

The Impact of Tax Burden, Firm Size, and Foreign Ownership on Transfer Pricing in Indonesia

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Abstract

The present research examines how tax burden, company size, and foreign ownership influence transfer pricing decisions in manufacturing firms registered on the Indonesia Stock Exchange between 2020 and 2024. Data analysis employed a quantitative method, processed using the Eviews 13 application. This study analyzed 156 observations using unbalanced panel data regression through a fixed effect approach. The results showed that tax burden and company size significantly influenced *transfer pricing* decisions, while foreign ownership did not. This study revealed that *transfer pricing* decisions were significantly influenced by tax burden and company scale. This can be explained within the framework of agency theory, where managers attempt to minimize tax burdens to enhance the company's performance from the owners' perspective, even though this step may lead to tension with tax authorities. In addition, this finding aligns with signaling theory, as *transfer pricing* practices can be viewed as a sign of management's ability to manage taxes efficiently, particularly in large companies that receive more scrutiny from external parties.

Abstrak

Studi ini bertujuan untuk menelaah hubungan beban pajak, ukuran perusahaan, serta kepemilikan asing dengan praktik *transfer pricing* perusahaan sektor manufaktur/industri yang ada di Bursa Efek Indonesia selama periode 2020–2024. Analisis dilakukan menggunakan pendekatan kuantitatif dengan bantuan perangkat lunak Eviews 13. Total 156 observasi dianalisis melalui regresi panel data tidak seimbang dengan model efek tetap. Hasil riset memperlihatkan bahwa beban pajak dan ukuran perusahaan terbukti memiliki pengaruh positif yang signifikan terhadap keputusan *transfer pricing*, sementara kepemilikan asing tidak menunjukkan pengaruh yang berarti. Temuan ini dapat dijelaskan melalui perspektif teori agensi, di mana manajer berupaya mengurangi beban pajak untuk meningkatkan kinerja yang ditampilkan kepada pemilik, meskipun berpotensi menimbulkan perbedaan kepentingan dengan otoritas pajak. Di sisi lain, hasil ini juga sejalan dengan teori sinyal, karena praktik *transfer pricing* dapat dipandang sebagai indikasi kemampuan manajemen dalam mengelola kewajiban pajak secara efisien, khususnya pada perusahaan besar yang lebih banyak mendapat perhatian dari pihak eksternal.

Keywords: *Tax Burden, Company Size, Foreign Ownership, and Transfer Pricing*

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Introduction

The flow of economic globalization has blurred boundaries between countries, particularly in trade, investment, and capital movement. Rapid developments in information and communication technology have accelerated global market integration, enabling multinational companies to more easily expand their business networks across jurisdictions. In Indonesia, one tangible impact of this phenomenon is the increase in foreign investment flows. Throughout 2024, realized foreign investment was recorded at IDR 900.2 trillion, an increase of approximately 21% compared to the previous year. Foreign investment accounted for 52.5% of total national investment, surpassing domestic investment of IDR 814 trillion, or 47.5% (BKPM, 2024). This fact demonstrates that global economic

openness significantly contributes to the influx of foreign capital, which can drive national economic growth.

However, the increasing flow of foreign investment also raises new issues, one of which relates to transfer pricing practices. As defined by OECD (2022), transfer pricing is a method of determining prices in transactions among companies with special relationships, whether in the form of the sale of goods, the provision of services, or the transfer of intangible assets. While this practice is permitted as long as it complies with the arm's length principle, in reality, multinational companies often exploit it for tax purposes, for example, by shifting profits to countries with lower tax rates. This situation can reduce the tax base and potentially depress state revenues (Directorate General of Taxes, 2022). Therefore, with the increasing contribution of foreign capital to national investment, the risks of transfer pricing practices also increase, necessitating strict oversight and regulation.

Various studies have also confirmed the significant impact of transfer pricing on the Indonesian economy. Juliana, Rahman, and Tarmizi (2024) stated that transfer pricing mechanisms are often used as an instrument to avoid tax obligations, ultimately reducing state revenues. A study by Lentera Hukum (2021) estimated potential losses from this practice to reach IDR 1,300 trillion per year in the income tax sector alone. A report by the Tax Justice Network (2020) estimated Indonesia's annual losses at approximately USD 4.5 billion or IDR 68.7 trillion due to cross-border transfer pricing practices. Tambunan (2020) also found a high number of transfer pricing cases filed with the Tax Court between 2015 and 2019, indicating a significant threat of fiscal leakage. Based on data from the Directorate of Objections and Appeals (2024), there were 1,503 transfer pricing cases processed by the Tax Court during the 2019–2023 period. Maulana (2023) expressed a similar sentiment, emphasizing the negative impact of this practice on income tax revenue, while Saragi (2024) highlighted the significant challenges in implementing regulations to suppress transfer pricing abuse.

Despite extensive research, previous research findings on transfer pricing still show inconsistencies, particularly regarding the relationship between tax burden, company size, and foreign ownership. Furthermore, most previous studies tend to focus on specific sectors or use outdated data. Therefore, this study utilizes the most recent data from the manufacturing sector, a key pillar of the Indonesian economy. Using a panel data approach with 156 unbalanced observations and retesting with 100 balanced observations, this study is expected to provide a more comprehensive empirical contribution and enrich the literature on transfer pricing. The analysis is conducted using agency theory and signaling theory as a conceptual framework.

Literatur Review and Hypothesis Development

Literature Review

Agency Theory dan Signaling Theory

Jensen and Meckling (1976) define agency theory as the contractual bond between the owner (principal) and the manager (agent), where differences in objectives and unequal access to information may generate conflicts. Managers, who have access to more comprehensive information, may act in their own interests, including by utilizing transfer pricing as a corporate

tax efficiency strategy. This situation gives rise to agency costs in the form of monitoring, auditing, and incentives (Purba, 2023).

Meanwhile, signaling theory (Spence, 1973) emphasizes the role of information a company conveys to external parties. Positive signals provided by management, for example, through financial policies, will increase investor confidence. Conversely, negative signals can raise doubts about the company's credibility (Subroto & Endaryati, 2024). In transfer pricing practices, entities with large assets or a dominant foreign ownership portion typically implement more transparent policies to send a positive signal regarding their reputation and compliance.

Transfer pricing

Transfer pricing refers to the pricing of transactions between companies with special relationships, including the exchange of goods, provision of services, and transfer of intangible assets. In principle, this practice is legal as long as it adheres to the arm's length principle, which states that the price used must be the same as the price applicable to affiliated transactions (OECD, 2022). However, in practice, multinational companies often use transfer pricing as a tax avoidance tool, shifting profits to countries with lower tax rates to minimize tax liabilities in the higher-tax country (Directorate General of Taxes, 2022).

Tax burden, Company Size dan Foreign Ownership

The tax burden is a company's obligation to the government for the profits it earns. Multinational companies often use transfer pricing as a strategy to reduce this burden by shifting profits to countries with lower tax rates. Previous research has found varying results, with some indicating a significant effect of tax burden on transfer pricing (Pratiwi et al., 2024), while others indicate a negative or even insignificant effect (Lestari et al., 2020; Widiastuti et al., 2023).

Company size is typically measured by total assets and sales. Large companies with complex organizational structures and numerous affiliates generally have more complex transfer pricing policies. Several studies have found a significant effect of company size on transfer pricing practices (Ernawati, 2022; Sari et al., 2023). However, other studies have shown conflicting results, indicating no significant effect (Marliana, 2022; Erlangga, 2021).

Foreign ownership refers to the proportion of a company's shares held by foreign investors. High foreign ownership is often associated with an increased likelihood of transfer pricing, as foreign parent companies or affiliates have a vested interest in managing profit flows between entities. Previous research has also yielded mixed results, with some studies suggesting a significant effect of foreign ownership (Ratnosari et al., 2024), while others finding no effect (Gumilang et al., 2024; Marliana et al., 2022).

Hypothesis Development

The tax burden is a company's obligation to pay taxes on the profits it earns. Many multinational companies attempt to reduce this burden by transferring earnings to countries that impose lower tax rates. Previous studies have yielded mixed results: some found a significant effect of tax burden on transfer pricing (Pratiwi et al., 2024), while others have

showna different direction of influence (Lestari et al., 2020; Widiastuti et al., 2023). Based on agency theory, managers will seek to minimize the tax burden in order to demonstrate better performance to owners. Therefore, the proposed hypothesis is:

H1: Tax burden positively affects transfer pricing practices.

Company size reflects the extent of its business and assets. The larger the company, the more complex its activities and affiliate networks. This level of complexity provides greater scope for transfer pricing practices. Several studies have found a relationship between company size and transfer pricing (Ernawati, 2022; Sari et al., 2023), although the results are not entirely consistent across all research. Based on signaling theory, large companies tend to send signals to the market through their financial policies, including transfer pricing strategies. Therefore, the proposed hypothesis is:

H2: Company size has a positive impact on transfer pricing.

Foreign ownership reflects the extent to which a company is controlled by foreign investors. The higher the proportion of foreign ownership, the greater the potential influence of the parent company or foreign affiliate in determining transfer pricing policies. Previous studies have shown mixed results: some found a significant effect (Ratnosari et al., 2024), while others found no strong relationship (Gumilang et al., 2024; Marlina et al., 2022). From an agency theory perspective, foreign ownership adds a layer of principal-agent relationships, which can increase the likelihood of transfer pricing. Therefore, the proposed hypothesis is:

H3: Foreign ownership has a positive effect on transfer pricing.

Research Methods

This study employs a quantitative approach and a purposive sampling method for determining the sample, utilizing company financial report data. The data were then analyzed using regression techniques with EViews 13 software. All manufacturing companies listed on the Indonesia Stock Exchange served as the population. The total population tested consisted of 182 companies with financial reporting years spanning 2020-2024, covering a five-year period. The sample selection method used was non-probability sampling, meaning not all companies in the population had an equal chance of being selected (Sinulingga, 2022). The sample was selected purposively based on certain predetermined criteria.

The sample criteria used in this study were as follows:

1. Manufacturing enterprises recorded on the Indonesia Stock Exchange at the close of 2019.
2. Manufacturing companies with foreign shareholdings.
3. Companies with related party receivables.
4. Companies reporting profits.

Table 1
Observation

Sample Selection	Total
1 .Manufacturing companies listed on the Indonesia Stock Exchange as of the end of 2019	182
2. Less: Manufacturing sector companies whose shares are entirely owned by domestic parties	(117)
3. Less: Companies without related party receivables	(15)

4. Less: Suspended and delisted companies	(10)
5. Less: Companies with losses throughout the entire observation period (2020–2024)	(1)
Total Company Sample	39
Observation Period (2020-2024)	5
Total Observation Data (2020-2024)	195
6. Less: Observation Data that experienced losses	(39)
Total Final Observation Data (Unbalanced panel)	156

This study used a multiple linear regression approach with panel data. The test used panel data with 156 observations (unbalanced), which were then retested with 100 observations (balanced). This study utilized 100 observations with balanced panel data, comprising 20 companies that did not incur losses throughout the observation period. The analysis was conducted to examine the relationship between the dependent variable (transfer pricing) and the independent variables, which include tax burden, company size, and foreign ownership. The objective of this study was to predict the average value of the dependent variable based on the predetermined independent variables. The model of multiple linear regression used in the analysis is defined as follows:

$$TP = a + b_1 \text{tax} + b_2 \text{size} + b_3 \text{fo}$$

Where:

TP : *Transfer pricing*

Tax : Tax burden

Size : Company Size

FO : Foreign Ownership

Transfer pricing is calculated using the Related Party Receivables Ratio, which compares related party receivables to the company's total receivables. A proxy for company size is determined by calculating the natural logarithm of total assets. Foreign ownership refers to the percentage of a firm's equity owned by individuals, public companies, or entities outside Indonesia. The foreign ownership structure indicates the ratio of the number of shares held by foreign shareholders to the total outstanding shares.

This study utilizes the related party receivables ratio as a measurement tool in the analysis. Related-party receivables serve as a proxy for transfer pricing, as this ratio can reflect the intensity of a company's transactions with its affiliates. The greater the proportion of related party receivables to total receivables, the higher the potential for transfer pricing practices, particularly in the form of profit shifting to other entities within the same corporate group. The ratio was selected using related party receivables as an indicator of transfer pricing transactions (Barokah & Sari, 2024). The variable measurements are formulated as follows:

1. Transfer pricing is measured by comparing related party receivables to total receivables.
2. Tax is calculated by comparing the tax expense and profit before tax.
3. Company size is proxied by total assets.
4. Foreign ownership is determined based on the proportion of company shares held by foreign shareholders to total shares.

Analysis and Discussion

Descriptive Statistics

The mean value of transfer pricing practices identified in this research sample was recorded at 0.319424, indicating that approximately 31.94% of the company's total receivables originated from transactions with related parties. This indicates that nearly one-third of the receivables held by the companies in the sample relate to transactions between companies within the same group or affiliate. However, there are significant differences between companies. This condition is reflected in the standard deviation value of 0.306204. The sample data shows the lowest TP value of 0.0002 and the highest TP value of 0.9883.

The mean value of the TAX variable was 0.233928, or approximately 23.39%, with a maximum value of 0.806900 and a minimum of -0.787100, reflecting a significant amount of tax refunds. The standard deviation was recorded at 0.144220, which is relatively small, indicating that differences between companies are not too large.

The SIZE variable, as a measure of company size, is proxied by the natural logarithm of total assets. It has an average of 29.50457, with a range of values between 25.92544 and 32.93787. The standard deviation of 1.426763 indicates significant variation among companies in the sample.

Foreign ownership (FO) in the sample varies from 0.06% to 99.1%. The average foreign ownership is 56.62% with a standard deviation of 0.256739, indicating significant variation across firms.

Results of Classical Assumption Tests and Panel Data Model Selection

The selection of the panel data model was determined using the Chow, Hausman, and Lagrange Multiplier tests. The Lagrange Multiplier test supports the use of REM over CEM. The Chow test produces a cross-section F-probability value <0.05 , thus the Fixed Effects Model (FEM) is more appropriate than the General Effects Model (CEM). Furthermore, the Hausman test results show a random cross-section probability <0.05 , which means the Fixed Effects Model (FEM) is more appropriate than REM. Thus, this study uses FEM as the best model for hypothesis testing.

According to Gujarati and Porter (2009), research utilizing panel data consisting of cross-sections and time series with more than 100 observations does not require conducting a normality test. With a large sample, even if the data distribution is not completely normal, statistical tests such as the t-test and F-test can still produce valid and reliable findings. Deviations from the normal distribution under these conditions do not significantly affect the accuracy of the analysis results. Therefore, this study did not conduct a normality test, as the large sample size is believed to be sufficient to ensure the validity and reliability of the analysis results.

The multicollinearity test indicates no strong relationship between the independent variables, confirming that these variables are relatively independent. The Glejser test results also confirm that the panel regression model is free from heteroscedasticity, meaning that the residual variance is constant, as assumed by the homoscedasticity assumption. Furthermore, the Durbin-Watson test yields a value of 1.906546; this value is close to the upper limit (du) of 1.8186 and the lower limit (2.3408), indicating that the model is free from autocorrelation and the residuals between observations are independent.

Overall, the test results show that the regression model used in this research fulfills the criteria of classical assumption tests, so it can be used in subsequent analyses.

Hypothesis Test Result

The t-test results in Table 2 indicate that the coefficient for the tax variable is 0.168703, with a corresponding p-value of 0.0351. The coefficient for the size variable is 0.245210, with a probability of 0.0156. Positive coefficients indicate a positive correlation between taxes and transfer pricing, as well as between company size and transfer pricing, meaning that the higher the tax burden or company size, the higher the likelihood of transfer pricing practices. A probability value of less than 0.05 indicates that the effect of tax burden or company size on transfer pricing is statistically significant.

A positive relationship also exists between foreign ownership and transfer pricing, but a probability value greater than 0.05 indicates an insignificant effect.

Table2
HypothesisTestingResults

Variable	Hypothesis	Coefficient	Std. Error	t-Statistic	Prob.
C		-7.171710	2.858965	-2.508499	0.0136
TAX	+	0.168703	0.079063	2.133790	0.0351
SIZE	+	0.245210	0.099855	2.455646	0.0156
FO	+	0.115670	0.110539	1.046416	0.2976
N			156		
R-squared			0.931969		
Adjusted R squared			0.905002		

As an additional test, analysis was conducted on 100 balanced panel observations from 20 companies that consistently reported profits during the observation period. The consistency of the test results indicates a positive and significant relationship between tax burden, company size, and transfer pricing policy, thus strengthening the main findings. The results of the 100 observations are presented in Table 3.

Table3
HypothesisTestingResults

Variable	Hypothesis	Coefficient	Std. Error	t-Statistic	Prob.
C		-7.780441	3.238561	-2.402438	0.0188
TAX	+	0.420962	0.134444	3.131143	0.0025
SIZE	+	0.260839	0.112159	2.325606	0.0228
FO	+	0.109367	0.116605	0.937928	0.3513
N			100		
R-squared			0.928491		
Adjusted R-squared			0.904333		

These findings support agency theory, which states that taxes are the primary reason companies engage in transfer pricing. The higher the tax burden, the greater the incentive for management to shift profits to lower-tax jurisdictions, thereby reducing tax liabilities and increasing shareholder net income. Similar conclusions were also reached by research by Lestari et al. (2020), Marliana et al. (2022), and Erica & Ngadiman (2022).

Large companies with substantial assets and complex transactions are more susceptible to profit shifting. According to signaling theory, transfer pricing is potentially employed as a tool to reflect corporate strength and effective tax management. This finding aligns with Ernawati's (2022) work.

These findings do not support the signaling theory, which considers foreign ownership a strong indicator of cross-border transfer pricing practices. The study's findings suggest that foreign ownership is no longer a dominant factor in Indonesia, in line with the country's stricter tax oversight, global transparency, and documentation requirements. These conditions have made multinational companies more cautious, making foreign ownership less of a factor influencing companies' transfer pricing practices. This finding contrasts with research by Samino (2022), Fikra et al. (2022), and Devi et al. (2024), which found a positive and significant relationship.

Conclusions

The analysis reveals that tax burden and company size have a significant influence on transfer pricing practices in Indonesian manufacturing companies. This suggests that higher tax liabilities or larger company size increase the tendency to utilize transfer pricing as a profit shifting strategy. Conversely, foreign ownership proved insignificant, indicating that this factor is no longer a primary determinant of transfer pricing practices in Indonesia.

Based on these findings, the Directorate General of Taxes can use tax burden and company size as initial indicators in assessing potential transfer pricing risks. Companies with these two characteristics should be included in the priority list for tax compliance monitoring. This step is crucial to minimizing the potential for profit shifting that harms state revenues. In addition to providing practical recommendations for tax authorities, this study also contributes academically by presenting new, consistent empirical evidence across both unbalanced and balanced panel data models, enriching the literature on transfer pricing in Indonesia.

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