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THE EFFECT OF CORPORATE INCOME TAX RATES, LEVERAGE, AND INVENTORY INTENSITY ON TAX AVOIDANCE

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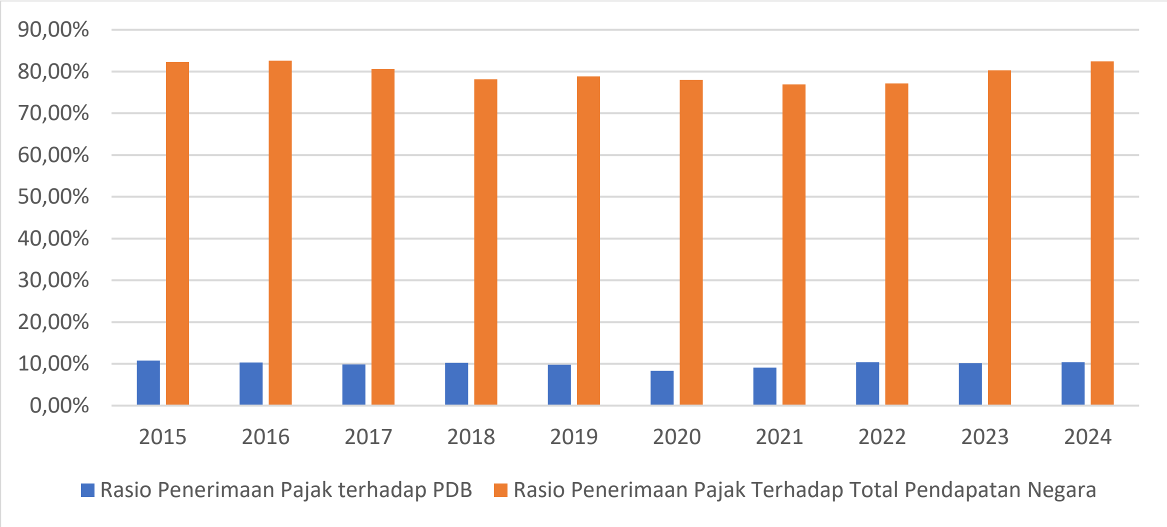
Abstract
This research is motivated by the low tax ratio in Indonesia, which is partly caused by tax avoidance practices carried out by corporations. Therefore, it is important to understand the key factors influencing corporate tax avoidance. This study aims to analyze the effect of the corporate income tax rate, leverage, and inventory intensity on tax avoidance. The research sample consists of property and real estate companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2024 period. A quantitative approach is employed, using secondary data in the form of annual financial statements. The sample is selected using purposive sampling and analyzed with a panel data regression using the random effect model. The results show that, partially, the corporate income tax rates and leverage have no significant effect on tax avoidance. Meanwhile, inventory intensity has a negative and significant effect on tax avoidance, which may be due to the companies' transparent disclosure of inventory in their financial statements. However, simultaneously, the three variables have a significant effect on tax avoidance. These findings indicate that operational characteristics, particularly inventory intensity, play an important role in determining tax avoidance strategies. Therefore, regulators should consider internal corporate factors when designing more effective tax policies in the property and real estate sector. Property and real estate companies are also encouraged to disclose their inventories transparently.
Keywords: *Corporate Income Tax; Inventory Intensity; Leverage; Tax Avoidance; Property and Real Estate Companies*

INTRODUCTION

Taxation constitutes a crucial source of government revenue that supports economic development, public welfare, and the financing of national expenditures. In Indonesia, tax revenue consistently represents the largest component of state income, contributing a greater proportion to the State Budget (APBN) than any other revenue source (Oktavianie, 2019). Over the past decade, the contribution of tax revenue to total state income has remained relatively stable, ranging from 77% to 83%. The highest contribution ratios were recorded in 2016 (82.5%) and 2024 (82.43%). Despite its dominant role in government financing, tax revenue collection has yet to achieve its optimal potential (Nugraha, 2021).

One indicator of this condition is Indonesia's relatively low tax ratio. Historical data show that the tax-to-GDP ratio fluctuated considerably during the 2015–2024 period. The ratio stood at 10.76% in 2015 but declined gradually to its lowest level of 8.32% in 2020. This decline was largely attributable to the COVID-19 pandemic, which disrupted economic activities and reduced government revenues. Following the pandemic, the tax ratio demonstrated a recovery trend and increased to 10.43% in 2024, approaching its pre-pandemic level.

Graph: Tax Revenue Ratio



Souce: data proceed

Although this recovery is encouraging, Indonesia's tax ratio remains below international benchmarks. According to the Organisation for Economic Co-operation and Development (OECD, 2024), the average tax-to-GDP ratio among ASEAN countries was 14.4% in 2022, while the Asia-Pacific average reached 19.3%. Indonesia's tax ratio remained substantially below both figures, indicating that the country's tax collection performance has not yet fully reflected the scale of its economic output.

One of the primary challenges in increasing tax revenue is the relatively low level of taxpayer compliance (Muslim, 2023). Corporate taxpayers, in particular, often engage in tax planning strategies aimed at reducing tax liabilities, thereby limiting the effectiveness of tax collection. Companies frequently perceive taxes as a reduction in profitability and consequently seek methods to minimize their tax burden in order to maximize earnings (Sari et al., 2023). Such strategies may include tax saving, tax evasion, and tax avoidance (Handayani, 2022). Among these practices, tax avoidance refers to legally reducing tax liabilities through the exploitation of loopholes and ambiguities within tax regulations (Sari et al., 2023). Although tax avoidance is generally considered lawful, it remains controversial because it can significantly reduce government revenues and undermine the effectiveness of tax policies (Oktavianie, 2019).

The magnitude of tax avoidance in Indonesia is reflected in findings reported by the Tax Justice Network. According to The State of Tax Justice 2020: Tax Justice in the Time of Covid-19, Indonesia potentially loses approximately US$4.86 billion, equivalent to IDR 68.7 trillion, in annual tax revenue due to tax avoidance activities. Of this amount, approximately US$4.78 billion (IDR 67.6 trillion) is attributed to corporate tax avoidance, while US$78.83 million (IDR 1.1 trillion) originates from individual taxpayers (Kontan, 2020). These figures illustrate the substantial fiscal impact of corporate tax avoidance and highlight the importance of identifying its determinants.

Among various economic sectors, the property and real estate industry presents a particularly high potential for tax avoidance. This sector is characterized by substantial investments in long-term assets, extensive use of debt financing, and significant inventory holdings, all of which create opportunities for tax planning activities. Furthermore, the property and real estate sector plays a strategic role in the Indonesian economy by generating employment and stimulating growth in related industries (Setiawan et al., 2021). According to the Coordinating Ministry for Economic Affairs (2023), the sector contributes approximately

14%–16% to Indonesia's Gross Domestic Product (GDP), generates value added ranging from IDR 2,349 trillion to IDR 2,865 trillion annually, employs approximately 13.8 million workers, and produces substantial multiplier effects across supporting industries and financial markets. The sector also contributes approximately IDR 185 trillion in tax revenue and IDR 92 trillion to regional government revenues.

Despite its economic significance, evidence suggests that the property and real estate sector exhibits a relatively high level of tax avoidance. Awaliah et al. (2022) found that this sector recorded the highest level of tax avoidance among Indonesian industries during the 2016–2020 period. A notable example involved PT PUI, which in 2017 sold 13 property units and collected value-added tax (VAT) from buyers but failed to report the transactions in its VAT returns, instead submitting a nil VAT return (Pajak, 2024). This case illustrates how companies may underreport revenue in order to reduce or eliminate tax liabilities.

Previous studies have identified several factors that may influence corporate tax avoidance. Among these factors are corporate income tax (CIT) rates, leverage, and inventory intensity. The first factor is the corporate income tax rate. High tax rates are often associated with stronger incentives for tax avoidance and tax evasion (Halim, 2014, as cited in Rahmawati & Nurcahyani, 2024). To improve compliance and enhance investment attractiveness, the Indonesian government has implemented a series of tax reforms, including reductions in the corporate income tax rate. These reforms are intended to create a more efficient tax system, stimulate business investment, improve corporate competitiveness, and reduce incentives for tax avoidance (Handayani, 2022). Nevertheless, lower tax rates may also create opportunities for earnings shifting, whereby companies defer revenue recognition or accelerate expense recognition to benefit from future tax reductions (Oktavianie, 2019). Empirical evidence regarding the effect of corporate tax rate changes on tax avoidance remains inconclusive. Kiryanto (2022) reported a significant relationship between tax rate changes and tax avoidance, whereas Handayani and Rachmawati (2022) found no significant effect.

The second factor is leverage, which reflects the extent to which a company relies on debt financing. Higher leverage levels generally result in greater interest expenses, which are tax-deductible and therefore reduce taxable income through the tax shield mechanism (Noviani, 2018; Sinaga & Suardikha, 2019; Adisamartha & Noviari, 2015). Consequently, highly leveraged firms may have stronger incentives to engage in tax avoidance. However, empirical findings remain mixed. Dulagin (2022) reported a positive effect of leverage on tax avoidance in property and real estate firms, whereas Safitri and Mariani (2024) found a negative relationship. In contrast, Anjelina (2022) reported no significant association.

The third factor is inventory intensity. Property and real estate companies generally maintain substantial inventories, which entail considerable storage, maintenance, and management costs. High inventory levels may increase operating expenses and reduce taxable income, thereby influencing corporate tax strategies (Yunie, 2022). Managers may attempt to optimize inventory management in order to maintain profitability and minimize tax burdens (Safitri & Mariani, 2024). Similar to previous variables, empirical findings regarding the relationship between inventory intensity and tax avoidance remain inconsistent. Rahmania (2023) reported a positive and significant effect, whereas Amri and Subadriyah (2023) found a negative relationship. Meanwhile, Safitri and Mariani (2024) concluded that inventory intensity has no significant effect on tax avoidance.

Given the substantial contribution of taxation to state revenue and Indonesia's persistently low tax ratio during the 2015–2024 period, further investigation into the determinants of tax avoidance is warranted, particularly within the property and real estate sector. Existing studies examining the effects of corporate income tax rates, leverage, and inventory intensity on tax avoidance have produced inconsistent findings. This inconsistency indicates the presence of a research gap that requires further empirical examination.

Accordingly, this study aims to investigate the effects of corporate income tax rate reductions, leverage, and inventory intensity on tax avoidance among property and real estate companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2024 period. The extended and more recent observation period provides additional novelty and enables a more comprehensive understanding of tax avoidance behaviour within the contemporary economic and taxation environment. Specifically, this study examines whether these variables individually and collectively influence corporate tax avoidance. The findings are expected to contribute to the taxation and corporate finance literature while providing practical implications for policymakers, tax authorities, corporate managers, and investors. Furthermore, the results may serve as a reference for future studies exploring tax avoidance determinants in emerging economies.

LITERATURE REVIEW

Agency Theory

Agency theory, as introduced by Jensen and Meckling (1976), postulates that conflicts of interest arise due to divergent objectives between agents and principals (Sinambela & Nuraini, 2021). Agents typically possess superior information regarding the firm's operational and financial condition (Ardyansyah, 2014 in Noviani, 2018). However, this informational advantage may be exploited for personal gain, leading to agency conflicts (Vemberain & Triyani, 2021). Asymmetric information can facilitate financial statement manipulation via earnings management (Sinambela & Nuraini, 2021) and concealment of critical information from principals, including tax-related data (Musyarrofah & Amanah, 2017). Within the context of Indonesia's self-assessment tax system, agents may have incentives to underreport taxable income to reduce corporate tax liabilities, potentially giving rise to tax avoidance (Gloria & Apriwenni, 2020). Agency theory thus provides a conceptual framework to understand how divergences of interest and informational asymmetries between agents and principals may influence corporate tax policy decisions, as management seeks to optimize profits while minimizing tax obligations.

Positive Accounting Theory

Positive accounting theory, initially proposed by William H. Beaver in 1968 and further developed by Watts and Zimmerman in 1978, seeks to explain and predict firms' accounting policy choices based on rational economic behavior (Setijaningsih, 2012; Watts & Zimmerman, 1990, pp. 133–134). Watts and Zimmerman (1990, cited in Susanti & Satyawan, 2020) argue that managers have discretion in selecting accounting policies that maximize firm value and performance. Nevertheless, such discretion may also enable opportunistic behavior, including aggressive tax planning. In this context, taxes are treated as political costs that firms may strategically minimize (Watts & Zimmerman, 1986, cited in Rahmadhani & Lastanti, 2024).

Trade-Off Theory

Trade-off theory, initially articulated by Modigliani and Miller (1963) and extended by Stiglitz (1969) and Haugen et al. (1971), posits that firms seek an optimal balance between the benefits and costs of debt in their capital structure. Brigham and Houston (2019, cited in Sari & Prasetyo, 2023) contend that capital structure decisions are closely linked to risk management and financing efficiency, wherein the tax shield from debt interest is expected to outweigh potential bankruptcy costs (Susan & Faizal, 2023). Firms determine their leverage by carefully weighing the benefits of debt against associated financial risks (Budiadnyani & Dewi, 2024), as tax-deductible interest reduces the cost of capital and enhances firm value (Hermi & Petrawati, 2023).

Signaling Theory

Signaling theory, introduced by Spence (1973) and developed by Ross (1977), addresses the role of asymmetric information between internal corporate agents and external stakeholders, such as investors or shareholders (Sari, 2022). Information communicated by the firm—through financial statements or voluntary disclosures—serves to shape positive market perceptions regarding future prospects (Morris, 1987, in Rahmadhani & Lastansi, 2024). Managers, possessing superior information, can send signals to reduce information asymmetry (Tasrullah, 2022), allowing investors to more accurately assess corporate performance and potential (Kencana, 2021). In taxation, signaling theory explains that strategies such as transfer pricing may function as indicators of managerial efficiency while simultaneously enabling profit shifting to jurisdictions with lower tax rates, thereby reducing tax burdens while signaling financial strength.

Compliance Theory

Compliance theory, initially developed by Stanley Milgram (1963, in Tabalisa, 2023), elucidates individuals' propensity to comply with directives issued by authority figures. Murphy and Tyler (2008, cited in Sinambela & Nuraini, 2021) classify compliance motivations into instrumental (driven by personal gain or threat of sanctions) and normative (driven by moral considerations) perspectives (Indrayani et al., 2022). In a taxation context, compliance reflects taxpayers' willingness to meet legal obligations, whether motivated by external enforcement or intrinsic ethical standards (Maulana et al., 2021).

Laffer Curve Theory

The Laffer Curve, proposed by Arthur B. Laffer in 1974, illustrates the parabolic relationship between tax rates and government revenue, indicating an optimal tax rate that maximizes revenue (Wardani & Ardiansyah, 2022). At the extremes of 0% and 100% tax rates, revenue is zero—either due to the absence of taxation or because excessive tax burdens reduce compliance and economic activity (Anggreani, 2021). The theory posits that reducing tax rates may, under specific conditions, increase revenue by broadening the tax base and enhancing taxpayer compliance (Septiani & Sastrapraja, 2023). Laffer distinguishes between two effects of tax rate changes: the arithmetic effect, which directly affects revenue, and the economic effect, which influences taxpayer behavior and productivity (Anggreani, 2021).

Tax Avoidance

From an economic perspective, taxation constitutes a cost that diminishes corporate profits, whether for distribution or reinvestment (Sinambela & Nuraini, 2021). This cost incentivizes firms to engage in tax planning strategies, including legal tax avoidance and illegal tax evasion (Panjalusman, 2018). Tax avoidance exploits regulatory loopholes without violating prevailing laws (Wansu & Dura, 2024). According to Pohan (2018, cited in Albar, 2023), four factors influence tax avoidance: the complexity of tax regulations, the magnitude of taxes payable, negotiation costs, and detection risk. Higher regulatory complexity and tax rates increase the incentive for taxpayers to employ strategies that reduce tax burdens, particularly when detection risk is low.

Corporate Income Tax and Rate Reform

Under Law No. 36 of 2008, corporate income tax in Indonesia is a direct tax imposed by the government, with rates that have undergone several adjustments. Initially set at 28%, the rate was reduced to 25% in 2010 and subsequently lowered to 22% for 2021–2022 and 20% for 2023 under the Omnibus Law (Law No. 11 of 2020). Accelerated rate reduction was implemented via Government Regulation in Lieu of Law No. 1 of 2020 in response to COVID-19 economic impacts, aiming to sustain businesses and mitigate layoffs. This policy was later revised by the Law on Harmonization of Tax Regulations (Law No. 7 of 2021), maintaining the corporate tax rate at 22% to preserve fiscal stability and control deficits arising from increased pandemic-related expenditure (Purnomo, 2022).

Empirical findings on the effect of corporate tax rate reductions on tax avoidance remain mixed. Mulyanto & Sumiyana (2022) report no significant effect, whereas Tabalisa et al. (2023) and Octavia & Sari (2022) identify a positive and significant relationship. Kiryanto (2022) observes varying outcomes depending on the proxy used: Cash ETR indicates increased tax avoidance, while Book Tax Gap suggests a reduction. Consistent with compliance theory and the Laffer Curve, lowering corporate income tax rates is theoretically expected to incentivize firms toward greater compliance and reduced tax avoidance.

Hypothesis 1 (H1): Corporate income tax rate affects tax avoidance.

Leverage

Leverage reflects the extent to which a firm's assets are financed through debt and indicates the firm's capacity to meet both short- and long-term obligations (Maulana et al., 2021). High leverage provides tax benefits, as interest payments are deductible, lowering taxable income (Octavia & Sari, 2022; Amri & Sovita, 2024). Debt-to-Equity Ratio (DER) is the most commonly employed measure. Elevated DER signifies greater reliance on debt, potentially signaling tax avoidance through interest deduction utilization (Puspitasari et al., 2021). Leverage, as a representation of debt usage within a firm's capital structure, may influence tax avoidance, consistent with trade-off and positive accounting theories. While several studies report positive effects (Dulagin, 2022; Widayanti et al., 2022; Sari et al., 2023), others find no significant or negative influence (Anjelina, 2022; Octavia & Sari, 2022; Safitri & Mariani, 2024).

Hypothesis 2 (H2): Leverage affects tax avoidance.

Inventory Intensity

Inventory intensity indicates the proportion of a firm's assets held as inventory (Artinasari & Mildawati, 2018). High inventory levels entail additional costs, such as storage and maintenance, which may reduce profitability (Latifah, 2018). According to PSAK No. 14 of 2018, inventory-related costs are recognized as expenses in the period incurred, thereby reducing taxable income and corporate tax liability (Susanti & Satyawan, 2020). Firms with high inventory intensity may employ tax avoidance strategies by managing inventory costs, using operational expenses to minimize tax obligations without violating regulations (Rahmawati & Irawati, 2023). Prior empirical findings are inconsistent, reporting positive, negative, or null effects (Amri & Subadriyah, 2023; Rahmania et al., 2023; Maulana et al., 2022; Yunie, 2022; Putra et al., 2025).

Hypothesis 3 (H3): Inventory intensity affects tax avoidance.

Considering these variables collectively, this study also investigates their simultaneous effect on tax avoidance, reflecting managerial discretion in selecting accounting and tax policies that maximize firm benefit, as posited by positive accounting theory.

Hypothesis 4 (H4): Corporate income tax rate, leverage, and inventory intensity jointly affect tax avoidance.

METHODS

This study employs a quantitative method with a statistical approach to analyze the effect of the reduction in the Corporate Income Tax (CIT) rate, leverage, and inventory intensity on tax avoidance among property and real estate companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2024 period. The data used are secondary time-series data obtained from annual financial statements available on the official IDX website. Data analysis was conducted using a panel data regression model with the assistance of Microsoft Excel and STATA SE 19 software. The analysis procedures included descriptive statistics, classical assumption tests, and model selection tests (Chow Test, Hausman Test, and Lagrange Multiplier Test). Hypothesis testing was carried out both partially (t-test) and simultaneously (F-test) to determine the significance of the effect of independent variables on the dependent variable. In addition, the coefficient of determination (R^2) was used to measure the model's ability to explain variations in tax avoidance among the companies studied.

The sample was selected using a purposive sampling technique based on the following criteria:

1. Companies listed on the IDX during 2018–2024 and not delisted throughout the observation period.
2. Financial statements or annual reports were available on the IDX website and contained complete data for the entire observation period.
3. Financial statements were published in Indonesian Rupiah (IDR).
4. Sample companies reported positive pre-tax income.

Table 1. Research Sample

Criteria	Excluded	Included
Property and real estate companies listed and not delisted on the IDX during 2018–2024	-	93
Issued consecutive financial statements during 2018–2024	-40	53
Used Indonesian Rupiah as the reporting currency	-40	53
Reported positive income before income tax	-39	14
Outliers	-4	10
Total sample = 10 companies × 7 years		**70**

Source: Processed from Indonesia Stock Exchange data (2025).

The dependent variable in this study is tax avoidance, measured using the Effective Tax Rate (ETR) proxy:

ETR = Tax Expense / Pre-Tax Income

The independent variables in this study are the Corporate Income Tax rate, leverage, and inventory intensity.

1. **Corporate Income Tax Rate (CIT Rate)**
   Changes in the Corporate Income Tax rate are represented by the applicable CIT percentage rate (from 25% to 22%).
2. **Leverage**
   Leverage is measured using the Debt-to-Equity Ratio (DER), calculated as follows:
   Leverage = Total Debt / Total Equity
3. **Inventory Intensity**
   Inventory intensity is calculated using the following formula:
   Inventory Intensity = Total Inventory / Total Assets

The mathematical model used in this study is as follows:

$$\mathbf{ETR = a + b_1T_{it} + b_2LEV_{it} + b_3INV_{it} + e_{it}}$$

Where:

Variable	Description
ETR	Effective Tax Rate
a	Constant
b_1, b_2, b_3	Regression coefficients
T_{it}	Corporate Income Tax Rate
LEV	Leverage

Variable	Description
INV	Inventory Intensity
i	Cross-section
t	Time series
e	Error term (disturbance variable)

RESULTS AND DISCUSSION

Table 2. Panel Data Regression Results

Variable	Coef.	z	P > [z]
Constant	-0.1186654	-0.04	0.969
T (X1)	2.043939	1.02	0.307
LEV (X2)	-0.0891073	-0.21	0.832
INV (X3)	0.6249586	3.13	0.002
R-squared (between)	0.4251		
Prob > F	0.0131		
Rho	0.8251		

Source: Processed by the author using STATA 19.

Effect of the Corporate Income Tax Rate on Tax Avoidance

The regression coefficient of the Corporate Income Tax Rate (T) is 2.0439, indicating that a 1% increase in the corporate income tax rate variable increases the Effective Tax Rate (ETR) by 2.0439 units, assuming all other independent variables remain constant. The first hypothesis (H1), which examines the effect of the Corporate Income Tax Rate on tax avoidance, produced a significance value of 0.307 (> 0.05) with a z-statistic of 1.02. This result indicates that the Corporate Income Tax Rate does not have a positive and significant effect on the Effective Tax Rate (or a negative and significant effect on tax avoidance). Therefore, the first hypothesis (H1) is rejected.

The positive coefficient of the Corporate Income Tax Rate (X1) indicates a positive relationship with ETR, which implies a negative relationship with tax avoidance; however, this relationship is not statistically significant. This finding suggests that the reduction in the corporate income tax rate was not sufficiently strong to influence tax avoidance behavior among property and real estate companies. One possible explanation is that a substantial portion of revenue in this sector is subject to final income tax, making it less sensitive to changes in the general corporate tax rate.

This finding is consistent with the study conducted by Mulyanto and Sumiyana (2022), which also found that the Corporate Income Tax Rate had no significant effect on tax avoidance. The reduction in the tax rate from 25% to 22%, as stipulated in Law No. 11 of 2020, Government Regulation in Lieu of Law No. 1 of 2020, and Law No. 7 of 2021, has not been sufficient to alter taxpayer behavior, as taxes continue to be perceived as a reduction in corporate profits (Moeljono, 2020).

From a theoretical perspective, this finding does not fully support Compliance Theory (Sinambela & Nuraini, 2021), which argues that lower tax rates enhance taxpayer compliance. Instead, it is more consistent with Positive Accounting Theory (Watts & Zimmerman, 1990) and Agency Theory, which suggest that managers continue to adopt tax strategies that maximize corporate benefits, including tax avoidance practices (Susanti & Satyawan, 2020). Moreover, a broad reduction in tax rates may provide greater opportunities for aggressive tax planning through legally permissible loopholes (Sinambela & Nuraini, 2021). Therefore, lower tax rates alone have not been effective in reducing tax avoidance, highlighting the need for more comprehensive fiscal policies through enhanced supervision, transparency, and anti-tax-avoidance regulations.

Effect of Leverage on Tax Avoidance

The regression coefficient of leverage (LEV) is -0.0891, indicating that a 1% increase in leverage decreases the Effective Tax Rate (ETR) by 0.0891 units, assuming all other independent variables remain constant. The second hypothesis (H2), which examines the effect of leverage on tax avoidance, yielded a significance value of 0.832 (> 0.05) and a z-statistic of -0.21. This result indicates that leverage does not have a negative and significant effect on ETR (or a positive and significant effect on tax avoidance). Consequently, the second hypothesis (H2) is rejected.

The negative relationship between leverage and ETR suggests a positive relationship between leverage and tax avoidance, consistent with the theoretical argument that debt financing generates tax-deductible interest expenses. However, this relationship is statistically insignificant. This finding implies that debt financing structures do not substantially influence tax avoidance strategies among property and real estate firms, possibly due to the limited utilization of debt or the relatively insignificant role of interest expenses in their financial structure.

According to Agency Theory and Trade-Off Theory, firms with higher leverage are expected to utilize interest expenses as a tax shield (Hermi & Petrawati, 2023). Nevertheless, the results of this study are consistent with those reported by Octavia and Sari (2022), Andreani and Ngadiman (2022), Anjelina (2022), Firmansyah and Bahri (2022), Dewi and Oktaviani (2021), and Rifai and Atiningsih (2019), all of whom concluded that leverage has no significant effect on tax avoidance.

Corporate borrowing decisions are often driven by non-tax considerations, such as financing needs and the desire to signal credibility to investors, as proposed by Signaling Theory (Kencana, 2021). Furthermore, Trade-Off Theory suggests that firms balance the tax benefits of debt against financial risk, leading to more cautious debt management practices (Arianandini & Ramantha, 2018). From an Agency Theory perspective, creditor monitoring may constrain managerial discretion and reduce aggressive tax practices (Musyarrofah & Amanah, 2017). In addition, the debt-to-equity ratio limitation of 4:1 imposed under PER-25/PJ/2017 restricts the extent to which firms can benefit from tax savings through debt financing (Dewi & Oktaviani, 2021).

From the standpoint of Compliance Theory, companies also consider legal and reputational risks (Sinambela & Nuraini, 2021) as well as ethical motivations (Indrayani et al., 2022). Therefore, although leverage theoretically has the potential to reduce tax burdens, the results indicate that leverage does not significantly affect tax avoidance because firms tend to prioritize financial stability and regulatory compliance.

Effect of Inventory Intensity on Tax Avoidance

The regression coefficient of Inventory Intensity (INV) is 0.6250, indicating that a 1% increase in inventory intensity increases the Effective Tax Rate (ETR) by 0.6250 units, assuming all other independent variables remain constant. The third hypothesis (H3), which examines the effect of inventory intensity on tax avoidance, generated a significance value of 0.002 (< 0.05) and a z-statistic of 3.13. This finding indicates that inventory intensity has a positive and significant effect on ETR (or a negative and significant effect on tax avoidance). Therefore, the third hypothesis (H3) is accepted.

This result implies that higher inventory intensity is associated with a higher ETR and lower levels of tax avoidance, suggesting that firms with greater inventory holdings tend to exhibit stronger tax compliance and are less likely to engage in tax avoidance activities. The findings indicate that inventory intensity (X3) has a significant negative effect on tax avoidance, meaning that the higher the proportion of inventory relative to total assets, the lower the level of tax avoidance.

This phenomenon may be explained by the fact that firms with substantial inventory holdings tend to operate with greater transparency, caution, and compliance due to the complexity of inventory management, which requires extensive accountability and strict monitoring (Amri & Subadriyah, 2023). Based on Agency Theory, managers in firms with large inventories may avoid aggressive tax avoidance strategies because of increased audit risk and tax authority scrutiny. From the perspective of Signaling Theory, firms with high inventory intensity may seek to convey positive signals regarding compliance and sound corporate governance to investors and regulators (Rahmadhani & Lastanti, 2024).

Consistent with Compliance Theory, the complexity of inventory recording and management encourages more prudent financial reporting and reinforces normative compliance with tax obligations (Indrayani et al., 2022). Meanwhile, Positive Accounting Theory suggests that firms with substantial inventories are more focused on operational efficiency than on tax avoidance strategies (Latifah, 2018).

Therefore, high inventory intensity should not be viewed as a mechanism for reducing tax liabilities but rather as an indicator of operational characteristics that require substantial costs and promote greater financial transparency. Consequently, tax avoidance practices tend to be lower among property and real estate companies with higher inventory intensity.

Simultaneous Effect of the Corporate Income Tax Rate, Leverage, and Inventory Intensity on Tax Avoidance

Based on the random-effects panel regression model, the significance value obtained was Prob > chi^2 = 0.0131, which is lower than the 5% significance level ($\alpha = 0.05$). Therefore, it can be concluded that the three independent variables simultaneously have a significant effect on the dependent variable. In other words, variations in the Effective Tax Rate (ETR) are jointly influenced by changes in the Corporate Income Tax Rate, leverage, and inventory intensity. Accordingly, the fourth hypothesis (H4) is accepted.

The simultaneous test results indicate that the Corporate Income Tax Rate, leverage, and inventory intensity collectively exert a significant influence on tax avoidance practices among property and real estate companies listed on the Indonesia Stock Exchange. The significance level of the F-test below 0.05 demonstrates that these three independent variables jointly explain variations in tax avoidance behavior.

This finding is consistent with Positive Accounting Theory (Watts & Zimmerman, 1990; Susanti & Satyawan, 2020), which posits that managers tend to select accounting and tax policies that maximize economic benefits, including decisions regarding capital structure and asset management to achieve tax efficiency. Within the framework of Agency Theory, the results suggest that managers may utilize financial decision-making flexibility to achieve profit targets while maintaining compliance with tax regulations (Musyarrofah & Amanah, 2017).

The reduction in the Corporate Income Tax Rate does not automatically reduce tax avoidance, as internal factors such as financing structure and inventory intensity also influence corporate tax decisions. This finding is consistent with previous studies by Tabalisa et al. (2023), Amri and Subadriyah (2023), and Maulana et al. (2022), which emphasize that the combination of financial and operational variables plays a significant role in shaping corporate tax avoidance strategies. Therefore, fiscal policies should be designed comprehensively by considering firms' financial characteristics to effectively mitigate tax avoidance practices.

CONCLUSION

Based on the analysis of property and real estate companies listed on the Indonesia Stock Exchange (IDX) during the 2018–2024 period, this study concludes that the Corporate Income Tax (CIT) rate does not have a significant effect on tax avoidance. This is because a considerable number of companies in this sector are subject to final income tax, making changes in the general corporate tax rate less likely to directly influence tax avoidance behavior. Likewise, leverage does not have a significant effect on tax avoidance, as debt financing is primarily utilized as a signal of credibility to creditors rather than as a mechanism for tax savings.

In contrast, inventory intensity has a significant negative effect on tax avoidance. This finding indicates that companies with higher levels of inventory tend to demonstrate greater tax compliance, as the additional costs associated with inventory naturally reduce taxable income and are subject to stricter monitoring by tax authorities. Furthermore, the simultaneous test results reveal that the Corporate Income Tax Rate, leverage, and inventory intensity collectively have a significant effect on tax avoidance practices. Therefore, these variables play an important role in explaining variations in tax avoidance behavior within Indonesia's property and real estate sector.

Recommendations

Based on the findings of this study and its inherent limitations, several recommendations are proposed for relevant stakeholders. For the Ministry of Finance and fiscal policymakers, it is recommended that the effectiveness of the Corporate Income Tax rate reduction policy be reassessed and that more compliance-based fiscal incentives be developed. For the Directorate General of Taxes, greater attention should be given to inventory-related components within the property and real estate industry through enhanced risk-based audit mechanisms, particularly for companies exhibiting unusually high inventory intensity.

Property and real estate companies are encouraged to maintain transparency in inventory management in accordance with PSAK 14 (Indonesian Financial Accounting Standards on Inventories), balance their use of debt to ensure compliance with the maximum debt-to-equity ratio of 4:1, and incorporate tax compliance as an integral component of good corporate governance practices.

For investors and financial analysts, inventory structure and leverage may serve as additional indicators in assessing fiscal risk, as companies with high inventory intensity and stable Effective Tax Rates (ETR) tend to exhibit higher levels of tax compliance.

For future researchers, it is recommended to employ multiple proxies for measuring tax avoidance, such as the Cash Effective Tax Rate (CETR) and Book-Tax Differences (BTD), incorporate additional control variables including profitability and institutional ownership, and combine quantitative and qualitative approaches through mixed-methods research designs to obtain more comprehensive and robust findings.

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