EVALUATION OF THE CORRELATION BETWEEN TAX EVASION AND TRANSFER PRICING IN THE FRAMEWORK OF INTERNATIONAL TRANSACTIONS

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Abstract: *The increasing globalization of economic activity has intensified concerns regarding tax evasion and the use of transfer pricing strategies by multinational enterprises. This study aims to evaluate the relationship between tax evasion and transfer pricing within the framework of international transactions, with a particular focus on European Union member states. Given the difficulty of directly measuring these phenomena, the analysis employs proxy variables, using Foreign Direct Investment inflows as an indicator of multinational activity and potential profit shifting, and tax-related and institutional indicators as explanatory factors. The empirical investigation is based on a panel dataset covering European Union countries over the period 2012-2024. The model incorporates Corporate Income Tax rates, Gross Domestic Product, the Corruption Perceptions Index, and the Index of Economic Freedom, alongside a dummy variable distinguishing between low-tax and high-tax jurisdictions. Based on these variables two model specifications are estimated in order to assess the robustness of the relationship between corporate taxation and Foreign Direct Investment inflows: a baseline model including a tax regime dummy variable and an extended model incorporating economic size, proxied by Gross Domestic Product. The results suggest that multinational enterprises do not base their decisions solely on statutory tax rates, but rather consider a broader set of factors, including market size, institutional environment, and economic conditions. From the perspective of transfer pricing, the results suggest that firms may rely on profit-shifting strategies to mitigate tax differentials, thereby weakening the direct link between tax rates and observable investment flows.*

Key words: *tax evasion, tax avoidance, profit shifting, transfer pricing, corruption, multinational companies.*

JEL: F23, H25, H26, H32.

Introduction

The increasing integration of global markets has significantly transformed the landscape of international taxation, raising complex challenges for both policymakers and tax authorities. Multinational enterprises now operate across multiple jurisdictions, engaging in a wide range of cross-border transactions that create opportunities for strategic tax planning. Among the most debated issues in this context are tax evasion, tax avoidance, and the use of transfer pricing mechanisms, which directly influence the allocation of taxable income between countries.

Transfer pricing, defined as the pricing of transactions between related entities within the same corporate group, plays a central role in international business operations. According to the Organisation for Economic Co-operation and Development („OECD"), the arm's length principle represents the internationally accepted standard for ensuring that such transactions reflect market conditions. However, in practice, the application of this principle is often limited and this creates opportunities for multinational firms to manipulate transfer prices in ways that shift profits to jurisdictions with lower tax burdens.

At the same time, tax evasion and tax avoidance have become increasingly difficult to distinguish in a globalized economy. While tax evasion involves illegal practices, tax avoidance refers to the use of legal mechanisms to minimize tax liabilities. Transfer pricing occupies a complex position between these two concepts, as it is both a legitimate business practice and a potential instrument for aggressive tax planning.

In response to these challenges, international initiatives such as the Base Erosion and Profit Shifting („BEPS") project have sought to improve transparency and reduce the scope for tax base erosion. These efforts emphasize the need to align taxation with economic activity and value creation. Nevertheless, despite significant regulatory progress, empirical evidence suggests that multinational enterprises continue to exploit differences in tax regimes and institutional environments when making investment decisions.

The first part of the article consists in a literature review, where numerous studies have examined the implications of international transactions. Subsequently, the research methodology is analysed, where the database used is presented, as well as the descriptive statistics and the regression models. The econometric findings are further explained by their economic implications. The paper ends with conclusions, research limitations, and future research directions.

Literature review

The magnitude of corporate tax avoidance is difficult to assess in practice, largely due to limited transparency, as multinational enterprises do not fully disclose the specific tax planning strategies and mechanisms they employ (Alvarez-Martinez et al., 2022). Based on a study conducted by Neacsu and Feleaga (2017), following a significant reform of Romanian transfer pricing legislation, the authors found that a substantial majority of Romanian specialists (approximately 73%) believed that the new regulations would lead taxpayers to place greater emphasis on transfer pricing compliance. However, this conclusion was based on perceptions rather than empirical validation, as no subsequent analysis was conducted to confirm whether such behavioral changes actually occurred.

The issue of tax evasion has received considerable attention from researchers and policymakers. For this reason, data from 29 OECD countries covering the period 1990-2013 were used, and a panel approach was applied to estimate the results. In the first stage, an index for tax evasion was estimated, and in the second stage, the effects of tax evasion and tax revenue on economic stability were examined. The results show that as the tax rate increases, the probability of tax evasion also increases (Mehrara and Farahani, 2016). According to Stoewhase (2002), it is presumed that high effective taxes inhibit foreign direct investment in actual activities, whereas a higher statutory tax rate discourages investment aimed at profit-shifting.

The decision to invest outside the country is driven by various factors, including market size and access to low-cost resources. In recent years, the presence of multinational companies in international trade has grown significantly. Based on the analysis conducted by Butnaru et al. (2016), it was found that multinational companies relocate their operations to jurisdictions with low tax rates, high levels of corruption, and low levels of economic freedom, where labor is cheap, thereby gaining operational and tax advantages. Consequently, transactions with affiliated parties and transfer pricing have come to be regarded as a powerful tool for financial fraud. Transactions with affiliated parties located in tax havens are one of the main factors contributing to investor confidence. For example, according to Neacsu and Feleaga (2016), 36% of companies listed on the Bucharest Stock Exchange have affiliates in tax havens.

Fatica and Gregori (2020) investigated the extent to which the largest and systemically important European multinational banks participate in profit shifting to reduce their tax liabilities. The authors concluded that, overall, 21% of profits are relocated. Moreover, profits reported in tax havens are estimated to be approximately 51% higher than they would be in the absence of tax-motivated profit shifting, indicating a substantial erosion of the tax base in high-tax jurisdictions.

Hugger et al. (2023) provide empirical evidence on the prevalence of low-taxed profits among multinational enterprises, reinforcing the argument that transfer pricing and profit shifting significantly affect the allocation of taxable income across jurisdictions. Using a four-year sample on the global activities of large multinational enterprises, the analysis shows that 12.7% are taxed at effective tax rates below 5% and a further 23.4% are taxed at effective tax rates between 5% and 15%.

Recent empirical contributions further highlight both the regulatory and practical dimensions of transfer pricing. While some studies emphasize the importance of international cooperation in resolving disputes (Lupu, 2023), others focus on the effectiveness of policy measures such as the BEPS initiative in limiting aggressive tax planning (Lupu, 2024). Moreover, Ignat and Tache (2023) demonstrate the existence of a positive relationship between the rigor of a country's transfer pricing regulatory framework and its progress in achieving sustainable development goals. Another investigation aimes to demonstrate if transfer pricing legislation limits the profit shifting behaviour and concluded that transfer pricing rules significantly reduce shifting activities. Such regulatory frameworks may be socially desirable, notwithstanding the substantial administrative burden they impose on both firms and tax authorities (Lohse and Riedel, 2013).

According to Zilio (2017), cross-border differences in corporate income tax rates create incentives for multinational enterprises to manipulate the prices they use in intra-group transactions in order to shift profits to countries with more favorable tax regimes. Many European countries appear to be benefiting financially from this profit shifting by multinational companies, largely at Germany's expense (Huizinga and Laeven, 2006).

Methodology

The empirical study examines the relationship between Foreign Direct Investment ("FDI") inflows and Corporate Income Tax Rate ("CIT"), Gross Domestic Product ("GDP"), Corruption Perceptions Index ("CPI"), Index of Economic Freedom ("EFW"). The database covers the period 2012-2024 (2012 is the first year of public data for CPI and 2024 is the most recent year with complete data for all variables) and includes European Union ("EU") countries, obtained from publicly available sources.

The following table presents the selected variables used in the empirical research.

Table 1. Description of the variables

Variables	Definition	Source
Dependent variable		
FDI	FDI are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors, and is divided by GDP.	World Bank
Independent variable		
CIT	CIT refers to total taxes (including direct taxes, indirect taxes and compulsory actual social contributions) as % of GDP.	European Commission
GDP	GDP is the total income earned through the production of goods and services in an economic territory during an accounting period. It can be measured in three different ways: using either the expenditure approach, the income approach, or the production approach. This indicator is expressed in current prices, meaning no adjustment has been made to account for price changes over time. This indicator is expressed in United States dollars.	World Bank
CPI	CPI ranks 180 countries and territories around the world according to perceived levels of public sector corruption, assigning a score on a scale from 0 (very corrupt) to 100 (very clean).	Transparency International
EFW	EFW covers 12 freedoms (from property rights to financial freedom) in 184 countries. If the EFW index is closed to 100 it means that the respective country enjoys the economic freedom.	The Heritage Foundation

Source: Author's own research

At the EU level, the study employs a multivariate panel data regression model, following the framework of Brooks (2008). Multivariate panel data regression was approached by Brooks in the general form as follows.

$$y_{it} = \alpha + \beta x_{it} + u_{it}, \text{ where:}$$

- y_{it} – dependent variable;
- x_{it} – independent variable;
- α – constant;
- u_{it} – time-varying random component;
- i = 1, ..., N, and N is the size of the sample of countries;
- t = 1, ..., T, and T is the size of the time series.

The modelling of the impact of selected indicators on FDI is carried out in the form of a multiple regression with panel data where FDI is the dependent variable and selected indicators (CIT, GDP, CPI, EFW) are the independent variables. The data is processed using Microsoft Excel and the regression analysis is conducted using EViews 10.

Results and discussions

Figure 1 shows the evolution of CIT rates in EU countries both the beginning and the end of the analysed period, namely 2012-2024. The CIT rates of EU countries are presented in ascending order for 2024 in order to distinguish between jurisdictions with the lowest and highest tax levels.

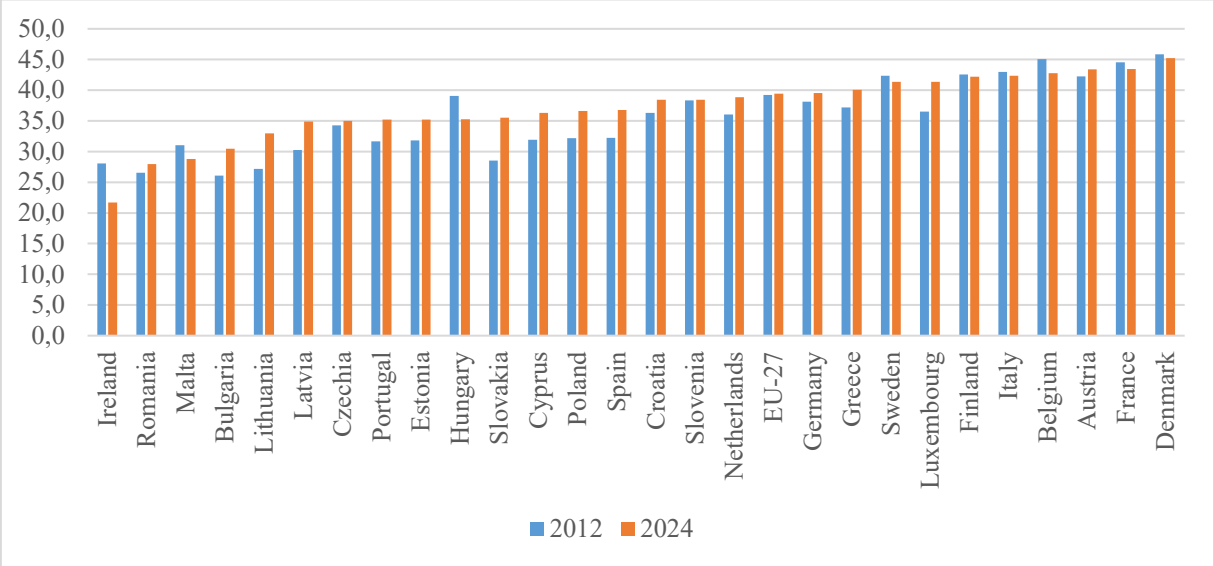

Figure 1. Evolution of CIT in EU countries in 2012 vs. 2024

Source: Author's own research

As it can be observed in Figure 1, in the most recent year, Ireland, Romania, Malta, Bulgaria, Lithuania and Latvia recorded lowest CIT rates, while Denmark, France, Austria, Belgium, Italy and Finland recorded highest CIT rates. In most countries, there is a slight increase in CIT rates in 2024 compared to 2012. This reflects: increased fiscal pressures (post-crisis, pandemic), the need for fiscal consolidation, and efforts to align with international initiatives (e.g., the global minimum tax).

The empirical analysis is based on a panel dataset covering EU member states over the period 2012–2024. FDI inflows, expressed as a percentage of GDP, are used as a proxy for multinational activity and potential profit shifting. The model includes CIT rates as the main explanatory variable, along with economic size such as GDP and institutional factors such as the CPI and the EFW.

To capture potential heterogeneity across countries, a dummy variable was introduced to distinguish between low-tax and high-tax jurisdictions, based on the median CIT rate within the EU. The dummy variable is named High-Tax („HT") and it takes value 1 if the CIT rate is higher that EU median and takes value 0 otherwise.

Based on the variables included in the empirical analysis, Table 2 presents the descriptive statistics of those variables.

Table 2. Summary statistics of the variables

Variables	Mean	Median	Maximum	Minimum	Skew.	Kurt.
FDI	12.70	2.93	452.22	-391.56	2.71	27.81
CIT	36.37	35.50	49.04	19.44	-0.30	2.70
CPI	63.62	60.00	92.00	36.00	0.25	1.90
EFW	69.70	69.50	82.60	53.20	-0.24	2.66
GDP	26.12	26.20	29.18	22.99	0.11	2.25

Source: Author's own research

The dependent variable, FDI (expressed as a percentage of GDP), exhibits a high degree of dispersion, as indicated by the substantial difference between the mean (12.70) and the median (2.93). This suggests the presence of extreme values, which is further confirmed by the wide range between the minimum (-391.56) and maximum (452.22). The CIT rates displays relatively low variability, with values ranging between 19.44 and 49.04 and a mean of 36.37. The CPI shows moderate dispersion, with a mean value of 63.62 and a range between 36.00 and 92.00. Similarly, the EFW exhibits limited variability, with a mean of 69.70 and values ranging from 53.20 to 82.60. Finally, GDP (expressed in logarithmic form) presents a high level of stability, with a narrow range between 22.99 and 29.18 and a mean of 26.12. Overall, the descriptive statistics indicate that while institutional and fiscal variables are relatively stable across countries, FDI exhibits significant variability and the presence of extreme values.

Following past studies conducted by other authors (Stoewhase, 2002; Butnaru et al., 2016), two model specifications are estimated in order to assess the robustness of the relationship between corporate taxation and FDI: a baseline model including a tax regime dummy variable and an extended model incorporating economic size, proxied by GDP. The empirical findings obtained from the panel data analysis is conducted on 27 EU countries over the period 2012–2024.

Table 3. Data panel regression coefficients

Dependent variable: FDI		
Variables	**Model 1**	**Model 2**
CIT	-4.45*	-2.63*
CPI	1.41*	1.47*
EFW	-2.75*	-3.24*
HT (dummy)	-53.96**	
GDP		-10.97*
C	278.30*	527.14*
R-squared	6.07%	9.44%
F-statistic	5.59	9.01
Prob(F-statistic)	0.00	0.00
Observations	351	351
Countries	27	27

Source: Author's own research
*Notes: * and ** denotes significant level at 1% and at 5%.*

The first model examines the impact of CIT rates, institutional variables, and a dummy variable capturing high-tax jurisdictions on FDI inflows. The results indicate a negative and statistically significant relationship between CIT rates and FDI (coefficient = -4.45, $p < 0.01$), suggesting that higher statutory tax rates discourage foreign investment. This finding is consistent with the traditional view that multinational enterprises allocate capital in response to tax differentials across jurisdictions. Institutional quality, proxied by CPI rates, exhibits a positive and significant effect (coefficient = 1.41, $p < 0.01$), indicating that less corrupt and more transparent environments are more attractive to foreign investors. This result aligns with the broader literature emphasizing the role of governance in

investment decisions. EFW displays a negative and significant coefficient (coefficient = -2.75, $p < 0.01$). Although counterintuitive, the negative coefficient may reflect the fact that more economically advanced countries rely less on foreign direct investment relative to their economic size. The dummy variable capturing high-tax countries is negative and statistically significant (coefficient = -53.96, $p < 0.05$), indicating that countries with higher tax burdens tend to attract significantly lower levels of FDI inflows. This supports the theory that tax regime differences across countries influence investment allocation. Overall, the baseline model suggests that both tax policy and institutional quality play a role in shaping FDI patterns, while also highlighting structural differences between high-tax and low-tax jurisdictions.

The second model replaces the dummy variable with a continuous measure of economic size, namely the logarithm of GDP, in order to capture structural economic differences more precisely. The results confirm the negative and statistically significant impact of CIT rates on FDI (coefficient = -2.63, $p < 0.01$), although the magnitude of the effect is reduced compared to the baseline model. This suggests that part of the tax effect observed previously may be associated with underlying economic characteristics. Institutional quality (CPI) remains positive and significant (coefficient = 1.47, $p < 0.01$), reinforcing the robustness of this variable as a key determinant of foreign investment. The coefficient of EFW remains negative and statistically significant (coefficient = -3.24, $p < 0.01$), confirming the pattern observed in the baseline model. A particularly noteworthy result is the negative and highly significant coefficient of GDP (coefficient = -10.97, $p < 0.01$). This suggests that larger economies tend to attract lower levels of FDI relative to their size. This finding can be explained by the fact that smaller economies often rely more heavily on foreign capital and may offer more attractive conditions for multinational enterprises. Importantly, once GDP is introduced, the need for a categorical distinction between high-tax and low-tax countries diminishes, indicating that economic fundamentals provide a more accurate explanation of FDI patterns than simple tax-based classifications.

Finally, the results suggest that multinational enterprises do not base their decisions solely on statutory tax rates, but rather consider a broader set of factors, including market size, institutional environment, and economic conditions. This finding is particularly relevant in the context of transfer pricing, as it indicates that multinational enterprises may rely on alternative mechanisms to optimize their tax burden beyond simple relocation to low-tax jurisdictions.

In light of these considerations, the present study contributes to the existing literature by exploring the relationship between transfer pricing (proxied by FDI flows) and tax evasion (proxied by tax revenue indicators) across countries. By adopting a cross-country perspective and relying on publicly available data, the study aims to provide empirical insights into the extent to which transfer pricing practices are associated with variations in tax collection outcomes. This approach complements existing firm-level analyses (Stoewhase, 2002; Butnaru et al., 2016) and offers a broader understanding of the systemic implications of profit shifting in the global economy.

Conclusions

This study examined the relationship between corporate taxation and FDI inflows within the EU, with a particular focus on the role of tax differentials and their potential link to profit shifting and transfer pricing practices. Using panel data for 27 EU countries over the period 2012–2024, two complementary model specifications were employed in order to capture both fiscal and structural determinants of investment.

The empirical results provide consistent evidence that CIT rates have a negative and statistically significant effect on FDI inflows, confirming that taxation remains an important factor in multinational investment decisions. This finding supports the conventional view in the literature that higher statutory tax burdens reduce the attractiveness of a jurisdiction. In addition, the results highlight the significant role of institutional quality, as measured by the CPI. Countries with more

transparent and stable governance frameworks tend to attract higher levels of foreign investment, reinforcing the importance of non-fiscal factors in shaping investment decisions.

However, the analysis also reveals that the impact of taxation is not independent of broader economic and institutional conditions. When economic size, proxied by GDP, is introduced into the model, the magnitude of the tax effect decreases, suggesting that part of the observed relationship between taxation and FDI is mediated by structural characteristics of the host economy. This indicates that multinational enterprises consider a wider set of determinants beyond fiscal variables when allocating investment.

From the perspective of the research topic, these results carry important implications for the analysis of tax evasion and transfer pricing. The fact that statutory tax rates do not fully explain investment patterns suggests that multinational enterprises may rely on alternative mechanisms, such as transfer pricing strategies, to optimize their tax burden without necessarily relocating real economic activity. In this context, profit shifting may weaken the direct relationship between tax rates and observable investment flows.

The study is subject to several limitations. First, FDI expressed as a percentage of GDP represents an indirect proxy and may not fully capture the complexity of multinational activity. Second, the relatively low explanatory power of the models indicates that additional variables could further improve the analysis. Alco, the study relies on publicly available data from international sources. However, inconsistencies in data reporting across countries and years may affect the accuracy and completeness of the analysis.

Future research could extend the analysis by incorporating firm-level data that activate in a certain industry. (e.g., IT, auto, construction, agriculture). A factor that is significant for the multinationals that activate in a certain industry may be irrelevant for the multinationals that activate in a different industry.

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