

# The Effect of Financial Derivatives, Financial Leverage, and Exchange Rate on Transfer Pricing Aggressiveness in Manufacturing Companies Listed on the Indonesia Stock Exchange

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## ABSTRACT

This study aims to test and analyse whether financial derivatives, financial leverage, and exchange rate affect transfer pricing aggressiveness in manufacturing companies listed on the Indonesia stock exchange.

This research was conducted by collecting financial statement data of manufacturing companies listed on the Indonesia Stock Exchange through the official website [www.idx.c.id](http://www.idx.c.id). The sampling technique used is purposive sampling. Hypothesis testing using panel data regression method analysis.

The results showed that financial derivatives and financial leverage have a negative effect on transfer pricing aggressiveness. At the same time, the exchange rate does not affect transfer pricing aggressiveness.

**Keywords:** *Financial Derivatives, Financial Leverage, Exchange Rate, Transfer Pricing Aggressiveness.*

## INTRODUCTION

Global economic development and growth greatly influence business patterns and economic actors' attitudes. Currently, global economic growth in the future is estimated to decline compared to 2022. The International Monetary Fund (IMF) in the World Economic Outlook (WEO) issued on 11 October 2022 estimates that global economic growth will fall from 3.2% in 2022 to 2.2% in 2023, whereas

previously, it was estimated to grow by 2.9% (indotimur.com, 2022).

The Organization for Economic Cooperation and Development (OECD) projects that world economic growth will be smaller than the estimate issued by the IMF, namely world economic growth in 2023 of around 2.2% from the previous, namely 2.8%. In a press release issued by Bank Indonesia on 30 November 2022, economic growth in Indonesia in 2023 is expected to grow above that of the global economy. Indonesia's economic growth will grow between 4.5% - 5.3% and increase to 4.7% - 5.5% in 2024. The inflation rate based on the Consumer Price Index (CPI) for 2023 is estimated at  $3.0 \pm 1\%$  and decrease to  $2.5 \pm 1\%$  in 2024. Economic growth Indonesia, which is still above global economic growth, has also stimulated the growth and development of multinational companies (MNCs) in Indonesia.

A multinational company (MNC) is an international or transnational corporation headquartered in one country but has branch offices in developed and developing countries. Multinational companies usually make foreign direct investments designed to define and manage production and distribution units. Multinational companies have a considerable influence on the development of the world economy. In multinational companies, various

transactions between divisions often occur, such as sales of goods and services, licensing rights and other intangible assets, provision of loans, etc. In determining the price and compensation for these transactions, the company members are usually determined based on the transfer pricing policy determined by the holding company, which may or may not be the same as the market price.

Transfer pricing has always been a hot and exciting topic that has become a highlight for discussion as an essential aspect of the global tax landscape. It started from the increasing number of countries adopting provisions regarding transfer pricing to become one of the main features of tax reform in various countries, including Indonesia. In Law 7/2021 concerning the Harmonization of Tax Regulations (UU HPP), which is a new milestone in tax reform in Indonesia, with the revised explanation of Article 18 paragraph (3) of the Income Tax Law (UU PPh) regarding efforts to prevent tax evasion, mainly through transfer pricing. Not only that, the Directorate General of Taxes (DGT) is also getting more serious about handling transfer pricing. This is evidenced by forming the Transfer Pricing Task Force to create the same standards for handling transfer pricing in every Tax Service Office (KPP) (news.ddtc.co.id, 2022).

Particularly in Indonesia, transfer pricing practices by multinational companies can potentially lose substantial tax revenues. As released by Tax Justice News in its headline entitled The State of Tax Justice 2020: Tax Justice in COVID-19, Indonesia's potential loss of tax revenue averages around Rp. 68.7 trillion per year as a result of this transfer pricing practice. Indonesia is a country that ranks fourth in Asia after China, India, and Japan, which have suffered losses due to tax avoidance practices. This is caused by corporate and personal taxpayers who commit tax evasion in Indonesia and multinational companies which transfer their profits to countries with lower tax rates.

The transfer pricing phenomenon occurred at Asia's largest pulp company, April Group, owned by a tycoon, Sukanto Tanoto, who allegedly "embezzled" State Revenue from the tax sector of 838 billion rupiah due to manipulation of export data, Sunday 8/11/2020.

The media crew quoted this information from reports in several National Online media, katadata and tirto.id. The media reports said the Tax Fair Forum mentioned that the Sukanto Tanoto Company found the April Group Company hiding company profits in importing pulp (pulp) in Indonesia.

Modifying pulpwood export data is allegedly carried out by a business group belonging to the conglomerate Sukanto Tanoto. The Justice Tax Forum Institute confirmed its findings, allegations that Asia Pacific Resources International Holdings (APRIL Group) carried out this practice (aktualdetik.com, 2020).

The phenomenon of transfer pricing occurs at PT. Tiga Pilar Sejahtera Food Tbk (AISA) is suspected of inflating the value of up to Rp. 4 trillion. The old management is also suspected of channelling funds to affiliated parties worth Rp. 1.78 trillion. Apart from that, there were also findings of alleged inflated revenues of Rp 662 billion and other inflation of Rp 329 billion in the food business. In the report on the results of a fact-based investigation PT. Ernst & Young Indonesia (EY) to new management at AISA dated March 12, 2019, as quoted by CNBC Indonesia, the alleged bubble occurred in the accounts receivable, inventory, and fixed assets of the AISA group. Form of fund flow of Rp. 1.78 trillion with various schemes from the TPS Food group to parties suspected of being affiliated with the old management. The establishment, among others, used TPS Food group loan disbursements from several banks, time deposit disbursements, fund transfers in bank accounts, and financing expenses for affiliated parties by TP Food. According to EY, this can potentially violate the decision of the chairman of the

capital market supervisory agency and financial institutions (now the regulation of the Financial Services Authority/OJK) No. KEP-421/BL/2009 concerning Affiliated Transactions and Conflicts of Interest in Certain Transactions (detik.com).

Cases of transfer pricing practices were also carried out by a tobacco company owned by British American Tobacco (BAT), which committed tax evasion through PT Bentoel Internasional Investama Tbk (RMBA), which caused state losses of US\$13.7 million per year. BAT diverted its revenues out of Indonesia in two ways to avoid tax obligations, through intra-company loans in 2013-2015. That year, PT Bentoel took many loans from affiliated companies in the Netherlands. Interest payments on loans are deductible from taxable income. PT Bentoel deliberately chose a loan through a company in the Netherlands. This is because Indonesia and the Netherlands have a tax agreement that exempts taxes related to debt interest payments. From this strategy, Indonesia loses state revenue of US\$ 11 million annually (Kontan.co.id, 2019).

Then the second way is through repayment to England for royalties, fees, and services. PT Bentoel makes payments for royalties, fees, and IT costs, totalling US\$ 19.7 million annually. This exacerbated PT Bentoel's losses in Indonesia. The combined cost of these payments is equivalent to 80% of the company's pre-tax loss in 2016 due to BAT's payment of royalties, fees, and IT fees to its UK companies. Indonesia loses state revenue of US\$ 2.7 million annually (Kontan.co.id, 2019).

Transfer pricing cases also occurred in one of the subsidiaries of PT Unilever Indonesia, Tbk (UNVR), namely PT Nestle. In 2013, PT Nestle committed tax avoidance through transfer pricing, aiming to increase central profits, resulting in a relatively large money turnover in its financial statements. PT Nestle did all of this intentionally to reduce product acquisition costs and tax burden. It is estimated that the state will lose Rp 800 billion. Another reason the Nestlé company carries out transfer pricing is to

reduce costs. Both the cost of product acquisition and tax expense.

Several factors influence companies to carry out transfer pricing, namely taxes. High deferred taxes for companies will trigger a large company to carry out transfer pricing to reduce deferred taxes. The second factor is profitability. Companies with higher pre-tax profits proportionally avoid corporate taxes more than companies with low pre-tax income. The third factor, companies do transfer pricing, namely multinational. Multinational companies can use tax regulation loopholes to carry out tax planning by carrying out transfer pricing for tax avoidance by transferring profits to companies still in one group in another country. The fourth factor is that companies carry out transfer pricing due to intangible assets. Intangible assets are challenging to measure at market value, so the assessment is still subjective. Companies can simultaneously use the transfer pricing mechanism in several jurisdictions against opportunistic behaviour.

The many emerging and interesting issues related to tax avoidance through transfer pricing practices have encouraged researchers to research the variables that serve as benchmarks for transfer pricing aggressiveness, including Financial Derivatives, Financial Leverage, and Exchange Rates with research objectives on Manufacturing Companies Listed on the IDX.

## **LITERATURE REVIEW**

### **1. Transfer Pricing Aggressiveness**

Transfer pricing aggressiveness is a tax incentive that a company gets when using different financial, economic, and jurisdictional areas. This benefit is obtained by having the opportunity to do tax evasion through transactions between related parties in different tax jurisdictions. Transfer pricing aggressiveness also reflects the entry price of each good or service from one division to another division of the same company or between companies with unique relationships. Yuniasih et al. (2012), transfer

price transactions can occur between divisions within one company, between local companies, or between local companies and a company abroad.

According to Eden & Smith (2011), transfer pricing aggressiveness is a tax or financial benefit obtained when a company takes advantage of economic, financial, and regulatory differences between different jurisdictions. These benefits can be obtained because transactions between related parties in various tax jurisdictions provide considerable opportunities for tax evasion (Desai & Dharmapala, 2006). In line with this statement, Taylor & Richardson (2012) stated that multinational companies could regulate transfer prices in transactions between related companies in different countries to facilitate tax avoidance practices.

Multinational companies carry out transfer pricing aggressiveness to minimise their corporate tax obligations globally (Gusnardi, 2009). According to Butterworth, quoted by Darussalam et al. (2013), transfer pricing aggressiveness minimises taxes by manipulating prices so companies can transfer profits from one entity to another in an affiliate relationship in a country with lower tax rates.

The OECD has the latest guidelines regarding transfer pricing aggressiveness activity regulations called the OECD Transfer Pricing for Multinational Enterprise and Tax Administrations Guidelines 2017 (OECD, 2017). Regulations related to transfer prices in taxation in Indonesia are also inseparable from the principles underlying the practice of regulating transfer pricing aggressiveness which is generally accepted to be applied in many countries and referred to the OECD Guidelines.

The proxy used to measure transfer pricing aggressiveness uses an index with a sum-score approach (Richardson et al., 2013) as follows:

1. Interest-free loans between related parties;

2. Exemption of debts or receivables from/to related parties;
3. There is provision for impairment or allowance for uncollectible accounts on debts or receivables between related parties;
4. The absence of formal documentation that can show the selection and application of transfer pricing methods or the absence of formal documentation related to transfer pricing between related parties;
5. There is a disposal or purchase of non-current assets from/to related parties;
6. There is no justification regarding the fairness of transactions between related parties in the notes to the company's financial statements.

This study's transfer pricing aggressiveness variable index consists of 6 reporting items built by reviewing the relevant literature. In examining each transfer pricing aggressiveness item, the sum score approach for each company is given a score of '1' if the company has disclosed the relevant reporting variable and '0' otherwise.

## **2. Financial Derivative**

Financial derivatives are derivative instruments where the underlying variables are financial instruments: stocks, bonds, stock indexes, bond indices, currencies, interest rates, and other financial instruments ([www.idx.co.id](http://www.idx.co.id)). Derivative instruments are often used by market participants (financiers and securities companies) as a means of hedging their portfolios.

Richardson et al. (2013) said that transfer pricing is a form of significant tax avoidance by using income taxes from countries with high tax rates to countries with lower tax rates. In Indonesia, as a developing country, foreign investment companies (FIC) are indicated to avoid taxes by using a transfer pricing mechanism.

The mechanism of tax avoidance through transfer prices is influenced by several factors, one of which is financial

derivatives. Tax experts identify the convenience of using derivative transactions that can be restructured, so paying taxes can take advantage of tax regulation loopholes. According to Santos (2016), the Indonesian Tax Authority declared a loss in cases of derivative transactions due to weak regulations on derivatives.

Positive accounting theory states that the higher the political costs of a company, the more likely it is for company managers to choose accounting policies that shift profits to countries with higher tax rates. By using derivative instruments, companies can minimise the possibility of bankruptcy, making it easier for companies to get loans with lower interest rates.

This is supported by the research of Firmansyah & Yunidar (2020) and Lee (2016), stating that financial derivatives positively affect transfer pricing aggressiveness. Financial derivatives are measured as follows:

$$\text{FVD}_{it} = \frac{\text{Derivative Fair Value}}{\text{Total Asset}_{it-1}}$$

Where:

Fvdit = fair derivative value

Total Asset<sub>it-1</sub> = Number of company assets in year t-1.

### 3. Financial Leverage

Financial leverage is a comparison between the company's total liabilities and assets. The higher the company's debt, the higher the interest expense borne by the company, and the higher the interest expense by the company will be able to reduce the profit earned. Companies with high debt use will prioritise debt payments, which impacts company decisions, including carrying out transfer pricing (Deanti, 2017).

Financial leverage is one of the financial instruments used to avoid taxes through transfer pricing. Financial leverage is the debt level used by the company. Sartono

(2010) Financial leverage is the use of a source of funds with a fixed burden in the hope that it will provide additional profits that are greater than the fixed burden to increase the profits available to shareholders.

Positive accounting theory assumes rational managers. Therefore, managers will choose the accounting policies that best meet their interests. Richardson et al. (2013) said that financial leverage is a variable that positively affects transfer pricing aggressiveness. In transfer pricing practices, allegations of substantial debt transactions between companies and their affiliates are used to generate interest charges or borrowing costs that will be deducted from the company's gross income to reduce its profits. Therefore, the higher the company's leverage level, the higher the company's potential for transfer pricing.

This is supported by previous research conducted by Firmansyah & Yunidar (2020), proving that financial leverage positively affects transfer pricing aggressiveness. This is in line with research conducted by Richardson et al. (2013), Devita & Sholikhah (2021), Pratiwi (2018), Anh et al. (2018), Rozi (2017), Waworuntu & Hadisaputra (2016) to prove financial leverage has a positive effect on transfer pricing aggressiveness. Financial leverage is measured as follows:

$$\text{LEV}_{it} = \frac{\text{Total Debt}_{it}}{\text{Total Asset}_{it}}$$

### 4. Exchange Rate

Exchange Rate is the rate against current or future payments between two currencies (Ardiyanti, 2017). According to Marfuah & Azizah (2014), because of currency differences, some multinational companies request the exchange of one currency for another to make payments. Because currency exchange rates constantly fluctuate, the amount of cash needed to make payments is also uncertain. As a result, multinational

corporations try to reduce foreign currency exchange rate risk by transferring funds to strong currencies through transfer pricing to maximise overall corporate profits (Chan et al., 2002).

Transactions of multinational companies cause changes in exchange rate risk because of the exchange rate of currencies against current or future payments. Fluctuating exchange rates can affect transfer prices in companies. Agency theory explains human nature, where humans have various ways of avoiding risk, and managers tend to reduce exchange rate risk by transferring funds to a stronger currency through transfer pricing. Then the different exchange rates will later affect transfer pricing practices (Trisni, 2020).

The exchange rate has a relationship with transfer pricing because in the process it is carried out between countries, differences in currencies will cause exchange rate differences, and the exchange rate can result in profit or loss for the company.

This is supported by previous research conducted by Santosa & Karina (2022), Andraeni (2017), Trisni (2020), and Chan et al. (2002), which stated that the exchange rate has a positive effect on transfer pricing aggressiveness. The Exchange Rate variable is measured as follows:

$$\text{Exchange Rate} = \frac{\text{Profit Loss Difference Exchange}}{\text{Profit and Loss Before Tax}}$$

### Framework

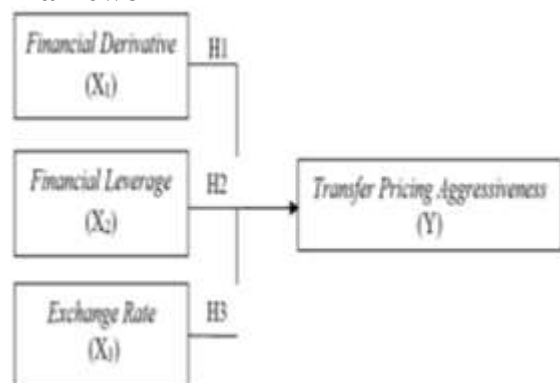


Figure 1. Framework

H1: Financial derivatives have a positive effect on transfer pricing aggressiveness.

H2: Financial leverage has a positive effect on transfer pricing aggressiveness.

H3: Exchange Rate has a positive effect on the transfer pricing aggressiveness

### MATERIALS & METHODS

The type of research used in this research is causal research. This study aims to analyse how a variable affects other variables. This research analysed the effect of financial derivatives, financial leverage, and exchange rates on transfer pricing aggressiveness.

The population is a generalisation area consisting of objects/subjects with certain qualities and characteristics determined by researchers to be studied, and then conclusions are drawn (Sugiyono, 2012).

The population in this study are manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2021. The total population is 193 companies.

The sample is part of the number and characteristics possessed by the population, Sugiyono (2018: 81). The sampling technique used is purposive sampling. Purposive sampling is a technique that determines specific criteria (Sugiyono, 2018).

The sample for this research is a manufacturing company listed on the Indonesia Stock Exchange in 2015 – 2021. The criteria used in this study are as follows.

- 1) Manufacturing companies listed on the Indonesia Stock Exchange from 2015 to 2021.
- 2) Companies that have related relationships.
- 3) Companies that carry out derivative transactions.
- 4) Companies that have data on foreign exchange gain/loss.
- 5) The company did not suffer any losses during the observation period.

Based on the criteria described above, the number of observations in this study was

133 observation samples. The data in this study was sourced from the official IDX website via www.idx.co.id, which was processed using the Eviews application.

## RESULT

### A. Model Selection

#### 1) Determination of the Estimation Model between the Common Effect Model (CEM) and the Fixed Effect Model (FEM) with the Chow Test

The Chow test determines the best model: the common or the fixed effects estimation model. The hypothesis used is as follows:

H0: The CEM model is better than FEM

H1: The FEM model is better than CEM

The criteria for testing the hypothesis are as follows:

1. If the probability value (P-value) for the cross-section  $F > 0.05$ , then H0 is accepted.
2. If the probability value (P-value) for the cross-section  $F < 0.05$ , then H0 is rejected.

Based on the explanation above, the calculation results from the Chow test are presented in the table below:

Table 1. Chow Test Result

Redundant Fixed Effects Tests			
Equation: PANEL			
Test cross-section fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.527955	(18,109)	0.0000
Cross-section Chi-square	61.056028	18	0.0000

Source: Processed with EViews (2023)

Based on the results of the Chow test, the table above shows that the Probability Cross Section Chi-Square value is 0.0000. Where the value of the Probability Cross Section Chi-Square is  $0.0000 < 0.05$ , then H0 is rejected, so it can be concluded that the Fixed Effect Model (FEM) is better than the Common Effect Model (CEM).

#### 2) Determination of the Estimated Model between the Fixed Effect Model (FEM) and the Random Effect

#### Model (REM) with the Hausman Test.

The Hausman test is used to determine whether the model used is the Fixed Effect Model (FEM) or the Random Effect Model (REM). The hypothesis used is as follows:

H0: REM is better than FEM

H1: FEM is better than REM

The criteria for testing the hypothesis are as follows:

1. If the probability value (P-value) for the cross-section  $F > 0.05$ , then H0 is accepted.
2. If the probability value (P-value) for the cross-section  $F < 0.05$ , then H0 is rejected.

Based on the explanation above, the calculation results from the Hausman test are presented in Table 2 below:

Table 2. Hausman Test Result

Correlated Random Effects - Hausman Test			
Equation: PANEL			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	4.848054	5	0.4347

Source: Processed with EViews (2023)

Based on the results of the Hausman test in Table 2 above show that the Chi-Square Probability Cross Section value is 0.4347. Where the value of the Probability Cross Section Chi-Square is  $0.4347 > 0.05$ , then H0 is accepted, so it can be concluded that the Random Effect Model (REM) is better than the Fixed Effect Model (FEM).

#### 3) Determination of the Estimation Model between the Common Effect Model (CEM) and the Random Effect Model (REM) with the Lagrange Multiplier Test.

The Lagrange multiplier test determines whether the random effect model is better than the common effect (OLS) method, which is more appropriate use. The hypothesis used is as follows:

H0: CEM is better than REM

H1: REM is better than CEM

The criteria for testing the hypothesis are as follows:

1. If the value of the Breusch-pagan cross-section  $\geq 0.05$ , then H0 is accepted.
2. If the value of the Breusch-pagan cross section is  $\leq 0.05$ , then H0 is rejected.

Based on the explanation above, the calculation results from the Lagrange multiplier test are presented in Table 3 below:

**Table 3. Lagrange Multiplier Test Results**

Lagrange Multiplier Tests for Random Effects  
 Null hypotheses: No effects  
 Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	19.96993 (0.0000)	0.199232 (0.6554)	20.16916 (0.0000)

Source: Processed with EViews (2023)

The results of the multiplier lagrange test in Table 3 above show that the Breusch-Pagan value is 0.0000. Where the Breusch-Pagan value is  $0.000 \leq 0.05$ , then H0 is rejected, so it can be concluded that the Random Effect Model (REM) is better than the Common Effect Model (CEM).

Of the three tests above, the selection of the best model statistically is the Random Effect Model (REM).

**A. Classic Assumption Test**

**1) Normality test**

In this study, the Jarque-Bera test is used to test normality. If the probability value of Jarque-Bera is greater than 0.05, then the assumption of normality is fulfilled; otherwise, if the probability value of Jarque-Bera is less than 0.05, then the assumption of normality is not fulfilled, or the data is not normally distributed. The normality test results using the Jarque-Bera test in Figure 5 follow.

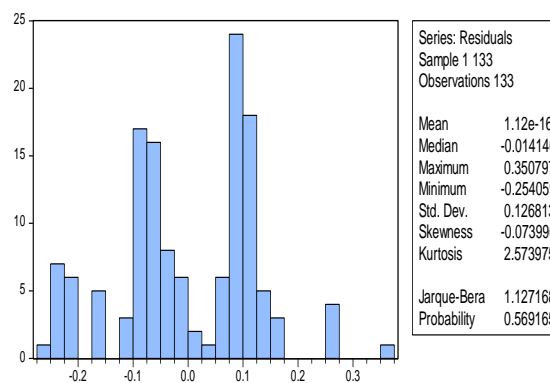


Figure 2. Normality Test with the Jarque-Bera Test  
 Source: Processed with EViews (2023)

Based on the picture above, the normality test with the Jarque-Bera test shows that the probability value of the J-B statistic is 0.569165. Because the probability value, which is 0.569165, is greater than the significance level, which is 0.05, it can be concluded that the data is normally distributed.

**2) Multicollinearity Test**

If there is an indication of multicollinearity, it can be seen from the VIF value. If the VIF value  $> 10$ , multicollinearity is indicated (Ghozali, 2013). Therefore, the following are the results of the multicollinearity test presented in Table 4.

**Table 4. Multicollinearity Test Result**

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.002550	20.28603	NA
FVD	0.000111	1.082630	1.033460
LEV	0.002900	8.754310	1.027947
ERT	0.000256	1.011381	1.011230
ROA	0.006945	1.479530	1.016720
SIZE	4.47E-06	13.40200	1.044737

Source: Processed with EViews (2023)

Based on the table above, the centred VIF value of each variable is far below 10, which ranges from 1.011230 to 1.044737. This means there is no multicollinearity in the regression model, or in this model, there is no correlation between independent variables.



### 3) Autocorrelation Test

Assumptions regarding the independence of the residuals (non-autocorrelation) can be tested using the Durbin-Watson test (Field, 2009). The statistical value of the Durbin-Watson test ranges between 0 and 4. A statistical value of the Durbin-Watson test that is less than one or greater than 3 indicates autocorrelation.

Table 5. Autocorrelation Test Result

Log likelihood	102.6893	Hanan-Quinn Criter	-1.353251
		Prob. Chi-Square(2)	1.956392

Source: Processed with EViews (2023)

Based on the table above, the value of the Durbin-Watson statistic is 1.956392. It shows that because the value of the Durbin-Watson statistic lies between 1 and 3, namely  $1 < 1.956392 < 3$ , the non-autocorrelation assumption is met. In other words, there is no high autocorrelation in the residuals.

### 4) Heteroscedasticity Test

To test the presence or absence of heteroscedasticity in this study, the Glejser method was used by regressing all independent variables to their residual absolute value  $|e|$ . If a significant independent variable influences the residual absolute value, then the model has a heteroscedasticity problem. The criterion in this test is if the probability value is (Sig.  $> \alpha$  (0.05), then it can be ascertained that the model does not contain symptoms of heteroscedasticity. The results of the heteroscedasticity test are presented in Table 6 below:

Table 6. Heteroscedasticity Test Result

Heteroskedasticity Test: Glejser			
F-statistic	0.597530	Prob. F(5,127)	0.7019
			0.6912
Obs*R-squared	3.056888	Prob. Chi-Square(5)	
Scaled explained SS	2.180520	Prob. Chi-Square(5)	0.8236

Source: Processed with EViews (2023)

In the table above, the Heteroscedasticity Test results show that the Obs\*R-Squared probability value is 0.6912, greater than 0.05. So it can be concluded that this model does not have heteroscedasticity.

### A. Hypothesis Test

#### 1) Analysis of the Coefficient of Determination (R<sup>2</sup>)

The coefficient of determination measures how far the model can explain the dependent variables (Ghozali, 2016). In other words, the coefficient of determination is used to determine the percentage of the independent variable that can explain the dependent variable. The value of the coefficient of determination is zero and one. The results of the analysis of the coefficient of determination (R<sup>2</sup>) are presented in Table 7 below:

Table 7. Coefficient of Determination (R<sup>2</sup>) Test Result

Dependent Variable: Transfer Pricing Aggressiveness (TPRICE)			
Method: Panel EGLS (Cross-section random effects)			
Sample: 2015 2021			
Periods included: 7			
Cross-sections included: 19			
Total panel (balanced) observations: 133			
Swamy and Arora estimator of component variances			
Weighted Statistics			
R-squared	0.457173	F-statistic	15.01938
Adjusted R-squared	0.426734	Prob(F-statistic)	0.000000
S.E. of regression	0.102890	Durbin-Watson stat	2.065358

Source: Processed with EViews (2023)

Based on the table above, the Analysis of the Coefficient of Determination (R<sup>2</sup>) results shows that the Adjusted R-Squared value is 0.426734. So, in this study, the independent variables, namely Financial Derivative, Financial Leverage, and Exchange Rate, simultaneously affect the dependent variable, namely Transfer Pricing Aggressiveness (TPRICE) of 42.67%, and other variables outside this model influence the remaining 57.33%.

#### 2) Partial Effect Significance Test (T-Test)

The statistical t-test is a partial (individual) test where this test is used to test how well the independent variables can explain the

dependent variable individually. The results of the partial effect significance test (T-test) are presented in Table 9 below:

**Table 8. T-Test Result**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.414299	0.069353	5.973795	0.0000
Financial Derivative	-0.031443	0.007917	-3.971316	0.0001
Financial Leverage	-0.104329	0.043819	-2.380908	0.0190
Exchange Rate	-0.002675	0.015885	-0.168400	0.8666
ROA	-0.092277	0.065587	-1.406945	0.1623
SIZE	0.000930	0.001669	0.557558	0.5783
Transfer Pricing Aggressiveness(-1)	0.492103	0.067968	7.240182	0.0000
Effects Specification				
			S.D.	Rho
Cross-section random			0.000000	0.0000
Idiosyncratic random			0.094622	1.0000
Weighted Statistics				
R-squared	0.457173	F-statistic	15.01938	
Adjusted R-squared	0.426734	Prob(F-statistic)	0.000000	
S.E. of regression	0.102890	Durbin-Watson stat	2.065358	

Source: Processed with EViews (2023)

Based on Table 9 above, it is known that:

- 2) 1. The regression coefficient value of the Financial Derivative variable (X1) is -0.031443, which is negative. This means that Financial Derivatives have a negative effect on Transfer Pricing Aggressiveness (Y). Known value of Prob. is 0.0001 < 0.05, so Financial Derivatives significantly affect Transfer Pricing Aggressiveness (Y).
- 3) 2. The regression coefficient value of the Financial Leverage variable (X2) is -0.104329, which is negative. This means that Financial Leverage has a negative effect on Transfer Pricing Aggressiveness (Y). Known value of Prob. is 0.0190 < 0.05, then Financial Leverage has a negative and significant effect on Transfer Pricing Aggressiveness (Y).
- 4) 3. The regression coefficient value of the Exchange Rate variable (X3) is -0.002675, which is negative. This means that the Exchange Rate has a negative effect on Transfer Pricing Aggressiveness (Y). Known value of Prob. is 0.8666 > 0.05, so the Exchange Rate has no significant

effect on Transfer Pricing Aggressiveness (Y).

- 5) 4. The regression coefficient value of the control variable, namely Profitability (K1), is -0.092277, which is negative. This means that profitability has a negative effect on Transfer Pricing Aggressiveness (Y). however, given the value of Prob. is 0.1623 > 0.05, so profitability has no significant effect on Transfer Pricing Aggressiveness (Y).
- 6) 5. The regression coefficient value of the control variable, namely Firm Size (K2), is -0.000930, which is negative. This means that profitability has a negative effect on Transfer Pricing Aggressiveness (Y). however, given the value of Prob. is 0.5783 > 0.05, so company size has no significant effect on Transfer Pricing Aggressiveness (Y).

### 3) Panel Data Regression Equation Results

Based on Table 9, it shows that the regression equation in this study is as follows:

$$Y = 0.4142 - 0.0314X1 - 0.1043X2 - 0.00267X3 - 0.0922K1 - 0.0009K2$$

The above equation can be interpreted as follows:

- 1) The constant  $\alpha$  of 0.4142 states that if the X variables, namely Financial Derivatives, Financial Leverage, and Exchange Rate, and the control variables, namely ROA and SIZE, are constant, then the TPRICE variable is 0.4142.
- 2) The regression coefficient value of the Financial Derivative is -0.0314, indicating that every increase in the Financial Derivative variable by 1 unit will decrease Transfer Pricing Aggressiveness by 0.0314, assuming other variables are constant.
- 3) The value of the Financial Leverage regression coefficient is -0.1043,

indicating that for every increase in the Financial Leverage variable by 1 unit, Transfer Pricing Aggressiveness will decrease by 0.1043 units assuming other variables are constant.

- 4) The Exchange Rate regression coefficient value is -0.0026, indicating that for every increase in the Exchange Rate variable by 1 unit, the Transfer Pricing Aggressiveness will decrease by 0.0026 units assuming other variables are constant.
- 5) The regression coefficient value of the return on asset variable is -0.0922. The negative K1 value indicates that there is a non-unidirectional relationship (not directly proportional) between the transfer pricing aggressiveness variable and return on assets, which means that if the return on assets increases by 1 unit, then transfer pricing aggressiveness will decrease by -0.0922, assumed that the other independent variables remain the same.
- 6) The regression coefficient value of the company size variable is -0.0009. The negative K2 value indicates that there is a non-unidirectional relationship (not directly proportional) between the transfer pricing aggressiveness variable and company size, which means that if the company size increases by 1 unit, transfer pricing aggressiveness will decrease by -0.0009, assumed that the other independent variables remain the same.

## **CONCLUSION**

Based on the research results, it can be concluded that:

1. Financial derivatives (FVD) negatively affect transfer pricing aggressiveness.
2. Financial leverage (LEV) negatively affects transfer pricing aggressiveness.
3. Exchange Rate (ER) does not significantly affect transfer pricing aggressiveness.

## **RESEARCH LIMITATIONS**

The results of this study have limitations,

including:

1. In determining the transfer pricing aggressiveness variable using the sum score method, it approaches the subjectivity of researchers, where data processing is done by reading the information in the Notes to Financial Statements, where information related to related parties is not fully disclosed, such as TP doc information.
2. It is difficult for researchers to ascertain whether a company that only discloses the use of financial derivatives in the notes to financial statements without disclosing the value of the use of financial derivatives is not a user of financial derivatives. This is because companies may tend to hide financial derivative transactions or not disclose derivative transactions at all.

## **IMPLICATIONS**

Based on the conclusions of the research studies that have been put forward, the researcher provides some suggestions that can be considered as follows:

1. Regulators should pay attention to effective policies on financial derivatives companies use. Then, the regulator must also consider whether companies that take advantage of these financial derivative transactions have aggressive tax behaviour to have an excellent opportunity to carry out transfer pricing.
2. the government should consider stabilising the exchange rate because it can impact the aggressiveness of transfer pricing, which will affect the government's or state's income from the tax sector.
3. In reporting the company's financial condition, companies must be more careful and transparent and focus more on maximising their performance to gain the trust of the company's creditors.
4. For future researchers, it is hoped that they can use samples other than manufacturing companies to obtain

and complete a picture of tax avoidance through transfer pricing in various industries in Indonesia and other countries. Then the next researcher can add other variables that can also affect the aggressiveness of transfer pricing, such as tunnelling incentives, multinational directors' risk appetite, bonus mechanisms, and corporate tax rates. So, the results of his research can better explain the aggressiveness of transfer pricing.

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