

Effect of Transfer Pricing Aggressiveness, Income Smoothing, Thin Capitalization on Tax Avoidance with Financial Constraints as a Moderating Variable

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Abstract: The low tax ratio in Indonesia suggests that tax avoidance is widely practiced. Research was conducted to test the effect of transfer pricing (manipulation of transfer prices between related companies), income smoothing (earnings manipulation), and thin capitalization (unreasonable debt to equity ratio) on tax avoidance. The moderating variable of financial constraints is also considered to see whether the company's financial condition affects the relationship. The study uses a quantitative approach with a population of companies in the Consumer Non-Cyclicals and Basic Material sectors listed on the "Indonesia Stock Exchange in 2017-2021". The study employed a purposive sampling technique, resulting in a sample of 66 companies. This study analyzes the form of panel data with a fixed effect model approach. The findings of this study found that transfer pricing and thin capitalization significantly increase tax avoidance. Financial constraints strengthen the influence of these two variables. These findings underscore the significance of monitoring transfer pricing and thin capitalization practices to increase state tax revenue. This study contributes to the literature by examining the effect of moderating variables in the context of tax avoidance in Indonesia

Keywords: Transfer Pricing Aggressiveness, Income Smoothing, Thin Capitalization, Tax Avoidance, Financial Constraints.

INTRODUCTION

Tax has an important role in national development, given its main function as a support for state revenue (budget air). The government relies on taxes in funding the State Budget (APBN). The implementation of the research is based on the fact that of low tax compliance in Indonesia, which is built on the principle of mutual cooperation. Based on the records of the "report from the Ministry of Finance (Kemenkeu)", Indonesia's tax ratio has experienced various changes in recent years, such as in 2021, it was recorded at 9.11% of Gross Domestic Product (GDP). Previously, in 2017, this ratio was at the level of 9.89% of GDP. This figure had increased in 2018, reaching 10.24%. However, in 2019, the tax ratio decreased again to 9.77%, followed by a sharper decline in 2020, to reach 8.33%. Along with the unachieved tax revenue target, Indonesia's tax ratio has stagnated at 10-12% since 2010 to 2019. The tax ratio is a metric used to evaluate the government's effectiveness in generating tax revenue

A key factor contributing to Indonesia's low tax ratio is tax evasion¹. Frequent tax avoidance practices directly impact tax revenue and hinder the effectiveness of tax collection efforts². There are various tax avoidance strategies that companies can implement, including "thin capitalization, transfer pricing aggressiveness, income shifting, multinationality, and tax haven utilization"³. Most research indicates that transfer pricing has emerged as the primary tax avoidance strategy utilized by companies in maximizing global profits and minimizing taxes⁴. Studies examining the impact of transfer pricing on tax avoidance have been carried out⁵, among others⁶, with the conclusion that "transfer pricing aggressiveness has a significant

¹ Paris OECD, *Infant Mortality* (oecd Paris, 2020).

² F Rosadi, "Fenomena Tax Ratio Indonesia. Media keuangan," 2019.

³ Grantley Taylor and Grant Richardson, "International Corporate Tax Avoidance Practices: Evidence from Australian Firms," *The International Journal of Accounting* 47, no. 4 (2012): 469-496.

⁴ Mohammed Amidu, William Coffie, and Philomina Acquah, "Transfer Pricing, Earnings Management and Tax Avoidance of Firms in Ghana," *Journal of Financial Crime* 26, no. 1 (2019): 235-259.

⁵ Taylor and Richardson, "International Corporate Tax Avoidance Practices: Evidence from Australian Firms.

⁶ Amidu, Coffie, and Acquah, "Transfer Pricing, Earnings Management and Tax Avoidance of Firms in Ghana."



positive effect on tax avoidance.” Varied results were achieved⁷, concluded that “transfer pricing aggressiveness has no effect on tax avoidance”⁸.

Then another factor that affects tax avoidance is thin capitalization practices⁹. In this factor, companies take advantage of a high debt structure to minimize the taxes that must be paid¹⁰. By using thin capitalization, interest paid on debt can be considered a tax-deductible expense.¹¹ There are several views and research findings on this factor relationship with varying conclusions. Research conducted¹² provides results that thin capitalization has a positive influence on tax avoidance.¹³ results in that “thin capitalization has an influence on tax avoidance”¹⁴. In contrast to previous studies according to Selistiaweni¹⁵ concluded that “thin capitalization has no influence on tax avoidance”.

Furthermore, what affects tax avoidance is income smoothing. Research on the relationship between income smoothing and tax avoidance has been conducted,¹⁶

⁷ Paskalis A Panjalusman, Erik Nugraha, and Audita Setiawan, “Pengaruh Transfer Pricing Terhadap Penghindaran Pajak,” *Jurnal Pendidikan Akuntansi & Keuangan* 6, no. 2 (2018): 105–114.

⁸ Teza Deasvery Falbo and Amrie Firmansyah, “Thin Capitalization, Transfer Pricing Aggresiveness, Penghindaran Pajak,” *Indonesian Journal of Accounting and Governance* 2, no. 1 (2018): 1–28.

⁹ Taylor and Richardson, “International Corporate Tax Avoidance Practices: Evidence from Australian Firms.”

¹⁰ Falbo and Firmansyah, “Thin Capitalization, Transfer Pricing Aggresiveness, Penghindaran Pajak.”

¹¹ Vinka Jumailah, “Pengaruh Thin Capitalization Dan Konservatisme Akuntansi Terhadap Tax Avoidance Dengan Kepemilikan Institusional Sebagai Variabel Moderasi,” *Management and Accounting Expose* 3, no. 1 (2020): 13–21.

¹² Mauliddini Nadhifah and Abubakar Arif, “Transfer Pricing, Thin Capitalization, Financial Distress, Earning Management, Dan Capital Intensity Terhadap Tax Avoidance Dimoderasi Oleh Sales Growth,” *Jurnal Magister Akuntansi Trisakti* 7, no. 2 (2020): 145–170.

¹³ Ayu Andawiyah, Ahmad Subeki, and Arista Hakiki, “Pengaruh Thin Capitalization Terhadap Penghindaran Pajak Perusahaan Index Saham Syariah Indonesia,” *Akuntabilitas* 13, no. 1 (2019): 49–68.

¹⁴ Sapta Setia Darma, “Pengaruh Related Party Transaction Dan Thin Capitalization Terhadap Strategi Penghindaran Pajak,” *Jurnal Ilmiah Akuntansi Universitas Pamulang* 7, no. 1 (2019): 58–75.

¹⁵ Agus Bandiyono and Etty Murwaningsari, “Effect of Intra Group Transaction, Thin Capitalization and Executive Characters on Tax Avoidation with Multinationality as a Moderation,” *Journal of Accounting, Business and Finance Research* 7, no. 2 (2019): 82–97.

¹⁶ Farzana Akbari, Mahdi Salehi, and Mohammad Ali Bagherpour Vlashani, “The Relationship between Tax Avoidance and Firm Value with Income Smoothing: A Comparison



and the results show that income smoothing is an action taken intentionally by managers. In this practice, managers attempt to change the company's earnings report with the aim of controlling earnings fluctuations. By doing income smoothing, the reported profit can be modified, thus having an impact on the profit subject to tax. Similarly, reinforce this opinion, by revealing "that income smoothing can affect the relationship between tax avoidance and firm value". However, in Indonesia, studies that directly examine the effect of income smoothing on tax avoidance are still relatively few. This indicates a gap in the literature that can be further explored, especially in Indonesia, which has unique tax characteristics and challenges.

Deteriorating economic performance can have a significant impact on operating profits, which are the main source of financing for companies. When profits decline, companies face constraints in accessing funds required for investment and expansion. Companies facing financial constraints tend to try to maximize internal funding sources as a response to their difficult situation. Under these circumstances, one of the steps often taken is to reduce non-essential expenditures. One strategy that may be taken is tax avoidance, where companies seek to minimize their tax liabilities. By reducing the tax burden, companies can keep more funds that should be paid as taxes. These additional funds can be used for various purposes, including investments that can support future growth¹⁷. Prior research examining the impact of financial constraints on tax avoidance was carried out by¹⁸ resulted in the conclusion that "financial constraints have a positive influence on tax avoidance", by reducing tax payments in cash. Making companies can retain more funds that should be paid as taxes, thus increasing their operating cash flow.¹⁹ mention of corporate financial constraints encourages the application of tax aggressiveness practices as a strategy to overcome the limited funds they face. In situations where funding is limited, companies feel the need to maximize existing

between Classical and Bayesian Econometric in Multilevel Models," *International Journal of Organizational Analysis* 27, no. 1 (2019): 125–148.

¹⁷ Chen Chen and Shufang Lai, "Financial Constraint and Tax Aggressiveness," *Journal of Financial Economics* 2012, no. 11 (2012): 1–41.

¹⁸ Alexander Edwards, Casey Schwab, and Terry Shevlin, "Financial Constraints and Cash Tax Savings," *The Accounting Review* 91, no. 3 (2016): 859–881.

¹⁹ Amrie Firmansyah and Reza Bayuaji, "Financial Constraints, Investment Opportunity Set, Financial Reporting Aggressiveness, Tax Aggressiveness: Evidence from Indonesia Manufacturing Companies," *Academy of Accounting and Financial Studies Journal* 23, no. 5 (2019): 1–18.



resources, and tax management becomes one way to achieve this goal. The same results were obtained from research conducted by Rachmawati & Fitriana, that a higher level of financial constraints will lead the company to adopt more aggressive tax strategies.

The distinction between this study and prior research is by adding thin capitalization variables. Based on the background description above, this research intends to investigate the impact of “transfer pricing, thin capitalization, income smoothing, and financial constraints” on tax avoidance practices in companies in the Consumer Non-Cyclicals and Basic Material sectors listed on the “Indonesia Stock Exchange (IDX)” during the 2017-2021 period. This sector was chosen because of its characteristics which are often involved in cross-border transactions and have a higher potential for tax avoidance practices. This study aims to address the gap in research concerning the influence of these variables on tax avoidance in Indonesia, particularly within specific sectors. Furthermore, the findings are anticipated to offer recommendations for both the government and businesses in formulating more effective tax policies to deter tax avoidance practices.

LITERATURE REVIEW

Taxpayers try to find ways to minimize their tax obligations. The self-assessment tax system that applies in Indonesia provides opportunities for taxpayers to have control over the determination of the amount of tax to be paid, thus opening up opportunities for them to optimize tax calculations. ²⁰ explains that tax avoidance is the activity of reducing the nominal tax explicitly from pre-tax income. Tax avoidance is defined as broadly expressed by Richardson (2006) as tax planning with the aim of reducing taxable income which includes legal and illegal activities. This activity utilizes the gray area, which is a situation that is indicated to be taxed, but there are no rules applied to determine its legality.

Transfer pricing is the pricing done by one division within an organization for goods or services provided to another division within the same organization. This is in line with ²¹ which states that the transfer price in a company or group of companies is the price charged by the sales division to the purchasing division. Transfer pricing

²⁰ Michelle Hanlon and Shane Heitzman, “A Review of Tax Research,” *Journal of accounting and Economics* 50, no. 2-3 (2010): 127-178.

²¹ Don R Hansen and Maryanne M Mowen, *Managerial Accounting* (South-Western, 2007). 984



aggressiveness is reflected in unfair transactions arising between related parties.²² explained that transfer pricing aggressiveness is an approach to reduce tax liabilities by lowering reported income or increasing expenses. From the explanations provided above, it can be concluded that in this study, transfer pricing aggressiveness refers to the pricing set between related parties, which can impact the company's after-tax income.

Thin capitalization refers to a scenario in which a company is funded primarily through substantial debt relative to its equity, or is highly leveraged. As a company's debt level increases, the interest expenses it must pay also rise, thereby reducing its taxable income (OECD, 2012). Taxable income can become smaller because in tax regulations, debt interest is a deductible expense. Therefore, companies can take advantage of incentives in the form of reducing the amount of tax due to interest expense.

Testing using income smoothing and tax avoidance²³ states that income smoothing is an action taken consciously by company managers to flatten or adjust reported earnings over time. The purpose of this practice is to reduce large fluctuations in corporate profits. This practice also affects taxable income because earnings settings can change the amount of income officially reported in the financial statements. Likewise, highlights how income smoothing practices can have an impact on the perception of firm value and on the amount of tax reported. According to research the study was conducted to explore how "profitability, firm size, and firm value affect earnings smoothing practices". In this case, tax avoidance is measured using the Eckel Index, which is a method that relies on the Coefficient Variation (CV) to analyze variations in earnings and net income.

Financial constraints are the conditions of companies that experience problems regarding limitations on their company's cash so that it is difficult to take investment opportunities.²⁴ revealed that companies experiencing financial constraints will try as much as possible to use their internal funding sources. Under these conditions,

²² Lorraine Eden and L Murphy Smith, "The Ethics of Transfer Pricing," in *Accounting, Organizations and Society Workshop on 'Fraud in Accounting, Organizations and Society'*, London, UK, 2011.

²³ Akbari, Salehi, and Bagherpour Vlashani, "The Relationship between Tax Avoidance and Firm Value with Income Smoothing: A Comparison between Classical and Bayesian Econometric in Multilevel Models."

²⁴ Edwards, Schwab, and Shevlin, "Financial Constraints and Cash Tax Savings."



companies often make cost savings to improve cash flow and financial stability. One of the main focuses in this cost saving is to reduce the tax burden that must be paid. Tax is considered as an expense that does not directly contribute to the company's performance in the long run. In line with this, ²⁵ mentioned that when companies face financial constraints, the availability of cash flow from operations becomes very important for the survival and continuity of their business. In this situation, companies will have more incentives to increase their operating cash flow. One strategy that can be taken to achieve this goal is to avoid tax obligations.

Research on the effect of "thin capitalization and transfer pricing aggressiveness" on tax avoidance has also been conducted in Indonesia. ²⁶ the study involved a sample of 90 manufacturing companies covering the period from 2013 to 2015 to examine the impact of thin capitalization and transfer pricing aggressiveness on tax avoidance. Thin capitalization in this study uses the MAD ratio as used in research ²⁷ To measure thin capitalization, the debt-to-equity ratio limit is used in accordance with the "Minister of Finance Regulation (PMK) number 169/PMK.010/2015" applicable in Indonesia. Meanwhile, the measurement of transfer pricing aggressiveness is done using the sumscore index, which involves seven indicators. These indicators are designed to cover various aspects related to transfer pricing practices within the company. In addition, tax avoidance is measured using the proxy "Effective Tax Rate (ETR)" which has been modified.

Research ²⁸ examines This study focuses on analyzing the effect of financial constraints on tax avoidance by companies. To measure financial constraints, this study uses several proxies that have been recognized in the literature, including the "Whited and Wu (WW) index and the Kaplan and Zingales (KZ) index". In addition to these two indices, this study also uses the dividend payout ratio as an additional proxy to measure financial constraints.²⁹ The study concluded that under conditions of financial constraints, companies become more aggressive in taking tax avoidance

²⁵ Chen and Lai, "Financial Constraint and Tax Aggressiveness."

²⁶ Falbo and Firmansyah, "Thin Capitalization, Transfer Pricing Aggressiveness, Penghindaran Pajak."

²⁷ Taylor and Richardson, "International Corporate Tax Avoidance Practices: Evidence from Australian Firms."

²⁸ Chen and Lai, "Financial Constraint and Tax Aggressiveness."

²⁹ Steven Fazzari, R Glenn Hubbard, and Bruce C Petersen, *Financing Constraints and Corporate Investment* (National Bureau of Economic Research Cambridge, Mass., USA, 1987).



actions as indicated by the reporting of a lower tax rate of 3-8%. This study uses the "Whited and Wu (2006)" index to measure financial constraints as done by ³⁰. In this study, to reduce the possibility of errors that can occur during the testing process, researchers decided to use a control variable called return on assets (ROA). ROA serves as an indicator that measures how effective the company is in generating profits by utilizing its total assets. With the ROA formula calculated as net profit after tax divided by total assets, researchers can get a clearer picture of the company's operational efficiency.³¹ In addition, this study also considers the leverage ratio (LEV) as an additional control variable. LEV is used to measure the company's ability to meet long-term obligations, which is calculated by comparing total debt to total assets ³².

Hypothesis Development

Agency theory explains the potential conflict of interest between managers, who act as agents and shareholders or owners of the company. In this context, managers often make decisions that may not be in line with the owners' interests, as they may have different goals or incentives. One important decision that firms face is whether to make investments domestically or abroad. When companies evaluate investment options, they need to consider a number of important factors. The expected profit from the investment is a key consideration. In addition, the prevailing tax rates, existing tax laws and regulations in the countries where they operate also greatly influence the decision. In an effort to minimize taxes globally, companies seek to maximize their profits by taking advantage of lower tax rates or tax-free policies offered by host countries ³³ Olibe & Rezaee, 2008;³⁴. Multinational corporations seek to maximize their global profits while minimizing tax liabilities through various tax avoidance strategies. One of the main approaches they use is to shift taxable income from countries with high tax rates to countries with lower tax rates. Such mechanisms often used are "transfer pricing, thin capitalization, use of

³⁰ Edwards, Schwab, and Shevlin, "Financial Constraints and Cash Tax Savings."

³¹ Chen and Lai, "Financial Constraint and Tax Aggressiveness."

³² Etty Murwaningsari and Sistya Rachmawati, "The Influence of Capital Intensity and Investment Opportunity Set toward Conservatism with Managerial Ownership as Moderating Variable," *Journal of Advanced Management Science* 5, no. 6 (2017).

³³ Eric J Bartelsman and Roel M W J Beetsma, "Why Pay More? Corporate Tax Avoidance through Transfer Pricing in OECD Countries," *Journal of public economics* 87, no. 9-10 (2003): 2225-2252.

³⁴ Susan C Borkowski, "Transfer Pricing Practices of Transnational Corporations in PATA Countries," *Journal of International Accounting, Auditing and Taxation* 19, no. 1 (2010): 35-54.



tax haven countries, and affiliate financing structures”³⁵ Transactions conducted between related entities located in different tax jurisdictions create a number of opportunities for tax avoidance. When companies operate in multiple countries, they can take advantage of differences in tax rates and regulations in each country. This suggests that aggressive transfer pricing practices could potentially encourage companies to engage further in tax avoidance. Based on this understanding, the first hypothesis in this study is formulated as follows:

H1: Transfer pricing aggressiveness has a positive effect on tax avoidance

In agency theory, there is a mismatch of interests between managers as agents and principals. This often leads to differences in decision making, including those related to accounting policies and financial reporting. Although there are still few studies that examine the direct effect between earnings smoothing and tax avoidance, it is important to consider the relationship between earnings management and tax avoidance. Earnings smoothing is considered one of the main tools in earnings management, where managers can adjust financial statements to create a more favorable picture of company performance, show that firms that report higher accounting profits tend to be willing to pay more taxes. This indicates a trade-off between tax liability and financial reporting that managers may consider. Furthermore, the significant difference between taxes paid and reported earnings (book-tax difference) indicates that tax avoidance and earnings management practices can take place simultaneously. From this explanation, it indicates that companies that are more active in smoothing earnings are more likely to practice tax avoidance. Therefore, the second hypothesis in this study is formulated as follows:

H2: Income smoothing has a positive effect on tax avoidance

Sueb (2020) in his research states that thin capitalization affects tax avoidance, companies that do funding, the majority of which comes from debt, will get tax incentives through interest expense which is a deduction from taxable income. The higher the level of corporate debt (taxpayer), the larger the interest expenses that the company must cover. Consequently, as the company's interest expenses increase, the amount of tax payable by the company (taxpayer) decreases. According to the aforementioned explanation, the third hypothesis in this study is:

³⁵ Harry Grubert and John Mutti, “Taxes, Tariffs and Transfer Pricing in Multinational Corporate Decision Making,” *The Review of economics and Statistics* (1991): 285–293.



H3: Thin capitalization has a positive effect on tax avoidance

Positive accounting theory states that there is a hypothesis that explains management's opportunistic actions that can lead to agency problems, namely the political cost hypothesis. The political cost hypothesis highlights the relationship between corporate management and government policy. In this scenario, the government as the principal sets regulations and policies that affect company operations. Meanwhile, managers, who are responsible for managing the company, may have interests that differ from the objectives of the government or shareholders. As stated by ³⁶ when the company's limited financial condition encourages managers to be more active in finding ways to save taxes, so tax avoidance becomes an attractive strategy. In this situation, managers may be encouraged to practice transfer pricing aggressiveness. Therefore, it can be stated that corporate financial constraints strengthen the positive impact of transfer pricing aggressiveness on tax avoidance. This creates the fourth hypothesis in this study, which states that:

H4: Financial constraints strengthen the positive effect of transfer pricing aggressiveness on tax avoidance.

Based on positive accounting theory, there is an understanding that company management is often involved in opportunistic behavior, which can lead to agency problems. Managers as agents, have various interests that may not always be in line with the interests of shareholders or the government. Managers' motivation to commit irregularities in the management of the company may arise from the need to reduce the costs they have to bear, including political costs associated with taxes. As stated by ³⁷ In situations where companies face limited funds, tax avoidance is a way to manage cash flow more efficiently. One of the strategies used to achieve this goal is income smoothing. Earnings smoothing allows managers to control fluctuations in reported earnings, thus providing a more stable view of the company's financial performance. By reducing reported profits in profitable years and increasing profits in less profitable years, companies can minimize the taxes that must be paid. Based on this explanation, it can be concluded that companies with limited funds will find stronger incentives to perform earnings smoothing, which in turn can strengthen tax avoidance. Thus, the fifth hypothesis in this study can be formulated as follows:

H5: Financial constraints strengthen the positive effect of income smoothing on tax avoidance.

Deteriorating economic conditions can lead to a decrease in business profits, which serve as a source of funding, resulting in financial constraints that hinder

³⁶ Edwards, Schwab, and Shevlin, "Financial Constraints and Cash Tax Savings."

³⁷ Chen and Lai, "Financial Constraint and Tax Aggressiveness."



companies from investing and growing their operations (Bank Indonesia, 2009). Financial constraints refer to a situation in which a company faces challenges due to limited cash resources. Financial constraints refer to the condition of companies with limited internal funding³⁸. Thin capitalization occurs when a company relies heavily on debt financing relative to its equity, resulting in a high level of leverage. As a company's debt level increases, so does the interest expense, which consequently lowers its taxable income (OECD, 2012). Taxable income can become smaller because in tax regulations, debt interest is a deductible expense. Therefore, companies can take advantage of incentives in the form of reducing the amount of tax due to interest expense. From the discussion provided, the sixth hypothesis proposed in this study is:

H6: Financial constraints strengthen the positive influence of thin capitalization on tax avoidance.

Based on these hypotheses, the following is the model framework in this study:

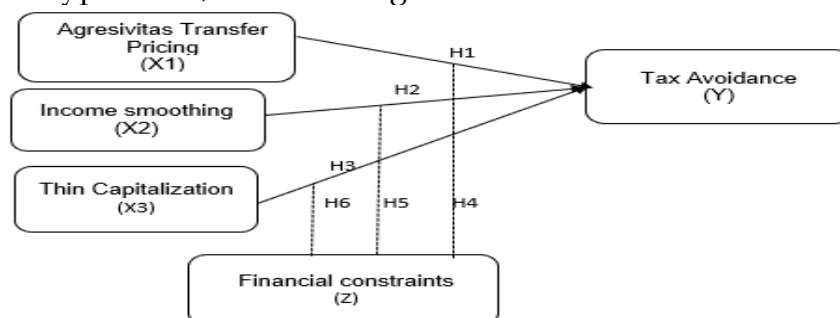


Figure 1. Research model

RESEARCH METHODS

Samples and Sampling Techniques

This study utilized a quantitative research methodology, drawing on secondary data from financial statements and annual reports sourced from the "Indonesia Stock Exchange (IDX)". The focus was on companies within the Consumer Non-Cyclicals and Basic Materials sectors during the period from 2017 to 2021. A purposive sampling technique was employed, resulting in a sample of 66 companies. This study analyzes the panel data form as many as 330 observations with the Fixed effect model approach. The dependent variable used in this study is tax avoidance. The author uses the Effective Tax Rate (ETR) proxy. There are three independent variables in this study are transfer pricing aggressiveness, income smoothing and thin capitalization and financial constraints as

³⁸ Yunsung Koh and Hyun-Ah Lee, "The Effect of Financial Factors on Firms' Financial and Tax Reporting Decisions," *Asian Review of Accounting* 23, no. 2 (2015): 110-138.



moderating variables. To minimize any errors that may arise in the testing process, this study uses the control variables return on assets ROA) and Leverage (LEV)

Variabel	Description / Formula	Code
Transfer Pricing Aggressiveness	Using a sumscore index with 7 (seven) indicators (Richardson et al, 2013; Utami, M. F et al, 2022): 1. related debts and receivables, 2. released related debts and receivables, 3. related debts and receivables with impirement, 4. related non-monetary liabilities, 5. no transfer pricing documents, 6. release of related assets 7. There is no justification for related party transactions. Each item is scored 1 if present and 0 if not, the result is divided by seven.	TPA
Income Smoothing	Indeks Eckel (1981): $CV \Delta I / CV S$	IS
Thin Capitalization	MAD Ratio: Average Total Debt/SHDA	TC
Financial Constraints	Indeks Whited & Wu (2006)	FC
Tax Avoidance	ETR: Current Tax Expense/Profit before Tax	TA (ETR x-1)
Return On Asset	Net Profit after Tax/Total Assets	ROA
Leverage	Total Debt/Total Assets	LEV

Description: Variable measurements are presented in Table 1

SHDA: safe harbor debt amount = (average assets - interest-free debt) \times 80%

Empirical Model

This research applies panel data analysis, which is a combination of cross-time data taken from various periods (Baltagi, 2013). The data analysis process includes several stages, namely "testing to identify outliers, descriptive statistical analysis, and various types of model testing such as Pooled Least Square (PLS), Fixed Effect Model (FEM), Chow test, Random Effect Model (REM), Hausman test, and Lagrange Multiplier (LM)." From a series of tests conducted, the "Fixed Effect Model (FEM)"



proved to be the most suitable model for this study, so it was chosen to be used in hypothesis testing. The regression model used in this study is:

$$ETR = \beta_0 + \beta_1 TPA + \beta_2 IS + \beta_3 TC + \beta_4 TPA*FC + \beta_5 IS*FC + \beta_6 TC*FC + \beta_7 SIZE + \beta_8 ROA + \varepsilon$$

Description:

- (1) ETR: Tax Avoidance
- (2) TPA: Transfer pricing aggressiveness
- (3) IS: Income smoothing
- (4) TC: Thin Capitalization
- (5) FC: Financial Constraints
- (6) SIZE: Size
- (7) ROA: Return on assets
- (8) β_0 : Constants
- (a) ε : Error.

RESULT AND DISCUSSION

Descriptive Analysis

Table 2: Descriptive Analysis

	TA	TPA	IS	TC	TPA_FC	IS_FC	TC_FC	ROA	LE
Mean	0.369	0.345	1.345	3.267	-0.393	-1.612	-3.337	0.382	3.019
Max	29.519	0.714	28.765	62.795	0.946	35.303	0.9505	13.744	51.54
Min	0,001	0.143	-26,50	-0.966	-1.431	-31.842	-60.280	0,0004	0
Std.D	2.235	0.1245	6.484	9.038	0.184	7.415	9.1709	1.5137	8.533
OBS	330	330	330	330	330	330	330	330	330

Source: Secondary Data processed, 2022.

Based on table 2 descriptive statistical test, it can be concluded that the average Effective Tax Rate is 0.369, the average Transfer pricing aggressiveness is 0.345 and the average Income smoothing is 1.345, the average Thin Capitalization is 3.267. These results clearly show that the source of capital of the companies studied is mostly debt ownership rather than equity. The highest value is also Thin Capitalization 62,795 while the lowest is Income smoothing -26.50. The mean value of Tax Avoidance 0.369 is smaller than the standard deviation of 2.2357, meaning that the data distribution is heterogeneous. The mean value of Transfer pricing aggressiveness 0.345 is greater than the standard deviation of 0.1245, meaning that the data distribution is homogeneous. The mean value of Income smoothing 1.345 is smaller than the standard deviation of 6.484, meaning that the data distribution is



heterogeneous. The mean value of Thin Capitalization 3.267 is smaller than the standard deviation of 9.038, meaning that the data distribution is heterogeneous.

Panel Data Model Determination Test

The chow test results show an rho value of 0.9525. if the value is > 0.5 , it means that the FEM model is better than CEM. then the LM test was carried out by showing the probability chibarsquare value was 0.3358. if the chisquare is $> 5\%$, it means that CEM is better. therefore the hausman test was carried out. the hausman test results show the probability chi square value is 0.0000. if the probability chibar value is $> 5\%$ then REM is better, but if $< 5\%$ then FEM is better. meaning that it can be concluded that the FEM is the best model. from the three test results, the Fix Effect Model (FEM) is the best model, then test the hypothesis while solving heteroscedasticity using robust regression using the Fix Effect Model (FEM).

Hypothesis Test

This test uses moderation regression analysis.

Table 3 Hypothesis Test Results

Variable	Predicted	Coefficient	t	P>t	Decision
TPA	+	6.04979	4.13	0.000	Accepted
IS	+	-0.8093	-9.74	0.000	Rejected
TC	+	0.5515	5.13	0.000	Accepted
TPA_FC	+	4.9386	4.83	0.000	Accepted
IS_FC	+	-0.2034	-2.36	0.019	Rejected
TC-FC	+	0.5585	5.21	0.000	Accepted
ROA		0.1170	1.63	0.104	
LEVERAGE		-0.1598	0.83	0.406	
R-Squared					0.5431
Adjusted R-Squared					0.5317
Prob F-Stat					0.0000

Source: Secondary data processed, 2022.

The findings of this study, Adjusted R-squared provides an overview of how well the regression model used can explain the variables studied. The Adjusted R-squared value obtained is 0.5317, which means 53.17%, indicating that there is a considerable influence of the independent variables analyzed on tax avoidance. Meanwhile, the F-test result is significant because "the F-statistic probability value is 0.00000, which is smaller than 0.05" indicating that the variables, when viewed together, contribute to changes in tax avoidance.

Based on the t test, the results obtained:



TPA has a value of $4.13 > 1.96$ and a significance value of $0.000 < 0.05$, it is concluded that there is a positive effect of transfer pricing aggressiveness on Tax Avoidance. The processing results show the TPA coefficient of 6.0497, meaning that if the transfer pricing aggressiveness increases by one unit, the Tax Avoidance increases by 6.0497 units. It is concluded that Hypothesis 1 is accepted. IS has a value of $-9.74 < 1.96$, it can be concluded that there is no positive effect of Income smoothing on Tax Avoidance. The processing results show the IS coefficient of -0.809, meaning that if Income smoothing increases by one unit, Tax Avoidance decreases by -0.809 units. It is concluded that Hypothesis 2 is rejected.

TC has a value of $5.13 > 1.96$ and a significance value of $0.000 < 0.05$, it is concluded that there is a positive effect of Thin Capitalization on Tax Avoidance. The processing results show the TC coefficient of 0.551, meaning that if Thin Capitalization increases by one unit, Tax Avoidance increases by 0.551 units. It is concluded that Hypothesis 3 is accepted.

TPA_FC has a significance value of $4.83 > 1.96$ and a significant value of $0.000 < 0.05$, it is concluded that Financial Constraints strengthen the positive effect of transfer pricing aggressiveness on Tax Avoidance. The processing results show that the coefficient of transfer pricing aggressiveness moderated by Financial Constraints is 4.9386, meaning that if Transfer Pricing Aggressiveness moderated by Financial Constraints increases by one unit, Tax Avoidance is 4.938 units. It is concluded that Hypothesis 4 is accepted.

IS_FC has a value of $-2.36 < 1.96$ Financial Constraints do not strengthen the positive effect of Income smoothing on Tax Avoidance. The processing results show the coefficient of Income smoothing moderated by Financial Constraints -0.203, meaning that if Income smoothing moderated by Financial Constraints increases by one unit, Tax Avoidance decreases by -0.203 units. It is concluded that Hypothesis 5 is rejected.

TC_FC has a significance value of $5.21 > 1.96$ and a significance value of $0.000 < 0.05$, it is concluded that Financial Constraints strengthen the positive influence of Thin Capitalization on Tax Avoidance. The processing results show that the Thin Capitalization coefficient moderated by Financial Constraints is 0.558, meaning that if Thin Capitalization moderated by Financial Constraints increases by one unit, Tax Avoidance increases by 0.558 units. It is concluded that Hypothesis 6 is accepted.

The regression equation is formed in a mathematical model:

$$\text{ETR} = 1.049 + 6.049\text{TPA} - 0.809\text{IS} + 0.551\text{TC} + 4.938\text{TPA_FC} - 0.203\text{IS_FC} + 0.588\text{TC_FC} + 0.117\text{ROA} - 0.015\text{LEV} + \text{Error}$$



DISCUSSIONS

Tax Avoidance Effect of Transfer Pricing Aggressiveness on Tax Avoidance

Based on the testing that has been done, the results show that “transfer pricing aggressiveness has a positive effect on tax avoidance”. This finding is consistent with research³⁹ Which shows that the higher the transfer pricing aggressiveness of a company, the higher the level of tax avoidance carried out. transfer pricing aggressiveness is a tax or financial benefit obtained by a company when using financial, economic and regulatory differences between jurisdictions that are not the same⁴⁰.

Tax Avoidance Effect of Income smoothing on Tax Avoidance

The findings of the analysis show that “income smoothing has no effect on tax avoidance”. This finding does not align with the research conducted⁴¹ shows that earnings management has a positive influence on tax avoidance.⁴² This means that when earnings management activities, such as income smoothing, increase, efforts to avoid taxes also tend to increase.⁴³ Earnings smoothing is carried out by companies to create consistency in earnings growth, so that financial results look more stable over time. In this way, companies can manage reported earnings to reduce their tax liabilities⁴⁴.

Tax Avoidance Effect of Thin Capitalization on Tax Avoidance

The findings of the analysis show that “thin capitalization has a positive effect on tax avoidance”. The greater the level of thin capitalization employed by the company, the more likely it is to rely on debt for financing, which increases the potential for tax avoidance. Thin capitalization is one of the main drivers of tax avoidance because it is able to provide incentives for companies to reduce taxable

³⁹ Taylor and Richardson, “International Corporate Tax Avoidance Practices: Evidence from Australian Firms.”

⁴⁰ Eden and Smith, “The Ethics of Transfer Pricing.”

⁴¹ Amidu, Coffie, and Acquah, “Transfer Pricing, Earnings Management and Tax Avoidance of Firms in Ghana.”

⁴² H A Aristyatama and A Bandiyono, “Transfer Pricing Aggressiveness, Income Smoothing, And Managerial Ability To Avoid Taxation,” *Jurnal Ilmiah Akuntansi Dan Bisnis* 16, no. 2 (2021): 279–297.

⁴³ Bandiyono and Murwaningsari, “Effect of Intra Group Transaction, Thin Capitalization and Executive Characters on Tax Avoidation with Multinationality as a Moderation.”

⁴⁴ Akbari, Salehi, and Bagherpour Vlashani, “The Relationship between Tax Avoidance and Firm Value with Income Smoothing: A Comparison between Classical and Bayesian Econometric in Multilevel Models.”



income through loan interest expense⁴⁵. Taxable income can be smaller because according to tax regulations, interest expense on debt is a deductible expense.⁴⁶ This discrepancy can be exploited by companies to minimize tax liabilities,⁴⁷ thereby maximizing corporate earnings through tax avoidance strategies.⁴⁸ The findings of this study align with research conducted by⁴⁹ which concluded that thin capitalization has a positive effect on tax avoidance. In line with this, research⁵⁰ conducted on listed companies on the Australian stock exchange stated that thin capitalization is one of the main drivers of tax avoidance and is used by publicly listed companies in Australia as an international tax avoidance tool.

Financial constraints strengthen the effect of Transfer Pricing Aggressiveness on Tax Avoidance

The results of this study indicate that “financial constraints moderate the effect of transfer pricing aggressiveness on tax avoidance”. It can be stated that financial constraints faced by a company enhance the positive impact of transfer pricing aggressiveness on tax avoidance. Consistent with this⁵¹ indicated that when a company faces financial constraints, having sufficient operating cash flow becomes essential, providing companies with stronger motivations to increase their operating cash flow through tax avoidance strategies. Factors that are expected to influence the results of this study include the attention of the tax authorities, which is shown by the issuance of “Minister of Finance Regulation Number 213 / PMK.03 / 2016” regarding the types of documents and / or additional information that must be kept by taxpayers who conduct transactions with related parties and the procedures for managing them. The obligation to prepare transfer pricing document may cause additional costs such as transportation costs, accommodation, equipment, costs to obtain comparative data and other obstacles both from the side of taxpayers and tax

⁴⁵ Taylor and Richardson, “International Corporate Tax Avoidance Practices: Evidence from Australian Firms.”

⁴⁶ Ibid.

⁴⁷ Jumailah, “Pengaruh Thin Capitalization Dan Konservatisme Akuntansi Terhadap Tax Avoidance Dengan Kepemilikan Institusional Sebagai Variabel Moderasi.”

⁴⁸ Falbo and Firmansyah, “Thin Capitalization, Transfer Pricing Aggressiveness, Penghindaran Pajak.”

⁴⁹ Nadhifah and Arif, “Transfer Pricing, Thin Capitalization, Financial Distress, Earning Management, Dan Capital Intensity Terhadap Tax Avoidance Dimoderasi Oleh Sales Growth.”

⁵⁰ Taylor and Richardson, “International Corporate Tax Avoidance Practices: Evidence from Australian Firms.”

⁵¹ Chen and Lai, “Financial Constraint and Tax Aggressiveness.”



authorities⁵². This causes companies in financial constraints to be more careful in using their cash due to the additional costs incurred and other obstacles experienced.

Financial constraints strengthen the effect of Income smoothing on Tax Avoidance

The findings of the analysis that has been carried out, show the result that “financial constraints cannot moderate the effect of earnings smoothing on tax avoidance”. This indicates that as a company’s financial constraints increase, the impact of income smoothing on its tax avoidance efforts will be diminished. The findings of this study do not align with the research conducted by⁵³ which states that earnings management has a positive effect on tax avoidance. Based on this explanation, it can be stated that companies facing financial constraints will not necessarily become more aggressive in income smoothing efforts.

Financial constraints strengthen the influence of thin capitalization on Tax Avoidance

The findings of the analysis that has been done, shows “financial constraints can moderate the effect of thin capitalization on tax avoidance”. The results of this study prove an indication that the company's internal funding sources under financial constraints are carried out through tax avoidance practices with thin capitalization schemes. Through aggressive tax avoidance practices, companies experiencing financial constraints can save cash in order to increase internal funding sources to deal with investment shortages⁵⁴. Therefore, it can be said that in conditions of financial constraints companies tend to do tax avoidance with thin capitalization to increase the company's internal funding sources.

CONCLUSION

This study concludes several main things, such as transfer pricing aggressiveness and thin capitalization practices have a positive impact on corporate tax avoidance. In contrast, earnings smoothing does not have a significant effect on tax avoidance. In addition, the condition of limited corporate funds does not moderate the relationship between earnings smoothing and tax avoidance. However, the limited funds strengthen the relationship between transfer pricing

⁵² Rikana Brilliant Putri Indah and Astri Fitria, “Kerikil Tajam Transfer Pricing Pada Perusahaan Multinasional Serta Dampak Terhadap Laporan Keuangan,” *Jurnal Ilmu Dan Riset Akuntansi (JIRA)* 8, no. 10 (2019).

⁵³ Amidu, Coffie, and Acquah, “Transfer Pricing, Earnings Management and Tax Avoidance of Firms in Ghana.”

⁵⁴ Firmansyah and Bayuaji, “Financial Constraints, Investment Opportunity Set, Financial Reporting Aggressiveness, Tax Aggressiveness: Evidence from Indonesia Manufacturing Companies.”



aggressiveness and tax avoidance, and increase the positive effect of thin capitalization on tax avoidance, but do not affect the relationship between earnings smoothing and tax avoidance.

From the data processing and analysis conducted, it can be concluded that thin capitalization, transfer pricing aggressiveness and financial constraints are the driving factors of companies in conducting tax avoidance. Through thin capitalization practices, companies can take advantage of loan interest expense reduction facilities so that the tax charged becomes smaller. Companies tend to conduct transfer pricing aggressiveness with related parties to optimize their global income through tax avoidance. Financial constraints conditions will make companies increase internal funding sources with cash savings through reduced tax costs. Companies under financial constraints tend to conduct thin capitalization in the context of tax avoidance, but tend not to conduct transfer pricing aggressiveness due to the risk of additional costs that will be incurred

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