The Impact of Exchange Rates and Tax Burden on Transfer Pricing: A Comparative Study Before and During COVID-19

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Abstract. Previous research references state that exchange rate and tax burden have a significant influence on transfer pricing. Transfer pricing is believed to have an impact during the COVID-19 pandemic, where cost escalation and constraints on intra-company movements are given more attention. This study aims to analyze the impact of exchange rate and tax burden on transfer pricing. Specifically, this research examines the comparative effects before and during the COVID-19 pandemic. The study utilizes panel data from manufacturing companies listed on the Indonesia Stock Exchange during the period of 2018-2021. The sample criteria were obtained through purposive sampling, resulting in 51 sample observations. The findings of this study reveal that exchange rates significantly influence transfer pricing before COVID-19 and have no impact during COVID-19. Tax burden does not influence transfer pricing before and during COVID-19.

Keywords: exchange rate, tax burden, transfer pricing.

1 Introduction

The global economic and industrial growth are outcomes arising from the phenomenon of globalization. Concurrent with advancements at the domestic level, market coverage has expanded into the international arena. This situation compels corporate proprietors to establish branches and subsidiary industries in various countries as a response to these challenges.Initially, this industry only employed the transfer pricing approach to calculate and monitor the performance of each operational division and industrial department (Fitri, 2018).However, what is occurring presently is that transfer pricing regulations have evolved into instruments for companies to reduce their overall tax burdens, both for international and domestic enterprises. As tax liabilities escalate, the decision-making strategy for transfer pricing will compel business entities to formulate transfer pricing decisions aimed at minimizing tax obligations to the greatest extent possible(Mispiyanti, 2015). Therefore, decisions made regarding transfer pricing in multinational industries often result in a decrease in tax revenue, as these industries tend to shift their tax obligations from countries with high tax rates to countries with lower tax rates.

Tax revenue is projected to decline in 2020 due to the COVID-19 pandemic causing Indonesia's economy to enter a recession, marked by two consecutive quarters of

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negative economic growth. This recession is part of a global trend as the pandemic led to economic contractions in 45 countries, including Indonesia. Since Q2 2020, some countries have already declared themselves in recession. The operational disruptions from the pandemic have impacted company performance, with only 58.95% of companies operating normally and 82.45% experiencing reduced revenues. (Central Bureau of Statistics, 2020).

Transfer pricing impacts the reduction of a country's tax revenue potential, as multinational corporations tend to shift their tax obligations from high-tax countries to low-tax countries. This has resulted in significant losses for developing countries like Indonesia, which heavily relies on taxes as a source of national income.

Beyond tax considerations, other factors influencing corporate decisions regarding transfer pricing include exchange rates. Exchange rates have both nominal and real dimensions, with nominal exchange rates reflecting the relative prices of currencies between two countries, while real exchange rates relate to the relative prices of goods between two countries.(Kumar et al., 2021)

The occurrence of phenomena related to transfer pricing, coupled with the inconsistency in previous research findings, has piqued the author's interest in reexamining both exchange rates and tax burden as independent variables, alongside the indication of engaging in transfer pricing as the dependent variable.

2 Literature Review

2.1 Agency Theory

The management and operation of businesses are frequently separated from their ownership in the setting of the contemporary economic landscape. This separation of duties between a company's founder and manager (agent) may cause the manager to disregard the owner's goals. An agency relationship between these two parties is created when decision-making power is transferred to outside parties. The manager's ability to match decisions with the principal's interests determines how well the principal-agent relationship works.

Agency relationships sometimes cause problems between managers and shareholders (Siagian et al., 2013). Conflicts arise because people are economic beings with a fundamentally selfish nature, and everyone of them strives to achieve their goals. There is a conflict of interest as a result. While managers desire to have their interests served by receiving the highest possible remuneration or incentives for their investment, shareholders want a higher and faster return on their investment. giving the highest rewards or incentives for their success in managing the business.

A strong structure of corporate governance within the organization is essential to resolving this dispute. This solution gives managers the assurance they need to make the most of all available resources and increase the profitability of the business. As a result, there is a tendency for agents to act improperly within the organization, especially when interacting with individuals who have special connections. To optimize the company's profits, the process of transfer pricing, which involves transactions between parties, is used. The possibility for manipulation occurs when agents take advantage of unequal information distribution to manipulate the principal by prioritizing personal interests through transfer pricing, with the goal of minimizing taxes or carrying out transactions at inflated prices. This study tries to determine whether the company's efforts to reduce tax payments and other important factors have an impact on transfer pricing decisions.

2.2 Transfer Pricing

The pricing or compensation associated with the exchange of goods, services, or technology among affiliated enterprises can be viewed positively as transfer pricing. On the other hand, systematic pricing manipulation with the aim of falsifying losses, faking gains, or avoiding taxes or levies in a particular nation might be seen adversely. Therefore, transaction pricing between taxpayers with special links is essentially what transfer pricing entails.

According to (Firmansyah, 2020:47), a company's policy for establishing the cost of a transaction transfer is known as transfer pricing. Transfer pricing can be divided into intra-company and inter-company categories. While inter-company transfer pricing covers pricing between two companies without any particular ties, intra-company transfer pricing involves pricing between divisions within a single organization. The locations of these businesses might be either domestic (within the same country) or international (among other nations).

2.3 Exchange Rate

The exchange rate (or currency rate) serves as a market valuation of foreign currency in relation to the domestic currency. It signifies an arrangement denoted as the currency's exchange value for forthcoming transactions between two currencies from their respective countries or regions (Cahyadi & Noviari, 2018). As the dependent parameter in this research, the exchange rate is assessed through a ratio scale involving the disparity between profit and loss due to the exchange rate, divided by sales profit and loss (Marfuah et al., 2021).

2.4 Tax Burden

Tax Burden refers to the total of all tax responsibilities or the effects of taxation on the total income received by the Taxpayer. Taxation is a compulsory payment mandated by tax regulations that individuals or entities are required to make for the welfare of the public. The Directorate General of Taxation has clarified that taxes are obligatory contributions to the government, which individuals or entities are legally obligated to fulfill. These contributions are made without receiving direct compensation and are utilized for the nation's requirements to ensure the utmost possible prosperity for its citizens.(Martinda Lestari et al., 2021)

Tax payment embodies civic responsibility and the active participation of taxpayers in collectively and directly meeting their tax duties for state funding and the advancement of the country. Following the principles of taxation laws, paying taxes is not solely a duty but also a entitlement of every citizen to contribute to state funding and national development.

3 Research Method

This study employs a quantitative research design. According to (Fatihudin, 2020:146), quantitative research is a methodology that emphasizes impartiality, involves the gathering and analysis of quantitative data, and makes use of statistical testing techniques. Panel data, which concurrently includes cross-sectional and time series data, are the type of data used in this study.

Manufacturing businesses registered on the Indonesia Stock Exchange between 2018 and 2021 made up the sample for this study. The purposive sample approach was used to identify 51 companies that fit the bill.

The criteria for sample selection in this study are as follows:

1. Manufacturing companies listed on the Indonesia Stock Exchange during the period 2018-2021.
2. Manufacturing companies that present annual finacial statements is one type of currency, Rupiah.
3. Companies that experienced gains/losses due to exchange rate fluctuations.
4. Companies that have receivables from related parties.

The exchange rate is a market-recorded price of foreign currency in terms of domestic currency. It represents an agreement known as the currency exchange rate for future payments between two currencies of distinct countries or regions. In this study, the exchange rate is regarded as a dependent variable measured by the scaled ratio of the profit or loss difference between exchange rates divided by the profit or loss from sales.(Marfuah et al., 2021)

$$\text{ER} = \frac{foreign\ exchange\ gain/loss}{profit\ before\ tax}$$

In this research, the tax burden is approximated through the utilization of the Effective Tax Rate (ETR). ETR represents the percentage of the tax rate borne by a company. It is calculated by determining the ratio of the total income tax expense to the profit before tax.(Cahyani Putri, 2023)

$$\text{ETR} = \frac{tax\ expense}{profit\ before\ tax}$$

Transfer pricing refers to the valuation assigned to goods/services moved between parties with a distinct relationship. The measurement of transfer pricing involves using proxies for related party transactions (RPT) through the calculation of the contrast between specialized relationship receivables and the receivables' amount.(Kalbuana, 2021)

$$\text{RPT} = \frac{related\ receivebles}{total\ receivables}$$

4 Result and Discussion

4.1 Result

The study's hypothesis can be understood from the theory presented above as follows:

- H1 : Before COVID-19, exchange has an impact on transfer pricing.
- H2 : During COVID-19 exchange has an impact on transfer pricing.

- H3: Before COVID-19, tax burdens had an impact on transfer pricing.
- H4: Before COVID-19, tax burdens had an impact on transfer pricing.

Testing will be done with the research hypothesis to back up the study's findings. These are the findings of this study:

Deskriptif Statistical Analysis Test

	Y	X1	X2
Mean	0.373971	0.255778	1.310196
Median	0.208128	0.019716	0.243262
Maximum	7.627771	7.438390	209.0881
Minimum	0.000000	0.000000	0.003616
Std. Dev.	0.611909	0.960684	14.62172

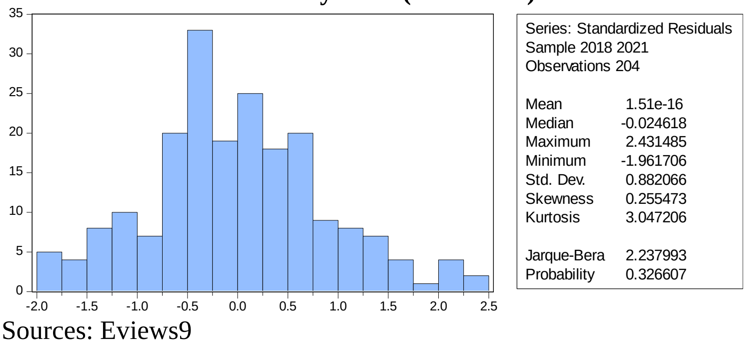
Sources: Eviews9

A related party transaction proxy (RPT) for transfer pricing displays a standard deviation value of 0.61. RPT's minimum and maximum values are 0.00 and 7.62, respectively. RPT has a mean value of 0.37 and an average value of 0.21. Because the transfer price variable's standard deviation value is higher than its average value, the transfer pricing data is clearly not homogeneous.

The standard deviation of the exchange rate is 0.96. The values are 0.00 for the minimum, 7.43 for the maximum, and 0.25 for the average (mean). The exchange rate data is heterogeneous as evidenced by the exchange rate variable's standard deviation value being higher than the average value.

Tax burden has a mean value of 1.31, a standard deviation of 14.62, a range of 0.003 to 209.08, and a minimum value of 0.003. The fact that the tax burden variable's standard deviation is higher than its average value indicates that the tax burden data is diverse.

Normality Test (2018-2021)



Sources: Eviews9

The data results show a probability value of 0.326 (>0.05), indicating that the data is normally distributed.

Panel Data Regression Test

Before conducting panel data regression, the researcher performed several tests to determine the best panel data regression model, among the Common Effect Model (CEM), Fixed Effect Model (FEM), or Random Effect Model (REM). The selected model is the Common Effect Model (CEM) on data before and during COVID-19.

Before COVID-19 (2018-2019)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.381857	0.205348	-1.859563	0.0659
X1	0.178117	0.088780	2.006286	0.0476
X2	0.264253	0.239209	1.104697	0.2720

R-squared	0.057061	Mean dependent var	-0.816711
Adjusted R-squared	0.038012	S.D. dependent var	0.841833
S.E. of regression	0.825678	Akaike info criterion	2.483747
Sum squared resid	67.49271	Schwarz criterion	2.560952
Log likelihood	-123.6711	Hannan-Quinn criter.	2.515010
F-statistic	2.995436	Durbin-Watson stat	0.765598
Prob(F-statistic)	0.054568		

Sources: Eviews9

During COVID-19 (2020-2021)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.923367	0.209012	-4.417766	0.0000
X1	-0.000652	0.095954	-0.006798	0.9946
X2	0.001157	0.173418	0.006674	0.9947

R-squared	0.000001	Mean dependent var	-0.923048
Adjusted R-squared	-0.020201	S.D. dependent var	0.801366
S.E. of regression	0.809420	Akaike info criterion	2.443973
Sum squared resid	64.86092	Schwarz criterion	2.521178
Log likelihood	-121.6426	Hannan-Quinn criter.	2.475236
F-statistic	4.31E-05	Durbin-Watson stat	0.255420
Prob(F-statistic)	0.999957		

Sources: Eviews9

- As X1 strongly effects Y before COVID-19, it has a T-Statistic value of 2.006 and a significance value of 0.047 (<0.05).
- The fact that X1 does not significantly affect Y during COVID-19 is indicated by its T-Statistic value of -0.006 and significance value of 0.9946 (>0.05).

- According to X2, which has a T-Statistic value of 1.104 and a significance value of 0.272 (>0.05), X1 did not significantly alter Y prior to COVID-19.
- The fact that X1 does not significantly affect Y during COVID-19 is shown by its T-Statistic value of 0.006 and significance value of 0.994 (>0.05).

4.2 Discussion

The influence of exchange rates on transfer pricing before Covid-19

When considering the indicators of foreign exchange profit and loss and profit and loss before tax, one can determine how the exchange rate in the year prior to COVID-19 affected transfer pricing. This is evident from its impact on production costs, net profit, and corporation taxes, thus business management and policymakers must take these considerations into account when planning and managing transfer pricing to ensure proper compliance and the best outcomes. It is determined that H1 and a number of supporting variables, including theory and earlier study, are approved.

The influence of exchange rates on transfer pricing during Covid-19

When applying the indicators of foreign exchange profit and loss and profit or loss before tax during COVID-19, transfer pricing is not affected by the exchange rate at the time of year. The impact of exchange rates on transfer pricing procedures during this crisis may have been lessened by operational stability, other more important factors, stable exchange rates, other dominant factors, and macroeconomic uncertainty. Conclusion: H2 and other supporting reasons, including theory and prior research, are dismissed.

The influence of tax burden on transfer pricing before and during Covid-19

Transfer pricing was not influenced by the tax burden in the year before and during COVID-19, seen using the effective tax rate (ETR) indicator, namely deferred tax burden and profit before tax. It can be concluded that the tax burden may not be the dominant factor in determining transfer pricing practices. Conversely, factors such as legal compliance, international tax regulatory requirements, and other business factors can have a greater influence on transfer pricing decisions. It is concluded that H3 is rejected, as well as several factors such as theory and research.

5 Conclusion

The test results demonstrate that the influence of exchange rates on transfer pricing before COVID-19 has a significant impact. Meanwhile, during the COVID-19 period, exchange rates do not significantly affect transfer pricing. The test results demonstrate that the influence of tax burden on transfer pricing before and during COVID-19 has a no significant impact.

It is hoped that in future research, we can analyze companies other than manufacturing such as LQ45 companies, mining companies and other sub-sector companies.

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