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External Variables Affecting the Transfer Pricing Decisions: Arm's Length Basis and Transfer Pricing

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<p>Keywords:</p>	<p><i>Transfer Pricing, Profit Shifting, Tax Avoidance, Regulatory Institutions</i></p>



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Introduction

Globalization has profoundly reshaped the economic environment, enabling multinational enterprises to conduct operations on a worldwide scale (Sever, 2019; Kilyachkov & Chaldaeaya, 2021; Karim & Said, 2024). The surge in international trade and foreign direct investment has intensified concerns about aggressive strategies for minimizing tax obligations, particularly through the use of transfer pricing mechanisms. Transfer pricing denotes the determination of prices for goods, services, or intangible assets exchanged between entities that are commonly owned or controlled. It has evolved into a deliberate method for multinational enterprises to shift earnings to regions with more favorable tax regimes, thus lowering their overall tax liabilities (Johannesen, 2014; Cristea & Nguyen, 2016; Perveez, 2019; Margolis & Calderon, 2021; Huseyin, 2023; Prica & Bijelic, 2025). Base erosion and profit shifting describes a form of tax avoidance in which multinational enterprises exploit discrepancies in tax laws to deliberately transfer profits away from high-tax locations. The manipulation of transfer pricing has prompted leading global bodies such as the Organisation for Economic Co-operation and Development and the European Commission to stress the need for effective solutions to base erosion and profit shifting. Despite the adoption of numerous comprehensive policy measures and international frameworks, the inherent subjectivity and complexity associated with implementing transfer pricing rules continue to create considerable obstacles for tax authorities, particularly in countries with limited regulatory oversight capabilities (Brauner, 2014; Devereux & Vella, 2014). Employing transfer pricing for tax avoidance has ignited considerable controversy. According to the United Nations Conference on Trade and Development and corroborated by empirical analyses, developing economies suffer significant revenue shortfalls as a result of profit manipulation through transfer pricing by multinational enterprises (Ali & Naeem, 2017; UNCTAD, 2020; Kwaramba et al., 2016; Sebele-Mpofu, 2021b; Ibrahim & Simian, 2023). Accordingly, transfer pricing persists as an important topic in economic policy, political discourse, and the management of public finances, and it is regularly featured in the agendas of regional forums on tax collaboration, including the African Tax Administration Forum.

Amid increased examination of pricing policies adopted by multinational enterprises, the topic of transfer pricing has shifted from a strictly technical issue to a central matter of public and institutional importance. Tax authorities, national administrations, and international organizations such as the Organisation for Economic Co-operation and Development, the World Bank, and the International Monetary Fund now acknowledge the necessity for integrated regulatory supervision (Pogge & Mehta, 2016; Hearson, 2018). Numerous developing nations—including Zimbabwe, Kenya, Tanzania, Zambia, and Mauritius—have incorporated standards recommended by the Organisation for Economic Co-operation and Development and the United Nations to govern transactions among affiliated entities (Kabala & Ndulo, 2018; Arshad & Mukhtar, 2019; Beebeejaun, 2019; Sun & Chang, 2020; Andreou, 2021; Sebele-Mpofu, 2022; Cizakca, 2024). These regulatory systems are designed to address base erosion and profit shifting by requiring that transactions between related parties are valued at arm's length, thereby safeguarding domestic tax revenues and fostering equitable competition. However, multinational enterprises persist in deploying a variety of profit-shifting practices, including the manipulation of invoice values, imposing inflated management fees, structuring intra-group debt, utilizing jurisdictions with favorable tax conditions, and conducting transfers involving intangible assets and intellectual property. Such strategies enable corporations to transfer earnings and decrease tax responsibilities across multiple countries, thereby optimizing profits for the entire enterprise group (McNair et al., 2010; Eden, 2001; Mealli, 2021; Sebele-Mpofu, 2021a; Ahmad et al., 2022; Salleh & Sapengin, 2023; Shahabuddin & Ali, 2024).

Overview Of Arm's Length Rules

Transfer pricing encompasses the process of establishing the value for transactions conducted between entities that are part of the same corporate structure, such as exchanges between a parent company and its subsidiaries or among other affiliated parties. The principal objective of transfer pricing is to achieve an equitable distribution of income and expenses across various tax jurisdictions, thereby reducing distortions that could disadvantage particular countries with respect to their tax revenue collection (OECD, 2017; Eden, 2001). Nevertheless, due to the deliberate adjustment of transfer pricing mechanisms to shift earnings from higher-tax regions to jurisdictions with lower or zero tax rates, the concept has become increasingly linked to practices of tax avoidance (Arafat, 2021; Sebele-Mpofu, 2021a; Audi et al., 2024).

In response to these issues, the Organisation for Economic Co-operation and Development has established five main approaches intended to guide the application of arm's length principles in dealings between related entities. Although ongoing implementation challenges—primarily resulting from resource limitations among both corporate taxpayers and governmental tax authorities—remain prevalent, these methods are extensively adopted and constitute the basis for the international regulation of transfer pricing. The Organisation for Economic Co-operation and Development divides these approaches into two major classifications: traditional transaction-based methods and profit-based transactional methods. The traditional transaction-based methods require direct evaluation of related-party transactions against those executed by independent enterprises under comparable circumstances, concentrating on prices and gross margins. This category comprises the Comparable Uncontrolled Price Method, the Resale Price Method, and the Cost-Plus Method. On the other hand, the profit-based transactional methods assess the net profits resulting from intercompany transactions and contrast these with the financial



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results of unaffiliated enterprises operating under analogous conditions. This framework is especially valuable when it is difficult to identify trustworthy benchmarks for pricing or gross profit ratios. The primary methods in this group are the Transactional Net Margin Method and the Transactional Profit Split Method (OECD, 2017; Brauner, 2014).

Applicability of ALP

To evaluate the extent of global adherence to transfer pricing standards, this research considers the positions of individual countries concerning the adoption of transfer pricing regulations as set forth by the Organisation for Economic Co-operation and Development. As of the second of August two thousand twenty-three, around seventy-six countries have integrated the Organisation for Economic Co-operation and Development Transfer Pricing Guidelines into their respective legal frameworks. Nevertheless, the practical enforcement of transfer pricing regulations differs substantially between jurisdictions. A comprehensive list of these countries is detailed in Table 1. Table 1 indicates that while the majority of countries have officially embraced transfer pricing requirements, many jurisdictions still lack detailed or mandatory transfer pricing statutes. For example, Angola does not maintain any specific laws on transfer pricing; even though the Organisation for Economic Co-operation and Development Guidelines are frequently referenced, they do not carry legal authority. Angola is reported to be in the process of building a regulatory framework for transfer pricing. In a similar vein, Switzerland does not have clearly defined transfer pricing rules and instead relies on general tax legislation, though the Organisation for Economic Co-operation and Development Guidelines are used for interpreting arm's length principles.

The British Virgin Islands illustrate a setting with minimal tax oversight, as there are no formal transfer pricing regulations, restrictions on tax deductions, or anti-hybrid rules. The Cayman Islands, which is noted for having no corporate taxation, also lacks formal transfer pricing laws, thereby attracting multinational enterprises seeking tax advantages. In the same context, Bermuda does not levy corporate income or capital gains taxes and has not introduced transfer pricing provisions, reinforcing its reputation as a tax haven (Organisation for Economic Co-operation and Development, 2023; Zucman, 2014). Multinational enterprises with subsidiaries in tax haven locations have a greater propensity to pursue profit shifting and tax avoidance activities. These jurisdictions facilitate the movement of earnings more readily than those with robust tax regimes. A typical tactic involves selling products or services to subsidiaries in tax haven countries at below-market prices or purchasing from them at exaggerated prices, thereby reducing the aggregate tax liability (Janský & Prats, 2013; Cobham & Janský, 2017).

Table 1: List Of Countries That Follow TP Guidelines By OECD

N.	Name of the Country	N.	Name of the Country
1	Albania	39	Latvia
2	Angola	40	Liberia
3	Argentina	41	Liechtenstein
4	Australia	42	Lithuania
5	Austria	43	Luxembourg
6	Belgium	44	Maldives
7	Bosnia and Herzegovina	45	Malaysia
8	Brazil	46	Malta
9	Bulgaria	47	Mexico
10	Canada	48	Netherlands
11	Chile	49	New Zealand
12	China (People's Republic of)	50	Nigeria
13	Colombia	51	Norway
14	Costa Rica	52	Panama
15	Croatia	53	Paraguay
16	Czechia	54	Papua New Guinea
17	Denmark	55	Peru
18	Dominican Republic	56	Poland



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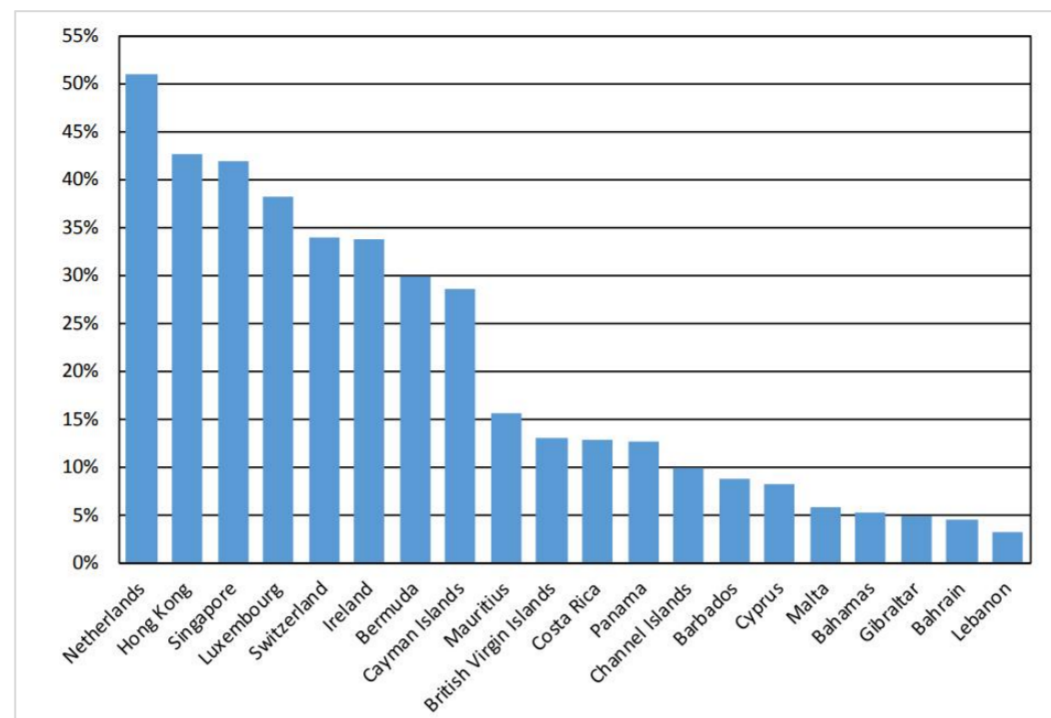
19	Egypt	57	Portugal
20	Estonia	58	Romania
21	Finland	59	Russian Federation
22	France	60	Saudi Arabia
23	Georgia	61	Senegal
24	Germany	62	Seychelles
25	Greece	63	Singapore
26	Honduras	64	Slovak Republic
27	Hungary	65	Slovenia
28	Iceland	66	South Africa
29	India	67	Spain
30	Indonesia	68	Sri Lanka
31	Ireland	69	Sweden
32	Israel	70	Switzerland
33	Italy	71	Tunisia
34	Jamaica	72	Türkiye
35	Japan	73	Ukraine
36	Kenya	74	United Kingdom
37	Korea	75	United States
38	Kosovo	76	Uruguay

Source: <https://oe.cd/transfer-pricing-country-profiles> (Last updated: 2 August 2023)

By evaluating the available evidence, this research establishes that numerous leading multinational corporations operate subsidiaries in widely recognized tax haven locations. Empirical studies confirm that a significant share of major firms headquartered in the United States have created subsidiary entities in countries with minimal or no taxation. Notably, close to seventy-five percent of corporations listed on the Fortune five hundred maintain at least one subsidiary in these jurisdictions. Altogether, these companies are responsible for more than ten thousand offshore subsidiaries. Additionally, the thirty corporations with the highest levels of officially declared offshore income for tax reporting purposes oversee in excess of two thousand five hundred subsidiaries and collectively retain over one and a half trillion United States dollars in earnings outside of their primary domestic markets (Gravelle, 2015; Cobham & Janský, 2017). A detailed enumeration of these thirty corporations is included in Appendix A.

The results further show that although small island states such as Bermuda and the Cayman Islands have historically served as tax havens, a rising number of Fortune five hundred corporations are incorporating non-Caribbean locations into their tax planning arrangements. The Netherlands, for example, has become one of the most commonly selected nations for favorable tax structures. In Asia, Singapore and Hong Kong have established themselves as principal regional centers for multinational enterprises involved in tax minimization activities. Within Europe, Luxembourg, Switzerland, and Ireland are increasingly popular due to their advantageous regulatory frameworks and preferential tax systems. The following graph displays the twenty jurisdictions most frequently chosen by multinational enterprises for the purpose of reducing their global tax obligations (Zucman, 2014; Garcia-Bernardo et al., 2017).

Figure 2: Percentage of Fortune 500 Companies with Subsidiaries in the Top 20 Tax Haven Countries (2015)



“Source: Offshore Shell Games 2016”

Google has been subject to intense examination for transferring ownership of intellectual property to subsidiaries located in countries with low tax rates, such as Ireland. By imposing licensing charges on high-tax jurisdictions payable to these subsidiaries, substantial earnings were reported in Ireland, which benefits from a relatively low tax rate (Zucman, 2014). Starbucks encountered regulatory attention in the United Kingdom when it was found that its United Kingdom operations made considerable royalty payments to its Dutch subsidiary for the use of brand assets and proprietary coffee recipes (Browning, 2012). Despite generating significant revenue, Starbucks United Kingdom recorded minimal profits, effectively limiting its tax responsibilities. Apple’s Irish subsidiaries held legal rights to intellectual property originally developed in the United States, which enabled them to report income from sales outside the Americas. This structure made it possible to allocate profits to entities with little or no tax obligations, and Apple benefited from favorable tax treatment in Ireland, which allowed a substantial share of profits to be assigned to its Head Office—an entity with no tangible presence or operational activity (European Commission, 2016). Coca-Cola was subject to a three point three billion United States dollar adjustment resulting from transfer pricing methods associated with intellectual property. The dispute centered on royalty payments made by Coca-Cola’s foreign bottling partners to the parent company in the United States for the use of its trademarks, proprietary formulas, and technical expertise. The Internal Revenue Service maintained that these royalty payments were insufficient, leading to the misallocation of income and a decrease in United States taxable earnings (U.S. Tax Court, 2020). Unilever Kenya Limited, as part of the broader Unilever Group, supplied goods to its affiliated entity, Unilever Uganda Limited, at prices below those charged to unrelated customers. The Kenya Revenue Authority disputed that these intercompany transfers did not meet the arm’s length requirement. Unilever Kenya Limited argued that it followed Organisation for Economic Co-operation and Development recommendations by implementing the cost-plus approach. The court concluded that Kenya’s transfer pricing legislation was ambiguous, which justified reliance on established international standards. As noted by Murphy (2012), the verdict was primarily ascribed to deficiencies within Kenya’s tax enforcement system and its constrained ability to identify related-party arrangements that facilitated tax avoidance.

Arm’s Length Principle and Challenges

This study demonstrates that comparability analysis is essential to implementing the Arm’s Length Principle, necessitating a careful assessment of the conditions governing transactions between related parties and those of analogous exchanges conducted by independent firms under similar market circumstances. The comparable uncontrolled price method, the resale price method, and the cost plus method are acknowledged as standard transaction-based techniques within the scope of transfer pricing. Nonetheless, these approaches encounter several important limitations and obstacles. A central problem lies in the scarcity of relevant comparable data, particularly in cases involving intangible assets, for which suitable market comparables are frequently lacking (Eden, 2019). In addition, the Organisation for Economic Co-operation and Development Transfer Pricing Guidelines are not legally binding, resulting in inconsistent interpretation and enforcement of the Arm’s Length Principle by tax authorities across different regions, as evidenced in the Unilever Kenya Limited case (Lang, 2019). These discrepancies are compounded by significant administrative requirements imposed on multinational enterprises, which



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must compile comprehensive documentation to substantiate their transfer pricing methodologies (Nabaho & Vabale, 2019). Importantly, transfer pricing determinations are shaped by a broader array of factors than just taxation; operational efficiencies, organizational synergies, and the pursuit of economies of scale frequently do not receive adequate consideration, often leading to an excessive focus on minimizing tax obligations (Dharmapala, 2014). Moreover, traditional methods are regularly challenged by tax authorities, causing protracted disputes and increasing the likelihood of double taxation if agreement on profit allocation cannot be achieved (Beer et al., 2020; Naik, 2020; Mealli, 2021). The assessment of intellectual property, brand equity, and other intangible resources introduces further ambiguity and subjectivity, complicating efforts to set equitable transfer prices (Griffith et al., 2014). Furthermore, external influences such as shifts in currency exchange rates, inflationary pressures, and disparate economic conditions across countries reduce the reliability of international transaction comparisons (Borkowski, 2017). For multinational enterprises, these transaction-based methods can be susceptible to manipulation for the purpose of profit shifting to countries with lower tax rates, thus heightening concerns about base erosion and profit shifting (Cobham & Janský, 2019; Mordecai & Akinsola, 2021). The rise of digital services and the prevalence of cross-border online commerce add further complexity, as conventional approaches often fail to pinpoint the location of actual value generation (Devereux & Vella, 2018). In particular cases, widely adopted methods such as the cost plus method or the transactional net margin method may produce inconsistent results, especially when cost frameworks differ significantly among countries. Similarly, the transactional net margin method and the profit split method—both falling under the category of transactional profit methods—are also affected by many of these substantive challenges (Hebous & Johannesen, 2020; Hwang & Lee, 2019; Farhadi & Zhao, 2024).

Literature Review

Grubert and Mutti (1991) examine the strategies commonly adopted by multinational enterprises in relation to cross-border trade, profit shifting, and investment allocation. By utilizing data from 1982 covering thirty-three countries, the study analyzes how United States-based multinational enterprises report their profits and allocate capital in response to different tax policies. Their findings reveal a clear pattern where companies report greater profits in countries with lower tax rates, thereby minimizing their overall tax liabilities. This outcome indicates a negative relationship between statutory tax rates and reported profits. The study emphasizes that tax incentives serve as a critical driver of firms' investment decisions. It also notes that tariffs have a dual effect: while they encourage local investment to serve domestic markets, they simultaneously make exporting less attractive. Overall, the research underscores how tax and trade policies significantly influence corporate behavior on a global scale.

Clausing (2003) investigates the manipulation of transfer pricing by United States-based multinational enterprises to shift profits to affiliated entities in low-tax countries. The study focuses on changes in the prices of goods and services traded within multinational groups across different jurisdictions. By analyzing data on United States international trade from 1997 to 1999 using regression analysis, Clausing finds that changes in foreign tax rates have a direct effect on export and import prices. Specifically, lower foreign tax rates are associated with lower export prices and higher import prices, suggesting that multinational enterprises adjust their intra-group prices to move profits into countries with favorable tax regimes. The research provides robust evidence that transfer pricing is used deliberately by multinational enterprises to respond to tax incentives. Bucovetsky and Haufler (2008) analyze how the removal of special tax regimes impacts global tax competition and revenue distribution, especially between large and small countries. Through a theoretical game-theoretic model, they examine how different jurisdictions set their tax rates. Their findings indicate that smaller countries tend to set more aggressive, lower tax rates to attract foreign investment. However, harmonizing tax rates across countries can result in an overall lower global tax level and intensify competition. The authors raise concerns that eliminating preferential tax regimes, as advocated by organizations such as the Organisation for Economic Co-operation and Development and the European Union, could worsen rather than alleviate harmful tax competition (Bucovetsky & Haufler, 2008).

Dharmapala (2008) assesses the controversial role of tax havens in international taxation and corporate tax planning by reviewing both theoretical and empirical studies. The analysis explores the impact of tax havens on high-tax countries, multinational enterprise behavior, and international tax competition. The findings suggest that tax havens often exhibit higher standards of governance than non-haven countries, challenging the perception that these jurisdictions solely facilitate illicit activities. While tax havens allow multinational enterprises to reduce their global tax burden and attract foreign investment, they also intensify tax competition. The research concludes by recommending improvements to international tax policies for greater fairness and efficiency rather than the outright elimination of tax havens.

Udoayang et al. (2009) study the strategies employed by multinational enterprises in setting prices for intra-group goods and services to minimize their tax liabilities. Their analysis, based on regulatory documents, policy reports, and real-world case studies, highlights how multinational enterprises exploit differences in tax rates through transfer pricing, posing challenges for tax authorities. The findings reveal that the existing regulatory framework is often inadequate in curbing these practices, and quantifying



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the actual taxes paid by multinational enterprises in each jurisdiction remains difficult. The authors emphasize the need for stronger regulatory oversight, enhanced international cooperation, and more transparent reporting requirements to address the challenges associated with transfer pricing and tax avoidance (OECD, 2017).

Pendse (2012) explores the underlying objectives behind transfer pricing strategies of multinational enterprises using a qualitative research methodology grounded in phenomenological analysis. Drawing on expert interviews and a review of the literature, the study finds that multinational enterprises often employ transfer pricing not only for tax minimization but also to achieve internal objectives, such as the movement of funds between countries. The author recommends that tax authorities consider these broader motivations when designing transfer pricing regulations to ensure an appropriate balance between compliance and business flexibility.

Gupta (2012) analyzes the effects of corporate tax rates and import tariffs on the transfer pricing practices of multinational enterprises operating in India. Focusing on the influence of tax rate differences on pricing behavior, the study uses secondary data from 2001 to 2008 and employs regression analysis to assess trade flows with countries including China, France, Germany, Italy, Japan, Singapore, Switzerland, the United Kingdom, and the United States. The findings indicate that lower home country tax rates lead to increased reported transfer prices. The study concludes that reducing both corporate tax and tariff rates to global standards could help mitigate transfer pricing manipulation and recommends that Indian tax authorities improve compliance and regulatory frameworks.

The location of intellectual property has become increasingly significant in the context of profit shifting and transfer pricing. According to Griffith et al. (2014), multinational enterprises strategically allocate their intellectual property assets to jurisdictions that minimize tax liabilities. Utilizing a mixed logit model based on data from 1985 to 2005 on patent applications filed with the European Patent Office, the study finds that preferential tax regimes, such as patent boxes, incentivize multinational enterprises to register intellectual property in low-tax countries, facilitating the reduction of profits reported in higher-tax jurisdictions.

Biondi (2017) critiques the limitations of traditional transfer pricing principles such as the arm's length principle and argues that formula-based allocation under a unitary tax system could better align taxation with actual economic substance. The study finds that multinational enterprises frequently use complex legal and financial structures to shift profits to low-tax jurisdictions, exploiting the inadequacies of existing frameworks.

Choi et al. (2018) examine the ways multinational enterprises exploit transfer pricing to benefit from international tax rate differentials. Employing a two-country model, the study demonstrates that foreign direct investment decisions are often driven by tax benefits, even when such investments result in less efficient internal production. The authors conclude that effective import tariffs and robust tax enforcement are crucial tools for countering aggressive transfer pricing strategies. Huang et al. (2019) investigate the impact of transfer pricing and exchange rate fluctuations on profit allocation among subsidiaries within multinational groups. Using a global supply chain model, the study compares fixed and optimized transfer pricing strategies. The results indicate that optimized transfer pricing increases overall profits and reduces the number of unprofitable subsidiaries, while exchange rate constraints can slightly reduce profits but enhance financial stability. The study concludes that a comprehensive approach, incorporating production planning, sales forecasting, and exchange rate management, is essential for improving multinational enterprise performance.

Challoumis (2019) investigates how companies involved in controlled transactions address tax compliance with arm's length standards. Using a simulation-based quantitative model, the study finds that unstable tax environments increase the tendency of companies to engage in controlled transactions to avoid taxes, whereas stable regimes encourage uncontrolled transactions. The research suggests that implementing additional principles, such as a fixed-length principle, may help reduce tax avoidance by strengthening regulatory frameworks.

In a separate analysis, Challoumis (2019) contrasts the arm's length principle and the fixed-length principle as regulatory mechanisms for international transfer pricing. The study, based on mathematical and economic analysis, finds that while the arm's length principle remains the global standard, it is vulnerable to exploitation. The fixed-length principle, by establishing minimum thresholds, may offer additional safeguards against tax evasion, and a combined approach could improve outcomes. Tax differences and associated regulations are pivotal in shaping transfer pricing decisions and profit shifting. Choi et al. (2020) employ a theoretical model to analyze the effects of tax incentives and government responses on foreign direct investment and profit shifting. Their findings show that strong regulatory enforcement reduces the likelihood of aggressive profit shifting, while weak oversight enables multinational enterprises to shift profits to low-tax countries. The study concludes that effective transfer pricing regulations can control aggressive tax planning without deterring beneficial foreign investment.

Elemes et al. (2021) analyze profit shifting practices within the world's leading accounting firms. Their study, based on data from private accounting firms across Europe, finds that firms shift profits in response to weak tax enforcement, primarily through debt allocation and placement of intangible assets. The research underscores the need for enhanced transparency and regulatory oversight to address profit shifting within professional service firms.



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Steens et al. (2022) highlight the importance of selecting appropriate comparables in transfer pricing analyses. Based on a global sample of manufacturing firms, their research suggests that country risk-adjusted comparables yield more reliable outcomes than those based solely on geographic proximity. The authors recommend broadening the search for comparables and incorporating country risk factors to improve the accuracy of transfer pricing assessments.

Mpofu and Wealth (2022) assess the effectiveness of the arm's length principle in regulating transfer pricing in developing countries through a comprehensive literature review. The study finds that challenges such as limited data, subjective enforcement, and significant documentation burdens hinder effective application. The authors highlight the ongoing prevalence of profit shifting and call for substantial reforms to enhance tax fairness and revenue in developing economies. Alghamdi et al. (2024) examine the influence of non-arm's-length transactions, the use of offshore financial centers, and advance pricing agreements on the cash holdings of United States-based multinational enterprises. Using a large firm-level dataset, the study finds that enterprises engaging in non-arm's-length transactions and operating in offshore jurisdictions hold higher cash balances, indicating the impact of profit shifting on liquidity management. Conversely, firms with robust transfer pricing agreements are less likely to accumulate excessive cash, suggesting the efficacy of regulatory oversight.

Eukeria and Mpofu (2024) investigate how multinational enterprises exploit transfer pricing regulations to shift profits from high-tax to low-tax countries. Employing both qualitative and quantitative methods, the research highlights that weak enforcement, regulatory inconsistencies, and insufficient expertise facilitate profit shifting through practices such as under-invoicing exports and over-invoicing imports. The authors advocate for stronger enforcement, improved regulatory capacity, and increased cross-border cooperation to reduce revenue losses associated with transfer pricing abuses.

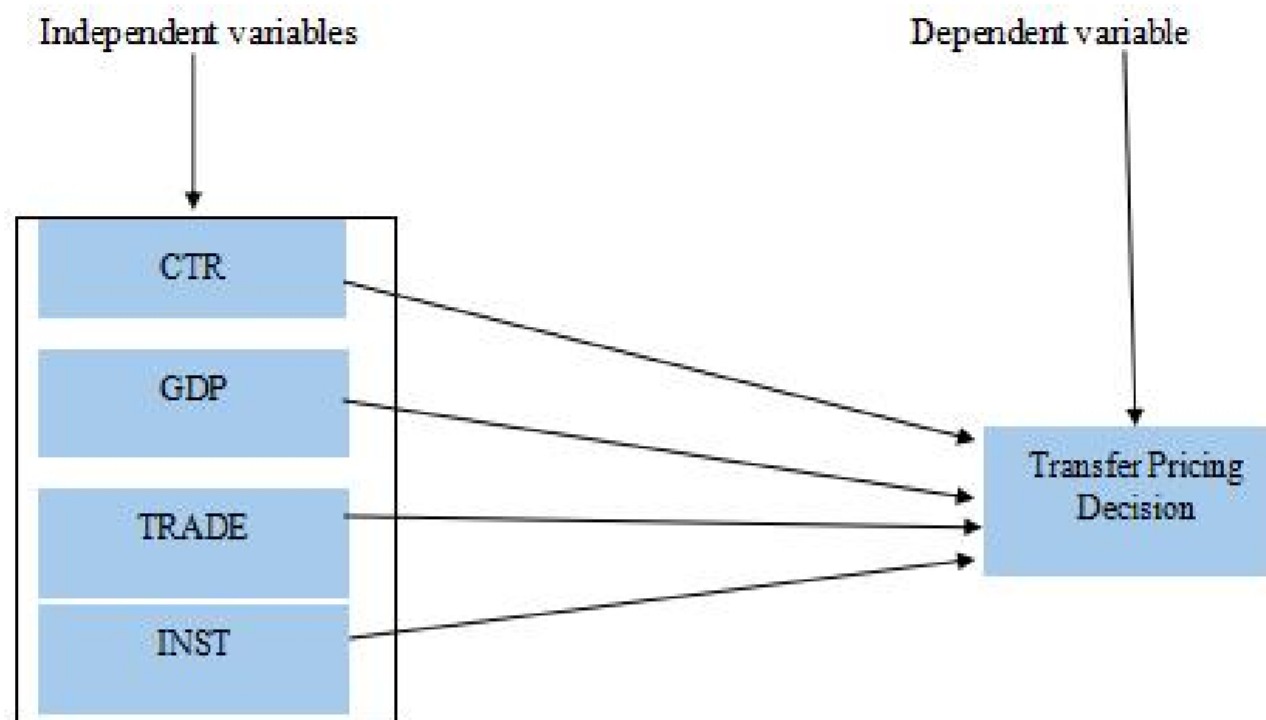
Despite the extensive body of literature examining transfer pricing and profit shifting strategies among multinational enterprises, significant gaps persist regarding the external factors influencing transfer pricing decisions, particularly in the context of the evolving global regulatory landscape. Prior studies have established that statutory tax rates, regulatory stringency, and trade openness all significantly affect corporate strategies for profit allocation and reporting (Grubert & Mutti, 1991; Clausing, 2003; Choi et al., 2020). However, most research remains concentrated on developed economies or limited sets of countries, with insufficient attention to a comprehensive global sample encompassing both developed and developing jurisdictions (Mpofu & Wealth, 2022; Eukeria & Mpofu, 2024). Moreover, while the manipulation of transfer prices in response to tax incentives and the challenges of arm's length enforcement are well-documented (Sebele-Mpofu, 2021a; Eden, 2019), there is limited empirical evidence on how the interplay between tax rates, legal enforcement, trade openness, and institutional quality shapes multinational enterprise behavior across a broad cross-section of countries (Steens et al., 2022; Elemes et al., 2021). This gap is especially salient given recent findings that highlight the inadequacies of traditional regulatory mechanisms and the persistence of profit shifting despite global initiatives to harmonize transfer pricing standards (Biondi, 2017; Alghamdi et al., 2024). As such, there is a clear need for large-sample, multi-country empirical studies that systematically assess how external variables collectively impact transfer pricing decisions, thereby providing actionable insights for policymakers seeking to address revenue losses and enhance tax compliance in an increasingly interconnected world.

Theoretical Framework Data Sources

Transfer pricing denotes the determination of prices for transactions occurring among entities within the same corporate group, such as the acquisition or sale of goods, provision of services, and transfer of intellectual property between a parent company and its subsidiaries or related enterprises. Transfer pricing holds particular importance for multinational enterprises because it has a direct impact on the allocation of income among various jurisdictions, which in turn affects the manner and extent to which taxes are levied on the group's total income. The Arm's Length Principle established by the Organisation for Economic Co-operation and Development is the principal framework guiding the regulation of intra-group transactions, requiring that multinational enterprises set the terms of internal transactions as though they were dealing with unrelated parties under similar market conditions (Eden, 2019; Lang, 2019). The success of applying the arm's length principle across national borders is contingent upon several essential elements, including variations in statutory tax rates, administrative capacity, and the overall strength of institutional frameworks (Beer et al., 2020; Nabaho & Vabale, 2019). These factors affect multinational enterprises' tendencies to shift profits strategically, often reallocating earnings to jurisdictions with lower taxes to reduce the group's worldwide tax obligation (Dharmapala, 2014; Bartelsman & Beetsma, 2003). The theoretical basis for transfer pricing conduct can be traced to the model advanced by Allingham and Sandmo (1972), which argues that multinational enterprises' tax decisions are influenced by the likelihood of being audited, the severity of penalties, and compliance costs. Their analysis suggests that multinational enterprises are more apt to comply with transfer pricing regulations when enforcement is strong and the risk of detection is significant. Several empirical investigations support these claims; Clausing (2003) and Dharmapala (2008) observe that higher tax rates often encourage multinational enterprises to shift profits to low-tax environments through the manipulation of transfer prices. Bartelsman and Beetsma (2003) further show that profit shifting intensifies when tax rate gaps between

countries are wider. Conceptual frameworks put forward by Dunning (1977) and Rugman and Verbeke (2003) underline that multinational enterprises organize their international operations to achieve cost minimization and operational efficiency, frequently utilizing transfer pricing as a means to assign income and expenses across diverse tax landscapes. Building on the approaches of Clausing (2003), Bartelsman and Beetsma (2003), and Dharmapala (2008), the present research constructs a model for examining transfer pricing behavior and the global enforcement of the arm's length principle.

Figure 1: Independent and Dependent Variables



Based on conceptual model, the functional form of the model become as:

$$TP_{it} = F(CTR_{it}, GDP_{it}, TRADE_{it}, INST_{it})$$

where,

TP = Transfer pricing decision (measured through Corporate Income Tax Revenue (% of GDP))

CTR = Country-specific corporate tax rate

GDP = GDP per capita (economic development indicator)

TRADE = Trade openness (ratio of trade to GDP)

INST = Institutional quality (governance, corruption index)

i = set of panel countries

t = time period (2014-2023)

For examining the relationship between the independent variables and dependent variables, the mathematical model can be converted into the econometric model. The model can be written as:

$$TP_{it} = \alpha + \beta_1 CTR_{it} + \beta_2 GDP_{it} + \beta_3 TRADE_{it} + \beta_4 INST_{it} + \mu_1$$

Where,

α = intercept

β = slope coefficient

μ = error term

In this research, panel data spanning from 2014 to 2023 is analyzed for 95 countries, encompassing both advanced and emerging economies. The study draws upon information from diverse sources, including reports from international organizations and national governments. Data for transfer pricing decisions, operationalized as corporate income tax revenue as a percentage of gross domestic product, is collected from the World Development Indicators. Information on corporate tax rates by country is gathered from the

Organisation for Economic Co-operation and Development Tax Database, the World Bank, and the tax authorities of individual countries. To assess the worldwide implementation of transfer pricing regulations, this analysis examines the Transfer Pricing Country Profiles available on the Organisation for Economic Co-operation and Development website, identifying the number of jurisdictions that adhere to the Organisation for Economic Co-operation and Development Transfer Pricing Guidelines. Institutional quality, which encompasses governance standards and the prevalence of corruption, is sourced from the World Governance Indicators and the Transparency International Corruption Perceptions Index. Trade openness, recognized as an important determinant of transfer pricing behavior, is measured using the ratio of total trade to gross domestic product, with the relevant statistics also sourced from the World Development Indicators.

Econometric Methodology

When incorporating time series data into panel analyses, there is an increased risk of encountering unit root issues, which may result in misleading regression outcomes. To safeguard the accuracy of econometric investigations, it is necessary to first evaluate the stationarity of the dataset (Baltagi, 2021; Harris & Sollis, 2003). This study examines how country-specific corporate tax rates, gross domestic product per capita, trade openness, and institutional quality affect transfer pricing decisions. Within this framework, transfer pricing decisions represent the dependent variable, while corporate tax rates, gross domestic product per capita, trade openness, and institutional quality function as independent variables. To determine the stationarity of the panel data, the research employs several unit root tests, such as the Phillips-Perron Fisher Chi-square test, the Augmented Dickey-Fuller Fisher Chi-square test, the Im, Pesaran, and Shin W-statistic, and the Levin, Lin, and Chu t-star test (Levin et al., 2002; Im et al., 2003; Maddala & Wu, 1999; Phillips & Perron, 1988). Upon establishing that the variables are stationary, the analysis proceeds with cointegration tests to ascertain whether long-term relationships exist among the variables. The methodology includes the use of Dynamic Ordinary Least Squares and Fully Modified Ordinary Least Squares estimators, as developed by Kao (1999) and Pedroni (1999, 2004), which are particularly well-suited to panel data and frequently employed to test for stable, enduring associations among variables. The Dynamic Ordinary Least Squares technique is effective in correcting for endogeneity and serial correlation, while traditional Ordinary Least Squares estimates often yield biased and inconsistent results when applied to non-stationary series. Consequently, both Dynamic Ordinary Least Squares and Fully Modified Ordinary Least Squares are adopted to address these econometric challenges and to ensure credible long-run estimates (Kao, 1999; Pedroni, 1999; Pedroni, 2004).

Empirical Results and Discussion

The findings from the descriptive statistics and the correlation analysis among the variables are presented in Table 1. The descriptive statistics illustrate differences in transfer pricing decisions, country-specific tax rates, gross domestic product per capita, trade openness, and institutional quality. The summary of descriptive measures provides values for kurtosis, skewness, standard deviation, minimum, maximum, median, and mean for each variable. The range between the minimum and maximum values reveals that gross domestic product per capita and transfer pricing decisions display the greatest degree of variability, signifying notable economic disparities across countries. Kurtosis and skewness statistics are utilized to assess the extent and nature of data volatility. The results summarized in Table 1 demonstrate that trade openness exhibits positive skewness, while transfer pricing decisions, country-specific tax rates, gross domestic product per capita, and institutional quality are characterized by negative skewness. Overall, the outcomes indicate that all the examined variables possess positive kurtosis.

Table 1: Descriptive Statistics

	LTP	LCTR	LGDP	TRADE	LINST
Mean	1.057616	3.092075	9.240547	4.360185	3.862246
Median	1.05192	3.178054	9.219949	4.335783	3.850148
Maximum	2.12018	3.665496	11.80344	6.054383	4.521789
Minimum	-1.832581	1.704748	5.876324	2.752578	2.397895
Std. Dev.	0.333658	0.333219	1.353778	0.549488	0.398359
Skewness	-1.020572	-1.152823	-0.262721	0.41213	-0.29959
Kurtosis	10.2442	4.604246	2.331539	3.550771	2.541977
Jarque-Bera	2194.983	305.7221	27.89301	36.81229	21.51981
Observations	930	930	926	899	908

Table 2 displays the outcomes of the correlation analysis between transfer pricing decisions and the chosen independent variables at the international level. The results reveal that gross domestic product per capita and trade openness are both significantly and positively correlated with transfer pricing decisions. This finding suggests that higher degrees of economic development and increased participation in international trade correspond to heightened transfer pricing activity among multinational enterprises (Bartelsman & Beetsma, 2003; Clausing, 2003). Additionally, the results indicate that institutional quality maintains a weak yet positive correlation with transfer pricing decisions, implying that stronger governance frameworks may be associated with transfer pricing practices, although the magnitude of this association is relatively limited (Cobham & Janský, 2019). Conversely, country-specific corporate tax rates are weakly and, in most cases, insignificantly correlated with transfer pricing decisions, suggesting that differences in statutory tax rates alone do not exert a dominant influence on the worldwide formulation of transfer pricing strategies (Beer et al., 2020). On the whole, the correlation analysis indicates that strong multicollinearity is not present among the explanatory variables, as none of the observed correlation coefficients are unduly high (Gujarati & Porter, 2009; Wooldridge, 2016). This finding reinforces the appropriateness of applying Ordinary Least Squares and panel Ordinary Least Squares estimators, affirming that the core assumptions of the econometric framework are met. Consequently, the identified relationships among the variables can be regarded as statistically robust and suitable for subsequent panel data investigation.

Table 2: Correlation Matrix

Variables	LTP	LCTR	LGDP	LTRADE	LINST	LREG
LTP	1					
LCTR	0.001707	1				
	0.015368					
	0.6397					
LGDP	0.116216	-0.02853	1			
	0.257067	-0.06338				
	0	0.0539				
LTRADE	0.027751	-0.083899	0.238042	1		
	0.153566	-0.478581	0.320939			
	0	0	0			
LINST	0.027933	0.006151	0.441845	0.07137	1	
	0.209053	0.046059	0.811885	0.331053		
	0	0.1655	0	0		
LREG	-0.007275	0.010365	0.246008	-0.000814	0.053874	1
	-0.064618	0.092183	0.539213	-0.004435	0.403357	
	0.0488	0.0049	0	0.8943	0	

This analysis employs the Levin, Lin, and Chu t-statistic, the Im, Pesaran, and Shin W-statistic, the Augmented Dickey-Fuller Fisher Chi-square, and the Phillips-Perron Fisher Chi-square unit root tests to evaluate the stationarity of the variables. The outcomes of the Levin, Lin, and Chu t-statistic demonstrate that transfer pricing decisions, country-specific tax rates, gross domestic product per capita, trade openness, and institutional quality are stationary at level, designated as integration of order zero. In contrast, the Im, Pesaran, and Shin W-statistic, Augmented Dickey-Fuller Fisher Chi-square, and Phillips-Perron Fisher Chi-square tests provide mixed evidence, indicating that certain variables might not exhibit stationarity at level. For transfer pricing decisions, both the Levin, Lin, and Chu t-statistic and the Phillips-Perron Fisher Chi-square test confirm stationarity at level, while the Im, Pesaran, and Shin W-statistic and the Augmented Dickey-Fuller Fisher Chi-square test suggest possible non-stationarity. For country-specific tax rates, the Levin, Lin, and Chu t-statistic and the Im, Pesaran, and Shin W-statistic support stationarity at level, whereas the Augmented Dickey-Fuller Fisher Chi-square and Phillips-Perron Fisher Chi-square yield mixed results. In the case of gross domestic product per capita, the Levin, Lin, and Chu t-statistic points to stationarity at level, but the other three tests (Im, Pesaran, and Shin W-statistic, Augmented Dickey-Fuller Fisher Chi-square, and Phillips-Perron Fisher Chi-square) signal non-stationarity, indicating the presence of a unit root. For trade openness and institutional quality, all four unit root tests confirm stationarity at level, meaning no evidence of a unit root is observed. After transforming the

variables to first differences, the results show that all variables become stationary at integration of order one. The Levin, Lin, and Chu t-statistic, Im, Pesaran, and Shin W-statistic, Augmented Dickey-Fuller Fisher Chi-square, and Phillips-Perron Fisher Chi-square all confirm stationarity at the first-difference level for transfer pricing decisions, country-specific tax rates, gross domestic product per capita, trade openness, and institutional quality. Collectively, the findings suggest a mixed integration pattern among the variables. Since all data series achieve a common order of integration, it is appropriate to use the methodology of Pedroni (2004) to assess both the short-term and long-term dynamics among the variables.

Table 3: Unit Root Tests Results

Variables	Test	Statistic	Prob.**	Cross-Section	Obs
LTP (0)	Levin, Lin & Chu t*	-13.733	0.0000	91	728
	Im, Pesaran and Shin W-stat	-1.90887	0.0281	91	728
	ADF - Fisher Chi-square	218.132	0.0347	91	728
	PP - Fisher Chi-square	306.368	0.0000	91	819
LCTR (0)	Levin, Lin & Chu t*	-34.0372	0.0000	41	328
	Im, Pesaran and Shin W-stat	-5.84425	0.0000	40	320
	ADF - Fisher Chi-square	98.7272	0.0763	40	320
	PP - Fisher Chi-square	92.793	0.1553	40	360
LGDP (0)	Levin, Lin & Chu t*	-3.25789	0.0006	91	724
	Im, Pesaran and Shin W-stat	3.01947	0.9987	91	724
	ADF - Fisher Chi-square	136.654	0.9950	91	724
	PP - Fisher Chi-square	159.825	0.8806	91	815
LTRADE (0)	Levin, Lin & Chu t*	-15.0628	0.0000	88	699
	Im, Pesaran and Shin W-stat	-5.57349	0.0000	88	699
	ADF - Fisher Chi-square	315.733	0.0000	88	699
	PP - Fisher Chi-square	300.017	0.0000	88	787
LINST (0)	Levin, Lin & Chu t*	-10.6666	0.0000	89	706
	Im, Pesaran and Shin W-stat	-1.99793	0.0229	89	706
	ADF - Fisher Chi-square	247.692	0.0004	89	706
	PP - Fisher Chi-square	254.844	0.0001	89	795
dLLTP (1)	Levin, Lin & Chu t*	-11.6646	0.0000	91	637
	Im, Pesaran and Shin W-stat	-7.33694	0.0000	91	637
	ADF - Fisher Chi-square	364.974	0.0000	91	637
	PP - Fisher Chi-square	848.377	0.0000	91	728
dLCTR (1)	Levin, Lin & Chu t*	-72.9863	0.0000	25	175
	Im, Pesaran and Shin W-stat	-8.9847	0.0000	25	175
	ADF - Fisher Chi-square	75.5153	0.0114	25	175
	PP - Fisher Chi-square	160.823	0.0000	25	200
dLGDP (1)	Levin, Lin & Chu t*	-22.1726	0.0000	90	629
	Im, Pesaran and Shin W-stat	-8.18797	0.0000	90	629
	ADF - Fisher Chi-square	405.394	0.0000	90	629
	PP - Fisher Chi-square	852.453	0.0000	90	719

dLTRADE (1)	Levin, Lin & Chu t*	-32.7098	0.0000	88	611
	Im, Pesaran and Shin W-stat	-13.3608	0.0000	88	611
	ADF - Fisher Chi-square	561.247	0.0000	88	611
	PP - Fisher Chi-square	506.981	0.0000	88	699
dLINST (1)	Levin, Lin & Chu t*	-18.311	0.0000	88	610
	Im, Pesaran and Shin W-stat	-5.99724	0.0000	88	610
	ADF - Fisher Chi-square	330.032	0.0000	88	610
	PP - Fisher Chi-square	649.337	0.0000	88	698

The outcomes of the Augmented Dickey-Fuller Fisher Chi-square test, Im, Pesaran and Shin W-statistic test, Levin, Lin, and Chu t-star test, and Phillips-Perron Fisher Chi-square test confirm that the variables in the panel dataset exhibit mixed orders of integration. To examine the existence of co-integration among the variables, both the Kao co-integration test and the Pedroni co-integration tests are applied (Kao, 1999; Pedroni, 1999, 2004). The Kao co-integration test provides statistically significant evidence of a long-run equilibrium relationship, as indicated by a p-value of 0.0025, supporting the presence of co-integration in the model. Results from the Pedroni co-integration tests are mixed; while test statistics such as the Panel Phillips-Perron Statistic, Panel Augmented Dickey-Fuller Statistic, Group Phillips-Perron Statistic, and Group Augmented Dickey-Fuller Statistic yield p-values less than 0.05—indicating co-integration—other statistics, including the Panel v-Statistic, Panel rho-Statistic, and Group rho-Statistic, do not support co-integration with p-values equal to 1.0000 (Pedroni, 2004). Given that the majority of test outcomes indicate the existence of a long-term equilibrium relationship, it is appropriate to proceed with the estimation of Fully Modified Ordinary Least Squares and Dynamic Ordinary Least Squares models for the analysis of the long-run associations among the variables (Kao, 1999; Pedroni, 2004).

Table 4: Pedroni Residual Cointegration Test

Series: LTP LCTR LGDP LTRADE LINST

Sample: 2014 2023

Included observations: 930

Cross-sections included: 49

Within-dimension

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-4.452609	1.0000	-5.65522	1.0000
Panel rho-Statistic	6.120558	1.0000	6.083433	1.0000
Panel PP-Statistic	-3.931661	0.0000	-5.378044	0.0000
Panel ADF-Statistic	-2.884554	0.0020	-3.735112	0.0001

Between-dimension

	Statistic	Prob.
Group rho-Statistic	9.52187	1.0000
Group PP-Statistic	-5.54461	0.0000
Group ADF-Statistic	-1.853371	0.0319
Kao test	-2.801133	0.0025

The long-run elasticities for all variables were interpreted, as each variable was expressed in natural logarithmic form. The study employed both Fully Modified Ordinary Least Squares and Dynamic Ordinary Least Squares estimators to ensure the robustness of the results. The first differences of all variables were verified to be stationary, as detailed in Table 3. The findings reveal that country-specific corporate tax rates display a negative and significant relationship with transfer pricing decisions in the Fully Modified Ordinary Least Squares model, while the Dynamic Ordinary Least Squares estimator yields a positive and highly significant coefficient. These results suggest that the effects of corporate

tax rates on transfer pricing may vary according to model specification, a finding that aligns with the literature demonstrating the influence of tax rate differentials on the transfer pricing behavior of multinational enterprises (Clausing, 2003; Beer et al., 2020; Hussain & Khan, 2022; Rossi, 2023; Audi, 2024).

Gross domestic product per capita exhibits a positive and statistically significant effect on transfer pricing activities in the Fully Modified Ordinary Least Squares estimation, indicating that higher levels of economic development are associated with more extensive transfer pricing practices. However, the Dynamic Ordinary Least Squares estimation reveals a significant negative effect, suggesting that differences in tax planning strategies may arise across varying levels of economic conditions. This pattern is consistent with the findings of Dharmapala and Riedel (2013), who argue that the impact of income levels on tax-motivated transfer pricing is contingent on the strength of regulatory enforcement.

Trade openness demonstrates a significant positive impact in the Fully Modified Ordinary Least Squares model, confirming that greater participation in global trade is associated with increased transfer pricing activities. In contrast, the Dynamic Ordinary Least Squares model reveals a significantly weak negative effect, indicating that the relationship between trade liberalization and transfer pricing may depend on country-specific institutional and regulatory environments. This observation is in line with the research of Cristea and Nguyen (2016), who find that multinational enterprises are more likely to engage in transfer pricing manipulation in open economies where regulatory oversight is less stringent.

Institutional quality is found to be statistically insignificant in both the Fully Modified Ordinary Least Squares and Dynamic Ordinary Least Squares models, indicating that governance structures do not exert a major influence on transfer pricing decisions within the sampled countries. While previous studies, such as Blouin et al. (2014), suggest that stronger institutions can curb aggressive transfer pricing, the results of this study imply that institutional quality alone may not serve as a decisive factor in shaping transfer pricing practices.

Table 5: Panel FMOLS and DOLS Results

Dependent Variable: LTP				
	LCTR	LDGP	LTRADE	LINST
FMOLS	-0.698888** (0.0125)	0.234992*** (0.0087)	0.370036*** (0.0000)	-0.207676 (0.3953)
DOLS	2.832587*** (0.0004)	-0.881189** (0.0272)	-0.754686* (0.0903)	-0.132946 (0.8914)

***, **, * indicates statistically significant at the 1, 5 and 10 percent levels

Values in parentheses are p-values.

After examining the long-run results, the analysis proceeds to assess the short-run effects of the independent variables on transfer pricing decisions. Table 6 presents the short-run estimation results, revealing that most independent variables have limited influence on transfer pricing decisions, except for gross domestic product per capita and trade openness, which are statistically significant. Gross domestic product per capita demonstrates a positive effect, indicating that short-term fluctuations in economic growth can influence transfer pricing practices by multinational enterprises. Similarly, trade openness shows a positive impact, suggesting that increased trade activity in the short term is associated with higher levels of transfer pricing engagement (Clausing, 2003; Bartelsman & Beetsma, 2003). In contrast, country-specific corporate tax rates and institutional quality are not found to be significant determinants of transfer pricing decisions in the short run, implying that these factors may not exert a strong immediate influence (Beer et al., 2020; Cobham & Janský, 2019). Overall, the results indicate that short-term changes in economic growth and trade openness play a notable role in shaping transfer pricing activities, while tax rates and institutional quality do not exhibit a significant short-run effect. These findings are consistent with prior research that emphasizes the importance of macroeconomic dynamics in the short-term behavior of multinational enterprises (Cristea & Nguyen, 2016; Wooldridge, 2016).

Table 6: Panel Least Squares on First-differenced Data Results

Dependent Variable: D(TP)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.018019	0.018238	-0.987982	0.3234
dCTR	1.18E-02	1.08E-02	1.092528	0.2749

dGDP	1.63E-05	5.41E-06	3.013738	0.0027
dTRADE	0.003576	0.001535	2.329749	0.0201
dINST	-0.005036	0.003702	-1.360153	0.1742

Conclusions and Policy Implications

This paper investigates the principal factors that may affect decisions regarding transfer pricing. The analysis is based on a sample consisting of 95 countries spanning the period from 2014 to 2023. Augmented Dickey-Fuller Fisher Chi-square, Im, Pesaran and Shin W-statistic, Levin, Lin and Chu t-statistic, and Phillips-Perron Fisher Chi-square unit root tests are employed to examine the stationarity of the variables. The Kao test and the Pedroni tests are applied to assess the presence of cointegration. The majority of the results reveal the existence of a long-run relationship among transfer pricing decisions, country-specific tax rates, gross domestic product per capita, trade openness, and the quality of institutions. Collectively, the findings indicate that the association between transfer pricing decisions and economic factors is dependent on the chosen estimation approach. The fully modified ordinary least squares results indicate that higher gross domestic product and trade openness promote transfer pricing activities, whereas elevated tax rates act as a deterrent. Conversely, the dynamic ordinary least squares method reveals a more nuanced relationship, where country-specific tax rates and gross domestic product per capita exert varying influences on transfer pricing decisions. The study recommends the implementation of more robust tax enforcement, particularly in countries with higher tax rates, to counteract aggressive transfer pricing practices. Stronger regulatory supervision is required in more open economies, and in response to the inconsistent findings regarding gross domestic product, the adoption of tailored policy measures for both developing and developed nations is advocated.

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Appendix A

List of 30 companies with the most money officially booked offshore for tax purposes.

Company	Tax Subsidiaries	Haven	Location of Tax Haven Subsidiaries	Amount Offshore (\$ m)	Held	State Located
AbbVie Inc	38		Bahamas(1), Bermuda(3), Cayman Islands(1), Channel Islands(3), Cyprus(1), Gibraltar(2), Hong Kong(1), Ireland(6), Luxembourg(5), Netherlands(9), Panama(1), Singapore(2), Switzerland(3)	25,000		Illinois
Amgen	9		Bermuda(5), Ireland(1), Netherlands(2), Switzerland(1)	32,600		California
Apple	3		Ireland(3)	214,900		California
Bristol-Myers Squibb	23		Bermuda(1), Costa Rica(1), Hong Kong(1), Ireland(6), Lebanon(1), Luxembourg(2), Netherlands(7), Panama(1), Singapore(1), Switzerland(2)	25,000		New York
Chevron	8		Bahamas(2), Bermuda(5), Liberia(1)	45,400		California
Cisco Systems	56		Bahrain(1), Bermuda(6), Cayman Islands(1), Channel Islands(1), Costa Rica(1), Cyprus(1), Hong Kong(7), Ireland(9), Jordan(1), Luxembourg(3), Mauritius(2), Netherlands(13), Panama(1), Singapore(6), Switzerland(3)	58,000		California
Citigroup	140		Aruba(1), Bahamas(21), Bahrain(1), Bermuda(6), Cayman Islands(22), Channel Islands(12), Costa Rica(7), Hong Kong(20), Ireland(11), Luxembourg(8), Mauritius(5), Monaco(1), Netherlands(3), Panama(3), Singapore(12), Switzerland(6), Turks and Caicos(1)	45,200		New York
Coca-Cola	15		Bermuda(1), Cayman Islands(3), Costa Rica(1), Hong Kong(1), Ireland(2), Luxembourg(2), Netherlands(1), Singapore(4)	31,900		Georgia
Danaher	31		Cayman Islands(1), Hong Kong(4), Ireland(4), Luxembourg(1), Netherlands(8), Singapore(5), Switzerland(8)	23,500		District of Columbia
Eli Lilly	33		Bermuda(2), British Virgin Islands(2), Cayman Islands(5), Ireland(4), Netherlands(8), Singapore(2), Switzerland(10)	26,500		Indiana
Exxon Mobil	35		Bahamas(20), Bermuda(1), Cayman Islands(1), Hong Kong(1), Luxembourg(2), Netherlands(7), Singapore(3)	51,000		Texas
General Electric	20		Bahamas(1), Bermuda(3), Ireland(2), Luxembourg(3), Netherlands(7), Singapore(4)	104,000		Connecticut
Gilead Sciences	12		Hong Kong(1), Ireland(6), Luxembourg(1), Netherlands(1), Panama(1), Singapore(1), Switzerland(1)	28,500		California
Goldman Sachs Group	987		Bahamas(1), Barbados(4), Bermuda(19), British Virgin Islands(6), Cayman Islands(537), Channel Islands(17), Costa Rica(1), Cyprus(2), Gibraltar(1), Hong Kong(19), Ireland(64), Isle of Man(3), Luxembourg(197), Mauritius(49), Monaco(1), Netherlands(45), Panama(1), Singapore(18), Switzerland(2)	28,550		New York



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Google	1	Ireland(1)	58,300	California
Hewlett-Packard	95	Bahrain(2), Bermuda(6), British Virgin Islands(2), Cayman Islands(7), Costa Rica(2), Hong Kong(4), Ireland(9), Luxembourg(3), Netherlands(50), Panama(2), Singapore(5), Switzerland(3)	47,200	California
Intel	13	Bermuda(1), Cayman Islands(5), Ireland(1), Malta(1), Netherlands(5)	26,900	California
International Business Machines	16	Bahamas(1), Bahrain(1), Barbados(1), Bermuda(1), Costa Rica(1), Hong Kong(1), Ireland(2), Luxembourg(1), Malta(1), Mauritius(1), Netherlands(2), Seychelles(1), Singapore(1), Switzerland(1)	68,100	New York
J.P. Morgan Chase & Co.	385	Bahamas(7), Barbados(1), Bermuda(19), British Virgin Islands(9), Cayman Islands(149), Channel Islands(18), Cyprus(1), Hong Kong(17), Ireland(13), Luxembourg(61), Malta(13), Marshall Islands(3), Mauritius(33), Netherlands(12), Singapore(25), Switzerland(4)	34,600	New York
Johnson & Johnson	62	Hong Kong(1), Ireland(26), Luxembourg(4), Netherlands(12), Singapore(1), Switzerland(18)	58,000	New Jersey
Merck	125	Bermuda(11), Costa Rica(2), Cyprus(3), Hong Kong(3), Ireland(25), Lebanon(1), Luxembourg(1), Netherlands(44), Panama(5), Singapore(7), Switzerland(23)	59,200	New Jersey
Microsoft	5	Ireland(3), Luxembourg(1), Singapore(1)	124,000	Washington
Oracle	5	Ireland(5)	42,600	California
PepsiCo	135	Barbados(1), Bermuda(15), Cayman Islands(6), Costa Rica(2), Cyprus(13), Gibraltar(2), Hong Kong(10), Ireland(9), Jordan(1), Liechtenstein(1), Luxembourg(24), Mauritius(2), Netherlands(32), Netherlands Antilles(8), Panama(1), Singapore(2), Switzerland(6)	40,200	New York
Pfizer	181	Bahamas(11), Cayman Islands(1), Channel Islands(3), Costa Rica(3), Hong Kong(7), Ireland(29), Luxembourg(42), Netherlands(65), Panama(4), Singapore(10), Switzerland(6)	193,587	New York
Philip Morris International	7	Netherlands(2), Switzerland(5)	23,000	New York
Procter & Gamble	35	Costa Rica(1), Hong Kong(1), Ireland(1), Lebanon(1), Luxembourg(3), Netherlands(17), Panama(1), Singapore(3), Switzerland(7)	49,000	Ohio
Qualcomm	3	Singapore(3)	28,800	California
United Technologies	31	Cayman Islands(1), Gibraltar(1), Hong Kong(4), Ireland(2), Luxembourg(9), Netherlands(8), Singapore(2), Switzerland(4)	29,000	Connecticut
Wal-Mart Stores			26,100	Arkansas

(Source: Offshore Shell Games 2016 - The Use of Offshore Tax Havens by Fortune 500 Companies)