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# Do Tax Rates Encourage Profit Shifts By Multinational Companies In Indonesia

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## ARTICLE HISTORY

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## Abstract

Multinational companies have opportunities to exploit the gaps in tax regulations between countries to reduce the tax burden and maximize profits. This paper aims to study tax rates that affect profit shifting by multinational companies in Indonesia. This research also aims to see the interaction effect of the crisis caused by the COVID-19 pandemic to profitshifting behavior. The sample consisted of 163 multinational companies listed on the Indonesian stock exchange, either with Indonesian parents having foreign subsidiaries or Indonesian subsidiaries of foreign parents from 2017 to 2022. Panel Corrected Standard Error (PCSE) regression technique was invoked to examine tax rate differential motivated profitshifting undertaken by MNCs. The results suggest that multinational companies shift their profits to take advantage of global tax rate differences. However, the analysis did not find any significant difference in this relationship either before or during the COVID-19 pandemic.

#### INTRODUCTION

Multinational corporations face varying tax regulations across the countries in which they operate. The disparity in tax provisions can create loopholes for companies to avoid taxes by shifting their profits to countries with lower tax rates (Mugarura, 2018). The broader a company's global reach, the greater the opportunities it can leverage in exploiting regulatory differences across various national jurisdictions (Johansson et al., 2017a). These practices are carried out through the utilization of intellectual property, management services related to the headquarters, services related to data and information, as well as financial services such as investments, loans, and money management (Hebous & Johannesen, 2021).

The heightened global concern regarding profit-shifting practices employed by multinational corporations has spurred various stakeholders to estimate the magnitude of tax base erosion and profit diversion detrimental to national revenue. The Tax Justice Network's report (2020) indicates that multinational corporations engage in profit-shifting, with estimated values ranging from USD 600 billion to USD 1.1 trillion per year, constituting 40% of their earnings derived from foreign sources. The practice of Base Erosion and Profit Shifting (BEPS) itself is calculated to result in annual losses amounting to USD 100-240 billion (OECD, 2023). Estimations show that the fiscal losses incurred due to BEPS practices in the European Union amount to EUR 36 billion, EUR 24 billion in Japan, and EUR 100.8 billion in the United States each year (Álvarez-Martínez et

al., 2022). Indonesia is estimated to lose USD 4.7 million annually due to corporate tax abuse (O'Hare, 2020).

COVID-19 has led to a significant decline in demand and investment, limiting company profitability and reducing liquidity (Yan et al., 2023). The decrease in financial performance for most companies can trigger financial distress (Handayati et al., 2022). In response to the crisis induced by the COVID-19 pandemic, the Indonesian government implemented various measures to support businesses. One such measure was the reduction of the corporate income tax rate from 25% to 22%, effective from the 2020 tax year. With this adjustment, the new corporate income tax rate in Indonesia is close to the global average rate. The global statutory corporate income tax rate has been declining since the 1980s when most countries levied rates between 30%-50%. Currently, most countries impose rates ranging from 21%-30%. Notably, the new rate is still higher than the average corporate income tax rates in Asia 19.52% and Europe 19.74% (Enache, 2022). Meanwhile, the higher the tax rate, the more likely multinational companies engage in profit-shifting activities to reduce their tax bills (Huizinga & Laeven, 2008).

There are two potential behaviors of corporate tax avoidance resulting from increased economic pressure and uncertainty during the COVID-19 pandemic (Kobbi-Fakhfakh & Bougacha, 2023). First, in crises, taxpayers may adopt tax avoidance strategies as an alternative source of financing to cope with the adverse impacts of the crisis. The COVID-19 pandemic has also accelerated the use of digital technology in business and forced many companies to interact with customers through digital channels. However, the use of digital technology, apart from increasing market power, can also be used for profit-shifting practices and anti-competitive behavior (Ghauri et al., 2021).

Second, the decline in corporate income during the pandemic could lead to an increased risk aversion among taxpayers, diminishing their motivation to engage in tax avoidance. This practice can damage the reputation of a company and its executives, especially if the practice is considered unethical or illegal by the public or regulators (Gallemore et al., 2014). Reputation costs need to be considered before deciding to carry out tax avoidance practices because if they fail, the costs incurred will exceed the benefits obtained. Apart from reputation risks, companies that practice tax avoidance are also faced with legal risks because they violate applicable tax regulations which incur sanctions and law enforcement costs (Armstrong et al., 2015). The ethical behavior of an organization during a crisis is crucial as it can influence the organization's reputation and the trust of the public in the organization (Potocan & Nedelko, 2021).

This research aims to obtain empirical evidence regarding the practice of profit shifting by multinational companies in Indonesia, in terms of differences in Indonesia's statutory tax rates with the average statutory tax rate in a group of multinational companies. It is also to look at the conditions before and during the crisis caused by the COVID-19 pandemic. It is hoped that the results of this research can fill the literature gap by providing additional empirical evidence in developing countries.

## LITERATURE REVIEW

## **Base Erosion And Profit Shifting (BEPS)**

Each country has sovereign rights to design its own tax policies and systems (Rohatgi et al., 2018). Countries can impose taxes based on jurisdiction principles that refer to public international law, namely the principles of residence, source, or a combination of both (Miller, 2015). The diversity of corporate income tax rates applied across countries provides opportunities for multinational corporations to maximize post-tax profits by minimizing the taxes they pay globally (Omar & Zolkaflil, 2015).

Both Indonesian tax regulations and the OECD define BEPS as strategies to reduce tax burdens. Another common term associated with efforts to minimize taxes is tax avoidance, which is often still viewed more positively compared to tax evasion which connotes more negative implications involving violations of law (Darussalam et al., 2019). However, the OECD describes tax avoidance as the efforts of taxpayers to legally reduce taxes owed, but these actions essentially contradict the objectives of establishing tax legislation. (Ftouhi & Ghardallou, 2020) view transfer pricing across geographic regions as one international tax planning alternative. Additionally, there are two other channels, including allocating ownership of intangible assets and risks to low-tax countries to shift profits from high-tax countries and manipulating the location of debt (Johansson et al., 2017).

Tax avoidance practices and BEPS negatively impact the global economy, business competition, social welfare, and institutions (Darussalam et al., 2019). Developing countries are more vulnerable to cross-border profit shifting than developed countries due to lower tax auditing capacities and greater reliance on corporate tax revenues (Crivelli et al., 2016). To address BEPS practices, the finance ministers of G20 and OECD countries proposed an action plan to align taxation rights with actual economic activities. Indonesia has implemented this action plan beyond the minimum standards set by the OECD by enacting 7 of the 15 action plans (DGT, 2023).

Another challenge has emerged with technological advancements and globalization. Many companies can conduct business online without having a physical presence in a country. Digitization enables corporations to shift their profits to countries with lower tax rates or no taxes at all, thereby reducing other countries' tax revenues (OECD, 2021). To address the tax challenges arising from the digitized economy, the OECD proposed a Two-Pillar Solution for international tax reform. Pillar One aims to provide new taxing rights to market jurisdictions, so MNEs will face taxation where they generate income, even without a physical presence there. Pillar One includes three key elements: scope, new taxing rights, and revenue thresholds. Pillar Two aims to ensure that MNEs pay fair and equitable taxes globally. This pillar consists of two main components: Global Anti-Base Erosion Rules and Subject-to-Tax Rules. However, these pillars are not yet effectively enforced (DGT, 2023). Indonesia has prepared legal instruments to facilitate Pillar One within the exclusive framework as stipulated in Article 32A of the Tax Regulation Harmonization Law (Surono & Apriliasari, 2022).

## Corporate Tax Rate

In the context of comparing tax rates across countries, there are three types of tax rates that can be used: statutory tax rate, effective tax rate, and marginal effective tax rate. The statutory tax rate can influence a company's profit-shifting efforts by altering its financing sources or transferring assets or products at abnormal prices (Gravelle, 2014). The statutory tax rate has stronger predictive power than the effective average tax rate in indicating the likelihood of multinational companies considering profit-shifting opportunities when choosing subsidiary locations (Amerighi & De Feo, 2014). Furthermore, using an unweighted average of tax rates across all countries where a multinational group operates is considered the most appropriate approach for measuring tax rate differences between countries (Beer & Loeprick, 2015; Bilicka & Seidel, 2020; Johansson et al., 2017b)

The study by (Heckemeyer & Overesch, 2017) estimated that a one percent decline in the host country's corporate income tax rate was associated with a 0.80 percent increase in the pretax income of subsidiaries based in that country. The findings of (Johansson et al., 2017b) imply that a tax rate one percent above the group average could be linked to reported pretax income one percent lower than the multinational group's average. Both studies depict a negative relationship between tax rate differences and reported taxable income. Decreasing tax rates narrow the tax rate gaps and is associated with increases in reported taxable income (Heckemeyer & Overesch, 2017). Conversely, increasing tax rates widen the gaps and are associated with decreases in reported taxable income (Johansson et al., 2017b). These conclusions support research findings that a one percent decline in the corporate tax rate of

parent companies outside Indonesia lowered reported income in Indonesia by 2.5 percent (Purba & Tran, 2018). Therefore, the first hypothesis for this study is:

**H1** : The difference between Indonesia's corporate income tax rate and the unweighted average tax rate in countries where groups of multinational corporations operate has a negative influence on pre-tax profits.

#### The COVID-19 Pandemic Crisis

The COVID-19 pandemic has inflicted tremendous shocks on the global economy (IMF, 2020). This condition lowered multinational corporation revenues by 21% and profitability by 25% in 2020 compared to the previous year (UNCTAD, 2020). Difficulties in exporting and importing goods negatively impacted corporate liquidity and profitability (Amnim et al., 2021). Not exempted, Indonesia, like other countries, experienced disruptions or interruptions in economic activities due to COVID-19, affecting both production and consumption aspects. This has led to a decline in the performance and capacity of companies to meet obligations (MOF, 2021). The COVID-19 pandemic negatively impacted the financial performance of companies in Indonesia, especially in terms of profitability and liquidity ratios. However, this research also shows that some companies were able to withstand and even improve their financial performance during the pandemic (Devi et al., 2020). On average, manufacturing companies in Indonesia had the potential to navigate through financial difficulties, generate profits, and exhibit good performance in meeting short-term and total obligations during the COVID-19 pandemic (Handayati et al., 2022).

Multinational corporations must utilize their dynamic capabilities to respond to the uncertainties caused by COVID-19, such as through digital business models (Olarewaju & Ajeyalemi, 2023). The COVID-19 pandemic accelerated the adoption of digital technologies and Industry 4.0 across global value chains (Dilyard et al., 2021). Using digital technologies like autonomous systems, artificial intelligence, and machine learning tools will enable more flexible and resilient global supply chains. However, digitalization may increase profit-shifting practices by multinational enterprises (MNEs). Developing countries face challenges in collecting tax revenues from the digital economy, including non-comprehensive tax bases, weak capacities of tax authorities, and a lack of international consensus on taxing the digital economy (Mpofu & Moloi, 2022).

According to the economic deterrence model that focuses on a cost-benefit framework for explaining tax compliance behavior, taxpayers are viewed as rational economic agents weighing the costs and benefits of tax avoidance (Kobbi-Fakhfakh & Bougacha, 2023). If the expected benefits (tax reduction) exceed the costs (risk of audit), taxpayers will be more likely to avoid taxes (Walsh, 2012) Such behavior can be reinforced by social norms during recessions, when taxpayers may perceive tax authorities to be less strict in enforcing regulations or others to be avoiding more taxes, thus reducing its risk or social acceptability (Brondolo, 2009). Such relaxation of law enforcement is evidenced by the audit coverage ratio reported by the Directorate General of Taxes dropping to 0.86% in 2021 from 1.54% the previous year (DGT, 2022). Several studies conducted by (Faisal & Rosid, 2022), (Athira & Ramesh, 2023), and (Khan & Nawaz, 2023) indicates that tax avoidance behavior has increased during the COVID-19 pandemic.

Another perspective, taxpayers' risk aversion behavior tends to strengthen with declining income levels (Allingham & Sandmo, 1972). In line with this view, according to the basic model of tax compliance (Brondolo, 2009), recessions can improve tax compliance in several aspects. First, individuals may be reluctant to take the risk of getting involved in tax evasion when experiencing a decline in income. Second, the progressivity in the tax system, where marginal tax rates decrease with falling income, provides smaller incentives not to report income.

Corporate tax avoidance raises ethical concerns because it can harm society and nations, as well as reduce government's capacity to provide adequate public services (Sikka, 2013). Tax

avoidance imposes social costs that are borne by society due to such practices (Slemrod, 2016). Corporate decisions on the extent to which they are willing to minimize tax obligations should be influenced by their attitudes toward corporate social responsibility (Lanis & Richardson, 2012). Reputation is a key factor, along with legal risks, that deters executives from engaging in tax avoidance (Graham et al., 2014).

Companies known for aggressive tax avoidance practices may experience reputational harm and loss of trust from stakeholders (Athira & Ramesh, 2023). This can have an impact on decreasing share value, decreasing customer trust, and can even lead to lawsuits or sanctions from regulators (Wang et al., 2021). In general, the market reacted negatively to news about corporate tax avoidance and the average company share price decreased (Hanlon & Slemrod, 2009). News about tax avoidance and tax evasion can also negatively influence employee perceptions of managers and companies (Lee et al., 2021).

Governments need substantial funds to finance critical public services. Thus, stakeholders expect companies to fulfill social obligations, including paying rightfully owed taxes (Payne & Raiborn, 2018). Stakeholders want firms to properly pay taxes since they provide revenue for governments to fund various beneficial public programs and services (Scarpa & Signori, 2023). The public is seen as a key stakeholder in evaluating corporate ethical behavior during the COVID-19 crisis. Public pressure can influence corporate actions, requiring firms to consider public perceptions of their conduct (Corral de Zubielqui & Harris, 2024). Ethical organizational conduct needs careful management during economic downturns like the COVID-19 pandemic. In crises, there are higher ethical expectations and greater sensitivity to social issues, so organizations should increase engagement in ethical practices to meet these expectations (Potocan & Nedelko, 2021).

The reduction in corporate income tax rates in Indonesia since the COVID-19 pandemic has led to a decrease in the disparity of tax rates. However, reported pre-tax profits are expected to decline due to the crisis's impact. The increase in tax avoidance behavior during the crisis will further diminish reported pre-tax profits. Meanwhile, risk aversion and ethical behavior during the crisis will enhance taxpayers' compliance with their tax obligations, as they report pre-tax profits in accordance with the actual situation. Hence, the second hypothesis is as follows:

**H2** : The decrease in corporate income tax rates during the COVID-19 pandemic led to a reduction in the gap between Indonesia's corporate income tax rate and the unweighted average tax rate in all countries where multinational corporations operate. However, this had a negative impact on earnings before taxes.

#### **METHODS**

This research uses a quantitative approach using panel data to analyze changes in research variables in the period before the COVID-19 pandemic (2017-2019) and during the COVID-19 pandemic (2020-2022). The sample consisted of 163 companies listed on the Indonesia Stock Exchange. The samples were selected using a purposive technique, with the criteria of representing multinational subsidiaries overseas or domestic companies with overseas subsidiaries and calculating corporate income tax at the normal rate according to article 17 of the Income Tax Law. This study also excluded companies operating in the financial, tourism, and transportation sectors. The financial sector was excluded due to its distinct characteristics and regulations that differentiated it from other sectors (Sari et al., 2020). The tourism and transportation sectors were the two most affected by the COVID-19 national disaster and suffered losses during this period (BPS, 2020). Details of the sample with characteristics related to parties were presented in Table 1.

The main variables in this study were profitability and tax rate differential of the country and the MNC's group average. All variables were used in previous research by (Gill et al., 2022; Johansson et al., 2017a). In this research, a COVID dummy is employed as an interaction variable to assess the impact of the pandemic on relevant variables. The complete operational definitions

of the variables are presented in Table 2. The research data were derived from the financial statements reported by companies to the Indonesia Stock Exchange, company annual reports published through official company websites, and data available in the Refinitiv database. Meanwhile, the patent data were taken from the OECD patent datasets from the Worldwide Patent Statistical Database (PATSTAT) managed by the EPO. The data used had been updated as of August 2022. The relationship between the difference in the Indonesian statutory corporate tax rate and the unweighted average statutory tax rate of an MNC's corporate group and MNC's profitability was tested by equation:

# $PROFIT_{i,t} = \beta_0 + \beta_1(TAXDIFF_{i,t}) + \beta_2SIZE_{i,t} + \beta_3HQ_{i,t} + \beta_4OP_{i,t} + \beta_5PATENT_{i,t} + \epsilon_{i,t}$

#### Table 1. Sample characteristics in relation to related party

	Number of Companies	Foreign Parties' Operating Countries
Indonesian parents with foreign subsidiaries	99	56
Indonesian subsidiaries of a foreign parent	64	176

A winsorization at the 1 percent level (Markle et al., 2020) (Elemes et al., 2021) was performed and the data transformed using a natural logarithm to minimize the influence of outliers on the analysis results. Based on the results of estimating the panel data regression model using the Chow test, Hausman test, and Lagrange Multiplier test, the fixed effects model was selected as the most appropriate panel data regression model for estimating the influence of the independent variables on the dependent variable (Rifkhan, 2022). However, based on the results of the Wooldridge Test to detect autocorrelation and the Modified Wald Test to detect heteroscedasticity in the estimated regression model, it was found that there were problems of autocorrelation and heteroscedasticity. Therefore, panel corrected standard error (PCSE) was conducted to address the autocorrelation and heteroscedasticity issues (Kumawat & Patel, 2022; Minh Ha et al., 2021; Neves et al., 2019).

Independent Controlled Variable         SIZE       Company Size         HQ       Total Assets         MC       Value of 1 if the MNC is the group headquarters an otherwise         OP       MNC in the corporate group         Value 1 if it is not the group headquarters but has subsidiary, value 0 otherwise         PATENT       Presence of patents         Value is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise		Variable	Operationalization
Independent VariableTax rate differential of the country and the MNC's group average(Indonesia's statutory corporate income tax rate) - (Unweighted average of corporate income tax rate countries where all multinational corporate groupsIndependent Controlled VariableSIZECompany SizeTotal AssetsSIZECompany SizeTotal AssetsHQThe position of an Indonesian MNC in the corporate groupValue of 1 if the MNC is the group headquarters ar otherwiseOPMNC in the corporate groupValue 1 if it is not the group headquarters but has subsidiary, value 0 otherwisePATENTPresence of patentsValue is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise	Dependen	nt Variable	
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Independent Controlled Variable         SIZE       Company Size       Total Assets         HQ       The position of an Indonesian       Value of 1 if the MNC is the group headquarters ar otherwise         OP       MNC in the corporate group       Value 1 if it is not the group headquarters but has subsidiary, value 0 otherwise         PATENT       Presence of patents       Value is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise		and the MNC's group average	(Unweighted average of corporate income tax rates in the
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HQ       Value of 1 if the MNC is the group headquarters an otherwise         OP       MNC in the corporate group       Value 1 if it is not the group headquarters but has subsidiary, value 0 otherwise         PATENT       Presence of patents       Value is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise	Independe	ent Controlled Variable	
The position of an Indonesian       otherwise         OP       MNC in the corporate group       Value 1 if it is not the group headquarters but has subsidiary, value 0 otherwise         PATENT       Presence of patents       Value is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise	IZE	Company Size	Total Assets
OP       MNC in the corporate group       Value 1 if it is not the group headquarters but has subsidiary, value 0 otherwise         PATENT       Presence of patents       Value is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise	IQ		Value of 1 if the MNC is the group headquarters and 0
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PATENT Presence of patents Value is 1 if the company group has a stock of at le patent in a sample period, the value is 0 otherwise	P	MNC in the corporate group	Value 1 if it is not the group headquarters but has at least 1
patent in a sample period, the value is 0 otherwise			subsidiary, value 0 otherwise
· · · · ·	ATENT	Presence of patents	Value is 1 if the company group has a stock of at least one
Independent Controlled Variable			patent in a sample period, the value is 0 otherwise
	Independe	ent Controlled Variable	
DUMCOV COVID-19 Dummy Coded 1 for the years from 2020 to 2022, 0 for the	VOONU	COVID-19 Dummy	Coded 1 for the years from 2020 to 2022, 0 for the years from
2017 to 2019			2017 to 2019

## Table 2. Operationalization of Variables

## RESULTS

#### Descriptive

The statistical summaries for the variables examined in this study can be found in Table 3 and 4. Table 3 presents the descriptive statistics of numerical variables after adjustments. The average value of PROFIT at 6.39% indicates that, on average, the sampled companies gain profits

from their business operations in Indonesia. During the COVID-19 pandemic, the average sampled companies experienced a 0.53% decrease in profit. However, based on the paired t-test results, this decrease is not statistically significant. Therefore, it can be stated that, on average, companies achieve similar profits in the periods before and during COVID-19.

Indonesia's corporate income tax rate is still relatively high compared to the average tax rate imposed on multinational company groups. This is reflected in the average value of TAXDIFF at 2.77%, indicating a positive difference between Indonesia's corporate tax rate and the average tax rate applied to multinational company groups. On average, TAXDIFF experienced a decrease of 2.23%, and this decrease is significantly different compared to the period before the COVID-19 pandemic. This is due to Indonesia reducing the tax rate by 3% in 2020. The average total assets of companies increased by 0.1761, and this difference is statistically significant. It indicates that, on average, the sampled companies experienced an increase in assets during the COVID-19 period.

## Table 3. Descriptives PROFIT, TAXDIFF, SIZE

	Full Sample (2017- 2022)		Before Pandemic (2017- 2019)		During Pandemic (2020- 2022)			
	N =	978	N =	489	N = 4	189		
Variable	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean Diff	t-stat
PROFIT	0.064	0.125	0.067	0.125	0.061	0.126	-0.005*	-0.92
TAXDIFF	0.028	0.036	0.039	0.035	0.017	0.034	-0.022*	72.91
SIZE	29.421	1.704	29.333	1.693	29.509	1.712	0.176*	10.29

Notes: The differences in means between the subsamples are presented, including the t-statistics based on the meancomparison test. N is the number of observations. S.D. is the standard deviation. \* indicate statistical significance at 5% level. See Table 2 for the definitions of the variables

Table 4 indicates that almost a quarter of the sampled companies (23.93%) have a higher incentive to engage in profit-shifting practices because they possess patents. A small portion of the sampled companies in this study (29.45%) serves as the ultimate parent, having full authority in making comprehensive strategic decisions for all entities within the multinational group. 55.21% have intermediary parent status, acting as intermediary parent entities, while the remaining 15.34% are direct subsidiary entities fully controlled by both the ultimate parent and intermediary parent without having authority in strategic decision-making.

Variable	Dummy	Frequency	Percentage
PATENT	0	744	76.07%
	1	234	23.93%
110	0	690	70.55%
HQ	1	288	29.45%
OP	0	438	44.79%
	1	540	55.21%

#### Table 4. Descriptives PATENT, HQ, dan OP

Notes: See Table 2 for the definitions of the variables

#### **Regression Analysis**

The results presented in Column (1) displays the regression results for the entire observation period (2017-2022), with a total of 978 observations comprising 163 companies over 6 years. The regression results indicate that the variable TAXDIFF significantly negatively affects PROFIT, with a coefficient value of -0.2600. This finding aligns with the first hypothesis of this study.

Column 2 of Table 5 presents the regression results involving the COVID-19 interaction. The regression coefficient of the DUMCOV variable is negative, suggesting that COVID-19 has a negative impact on company profitability. The interaction between DUMCOV and TAXDIFF has a positive coefficient, indicating a positive influence on company profitability. However, both the regression coefficient for the DUMCOV variable and its interaction with TAXDIFF are not

statistically significant. Therefore, these findings do not provide support for the second hypothesis in this study.

Variabel	(1) PROFIT	(2) PROFIT	
TAXDIFF	-0.2600 *	* -0.3410	***
	(0.015)	(0.005)	
TAXDIFF*DUMCOV		0.0274	
		(0.865)	
DUMCOV		-0.0156	
		(0.132)	
SIZE	0.0124 *	** 0.0128	***
	(0.000)	(0.000)	
PATENT	0.0148 *	** 0.0135	**
	(0.008)	(0.016)	
HQ	-0.0019	-0.0023	
	(0.773)	(0.736)	
OP	0.0188 *	** 0.0188	***
	(0.003)	(0.003)	
Constant	-0.3070 *	** -0.3090	***
	(0.000)	(0.000)	
Year	Included	Included	
Industry	Included	Included	
Observations	978	978	
R-squared	0.0432	0.0463	
Wald chi2	216.10	452.20	

Notes: The table shows the impact of TAXDIFF on PROFIT employing a Panel Corrected Standard Error (PSCE) Model. Column 1 introduces the main independent variables of the study over the whole period under analysis. Column 2 includes the interactions between TAXDIFF and COVID dummy variables. See Table 2 for the definitions of the variables. P-values are reported in parentheses. \*\*\*, \*\* and \* indicate coeicient is signiicant at the 1%, 5% and 10% level, respectively

## DISCUSSION

## The impact of tax rate differences on pre-tax profits

The difference in Indonesia's corporate income tax rates with the unweighted average tax rates across all countries where multinational corporations operate has a negative impact on reported pre-tax profits in Indonesia. These findings align with the research conducted by (Heckemeyer & Overesch, 2017; Johansson et al., 2017a), and (Purba & Tran, 2018), which observed companies operating in 46 countries consist of developed and emerging countries. However, these results differ from the findings of the study conducted by (Gill et al., 2022), which observed multinational corporations in India.

This finding also indicate that Indonesia is at risk of profit-shifting practices conducted by multinational corporations. This becomes more complex considering that most companies operating in Indonesia do not have the authority to make strategic decisions; they merely implement policies set by their headquarters. In this context, the differences in tax rates between countries remain a significant driving factor for multinational corporations operating in Indonesia to engage in profit-shifting. They tend to exploit the tax rate gap to maximize post-tax profits, employing strategies to minimize global tax payments (Armstrong et al., 2015; Omar & Zolkaflil, 2015) (OECD, 2023). As an investment destination, Indonesia has the potential to be involved or exploited in the tax avoidance schemes of multinational corporations (Darussalam et al., 2019). Therefore, the magnitude of Indonesia's tax rates is still considered a factor in the profit-shifting strategies employed by multinational corporations operating in Indonesia.

#### The impact of tax rate differences on pre-tax profits during the COVID-19 pandemic

The difference between Indonesia's Corporate Income Tax rate and the average tax rate across all countries where multinational corporations operate continues to have a negative impact on reported pre-tax profits by multinational corporations in Indonesia during the COVID-19 period, similar to the situation before the pandemic. This indicates that the reduction in tax rates during the COVID-19 pandemic positively affects reported pre-tax profits in Indonesia. The positive impact on reported profits due to the reduction in tax rates during the pandemic suggests that, despite the decrease in profitability, taxpayers are more compliant in fulfilling their tax obligations and refrain from tax avoidance practices, including profit shifting to other jurisdictions. The decrease in tax rates has successfully reduced the incentive for companies to shift profits from business operations in Indonesia.

These findings are consistent with the view of (Brondolo, 2009), stating that a recession can enhance tax compliance. First, increased risk aversion behavior leads companies to avoid the risk of engaging in tax avoidance during revenue downturns. Second, the decrease in revenue and tax rates during the COVID-19 pandemic results in lower marginal tax rates, providing diminishing incentives not to report income. Additionally, concerns about reputational damage may also influence executive management decisions to avoid tax avoidance during the crisis period (Athira & Ramesh, 2023) as it can impact a decrease in the company's value, reduce customer trust, and even lead to legal claims (Wang et al., 2021).

#### CONCLUSION

Profit shifting practices have become a serious concern due to their detrimental impact on countries' tax revenues. These practices are undertaken by multinational corporations seeking to leverage differences in tax regulations across the various countries where they operate. Corporate tax rates have been on a declining trend since the 1980s, including Indonesia which lowered its corporate tax rate to 22% starting in 2020. Cutting tax rates can reduce the incentives for multinational corporations to engage in profit shifting. However, this research indicates that Indonesia's corporate tax rate remains higher compared to the average rates of countries where multinationals operate. The results of this study demonstrate that the difference between Indonesia's corporate income tax rate and the tax rates of other countries where multinational groups operate has a negative impact on the pre-tax profit reported in Indonesia. This aligns with profit shifting motives to report lower profits in higher tax jurisdictions like Indonesia. However, the analysis did not find any significant difference in this relationship either before or during the COVID-19 pandemic. The reduced difference in tax rates during the pandemic had a positive influence on the pre-tax profits reported. This indicates that taxpayers are likely to exhibit risk aversion behavior during a pandemic and avoid tax avoidance practices.

This research contributes to developing the theory of international taxation. These findings support the notion that the disparity between a fiscal jurisdiction's tax rate and the average tax rate in countries where a multinational group is resident affects the amount of pre-tax profit reported. The greater the positive difference between Indonesia's tax rate and the average tax rate of a multinational group, the lower the pre-tax profit reported in Indonesia. This aligns with profit shifting motives to globally minimize total taxes paid. The research also shows that tax rates remain a key consideration in multinational corporate tax planning decisions despite external environmental shifts like the COVID-19 crisis. This study narrowed its focus to statutory corporate tax rates applied across countries, yet it is important to acknowledge that profit shifting can also be influenced by differences in taxation systems and various preferential tax treatments available, like patent box regimes. For a more comprehensive understanding, further research is advised to consider disparities in existing tax systems and preferential rate policies. This can provide a more accurate picture of profit shifting and enable better estimates of transfer values.

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