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THIN CAPITALIZATION AND TAX AVOIDANCE: THE MODERATING ROLE OF INDEPENDENT COMMISSIONERS

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Abstract
This study examines the effect of thin capitalization on tax avoidance and the moderating role of independent commissioners in consumer non-cyclical companies in Indonesia. The study employs 150 firm-year observations from companies listed on the Indonesia Stock Exchange during 2021-2023. The hypotheses are tested using fixed-effects panel regression estimated via Generalized Least Squares (GLS) to address heteroskedasticity. The results indicate that thin capitalization has a positive effect on tax avoidance, while independent commissioners weaken this relationship. These findings suggest that debt financing provides firms with opportunities to reduce their tax burdens through interest deductions. In contrast, greater representation of independent commissioners may constrain the tax-related implications of financing decisions. This study contributes to the literature by highlighting the role of corporate governance in moderating the relationship between thin capitalization and tax avoidance. The findings also provide implications for the Directorate General of Taxes in strengthening risk-based supervision of debt-related tax deductions and corporate financing arrangements.
Keywords: Debt Capital; Independent Commissioners; Tax Avoidance; Thin Capitalization

INTRODUCTION

Taxation plays a fundamental role in a country's fiscal system by providing the financial resources required to fund public services, infrastructure development, and broader economic programs. From the government's perspective, tax revenues are essential for maintaining fiscal capacity and supporting sustainable economic development. From the corporate perspective, however, taxes represent a cash outflow that may reduce resources available to firms and shareholders. This difference in interests creates incentives for companies to manage their tax obligations through various tax-planning strategies. While some strategies are undertaken within the boundaries of existing tax regulations, aggressive tax planning may substantially reduce corporate tax payments and, consequently, government tax revenues (Chen et al., 2010). Corporate tax avoidance, therefore, remains an important issue for policymakers and researchers, particularly in emerging economies, where strengthening domestic revenue mobilization remains a policy priority.

The economic significance of corporate tax avoidance is reflected in the substantial revenue losses associated with these practices. OECD estimates indicate that global corporate income tax revenue losses associated with base erosion and profit shifting amount to approximately US$100-240 billion annually, equivalent to around 4- 10% of global corporate income tax revenues. In the Indonesian context, Cobham & Janský (2018) estimated substantial tax revenue losses attributable to corporate tax avoidance. This concern is particularly relevant given Indonesia's relatively low tax-to-GDP ratio. In 2021, Indonesia recorded a tax-to-GDP ratio of approximately 10.9%, considerably below the Asia-Pacific average of 19.8% and the OECD average of 34.1%. Although a low tax-to-GDP ratio cannot be attributed solely to corporate tax avoidance, these figures illustrate the broader challenges Indonesia faces in strengthening tax revenue collection and provide important context for examining corporate strategies that may influence firms' tax burdens.

The growing importance of corporate tax avoidance has generated extensive research examining its determinants. Duhoon & Singh (2023) demonstrate that the tax avoidance literature has developed across various dimensions of corporate characteristics and governance. Previous studies have investigated the role of ownership structures, including family ownership

(Alkurdi & Mardini, 2020; Bauweraerts et al., 2020; Chen et al., 2010; Gaaya et al., 2017; Landry et al., 2013; Moore et al., 2017; Sánchez-Marín et al., 2016; Supantri & Rahmiati, 2020; Ying et al., 2017), institutional ownership (Wahab & Holland, 2012; Alkurdi & Mardini, 2020; Jiang et al., 2021; Khan et al., 2017; Khurana & Moser, 2013), dual-class ownership (McGuire et al., 2014), and government ownership (Bradshaw et al., 2019; Chan et al., 2013; Fernández-Rodríguez et al., 2019; Liu & Lee, 2019; Mafrolla, 2019; Ying et al., 2017). These studies indicate that firms' incentives and opportunities to engage in tax avoidance may vary according to their ownership arrangements and the interests of the parties controlling corporate decisions.

Other strands of the literature emphasize managerial, board, and monitoring characteristics. Previous studies have examined independent directors (Alkurdi & Mardini, 2020; Zaqeeba & Iskandar, 2020), directors' characteristics (Cho & Yoon, 2020), managerial capabilities (Dyreng et al., 2010; Park et al., 2016; Tang et al., 2019), board size (Hoseini et al., 2019), and female directors (Francis et al., 2014; Hoseini et al., 2019; Jarboui et al., 2020; Lanis et al., 2017; Richardson et al., 2016). External and internal monitoring mechanisms have also received considerable attention, including auditor expertise (Deslandes et al., 2019; Hsu et al., 2018), Big Four auditors (Gaaya et al., 2017), independent auditors and auditor tenure (Deslandes et al., 2019), as well as executive compensation (Huang et al., 2018; Phillips et al., 2003; Sudirjo, 2019; Taylor & Richardson, 2014). Collectively, this literature suggests that corporate tax avoidance is associated not only with firms' tax incentives but also with financing decisions, managerial incentives, ownership structures, and corporate governance mechanisms.

Among the financial strategies potentially associated with corporate tax avoidance, thin capitalization is particularly relevant due to the differing tax treatment of debt and equity financing. Thin capitalization refers to a financing structure in which a company relies relatively heavily on debt compared with equity (Taylor & Richardson, 2013). Debt financing may provide tax advantages because interest expenses are generally deductible when determining taxable income, whereas distributions to equity holders are not treated the same way. Consequently, increasing debt financing may generate an interest tax shield that reduces taxable income and the firm's tax burden. The tax implications may become more pronounced in multinational corporate structures, where debt arrangements can be structured across entities or jurisdictions to allocate interest expense to entities with relatively higher tax rates. Thin capitalization, therefore, represents an important link between corporate financing decisions and corporate tax planning.

The relationship between thin capitalization and tax avoidance, however, is not necessarily straightforward. Although debt financing offers potential tax benefits, firms cannot continually increase their reliance on debt without incurring additional financial costs and risks. Excessive debt may increase financial distress, default risk, and other financing costs, thereby limiting firms' incentives to pursue debt-based tax benefits. In addition, regulatory restrictions on debt-to-equity ratios and interest deductibility may constrain firms' ability to exploit debt financing for tax purposes. In Indonesia, regulations limiting the debt-to-equity ratio for tax purposes provide an institutional setting in which the tax advantages associated with thin capitalization may be restricted. Accordingly, the association between thin capitalization and tax avoidance remains an empirical issue that requires further examination.

Previous empirical studies have produced mixed findings regarding the association between thin capitalization and tax avoidance. Taylor & Richardson (2013) documented evidence that thin capitalization is associated with corporate tax avoidance, while studies conducted in Indonesia have reported varying results. Falbo & Firmansyah (2018) and Waluyo & Doktoralina (2018) provide evidence supporting an association between thin capitalization and tax avoidance, whereas Khomsatun & Martani (2015) report different evidence. These inconsistent findings indicate that the relationship may depend on firm characteristics,

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regulatory environments, measurement approaches, or governance mechanisms surrounding corporate financing and tax decisions. Thus, examining only the direct relationship between thin capitalization and tax avoidance may provide an incomplete explanation of the role of debt-related financing decisions in corporate tax practices.

Corporate governance may be particularly relevant in explaining this relationship because financing and tax-planning decisions are subject to managerial discretion and board oversight. Independent commissioners represent an important internal governance mechanism in Indonesian listed companies. Their independence from management and controlling shareholders is expected to strengthen monitoring and reduce managerial actions that may expose firms to excessive regulatory, financial, or reputational risks. Previous studies examining independent commissioners and similar board independence mechanisms have nevertheless produced inconclusive evidence regarding their direct relationship with tax avoidance. Putri et al. (2020) and Sidauruk & Putri (2022), for example, report evidence of an association between independent commissioners and tax avoidance. In contrast, Oktavia etal. (2021) and Sahrir et al. (2021) find no significant relationship. These mixed findings indicate that the governance role of independent commissioners may not be limited to a direct association with tax avoidance but may also relate to their monitoring of corporate financing and tax-related decisions.

This condition provides the research gap addressed in this study. Prior research has developed substantial evidence on the determinants of corporate tax avoidance, examined thin capitalization as a potential tax-planning mechanism, and investigated independent commissioners as part of corporate governance. However, limited attention has been given to the moderating role of independent commissioners in the relationship between thin capitalization and corporate tax avoidance. Independent commissioners may not directly determine firms' tax outcomes; instead, their monitoring function may constrain managerial discretion over financing decisions related to tax-planning activities. Examining their moderating role, therefore, provides a more specific assessment of the effectiveness of board independence in mitigating the tax implications of thin capitalization.

Accordingly, this study examines the effect of thin capitalization on tax avoidance. It investigates the moderating role of the proportion of independent commissioners in this relationship among consumer non-cyclical companies listed on the Indonesia Stock Exchange from 2021 to 2023. This study extends the existing literature by integrating corporate financing and governance perspectives in explaining tax avoidance. Specifically, rather than examining independent commissioners solely as a direct determinant of tax avoidance, this study positions them as a governance mechanism that may condition the relationship between thin capitalization and corporate tax practices. The study also provides evidence from the Indonesian institutional setting, where debt-related tax benefits operate alongside regulatory restrictions on corporate debt structures. The findings are expected to enrich the empirical literature on thin capitalization and corporate tax avoidance and provide relevant insights for tax authorities, regulators, and corporate stakeholders regarding the interaction between financing decisions and board oversight.

LITERATURE REVIEW

Tax avoidance refers to corporate efforts to reduce tax obligations through arrangements that remain within the boundaries of existing tax regulations (Slemrod & Gillitzer, 2013). From the corporate perspective, lower tax payments may preserve cash flows and economic resources available to shareholders (Duhoon & Singh, 2023; Hanlon & Heitzman, 2010). Consequently, firms have incentives to use available tax provisions to manage their tax burdens. One potential strategy is to choose between debt and equity financing, since their tax treatments differ.

Thin capitalization refers to a financing structure characterized by a relatively high level of debt compared with equity. The use of debt may generate tax benefits because interest expense is generally deductible when determining taxable income. Thin capitalization may therefore enable firms to obtain greater tax deductions through interest expenses and reduce their taxable income. In a more complex corporate structure, particularly among multinational firms, debt financing may also be arranged between related entities located in different tax jurisdictions. A parent company may finance a subsidiary operating in a relatively high-tax jurisdiction through debt, allowing the subsidiary to recognize interest expense and potentially reducing the overall corporate tax burden (Dahlby, 2008). Accordingly, thin capitalization represents a financing decision that may also serve tax-planning purposes (OECD, 2019; Taylor & Richardson, 2013).

The association between thin capitalization and tax avoidance can be explained using the trade-off theory of capital structure (Modigliani & Miller, 1963), which suggests that when corporate income is subject to taxation and interest expenses are tax-deductible, debt financing provides tax benefits not available from equity financing. Firms may therefore increase debt financing to obtain an interest tax shield and reduce the tax burden associated with their operating income. Nevertheless, the use of debt also increases financial distress and solvency risks. Trade-off theory suggests that firms balance the tax benefits of debt against the associated financial costs in determining their capital structure (Brealey et al., 2014). Within this framework, tax considerations provide an incentive for firms to use debt as long as the marginal benefits of the tax shield exceed the additional costs of debt financing.

The tax benefits associated with debt financing link thin capitalization to tax avoidance. A greater reliance on debt increases interest expenses that can be deducted from taxable income, thereby creating opportunities for firms to reduce their tax obligations. The use of debt for this purpose is particularly relevant when firms have discretion over their financing structures. Thus, although debt primarily serves as a source of corporate financing, its tax-deductible interest component may encourage firms to structure their capital to produce tax savings.

However, the use of thin capitalization for tax purposes is subject to regulatory restrictions. Governments have introduced thin capitalization rules to restrict excessive interest deductions and limit the tax benefits derived from highly leveraged capital structures. In Indonesia, restrictions on corporate debt for tax purposes are rooted in Article 18(1) of Law Number 7 of 1983 concerning Income Tax, which authorizes the government to determine the acceptable debt-to-equity ratio for tax purposes. Such restrictions indicate that the relationship between debt financing and tax avoidance has long been recognized as an important issue in tax regulation.

Empirical studies generally provide evidence supporting the association between thin capitalization and tax avoidance, although the findings remain inconsistent. Taylor & Richardson (2013) documented the role of thin capitalization in tax avoidance arrangements. In the Indonesian context, Falbo & Firmansyah (2018) and Waluyo & Doktoralina (2018) found that thin capitalization is positively associated with tax avoidance. These findings indicate that greater reliance on debt may enable firms to reduce taxable income through deductible interest expenses. In contrast, Khomsatun & Martani (2015) reported evidence to the contrary, suggesting that the tax implications of thin capitalization may vary with firm characteristics, regulatory conditions, and the measurement of tax avoidance.

Despite the mixed empirical evidence, the tax deductibility of interest provides an economic incentive for firms to obtain tax benefits from debt financing. Consistent with trade-off theory, firms may use the tax shield associated with debt in their financing decisions. A higher degree of thin capitalization is therefore expected to increase opportunities for firms to

reduce their tax burden. Based on the theoretical explanation and previous empirical evidence, the first hypothesis is proposed as follows:

H_1: Thin capitalization has a positive effect on tax avoidance.

The use of financing strategies for tax purposes involves managerial decisions that may create different consequences for managers, shareholders, and other stakeholders. Agency theory explains the relationship between shareholders, as principals, and managers, as agents to whom decision-making authority is delegated (Jensen & Meckling, 1976). Information asymmetry allows managers to possess more information about corporate operations and strategic decisions than shareholders do. This condition may create agency conflicts when managerial decisions do not fully correspond with shareholders' interests (Nyberg et al., 2010). Tax planning and financing decisions are areas where managerial discretion may arise, as both involve assessments of economic benefits, regulatory consequences, and corporate risks.

Corporate governance mechanisms are therefore required to monitor managerial decisions and reduce agency conflicts. Within the Indonesian two-tier board system, the board of commissioners performs supervisory and advisory functions over the board of directors. Independent commissioners are part of this monitoring mechanism because they are expected to remain independent of management, other commissioners, and controlling shareholders. Their independence is intended to strengthen objective oversight of managerial decisions and reduce opportunistic managerial behavior. Effective board monitoring may consequently reduce agency costs and encourage corporate decisions that consider the interests of shareholders and the firm's sustainability (Kamal, 2009; Said et al., 2009).

The monitoring function of independent commissioners is also relevant to corporate tax decisions. Tax avoidance may provide economic benefits through lower tax payments, but aggressive tax strategies may expose firms to regulatory scrutiny, penalties, reputational consequences, and other costs. Independent commissioners are expected to provide oversight of managerial decisions involving such trade-offs. Their presence may encourage management to consider not only potential tax savings but also the risks associated with aggressive tax-planning activities. Thus, independent commissioners may serve as a governance mechanism that constrains managerial discretion in corporate tax decisions.

This monitoring role becomes particularly relevant when tax avoidance is associated with financing decisions. Thin capitalization increases firms' reliance on debt and may provide tax benefits through deductible interest expenses. However, excessive reliance on debt may simultaneously increase financial risk and indicate that financing decisions are being used to obtain tax benefits beyond their primary financing purposes. Independent commissioners are expected to scrutinize financing policies and assess the consequences of excessive leverage for the firm. Stronger monitoring may therefore limit managerial discretion in utilizing debt structures primarily to reduce taxable income.

From an agency theory perspective, a greater proportion of independent commissioners is expected to strengthen the monitoring of managerial financing decisions. Although debt financing provides opportunities to obtain interest tax shields, independent commissioners may limit managerial discretion in pursuing these benefits when the associated financing arrangements expose firms to additional risks. Consequently, the relationship between thin capitalization and tax avoidance is expected to become less positive as the proportion of independent commissioners increases. This expectation positions board independence as a governance mechanism that conditions the tax implications of corporate financing decisions rather than merely serving as a direct determinant of corporate tax avoidance.

Accordingly, examining independent commissioners as a moderating variable provides a more specific assessment of their monitoring role in corporate tax practices. Thin capitalization creates opportunities for tax savings through interest deductibility, while

independent commissioners are expected to oversee the financing decisions associated with these opportunities. Greater representation of independent commissioners may strengthen managerial accountability and reduce the extent to which debt financing is associated with higher tax avoidance. Based on agency theory and the expected monitoring function of independent commissioners, the second hypothesis is proposed as follows:

H_2: Independent commissioners weaken the positive effect of thin capitalization on tax avoidance.

METHODS

This study employs a quantitative approach using secondary data obtained from the financial statements and annual reports of consumer non-cyclical companies listed on the Indonesia Stock Exchange (IDX). The observation period covers 2021-2023. The sample was selected using purposive sampling based on predetermined criteria. The sample selection process resulted in 50 companies and 150 firm-year observations, as presented in Table 1.

Table 1 Research Sample

Criteria	Total
Consumer Non-Cyclical companies listed on the IDX	133
Companies that conducted an IPO after January 1, 2021	(47)
Companies with negative pre-tax income in the observation period	(30)
Companies with negative income tax expense in the observation period	(3)
Companies that present their financial statements in currencies other than the Indonesian Rupiah (IDR)	(2)
Companies with income tax expense greater than pre-tax income	(1)
The number of companies sampled each year	50
Number of research years	3
Total sample	150

Source: Processed

Tax avoidance (TA) is the dependent variable in this study and is measured using the Effective Tax Rate (ETR), referring to Hanlon & Heitzman (2010). ETR represents the proportion of income tax expense relative to pre-tax income. A lower ETR indicates a lower effective tax burden and, consequently, a higher level of tax avoidance (Hanlon & Heitzman, 2010). To provide a direct interpretation in which a higher value represents a higher level of tax avoidance, ETR is multiplied by −1. Accordingly, tax avoidance is measured as follows:

ETR = Income Tax Expense / Pre-tax Income

TA = ETR × (−1)

A higher TA value indicates a higher level of tax avoidance.

Thin capitalization (TCAP) is the independent variable and is measured using the Maximum Allowable Debt (MAD) ratio, as per Taylor and Richardson (2013). The MAD ratio compares average debt with the Safe Harbor Debt Amount (SHDA). SHDA is calculated by subtracting non-interest-bearing liabilities from average total assets, then multiplying the result by 80%, which corresponds to the 4:1 debt-to-equity ratio limit applied in Indonesia (Falbo & Firmansyah, 2018). The measurements are as follows:

SHDA = (Average Total Assets − Non-Interest-Bearing Liabilities) × 80%

TCAP = Average Debt / SHDA

A higher TCAP value indicates a greater degree of thin capitalization.

Independent commissioners (INDC) serve as the moderating variable and are measured by the proportion of independent commissioners on the board of commissioners. This measurement reflects the representation of independent commissioners relative to the total number of commissioners. The measurement is as follows:

INDC = Number of Independent Commissioners / Total Number of Commissioners

This study also includes capital intensity (CIR), profitability (ROA), and firm size (SIZE) as control variables. These variables are incorporated into the empirical model to control for firm characteristics that may be associated with tax avoidance, as in Taylor & Richardson (2013). CIR is measured as net property, plant, and equipment divided by total assets. ROA is measured as pre-tax profit divided by total assets. SIZE is measured as the natural logarithm of total assets. The empirical model used to examine the effect of thin capitalization on tax avoidance and the moderating role of independent commissioners is specified as follows:

$$TAXAVOID_{it} = \beta + \beta_1 TCAP_{it} + \beta_2 INDC_{it} + \beta_3 (TCAP*INDC)_{it} + \beta_4 CIR_{it} + \beta_5 ROA_{it} + \beta 6 SIZE_{it} + \varepsilon_{it}$$

Where,

TAXAVOID : Tax Avoidance Coefficient;
β : Constant;
β_1TCAP : Thin Capitalization Coefficient;
β_2INDC : Independent Commissioners Coefficient;
β_3TCAP*INDC: TCAP moderating interaction by INDC Coefficient;
β_4CIR : Capital Intensity Ratio Coefficient;
β_5ROA : Return on Assets Coefficient;
β_6SIZE : Firm Size Coefficient;
ε : Error.

The hypotheses are tested using panel data regression analysis. The interaction term between TCAP and INDC is included to examine the moderating role of independent commissioners in the relationship between thin capitalization and tax avoidance. A positive coefficient on TCAP indicates that greater thin capitalization is associated with higher tax avoidance. In contrast, a negative coefficient on the interaction term indicates that independent commissioners weaken the positive effect of thin capitalization on tax avoidance.

RESULTS AND DISCUSSION

Table 2 presents the descriptive statistics of the variables used in this study.

Table 2. Descriptive Statistics

Var	Mean	Median	Std Dev	Min.	Max.	Obs
TAXAVOID	-0.2380	-0.2209	0.0901	-0.8069	-0.0174	150
TCAP	0.4587	0.3210	0.9970	0.0000	9.8427	150
INDC	0.4323	0.4000	0.1295	0.2500	1.0000	150
CIR	0.3649	0.3494	0.1913	0.0136	1.0181	150
ROA	0.1221	0.1034	0.0839	0.0055	0.4102	150
SIZE	15.5354	15.5202	1.5847	11.7411	19.0444	150

Tax avoidance (TAXAVOID) has a mean value of -0.2380 and a median of -0.2209, with values ranging from -0.8069 to -0.0174 and a standard deviation of 0.0901. As tax avoidance is measured using the Effective Tax Rate multiplied by -1, a higher value indicates greater tax avoidance. The variation in TAXAVOID reflects differences in the effective tax burdens across the sample companies.

Thin capitalization (TCAP) has a mean value of 0.4587 and a median of 0.3210, with a minimum of 0.0000 and a maximum of 9.8427. The standard deviation of 0.9970 indicates considerable variation in thin capitalization across the observations. The maximum value, which is substantially higher than the mean, indicates that some observations exhibit relatively high levels of thin capitalization. Meanwhile, independent commissioners (INDC) have a mean of 0.4323 and a median of 0.4000, indicating that they account for approximately 43.23% of

the board of commissioners. The proportion ranges from 25.00% to 100.00%, reflecting differences in board composition across the sample companies.

Regarding the control variables, capital intensity (CIR) has a mean value of 0.3649 and a median of 0.3494, with values ranging from 0.0136 to 1.0181. Profitability (ROA) has a mean value of 0.1221 and a median of 0.1034, indicating an average return on assets of 12.21%. Meanwhile, firm size (SIZE) has a mean value of 15.5354, with values ranging from 11.7411 to 19.0444. These descriptive statistics indicate variation in capital intensity, profitability, and firm size across the 150 firm-year observations.

The hypotheses were tested using panel data regression analysis. The fixed effects model was employed to account for unobserved firm-specific heterogeneity. Generalized Least Squares (GLS) estimation was subsequently applied to address heteroskedasticity identified in the model.

Table 3. Regression Results

Variable	Coefficient	t-Statistic	Probability
C	0.3989*	1.5036	0.0680
TCAP	0.1655***	2.6994	0.0041
INDC	0.0797*	1.4406	0.0765
TCAP*INDC	-0.5849***	-3.1889	0.0010
CIR	-0.0989***	-2.6011	0.0054
ROA	0.4302***	8.0092	0.0000
SIZE	-0.0420***	-2.5172	0.0068
R^2	0.9210		
Adj. R^2	0.8747		
F-stat.	19.9184		
Prob(F-stat.)	0.0000		

Notes: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

The regression results presented in Table 3 indicate that thin capitalization (TCAP) has a positive and significant effect on tax avoidance, with a coefficient of 0.1655 and a probability value of 0.0041. This finding supports H_1, indicating that higher thin capitalization is associated with greater tax avoidance. Independent commissioners (INDC) have a coefficient of 0.0797 and a p-value of 0.0765, indicating a positive association with tax avoidance at the 10% significance level. Furthermore, the interaction between TCAP and INDC has a coefficient of -0.5849 and a p-value of 0.0010, indicating that independent commissioners significantly weaken the positive effect of thin capitalization on tax avoidance. Therefore, H_2 is supported.

Among the control variables, capital intensity (CIR) has a negative and significant coefficient of -0.0989 (p=0.0054), indicating that higher capital intensity is associated with lower tax avoidance. Profitability (ROA) has a positive and significant coefficient of 0.4302 with a probability value of 0.0000, indicating that more profitable firms tend to exhibit greater tax avoidance. Meanwhile, firm size (SIZE) has a negative and significant coefficient of -0.0420 with a probability value of 0.0068, suggesting that larger firms tend to exhibit lower tax avoidance. The regression model has an R-squared value of 0.9210 and an adjusted R-squared value of 0.8747. The F-statistic of 19.9184, with a probability value of 0.0000, indicates that the explanatory variables are jointly significant in explaining variations in tax avoidance.

The association between thin capitalization and tax avoidance

The result indicates that thin capitalization has a positive effect on tax avoidance, supporting H_1. This finding suggests that greater reliance on debt financing offers consumer non-cyclical companies in Indonesia opportunities to reduce their tax burdens. Interest expenses arising from debt financing can be deducted from taxable income, allowing firms to obtain tax

benefits through their capital structure decisions. Consequently, firms with higher levels of thin capitalization tend to exhibit greater tax avoidance, indicating that debt financing serves not only as a source of funding but also as a potential mechanism for corporate tax planning.

This finding is consistent with the trade-off theory of capital structure, which emphasizes the tax benefits associated with debt financing. Modigliani & Miller (1963) explain that interest deductibility creates a tax advantage for debt financing relative to equity financing. Firms may therefore increase their reliance on debt to obtain interest tax shields that reduce taxable income. However, the benefits of debt financing must be weighed against the additional costs associated with financial distress and solvency risks (Brealey et al., 2014). The finding suggests that the tax benefits associated with debt remain relevant to firms' financing decisions. However, the study does not establish whether these firms have reached an optimal capital structure. From this perspective, thin capitalization offers firms an opportunity to incorporate tax considerations into their financing decisions.

The descriptive statistics provide additional information regarding thin capitalization among the sample companies. TCAP has a mean value of 0.4587 and a median of 0.3210, indicating that the average level of thin capitalization remains below one. Nevertheless, the maximum value is 9.8427, indicating substantial variation in debt-related financing structures across observations. This variation indicates that some companies exhibit considerably higher levels of thin capitalization than others. Although the average TCAP is relatively low, the positive association between thin capitalization and tax avoidance suggests that differences in debt financing remain relevant to corporate tax outcomes. Thus, the tax implications of thin capitalization may arise even when the average company does not exhibit a particularly high MAD ratio.

The Indonesian regulatory setting provides an additional perspective on this finding. Ministry of Finance Regulation No. 169/PMK.010/2015 establishes a maximum debt-to-equity ratio of 4:1 for determining deductible borrowing costs. This regulation is intended to limit the tax benefits arising from excessive debt financing by restricting the deductibility of borrowing costs associated with debt exceeding the permitted threshold. However, the existence of these restrictions does not eliminate the tax benefits available from debt financing, provided the regulatory limits are met. Firms may continue to obtain tax deductions from eligible interest expenses, thereby reducing their taxable income. The positive association between thin capitalization and tax avoidance suggests that debt-related tax benefits remain relevant within the existing regulatory framework. Nevertheless, this finding does not establish that the companies examined have violated the applicable debt-to-equity restrictions.

The finding is consistent with Falbo & Firmansyah (2018), Salwah & Herianti (2019), and Waluyo & Doktoralina (2018), who documented a positive association between thin capitalization and tax avoidance. These studies support the view that debt financing can enable firms to reduce their tax obligations through interest deductions. The findings indicate that debt financing remains associated with corporate tax avoidance despite regulatory restrictions on interest deductibility. From a corporate perspective, the tax benefits associated with debt may influence financing decisions alongside other financial considerations. From a regulatory perspective, the findings highlight the continued relevance of monitoring debt-related tax deductions, particularly among companies with relatively high levels of thin capitalization. Accordingly, thin capitalization remains an important consideration in assessing corporate tax avoidance within the Indonesian taxation system.

The moderating role of independent commissioners in the relationship between thin capitalization and tax avoidance

The result indicates that independent commissioners negatively moderate the relationship between thin capitalization and tax avoidance, supporting H_2. This finding suggests

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that the association between debt-based financing and corporate tax avoidance weakens as the proportion of independent commissioners increases. Although thin capitalization provides opportunities for firms to reduce taxable income through interest deductions, independent commissioners may constrain managerial discretion in utilizing debt financing for tax-related purposes. This finding highlights the importance of corporate governance in shaping the tax implications of corporate financing decisions.

This finding is consistent with agency theory, which emphasizes the role of monitoring mechanisms in reducing information asymmetry and managerial discretion (Jensen & Meckling, 1976). Managers possess more information regarding financing arrangements and tax-planning activities than shareholders, creating opportunities to pursue tax benefits without fully considering the associated financial and regulatory risks. Independent commissioners are expected to provide objective oversight of managerial decisions and encourage financing policies that balance potential tax savings with the company's long-term interests. Their monitoring function may therefore limit the extent to which debt financing is utilized primarily to reduce corporate tax obligations.

This finding shows that although interest deductibility provides tax advantages, excessive reliance on debt may increase financial distress, regulatory scrutiny, and reputational risks. Independent commissioners may encourage management to consider these consequences when determining financing policies. Stronger oversight may consequently discourage financing arrangements that prioritize tax savings without adequately considering their broader implications for corporate financial sustainability. From this perspective, independent commissioners may influence the relationship between thin capitalization and tax avoidance by strengthening the monitoring of financing decisions rather than directly determining corporate tax outcomes.

The descriptive statistics indicate that independent commissioners account for approximately 43.23% of the board of commissioners on average, with a median proportion of 40.00%. Their representation ranges from 25.00% to 100.00%, reflecting variation in board composition across the sample companies. This variation provides a basis for examining differences in the relationship between thin capitalization and tax avoidance across levels of board independence. The negative moderating effect suggests that the association between thin capitalization and tax avoidance weakens as the representation of independent commissioners increases. Nevertheless, the proportion of independent commissioners reflects formal board composition and does not directly measure the quality or intensity of their monitoring activities.

The finding is particularly relevant to the Indonesian corporate governance system, where independent commissioners perform supervisory and advisory functions within the two-tier board structure. Their responsibilities include overseeing managerial policies and encouraging compliance with applicable regulations. In the context of thin capitalization, these responsibilities may extend to monitoring financing arrangements that generate interest deductions and potential tax benefits. Greater representation of independent commissioners may strengthen oversight of such decisions and encourage management to consider financial sustainability and tax-related risks. However, the findings do not establish that independent commissioners directly participate in individual financing or tax-planning decisions.

This study contributes to the literature by providing evidence that independent commissioners play a moderating role in the relationship between thin capitalization and tax avoidance. Rather than examining board independence solely as a direct determinant of corporate tax outcomes, the findings indicate that its governance relevance may also emerge through the monitoring of financing decisions associated with tax-planning activities. This perspective extends the application of agency theory by emphasizing that corporate governance mechanisms may condition the relationship between managerial financing decisions and

corporate tax avoidance. Nevertheless, the effectiveness of independent commissioners may also depend on their financial expertise, professional experience, actual independence, and involvement in board deliberations, which are not directly examined in this study. Accordingly, board composition represents an important but incomplete indicator of the monitoring mechanisms associated with corporate tax practices.

CONCLUSION

This study examines the effect of thin capitalization on tax avoidance and the moderating role of independent commissioners in consumer non-cyclical companies listed on the Indonesia Stock Exchange from 2021 to 2023. The findings indicate that thin capitalization has a positive effect on tax avoidance, suggesting that greater reliance on debt financing is associated with higher corporate tax avoidance. This finding supports the relevance of interest deductibility as a potential source of tax benefits in corporate financing decisions. The results also indicate that independent commissioners weaken the positive effect of thin capitalization on tax avoidance. This finding suggests that greater representation of independent commissioners may strengthen corporate governance by constraining the tax-related consequences associated with debt financing. Accordingly, the study provides evidence that corporate financing decisions and board independence are jointly relevant to understanding tax avoidance in Indonesian companies.

This study has several limitations. First, the sample is restricted to consumer non-cyclical companies listed on the Indonesia Stock Exchange during 2021–2023, limiting the generalizability of the findings to other sectors and observation periods. Second, tax avoidance is measured using the Effective Tax Rate multiplied by −1, which reflects the effective tax burden but does not capture all dimensions of corporate tax avoidance. Third, thin capitalization is measured using the Maximum Allowable Debt ratio, which reflects firms' debt financing structures but does not distinguish between related-party and third-party borrowing arrangements. Fourth, independent commissioners are measured based on their proportion on the board of commissioners. This measure does not directly capture their expertise, actual independence, involvement in corporate decisions, or effectiveness in monitoring financing and tax-planning activities.

Future research may extend the analysis to other industries and longer observation periods to examine the consistency of the findings across different corporate and regulatory settings. Alternative measures of tax avoidance, such as the Cash Effective Tax Rate and Abnormal Book-Tax Difference, may be employed to provide additional evidence regarding corporate tax-planning activities. Future studies may also distinguish between related-party and third-party debt to provide a more detailed assessment of thin capitalization practices. Furthermore, the moderating role of independent commissioners may be examined using additional governance characteristics, including financial and taxation expertise, tenure, meeting attendance, and professional backgrounds. These measures may provide a more comprehensive understanding of the monitoring function of independent commissioners in corporate financing and tax-related decisions.

From a policy perspective, the findings have implications for the Directorate General of Taxes to strengthen supervision of corporate tax avoidance associated with debt financing. The positive association between thin capitalization and tax avoidance indicates the importance of maintaining effective oversight of interest deductions and compliance with the applicable debt-to-equity restrictions. The Directorate General of Taxes may strengthen risk-based tax supervision by incorporating indicators of thin capitalization, interest expenses, financing arrangements, and effective tax burdens into corporate tax risk assessments. Particular attention may be directed toward companies with relatively high debt levels and substantial interest

deductions, while recognizing that high debt levels alone do not establish tax avoidance or noncompliance. The findings regarding independent commissioners also suggest that corporate governance characteristics may provide supplementary information in assessing tax-related risks. However, board composition should not be treated as a direct indicator of tax compliance. In addition, periodic evaluation of the implementation of thin capitalization provisions may support the effectiveness of existing regulations in limiting excessive interest deductions while maintaining appropriate treatment of legitimate corporate financing activities.

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