, stakeholder pressure, and regulatory oversight may influence how ESG commitments are translated into actual corporate decisions. Consequently, findings from developed countries cannot be assumed to apply directly to Indonesia, highlighting the importance of examining the ESG–tax avoidance relationship within the specific institutional context of emerging markets.

From a theoretical perspective, tax avoidance behavior can be explained through stakeholder theory. Stakeholder theory posits that firms have responsibilities not only to shareholders but also to broader stakeholders, including governments and society. In this regard, tax compliance reflects a firm's commitment to maintaining legitimacy, transparency, and corporate reputation (Freeman, 1984; Hanlon & Heitzman, 2010). Firms that are more responsive to stakeholder expectations are more likely to avoid aggressive tax strategies, as such actions may harm their public image and reduce stakeholder trust.

The relationship between ESG performance and corporate tax avoidance can also be explained through Legitimacy Theory and Agency Theory. Legitimacy Theory suggests that firms seek to align their activities with societal expectations to maintain legitimacy and secure continued support from stakeholders (Suchman, 1995). In this context, aggressive tax avoidance may be perceived as socially irresponsible behavior because it reduces corporate contributions to public welfare through taxation. Consequently, firms with stronger ESG commitments are expected to exhibit higher tax compliance to preserve their legitimacy and reputation. Meanwhile, Agency Theory argues that managers may engage in tax avoidance strategies to maximize short-term financial performance or pursue personal interests, particularly when information asymmetry and monitoring limitations exist (Jensen & Meckling, 1976). ESG practices can serve as an additional governance mechanism that enhances transparency, reduces managerial opportunism, and aligns managerial actions with the interests of shareholders and other stakeholders. Therefore, both theories provide

complementary explanations regarding how ESG performance may influence corporate tax behavior.

In recent years, Environmental, Social, and Governance (ESG) performance has gained increasing attention as an integral component of sustainable business practices. ESG is believed to enhance corporate transparency, strengthen accountability, and reduce information asymmetry between firms and stakeholders. Companies with higher ESG performance are more likely to consider reputational risks and ethical implications in their decision-making processes, including tax-related policies. Empirical evidence suggests that firms with strong ESG engagement tend to adopt more responsible financial behavior and exhibit lower levels of aggressive tax avoidance (Kim et al., 2018; Jiang et al., 2024; Zhang et al., 2023). However, the relationship between ESG and tax avoidance remains inconclusive, as some studies find insignificant or mixed results depending on measurement proxies and institutional settings.

Although previous studies have examined the impact of ESG on corporate behavior, empirical evidence focusing on tax avoidance in developing countries, particularly Indonesia, remains limited. Differences in institutional quality, regulatory enforcement, and corporate governance practices may influence how ESG affects tax behavior. In addition, the use of different proxies for tax avoidance may lead to inconsistent findings across studies. Therefore, this study employs a single and more direct measure of tax avoidance, namely Cash Effective Tax Rate (Cash ETR), which reflects the actual cash taxes paid relative to pre-tax income. Beyond addressing the empirical gap in the Indonesian context, this study contributes to resolving an important theoretical inconsistency in the ESG and tax avoidance literature. Prior studies report conflicting findings, with some suggesting that ESG performance constrains tax avoidance through enhanced transparency and stakeholder accountability, while others argue that ESG activities may be used symbolically without materially affecting tax behavior. These inconsistent results raise questions regarding whether the ESG–tax avoidance relationship reflects genuine ethical commitment or merely reputational signaling. This study extends existing literature by examining the relationship within an emerging-market institutional setting and by employing a single cash-based measure of tax avoidance (CETR) alongside robust estimation techniques that address potential endogeneity. By doing so, the study provides a more focused assessment of how ESG performance influences actual tax payment behavior rather than accounting-based tax outcomes, thereby offering new evidence on the mechanisms through which ESG affects corporate tax practices in developing economies.

Therefore, this study aims to examine the effect of ESG performance on corporate tax avoidance among non-financial firms listed on the Indonesia Stock Exchange during the 2015–2024 period. Specifically, tax avoidance in this study is measured using Cash Effective Tax Rate (CETR). By focusing on a single proxy and applying robust estimation methods, this study is expected to contribute to the literature on corporate taxation and sustainability, particularly in the context of emerging markets, as well as providing practical implications for regulators and corporate management in promoting responsible tax behavior.

## **METHOD**

This study was conducted to examine the relationship between Environmental, Social, and Governance (ESG) performance and corporate tax avoidance among non-financial firms in Indonesia. In general, this research adopts a quantitative approach using secondary data obtained from publicly available sources. The study focuses on firm-level financial and non-financial information to analyze how ESG performance influences corporate tax behavior. By employing panel data, this study captures both cross-sectional and time-series variations,

enabling a more comprehensive understanding of corporate tax avoidance practices over time.

A general description of this research is essential to provide a clear methodological foundation. This study utilizes panel data regression techniques to test the proposed relationship between ESG performance and tax avoidance. In contrast to previous studies that employ multiple proxies, this research uses a single proxy for tax avoidance to provide a more focused and consistent measurement. Furthermore, the study incorporates control variables commonly used in prior literature to minimize potential bias arising from firm-specific characteristics. Overall, this methodological design is intended to ensure that the findings are reliable, valid, and relevant to the existing body of knowledge.

The research method consists of several key components, including participants (sample), instruments and procedures, and data analysis. The sample consists of non-financial firms listed on the Indonesia Stock Exchange (IDX) during the 2015–2024 period. Financial firms are excluded due to their distinct regulatory environment and financial reporting standards, which may not be directly comparable to those of non-financial firms. The initial sample includes 827 firm-year observations. After applying several selection criteria, such as the availability of ESG scores in the LSEG Refinitiv database, completeness of financial data, and positive pre-tax income, the final sample consists of 463 firm-year observations.

**Table 1. Sampling Criteria**

| Number  | Criteria   | Total      |
|---|--|------------|
| 1.  | Manufacturing companies listed on the Indonesia Stock Exchange for the 2021-2024 period.   | 228        |
| 2.  | Manufacturing companies that are not listed sequentially in the 2021 – 2024 period.  | (27)       |
| 3.  | Manufacturing companies that do not consistently publish annual reports and complete financial data required for the 2021-2024 period. | (63)       |
| 4.  | Manufacturing companies with total profits less than 0 for the period 2021 – 2024.   | (40)       |
| 5.  | Manufacturing companies whose financial statements do not end on December 31 for the period 2021 – 2024                                | (0)        |
| 6.  | Manufacturing companies that do not use rupiah units in their financial reports for the 2021-2024 period.                              | (11)       |
| 7.  | Manufacturing companies that have negative net asset value for the period 2021 – 2024.   | (0)        |
| <b>Number of research samples</b>             |  | <b>87</b>  |
| <b>Number of observation data (x 3 years)</b> |  | <b>261</b> |

Source: Indonesia Stock Exchange (2025) and processed by the author (2025)

The instruments and procedures used in this study involve the collection and measurement of both dependent and independent variables. The dependent variable is corporate tax avoidance, which is measured using Cash Effective Tax Rate (CETR). CETR reflects the proportion of actual cash taxes paid relative to pre-tax income, making it a direct and intuitive indicator of corporate tax payments. In this study, CETR values are bounded between 0 and 1, as theoretically tax payments cannot be negative and should not exceed total pre-tax income in a normalized framework. To handle potential extreme values that may arise due to reporting anomalies or temporary financial distortions, a censoring approach is applied. This method limits extreme observations so that they remain within the logical interval, thus improving the stability and reliability of the estimated results. The use of CETR with censoring is considered appropriate because it provides a realistic measure of tax burden while reducing bias caused by outliers.

The independent variable is ESG performance, measured using ESG scores obtained from the LSEG Refinitiv database, which provides standardized and internationally comparable ESG metrics. In addition, several control variables are included to account for firm heterogeneity. Profitability is measured using return on assets (ROA), leverage is

measured as the ratio of total debt to total assets (DER), and firm size is measured as the natural logarithm of total assets (SIZE). These variables are commonly used in prior studies as determinants of corporate tax behavior. Data collection is conducted through documentation techniques by extracting financial statements and annual reports from the IDX official website and company publications, while ESG data is obtained from the Refinitiv database.

The data analysis method employs panel data regression techniques to test the research hypotheses. Specifically, this study utilizes the Fixed Effects Model (FEM) to control unobserved heterogeneity across firms. The regression model is specified using Cash Effective Tax Rate (CETR) as the dependent variable representing tax avoidance. In addition, to address potential econometric issues such as endogeneity, autocorrelation, and heteroscedasticity, this study applies the First Difference Generalized Method of Moments (FD-GMM). This approach is suitable for panel data analysis as it eliminates time-invariant unobserved effects and helps mitigate potential reverse causality between ESG performance and tax avoidance. Furthermore, diagnostic tests are conducted to ensure the robustness and validity of the model. The Arellano–Bond test is used to detect autocorrelation, while the Hansen test is applied to assess the validity of the instrumental variables. A two-step robust standard error approach is employed to improve estimation efficiency and address heteroscedasticity. The instrument collapse technique is also used to prevent instrument proliferation and ensure reliable estimation results.

This methodological approach is designed to provide a rigorous and focused analysis of the relationship between ESG performance and corporate tax avoidance. By employing a single measurement proxy, the application of censoring to control extreme values, robust estimation techniques, and appropriate control variables, this study ensures that the results are reliable, replicable, and capable of contributing meaningfully to the existing literature.

## RESULT AND DISCUSSION

To provide an initial overview of the data, descriptive statistics for all variables used in this study are presented. This analysis aims to summarize the distribution, central tendency, and variability of the sample, offering a foundational understanding prior to conducting further regression analyses. The results are shown in Table 1.

**Table 2: Descriptive Statistics**

| Variables                                   | N   | Minimum | Maximum | Mean   | Elementary School |
|---|-----|---------|---------|--------|-------------------|
| Cash Effective Tax Rate (CASH ETR)          | 463 | 0.000   | 1,000   | 0.236  | 0.179             |
| Environmental, Social, and Governance (ESG) | 463 | 8,162   | 89,020  | 48,047 | 18,560            |
| Profitability (ROA)                         | 463 | -0.000  | 0.583   | 0.093  | 0.087             |
| Leverage (DER)                              | 463 | 0.062   | 4,949   | 0.455  | 0.289             |
| Firm Size (SIZE)                            | 463 | 26,216  | 34,536  | 31,200 | 1,047             |

Source: Processed data using EViews 14 (2026)

Table 2 presents the descriptive statistics for all variables used in this study, including the dependent variable (tax avoidance), independent variables (Environmental, Social, and Governance/ESG performance), and control variables (profitability, leverage, and firm size).

The dependent variable, Cash Effective Tax Rate (CASH ETR), has a mean value of 0.236, indicating that on average, firms pay approximately 23.6% of their pre-tax income in cash taxes. The minimum value of 0.000 suggests that some firms pay no cash taxes in certain years, which may reflect tax avoidance practices, tax incentives, or loss carryforwards. Meanwhile, the maximum value of 1,000 indicates that some firms pay cash taxes equal to or exceeding their pre-tax income, possibly due to prior-period adjustments or

non-recurring tax payments. The standard deviation of 0.179 shows a moderate variation in tax payment behavior across firms.

The independent variable, ESG performance, shows a mean value of 48.047, indicating a moderate level of ESG disclosure and performance among non-financial firms in Indonesia. The minimum value of 8.162 reflects very low ESG performance for some firms, while the maximum value of 89.020 suggests that certain firms have achieved a relatively high level of ESG compliance and transparency. The standard deviation of 18.560 indicates substantial variation in ESG performance, implying that firms differ significantly in their sustainability practices.

Regarding the control variables, profitability (ROA) has an average value of 0.093, meaning that firms generate an average return of 9.3% on their total assets. The minimum value close to zero indicates that some firms experience very low profitability, while the maximum value of 0.583 indicates that certain firms are highly profitable. The standard deviation of 0.087 suggests moderate dispersion in profitability levels across the sample.

Leverage (DER) has a mean value of 0.455, indicating that, on average, firms finance approximately 45.5% of their assets through debt. The minimum value of 0.062 reflects firms with very low reliance on debt, whereas the maximum value of 4.949 indicates that some firms are highly leveraged. The relatively high standard deviation of 0.289 suggests considerable variation in capital structure among firms.

Firm size (SIZE), measured as the natural logarithm of total assets, has an average value of 31,200. The minimum value of 26,216 and maximum value of 34,536 indicates a wide range of firm sizes within the sample, from relatively small to very large firms. The standard deviation of 1.047 suggests that the variation in firm size is present but not excessively dispersed. Overall, the descriptive statistics indicate that there is sufficient variation across all variables, which is essential for panel data analysis. The variability in CASH\_ETR and ESG supports further investigation into the relationship between ESG performance and corporate tax avoidance.

Following the descriptive statistics, panel data regression analysis is employed to examine the relationship between ESG performance and tax avoidance. Three panel data models are considered: the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). To determine the most appropriate model, the Chow test and Hausman test were conducted. The Chow test results indicate that the probability value for CASH\_ETR is 0.0000, which is below the 5% significance level. This suggests that the Fixed Effect Model is more appropriate than the Common Effect Model.

Furthermore, the Hausman test result shows a probability value of 0.0001 for CASH\_ETR, which is also below the 5% significance level. This finding confirms that the Fixed Effect Model (FEM) is the most suitable specification for the panel data in this study.

Based on the model selection tests, the Fixed Effect Model (FEM) is used as the baseline model to estimate the relationship between ESG performance and tax avoidance. The regression results indicate that ESG performance does not have a statistically significant effect on tax avoidance, as measured by CASH\_ETR, at the 5% significance level. This suggests that variations in ESG performance are not associated with significant differences in firms' actual cash tax payments.

Among the control variables, profitability (ROA) shows a significant relationship with tax avoidance. Specifically, ROA has a negative and significant effect on CASH\_ETR, indicating that more profitable firms tend to pay lower effective cash taxes, which may reflect more efficient tax planning strategies. Meanwhile, leverage (DER) and firm size (SIZE) do not show consistent or statistically significant effects on CASH\_ETR, suggesting that their influence on corporate tax avoidance is relatively limited within this sample.

To examine the effect of ESG performance on corporate tax avoidance, this study employs the Fixed Effect Model (FEM) as the baseline estimation approach. The use of FEM allows the analysis to control unobserved heterogeneity across firms that may influence tax behavior. The regression results, with corporate tax avoidance measured using Cash Effective Tax Rate (CASH\_ETR), are presented in Table 2.

**Table 3: Baseline Regression Results (Fixed Effect Model)**

| Variables | FEM CASH ETR Coeff. | Prob.    |
|-----------|---------------------|----------|
| Constanta | 0.5747              | 0.4919   |
| ESG       | -0.0014             | 0.1050   |
| ROA       | -0.8266             | 0.0000** |
| DER       | -0.0171             | 0.6179   |
| SIZE      | -0.0057             | 0.8340   |

Source: Processed data using EViews 14 (2026)

The results in Table 3 indicate that ESG performance has a negative coefficient of -0.0014 with a probability value of 0.1050. This suggests that ESG performance does not have a statistically significant effect on corporate tax avoidance, as measured by CASH\_ETR, at the 5% significance level. However, the negative coefficient indicates a tendency that firms with higher ESG performance may engage in lower levels of tax avoidance, although this relationship is not strong enough to be statistically confirmed.

Among the control variables, profitability (ROA) shows a negative and statistically significant effect on CASH\_ETR, with a coefficient of -0.8266 and a probability value of 0.0000. This indicates that more profitable firms tend to have lower cash effective tax rates, suggesting a higher likelihood of engaging in tax avoidance strategies. This finding implies that firms with higher profitability may have greater incentives and resources to minimize their tax burden.

Meanwhile, leverage (DER) has a negative coefficient of -0.0171 but is not statistically significant, as indicated by a probability value of 0.6179. This suggests that the level of debt does not have a meaningful impact on corporate tax avoidance behavior in this study. Similarly, firm size (SIZE) also shows a negative but insignificant effect, with a coefficient of -0.0057 and a probability value of 0.8340, indicating that firm size does not significantly influence cash tax payments.

The results suggest that ESG performance does not have a significant impact on corporate tax avoidance, while profitability plays a more prominent role in explaining variations in firms' tax behavior.

To address potential endogeneity issues and ensure the robustness of the estimation results, this study further employs the First Difference Generalized Method of Moments (FD-GMM). This approach is suitable for panel data analysis as it eliminates unobserved time-invariant effects and helps mitigate potential endogeneity and reverse causality between ESG performance and corporate tax avoidance. The estimation results are presented in Table 3.

**Table 4: Robustness Test Results (First Difference GMM / FD-GMM)**

| Variables | CASH ETR Coeff. | Prob.   |
|-----------|-----------------|---------|
| Constanta | -0.1108         | 0.0128* |
| ESG       | 0.0039          | 0.0161* |
| ROA       | -2.1234         | 0.0000* |
| DER       | 0.2605          | 0.0152* |
| SIZE      | 0.0713          | 0.0222* |

Source: Processed data using EViews 14 (2026)

The results in Table 4 show that ESG performance has a positive and statistically significant effect on corporate tax avoidance, as indicated by a coefficient of 0.0039 and a probability value of 0.0161. This finding suggests that, after controlling endogeneity using the First Difference GMM approach, firms with higher ESG performance tend to exhibit higher Cash Effective Tax Rates (CASH\_ETR), implying lower levels of tax avoidance. This result is contrary to the expectation that better ESG performance would be associated with more responsible tax behavior and indicates that ESG engagement may not necessarily translate into more conservative tax strategies in the Indonesian context.

Among the control variables, profitability (ROA) shows a negative and statistically significant effect on CASH\_ETR, with a coefficient of -2.1234 and a probability value of 0.0000. This indicates that more profitable firms tend to have lower effective cash tax rates, suggesting a higher tendency toward tax avoidance when firms generate higher returns.

Leverage (DER) exhibits a positive and significant effect on CASH\_ETR, with a coefficient of 0.2605 and a probability value of 0.0152. This suggests that firms with higher leverage tend to have higher cash tax payments, which may reflect the use of debt-related tax shields that reduce incentives for additional tax avoidance strategies.

Firm size (SIZE) also shows a positive and statistically significant relationship with CASH\_ETR, with a coefficient of 0.0713 and a probability value of 0.0222. This indicates that larger firms tend to pay higher effective cash taxes, which may be associated with greater regulatory scrutiny and reputational concerns.

The FD-GMM results confirm that ESG performance has a significant effect on corporate tax behavior when endogeneity is addressed, while control variables such as profitability, leverage, and firm size also play important roles in explaining variations in corporate tax avoidance.

To ensure the validity and reliability of the FD- GMM estimation, several diagnostic tests were conducted, including the Hansen test and the Arellano–Bond autocorrelation test. The results are presented in Table 5.

**Table 5: Diagnostic Tests**

| Variables             | CASH ETR |
|-----------------------|----------|
| Hansen test (p-value) | 0.2887   |
| AR (1) (p-value)      | 0.0387   |
| AR (2) (p-value)      | 0.0547   |

Source: Processed data using EViews 14 (2026)

The Hansen test yields a p-value of 0.2887, which is higher than the 5% significance level. This indicates that the null hypothesis of valid instruments cannot be rejected, suggesting that the instruments used in the FD-GMM estimation are valid and appropriate. In other words, there is no evidence of over-identification problems in the model.

Furthermore, the Arellano–Bond test for first-order autocorrelation AR (1) shows a p-value of 0.0387, which is statistically significant at the 5% level. This result is expected in first-different models and does not indicate a serious issue. However, the AR (2) test produces a p-value of 0.0547, which is slightly above the 5% significance level. This suggests that there is no evidence of second-order autocorrelation in the error terms, confirming that the model is free from serial correlation problems at higher orders.

The diagnostic test results indicate that the FD-GMM model used in this study is statistically valid and reliable. The instruments are appropriate, and the model does not suffer from serious autocorrelation issues, thus supporting the robustness of the estimation results.

## Discussion

This study examines the effect of Environmental, Social, and Governance (ESG) performance on corporate tax avoidance using Cash Effective Tax Rate (CASH\_ETR) as the sole proxy. The empirical results from the Fixed Effects Model indicate that ESG has no significant effect on CASH\_ETR, while the FD-GMM results show a positive and significant effect of ESG on CASH\_ETR. These inconsistent findings suggest that the ESG–tax avoidance relationship is sensitive to econometric specification and estimation method, consistent with prior evidence that tax avoidance measurement captures complex dimensions of corporate behavior (Hanlon & Heitzman, 2010; Jiang et al., 2024).

From a stakeholder theory perspective, firms with stronger ESG performance are expected to act in accordance with broader stakeholder expectations, including government and society. ESG-oriented firms tend to prioritize legitimacy, reputation, and long-term sustainability over short-term tax benefits. The significant positive effect of ESG on CASH\_ETR in the GMM model indicates that higher ESG performance is associated with lower levels of tax avoidance. This finding aligns with previous studies showing that ESG engagement enhances corporate responsibility and reduces opportunistic behavior (Kim et al., 2018; Luo et al., 2023; Zhang et al., 2023). ESG commitment also strengthens transparency and accountability, which constrains managerial discretion in tax planning activities.

The relationship between ESG and tax avoidance in the FEM estimation suggests that ESG firms tend to report higher cash tax payments. A higher CASH\_ETR reflects lower tax avoidance in real tax payments, which can be interpreted as stronger tax compliance. This result is consistent with evidence that ESG disclosure is associated with improved transparency and reduced information asymmetry (Chen & Xie, 2022; Jiang et al., 2024). However, the difference between FEM and GMM results indicates that the relationship is not fully robust, suggesting that unobserved firm characteristics may influence baseline results (Desai & Dharmapala, 2005).

The variation in results highlights the importance of measurement consistency in tax avoidance research. CASH\_ETR captures actual tax payments and reflects realized tax behavior, whereas other proxies in prior literature often reflect accounting discretion. Accordingly, ESG appears to exert a clearer influence on cash-based tax behavior, supporting the view that ESG affects real corporate decisions rather than purely accounting outcomes (Hanlon & Heitzman, 2010). The inconsistency also suggests that some firms may engage in symbolic ESG disclosure without fully changing underlying tax strategies, consistent with concerns regarding ESG decoupling (Yanto et al., 2025).

Firm-specific characteristics also play a significant role in explaining tax avoidance behavior. Profitability (ROA) is consistently significant across models, indicating that more profitable firms exhibit stronger incentives to manage tax payments. However, the direction of the effect suggests that profitable firms may reduce tax avoidance due to higher scrutiny and reputational pressure. This result is consistent with prior evidence that profitability is a key determinant of tax behavior (Hossain et al., 2024; Gao et al., 2025). It also aligns with findings that external monitoring mechanisms, such as analyst coverage, can reduce tax aggressiveness (Allen et al., 2016).

Leverage (DER) shows weak and inconsistent effects across models, indicating that capital structure is not a primary determinant of tax avoidance in this context. Although debt financing theoretically creates tax shields, creditor monitoring may reduce managerial opportunism and limit aggressive tax strategies (Lee & Bose, 2021). Firm size (SIZE) is also not consistently significant, suggesting that scale alone does not determine tax avoidance behavior. This finding implies that governance quality and institutional pressure are more relevant determinants than firm size, consistent with stakeholder theory predictions (Freeman, 1984).

The findings suggest that ESG performance contributes to improved tax compliance, particularly in cash-based tax behavior. However, the relationship is not uniform across estimation methods, indicating that ESG influences tax behavior in a nuanced and context-dependent manner. The results also highlight the importance of focusing on a single consistent proxy to avoid measurement bias in empirical tax research. From a policy perspective, strengthening ESG implementation may enhance corporate transparency and reduce aggressive tax behavior, particularly in emerging markets with weaker enforcement systems. Future research should incorporate additional governance variables such as ownership structure, board characteristics, and managerial incentives to better explain tax avoidance behavior. Further studies may also examine each ESG pillar separately to identify whether environmental, social, or governance dimensions drive tax compliance more strongly. Expanding the analysis across countries would also improve external validity and provide a more comprehensive understanding of ESG's role in corporate tax behavior.

## CONCLUSION

This study investigates the effect of Environmental, Social, and Governance (ESG) performance on corporate tax avoidance using Cash Effective Tax Rate (CASH\_ETR) as the sole proxy. The empirical evidence shows that ESG does not consistently influence tax avoidance across different estimation approaches. The Fixed Effects Model indicates no significant relationship between ESG and CASH\_ETR, while a positive effect is observed in the FD-GMM estimation. These results confirm that ESG performance is associated with corporate tax behavior, particularly in cash-based tax outcomes, although the magnitude and direction of the relationship depend on methodological specifications and estimation techniques.

The findings provide important implications for firms, regulators, and stakeholders. ESG performance can function as a governance mechanism that enhances transparency and reduces opportunistic tax behavior, particularly in relation to actual tax payments. Firms with higher ESG engagement are encouraged to strengthen ethical standards and accountability systems to improve tax compliance and maintain stakeholder trust. For regulators, the results highlight the importance of integrating ESG disclosure frameworks into corporate governance and tax monitoring systems. The variation in results across estimation methods also suggests that policy evaluation of tax avoidance should not rely on a single measurement approach, as different approaches capture different aspects of tax behavior. Strengthening ESG disclosure requirements may contribute to more transparent and responsible corporate tax practices in emerging markets.

This study is subject to several limitations. First, the sample is restricted to non-financial firms listed on the Indonesia Stock Exchange, which may limit the generalizability of the findings to other sectors or countries. Second, ESG performance is measured using aggregated scores, which may not fully capture variations across environmental, social, and governance dimensions. Third, tax avoidance is measured using a single cash-based proxy, which may still contain measurement limitations due to differences in accounting practices and reporting environments. Fourth, potential omitted variables such as ownership structure, political connections, and board characteristics are not included in the empirical model, which may affect the estimated relationships.

Future research is encouraged to expand the analysis by including additional governance-related variables such as ownership concentration, board independence, and managerial incentives. Disaggregating ESG into its individual components may also provide deeper insights into which dimension has the strongest influence on tax avoidance behavior. Further studies could extend the analysis to cross-country settings to improve external validity and capture institutional differences in tax enforcement and ESG implementation.

Future research may also explore alternative methodologies such as qualitative approaches or mixed methods to better understand the mechanisms underlying ESG and corporate tax behavior.

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