

BEHIND THE SCALES : DO CAPITAL INTENSITY, FIRM SIZE, AND FINANCIAL DISTRESS BECOME SHORTCUTS FOR COAL MINING COMPANIES' TAX AVOIDANCE?

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ABSTRACT

The issue of tax avoidance was once again discovered and reported by Indonesia Audit Watch in 2023, with 50 mining companies indicated to be engaging in tax avoidance practices through the manipulation of funding sources for exploration and exploitation costs. This condition highlights the imperfection of tax law. Therefore, this study aims to analyze the influence of capital intensity, firm size, and financial distress on tax avoidance. This research focuses on coal mining issuers traded on the Indonesia Stock Exchange during the period 2022-2024. The sampling technique used is purposive sampling, resulting in 10 issuers with a total of 30 observation data points. The data used are ratio data from secondary sources, and data analysis was conducted using the EViews 13 program. The findings of this study indicate that capital intensity and firm size do not affect tax avoidance, whereas financial distress has a positive effect on tax avoidance. This suggests that financial pressure prompts management to avoid taxation in order to maintain their business activities. This research is expected to offer insights into the strengthening of academic literature on accounting and taxation, serve as a basis for company executives in determining tax compliance, and provide input for the government to create new tax policies to narrow the opportunities for tax avoidance going forward.

Keywords: Coal mining companies, capital intensity, firm size, financial distress, tax avoidance, Indonesia Stock Exchange.

ABSTRAK

Kasus penghindaran pajak kembali ditemukan dan dilaporkan oleh *Indonesia Audit Watch* pada tahun 2023, terdapat 50 perusahaan tambang terindikasi melakukan praktik penghindaran pajak melalui manipulasi sumber pendanaan untuk biaya eksplorasi dan eksploitasi, kondisi ini menunjukkan adanya ketidaksempurnaan hukum perpajakan. Oleh karena itu, riset ini bertujuan untuk mengkaji pengaruh *capital intensity*, *firm size*, dan *financial distress* terhadap *tax avoidance*. Penelitian ini difokuskan pada emiten tambang batu bara yang terdaftar pada Bursa Efek Indonesia selama periode 2022-2024. Penarikan sampel menggunakan teknik *purposive sampling*, sehingga diperoleh 10 emiten dengan total 30 data observasi. Data yang digunakan merupakan data rasio dengan sumber sekunder, analisis data menggunakan aplikasi EViews 13. Temuan penelitian ini menunjukkan bahwa *capital intensity*, dan *firm size* tidak berpengaruh terhadap *tax avoidance*, sedangkan *financial distress* berpengaruh positif terhadap *tax avoidance*, hal ini mengindikasikan bahwa tekanan finansial memicu manajemen menghindari perpajakan guna menjaga kegiatan usahanya. Penelitian ini diharapkan dapat berkontribusi dalam penguatan literatur akademik akuntansi dan perpajakan, menjadi landasan evaluasi bagi eksekutif perusahaan dalam menetapkan kepatuhan pajak, serta masukan bagi pemerintah untuk membuat kebijakan perpajakan baru untuk mempersempit peluang terjadi penghindaran pajak di masa mendatang.

Kata Kunci: Perusahaan tambang batu bara, *capital intensity*, *firm size*, *financial distress*, *tax avoidance*, Bursa Efek Indonesia.

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1. INTRODUCTION

The Indonesian government has the authority to establish tax regulations, one of which is the mining tax. Mining taxes are obligations that must be fulfilled by mining companies for all activities within their operations. The mining industry contributes substantially to the taxation system, which is essential for national economic growth. As stated in the data from the Ministry of Finance, this sector recorded its highest tax contribution growth of 296.3% and contributed approximately 10.1% to the total net tax revenue during the period (Vivian, 2023). In 2023, the Minister of Finance reported that tax revenue for the mining sector in Q1/2023 was only 113.6%, not as strong as in 2022 which reached 150.8%. This decline in tax revenue occurred due to the weakening of commodity prices. For example, the price of coal dropped from US\$ 441.9 per metric ton to US\$ 192.8 per metric ton (Kurniati, 2023). The decline in coal prices has put pressure on the financial performance of mining issuers. For example, the company Bukit Asam Tbk (PTBA) saw its revenue weaken, from Rp9.84 trillion to Rp9.92 trillion, a decrease of about 5.52% (Natalia, 2024). The weakening financial performance due to the decline in coal prices has impacted tax revenue from Corporate Income Tax (PPH Badan), with tax contributions from the mining sector dropping by 26.8%. As of March 15, 2024, tax revenue from the mining sector amounted to IDR 19.4 trillion (Wildan, 2024). Although the tax decline in 2023 and 2024 was largely triggered by falling commodity prices, this phenomenon could indicate the presence of other factors affecting state revenue, one of which is tax avoidance through the manipulation of funding sources for exploration and exploitation costs.

This case was revealed after the arrest of a former official of the DJP Ministry of Finance for accepting gratuities from taxpayers based on tax findings from companies between 2011-2023 (KPK, 2023). *Indonesia Audit Watch* (IAW), has reported on the alleged tax avoidance practices involving 50 mining companies in connection with the bribery case involving a former official of the Directorate

General of Taxes at the Ministry of Finance, IAW reported this tax avoidance issue to the Coordinating Minister for Political, Legal, and Security Affairs (Ayu, 2023). Although not mentioning which mining company, the secretary of IAW stated the tax avoidance case consisted of two identified schemes. The first scheme involved tax avoidance activities carried out by PT BS, which PT BS, owned by an individual with the initial S, engaged in as part of the first scheme. by an individual with the initial S who is the wife of a high-ranking uniformed official; the second modus is manipulating the source of capital in exploration and exploitation costs. The IAW Secretary also stated that the company did not report the revenue corresponding to what was actually produced, intentionally underreporting the revenue amount (Ayu, 2023).

The alleged corporate income tax avoidance in 2023 proves the continued weakness of oversight and law enforcement in the mining sector, even after the tax avoidance case involving PT ADARO was revealed in 2019. This has made researchers interested in reexamining the aspects that serve as shortcuts for companies to reduce their tax cost. Several aspects that impact tax avoidance include capital intensity, firm size, financial distress.

Capital intensity is the percentage of fixed assets in the total assets (Lukito & Sandra, 2021). Each fixed asset has a depreciation value that arises from the decrease in economic benefits during its use. This depreciation expense can increase the firm's operational costs and reduce its taxable income. A decrease in taxable income will subsequently lower the corporate tax liability (Nauli Sipayung et al., 2023). The findings of Gayatri & Damayanthi, (2024), Nauli Sipayung et al., (2023) and Lukito & Sandra, (2021), indicate that capital intensity contributes positively to tax avoidance. In contrast, in the studies by Julianty et al., (2023) and Ulfa et al., (2021) it was found that capital intensity does not affect tax avoidance.

Firm size is a calculation to classify businesses into small, medium, or large categories. Large business issuers mostly have more adequate resources to achieve high profits, thus having a higher potential for tax avoidance

practices (Gayatri & Damayanthi, 2024). In the study by Karlinah et al., (2024), Gayatri & Damayanthi, (2024), Suryatna, (2023), indicate that firm size positively influences tax avoidance. However, in the research by Ainniyya et al., (2021) and Ulfa et al., (2021), *firm size* does not affect tax avoidance.

Financial distress, or more commonly known as a state in which a firm faces financial difficulties, in order to keep its operations running, a business executive will engage in aggressive tax avoidance measures (Fadhila & Andayani, 2022). In the research by Gayatri & Damayanthi, (2024), Jevita & Siregar, (2023), Kalbuana et al., (2023), Ningsih & Noviani, (2022), and Fadhila & Andayani, (2022), finding that financial distress has a positive effect on tax avoidance. However, research by Lukito & Sandra, (2021) and Nauli Sipayung et al., (2023), found that financial distress does not affect tax avoidance.

Although several previous studies have examined the impact of capital intensity, firm size, and financial distress on tax avoidance, the results obtained still show inconsistencies, and most of these studies have focused on sectors outside of mining. Meanwhile, there have been findings of tax avoidance practices in mining business units, prompting this research to focus on the coal mining sector, which has specific tax regulations and significant economic impacts due to commodity price fluctuations. The calculation method for the financial distress variable is the Altman Z-Score Z" Prime, which is adjusted for the retail, wholesale, service, mining, and utility sectors, making it more relevant compared to the classical model for specific sectors like mining (Investors, 2021).

2. LITERATURE REVIEW

Taxes

The tax rights and obligations of mining companies are specifically regulated because mining companies have business activities that differ from other industries. Therefore, the government establishes tax regulations for companies operating in the mining sector, particularly for holders of Mining Business Licenses (IUP). The following are the rights and obligations of the Mining Business License

(IUP); first, all income obtained from the sale of production results is recognized as a component of taxable income in the income tax calculation, second, deducting income from all sales of production results with costs incurred from activities related to acquisition, collection, and maintenance of cooperation to obtain the company's gross profit, third, withholding and collecting taxes, fourth, determining the tax payable based on the applicable tariff provisions, fifth, depositing the tax payable and settling any tax payment shortfalls, sixth, submitting the Tax Return (SPT) as a form of taxpayer reporting to the government (Vivian, 2023). The regulations regarding the rights and obligations of coal mining companies in this sub-sector are outlined in Government Regulation (PP) No. 15 of 2022.

PP No. 15 of 2022 controlling tax treatment and Non-Tax State Revenue (PNBP) in the coal mining business sector, including the income of mining companies as taxable objects. Article 5, Paragraphs (1) and (2), which explain how to calculate Taxable Income (PKP). Additionally, in the explanation of paragraph (1) in Article 5, it is mentioned that expenses incurred to obtain, collect, and maintain income directly or indirectly related to the business process of companies operating in the mining sector can be deducted as long as these expenses comply with applicable regulations. Furthermore, paragraph (2) of Article 5 categorizes expenses based on the operational activities of mining companies, which encompass general investigations, exploration, feasibility assessments, and production-related activities, such as transportation, processing, and royalty obligations, as well as post-mining activities focused on restoring environmental and social functions in the mining area. Article 6 discusses costs or expenses that cannot be deducted when calculating PKP. Article 7 provides guidelines for calculating net income, loss compensation, PKP, and the taxpayer's tax rate. The corporate income tax rate is set at 22%, accompanied by other tax levies such as fixed contributions, royalties, and profit-sharing with the central and regional governments.

The Theory of Positive Accounting

The positive accounting theory was developed by Watts in 1978. Watts explained that companies prefer to utilize accounting methods to manipulate operating profits, which can potentially increase cash flow and the firm's value. There are three hypotheses in this theory. The first is the bonus plan hypothesis, which is the management's effort to pursue performance bonuses by utilizing accounting policies to report higher profits. The second is the debt/equity hypothesis, where companies adopt accounting policies to increase profits because one of the borrowing conditions is to maintain the debt-to-equity ratio. Finally, the political cost hypothesis, which arises due to business unit expenditures for government contributions, including taxation (Julianty et al., 2023). Political costs will increase as the size of the business also increases, so large businesses will choose accounting policies to minimize political costs (Watts, Zimmerman, & Ross Watts, 1978).

The Theory of Planned Behavior

The theory of planned behavior developed by Ajzen in 1991, which proposes three main drivers that influence an individual's decision to act. First, attitude toward the behavior or one's attitude toward behavior, which involves the thought of categorizing an action as positive or negative. Second, the predictor is a social factor commonly referred to as norms or actions influenced by social pressure in the surrounding environment. Third, perceived behavioral control represents an individual's belief regarding their capacity to execute a certain behavior. Generally, if someone feels that the action they are taking has a significant positive impact and becomes a habit that is easy to do, then the intention to perform that action becomes stronger (Ajzen, 1991).

Tax avoidance

Tax avoidance is a lawful strategy adopted by enterprises to decrease corporate tax payments (Lukito & Sandra, 2021). The company will implement accounting policies that leverage tax aspects related to exemptions, the depreciation of fixed assets, and

inefficiencies in the tax regulatory framework to reduce its nominal tax liability (Julianty et al., 2023).

Capital Intensity

Capital intensity is the level of investment made by a corporation in its fixed asset holdings (Oktaviani, 2023). Fixed assets are tangible assets that facilitate the firm's operational activities, are not intended for sale, and have utility value, where their depreciation is carried out systematically by allocating the depreciable amount (PSAK No 16, 2011).

Firm size

Firm size is a segmentation of business entities based on a certain scale. In the research Gayatri & Damayanthi, (2024) measured the nominal value of total assets recorded in the financial statements. Generally, as the business grows, the company's revenue will increase, and this income will become the funds to finance the operations of the business unit (Nauli Sipayung et al., 2023).

Financial distress

Financial distress describes a phase of financial pressure on a business entity or constraints in paying off business debts and becoming a potential early stage toward bankruptcy (Lukito & Sandra, 2021). Difficulty in repaying debts will weaken a company's credit rating, which is considered a signal that the company is in a phase of financial distress (Gayatri & Damayanthi, 2024).

Hypothesis

The influence of capital intensity on tax avoidance

The theory of planned behavior was developed by Ajzen, (1991), explaining that individuals will take actions deemed to have a positive impact on something, just like the purchase of fixed assets which is considered to improve work efficiency, but this purchase of fixed assets is accompanied by its depreciation value. Aligned with positive accounting theory, which explains that business executives tend to use accounting policies, such as the use of depreciation, as a strategy to suppress profits. The decrease in profits due to the depreciation

expense of fixed assets will impact the reduction of tax costs (Lukito & Sandra, 2021). Research by Gayatri & Damayanthi, (2024), Nauli Sipayung et al., (2023) and Lukito & Sandra, (2021), found that capital intensity has a positive effect on tax avoidance, the higher the capital intensity of the business, the more aggressive the tax avoidance. In the research Julianty et al., (2023) and Ulfa et al., (2021), It was found that capital intensity does not affect tax avoidance; the level of capital intensity will not impact tax avoidance actions. Therefore, the hypothesis formulation for the effect of capital intensity on tax avoidance is as follows:

H₁: Capital intensity has a positive effect on tax avoidance.

The influence of firm size on tax avoidance

Positive Accounting Theory developed by (Watts et al., 1978), there is a hypothesis regarding political costs that explains the magnitude of political costs following the scale of the company; companies that consistently generate large profits will take actions that can reduce their tax value. In accordance with the theory of planned behavior, which explains that when someone has the authority to commit fraudulent actions, they will do so, especially when the environment or colleagues around them consider such behavior to be normal and beneficial. Therefore, management in large companies often manipulates taxation considering their capabilities to design more effective tax strategies (Karlinah et al., 2024). In the research by Gayatri & Damayanthi, (2024), Karlinah et al., (2024), and Suryatna, (2023), It was found that firm size has a positive effect on tax avoidance; as a company's size increases, its likelihood of engaging in tax avoidance also increases. Ainnyyya et al., (2021) and Ulfa et al., (2021), the size of the company does not affect tax avoidance. Companies are taxpayers with obligations to pay taxes, whether they are large or small companies (Ainnyyya et al., 2021). Thus, the formulation of the hypothesis regarding the influence of firm size on tax avoidance is as follows:

H₂ : Firm size has a positive effect on tax avoidance.

The influence of financial distress on tax avoidance

Referring to positive accounting theory, company managers tend to strive to minimize tax obligations as a strategic step to manage cash availability and ensure the sustainability of business activities. This theory supports the concept of the theory of planned behavior, which states that social pressure can influence an individual's decision-making in taking an action (Ajzen, 1991). When the company is experiencing difficult financial conditions, managers may undertake more aggressive tax avoidance strategies to preserve financial resources and support the continuity of business activities (Fadhila & Andayani, 2022). Gayatri & Damayanthi, (2024), Jevita & Siregar, (2023), Kalbuana et al., (2023), Ningsih & Noviani, (2022), and Fadhila & Andayani, (2022), found that financial distress has a positive effect on tax avoidance. On the other hand, in the research by Lukito & Sandra, (2021) and Nauli Sipayung et al., (2023), financial distress does not affect tax avoidance, companies in potential bankruptcy conditions or healthy companies do not influence tax avoidance practices (Lukito & Sandra, 2021). Thus, the formulation of the hypothesis regarding the impact of financial distress on tax avoidance is as follows :

H₃ : Financial distress has a positive effect on tax avoidance.

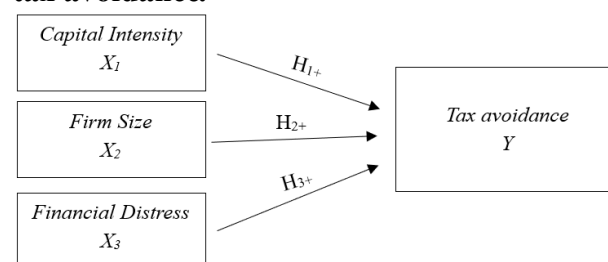


Figure 1 Conceptual Framework

Source: Processed data (2025)

3. RESEARCH METHOD

Population and Sample

The research is based on a quantitative approach in the form of ratios obtained from secondary sources. Data collection was carried out by accessing the Indonesia Stock Exchange (IDX) website and downloading the audited reports of each issuer in the energy sector, specifically the coal sub-sector, for the years

2022 to 2024. Therefore, this study's population comprises 47 issuers in the coal sub-sector publicly listed on the IDX. Using a non-probability sampling approach with a purposive sampling technique as the selection technique, the population was narrowed down to 10 company samples that meet the research criteria. The following are the criteria for the research sample selection: (1) Issuers listed on the IDX and in the coal sub-sector during the period 2022-2024; (2) Companies in the energy sector coal sub-sector that have published complete annual reports from 2022 to 2024; (3) Companies in the energy sector coal sub-sector that use the rupiah currency to ensure data uniformity and minimize the impact of exchange rate fluctuations between currencies. Then the total sample used :

Table 1 Total Research Samples

NO	Kriteria	Jumlah
1	Issuers listed on the IDX and operating in the coal subsector during the 2022–2024 period.	47
2	Companies in the energy sector's coal subsector have published complete annual reports from 2022 to 2024.	42
3	Companies in subsectors that use the rupiah as their currency.	16
4	Company with complete calculation indicators.	13
	Outlier Data	(3)
5	Sample	10
	Sample x years of observation (10 samples, 3 years of observation)	30

Variable Measurement

This study involves three independent variables, consisting of *capital intensity*, *firm size*, and *financial distress*. Meanwhile, the dependent variable is tax avoidance. The operational definitions of the research variables and their respective measurement indicators are presented in the following table

Table 2 Variable Operationalization and Measurement

Variable	Definisi Operasional	Pengukuran
<i>Tax Avoidance</i> (CETR)	Taxpayers' strategy aimed at legally reducing their tax burden in accordance with applicable regulations (Lukito & Sandra, 2021).	CETR : $\frac{\text{Tax Payment}}{\text{Earning Before Tax}}$
<i>Capital Intensity</i> (CI)	The proportion of corporate investment invested in fixed assets (Gayatri & Damayanthi, 2024). Depreciation of fixed assets can serve as a mechanism for lowering taxable income (Karlinah et al., 2024).	Capital Intensity : $\frac{\text{Total Fixed Assets}}{\text{Total Assets}}$
<i>Firm Size</i> (FS)	Measurement scale to classify companies by looking at total assets, sales volume, stock value, total assets, and so on (Suryatna, 2023).	Firm Size: LogN (Total Assets)
<i>Financial Distress</i> (FD)	A calculation that indicates a weakening of the firm's financial performance before the occurrence of business failure or liquidation (Ningsih & Noviari, 2022).	Z'- Score: $6,56 X1 + 3,26 X2 + 6,72 X3 + 1,05 X4$ X1 : <i>Working capital to Total asset</i> X2 : <i>Retained earning to Total asset</i> X3 : <i>Earning before interest and taxes to Total asset</i> X4 : <i>Book Value of Equity to Book Value Total Liability</i>

Research Model

Considering that this research applies a quantitative method with a panel data analysis approach, the data testing includes descriptive tests, classical assumption tests (normality, multicollinearity, heteroscedasticity, and autocorrelation), model selection thru Chow, Hausman, and Lagrange Multiplier (LM) tests, hypothesis analysis, and coefficient of determination analysis using EViews 13. The regression equation is as follows :

$$\text{Tax Avoidance} = a + B_1X_1 + B_2X_2 + B_3X_3 + e$$

Keterangan :

a = konstanta,

X_1 = Capital Intensity,

X_2 = Firm Size,

X_3 = Financial Distress,

B_1, B_3 = Koefisien Variable,

E = error

4. RESULTS AND DISCUSSION

Results

Model Selection

Determining the regression model for panel data involves the Common Effect Model

(CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) approaches. The model is selected based on the Chow, Hausman, and Lagrange Multiplier (LM) tests. The results obtained from this stage are as follows:

Table 1 Model Selection

Model Spesifikasi	Statistic	Nilai Prob.	Model
Chow Test	Cross-section F	0.4898	CEM
Hausman Test	Cross-section Random	0.3405	REM
LM	Prob Cross-section	0.3361	CEM

Source : Processed data, (2026)

Table 3 the cross-sectional F statistic is $0.4898 > 0.05$; making the common effect model the best . The cross-sectional random-effect F-statistic is $0.3405 > 0.05$; making the random effect model the best . The cross-section value is $0.3361 > 0.05$; therefore, H_0 is accepted, indicating that the Common Effect Model (CEM) is the most appropriate model for the regression analysis. Based on these results, the CEM is selected as the regression model used in this study.

Table 2 Descriptive Statistics

	Mean	Median	Maximum	Minimum	Std. Dev	Observasi
X1CI	0.389440	0.354350	0.817500	0.002600	0.290818	30
X2FS	19.85333	20.60000	22.26000	14.85000	2.099353	30
X3FD	6.147667	4.600000	23.75000	-1.550000	5.343628	30
YCETR	0.220180	0.223850	0.582800	-0.014700	0.140904	30

Source : Processed data, (2026)

Descriptive Statistics

Based on Table 4, the total number of data points analyzed is 30. The lowest value of CETR is -0.0147, the highest observed value is 0.5828, a mean of 0.2202, and a standard deviation of 0.1409. The lowest value of CI is 0.0026, the highest observed value is 0.8175, a mean of 0.3894, and a standard deviation of 0.29082. The lowest value of FS is 14.850, the highest observed value is 22.260, a mean of 19.853, and a standard deviation of 2.0994. The lowest value of FD is -1.550, the highest

observed value is 23.750, a mean of 6.1477, and a standard deviation of 5.3436.

Classical Assumptions Test

The first step in conducting statistical tests is to screen the data to be analyzed (Ghozali, 2018). The following are the results of the tests for normality, multicollinearity, heteroscedasticity, and autocorrelation:

Table 3 Results of the Jarque-Bera Test

Normality Test	
Jarque-Bera	1.064367
Probabilitas	0.587321

Source : Processed data, (2026)

Normality

Based on the data in Table 5, which shows the results of the normality test using the Jarque-Bera (JB) method, the JB value is 1.064367 with a probability value of 0.587321 > 0.05 ; therefore, it can be concluded that the research data meets the classical assumption of normality. This indicates that the data distribution does not deviate significantly, so the model is feasible for use in further testing.

Table 4 Results of the Multicollinearity Test

Correlation	X1CI	X2FS	X3FD
X1CI	1		
X2FS	-0.424384	1	
X3FD	0.112695	0.323261	1

Source : Processed data, (2026)

Multicollinearity

The results of the multicollinearity test, conducted using the correlation method between independent variables, indicate relatively low levels of multicollinearity. The correlation between variables X1CI and X2FS is -0.424384, between variables X1CI and X3FD is 0.112695, and between variables X2FS and X3FD is 0.323261. All correlation values in the data are less than 0.90, confirming that the regression model does not exhibit from high correlations among the independent variables.

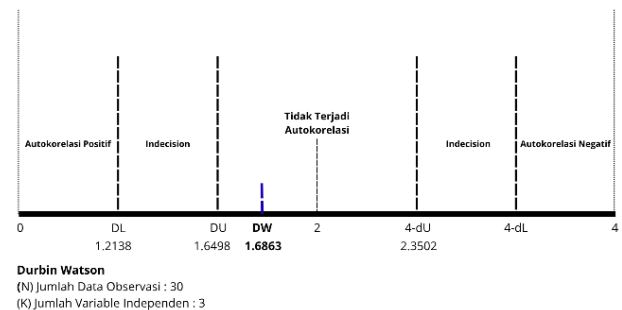
Table 5 Heteroscedasticity Test Results

Variable	t-Statistic	Prob.
C	0.26942	0.7897
X1CI	-0.53821	0.5950
X2FS	0.41567	0.6811
X3FD	-0.48092	0.6346

Source : Processed data, (2026)

Heteroscedasticity

Based on the table of heteroscedasticity results from the Glejser test estimates, the p-values obtained were 0.5950 for X1CI, 0.6811 for X2FS, and 0.6346 for X3FD; each p-value was greater than 0.05. Based on these findings, all independent variables were determined to show no signs of heteroscedasticity.

**Figure 2 Graph Interpreting Autocorrelation Results**

Source : Processed data, (2026)

Autocorrelation

Based on Figure 2, the Autocorrelation Results Interpretation Graph, the DW value for the CEM model is 1.6863, with 30 observations and 3 independent variables. From this data, the DL value is 1.2138 and the Du value is 1.6498. Since the Dw value is higher than the Du value, and given that the value of (4-Du) is 2.3502, the Dw value falls between the Du value and the (4 Du) value. Based on the test results, the regression model is deemed free of autocorrelation.

Table 6 T-Test Results for the CEM Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.573	0.297	1.925	0.065
X1CI	-0.162	0.100	-1.631	0.115
X2FS	-0.018	0.014	-1.239	0.226
X3FD	0.011	0.005	2.107	0.045

Source : Processed data, (2026)

Based on the t-test results table for the CEM regression model, the multiple linear regression equation can be expressed as follows:

$$Y = 0.573 - 0.162X1CI - 0.018X3Fs + 0.011X3FD + \varepsilon$$

The test results show that capital intensity does not affect tax avoidance; the probability value is $0.115 > 0.05$. Firm size does not affect tax avoidance; the probability value is $0.226 > 0.05$. Financial distress has an effect on tax avoidance; the probability value is $0.045 < 0.05$.

Table 7 Test Results R-Square Coefficient

Koefisien Determinasi	
Adjusted R-squared	0.081

Source : Processed data, (2026)

The R2test yielded an adjusted R-squared value of 0.08, indicating that the combined influence of capital intensity, firm size, and financial distress accounts for only 8% of tax avoidance.

Discussion

The influence of capital intensity on tax avoidance

The probability value of indicates that the capital intensity variable has no effect on tax avoidance; therefore, **H₁ is rejected**. From the perspective of planned behavior theory, particularly regarding attitudes toward the behavior, company management tends to view investments in fixed assets for business operations as having a positive impact on increasing cash flow. Furthermore, according to positive accounting theory, the ownership of fixed assets can serve as a legal tactic used by business entities to reduce tax costs through depreciation expenses; however, this study

found no significant influence between fixed asset ownership and tax avoidance. This condition was attributable to the surge in coal commodity prices in 2023, driven by the global energy crisis and the Russia–Ukraine war, which contributed to Indonesia's economic growth of 5.05% (Sipayung, 2024). Following the post-pandemic economic recovery, the government implemented a progressive royalty payment scheme for the coal mining sector while maintaining the corporate income tax rate at 22% in accordance with PP No. 15 of 2022, (2022), as a result, the tax burden imposed on coal mining companies during the 2022–2024 period was relatively higher than that observed in the sectors examined in the reference study covering 2019–2021. The COVID-19 pandemic led to a 2.07% decline in economic growth in 2020 (Badan Pusat Statistik, 2021), firms had greater incentives to capitalize on depreciation expenses associated with fixed assets to mitigate liquidity constraints and declining profits. Consequently, the findings indicate that fixed asset investments were undertaken to improve operational efficiency rather than to facilitate tax avoidance. These findings are in line with the research by Julianty et al., (2023), Ramdiani et al., (2023), Manurung et al., (2024), and Ulfa et al., (2021), which found that capital intensity does not affect tax avoidance, as business units utilize fixed assets for operational activities.

The Effect of Firm Size on Tax Avoidance

The probability value of indicates that the firm size variable has no effect on tax avoidance; therefore, **H₂ is rejected**. Theoretically Watts et al., (1978), suggest that large corporations tend to face high political costs, which encourage management to engage in tax avoidance; however, the results of this

study show that high political costs do not always lead management to engage in tax avoidance, and firm size is not the primary factor driving management to avoid taxation. The decision to engage in tax avoidance is more influenced by management's assessment of the benefits to be gained from such actions, as well as by environmental conditions that justify such behavior (Ajzen, 1991). Regardless of company size, every company is a taxpayer that must comply with regulations, and monitoring by tax authorities applies not only to large companies but to all business units to ensure they follow applicable tax regulations (Ainniyya et al., 2021). Referring to the average ln value of assets of 19.85 with an average tax payment rate of 22.02%, this generally indicates that companies tend to be compliant in paying taxes, in line with the provisions of Government Regulation No. 15 of 2022, which sets the corporate tax rate at 22%. Therefore, tax avoidance is not influenced by firm size but is determined by managerial decisions regarding tax policy. These findings are consistent with the research by Ainniyya et al., (2021), Dewi et al., (2022), Wulandari et al., (2024), and Ulfa et al., (2021), which found that firm size does not affect tax avoidance.

The Effect of Financial Distress on tax avoidance

The probability values indicate that the financial distress variable has a significant positive effect on tax avoidance; therefore, H3 is accepted. The financial distress value shows a positive correlation with the CETR value, such that an increase in financial distress tends to be followed by an increase in CETR, and vice versa. According to the theory of planned behavior, social pressure can influence a person's actions, supported by positive accounting theory, which explains that company executives strive to take actions to reduce tax costs in order to maintain cash flow and the company's operational continuity. These findings are consistent with the studies by Gayatri & Damayanthi, (2024), Jevita & Siregar, (2023), Kalbuana et al., (2023), Ningsih & Noviani, (2022), and Fadhila & Andayani, (2022), which found that financial distress has a positive effect on tax avoidance.

5. CONCLUSIONS AND RECOMMENDATIONS

This study examines the relationship between capital intensity, firm size, and financial distress on tax avoidance among coal mining companies listed on the Indonesia Stock Exchange (IDX) from 2022 to 2024. Thirty observations passed the classical assumption tests using the CEM model as the regression model, revealing that capital intensity and firm size have no effect on tax avoidance, while financial distress has a positive effect on tax avoidance. Based on the R^2 result, which was 8%, the researchers recommend that future studies investigate tax avoidance on a broader scale to increase the sample size for testing purposes. This would provide more data to draw conclusions that are more representative of the study population. In addition, it is necessary to consider adding variables not yet included in this study, such as profitability, sales growth, and audit quality, to identify other factors that may influence tax avoidance practices.

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