ICE-BEES (2025): 35-46
International Conference on Economics, Business, and Economic Education Science

QRCBN 62-6861-8367-215
https://proceeding.unnes.ac.id/ice-bess

Determinants of Transfer Pricing Practices in Indonesia: The Moderating Role of Leverage

Ain Hajawiyah[1], Kiswanto[2], Trisni Suryarini[3], Anisa Dwi Apriliyani[4]

[1, 2,3,4] *Department of Accounting, Faculty of Economics and Business, Universitas Negeri Semarang*

Abstract

Transfer pricing practices in Indonesia are commonly used by taxpayers to reduce tax liabilities by shifting profits to countries with lower tax rates. This study investigates the determinants of transfer pricing decisions among multinational companies, with leverage serving as a moderating variable. The research focuses on multinational firms listed on the Indonesia Stock Exchange (IDX) from 2019 to 2022, excluding those in the financial, construction, shipping, and aviation sectors. Using purposive sampling, 88 companies (222 observation units) were selected. Secondary data were obtained from financial reports and analyzed using panel data regression and moderated regression analysis with EViews 12. The results show that tax minimization has a significant negative effect on transfer pricing, while tunneling incentives show no effect. The exchange rate, however, has a significant positive influence. Leverage is found to strengthen the effects of tax minimization and tunneling incentives, but to weaken the effect of the exchange rate on transfer pricing. This study highlights the moderating role of leverage and provides insights based on multinational companies listed on the IDX during the 2019–2022 period, excluding selected sectors.

Keywords

Transfer Pricing, Tax Minimization, Tunneling Incentive, Exchange Rate, Leverage

INTRODUCTION

A country requires revenue to support the development of various sectors. In Indonesia, there are three primary sources of state revenue, namely taxes, non-tax state revenue (PNBP), and grants, as stated in Law Number 17 of 2003 on State Finance. In 2022, state revenue from the national budget (APBN) reached IDR 2,626.4 trillion, with tax revenue amounting to IDR 2,034.5 trillion (77%). This indicates that most of the state revenue comes from taxes.

The government continuously strives to increase tax revenues each year. A country's tax performance is measured through the tax ratio, which compares tax revenue to Gross Domestic Product (GDP). A higher tax ratio indicates better tax collection performance. In 2021, Indonesia's tax ratio reached 10.9%, according to the Organization for Economic Cooperation and Development (OECD). Despite the increase, Indonesia ranked fifth lowest in the Asia-Pacific region. The low tax ratio is due to suboptimal tax collection, particularly because of a heavy reliance on corporate income tax. In 2022, data from the Directorate General of Taxes (DGT) showed that corporate income tax accounted for nearly 20% of total tax revenue, while the OECD average for corporate tax contributions was around 10%.

Indonesia's heavy reliance on corporate income tax makes it more difficult to improve the tax ratio. This situation arises because companies generally consider taxes as a burden that reduces their net income, prompting them to find ways to minimize their tax liabilities. One increasingly common method used by companies to avoid taxes is transfer pricing (Agata et al., 2021). Thus, transfer pricing practices can indirectly contribute to a low tax ratio.

Transfer pricing refers to a policy used by companies to set transfer prices for goods, services, and intangible assets traded with subsidiaries or related parties across different countries (Lestari et al., 2021). It is often employed as a manipulation tool to reduce net income

and create the appearance of a loss to avoid taxes, especially in countries with lower tax rates. Transfer pricing is measured using the Related Party Transaction of Asset and Liability (RPT AL). RPT AL indicates potential transfer pricing from both inflows (purchases) and outflows (sales) with related parties. This proxy analyzes assets and loans from related parties, where companies may acquire assets at higher prices or sell them below fair value. RPT AL also monitors related-party loans, which are often used to manipulate transfer pricing for tax avoidance purposes. Therefore, RPT AL is considered a more accurate proxy for measuring transfer pricing.

An example of a transfer pricing case in Indonesia involves PT Adaro Energy Tbk. In 2019, the company was suspected of engaging in tax avoidance through transfer pricing via its subsidiary in Singapore, Coaltrade Services International Pte Ltd. Adaro allegedly shifted revenue and profits abroad to reduce its tax obligations to the Indonesian government. They reportedly sold coal from Indonesian mines at low prices to Coaltrade, which then resold it at higher prices, potentially reducing Adaro's tax payments by USD 125 million. Global Witness noted that over 70% of Coaltrade's coal sales between 2009–2017 originated from Adaro's Indonesian mines. This practice was enabled by Singapore's lower tax rate of around 10%, compared to Indonesia's rate of up to 50%, allowing Adaro to exploit tax rate differences to avoid its obligations.

One of the factors influencing transfer pricing is tax minimization. Suandy (2016) stated that an increase in a company's tax burden directly reduces its net income. To address this, companies tend to implement tax minimization strategies to manage their tax obligations. Tax minimization refers to strategies employed by companies to reduce their tax burdens (Suryarini et al., 2021). This is a common approach for maintaining optimal net income.

This supports the agency theory proposed by Jensen and Meckling (1976). In the context of taxation, agency problems may arise between the tax authority (fiscus) and taxpayers (companies) (Reinganum & Wilde, 1985). The fiscus aims to maximize tax revenues, while companies seek to minimize tax burdens to maximize profits. This divergence of interests encourages companies to reduce their tax burdens through strategies such as transfer pricing, whereby they shift costs and profits to affiliates in lower-tax jurisdictions. Mangoting (2000) in Suryarini et al. (2021) stated that companies frequently use transfer pricing to minimize tax burdens. Therefore, the greater the company's effort to reduce taxes, the more likely it is to engage in transfer pricing. Tax minimization is measured using the tax planning proxy: statutory tax rate (STR) minus effective tax rate (ETR), divided by pre-tax income.

Previous studies by Alino & Lane (2015), Marfuah et al. (2021), and Devi & Suryarini (2020) found a positive and significant effect of tax minimization on transfer pricing decisions. The greater the effort to reduce tax obligations, the more likely companies are to use transfer pricing. However, studies by Makhmudah & Djohar (2021) and Lutfia & Sukirman (2021) found a negative and significant effect, suggesting that greater tax obligations increase the motivation to avoid taxes through various methods, including transfer pricing. Meanwhile, Putri & Lindawati (2023) found no effect, arguing that tax minimization efforts do not always lead to transfer pricing. These inconsistencies in previous findings prompt further investigation into the effect of tax minimization on transfer pricing.

Another factor influencing transfer pricing is tunneling incentive. Tunneling incentive refers to the transfer of assets or profits for the benefit of majority shareholders, often at the expense of minority shareholders (Yuliana et al., 2021). Ownership structure plays a role in this behavior. Satria & Alamsyahbana (2022) differentiate between dispersed and concentrated ownership structures. In dispersed ownership, managers tend to prioritize their interests over shareholders, while in concentrated ownership, majority shareholders have more control and oversight.

In developing countries such as Indonesia, concentrated ownership—often dominated by founding families—can lead to agency conflicts between majority and minority shareholders. Majority shareholders, having greater access to company information, may use their power to shift assets and profits for personal gain. One form of tunneling is transferring resources through related-party transactions using transfer pricing. Unlike dividend payments, related-party

transactions are more commonly used to achieve this purpose, potentially disadvantaging minority shareholders when prices benefit the majority shareholders.

Tunneling incentive is measured by the ratio of the largest shareholder's ownership to total outstanding shares. Studies by Thinh & An (2023), Baroroh et al. (2021), Lutfia & Sukirman (2021), Putri & Lindawati (2023), and Rahmadhani & Ananda (2022) found that tunneling incentives positively and significantly affect transfer pricing. However, Lo et al. (2010) and Susanti & Firmansyah (2018) reported a negative effect, and others such as Suryarini et al. (2020), Rahayu et al. (2020), and Devita & Sholikhah (2021) found no effect. These mixed results justify the need to re-examine the effect of tunneling incentives on transfer pricing.

Another influencing factor is the exchange rate. Cahyadi & Noviari (2018) explain that exchange rate fluctuations create risks for companies dealing with foreign currencies. Exchange rates affect both foreign currency transactions and profit or loss disclosures (Satria & Alamsyahbana, 2022). For multinational firms, whose cash flows involve various currencies, exchange rate movements can affect product prices and profits. Agency theory suggests that individuals are self-interested and risk-averse. Consequently, companies may use transfer pricing to mitigate exchange rate risks and optimize profits. Exchange rate is measured as foreign exchange gains/losses divided by pre-tax income.

Studies by Alino & Lane (2021), Chan et al. (2011), Devi & Suryarini (2020), Solihin & Utami (2022), and Putri & Lindawati (2023) show a positive and significant effect of exchange rates on transfer pricing. As foreign currencies appreciate, companies may gain from exchange differences and prefer to engage in export transactions through transfer pricing. Conversely, Devita & Sholikhah (2021) found a negative effect, while Rahayu et al. (2020), Marfuah et al. (2021), and Makhmudah & Djohar (2023) found no significant effect. These discrepancies again prompt further investigation into the relationship between exchange rates and transfer pricing.

Due to the inconsistencies in previous research findings regarding tax minimization, tunneling incentive, and exchange rate, this study includes a moderating variable: leverage. Leverage refers to the ratio measuring how much of a company's assets are financed through debt or equity (Rahayu et al., 2020). It reflects how effectively a company balances its debt with equity and is proxied by the Debt-to-Equity Ratio (DER), calculated by dividing total liabilities by total equity.

Leverage is used as a moderating variable because companies often rely on debt for operational and investment purposes. According to the debt covenant hypothesis in positive accounting theory, companies with higher debt ratios are more likely to adopt strategies to maximize profits. Therefore, leverage may strengthen the relationship between independent variables (tax minimization, tunneling incentive, and exchange rate) and the dependent variable (transfer pricing).

Leverage can strengthen the effect of tax minimization on transfer pricing. Companies with high debt levels incur higher interest expenses, which can be used to reduce taxable income, leading to tax avoidance strategies such as transfer pricing (Rezky & Fachrizal, 2018). Similarly, leverage can reinforce the effect of tunneling incentive. In situations where majority shareholders seek to maximize personal gains, high leverage may intensify the use of transfer pricing to shift profits. Leverage can also heighten the sensitivity of firms to exchange rate fluctuations. Companies with high foreign debt exposure may use transfer pricing more aggressively to manage exchange rate risks and maintain financial stability.

Previous studies on transfer pricing have been limited to multinational companies due to the high incidence of transfer pricing cases among them. Multinational corporations, with operations in multiple countries, are more prone to such practices. Based on these considerations, this study focuses on multinational companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2022 period.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

One of the factors influencing transfer pricing is tax minimization. Tax minimization is a strategy undertaken by companies to reduce their tax burden (Suryarini et al., 2021). This supports agency theory as proposed by Jensen and Meckling (1976). In the context of taxation,

agency problems may occur between the tax authority (fiscus) and the taxpayer (company) (Reinganum & Wilde, 1985). While the fiscus seeks to maximize tax revenue, companies aim to minimize tax burdens to increase profit. This conflict of interest drives companies to reduce their tax obligations to achieve maximum profitability. Mangoting (2000) in Suryarini et al. (2021) noted that companies frequently utilize transfer pricing as a strategy to minimize tax burdens. Thus, the greater the effort to reduce tax expenses, the higher the likelihood of using transfer pricing. Tax minimization is measured using a tax planning proxy, calculated as the statutory tax rate (STR) minus the effective tax rate (ETR), divided by pre-tax income.

Studies by Alino & Lane (2015), Devi & Suryarini (2020), and Marfuah et al. (2021) found a positive effect of tax minimization on transfer pricing decisions, indicating that the greater the company's efforts to minimize tax liabilities, the more likely it is to engage in transfer pricing as a strategy. Based on these arguments and prior research, the following hypothesis is proposed:

H1: Tax minimization has a positive effect on transfer pricing.

Another factor influencing transfer pricing is tunneling incentive. Tunneling incentive refers to the transfer of company assets or profits to benefit majority shareholders, with minority shareholders bearing the associated costs (Yuliana et al., 2023). This also aligns with agency theory by Jensen and Meckling (1976). Agency problems in this context occur between principals (majority shareholders) and other principals (minority shareholders), as each party tends to act in their own interest, creating information asymmetry that can be exploited by majority shareholders (Jafri & Mustikasari, 2018).

One form of tunneling is when controlling shareholders transfer company resources through related-party transactions. In such practices, they attempt to shift assets temporarily to affiliated or subsidiary companies using transfer pricing, with the goal of lowering costs and ultimately reducing the company's reported profits. Tunneling incentive is measured using a tunneling proxy, calculated by dividing the largest shareholding by total shares outstanding.
Studies by Thinh & An (2023), Putri & Lindawati (2023), Baroroh et al. (2021), and Lutfia & Sukirman (2021) found a positive relationship between tunneling incentive and transfer pricing decisions. The greater the ownership concentration, the higher the likelihood of a company engaging in transfer pricing practices. Based on these findings, the following hypothesis is proposed:

H2: Tunneling incentive has a positive effect on transfer pricing.

Another factor affecting transfer pricing is the exchange rate. Cahyadi & Noviari (2018) stated that exchange rate risk arises from fluctuations in the value of one currency against another. The relationship between exchange rate and international trade is highly significant, as multinational corporations conduct cash flows in multiple currencies. These currencies fluctuate relative to the US dollar over time (Lestari et al., 2021), impacting the pricing of goods and services traded internationally. This prompts companies to find ways to mitigate such risks.

In line with agency theory, which assumes that individuals are self-interested and risk-averse, managers may adopt transfer pricing strategies to avoid exchange rate risks. Transfer pricing allows managers to transfer funds into stronger currencies with the aim of optimizing profits. Exchange rate is measured by dividing foreign exchange gains or losses by pre-tax profit.
Studies by Chan et al. (2011), Alino & Lane (2015), Devi & Suryarini (2020), Solihin & Utami (2022), and Putri & Lindawati (2023) found a positive effect of exchange rates on transfer pricing decisions, suggesting that currency appreciation can influence companies to engage in transfer pricing. Based on this argument, the hypothesis is:

H3: Exchange rate has a positive effect on transfer pricing.

This study uses leverage as a moderating variable. Leverage is a ratio used to measure the extent to which a company's assets are financed through debt or equity (Rahayu et al., 2020). It is proxied by the Debt to Equity Ratio (DER), calculated by dividing total liabilities by total equity. Prior studies (Richardson et al., 2013; Huu Anh et al., 2018; Wahyudi et al., 2021; Devita & Sholikhah, 2021; Solihin & Utami, 2022; Rahmadhani & Ananda, 2022) found that leverage consistently affects transfer pricing.

Tax minimization, as a strategy to reduce tax burdens (Suryarini et al., 2021), supports the positive accounting theory proposed by Watts and Zimmerman (1986), particularly the debt covenant hypothesis, which states that the higher a company's debt-to-equity ratio, the more likely managers are to choose accounting methods that increase reported profits. Rezky & Fachrizal (2018) argue that high debt levels lead to increased interest expenses, which can be used to lower tax liabilities. Companies often use interest expenses as a form of tax avoidance, and leverage can strengthen the effect of tax minimization on transfer pricing.

H4: Leverage strengthens the effect of tax minimization on transfer pricing.

Tunneling incentive refers to the transfer of company assets or profits for the benefit of majority shareholders, often to the detriment of minority shareholders (Yuliana et al., 2023). This also supports the positive accounting theory under the debt covenant hypothesis (Watts & Zimmerman, 1986). Companies with high debt-to-equity ratios are more likely to engage in accounting choices that increase earnings. High leverage can strengthen a company's ability to engage in tunneling through transfer pricing, especially when majority shareholders seek to maximize personal benefits.

H5: Leverage strengthens the effect of tunneling incentive on transfer pricing.

Cahyadi & Noviari (2018) stated that exchange rate risk arises from currency fluctuations. In line with positive accounting theory and the debt covenant hypothesis, companies with high leverage are more likely to adopt income-increasing accounting policies. Highly leveraged firms may be more sensitive to exchange rate fluctuations, especially when debt is denominated in foreign currencies. As a result, such firms may more aggressively use transfer pricing to manage risks related to currency fluctuations.

H6: Leverage strengthens the effect of exchange rate on transfer pricing.

METHODS

This study employs a quantitative approach. The research design used is a hypothesis testing study. The study utilizes secondary data, which are sourced from the annual reports of multinational companies listed on the Indonesia Stock Exchange (IDX) for the period 2019–2022. These reports were obtained from the official IDX website (www.idx.co.id) and the official websites of the respective companies. The population in this study consists of multinational companies listed on the IDX during the 2019–2022 period, excluding companies in the financial, construction, shipping, and aviation sectors, as these industries are subject to final tax regulations. The sampling method used in this study is purposive sampling, a technique where samples are selected based on specific criteria relevant to the research objectives to ensure the appropriateness and adequacy of the data. The following are the criteria for sample selection used in this study:

Table 1. Sample Selection Criteria

No	Criteria	2019	2020	2021	2022	Total
1	Multinational companies listed on the Indonesia Stock Exchange (IDX) during the 2019–2022 period, excluding companies in the financial, construction, shipping, and aviation sectors.	88	88	88	88	352

2	Multinational companies that did not publish their annual reports and financial statements during the 2019–2022 period.	(0)	(0)	(0)	(1)	(1)
3	Multinational companies that incurred losses during the 2019–2022 period.	(20)	(27)	(15)	(16)	(78)
4	Companies that did not disclose related party asset and liability transactions during the 2019–2022 period.	(6)	(7)	(7)	(7)	(27)
5	Companies that did not report foreign exchange gains (losses) during the 2019–2022 period.	(5)	(6)	(6)	(7)	(23)
The number of companies used as the research sample.		**57**	**48**	**60**	**58**	**222**

The dependent variable in this study is transfer pricing. The independent variables used in this study are tax minimization, tunneling incentive, and exchange rate. The moderating variable used is leverage. The following table presents the operational definitions of the variables used in this study.

Table 2. Operational Definitions of Variables

No	Variable	Operational Definition	Proxy
		Dependent Variable	
1	*Transfer Pricing*	Transfer pricing is a policy used by companies to determine the transfer price of goods, services, and intangible assets traded with subsidiaries or related parties that have special relationships across different countries (Lestari et al., 2021).	$RPT\ AL : \frac{RPT\ Asset + RPT\ Liabilities}{Equity}\ x\ 100$ (Devita & Sholikhah, 2021)
		Independent Variables	
2	*Tax Minimization*	Tax minimization is a strategy undertaken by companies to reduce their tax burden (Suryarini et al., 2021).	$Tax\ Planning = (STR - ETR)\ x\ Pr$ (Mgammal, 2020)
3	*Tunneling Incentive*	Tunneling incentive refers to the activity of transferring a company's assets or profits with the aim of benefiting the majority shareholders. However, this action involves certain costs that must also be borne by the minority shareholders (Yuliana et al., 2023).	$TNC : \frac{argest\ shareholders\ ownership}{Number\ of\ shares\ outstanding}\ x\ 10$ (Devita & Sholikhah, 2021)
4	*Exchange Rate*	Exchange rate, or currency exchange rate, represents a risk that arises from the fluctuation of one currency's value against another (Cahyadi & Noviari, 2018).	$EXR : \frac{Foreign\ Exchange\ Profit\ and\ Loss}{Pre\ Tax\ Profit}$ (Devita & Sholikhah, 2021)
		Moderating Variable	
5	*Leverage*	Leverage is a ratio used to measure the extent to which a company's assets are financed by debt or equity (Rahayu et al., 2020).	$DER : \frac{Total\ Debt}{Total\ Equity}$ (Devita & Sholikhah, 2021)

The data analysis technique applied in this study is a quantitative data analysis method, consisting of descriptive analysis and inferential analysis. Descriptive statistical analysis is used to describe the profile of each research variable individually. Inferential statistical analysis, commonly employed in quantitative research, is used to test the research hypotheses formulated based on the theoretical framework. Inferential statistics in this study include model

testing, classical assumption testing, moderated regression analysis, and model feasibility testing. The analytical tools used in this study are panel data regression analysis and moderated regression analysis (MRA), conducted with the assistance of EViews 12 software. The moderated regression equations used in this study can be formulated as follows:

$$TP_{(i,t)} = \alpha + \beta_1 TM_{(i,t)} + \beta_2 TNC_{(i,t)} + \beta_3 EXR_{(i,t)} + \beta_4 LEV_{(i,t)} + \beta_5 TM*LEV_{(i,t)} + \beta_6 TNC*LEV_{(i,t)} + \beta_7 EXR*LEV_{(i,t)} + e$$

Where:

TP	= Transfer pricing
α	= constant
β_{1-6}	= regression coefficient
TM	= Tax minimization
TNC	= Tunneling incentive
EXR	= Exchange rate
LEV	= Leverage
TM*LEV	= interaction between tax minimization and leverage
TNC*LEV	= interaction between tunneling incentive and leverage
EXR*LEV	= interaction between exchange rate and leverage
e	= error
i	= company
t	= year

RESULTS AND DISCUSSION

Table 3 below shows the descriptive statistics. The results of the descriptive analysis show that the total number of observations (N) in this study is 222 units of analysis. This number represents the research data collected over a four-year observation period from 2019 to 2022. The table also presents the minimum, maximum, mean, and standard deviation values for each research variable. These figures provide descriptive statistical information for the variables of transfer pricing, tax minimization, tunneling incentive, exchange rate, and leverage.

Table 3. Descriptive statistics results

	TP	TM	TNC	EXR	LEV
Mean	0.141452	-0.071582	0.545968	0.017866	1.153627
Median	0.036407	-0.006824	0.539462	-0.000028	0.854719
Maximum	6.913667	5.936005	0.971601	5.759272	7.940695
Minimum	0.000074	-4.789355	0.053753	-3.158007	0.000747
Std. Dev	0.515454	0.599805	0.172506	0.490406	1.247326
Observations	222	222	222	222	222

Source: Secondary data processed, 2024

Based on the results of the Chow test and Hausman test, it can be concluded that the most appropriate model for panel data regression in this study is the Fixed Effect Model (FEM). This study has passed the classical assumption tests, including normality, heteroscedasticity, and multicollinearity tests. The following table presents the moderated regression analysis (MRA) results. Table 4 below shows the hypothesis testing results.

Table 4. Hypothesis Testing Result

Hypothesis	Coefficient	Prob.	Conclusions
H1. *Tax Minimization* (TM) positively affects *Transfer Pricing*	-0.204336	0.0102	Rejected
H2. *Tunneling Incentive* (TNC) positively affect *Transfer Pricing*	0.173638	0.4935	Rejected
H3. *Exchange Rate* (EXR) positively affects *Transfer Pricing*	0.394308	0.0001	Accepted
H4. *Leverage* (LEV) strengthens the effect of *Tax Minimization* (TM) on *Transfer Pricing*	-0.95346	0.0013	Accepted
H5. *Leverage* (LEV) strengthens the effect of *Tunneling Incentive* (TNC) on *Transfer Pricing*	0.184919	0.0180	Accepted
H6. *Leverage* (LEV) strengthens the effect of *Exchange Rate* (EXR) on *Transfer Pricing*	-0.102559	0.0220	Rejected

Source: Secondary data processed, 2024

The R^2 test results show an Adjusted R-Squared value of 0.880471. This coefficient of determination indicates that the independent variables—tax minimization, tunneling incentive, exchange rate, as well as the interactions between tax minimization and leverage, tunneling incentive and leverage, and exchange rate and leverage—are able to explain transfer pricing by 88.04%, while the remaining 11.96% (100% - 88.04%) is influenced by other variables outside this study.

Tax Minimization Has a Negative Effect on Transfer Pricing

Based on Table 4, the t-test results on the effect of tax minimization on transfer pricing show a probability value of 0.0102 and a regression coefficient of -0.204336. The negative regression coefficient indicates a negative effect. Thus, H1 is rejected because the coefficient value is not in line with the hypothesis. This result provides evidence that tax minimization (TM) has a significant negative effect on transfer pricing. This means that the greater the tax minimization undertaken by a company, the lower the level of transfer pricing practiced. Conversely, the lower the tax minimization, the higher the transfer pricing activity.

This finding supports the agency theory of Jensen and Meckling (1976). According to this theory, the principal or company owner delegates management to agents or managers with the necessary capabilities (Fauziah & Saebani, 2018). The theory explains that tax minimization efforts by management can trigger agency conflicts due to information asymmetry, in which principals only obtain information through financial statements. Although the arm's length principle should be applied to reduce taxes, management often uses transfer pricing as a strategy. Management exploits information asymmetry to engage in excessive transfer pricing, particularly in companies with income from multiple countries, to reduce corporate tax obligations and avoid high tax burdens. While this benefits management, unreasonable use of transfer pricing can harm stakeholders and the company's performance. However, the more tax planning aligns with regulations, the lower the level of transfer pricing, since management prefers compliant strategies.

This study supports previous research by Makhmudah & Djohar (2023) and Lutfia & Sukirman (2021), which found that tax minimization has a significant negative effect on transfer pricing. It differs from other studies, such as Alino & Lane (2015), Devi & Suryarini (2020), and Marfuah et al. (2021), which found a significant positive effect, and from Putri & Lindawati (2023), which found no effect at all.

Tunneling Incentive Has No Effect on Transfer Pricing

According to Table 4, the t-test results show that the tunneling incentive variable has a probability value of 0.4935 and a regression coefficient of 0.173638. The positive regression

coefficient suggests a positive effect. However, H2 is rejected because the probability value exceeds the significance level of α = 0.05 (0.4935 > 0.05). This provides evidence that tunneling incentive (TNC) has no significant effect on transfer pricing.

This implies that the extent of tunneling incentive within a company does not influence its transfer pricing practices. It indicates that controlling shareholders do not use their authority to direct management to engage in transfer pricing. According to Wiratno (2017), a high percentage of ownership is not a decisive factor in a company's transfer pricing decisions. This finding contradicts agency theory, which suggests that managers may exercise discretion through transfer pricing to shift company assets (Devita & Sholikhah, 2021). Although controlling shareholders possess more information than minority shareholders, this does not influence the company's transfer pricing practices. Additionally, more companies are engaging in Advance Pricing Agreements (APA) under Article 18(3a) of the Income Tax Law, making them more cautious in foreign-related transactions, especially between parent and subsidiary companies.

This study supports previous findings by Devita & Sholikhah (2021), Suryarini et al. (2020), and Rahayu et al. (2020), which found no effect of tunneling incentive on transfer pricing. It contrasts with studies by Thinh & An (2023), Putri & Lindawati (2023), Baroroh et al. (2021), and Lutfia & Sukirman (2021), which found a significant positive effect. It also differs from findings by Lo et al. (2010) and Susanti & Firmansyah (2018), who found a significant negative effect.

Exchange Rate Has a Positive Effect on Transfer Pricing

Table 4 shows that the exchange rate variable has a probability value of 0.0001 and a regression coefficient of 0.394308. The positive coefficient indicates a positive effect. Therefore, H3 is accepted because the probability value is less than α = 0.05 (0.0001 < 0.05). This result demonstrates that the exchange rate (EXR) has a significant positive effect on transfer pricing. This means that the higher the exchange rate risk faced, the higher the likelihood of a company engaging in transfer pricing.

The relationship between exchange rate and international trade is highly significant because the cash flows of multinational companies involve multiple currencies, whose values fluctuate relative to the US dollar over time (Lestari et al., 2021). These fluctuations impact the pricing of goods and services in trade, prompting companies to find ways to mitigate such risks. In line with agency theory—which assumes that individuals are self-interested and risk-averse—transfer pricing becomes a strategy adopted by management to mitigate currency risks by shifting funds to stronger currencies to maximize profits. Therefore, the greater the exchange rate risk, the higher the likelihood of engaging in transfer pricing.

This study supports previous research by Chan et al. (2011), Alino & Lane (2015), Devi & Suryarini (2020), Solihin & Utami (2022), and Putri & Lindawati (2023), which found a positive effect of exchange rate on transfer pricing. However, it contrasts with Devita & Sholikhah (2021), who found a significant negative effect, and with Makhmudah & Djohar (2023), Rahayu et al. (2020), and Marfuah et al. (2021), who reported no effect of tunneling incentive on transfer pricing.

Leverage Strengthens the Effect of Tax Minimization on Transfer Pricing

Based on Table 9, the t-test results show that leverage (LEV) moderates the relationship between tax minimization (TM) and transfer pricing (TP) with a probability value of 0.0013 and a regression coefficient of -0.95346, indicating a negative effect. The direct effect of tax minimization (TM) on transfer pricing also shows a negative regression coefficient of -0.204336. Thus, both the direct and moderating effects have negative coefficients, indicating that leverage (LEV) strengthens the negative influence of tax minimization (TM) on transfer pricing. Therefore, H4 is accepted, as the probability value is less than α = 0.05 (0.0013 < 0.05).

Tax minimization is a strategy undertaken by companies to reduce their tax burden (Suryarini et al., 2021). This supports the positive accounting theory proposed by Watts and Zimmerman in 1986, specifically the debt covenant hypothesis, which suggests that the higher a company's debt-to-equity ratio, the greater the likelihood that managers will choose accounting

methods that increase reported profits. Rezky & Fachrizal (2018) argue that when a company has a high level of debt, it results in increased interest expenses. These increased interest expenses can be used to reduce the company's tax obligations. Companies may take advantage of these expenses for tax avoidance purposes and often use transfer pricing as a strategy to minimize their tax burden. Therefore, leverage can amplify the influence of tax minimization on transfer pricing.

This finding is consistent with prior studies by Lutfia & Sukirman (2021) and Devi & Suryarini (2020), which show that leverage can strengthen the effect of tax minimization on transfer pricing. The higher the debt ratio, the greater the incentive for managers to optimize transfer pricing strategies to reduce tax liabilities.

Leverage Strengthens the Effect of Tunneling Incentive on Transfer Pricing

Table 9 also shows that leverage (LEV) moderates the relationship between tunneling incentive (TNC) and transfer pricing (TP) with a probability value of 0.0180 and a regression coefficient of 0.184919, indicating a positive effect. The direct effect of tunneling incentive (TNC) on transfer pricing also shows a positive regression coefficient of 0.173638. Therefore, both the direct and moderating effects are positive, indicating that leverage (LEV) strengthens the influence of tunneling incentive (TNC) on transfer pricing. Thus, H5 is accepted, as the probability value is below $\alpha = 0.05$ ($0.0180 < 0.05$) and the regression coefficient is positive.

Tunneling incentive refers to the transfer of assets or income by controlling shareholders for their benefit, often at the expense of minority shareholders who bear part of the cost (Yuliana et al., 2023). This finding supports the positive accounting theory proposed by Watts and Zimmerman in 1986 under the debt covenant hypothesis. The hypothesis explains that a higher debt-to-equity ratio increases the likelihood that managers will choose accounting methods to boost company profits. High leverage may encourage tunneling activities through transfer pricing, especially when majority shareholders seek to maximize personal gain. Therefore, leverage can strengthen the effect of tunneling incentive on transfer pricing.

However, this finding contradicts the study by Lutfia & Sukirman (2021), which found that leverage weakens the influence of tunneling incentive on transfer pricing. This discrepancy may arise because higher debt from creditors leads to stricter oversight of company operations. This oversight includes leverage as part of external corporate governance mechanisms.

Leverage Weakens the Effect of Exchange Rate on Transfer Pricing

According to Table 9, leverage (LEV) moderates the effect of exchange rate (EXR) on transfer pricing (TP) with a probability value of 0.0220 and a regression coefficient of -0.102559, indicating a negative effect. The direct effect of exchange rate (EXR) on transfer pricing has a positive coefficient of 0.394308. Given that the direct effect is positive and the moderating effect is negative, it can be concluded that leverage (LEV) weakens the influence of exchange rate (EXR) on transfer pricing. Therefore, H6 is rejected, even though the probability value is less than $\alpha = 0.05$ ($0.0220 < 0.05$), because the regression coefficient is negative.

Exchange rate refers to the risk that arises from fluctuations in the value of one currency against another (Cahyadi & Noviari, 2018). Business activities involving foreign affiliates lead to transactions that are affected by exchange rate differences. This condition motivates companies to engage in transfer pricing by shifting funds to stronger currencies to gain overall benefits. However, when a company carries high debt, managerial oversight is not only exercised by shareholders but also by creditors. This aligns with agency theory proposed by Jensen and Meckling (1976), which explains the conflict of interest between agents and principals, resulting in information asymmetry. This asymmetry creates supervision and control challenges for principals over agents.

Leverage serves to reduce agency conflicts by involving external parties in company oversight. It acts as a control mechanism through creditors (Hardinata, 2014, in Lutfia & Sukirman, 2021). Therefore, the higher the company's leverage, the stronger the control mechanisms over its operations, as detailed reporting must be provided to creditors. As a result,

transfer pricing practices that could be exploited for managerial self-interest are limited, and leverage is capable of weakening the effect of exchange rate on transfer pricing. This finding is in line with the previous study by Lutfia & Sukirman (2021), which found that leverage weakens the influence of tunneling incentive on transfer pricing.

CONCLUSION

This study aims to examine the effects of tax minimization, tunneling incentive, and exchange rate on transfer pricing, with leverage as a moderating variable in multinational companies listed on the IDX during the 2019–2022 period. The results can be summarized as follows: (1) Tax minimization (TM) has a significant negative effect on transfer pricing, (2) Tunneling incentive (TNC) has no effect on transfer pricing, (3) Exchange rate (EXR) has a significant positive effect on transfer pricing, (4) Leverage strengthens the effect of tax minimization (TM) on transfer pricing, (5) Leverage strengthens the effect of tunneling incentive (TNC) on transfer pricing, (6) Leverage weakens the effect of exchange rate (EXR) on transfer pricing.

Future research may consider different types of companies, such as manufacturing and mining firms, which provide more disclosure on related party transactions. Future studies could also extend the observation period to a more relevant timeframe. Additionally, RPT-SE can be used as a measure of transfer pricing, and foreign ownership proxies could be utilized to assess tunneling incentives.

REFERENCES

Agata, G., Lembut, P. I., & Oktariani, F. (2021). *Analisis Determinan Transfer Pricing pada Perusahaan Multinasional yang Terdaftar di Bursa Efek Indonesia*. *16*(1), 74–93.

Alino, N. U., & Lane, S. (2015). A Conceptual Model of the Effects of Taxation, Exchange Rate, and Regulations on the Transfer Pricing Behavior of Multinational Firm Managers. *Journal of Comparative International Management* , *18*(1), 24–36. https://journals.lib.unb.ca/index.php/JCIM/article/view/24419/28263

Baroroh, N., Malik, S., & Jati, K. W. (2021). The role of profitability in moderating the factors affecting transfer pricing. *Accounting*, *7*(5), 1203–1210. https://doi.org/10.5267/j.ac.2021.2.018

Cahyadi, A. S., & Noviari, N. (2018). Pengaruh Pajak, Exchange Rate, Profitabilitas, dan Leverage Pada Keputusan Melakukan Transfer Pricing. *E-Jurnal Akuntansi*, *24*(2), 1441–1473. https://ojs.unud.ac.id/index.php/Akuntansi/article/view/38724

Chan, C., Landry, S. P., & Jalbert, T. (2011). Effects Of Exchange Rates On International Transfer Pricing Decisions. *International Business & Economics Research Journal (IBER)*, *3*(4). https://doi.org/10.19030/iber.v3i4.3685

Devi, D. K., & Suryarini, T. (2020). The Effect of Tax Minimization and Exchange Rate on Transfer Pricing Decisions with Leverage as Moderating. *Accounting Analysis Journal*, *9*(2), 110–115. https://doi.org/10.15294/aaj.v9i2.36469

Devita, H., & Sholikhah, B. (2021). The Determinants of Transfer Pricing in Multinational Companies. *Accounting Analysis Journal*, *10*(2), 17–23. https://doi.org/10.15294/aaj.v10i2.45941

Fauziah, N. F., & Saebani, Ak. (2018). Pengaruh Pajak, Tunneling Incentive, Dan Mekanisme Bonus Terhadap Keputusan Perusahaan Melakukan Transfer Pricing. Akuntansi, 18(1), 115–128.

Huu Anh, N., Thanh Hieu, N., & Thanh Nga, D. (2018). Determinants of Transfer Pricing Aggressiveness: A Case of Vietnam. *South East Asia Journal of Contemporary Business, Economics and Law*, *16*(5), 104–112.

Jafri, H. E., & Mustikasari, E. (2018). Pengaruh Perencaan Pajak, Tunnneling Incentive dan Aset Tidak Berwujud Terhadap Perilaku Transfer Pricing pada Perusahaan Manufaktur yang Memiliki Hubungan Istimewa yang Terdaftar di Bursa Efek Indonesia Periode 2014-2016. Berkala Akuntansi Dan Keuangan Indonesia, 3(2), 63. https://doi.org/10.20473/baki.v3i2.9969

Lestari, D. M., Dewi, E. Y., & Surachman, S. (2021). Pajak Perusahaan Dan Exchange Rate Terhadap Transfer Pricing Pada Perusahaan Kimia. *Jurnal Valuasi: Jurnal Ilmiah Ilmu Manajemen Dan Kewirausahaan*, *1*(1), 58–72. https://doi.org/10.46306/vls.v1i1.5

Lo, A. W. Y., Wong, R. M. K., & Firth, M. (2010). Tax, financial reporting, and tunneling incentives for income shifting: An empirical analysis of the transfer pricing behavior of Chinese-listed companies. *Journal of the American Taxation Association*, *32*(2), 1–26. https://doi.org/10.2308/jata.2010.32.2.1

Lutfia, M. D., & Sukirman, S. (2021). Leverage Sebagai Pemoderasi Pada Transfer Pricing Yang

Dipengaruhi Tax Minimiziation, Bonus Mechanism , dan Tunneling Incentive. *Jurnal Akuntansi Bisnis*, *19*(1), 79. https://doi.org/10.24167/jab.v19i1.3551

Makhmudah, N. F., & Djohar, C. (2023). Pengaruh Tax Minimization, Tarif Pajak Efektif, dan Exchange Rate Terhadap Transfer Pricing (Studi Empiris Pada Perusahaan Sub Sektor Barang Konsumen Primer di Bursa Efek Indonesia Tahun 2016-2020). *Jurnal Revenue*, *3*(2), 429–441.

Marfuah, M., Sanintya Mayantya, & Priyono Puji Prasetyo. (2021). the Effect of Tax Minimization, Bonus Mechanism, Foreign Ownership, Exchange Rate, Audit Quality on Transfer Pricing Decisions. *Jurnal Bisnis Terapan*, *5*(1), 57–72. https://doi.org/10.24123/jbt.v5i1.4079

Mgammal, M. H. (2020). Corporate tax planning and corporate tax disclosure. *Meditari Accountancy Research*, *28*(2), 327–364. https://doi.org/10.1108/MEDAR-11-2018-0390

Napitupulu, R. B., Simanjuntak, T. P., Hutabarat, L., Damanik, H., Harianja, H., Sirait, R. T. M., & Tobing, C. E. R. L. (2021). Penelitian Bisnis : Teknik dan Analisa Data dengan SPSS - STATA - EVIEWS. In *Madenatera* (Vol. 1).

Putri, W. C., & Lindawati. (2023). Pengaruh Tax Minimization, Exchange Rate dan Tunneling Incentive Terhadap Keputusan Transfer Pricing. *SCIENTIFIC JOURNAL OF REFLECTION: Economic, Accounting, Management and Business*, *6*(1), 195–204.

Rahayu, T. T., Masitoh, E., & Wijayanti, A. (2020). The Effect of Tax Burden, Exchange Rate, Tunneling Incentive, Profitability and Leverage on Transfer Pricing Decisions. *Jurnal Penelitian Ekonomi Dan Akuntansi (JPENSI)*, *5*(1), 78–90. http://jurnalekonomi.unisla.ac.id/index.php/jpensi

Rahmadhani, S. N., & Ananda, R. F. (2022). The Effect of Leverage and Tunneling Incentives on Transfer Pricing: A Study on Consumer Goods Industry Listed on Indonesia Stock Exchange. *Journal of Accounting Auditing and Business*, *5*(1), 35–42. http://jurnal.unpad.ac.id/jaab

Reinganum, JF, & Wilde, LL (1985). Kepatuhan Pajak Penghasilan dalam Kerangka Prinsipal-Agen. *Jurnal Publik Ekonomi*, 26, 1–18.

Rezky, M. A., & Fachrizal. (2018). Pengaruh Mekanisme Bonus, Ukuran Perusahaan, Leverage, dan Multinationality terhadap Keputusan Transfer Pricing pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2010-2014. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)*, 3(3), 401–415.

Richardson, G., Grantley, T., & Lanis, R. (2013). Determinants of Transfer Pricing Aggressiveness: Empirical Evidence From Australian Firms. *Journal of Contemporary Accounting & Economics*, *9*(2), 136–150.

Solihin, & Utami, W. (2022). The Effect of Tax, Exchange Rate, and Leverage on Transfer Pricing Policy with Foreign Ownership as Moderating Variables. *International Journal of Scientific Research and Management*, *10*(12), 4360–4369. https://doi.org/10.18535/ijsrm/v10i12.em011

Suryarini, T., Hajawiyah, A., Hidayah, R., Gurendrawati, E., & Nany, M. (2021). The Impact of State Revenue and Bonus Mechanism on Transfer Pricing Decisions with Tax Minimization as a Moderating Variable. *Academy of Accounting and Financial Studies Journal*, *25*(5), 1–9.

Suryarini, T., Mega Cahyaningrum, A., & Hidayah, R. (2020). The Effect of Tunneling Incentive to Transfer Pricing Decision with Tax Minimization As a Moderating Variable. *KnE Social Sciences*, *2020*(2010), 1–13. https://doi.org/10.18502/kss.v4i6.6584

Susanti, A., & Firmansyah, A. (2018). Determinants of transfer pricing decisions in Indonesia manufacturing companies. *Jurnal Akuntansi & Auditing Indonesia*, *22*(2), 81–93. https://doi.org/10.20885/jaai.vol22.iss2.art1

Thinh, T. Q., & An, N. T. H. (2023). the Influence of Income Tax Rate, Tunneling Incentives, and Return on Equity on Transfer Pricing Behavior of Foreign Direct Investment Enterprises in Vietnam. *Investment Management and Financial Innovations*, *20*(4), 193–210. https://doi.org/10.21511/IMFI.20(4).2023.17

Wahyudi, D. E., T, S., & Rusydi, M. K. (2021). Determinants of Transfer Pricing Aggressiveness with the Moderation of Corporate Governance in Indonesia and Malaysia. *Journal of Economics, Business, & Accountancy Ventura*, *24*(1), 23. https://doi.org/10.14414/jebav.v24i1.2536

Yuliana, I., Rasheeda, S., Nasikin, Y., & Ainiyah, F. (2023). *Foreign Ownership in Tax and Tunneling Incentive Relations - Transfer Pricing : The Case of a Multinational Company on the Indonesia Stock Exchange*. 1–22.