

The Effect of Thin Capitalization and Foreign Ownership Structure on Tax Aggressiveness Moderated By the Independence of The Commissioner

Alif Rodhiyan¹, Sutrisno T.², Yeney Widya Prihatiningtias³

^{1,2,3}Accounting Departement. University of Brawijaya

*Corresponding Author: alif.rodhiyan@gmail.com

Abstract

The paper aims to examine the effect of thin capitalization and foreign ownership structure on tax aggressiveness and the extent to which the independence of commissioners can moderate the effect of thin capitalization and foreign ownership structure on tax aggressiveness. This study uses a purposive sampling method which produces 810 observations from 240 manufacturing companies listed on the IDX from 2016 to 2020. The study was conducted using multiple regression analysis with a moderating effect (moderated regression analysis). The result of this research is thin capitalization does not have a significant effect on tax aggressiveness. but the structure of foreign ownership affects tax aggressiveness on the measurement of earnings in the form of cash. Independent commissioners significantly moderate the effect of thin capitalization and foreign ownership structure on tax aggressiveness. The influence of independent commissioners on the relationship of foreign ownership structure to tax aggressiveness is negative. indicating that the supervisory role of independent commissioners is weakened when dealing with foreign ownership.

Keywords : Thin Capitalization; Foreign Ownership Structure; Tax Aggressiveness; Independent Commissioner

JEL Classification : G31, G53, H71

This is an open-access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



1. INTRODUCTION

Tax revenues are an important source of government tax revenue. On the other hand, tax is one of the significant costs and represents a reduction in the cash flow available to the company. This is an incentive for companies to try and lower taxes in order to increase company profits. According to Chen et al. (2010) that actions taken to reduce the tax burden will provoke companies to become tax aggressive.

Tax aggressiveness is a strategy to reduce and evade taxes legally (tax avoidance) or illegally (tax evasion) (Frank et al., 2009). Tax aggressiveness is associated with the potential risk of losing government tax revenues, which will hinder the development of the state. This is based on data from the Tax Equity Network (2020) in the State of Tax Equity 2020

report. in **Table 1**, which states that tax aggressiveness in Indonesia is US\$4.86 billion per annum, or the equivalent of IDR 68.7 trillion (assuming the IDR exchange rate is 14,100/US dollar). Compared to ASEAN countries, Indonesia's tax aggressiveness is the largest among ASEAN countries. Indonesia's total tax revenue lost due to tax aggressiveness in Indonesia is the fourth largest in Asia after China, India and Japan.

Table 1: State losses from tax aggressiveness corporate taxpayers in ASEAN countries

No.	Country	Annual Tax Aggressive Value	Effective Tax Rate
1	Indonesia	\$4.785.952.836,00	21,18%
2	Singapura	\$2.791.252.045,00	6,15%
3	Filipina	\$1.877.619.568,00	19,44%
4	Malaysia	\$902.583.156,00	15,69%
5	Thailand	\$425.131.220,00	15,90%
6	Vietnam	\$367.192.577,00	12,87%
7	Brunei	\$85.462.833,00	35,61%
8	Laos	\$84.606.159,00	15,44%

Source: Countries' profit and tax loss to global corporate tax abuse on the report at State of Tax Justice 2020

The report states that tax aggressiveness in Indonesia was US\$4.86 billion, including corporate and individual taxpayers. Tax aggressiveness comes from US\$4.79 trillion worth of corporate taxpayers in Indonesia. While the remaining US\$78.83 million came from individual taxpayers.

Taylor and Richardson (2013) conducted a study examining factors influencing tax aggressiveness, including corporate governance, transfer pricing, multinational companies, and tax haven countries. The study also tested the low capitalization of companies in Australia using the rules governing taxation in this regard. The results of this study provide empirical evidence that thin capitalization affects tax aggressiveness.

Table 2: Realization of internal investments and foreign direct investment

Information	2017		2018		2019		2020	
	IDR (billion)	%	IDR (billion)	%	IDR (billion)	%	IDR (billion)	%
PMDN	262.3	38	328.6	46	386.5	48	413.5	50
FDI	430.5	62	392.7	54	423.1	52	412.8	50
Total Invest	692.8	100	721.3	100	809.6	100	826.3	100

Source: Press release BKPM 25 January 2021 (www.bkpm.go.id)

The Tax Equity Network (2020) claims that in one practice, multinational companies transfer their profits to what are considered tax haven countries through tax havens to pay interest on debt. With the help of a special relationship scheme, you can transfer taxes to a country with a lower tax rate or take advantage of loss compensation in a domestic group of companies. This is in agreement with Dularif et al. (2019) argues that the difference in tax rates between countries influences tax aggressiveness.

Companies with foreign ownership structures use various channels to move their profits, commonly known as profit shifting (Clausing, 2009). Two popular strategies for shifting profits are transfer pricing manipulation and debt shifting (thin capitalization). According to a press release, the Investment Coordinating Board (www.bkpm.go.id) said that Indonesia's investment implementation reached IDR 826.3 trillion in 2020. The investment consists of foreign investment (foreign investment) of IDR 412.8 trillion (49.9%)

and domestic investment (domestic investment) of IDR 413.5 trillion (50.1%). The dominant foreign investment, in terms of investment trends between 2018 and 2020, is about 50% of total investment, as shown in **Table 2**.

Tracking the country of origin of FDI, the largest investment came from Singapore with US\$9.8 billion (34.1% of total FDI), as shown in **Figure 1** below that. This is followed by China at US\$4.8 billion (16.7% of total FDI) and Hong Kong at US\$3.5 billion (12.1%) and the rest of the countries. According to the Organization for Economic Co-operation and Development, Singapore and Hong Kong are tax havens with low tax rates (tax havens). Based on these data, foreign investment in Indonesia is mainly made by companies incorporated and registered in countries with low tax rates.

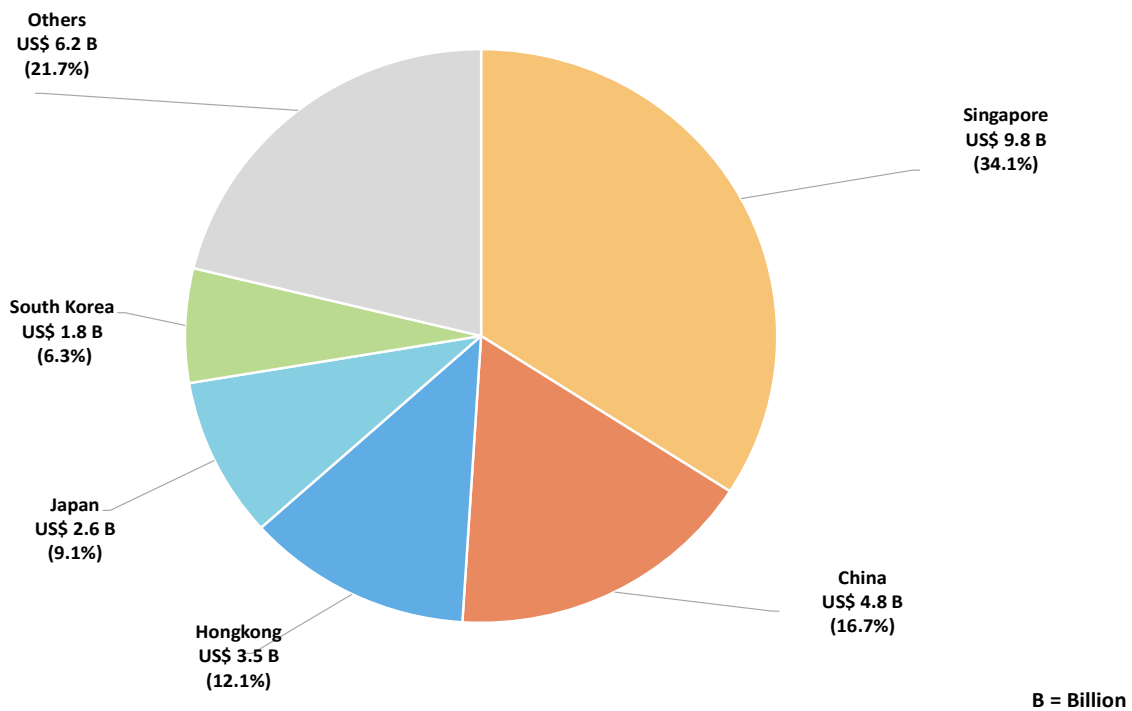


Figure 1. Composition of countries of origin of FDI in 2020
 Source: press release BKPM 25 January 2021 (www.bkpm.go.id)

Based on the data in **Table 2** and according to Martani and Rusydi (2014), another ownership structure that is highly prevalent in Indonesia is the foreign ownership structure. The increase in foreign investment is a good achievement in the quest to increase national economic growth (Salihu et al., 2015). Khanna and Palepu (2000) argued somewhat differently, stating that foreign ownership is considered to be able to induce companies to adopt higher standards of corporate governance, which is expected to reduce tax aggressiveness.

With regard to the tax-adjusted structure of foreign ownership, Christensen and Murphy (2004) take a different view. Christensen and Murphy (2004) argue that multinational companies have designed their business strategies to avoid paying taxes in different countries. This may be due to the ability to shift profits (Shackelford and Sheflin, 2001) and the availability of tax incentives in their home country (Salihu et al., 2015).

A study by Dharmapala and Riedel (2013) using a sample of European multinational companies shows that there is a transfer of profits from the parent company to subsidiaries in the same group with a low tax rate. A study by Shevlin et al. (2012) in China also shows that earnings shifts are indicated when transactions are in the same group, companies are located in countries that have different rates. A qualitative study by Rahayu (2013) found that transfer pricing, thin capitalization, the use of tax countries, contract purchases, and controlled foreign corporations are transaction schemes often used by companies with foreign ownership structures to conduct tax aggressiveness.

One example of a thin capitalization indication by PT. Indofood CBP Sukses Makmur Tbk (ICBP) in the context of the acquisition of one group company in Hong Kong using debt financing. In August 2020, ICBP acquired shares in Pinehill Company Limited (PCL) for a IDR 45 trillion leveraged deal. ICBP and PCL are one company in the Salim group, but PCL is registered in Hong Kong (a tax haven country).

PCL's acquisition of ICBP in 2020 increased ICBP's liabilities at the end of 2020 from IDR 12 trillion to IDR 45 trillion through additional bank loans. An increase in bank loans will increase ICBP's interest expense, so accounting profit and taxable income will decrease. On the other hand, PCL, as a company of the Salim Group, located in Hong Kong, will receive an increase in taxable income, which is subject to a lower tax rate than the tax rate in Indonesia.

The Decree of the Minister of Finance (PMK) No. 169/PMK.010/2015 ("PMK 169") of September 9, 2015 was issued to define the comparison of debt and equity of a company for tax purposes. The ruling governs thin capitalization in Indonesia, which has been in effect since fiscal year 2016. The regulation is set to limit tax-free borrowing costs arising from debt to debt-to-equity ratios, with the highest limit being 75% debt-financed. and 25% financed by equity.

Earlier Taylor and Richardson (2013) and Buettner et al. (2013) conducted several foreign studies on the practice of thin capitalization. The research focuses on two aspects: firstly, on the factors that determine the practice of thin capitalization, such as the impact of corporate governance mechanisms, multinational companies and the use of tax havens on tax aggressiveness (Taylor and Richardson, 2013). Second, examine the impact of undercapitalization on a company's financial performance (Buettner et al, 2013).

Research findings on thin capitalization practices in relation to tax aggressiveness in Indonesia have so far produced conflicting results, on Khomsatun and Martani (2015), Ismi and Linda (2016). Khomsatun and Martani (2015) investigated whether limiting the interest-bearing debt of a company included in the Shariah ISSI index can reduce the positive impact of thin capitalization practices and asset structure on tax aggressiveness. Although thin capitalization has a positive effect on tax aggressiveness, the significance level is at the 10% level. A study by Ismi and Linda (2016) found that undercapitalization does not affect tax aggressiveness.

The results of studies regarding the structure of foreign ownership in terms of tax aggressiveness are still inconsistent. Salihi et al. (2015), which examines the impact of foreign ownership structure on the tax aggressiveness of public companies in Malaysia. The results of his research showed that foreign shareholding and a foreign board of directors have a positive effect on tax aggressiveness. Kusbandiyah and Mat Norwani (2018), who studied manufacturing companies in Indonesia and concluded that foreign ownership has a positive effect on tax aggressiveness. A study on the effect of foreign

ownership on tax aggressiveness in Indonesia was also carried out by Rusyidi and Martani (2014), but the results show that the structure of foreign ownership does not affect tax aggressiveness.

The results of the study on the impact of low capitalization and often inconsistent foreign ownership structures need further testing through moderation with independent commissioners, given that the Financial Services Authority (OJK) issues rules regarding independent commissioners. Implementation of Financial Services Authority Regulation No. 33/POJK.04/2014 on the board of directors and the board of authorized issuers or public companies ("POJK 33/2014"), which requires independent commissioners, including:

- a. If the Board of Commissioners consists of 2 Commissioners, then 1 (one) person must be an independent Commissioner.
- b. If the Board of Commissioners consists of more than 2 Commissioners, the number of independent Commissioners must be at least 30% of the total number of Commissioners.

One component of corporate governance that influences tax aggressiveness decisions is the existence of effective oversight, which may come from internal or external companies. Internal oversight can be exercised by the board of directors and commissioners, one of which is having an independent commissioner (Kovermann and Welte, 2019).

Difference between this study and those of Khomsatun and Martani (2015); Ismi and Linda (2016). In addition, the difference lies in the sample and study period, as previously indicated, namely the independent variable, namely the structure of foreign ownership and the constraint variable on the independence of the commissioners. Foreign ownership structure is a determinant of thin capitalization and tax aggressiveness refers to a study by Taylor and Richardson (2013).

With more and more independent commissioners in the company, there will be increased oversight of management in the company, which will certainly be beneficial to the interests of shareholders or society as a whole (Lanis and Richardson, 2011). The motivation for this study was the release of tax regulations regarding thin capitalization in Indonesia, namely PMK No. 169/PMK.010/2015 and POJK 33/2014 regarding requirements for independent commissioners. This study examines whether limiting board independence on the relationship between thin capitalization and foreign ownership affects tax aggressiveness.

2. LITERATURE REVIEW

Thin Capitalization

Thin capitalization is the formation of a capital structure with a combination of holding debt capital in excess of equity capital (Khomsatun and Martani, 2015). The higher the debt ratio (percentage), the thinner the company will capitalize. Thin capitalization refers to the investment decisions of companies to finance business operations by prioritizing debt financing over the use of equity capital in their capital structure (Taylor & Richardson, 2013).

Thin capitalization is calculated using an interest-bearing debt limit using the MAD (maximum allowable debt) ratio (Taylor and Richardson, 2012). Since the use of the 4:1 rule

or 80% interest debt to total assets did not apply before 2016, the researcher uses a ratio of 3:1 or 75% interest debt to total assets with a ratio of 3:1. consideration of the coefficient as a rule, which is most widely used in Asia Pacific by KPMG country tax profile. The higher the MAD ratio is closer to or higher than 1, it indicates a higher thin capitalization.

$$MAD\ Ratio = \frac{Average\ interest\ bearing\ debt}{SHDA\ (Safe\ Harbor\ Debt\ Amount)}$$

Description:

MAD Ratio	:	Maximum debt ratio allowed by tax regulations
Average interest bearing debt	:	Total debt on which interest is charged
SHDA	:	(Average total assets less non-interest bearing liabilities/IBL) x 75%

Foreign Ownership Structure

Yulia et al. (2019) state that foreign property is shared property owned by foreign individuals or legal entities. The greater the foreign ownership of a company, the greater the influence of foreign controlling shareholders should influence decisions made by the company in its own interest, including pricing strategies and the amount of transfer pricing for transactions.

The foreign equity ownership variable in this study was measured using a ratio scale. The use of a ratio scale is the ratio of foreign ownership of shares to the number of shares outstanding. The structure of foreign ownership in this study is measured by the formula (Refgia, 2017):

$$Foreign\ Ownership = \frac{full\ foreign\ ownership}{number\ of\ shares\ outstanding} \times 100$$

The formula explains that the larger the share of shares owned by foreigners in a company, the higher will be the voice of foreign investors regarding participation in determining the company's policy and the tendency to minimize the tax burden.

Tax Aggressiveness

This study uses several proxies to measure our dependent variable for the tax aggressiveness variable. According to Lin et al. (2014), there is no single indicator that could capture all types of aggressive tax behavior. Thus, in this study, 3 indicators of tax aggressiveness are used, namely:

1. Effective corporate tax rate (ETR), which refers to total tax expense divided by profit before tax. This measure is widely used in the current literature (Lanis and Richardson, 2011; Minnick and Noga, 2010; Chen et al., 2010). ETR is an appropriate measure for assessing a company's tax aggressiveness for several reasons. ETR can cover any form of tax deduction through tax havens and tax loopholes (Dyreng et al., 2017). The effective tax rate is an inverse function of tax aggressiveness, since a lower effective tax rate suggests more participation in corporate tax aggressiveness (Frank et al., 2009). This variable is formulated as follows:

$$ETR = \frac{total\ tax\ burden}{earning\ before\ tax}$$

2. Effective tax rate on cash flows (CETR). This measurement coincides with total tax expenditure as measured by operating cash flow (Lanis and Richardson, 2011; Richardson et al., 2013). This measurement is based on information from the cash flow statement, which can exclude the effect of profit management (Chen et al., 2014). This variable is formulated as follows:

$$\text{CETR} = \frac{\text{total tax burden}}{\text{net operating cash flow}}$$

Independent Commissioner

A constraining variable in this study is the independence of the commissioner. To measure the composition of an independent board of commissioners, a ratio scale is used, namely the percentage of the number of independent commissioners in relation to the total number of commissioners. This measurement is in line with those in the study by Khan (2010). This variable is formulated as follows:

$$\text{INDP} = \frac{\text{number of independent commissioners}}{\text{total number of commissioners}}$$

Company Size (SIZE)

Rego (2003) stated that large companies tend to achieve economies of scale through tax planning and have tax credits on existing assets to reduce their tax burden. Company size is measured by the natural logarithm of the company's total assets (LnSIZE). This variable is formulated as follows:

$$\text{SIZE} = \ln(\text{total asset})$$

Profitability / Return on Assets (ROA)

The variable rate of return on assets is measured by comparing the value of profit before tax with the total value of a company's assets (Gupta and Newberry, 1997). This variable is formulated as follows:

$$\text{ROA} = \frac{\text{earning before tax}}{\text{total assets}}$$

Leverage (LEV)

The share of long-term debt in total assets (leverage) is measured as a ratio by comparing the book value of total long-term debt with the book value of a company's total assets (Gupta and Newberry, 1997). This is done in order to find out the funding decisions made by the company. This variable is formulated as follows:

$$\text{LEV} = \frac{\text{Total long – term debt}}{\text{total assets}}$$

3. HYPOTHESIS

Jensen and Meckling (1976) stated that the agency relationship is a contract between the principal and the agent, through the delegation of some decision-making power to the agent. The agent is responsible for providing great benefits to the principal. On the other hand, agents also have the desire to pursue their own interests.

In the agency theory, it can be assumed that the existence of different goals between the principal and the agent creates a conflict between them. Corporate managers are more likely to pursue personal gain. This can lead to companies that want to make high profits by minimizing the taxes that would be paid through tax planning. One tax planning technique that can be implemented is the use of thin capitalization, but this is still within the scope of applicable tax regulations.

Thin capitalization, which is part of tax planning, is associated with agency theory due to differences or inconsistencies in it. This difference lies in the purposes between the agent and the principal. From the point of view of realizing their own interests, agents are aggressive about taxes, one of which is thin capitalization. With thin capitalization, agents earn more than usual.

The company has two sources of funding, namely in the form of borrowed funds and equity or equity. Previous research acknowledges that interest expense may be deductible from taxable income and tax credits (Richardson and Lanis, 2011). The financing strategy using a capital structure with a larger debt structure than equity has many effects. The resulting debt increases interest expense when the tax treatment of interest differs from that of dividends. Interest expense is allowed under tax law to be deductible from income (Buettner et al., 2012). This creates loopholes and opportunities for companies to aggressively apply taxes on interest rates.

A study by Tylor and Richardson (2012) shows that there is a strong relationship and influence between thin capitalization and radical international tax avoidance in Australia. Companies that approach or exceed the percentage limit allowed by thin capitalization rules are prone to aggressive taxation. In a similar vein, Khomsatun and Martani (2015) found that low capitalization also affects tax aggressiveness and that rules on interest rate limits on debt can reduce the polarization of the positive relationship between small capitalization and tax aggressiveness. Based on the above, the following hypothesis is formulated:

H1: Thin capitalization has a positive effect on corporate tax aggressiveness

Watts and Zimmerman (1978) proposed the political cost hypothesis, which states that firms lobby governments when legal or accounting standards reduce their profits. Companies incur contract costs because they carry out the political process, such as the costs incurred to protect them from and evade government regulation. Jensen and Meckling (1976) explain that the agent will not act to maximize the interests of the principal. When managers act, it affects their communications costs. Meanwhile, political costs are consistent with the firm size hypothesis, which states that the larger the costs of large firms,

the higher their political costs. This means that large companies tend to cut their profits (Watts and Zimmerman, 1978). This study demonstrates what was proposed by Watts and Zimmerman (1978).

Agency relations develop between the company and the state. Watt and Zimmerman (1978) concluded that firms do not tend to be tied to the government as principals. Company management has discretion in choosing accounting procedures that can increase or decrease tax payments (Watts and Zimmerman, 1978). Management is making efforts to maximize the company's book value, but this may affect the company's revenue. Thus, this means that profit also influences a company's tax policy (Watts and Zimmerman, 1990).

Foreign ownership is also seen as focusing on the reputation of the parent company's country, which also forces multinational companies to change their operating behavior in order to maintain the legitimacy and prestige of the company. Foreign ownership is also seen as a potential incentive for companies to adopt higher corporate governance standards and better protect minority shareholders (Khanna and Palepu, 2000). Companies with foreign participation in those listed on the stock exchange will be able to reduce aggressive actions against taxes.

Salihu et al. (2015) conducted a study in Malaysia to show that the level of tax aggressiveness of multinational companies is closely related to foreign investment. Hong and Smart (2010) further explain that there is a dilemma with foreign investment by multinational companies, especially when a country sets tax rates for them. When a country sets a tax rate that is too high, it increases corporate tax planning but reduces foreign investment from multinational companies.

Rego (2003) and Atwood et al. (2012) found that domestic firms in the US report higher effective tax rates than multinational firms classified as high-income firms. Much of the prior literature shows that multinational companies tend to avoid paying more taxes than national companies. Multinational companies usually use a transfer pricing strategy. This study generally indicates that multinational companies tend to avoid taxes by using their transfer pricing strategy. Foreign ownership can encourage companies to optimize profits or profits through tax savings, as evidenced by a study by Annuar et al. (2014) and Salihu et al. (2015). Based on the foregoing, the following hypothesis is formulated:

H2: Foreign ownership structure has a positive effect on corporate tax aggressiveness

Tax aggressiveness in corporate governance refers to agency theory, which arises from differences in interests between the principal as management of the company and the agent as a shareholder. Companies that have placed and sold their shares to the public will face agency problems, namely conflicts of interest between company management and shareholders or all stakeholders in the company (Jensen & Meckling, 1976). The difference in interests between the company and shareholders is called the agency problem, namely, management, as the head of the company's operations, wants a large remuneration from the company. However, shareholders want the company to earn a large profit so that it can

distribute dividends at a convincing level (Susanto et al., 2018). The existence of these differences in interests is a trigger for the emergence of tax aggressiveness actions aimed at optimizing the two interests.

According to Damayanti et al. (2015), namely the behavior of tax aggressiveness and compliance with tax requirements depend on the intention to comply, and the intention to comply is influenced by subjective norms and perceptions of the government. Therefore, it is necessary to have corporate governance relationships in order to influence the subjective norms of directors and commissioners regarding the perception of the risk of tax aggressiveness. The link between corporate governance and tax aggressiveness is also reinforced by stakeholder theory, namely the attempt to balance all parts of a company's stakeholders.

When the tax legislation is observed by the company, the company successfully balances the interests of all stakeholders through the mechanism of corporate governance. The corporate governance mechanism aims to suppress tax aggressiveness caused by numerous loopholes in tax regulations that can be circumvented (Utami and Setyawan, 2015). The mechanism can be projected onto institutional ownership, the proportion of independent commissioners, audit committees, and audit quality (National Committee on Management Policy, 2006).

According to the Regulation of the Financial Services Authority No. 57/POJK.04/2017, each company must have at least one independent commissioner. An independent board of commissioners helps to control actions in the decision-making process of the company, while ensuring the objectivity of management (Putri and Chariri, 2017). Kurniasih and Sari (2013) explain that independent commissioners are those who have no relationship with anyone in the company, such as major shareholders, supervisory boards, and directors. Having an independent board of commissioners should approve appropriate policies to prevent management fraud (Lanis and Richardson, 2012). As an independent agent, you must understand the rules regarding limited liability companies that apply in Indonesia.

Corporate governance provides a mechanism for control and reduces practices that are considered unethical, such as tax aggressiveness. A study by Taylor and Richardson (2013) uses corporate governance as a variable to define thin capitalization. The results show that board independence and the use of KAP big 4 are negatively associated with companies that apply tax aggressiveness through thin capitalization. Lanis and Richardson (2012) found that increasing the proportion of independent board members reduces tax aggressiveness.

Armstrong et al. (2015) stated that independent commissioners are responsible for the company in terms of cost-affecting decisions, namely the tax burden to maintain the company's value. While research related to thin-cap corporate governance is still scarce

(Armstrong et al. 2015), we can explore such a relationship between corporate governance and tax aggressiveness. Based on the above, the following hypothesis is formulated:

H3a: Commissioner independence moderates the effect of thin capitalization on corporate tax aggressiveness

H3b: Commissioner independence moderates the influence of foreign ownership structure on corporate tax aggressiveness

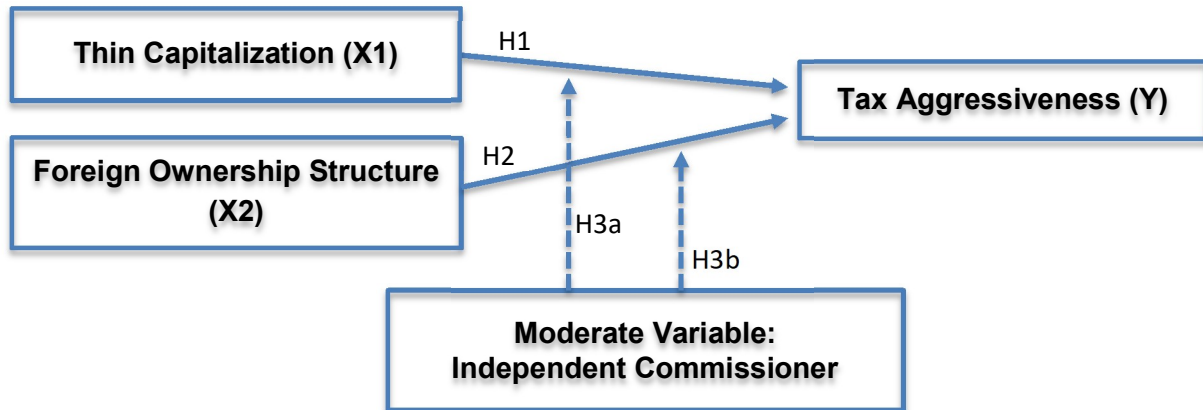


Figure 2. Research Model
Source: Author Processed

4. RESEARCH METHODS

Data and Samples

Based on the sample selection criteria used in this study, the process of eliminating the number of observations from 810 to 240 observations was carried out. Elimination process for companies that have the following criteria:

1. Companies experiencing a negative ETR will be excluded from the sample. Based on these criteria, 183 companies were eliminated from the sample. This criterion is applied so that the ETR value is not distorted by noise in the data which reduces the strength of the test (Lanis and Richardson, 2007).
2. Companies experiencing a negative CETR will be excluded from the sample. Based on these criteria, 167 companies were eliminated from the sample. This criterion is applied so that the CETR value is not distorted by noise in the data which reduces the strength of the test (Lanis and Richardson, 2007).
3. Companies with incomplete data (debt that does not bear interest, independent commissioners). Based on these criteria, 200 companies were eliminated from the sample.
4. There were 20 companies that were eliminated due to outliers.

The following is an overview of the purposive sampling steps carried out which are reflected in the following table:

Table 3. Criteria for Sample Companies

Criteria	Number of Companies					
	2016	2017	2018	2019	2020	total
Listed Manufacturing Company	148	144	165	173	180	810
Companies experiencing negative ETR	(31)	(34)	(32)	(36)	(50)	(183)
Companies experiencing negative CETR	(23)	(34)	(43)	(37)	(30)	(167)
Companies with incomplete data (debt that does not bear interest. independent commissioners)	(46)	(35)	(47)	(33)	(39)	(200)
Companies that are eliminated due to outliers	(5)	(3)	(4)	(2)	(6)	(20)
Number of (N) samples	43	38	39	65	55	240

Source: Researcher Processed Data. 2022

Research Model

In this study, using *Moderated Regression Analysis (MRA)* examine the moderating effect of the independent commissioner variable (INDP) on the relationship between the dependent variable TAX and the independent variable THIN. the outputs of the two variables THIN*INDP. which represent *non-linear interaction effects*. were calculated first. Two regressions were then tested. The first is to examine the main effect of THIN and INDP on TAX. The second regression was performed after introducing the term THIN*INDP multiplier.

To examine the moderating effect of the independent commissioner variable (INDP) on the relationship between the dependent variable TAX and the independent variable FOR. the outputs of the two FOR*INDP variables. which represent non-linear interaction effects. were calculated first. Two regressions were then tested. The first is to examine the main effect of FOR and INDP on TAX. The second regression was performed after introducing the term FOR*INDP multiplier. To test the moderating effect of INDP. the interaction variables between THIN*INDP and FOR*INDP were used and we tested the four hypotheses (H4a and H4b) with the following model:

$$TAX_{it} = \alpha + \beta_1 THIN_{it} + \beta_1 THIN_{it} * INDP + \beta_2 FOR_{it} + \beta_2 FOR_{it} * INDP + \beta_3 SIZE_{it} + \beta_4 ROA_{it} + \beta_4 LEV_{it} + \varepsilon$$

- TAX_{it} : Tax aggressiveness of company i years t
- THIN_{it} : Practice of minimizing corporate tax i years t
- FOR_{it} : Foreign ownership of company i years t
- SIZE_{it} : Company size company i years t
- ROA_{it} : Profitability of company i years t
- LEV_{it} : Composition of company funding i years t

Tax Aggressive Dependent Variable (TAX) uses multiple proxies to measure our dependent variable for the tax aggressiveness variable. According to Lin et al. (2014). there is no single measure that can capture all tax aggressive behavior. Therefore. this study uses 2 measures of tax aggressiveness. as follows:

1. The effective corporate tax rate (ETR) which refers to the total tax expense divided by the profit before tax. This measure is widely used in the recent literature (Lanis and Richardson. 2011; Minnick and Noga. 2010; Chen et al. 2010).

$$ETR = \frac{\text{the total tax expenses}}{\text{profit before tax}}$$

Cash flow effective tax rate (CETR). This measurement is the same as the total tax expense as measured by operating cash flow (Lanis and Richardson. 2011; Richardson *et al.* 2013).

$$CETR = \frac{\text{the total tax expenses}}{\text{net operating cash flow}}$$

The Independent Variable *Thin Capitalization* (THIN) is calculated using the interest-bearing debt limit using the *MAD ratio* (*Maximum Allowable Debt*) (Taylor and Richardson. 2012).

$$MAD\ Ratio = \frac{\text{Average interest bearing debt}}{SHDA\ (Safe\ Harbor\ Debt\ Amount)}$$

description:

MAD Ratio	: Maximum debt ratio permitted by tax provisions
<i>Average interest bearing debt</i>	: Total debt that bears interest
SHDA	: (Average total assets minus non-interest bearings liabilities/IBL) x 75%

The Independent Variable Foreign Ownership Structure (FOR) in this study was measured using a ratio scale. The ratio scale used is share ownership by foreign parties divided by the number of shares still outstanding. The structure of foreign ownership in this study is measured using the formula (Refgia. 2017):

$$FOR = \frac{\text{total share owned by foreign structure}}{\text{total outstanding share}} \times 100\%$$

The moderating variable in this study is the independence of the commissioners (INDP). The term used to measure the composition of the independent board of commissioners is the ratio scale. namely the percentage of the number of independent commissioners to the total number of members of the board of commissioners. This measurement is in accordance with the measurements in the research conducted by Khan (2010). This variable is formulated as follows:

$$INDP = \frac{\text{number of independent commissioners}}{\text{total number of commissioners}}$$

5. ANALYSIS AND RESULT

Descriptive Statistics

Based on the results of the study, it can be seen that the minimum, maximum and average values of each variable from the company from the company during 2016 to 2020 are presented in the following table:

Table 4. Descriptive Research Variables

Variable	N	Minimum	Maximum	mean	SD
ETR	240	0.10160	0.38100	0.24779	0.04890
CETR	240	0.02740	0.37050	0.20240	0.08826
THIN	240	0.00200	1.18270	0.24762	0.23403
FOR	240	0.00000	98.79000	25.73290	32.69167
IND	240	0.16670	0.80000	0.41429	0.10776
SIZE	240	25.56530	33.47370	28.81626	1.58298
ROA	240	0.00180	0.70910	0.11794	0.11332
LEV	240	0.00080	0.51490	0.11651	0.11165

Source: Researcher Processed Data. 2022

Based on the minimum, maximum and average values, the ETR value is below the CETR value, indicating that companies tend to be relatively tax aggressive when using operating cash flow dividers (cash profit) compared to profit before tax (accrual profit). This is also reflected in the minimum value on the CETR of 2.74%, which is smaller than the minimum value on the ETR of 10.16%. Based on the maximum value, the ETR value of 38.1% is higher than the CETR value of 20.24%. Aggressive Proxy the second tax is the CETR. This measurement is the same as the total tax expense as measured by operating cash flow. This measurement is based on the statement of cash flows. The standard deviation value which is smaller than the average indicates the data is relatively homogeneous or not varied.

Thin capitalization is calculated using interest-bearing debt as measured by the MAD ratio. The greater the ratio of debt (interest), the company will increasingly do thin capitalization. The highest thin capitalization of 1.18270 in the company PT. Indofood CBP Sukses Makmur Tbk. (ICBP) in 2020. ICBP in 2020 has acquired Pinehill Co. Ltd with the acquisition funding mostly from debt. The value of thin capitalization which is more than 1 indicates the amount of net income paid by the company is quite high because of the company's long-term debt. The higher the debt burden, there is an indication that the company is doing thin capitalization.

The variable of foreign share ownership structure in this study is measured by foreign ownership divided by the number of outstanding shares. Foreign ownership show the number of shares owned by the institution from the total outstanding shares. Foreign shareholders can be owned by institutional and individual investors. Foreign institutional ownership can be in the form of LTD, BHD, Enterprise, SHD. Individuals can be identified by foreign names confirmed from various sources if the individual is a foreigner.

The results showed that institutional ownership the lowest company is worth 0.000. This value indicates that there is no foreign ownership in the company. The number of companies that do not have foreign ownership. in 2016 there were 21 companies. 2017 there were 17 companies. 2018 there were 22 companies. 2019 there were 41 companies and in 2020 there were 32 companies. Companies that have a maximum foreign ownership of 98.79 are companies with the stock code of PT. Merck Sharp Dohme Pharma Tbk. (SCPI) 2020. This means that most of SCPI's shares are owned by foreign companies. The average foreign ownership of the company is 25.73290 and the standard deviation of foreign ownership is 32.69167.

The results showed that the lowest independent commissioner of the company was 0.1667. This value indicates that there is a ratio of 16.67% of independent commissioners among the board of commissioners in the company. Based on available data. the company is SPMA in 2020. Companies that have a maximum independent commissioner of 0.80000 or 80% are companies with the stock code of PT. Suparma Tbk. (SPMA) and PT. Unilever Indonesia Tbl. (UNVR) in 2016. 2017. in 2018. This means that most of the commissioners are filled with independent commissioners. The average number of independent commissioners of the company is 0.41429 or 41.429%. This indicates that most companies have complied with OJK regulations. which is 30% of the total number of commissioners. The standard deviation of the independent commissioner is 0.10776.

Analysis of research results

The model analysis in this study was performed using several linear regression tests and moderated regression analysis (MRA) tests. The test was conducted on two dependent proxy variable measurement servers, namely ETR and CETR. On the ETR and CETR proxy, 6-fold testing was performed:

1. Multiple linear regression of independent and control variables on ETR and CETR (Model 1).
2. Multiple linear regression of explanatory variables, moderation and control over ETR and CETR (Model 2).
3. *Moderated Regression Analysis* (MRA), which checks for independent variables, moderation, free interaction* moderation, and control variables against ETR and CETR (Model 3).

Multiple linear regression test was used to test the first and second hypotheses. MRA was used to test the third hypothesis. Classical assumption testing is done first before testing the hypothesis. The analysis will be described on the respective ETR and CETR proxies.

Checking Classic Assumptions on ETR Proxies

The classical assumption test is carried out before testing the tax aggressiveness on the ETR proxy. This test is carried out in order to obtain the results of the regression model that can be estimated accurately and unbiased or called BLUE (Best Linear Unbiased Estimation). This classical assumption test consists of 4 tests including normality test,

multicollinearity test, heteroscedasticity test, and autocorrelation test. Here are the test results from the SPSS:

1. Test normality

The normality test aims to test whether in the regression model, the dependent variable and the independent variable have a normal distribution (Ghozali, 2012). If the results of this test do not meet the assumptions, the statistical test will be biased. Kolmogorov Smirnov test results can be seen in the following table:

Table 5. Resource Requirements by Component Normality Test Results with ETR Proxy Servers

Test results	ETR		
	Model 1	Model 2	Model 3
Kolmogorov-Smirnov Z	1,284	1,289	1,192
Asymp. Whitefish. (2-tailed)	0,074	0,072	0,117

Source: Processed by SPSS, 2022

Table 5 shows that the significance level of the Kolmogorov Smirnov test is greater than 0.05, so that the multiple linear regression models in models 1 and 2 are normally distributed, and the *moderated regression analysis* (MRA) models are also normally distributed.

Multicollinearity test

Multicollinearity is necessary to test whether there is a high correlation between independent variables in regression models. This test shows that there is an ideal or definite linear relationship between the variables. The degree of multicollinearity in a regression model can be seen by *the tolerance value* and *the variance inflation rate* (VIF). Multicollinearity does not occur when the tolerance value is >0.1, and the VIF value is <10. The results of multicollinearity testing in this study are shown in the following table.

Table 6. Resource Requirements by Component Multicollinearity Test Results with ETR Proxy Servers

Variable	Model 1		Model 2		Model 3	
	Tolerance	WIF	Tolerance	WIF	Tolerance	WIF
THIN	0,237	4,213	0,232	4,303	0,231	4,331
FOR	0,918	1,089	0,918	1,089	0,906	1,104
IND			0,900	1,111	0,736	1,359
THIN*IND					0,767	1,304
FOR*IND					0,789	1,267
SIZE	0,889	1,125	0,888	1,127	0,887	1,127
ROA	0,849	1,177	0,794	1,260	0,730	1,370
LEV	0,229	4,368	0,227	4,398	0,227	4,408

Source: SPSS Data Processing Results, 2022

Based on **Table 6**, it is known that all independent variables, moderation, independent interaction and moderation, control have a tolerance value > 0.1 and VIF < 10. It can be concluded that all variables in the multiple linear regression and MRA models tested in this study are not multicollinearity occurs.

Heteroscedasticity test

Testing for symptoms of heteroscedasticity was done to determine if there was an association between the confounding variable and the independent variable. Symptoms of homoscedasticity arise, meaning that there is no relationship between the confounding variable and the independent variable, so that the dependent variable is actually explained by the independent variable only. Symptoms of heteroscedasticity can be identified using a scatterplot. Here are the full results:

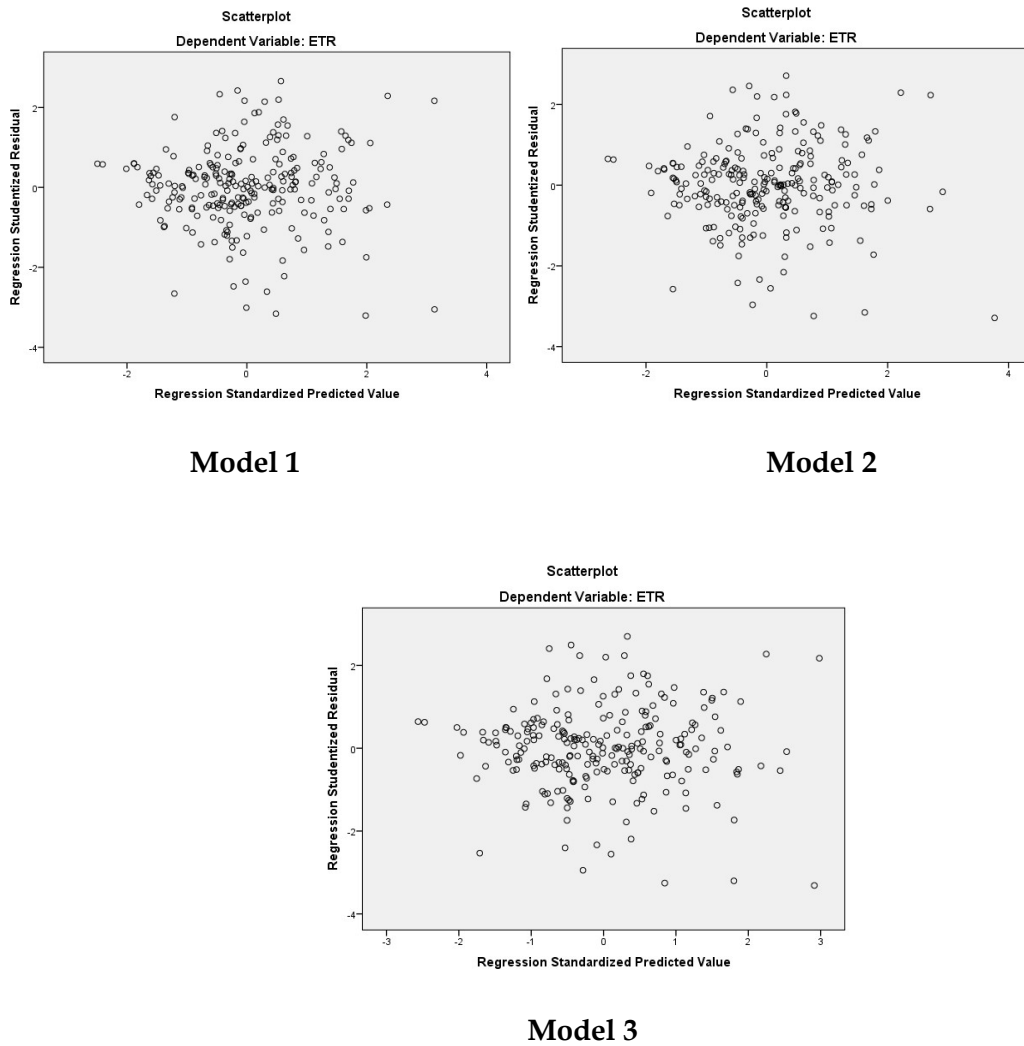


Figure 3. See Sect. Results of Heteroscedasticity with ETR Proxy

Source: Spss Data Processing Results

Figure 3 shows that the image is spreading and does not form a pattern. This concludes that there are symptoms of homoscedasticity or not, and that the dependent variable is really only explained by independent variables. The results of this test state that the regression model is free of symptoms of heteroskedasticity.

Autocorrelation test

The autocorrelation test is aimed at checking for a correlation between the error between the violator in period t and the error in period t-1 (previously). Autocorrelation is known using the Durbin Watson test. The test is considered free of autocorrelation if it is between dU-4-dU. Based on the Durbin-Watson test presented in Table 5.5, all models, both models from 1 to 3, Durbin Watson values range from dU to 4 - dU, then the autocorrelation test is in the area free of autocorrelation.

Table 7. Resource Requirements by Component Durbin Test - Watson with ETR Proxy

Type	Doubs	4-dU	Dv	Conclusion
1	1,8199	2,180	2,061	No autocorrelation
2	1,8306	2,169	2,043	No autocorrelation
3	1,8522	2,148	2,050	No autocorrelation

Source: SPSS Output Processing Results, 2022

Testing Classic Assumptions on CETR Proxies

The classic admission test consists of 4 tests, namely the normality test, the multicollinearity test, the heterosexuality test and the autocorrelation test.

Test normality

The normality test aims to test whether the dependent variable and the independent variable have a normal distribution in a regression model (Ghozali, 2012). If this test does not match the assumptions, then the statistical test becomes biased. The results of the Kolmogorov-Smirnov test can be seen in the following table:

Table 8. Normality Test Results with CETR Proxy

Test results	CETR		
	Model 1	Model 2	Model 3
Kolmogorov-Smirnov Z	1,359	1,339	1,276
Asymp. Whitefish. (2-tailed)	0,050	0,056	0,077

Source: SPSS Output Processing Results, 2022

Table 8 shows that the significance level of the Kolmogorov Smirnov test is greater than or equal to 0.05, so that the multiple linear regression model is normally distributed.

Multicollinearity test

Multicollinearity is needed to test for a high correlation between independent variables in a regression model. This test shows that there is a perfect or definite linear relationship between variables. To detect the presence of signs of multicollinearity in the regression model, this can be seen from the tolerance value and the inflation factor of variance (VIF). Multicollinearity does not occur if the tolerance value is > 0.1 and the VIF value is < 10. The results of the multicollinearity testing in this study are shown in the following table.

Table 9. Results of multicollinearity tests with CETR proxy servers

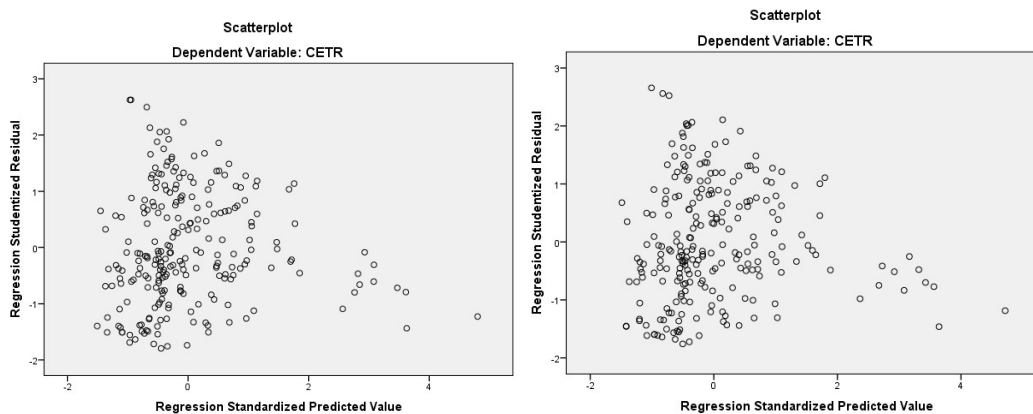
Variable	Model 1		Model 2		Model 3	
	Tolerance	VIF	Tolerance	VIF	Tolerance	VIF
THIN	0,237	4,213	0,232	4,303	0,231	4,331
FOR	0,918	1,089	0,918	1,089	0,906	1,104
IND			0,900	1,111	0,736	1,359
THIN*IND					0,767	1,304
FOR*IND					0,789	1,267
SIZE	0,889	1,125	0,888	1,127	0,887	1,127
ROA	0,849	1,177	0,794	1,260	0,730	1,370
LEV	0,229	4,368	0,227	4,398	0,227	4,408

Source: SPSS Data Processing Results, 2022

Table 9 shows the results of the multicollinearity test. Based on Table 5.8, it is known that all explanatory variables, moderation, independent interaction and moderation, control have a tolerance value > 0.1 and VIF < 10. It can be concluded that all variables in the multiple linear regression model and MRA on the CETR proxy were tested in There was no multicollinearity in this study.

Heteroscedasticity test

Testing for symptoms of heteroscedasticity was done to determine if there was an association between the confounding variable and the independent variable. If there is a sign of homoscedasticity, this means that there is no relationship between the confounding variable and the independent variable, so that the dependent variable is really only explained by the independent variable. Here are the full results:



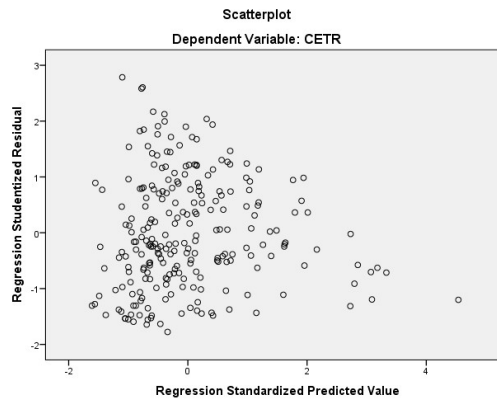


Figure 4. See sect. Results of the Heteroscedasticity test on CETR Proxies
 Source: SPSS Data Processing Results, 2022

Based on **Figure 4**, the image blurs and does not form a pattern, and a conclusion is made about the presence of a sign of homoscedasticity or the absence of heteroscedasticity. The dependent variable is actually explained by the independent variable only. The results of this test show that the regression model is free of signs of heteroscedasticity.

Autocorrelation test

The autocorrelation test is aimed at checking for a correlation between the error between the violator in period *t* and the error in period *t*-1 (previously). To find out the presence or absence of this autocorrelation, the Durbin Watson test was used. A test is considered free of autocorrelation if it is between *d*_U-4-*d*_U.

Table 10. Durbin test – Watson with CETR proxy

Type	DI	Doubs	4-dU	4-dL	Dv	Conclusion
1	1,7176	1,8199	2,180	2,282	1,764	Doubt
2	1,7071	1,8306	2,169	2,293	1,769	Doubt
3	1,6861	1,8522	2,148	2,314	1,733	Doubt

Source: SPSS Output Processing Results, 2022

Based on the Durbin-Watson test presented in **Table 10**, it shows that it is in the questionable region, since it is in the range from *d*_L to *d*_U. Because it is in the questionable area, further checks are made with a running test. The test results show that the test run significance level is higher than 0.05, so the regression model does not have heteroscedasticity.

Testing models and hypotheses on ETR.

Hypothesis testing with multiple linear regression on models 1 and 2 and MRA on model 3 on the ETR proxy. There are 3 models in this study. The first model ensures that the independent and control variables influence the aggressiveness of corporate taxation to test hypotheses 1 and 2. Model 2 is designed to determine the role of the moderating

variable, namely the independent proxy. Model 3 provides a moderating variable that moderates the independent variable on the ETR. The ETR proxy test results are as follows:

Tabel 11 Testing multiple regression analysis and MRA on ETR

Variable Independent	Model 1		Model 2		Model 3	
	β	Sig	β	Sig	β	Sig
Konstanta	0,3230	0,000	0,313	0,000	0,004	0,953
THIN	0,0004	0,989	-0,004	0,887	-0,013	0,921
FOR	0,0002	0,030**	0,000	0,029**	0,147	0,030**
IND	-	-	0,033	0,278	0,088	0,238
THIN*IND	-	-	-	-	-0,019	0,780
FOR*IND	-	-	-	-	-0,025	0,702
SIZE	-0,0030	0,175	-0,003	0,163	-0,095	0,165
ROA	-0,0340	0,254	-0,043	0,168	-0,094	0,213
LEV	0,0460	0,435	0,051	0,386	0,115	0,395
R square	0,045		0,050		0,051	
F statistic	2,209		2,039		1,554	
F Sig	0,054		0,061		0,140	

Source: Spss Output Data Processing Result, 2022

Based on the summary results of multiple linear regression analysis and MRA in **Table 11**, this can be interpreted as follows:

1. The thin cap variable has a regression coefficient of 0.0004, which means that if thin cap increases by one unit, ETR will increase, or in other words, tax aggressiveness will decrease by 0.0004, assuming the other variables are held constant. Hypothesis testing using a t-test shows that the significance of the thin capitalization variable is 0.989 ($p > 0.1$). This significance value is greater than 0.1. It can be concluded that thin capitalization does not have a negative impact on tax aggressiveness. Based on this, the first hypothesis in this study was not confirmed, $H1_{ETR}$ was rejected, and $H0$ was accepted.
2. The foreign ownership structure variable has a regression coefficient of 0.0002, which means that if the foreign ownership structure increases by one unit, the effective tax rate will increase or, in other words, tax aggressiveness will decrease by 0.0002, assuming other variables are held constant. Hypothesis testing using a t-test shows that the significance of the foreign ownership structure variable is 0.030 ($p < 0.1$). This significance value is less than 0.1. It can be concluded that the foreign ownership structure has a negative impact on tax aggressiveness or positively affects the effective tax rate. Based on this, the second hypothesis was not confirmed in this study because it was in the opposite direction, so $H2_{ETR}$ was rejected and $H0$ was accepted.
3. The interaction of thin cap with an independent agent has a regression coefficient of -0.019, which means that if the interaction of thin cap with an independent agent increases by one unit, then ETR will decrease, or in other words, tax aggressiveness will increase by 0.019, provided that other variables are constant. Hypothesis testing using a t-test shows that the significance of the interaction of thin capitalization with independent commissioners is 0.780 ($p > 0.1$). This significance value is greater than 0.1. It is concluded that the interaction of thin capitalization with independent

commission agents has neither a positive effect on tax aggressiveness nor a negative effect on ETR. Based on this, the third hypothesis was not confirmed in this study, H3a_{ETR} was rejected, and H0 was accepted.

4. The interaction of a foreign ownership structure with an independent commission agent has a regression coefficient of -0.025, which means that if the interaction of a foreign ownership structure with an independent commission agent increases by one unit, the ETR will decrease, or in other words tax aggressiveness will increase by 0.025, if other variables remain constant. Hypothesis testing using a t-test shows that the significance of the variable of interaction of a foreign ownership structure with independent representatives is 0.702 ($p > 0.1$). This significance value is greater than 0.1. It can be concluded that the interaction of foreign ownership structures with independent commission agents has neither a positive effect on tax aggressiveness nor a negative effect on ETR. Based on this, the fourth hypothesis was not confirmed in this study, H3b_{ETR} was rejected, and H0 was accepted.
5. The control variables, both size, ROA and leverage, do not have a good effect on models 1, 2 and 3 with a significance value greater than 0.1.

The statistical test F is aimed at testing the significance of the model; in models 1 and 2, the test shows a significance level of 0.054 and 0.061. If the value is less than 0.1, it is said that in models 1 and 2 the tested explanatory and control variables together affect the ETR, or multiple linear regression models fit while model 3 does not fit because the significance is higher. than 0, 1. The coefficient of determination (R²) in models 1, 2 and 3 for the dependent variable ETR is still relatively low, since it is less than 10%, the test results show within 5%. This shows that other factors influencing ETR are not only explanatory variables, moderation, control, and the interaction of explanatory and moderating variables.

Tabel 12. Testing Multiple Regression Analysis and MRA on CETR

Variable Independent	Model 1		Model 2		Model 3	
	β	Sig	β	Sig	β	Sig
(Constant)	0,886	0,376	0,734	0,464	-0,001	0,985
THIN	-0,203	0,840	-0,338	0,736	-0,034	0,767
FOR	-2,501	0,013**	-2,492	0,013**	-0,161	0,005***
IND	-	-	0,950	0,343	0,041	0,516
THIN*IND	-	-	-	-	0,108	0,062*
FOR*IND	-	-	-	-	-0,137	0,015**
SIZE	0,777	0,438	0,740	0,460	0,047	0,422
ROA	9,244	0,000***	8,690	0,000***	0,587	0,000***
LEV	0,866	0,387	0,942	0,347	0,119	0,299
R square	0,289		0,292		0,315	
F statistic	19.035		16.006		13.284	
F Sig	0,000		0,000		0,000	

Source: SPSS Output Data Processing Results, 2022

Testing models and hypotheses on CETR.

Hypothesis testing with multiple linear regression for models 1 and 2 and MRA for model 3 on the CETR proxy. There are 3 models in this study. The first model ensures that the independent and control variables influence the aggressiveness of corporate taxation to test hypotheses 1 and 2. Model 2 is designed to determine the role of the moderating

variable, namely the independent proxy. Model 3 provides a moderating variable that moderates the independent variable on CETR. The results of the CETR proxy test are as follows:

Based on the summary results of multiple linear regression analysis and MRA in **Table 12**, this can be interpreted as follows:

1. The thin capitalization variable has a regression coefficient of -0.203. This means that if thin cap increases by one unit, CETR will decrease, or in other words, tax aggressiveness will increase by 0.203, assuming other variables remain constant. Hypothesis testing using a t-test shows that the significance of the thin capitalization variable is 0.840 ($p > 0.1$). This significance value is greater than 0.1. It can be concluded that thin capitalization has neither a positive effect on tax aggressiveness nor a negative effect on CETR. Based on this, the first hypothesis in this study was not confirmed, $H1a_{CETR}$ was rejected, and $H0$ was accepted.
2. The foreign ownership structure variable has a regression coefficient of -2.501. This means that if the foreign ownership structure increases by one unit, CETR will decrease, or in other words, tax aggressiveness will increase by 2,501, assuming other variables remain constant. Hypothesis testing using a t-test shows that the significance of the foreign ownership structure variable is 0.013 ($p < 0.1$). This significance value is less than 0.1. It can be concluded that a foreign ownership structure has a positive effect on tax aggressiveness or a negative effect on CETR. Based on this, the second hypothesis in this study is confirmed, $H2a_{CETR}$ is accepted, and $H0$ is rejected.
3. The interaction of thin capitalization with independent commissioners has a regression coefficient of 0.108. This means that if the thin cap interaction with independent commissioners increases by one unit, CETR will increase or, in other words, tax aggressiveness will decrease by 0.108, assuming other variables are held constant. Hypothesis testing using a t-test shows that the significance of the interaction of thin capitalization with independent commissioners is 0.062 ($p < 0.1$). This significance value is less than 0.1. It can be concluded that the interaction of thin capitalization with independent commission agents negatively affects tax aggressiveness or positively affects CETR. Based on this, the third hypothesis in this study is confirmed, $H3a_{CETR}$ is rejected, and $H0$ is accepted.
4. The interaction of a foreign ownership structure with independent commission agents has a regression coefficient of -0.137. This means that if the interaction of a foreign ownership structure with an independent commission agent increases by one unit, CETR will decrease, or in other words, tax aggressiveness will increase by 0.137, assuming other variables are held constant. Hypothesis testing using a t-test shows that the significance of the variable for the interaction of a foreign ownership structure with independent representatives is 0.015 ($p < 0.1$). This significance value is less than 0.1. It can be concluded that the interaction of foreign ownership structures with independent commission agents has a positive effect on tax aggressiveness or a negative effect on CETR. Based on this, the fourth hypothesis in this study is confirmed, $H4a_{CETR}$ is accepted, and $H0$ is rejected.

5. The size of the control variable, leverage does not have a significant impact, but ROA has a significant positive impact on models 1, 2 and 3.

The statistical test F is aimed at testing the significance of the model, in models 1, 2 and 3 the test shows a significance level of less than 0.1, it is said that in models 1, 2 and 3 independent variables, control, moderation and independent and moderating interactions are tested, which together affect CETR, or multiple linear regression models were fitted. The coefficient of determination (R2) in models 1, 2 and 3 for the dependent variable CETR is relatively increased compared to the ETR model. In the CETR proxy model, R2 ranges from 28.9% to 31.5%.

Research Results and Discussion

Based on the hypothesis testing on the ETR and CETR proxies in accordance with Tables 11 and 12, a summary of the hypothesis testing results can be presented as follows:

Tabel 13. Summary of Hypothesis Testing

Proxy	Hypothesis	β	Sig.	Information
ETR	H ₁ ETR rejected	0,0004	0,989	<i>Thin capitalization has no positive impact on the aggressiveness of corporate taxation</i>
	H ₂ ETR rejected	0,0002	0,030**	The foreign ownership structure has a negative impact on the aggressiveness of corporate taxation.
	H ₃ ETR rejected	-0,019	0,780	The independence of the commissioners does not reduce the effect of thin capitalization on the aggressiveness of corporate taxation.
	H ₄ ETR rejected	-0,025	0,702	The independence of the commissioners does not weaken the influence of foreign ownership on the aggressiveness of corporate taxation.
CETR	H ₁ CETR rejected	-0,203	0,840	<i>Thin capitalization has no positive impact on the aggressiveness of corporate taxation.</i>
	H ₂ CETR accepted	-2,501	0,013**	Foreign ownership structure has a positive impact on the aggressiveness of corporate taxation.
	H _{3a} CETR rejected	0,108	0,062*	Board independence reduces the negative impact of thin capitalization on corporate tax aggressiveness (in the opposite direction of H _{3a} CETR).
	H _{3b} CETR accepted	-0,137	0,015**	The independence of the Board of Commissioners reduces the positive impact of foreign ownership on the aggressiveness of corporate taxation.

Source: SPSS Output Data Processing Results, 2022

Thin Capitalization has no impact to tax aggressiveness

The results of the study of the effect of thin capitalization on tax aggressiveness showed no effect of thin capitalization on tax aggressiveness in the ETR and CETR proxies. This result means that thin capitalization is not being used as a tax aggressiveness strategy by manufacturing companies listed on the Indonesian Stock Exchange. The results of this

study differ from previous studies, namely the Tylor and Richardson (2012) study, which shows that there is a strong relationship and significant impact between thin capitalization on international tax aggressiveness practices in Australia. Companies that approach or exceed the percentage limit allowed by the thin capitalization rule tend to be tax aggressive. This contradicts Khomsatun and Martani (2015), who found that thin capitalization also affects tax aggressiveness, and regulation to limit interest-bearing debt weakens the positive relationship between thin capitalization and tax aggressiveness.

Until now, it has been thought that interest expenses can be deducted from taxable income and become a tax incentive (Richardson and Lanis, 2011). This goes against the logic that interest expense in tax reserves can be deducted from income (Buettner et al, 2012). It also creates gaps and opportunities for companies to be tax aggressive by using interest.

The lack of influence of thin capitalization on tax aggressiveness can be explained by the approach of the theory of trade-offs. In trade-off theory, if the company has a small amount of debt, the tax benefits that will be received are not maximum, and vice versa, if the debt is increased, the interest paid is high. This can lead to financial difficulties or the company will run into financial difficulties, so an optimal level of debt is needed. An interest rate paid on a certain amount reduces the tax significantly. However, the problem is that debt provisions as an optimal thin capitalization strategy have not yet been determined. Each company has a relative optimal point. This condition leads to the fact that thin capitalization does not affect tax aggressiveness. The value of high or low thin cap does not always have a significant impact on tax aggressiveness due to high and low thin cap relativity.

Foreign ownership structure influences tax aggressiveness

The results showed different effects of foreign ownership on tax aggressiveness in terms of ETR and CETR. In the ETR proxy, the effect of foreign ownership is positive on ETR or negative on tax aggressiveness. In the CETR proxy, the effect of foreign ownership is negative on CETR or positive on tax aggressiveness. Thus, the hypothesis that leads to CETR is accepted, namely that the higher the foreign ownership structure, the higher the tax aggressiveness. This is in line with studies by Annuar et al. (2014) and Salihu et al. (2015) that foreign ownership can encourage companies to act to maximize revenue through tax savings.

The positive effect of foreign ownership on tax aggressiveness can be explained from much of the previous literature showing that multinational companies tend to avoid paying more taxes than national companies. Companies with foreign participation will allow using the transfer pricing strategy. This study also argues that foreign companies tend to avoid paying taxes by using a transfer pricing strategy. Owners can contact overseas-based companies that have lower tax rates to implement tax avoidance strategies. In addition, there are many reputable foreign consultants in foreign ownership who use their experience in tax planning with the ultimate goal of tax avoidance. This is because taxes in countries outside of Indonesia (Europe and the US) are subject to a high tax burden. Tax relief strategy is one of the strategies that taxpayers are interested in, such as the case of the Panama Papers, which lists several large global companies.

Tax aggressiveness is positively affected by CETR instead of ETR, since CETR is directly related to the company's cash flow, financial condition or cash. ETR refers more to financial statements that are not directly related to the company's cash position. The use of CETR is a reflection of profit in the form of cash, which makes it possible to relatively

eliminate the accrual component in the income and expense accounts. Taxation based on CETR is more reflective of the actual financial condition.

The negative effect of foreign ownership on tax aggressiveness with an ETR proxy is that foreign ownership is seen as an accent on the reputation of the parent company's country, so companies with foreign ownership begin to change their operating behavior in order to maintain the company's identity, legitimacy and reputation. Foreign ownership is also seen as an incentive for companies to adopt higher standards of governance and better protect minority shareholders (Khanna and Palepu, 2000). For this reason, foreign ownership of public companies can reduce the risk of aggressive tax action.

ETR is a measure that is directly linked to a company's financial statements in profit and loss. Investors or stakeholders will pay more attention to financial income statements as an indicator of whether a company is in compliance with tax payments. In order to maintain reputation, the ETR fiduciary tax clause must indicate that the company is eligible for tax purposes.

Independence of commissioners reduces the impact of undercapitalization and tax aggressiveness

The results showed that the role of independent commissioners attenuated the effect of thin capitalization on tax aggressiveness using the CETR proxy. The ETR proxy does not reduce the effect of thin cap on tax aggressiveness. The absence of a moderating role of an independent representative in the ETR power of attorney can be explained by the fact that the independent representative himself, as a representative of a minority shareholder, needs to maintain his reputation and independence in matters that are the responsibilities of the company. In this context, the independent commissioner is subject to the applicable mechanism and does not intervene as much as possible, so that his role does not affect the thin capitalization of tax aggressiveness. The effect of independent commissioners on the relationship between thin capitalization and tax aggressiveness is negative (positive on CETR), which means that the effect of thin capitalization on tax aggressiveness is weakening. Independent commissioners are able to make thin capitalization, which initially did not affect tax aggressiveness, became influential after interacting with independent commissioners. As a result, the deterrent role of the independent commissioner is maximum, it is always part of the corporate governance mechanism in the supervision of thin capitalization, acting as a means of reducing tax payments.

Independent commissioners within corporate governance refer to the agency theory arising from differences in the interests of the principal as management of the company and the agent as a shareholder. Companies that have floated and sold their shares to the public will face agency problems, namely conflicts of interest between company management and shareholders or all stakeholders in the company (Jensen & Meckling, 1976).

The difference in interests between the company and shareholders is called the agency problem, namely, management, as the head of the company's operations, wants a large reward from the company. However, shareholders want the company to earn a large profit so that it can distribute dividends at a convincing level (Susanto et al., 2018). The existence of these differences in interests is a trigger for the emergence of tax aggressiveness actions aimed at optimizing the two interests.

When the tax legislation is observed by the company, the company successfully balances the interests of all stakeholders through the mechanism of corporate governance. The corporate governance mechanism aims to suppress tax aggressiveness caused by numerous loopholes in tax regulations that can be circumvented (Utami and Setyawan, 2015). The mechanism can be predicted by the proportion of independent commissioners (National Committee for Management Policy, 2006).

Financial Services Authority Regulation No. 57/POJK.04/2017 requires every company to have at least one independent commissioner. An independent board of commissioners promotes oversight of corporate decision-making activities while ensuring the objectivity of governance (Putri and Chariri, 2017). Kurniasih and Sari (2013) explain that an independent board of commissioners is a person who has no relationship with anyone in the company, such as the controlling shareholder, the board of commissioners and directors.

The presence of an independent board of commissioners should approve an appropriate policy to prevent manipulation and fraud by management (Lanis and Richardson, 2012). As an independent commissioner, he is also intimately familiar with the provisions relating to limited liability companies that apply in Indonesia. Corporate governance provides a monitoring mechanism and reduces practices that are considered unethical, such as tax aggressiveness. A study by Taylor and Richardson (2013) uses corporate governance as a variable to define thin capitalization.

The results of this study are consistent with those of Taylor and Richardson (2013) showing that board independence is significantly negatively associated with companies that apply tax aggressiveness through thin capitalization. Lanis and Richardson (2012) found that increasing the proportion of independent board members reduces tax aggressiveness.

Armstrong et al. (2015) have shown that independent commissioners are responsible for ensuring that a company makes decisions such as taxes to maintain the company's value. While research related to thin cap corporate governance is still scarce (Armstrong et al. 2015), we can explore such a relationship between corporate governance and tax aggressiveness.

The independence of the commissioners weakens the positive impact of foreign ownership structures on tax aggressiveness

The results showed that the role of independent proxies reduced the impact of foreign ownership on tax aggressiveness with the CETR proxy. The ETR proxy does not reduce the effect of foreign ownership on tax aggressiveness. The reason for the absence of a moderating role of the independent commissioner in the ETP power of attorney is the same as in thin capitalization, that in a company with a foreign ownership structure, the position of the independent commissioner itself as a representative of the minority shareholder needs to maintain its reputation and independence in matters that are the responsibilities of the company, especially in the eyes of shareholders of foreign shares.

Independent commissioners appointed by minority shareholders are subject to the applicable mechanism and do not intervene as much as possible, so their role in influencing the structure of foreign ownership of tax aggressiveness is negligible. The independent commissioner also ensures that interested parties review tax records through the

company's ETR proxy under conditions that are relatively consistent with applicable regulations. From these descriptive calculations, it can be seen that the average value of ETR is 24%. Not much different from the corporate tax amount set by the government.

The influence of independent commissioners on the association of foreign ownership with tax aggressiveness is positive (negative for CETR), which means that the influence of foreign ownership on tax aggressiveness is increased. This shows that the supervisory role of independent commissioners is weakened when dealing with foreign property. An independent representative is a representative appointed by a minority shareholder. Foreign voters with influence and reputation can make decisions that are regulatory and binding on all elements of government. Especially if the foreign ownership is quite large. The voting rights they have can determine the state of the company according to their wishes.

5. CONCLUSION, LIMITATIONS, AND SUGGESTIONS

Thin capitalization does not have a significant effect on tax aggressiveness. both measured by profit before tax and profit in cash (ETR and CETR). The absence of the effect of thin capitalization on tax aggressiveness can be explained by the *trade off theory approach*. In the *trade off theory* . if the company has a small amount of debt. the tax benefits that will be obtained are not maximal. and vice versa. Foreign ownership structure has an effect on tax aggressiveness in measuring earnings in the form of cash. The use of the CETR proxy is a reflection of profit in the form of cash so that it relatively eliminates accrual components of income and expense accounts. The taxation based on CETR is more reflective of the actual financial condition.

Independent commissioners significantly moderate the effect of *thin capitalization* and foreign ownership structure on tax aggressiveness. The results of this study are in line with the results of research by Taylor and Richardson (2013) which shows that the independence of the board of commissioners is significantly negatively related to companies that adopt tax aggressiveness through *thin capitalization*. In Regulation of the Financial Services Authority No.57/POJK.04/2017. it is required that every company has at least one independent commissioner. The influence of independent commissioners on the relationship of foreign ownership structure to tax aggressiveness is negative on CETR. which means it weakens the influence of foreign ownership structure on tax aggressiveness. This shows that the supervisory role of independent commissioners is weakened when dealing with foreign ownership.

The data used in this study are financial statements and annual reports of manufacturing sector companies listed on the Indonesia Stock Exchange from 2016 to 2020. The results of this study may be different when using financial statement data from companies in other sectors or at different research periods. This study only uses the ETR and CETR proxies as dependent variables to explain tax aggressiveness activities. In fact. there are many other proxies that can be used. such as the long-run cash ETR and the marginal tax rate as disclosed by Hanlon and Heitzman (2010).

Based on the research that has been done, there are suggestions that researchers want to convey for future research, namely using samples from other sectors on the Indonesia Stock Exchange or using all listed companies in order to produce more representative conclusions in understanding tax aggressiveness practices in Indonesia. Future research is expected to use other tax aggressiveness proxies such as Hanlon and Heitzman (2010). These various tax aggressiveness proxies have advantages and the use of different proxies can provide a new perspective in understanding tax aggressiveness.

REFERENCES

- Annisa, I. N., & Nazar, M. R. (2015). Pengaruh Struktur Kepemilikan Dengan Variabel Kontrol Profitabilitas, Umur, dan Ukuran Perusahaan Terhadap Luas Pengungkapan Corporate Social Responsibility (Studi Empiris Perusahaan Manufaktur Di BEI Tahun 2011-2013). *E-Proceeding of Management*, 2(1), 313-322.
- Armstrong, C. S., Blouin, J. L., & Larcker, D. F. (2012). The incentives for tax planning. *Journal of Accounting and Economics*, 53(1-2), 391-411. <https://doi.org/10.1016/j.jacceco.2011.04.001>
- Armstrong, C. S., Blouin, J. L., Jagolinzer, A. D., & Larcker, D. F. (2015). Corporate governance, incentives, and tax avoidance. *Journal of Accounting and Economics*, 60(1), 1-17. <https://doi.org/10.1016/j.jacceco.2015.02.003>
- Buettner, T., Overesch, M., Schreiber, U., & Wamser, G. (2012). The impact of thin-capitalization rules on the capital structure of multinational firms. *Journal of Public Economics*, 96(11-12), 930-938. <https://doi.org/10.1016/j.jpubeco.2012.06.008>
- Buettner, T., & Wamser, G. (2013). Internal debt and multinational profit shifting: Empirical evidence from firm-level panel data. *National Tax Journal*, 66(1), 63-96. <https://doi.org/10.17310/ntj.2013.1.03>
- Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms? *Journal of Financial Economics*, 95(1), 41-61. <https://doi.org/10.1016/j.jfineco.2009.02.003>
- Claessens, S., & Fan, J. P. H. (2005). Corporate Governance in Asia: A Survey. *SSRN Electronic Journal*, (August 2019). <https://doi.org/10.2139/ssrn.386481>
- Damayanti, T. W., Trisno, S., Subekti, I., & Baridwan, Z. (2015). The Role of Taxpayer's Perception of the Government and Society to Improve Tax Compliance. *Accounting and Finance Research*, 4(1). <https://doi.org/10.5430/afr.v4n1p180>
- Darussalam, Hutagaol, J., & Septiriadi, D. (2007) Konsep dan Aplikasi Perpajakan Internasional (Basic Concept of International Taxation), *Danny Darussalam Tax Center*, Jakarta.

- Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, 79(1), 145–179. <https://doi.org/10.1016/j.jfineco.2005.02.002>
- Dularif, M., Trisno, S., Nurkholis, & Saraswati, E. (2019). Is deterrence approach effective in combating tax evasion? A meta-analysis. *Problems and Perspectives in Management*, 17(2), 93–113. [https://doi.org/10.21511/ppm.17\(2\).2019.07](https://doi.org/10.21511/ppm.17(2).2019.07)
- Dunbar, A. E., Omer, T. C., & Schultz, T. D. (2012). The Informativeness of FIN 48 'Look-Forward' Disclosures. *SSRN Electronic Journal*, 06269(860). <https://doi.org/10.2139/ssrn.1633626>
- Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long-run corporate tax avoidance. *Accounting Review*, 83(1), 61–82. <https://doi.org/10.2308/accr.2008.83.1.61>
- Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *Accounting Review*, 85(4), 1163–1189. <https://doi.org/10.2308/accr.2010.85.4.1163>
- Frank, M. Margaret, Lynch, L. J., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation financial reporting. *Accounting Review*, 84(2), 467–496. <https://doi.org/10.2308/accr.2009.84.2.467>
- Ghozali, Imam. 2018. Aplikasi Analisis Multivariate dengan Program IBM SPSS 25, *Badan Penerbit Universitas Diponegoro, Semarang*
- Graham, J. R., & Tucker, A. L. (2006). Tax shelters and corporate debt policy. *Journal of Financial Economics*, 81(3), 563–594. <https://doi.org/10.1016/j.jfineco.2005.09.002>
- Gujarati, D. (2004). Basic Econometrics (Ekonometrika Dasar). Alih Bahasa Sumarno Zain. *Penerbit Erlangga. Jakarta*
- Haufler, A., & Runkel, M. (2012). Firms' financial choices and thin capitalization rules under corporate tax competition. *European Economic Review*, 56(6), 1087–1103. <https://doi.org/10.1016/j.euroecorev.2012.03.005>
- Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, 50(2–3), 127–178. <https://doi.org/10.1016/j.jacceco.2010.09.002>
- Jacob, Fatoki & Obafemi F. (2014). An Empirical Study of Tax Evasion and Tax Avoidance: A Critical Issue in Nigeria Economic Development. *Journal of Economics and Sustainable Development*, 5(18), 22–27.
- Khanna, T., & Palepu, K. (2000). Emerging Market Business Groups, Foreign Intermediaries, and Corporate Governance. In *National Bureau of Economic Research*. Retrieved from <http://www.nber.org/books/morc00-1>

- Lanis, R., & Richardson, G. (2011). The effect of board of director composition on corporate tax aggressiveness. *Journal of Accounting and Public Policy*, 30(1), 50–70. <https://doi.org/10.1016/j.jaccpubpol.2010.09.003>
- La Porta, R., Shleifer, A., & Vishny, R. (1997). Investor Protection and Corporate Governance. *Journal of Finance*, 52, 737–783.
- Lim, Y. (2011). Tax avoidance, cost of debt and shareholder activism: Evidence from Korea. *Journal of Banking and Finance*, 35(2), 456–470. <https://doi.org/10.1016/j.jbankfin.2010.08.021>
- Myer, S. C. (1984). The Capital Structure Puzzle. *The Journal of Finance*, 39(3), 575–592.
- Nachrowi, D. & Usman, Hardius. (2006). Pendekatan Populer dan Praktis Ekonometrika untuk Analisis Ekonomi dan Keuangan. *Universitas Indonesia*. Jakarta
- Organization for Economic Cooperation and Development (OECD). (2012). Thin Capitalisation Legislation: A Background Paper for Country Tax Administrations. https://www.oecd.org/ctp/taxglobal/5.%20thin_capitalization_background.pdf
- Otusanya, O. J. (2011). The role of multinational companies in tax evasion and tax avoidance: The case of Nigeria. *Critical Perspectives on Accounting*, 22(3), 316–332. <https://doi.org/10.1016/j.cpa.2010.10.005>
- Pratama, A. (2017). Does Corporate Governance Reduce Thin Capitalization Practice? The Case of Indonesian Manufacturing Firms. *Review of Integrative Business and Economics Research Online CDRom*, 6(4), 2304–1013.
- Rahayu, N. (2010). Evaluasi Regulasi Atas Praktik Penghindaran Pajak Penanaman Modal Asing. *Jurnal Akuntansi Dan Keuangan Indonesia*, 7(1), 61–78. <https://doi.org/10.21002/jaki.2010.04>
- Rahmayanti, N. P., Trisno, S., & Prihatiningtias, Y. W. (2020). Effect of tax penalties, tax audit, and tax-payers awareness on corporate taxpayers' compliance moderated by compliance intentions, *International Journal of Research in Bussiness and Social Science*, 9(2), 18-124, <https://doi.org/10.20525/ijrbs.v9i2.633>
- Rego, S. O. 2003. Tax-Avoidance Activities of US Multinational Corporations. *Contemporary Accounting Research*. 20, 4, 805-833.
- Richardson, G., & Lanis, R. (2007). Determinants of the variability in corporate effective tax rates and tax reform: Evidence from Australia. *Journal of Accounting and Public Policy*, 26(6), 689-704. <https://doi.org/10.1016/j.jaccpubpol.2007.10.003>
- Richardson, G., & Taylor, G. (2012). International Corporate Tax Avoidance Practices: Evidence from Australian Firms. *The International Journal of Accounting*, 47, 469–496

- Richardson, G., & Taylor, G. (2013). The Determinants of Thinly Capitalized Tax Avoidance Structures: Evidence from Australian Firms. *Journal of International Accounting, Auditing and Taxation*, 22, 12–25
- Richardson, G., Taylor, G., & Lanis, R. (2013). The impact of Board of Director Oversight Characteristics on Corporate Tax Aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy*, 32, 68–88
- Richardson, G., Taylor, G., & Lanis, R. (2015). The impact of financial distress on corporate tax avoidance spanning the global financial crisis: Evidence from Australia. *Economic Modelling*, 44, 44–53. <https://doi.org/10.1016/j.econmod.2014.09.015>
- Rusyidi, M. K., & Martani, D. (2014). *Pengaruh struktur kepemilikan terhadap aggressive tax avoidance*. Paper dipresentasikan pada acara Simposium Nasional Akuntansi 17.
- Salihu, I.A., Obid, S.N.S., & Annuar, H.A. (2014). *Measures of corporate tax avoidance: empirical evidence from an emerging economy*. *Int. J. Bus. Soc.* 14(3), 412–427.
- Salihu, I. A., Obid, S. N. S., & Annuar, H. A. (2014). Government ownership and corporate tax avoidance: empirical evidence from Malaysia. *Paper presented at the International Conference on Emerging Trends in Scientific Research*, Pearl International Hotel, Kuala Lumpur. Conference or Workshop Item (Full Paper) retrieved from <http://irep.iium.edu.my/id/eprint/36089>.
- Salihu, I. A., Annuar, H. A., & Obid, S. N. S., (2015). *Foreign Investors' Interests and Corporate Tax Avoidance: Evidence from an Emerging Economy*. *Journal of Contemporary Accounting & Economic.*, 1, 138–147. <https://doi.org/10.1016/j.jcae.2015.03.001>
- Sekaran, U & Bougie, R. (2017). *Metode Penelitian untuk Bisnis Pendekatan Pengembangan-Keahlian, Salemba Empat*, Jakarta.
- Shleifer, A., & Vishny, R. W. (1986). Large Shareholders and Corporate Control. *Journal of political economy*, 94(3, Part 1), 461–488. <https://www.jstor.org/stable/1833044>
- Taylor, G., & Richardson, G. (2013). The determinants of thinly capitalized tax avoidance structures: Evidence from Australian firms. *Journal of International Accounting, Auditing and Taxation*, 22(1), 12–25. <https://doi.org/10.1016/j.intaccudtax.2013.02.005>
- Wahab, N. S. A., & Holland, K. (2012). Tax planning, corporate governance and equity value. *The British Accounting Review*, 44(2), 111–124. <https://doi.org/10.1016/j.bar.2012.03.005>
- Wilde, J. H., & Wilson, R. J. (2018). Perspectives on corporate tax planning: Observations from the past decade. *The Journal of the American Taxation Association*, 40(2), 63–81. <http://dx.doi.org/10.2308/atax-51993>

- Wu, W., Rui, O. M., & Wu, C. (2013). Institutional environment, ownership and firm taxation. *Economics of Transition*, 21(1), 17-51.
<https://doi.org/10.1111/ecot.12001>
- Watts, Ross L, & J. L. Zimmerman. (1978). Towards a Positive Theory of The Determination of Accounting Standards. *Accounting Review*. 112-134.
- Watts, Ross L, & J. L Zimmerman. (1990). Positive Accounting Theory: A Ten Years Perspective. *Accounting Review*. 131-156.