

UNVEILING THE DRIVERS OF TAX AGGRESSIVENESS: THE ROLES OF FINANCIAL DISTRESS, CORPORATE SOCIAL RESPONSIBILITY, AND FIRM SIZE

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Abstract

This study focuses on examining tax aggressiveness reflected in the Cash Effective Tax Rate (CETR), which is impacted by financial distress, Corporate Social Responsibility (CSR), and firm size. The study uses information from yearly reports and financial statements of consumer non-cyclical companies listed on the Indonesia Stock Exchange from 2020 to 2024. The selection of the sample was done using a criterion-based sampling method, resulting in 44 companies with a total of 220 observational data. The analysis process applies panel data regression supported by EViews 13 software. The empirical findings demonstrate that financial distress has an influence on tax aggressiveness. Furthermore, CSR affects tax aggressiveness. Likewise, CSR is linked to tax aggressiveness. Firm size also shows an impact on tax aggressiveness. Collectively, the outcomes suggest that a company's financial condition, social responsibility practices, and organizational scale contribute to determining its tax management behaviour.

Keywords: Corporate Social Responsibility, Financial Distress, Firm Size, Tax Aggressiveness

1. Introduction

Taxes are required payments that individuals or organizations need to provide to the government, upheld by the law, without direct reciprocal benefits, and allocated for state purposes to promote the maximum welfare of the public (Direktorat Jenderal Pajak, 2022). Based on data provided by the Ministry of Finance of the Republic of Indonesia, (2025) tax revenues have shown an upward trend over the past five years. The following are the percentages of tax revenue realization compared to targets from 2020 to 2024.

Table 1. Tax Revenue Target and Realization in Indonesia (2020–2024)

Year	Tax Revenue Target	Realization of Tax Revenue	Percentage of Acceptance
2020	1.404	1.285,1	91,50%
2021	1.444	1.547,8	107,15%
2022	1.784	2.034,5	114,04%
2023	1.946	2.118,3	108,8%
2024	2.307,9	2.309,9	100,5%

Source: Ministry of Finance of the Republic of Indonesia (processed data, 2025)

Referring to Table 1, data presented above, the amount of tax revenue expressed as a percentage realization during 2020–2024 shows fluctuations when compared to the predetermined targets. In 2020, the realization reached 91.50%, indicating that the tax revenue target was not achieved. However, in 2021 and 2022 the realization increased significantly to 107.15% and 114.04%, respectively, exceeding the established targets. In 2023, the percentage slightly declined to 108.8%, yet it still surpassed the target. A further

decrease occurred in 2024 to 100.5%, although the realization remained above the target. This downward trend may indicate that some taxpayers tend to engage in tax avoidance practices, making this phenomenon relevant and important for further investigation.

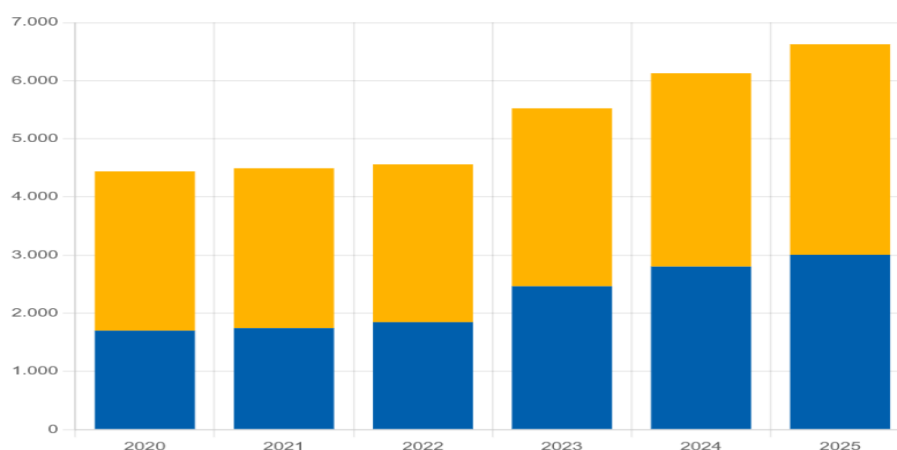


Figure 1. Trend of Tax Revenue Target and Realization in Indonesia (2020–2025)

Source: Ministry of Finance of the Republic of Indonesia (processed data, 2025)

Taxes remain a major source of state revenue. In 2024, tax receipts reached Rp2,842.5 trillion or 101.4% of the APBN target, growing by 2.1% compared to the previous year (Kementrian Keuangan, 2025). Although the overall target was achieved, fluctuations in realization percentages from year to year indicate the influence of economic conditions and taxpayer behaviour. Therefore, it is important to understand how companies meet their tax obligations, including the potential engagement in tax aggressive practices that may affect the long-term optimization of state revenue.

A company is defined as an organization that operates to provide goods and services to society to generate profit (Di & Periode, 2023). Corporate profits affect the level of tax revenue collected by the government, as companies operating in Indonesia are required to fulfill their tax obligations (Kurniati, 2021). In practice, companies seek to maximize profits by minimizing expenses, including tax payments. Consequently, firms often design strategies to reduce their tax burden while maintaining profitability (Aris, 2022). Within the framework of agency theory, tax aggressiveness arises due to conflicts of interested information asymmetry between the tax authorities, acting as principals, and companies, serving as agents. This behaviour involves exploiting gaps or weaknesses in tax regulations to reduce tax payments. Tax aggressiveness may take the form of tax avoidance, which complies with tax regulations, or tax evasion, which involves illegal actions to evade tax obligations (Amyulianthy et al., 2025).

Cases of tax aggressiveness have occurred both in Indonesia and internationally. In Indonesia, a tax dispute involving PT Unilever Oleochemical Indonesia came to attention after the Directorate General of Taxes identified discrepancies in the company's tax obligations, resulting in an underpayment assessment. The company challenged the decision through objections and appeals, and later submitted a judicial review petition to the Supreme Court. However, the Supreme Court rejected the request, stating that the tax authority's corrections were consistent with existing tax regulations (Mahkamah Agung, 2023). Similar cases have also occurred globally. In Australia, PepsiCo, Inc. was involved in a tax dispute with the Australian Taxation Office related to a restructuring agreement with independent bottlers under the Exclusive Bottling Appointment (EBA) (Australia,

2025). In India, Nestlé was involved in a tax dispute regarding the interpretation of the Most Favored Nation (MFN) clause within a Double Taxation Avoidance Agreement (DTAA). In 2023, the Supreme Court rejected Nestlé's review request and upheld the tax authority's position, resulting in a financial penalty (Narain, 2024).

The global and regional economic difficulties, alongside the continued effects of the COVID-19 outbreak, have put many business operators under pressure and in financial distress (Yu et al., 2025). The improvement of the post-COVID economic condition is still very relevant to this research because the observation period to be studied, namely from 2020 to 2024, will also reflect the financial distress conditions. Financial distress may encourage companies to implement cost-efficiency strategies, including reducing tax expenses, in order to maintain operational continuity and financial stability. In such conditions, Tax aggression is frequently perceived as a potential strategy to increase internal cash flow by exploiting gaps in tax regulations (Wardhana et al., 2025; Zhou et al., 2023). Several studies find that financial distress contributes positively to tax aggressiveness (Aris, 2022; Oktaviano et al., 2024; Wardhana et al., 2025), although other research reports a negative relationship due to greater managerial awareness of tax compliance (Takasanakeng, 2022). Corporate Social Responsibility (CSR) has a major influence on corporate behaviour, as it promotes social welfare, sustainable economic growth, and ethical business practices (Bhattacharyya & Imam, 2024). In relation to tax aggressiveness, A company's dedication to social responsibility is frequently reflected through its Corporate Social Responsibility (CSR) initiatives. Numerous studies have found an inverse correlation between tax aggression and CSR, demonstrating that companies with greater CSR involvement are less inclined to participate in hostile tax practices to maintain reputation and stakeholder trust (Aris, 2022; Hajawiyah et al., 2022; Laksmi et al., 2022; Mkadmi & Ben Ali, 2024; Saf et al., 2024). However, other studies suggest a positive relationship in which companies use CSR disclosures to offset the negative perception of tax aggressiveness (Fuadah & Kalsum, 2021; Widuri, 2023).

Firm size represents the scale of an organization and may be evaluated using criteria like market capitalization, total assets, or revenue (Amyulianthy et al., 2025; Khasanah et al., 2022). Larger firms generally possess greater assets and generate higher profits, which in turn increase their tax obligations. This condition provides benefits to firms to use tax planning techniques intended to minimizing tax liabilities and enhancing cash flow (Zhou et al., 2023). Empirical research consistently demonstrates that firm size positively influences tax aggressiveness, as larger companies often experience greater tax pressure and are therefore more inclined to pursue aggressive tax planning strategies.

Firms operating in the consumer non-cyclicals sector manufacture essential products, including food, beverages, pharmaceuticals, and household items, with relatively stable demand despite economic fluctuations (idx, 2023). This sector holds a vital position in Indonesia's economy, continuously contributing more than 19% of the country's GDP (BPS, 2022). Currently, the Indonesia Stock Exchange (IDX) classifies these companies under consumer non-cyclicals and basic materials. This sector is selected due to its importance and unique characteristics, particularly its high inventory intensity and continuous production processes, which often lead to fluctuating inventory levels (Alkausar et al., 2023). These conditions may encourage companies to manage tax burdens more aggressively to maintain profitability while preserving their public reputation (Amyulianthy et al., 2025).

2. Theoretical Background

2.1 Agency Theory

The earliest proposal of agency theory by Jensen & Meckling (1976) in “*Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure*,” explains the contract between the main (owner) and the agent (manager). The agent has been trusted by the principal with the power to decide and execute particular responsibilities on the principal’s behalf through a delegated arrangement. From this perspective, A company is seen as a hub of contracts. between shareholders, who bear the risks, and managers, who possess the expertise to manage the company’s operations (Kunst & Beugelsdijk, 2026). Agency theory primarily addresses two fundamental issues. The first is the agency problem. This arrangement gives rise to agency problems when both the principal's and the agent's interests diverge, combined with the difficulty and cost of monitoring the agent’s actions. As a result, The principal is unable to completely guarantee that the agent acts in their best interest. The second issue is the risk-sharing problem, which arises from differences in risk preferences between the principal and the agent, resulting in each of them favoring different decisions or strategies(Eisenhardt, 1989).

The theory assumes that individuals, including managers, are inclined to prioritize their own interests. Consequently, managerial decisions may not always align with the objectives of shareholders. To mitigate information asymmetry and opportunistic behaviour, firms implement monitoring and control mechanisms such as regulations, budgeting systems, and incentive structures (Amin et al., 2024). However, implementing these mechanisms results in various expenses such as residual losses, bonding fees, and monitoring expenses that together constitute agency costs (Jensen & Meckling, 1976). Such conflicts and the resulting agency costs can affect a range of corporate policies, including those pertaining to the management of tax obligations.

In the context of taxation, the tax authority, acting as the government’s representative, often faces challenges in overseeing corporate behaviour due to information asymmetry. This situation provides opportunities for firms to undertake opportunistic actions, such as manipulating financial statements to reduce tax liabilities. As a result, tax aggressiveness becomes difficult to detect and control. Strengthening monitoring mechanisms and improving transparency in financial reporting are therefore essential to reducing agency conflicts between companies and tax authorities. High-quality financial information that accurately reflects a firm’s condition can restrict management latitude and lessen the possibility of aggressive tax practices, thereby supporting the optimization of state revenue (Alkausar et al., 2023).

Tax aggressiveness reflects managerial attempts to reduce corporate tax liabilities using a variety of tax planning techniques, ranging from legal tax avoidance practices to unlawful tax evasion activities (Lanis & Richardson, 2012). Companies are considered to contribute properly to state revenue when they comply with tax obligations in accordance with applicable regulations (Meldisthy & Espa, 2024). In practice, tax aggressiveness is more frequently associated with tax avoidance, namely the effort to reduce tax burdens through legal mechanisms without violating tax provisions (Abidin, 2023). Conflicts of interest between management and shareholders serving as principals from the standpoint of agency theory as agents may encourage managers to use aggressive tax tactics in order to maximize company profits and improve financial performance. One factor that may intensify such behaviour is financial distress. Financial hardship is a state in which a business experiences declining financial performance and is unable to generate sufficient cash flow to meet its obligations (Fakhar et al., 2023). Indicators such as declining

profitability, negative operating income, and weakening equity value signal the presence of financial difficulties (Kalbuana et al., 2022). Under these circumstances, managers may be motivated to engage in proactive tax planning to protect business cash flow and reduce financial pressure. Agency theory explains that managers who are struggling financially could give priority to short-term survival tactics, such as minimizing tax expenses, even when such actions increase agency conflicts with stakeholders.

In addition, Corporate Social Responsibility (CSR) and firm size also play important roles in shaping tax aggressiveness practices. CSR reflects the dedication of a firm to incorporating social and environmental issues into stakeholder relations and commercial activities beyond regulatory requirements (Yang & Di, 2023). Through the stakeholder approach, CSR strengthens corporate accountability and enhances the company's public image (Daoud, 2024). In Indonesia, CSR implementation is mandated under Law of the Republic of Indonesia Number 40 of 2007, particularly for companies operating in sectors related to natural resources. From an agency theory perspective, CSR disclosure may reduce information asymmetry between management and stakeholders, thereby encouraging greater transparency and limiting opportunistic managerial behaviour related to taxation. Market capitalization, revenue, or total assets are frequently used to gauge firm size, reflecting the scope of business activities and economic capability (Ardhi & Lubis, 2023; Meldisthy, Vitriyan Espa, 2024). Larger businesses typically have more resources and more complex operational structures, which may provide wider opportunities for tax planning activities (Aris, 2022). Furthermore, profitability, leverage, and capital intensity are included as control variables because they may influence managerial decisions regarding tax management. Profitability indicates a company's effectiveness in generating earnings (Kalbuana et al., 2022), leverage reflects the extent of debt financing and financial risk (Gulzar & Haque, 2022), while the percentage of investment in fixed assets is known as capital intensity. used to support operations (Laksmi et al., 2022). According to the agency hypothesis framework, these factors may influence managerial incentives in determining tax strategies aimed at maximizing firm value while striking a balance between stakeholders' and shareholders' interests.

2.2 Financial distress affects tax aggressiveness

When a firm experiences financial difficulties, financial hardship instability and fails to fulfill its obligations due to insufficient operational cash flow to cover short-term liabilities (Ismanto & Abdurachman, 2024). Early detection of evaluating financial distress is necessary to mitigate bankruptcy risk and examine the firm's capacity to meet financial commitments. to fulfill its obligations, including tax payments (Ahdiyah, 2021). Under financial pressure, management tends to preserve cash by reducing expenses, including tax-related costs. Empirical studies generally find that financial distress positively influences tax aggressiveness, as firms attempt to lower taxable income to ease their tax burden (Agustini, 2023; Ahdiyah, 2021; Ismanto & Abdurachman, 2024). However, other research reports a negative correlation, suggesting that firms under financial pressure exhibit lower levels of tax aggressiveness, may avoid aggressive tax practices due to higher compliance awareness (Takasanakeng, 2022).

H1: Financial distress affects tax aggressiveness

2.3 Corporate Social Responsibility affects tax aggressiveness

CSR, or corporate social responsibility, is a company's dedication to managing the environmental and social effects of its commercial endeavors in order to advance moral business conduct and sustainable development (Abed et al., 2021). CSR emphasizes

contributions to societal welfare and environmental sustainability beyond profit motives, aligning corporate actions with prevailing social norms (You, 2024). The empirical literature on CSR and tax aggressiveness demonstrates both positive and negative relationships. Several studies find a negative relationship, indicating that companies engaged in CSR tend to refrain from aggressive tax practices in order to safeguard their reputation and comply with social values (Kurniati, 2021; Laksmi et al., 2022). However, other research indicates a favorable correlation, where firms increase CSR activities to mitigate reputational dangers brought on by aggressive taxation (Fuadah & Kalsum, 2021; Widuri, 2023).

H2: Corporate Social Responsibility affects tax aggressiveness

2.4 Firm Size affects tax aggressiveness

Firm size reflects the size of a firm, which generally increases alongside growth in revenue, sales, and retained earnings (Seclen-luna & Moya-fern, 2021). Larger firms, characterized by substantial assets, typically have stronger cash flows, greater stability, and better long-term prospects (Ahdiyah, 2021). Firm size is considered an important factor influencing tax aggressiveness (Abed et al., 2021). On one hand, larger companies receive greater scrutiny from tax authorities, which may encourage compliance; nonetheless, higher tax burdens can incentivize them to conduct aggressive tax planning to minimize liabilities. Research findings on firm size and tax aggressiveness vary, although a few studies suggest a favorable correlation between the two factors variables (Aris, 2022; Khasanah et al., 2022). Others see no discernible impact (Susanto et al., 2022), suggesting that Aggressive taxation can occur across firms of all sizes.

H3: Firm Size affects tax aggressiveness

3. Methods

3.1 Research Design

This study employs a quantitative approach using descriptive and verificative methods to examine the effect of financial distress, corporate social responsibility (CSR), and firm size on tax aggressiveness, with profitability, leverage, and capital intensity as control variables. The verificative method is used to analyze the causal relationship between financial and non-financial factors and corporate tax behaviour through panel data regression analysis. The quantitative approach is considered appropriate because the study aims to empirically test the proposed hypotheses using statistical analysis of numerical data derived from financial statements and annual reports. The explanatory research design enables the examination of causal relationships between independent variables (Financial Distress, Corporate Social Responsibility, and Firm Size), control variables (Profitability, Leverage, and Capital Intensity), and dependent variable (Tax Aggressiveness).

3.2 Population and Sample

The population examined in this research includes all companies operating in the consumer non-cyclicals sector that were listed on the Indonesia Stock Exchange (IDX) throughout the 2020–2024 period. The consumer non-cyclicals sector was selected due to its stable demand characteristics, significant tax contributions, and high public visibility regarding corporate tax practices. To obtain the research sample, this study applied a purposive sampling method, in which the sample selection process was founded on several specific considerations determined by the researcher. The criteria established

for selecting the samples are presented below: (1) consumer non-cyclical sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period; (2) companies that continuously issued financial statements and annual reports over the observation period; (3) companies that did not report negative earnings during the years of observation. Based on these criteria, the final sample includes [X] consumer non-cyclical companies observed over five years, resulting in $[X \times 5]$ balanced panel observations.

3.3 Data Collection Techniques

Financial information utilized in this study originates from the financial statements and annual reports released by consumer non-cyclicals companies listed on the Indonesia Stock Exchange for the years 2020–2024, obtained from the official IDX website (www.idx.co.id) and company websites. The data collection procedure involved several sequential steps: (1) identification of consumer non-cyclical sector companies listed on the IDX during the 2020–2024 period; (2) selection of companies meeting the predetermined purposive sampling criteria; (3) extraction of financial data from audited annual financial statements, including information required for calculating tax aggressiveness, financial distress, corporate social responsibility, firm size, profitability, leverage, and capital intensity; (4) collection of CSR disclosure data from annual reports and sustainability reports using content analysis; and (5) documentation of all extracted data systematically organized into a panel dataset suitable for statistical analysis using EViews software. The secondary data sources employed in this research are considered reliable as they represent official publications from the Indonesia Stock Exchange and audited financial reports.

3.4 Operational Definition of Variables

This research applies four variables, namely three explanatory variables (X) including financial distress, CSR, and firm size, together with one dependent variable (Y). The control variables used in this research consist of profitability, leverage, and capital intensity

Table 2. Operational Definition and Measurement of Variables

Variables	Definition	Measurement
Tax Aggressiveness (Zhou et al., 2023)	Tax Aggressiveness is divided into two types, namely those executed both illegally (tax evasion) and lawfully (tax avoidance)	$CETR = \frac{\text{Tax Payment}}{\text{Earning Before tax}}$
Financial Distress (Zhou et al., 2023)	Financial distress represents a financial condition wherein a business struggles to meet both immediate and future liabilities.	$Z - score = (1.2X_1 + 1.3X_2 + 1.4X_3 + 0.6X_4 + 1.0X_5)$
Corporate Social Responsibility	The company's responsibility is to conduct its operations sustainably by	The calculation of the CSRDI is based on the ratio of disclosed items to the total checklist items.

Variables	Definition	Measurement
(Anita et al., 2025)	considering economic, legal, ethical, and philanthropic aspects, as well as their impact on stakeholders.	$CSRDI = \frac{\sum X_{yi}}{n_i}$
Firm Size (Aris, 2022)	Firm size describes The size of a business based on the extent of its operations.	Size = $\ln(\text{total aset})$
Profitability (Hendayana et al., 2024)	Profitability is a measure of finances that assesses the company's capacity to obtain earnings based on its assets, equity, and sales	$ROA = \frac{\text{Net Income}}{\text{Total Asset}} \times 100\%$
Leverage (Khasanah et al., 2022)	Leverage evaluates how well a business funds its assets. and activities using borrowed capital.	$DAR = \frac{\text{Total Liability}}{\text{Total Asset}}$
Capital Intensity (Aris, 2022)	Capital intensity measures how extensively A business uses its funds to purchase assets used to generate revenue, particularly fixed assets and inventory	$CAPIN = \frac{\text{Fixed Asset}}{\text{Total Asset}}$

Source: Developed for this research (2026)

4. Results and Discussion

4.1 Descriptive Statistics

An analytical technique called descriptive statistics is used to summarize and describe the collected data. It provides an overview through measures such as the standard deviation, mean, maximum, and minimum. Table 4 displays the findings of the descriptive statistical analysis.

Table 3. Descriptive Statistic Result

Variable	Mean	Maximum	Minimum	Std. Dev.	Observations
CETR	0.235955	0.560000	0.030000	0.062127	220
Z-Score	0.104545	1.000000	0.000000	0.306665	220
CSRDI	0.830152	1.000000	0.400000	0.141762	220
SIZE	29.55233	32.93800	25.70300	1.513240	220
ROA	0.095214	0.348000	0.002400	0.064856	220
DAR	0.402452	0.890000	0.070000	0.197274	220
CAPIN	0.328724	0.828338	0.013853	0.175254	220

Source: Processed data (2026)

The descriptive statistical analysis presented in Table 3 offers an overview of the traits of all variables examined in this research based on 220 observational data. The dependent variable, CETR, records an average value of 0.235955, implying that companies

generally spend approximately 23.6% of their income before taxes on tax payments. The observed values vary between 0.030000 and 0.560000, while the standard deviation of 0.062127 reflects relatively small fluctuations among firms. The financial distress indicator measured using the Z-Score method produces A mean value of 0.104545, with the lowest value recorded at 0.000000 and the highest at 1.000000. Its standard deviation reaches 0.306665. In addition, the skewness and kurtosis values of 2.584950 and 7.681969 illustrate that the distribution pattern is concentrated in lower-value observations and does not follow a normal distribution pattern.

The CSR disclosure variable (CSRDI) shows a mean value of 0.830152, indicating that most firms disclose a comparatively high degree of corporate social responsibility information. The data range from 0.400000 to 1.000000, together with a standard deviation of 0.141762, which points to relatively small differences in CSR disclosure practices among companies.

Firm size, proxied by total assets, possesses an average value of 29.55233. The smallest value is 25.70300, whereas the highest reaches 32.93800. The standard deviation value of 1.513240 shows that the difference in business size across the research sample is not substantial. Regarding the control variables, profitability measured by ROA has a mean of 0.095214, showing that companies are capable of generating returns of approximately 9.5% from their total assets. The leverage variable, represented by DAR, records an average of 0.402452, suggesting that debt finances around 40% of company assets. Meanwhile, capital intensity (CAPIN) shows a mean value of 0.328724, reflecting the percentage of investments in fixed assets in comparison to the businesses' total assets.

4.2 Panel Data Model Selection

The commonly used methods in panel data regression analysis include the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The Common Effect Model (CEM) is considered the basic model in panel data regression analysis, as it combines time-series and cross-sectional data through the Ordinary Least Squares (OLS) approach without accounting for variations across individuals or time periods. The Fixed Effect Model (FEM) employs an intercept-based approach, allowing for differences across entities by capturing individual-specific characteristics that are constant over time. The Random Effect Model (REM) is developed as an alternative to address the limitations of the Fixed Effect Model, particularly the decrease in degrees of freedom caused by incorporating numerous dummy variables.

Based on the results of the selection panel test conducted in this study to determine the best model chosen, the findings are presented in Table 4.

Table 4. Selection Panel Test Results

Test	Statistic	Prob.	Sig.	Conclusion	Result
Chow Test	2.988152	0.0000	0.050	(0.0000 < 0.050)	FEM
Hausman Test	0.000000	1.0000	0.050	(1.0000 > 0.050)	REM
LM Test	20.36756	0.0000	0.050	(0.0000 < 0.050)	REM

Source: Processed data (2026)

Table 4 shows that the Chow Test produced a probability value of $0.0000 < 0.05$, indicating that the Fixed Effect Model (FEM) is more appropriate than the Common Effect Model (CEM). The Hausman Test produced a probability value of $1.0000 > 0.05$, indicating that the Random Effect Model (REM) is more appropriate than FEM. The Lagrange Multiplier Test produced a Breusch-Pagan value of $0.0000 < 0.05$, confirming

that REM is more appropriate than CEM. Based on these results, the Random Effect Model (REM) was selected as the most appropriate estimation model for this study.

4.3 Classical Assumption Tests

After the selection panel test was conducted, classical assumption tests are needed to ensure that the regression model fulfills the basic statistical assumptions required to have unbiased and reliable estimation results. Therefore, the results of classical assumption tests are presented as follows:

Table 5. Classical Assumption Test Results

Multicollinearity	Z-Score	CSRDI	SIZE	ROA	DAR	CAPIN
Z-Score	1.000000					
CSRDI	0.018190	1.000000				
SIZE	0.144924	-0.119058	1.000000			
ROA	-0.315476	-0.104874	-0.285253	1.000000		
DAR	0.166129	0.160118	0.295976	-0.156090	1.000000	
CAPIN	0.210968	0.050404	-0.032177	0.032079	0.033450	1.000000
Heteroscedasticity						0.1370
Normality						0.0000
Autocorrelation						1.3195

Source: Processed data (2026)

Table 5 shows the multicollinearity test results with all correlation values below 0.80, indicating no strong correlation between each variable in this regression. The highest correlation is observed between SIZE and DAR (0.295976), while the lowest is between Z-Score and CSRDI (0.018190). The heteroscedasticity test (Glejser test) shows probability values above 0.05 for all variables (Z-Score 0.1370, CSRDI 0.4647, SIZE 0.7764, ROA 0.1002, DAR 0.0799, CAPIN 0.4417), indicating that the data in this regression is homogeneous and free from heteroscedasticity. The normality test shows a Jarque-Bera probability of 0.0000, which is below 0.05, indicating non-normal distribution of residuals. However, normality is not a primary concern in this study given that the sample size exceeds 200 observations, as deviations from normality in large samples generally do not have a major influence on estimation results (Gujarati, 2009). The autocorrelation test shows a Durbin-Watson value of 1.3195, which falls outside the range of 1.5 to 2.5, indicating the presence of autocorrelation. To address this issue, Newey-West (HAC) robust standard errors were applied to ensure reliable estimation results.

4.4 Hypothesis Testing

Based on the classical assumption test results, panel data regression analysis was subsequently conducted to examine the effect of financial distress, corporate social responsibility, and firm size on tax aggressiveness, with profitability, leverage, and capital intensity as control variables. The regression results are presented in **Table 4**.

Table 6. Hypothesis Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Result
C	0.438384	0.055094	7.957038	0.0014	
Z-Score	-0.073790	0.005986	-12.32717	0.0002	H1 Accepted
CSRDI	0.035164	0.012501	2.812881	0.0482	H2 Accepted

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Result
SIZE	-0.004573	0.001524	-3.000589	0.0399	H3 Accepted
ROA	-0.753667	0.053277	-14.14615	0.0001	
DAR	0.059621	0.014707	4.053870	0.0154	
CAPIN	-0.124735	0.014448	-8.633225	0.0010	
R-squared	0.708191				
Adjusted R-squared	0.699971				
F-statistic	86.15508				
Prob(F-statistic)	0.000000				

Source: Processed data (2026)

Based on the panel data regression results presented in Table 6, the regression equation of this study can be formulated as follows:

$$CETR = 0.438384 - 0.073790 \text{ Z-Score} + 0.035164 \text{ CSRDI} - 0.004573 \text{ SIZE} - 0.753667 \text{ ROA} + 0.059621 \text{ DAR} - 0.124735 \text{ CAPIN} + \varepsilon$$

Based on the regression results presented in Table 6, this study examines the direct effect of financial distress, corporate social responsibility, and firm size on tax aggressiveness, with profitability, leverage, and capital intensity as control variables. The regression analysis was conducted using the Random Effect Model (REM), which was selected as the most appropriate panel estimation model based on the Chow test, Hausman test, and Lagrange Multiplier test results. The regression results indicate that all independent and control variables significantly influence tax aggressiveness. Furthermore, the R-squared value of 0.708191 indicates that the regression model has strong explanatory power in explaining variations in tax aggressiveness among consumer non-cyclicals companies during the observation period, with the independent variables explaining 70.82% of the variation in CETR. The probability value of the F-statistic is 0.000000, confirming that the regression model is statistically significant and appropriate for hypothesis testing.

4.5 Discussion

4.5.1 The Effect of Financial Distress on Tax Aggressiveness

Based on the hypothesis testing results, financial distress has a significant negative effect on tax aggressiveness, with a coefficient value of -0.073790 and a probability value of 0.0002, indicating that H1 is accepted. The findings demonstrate that financial distress has a detrimental influence on tax aggressiveness, as reflected by the inverse relationship between the Z-Score and the Cash Effective Tax Rate (CETR). A lower CETR implies higher tax aggressiveness, suggesting that businesses that are struggling financially are more likely to reduce their tax payments relative to pre-tax income. Under financial pressure, companies tend to implement strategies to minimize tax burdens to preserve cash flow and maintain financial stability. This behaviour can be clarified using agency theory, where management, as the agent, faces pressure to sustain company performance despite financial difficulties. As a result, management may use aggressive tax planning methods to present favorable financial outcomes and meet shareholders' expectations. These findings align with prior studies Aris (2022) and Saf et al. (2024), which shows that businesses experiencing financial difficulties are more inclined to participate in

aggressive taxation due to rising operational costs, limited funding, and challenges in meeting financial obligations.

4.5.2 The Effect of Corporate Social Responsibility on Tax Aggressiveness

The hypothesis testing results indicate that corporate social responsibility has a significant positive effect on tax aggressiveness, with a coefficient value of 0.035164 and a probability value of 0.0482, indicating that H2 is accepted. The findings show that CSR has a major beneficial influence on CETR, showing a negative correlation with tax aggressiveness. In other words, higher CSR engagement is linked to less aggressive taxation, as companies tend to pay a greater proportion of taxes. Firms that actively disclose CSR demonstrate greater transparency and a stronger corporate commitment to social and ethical responsibilities, which supports compliance with tax requirements. Examined from the perspective of agency theory, management seeks to maintain the trust of stakeholders by upholding corporate reputation and adhering to applicable rules, including tax obligations. Consequently, companies with a higher level of CSR involvement are not as likely to participate in aggressive tax practices that could harm their public image. These results are in line with previous research Aris (2022) and Laksmi et al. (2022), which suggests that effective CSR implementation reduces tax aggressiveness as firms aim to avoid reputational risks.

4.5.3 The Effect of Firm Size on Tax Aggressiveness

The hypothesis testing results indicate that firm size has a significant negative effect on tax aggressiveness, with a coefficient value of -0.004573 and a probability value of 0.0399, indicating that H3 is accepted. Firm size shows a significant negative affiliation with CETR based on the findings of the analysis, implying a positive relationship with tax aggressiveness. As firm size increases, CETR tends to decrease, indicating that bigger companies are more inclined to employ aggressive tax tactics. This is because larger firms generally possess greater assets, higher production capacity, and larger profits, which lead to higher tax obligations and stronger incentives to reduce tax burdens. From the standpoint of agency theory, conflicts of interest between shareholders and management may encourage managers to adopt strategies that improve financial performance, including tax minimization. Large firms, especially in the consumer non-cyclicals industry, tend to possess more complex operations and access to professional tax planning resources, allowing them to take advantage of regulatory loopholes more effectively. These results align with previous studies Amyulianthy et al. (2025), Aris (2022), and Khasanah et al. (2022), which show that larger firms commonly show greater levels of tax aggressiveness.

5. Conclusion

This study examines the influence of financial distress, corporate social responsibility (CSR), and firm size on tax aggressiveness, with profitability, leverage, and capital intensity as control variables, in consumer non-cyclicals companies listed on the Indonesia Stock Exchange during the 2020–2024 period. Using panel data regression with the Random Effect Model (REM) on 220 observations, the results show that financial distress has a significant negative effect on tax aggressiveness, indicating that companies facing financial difficulties are more likely to engage in aggressive tax practices to preserve cash flow and maintain financial stability, consistent with agency theory where management faces pressure to sustain company performance. Corporate

social responsibility has a positive and significant effect on tax aggressiveness, suggesting that higher CSR engagement is linked to less aggressive taxation as companies with stronger CSR commitment demonstrate greater transparency and compliance with tax obligations to maintain stakeholder trust and corporate reputation. Firm size has a significant negative effect on tax aggressiveness, indicating that larger companies are more inclined to employ aggressive tax tactics due to greater assets, higher profits, and access to professional tax planning resources. Profitability has a significant negative effect on tax aggressiveness, leverage has a significant positive effect, and capital intensity has a significant negative effect on tax aggressiveness. Simultaneously, all independent and control variables collectively exert a significant influence on tax aggressiveness, as confirmed by the F-statistic probability value of 0.000000.

The theoretical implications extend agency theory and stakeholder theory to the context of tax aggressiveness in consumer non-cyclicals companies. The significant negative effect of financial distress on tax aggressiveness supports agency theory, confirming that management under financial pressure may engage in aggressive tax planning to present favorable financial outcomes and meet shareholder expectations. The positive effect of CSR on tax aggressiveness extends stakeholder theory, demonstrating that companies with stronger CSR commitment are less likely to engage in aggressive tax practices as they seek to maintain stakeholder trust and avoid reputational risks. The negative effect of firm size on tax aggressiveness suggests that larger companies, despite having greater resources and capacity for tax planning, may face higher public scrutiny, which can influence their tax behaviour.

From a practical perspective, companies should be aware that financial distress may drive aggressive tax behaviour, and management should seek sustainable financial strategies rather than relying solely on tax minimization to address financial difficulties. Companies should strengthen CSR practices as part of their overall corporate governance framework, recognizing that CSR commitment is associated with more compliant tax behaviour and better stakeholder relationships. Larger companies should ensure that their tax planning strategies remain transparent and aligned with ethical standards, given their higher public visibility and scrutiny. Regulators, particularly the Directorate General of Taxes and the Financial Services Authority (OJK), should consider the role of financial distress, CSR, and firm size in shaping corporate tax behaviour, and develop policies that encourage transparent and responsible tax practices. Investors should consider financial distress, CSR engagement, and firm size when assessing corporate tax behaviour and overall corporate governance quality.

This study has several limitations. First, the analysis is limited to the consumer non-cyclicals sector, which may restrict the generalizability of findings to other sectors with different characteristics and regulatory environments. Second, the study focuses solely on financial distress, CSR, and firm size as independent variables, without considering other potential determinants of tax aggressiveness such as corporate governance quality, ownership structure, audit quality, or macroeconomic conditions. Third, the measurement of tax aggressiveness using Cash Effective Tax Rate (CETR) may not fully capture the complexity of corporate tax planning strategies, as companies may engage in aggressive tax practices without significantly reducing their cash tax payments. Fourth, the measurement of financial distress using Z-Score may not fully capture the multidimensional nature of financial distress, particularly in the context of Indonesian companies where financial reporting practices may vary. Fifth, the measurement of CSR using disclosure index may not fully capture the quality and substance of CSR

implementation, as companies may engage in symbolic disclosure without substantive commitment.

Future research should broaden the scope to other sectors or cross-country comparisons to enhance generalizability and capture variations in tax aggressiveness across different regulatory and economic contexts. It would also be valuable to integrate additional variables—such as corporate governance quality, ownership structure, audit quality, and macroeconomic conditions—to provide a more comprehensive understanding of tax aggressiveness determinants. Employing longer observation periods or larger sample sizes could strengthen causal inference and provide deeper insights into the temporal dynamics of tax aggressiveness. Future studies may further examine the moderating role of corporate governance mechanisms, such as independent commissioners, audit committees, and institutional ownership, in the relationships between financial distress, CSR, firm size, and tax aggressiveness. Finally, qualitative research approaches, such as interviews with tax practitioners and corporate managers, could provide richer insights into the decision-making processes underlying corporate tax behaviour.

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