# GOVERNANCE PERSPECTIVES ON DOUBLE TAX TREATIES AND FOREIGN DIRECT INVESTMENT: DO BILATERAL DOUBLE TAXATION TREATIES MATTER?

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# **Abstract**

This paper examines the impact of double taxation treaties on foreign direct investment (FDI) inflows into Vietnam from 50 countries between 2001 and 2021. The findings show a significant and positive effect of double taxation treaties (DTTs) on FDI inflow to the host country, indicating that DTTs mitigate tax-related uncertainties and costs for investors. The study extends the literature by exploring the interaction between DTTs on FDI inflows. The research is more advanced than prior research on the relationship between DTTs and FDI (Neumayer, 2007; Murthy & Bhasin, 2015; Braun & Fuentes, 2016) as it addresses dynamic endogeneity and potential causality between macroeconomic factors by employing system generalized method of moments (GMM) estimation. The result reveals that the weak institutional framework and governance of the host country can alleviate this positive impact of DTTs on inward FDI. To fully leverage the benefits of DTTs in attracting FDI inflows, policymakers must prioritize enhancing the institutional environment and governance, particularly in light of new challenges posed by heightened geopolitical uncertainty and the establishment of the global minimum tax.

Keywords: FDI, Double Taxation Treaties, International Tax, Vietnam

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# 1. INTRODUCTION

Foreign direct investment (FDI) inflow is often seen as a key element of economic development, offering numerous benefits such as increased capital, employment, and technological advancement, especially for developing countries (Efthimiou, 2024; Guidara, 2024; Letsou et al., 2025; Makki & Somwaru, 2004). Southeast Asia is an FDI hotbed and a cheaper alternative to Chinese manufacturing. Inward FDI in this area increased ninefold over the past two decades (World Bank, 2022). Vietnam is increasingly becoming a prominent destination for FDI in Southeast Asia due to its strategic location,

favourable investment climate, and robust economic growth. Additionally, Vietnam has provided attractive investment incentives such as tax breaks and land use incentives to absorb FDI. According to the Ministry of Planning and Investment of the Socialist Republic of Vietnam (2025), as of May 2024, Vietnam has hosted 40,285 projects with a total registered capital of US\$481.33 billion (and the proportion of project actualization is 63.5%). However, while FDI inflows are meeting some development expectations of Vietnam, efforts in attracting FDI face some challenges, especially in the new global context with high uncertainty of geopolitical tensions and post-COVID consequences.

In addition, with the concerns of Base Erosion and Profit Shifting (BEPS) and the global minimum tax, the effectiveness of low corporate tax rates as diminishes. In particular, an incentive for Economic Co-operation Organisation and Development (OECD) proposed a minimum effective tax rate of 15% for multinational corporations (MNCs), which means that companies cannot pay less than this rate on their profits regardless of where they are based (Casella & Souillard, 2022). Given this minimum rate, MNCs may no longer see Vietnam's lower tax rates as a significant advantage if they must pay additional taxes. Thus, these challenges necessitate a rethinking of Vietnam's FDI strategies, including the role of tax incentives and double taxation treaties (DTTs) in attracting foreign investment.

One factor of Vietnam's investment strategy has been the expansion of its network of DTTs, which aims to eliminate the risk of double taxation for MNCs and investors engaged in cross-border business activities. With a growing emphasis on international economic integration and liberalization, Vietnam has actively pursued the negotiation and signing of DTTs with 80 countries (General Department of Taxation, 2016). DTTs aim to not only reduce tax-related uncertainties and tax burden for investors by preventing income from being taxed by both the home and host countries, but also provide investors with greater certainty, transparency, and incentives to invest in developing countries.

While the benefits of DTTs in promoting FDI have been widely discussed, the specific dynamics of this relationship remain less explored, particularly in the context of developing economies such as Vietnam. Empirical evidence on the impact of DTTs on FDI is mixed.

This study seeks to address these gaps by examining the role of DTTs in influencing FDI inflows into Vietnam. Our research provides three main contributions to the literature. Firstly, by using a sample of 50 countries having inward FDI to Vietnam from 2001 to 2021, we aim to extend the understanding of how DTTs impact FDI, particularly in developing economies. We also consider this relationship in sub-country samples categorized by income level, high-income and lowmiddle-income groups. Secondly, our study stands research by from prior providing a comprehensive analysis with a diverse range of variables, including DTTs, economic growth, market size, trade volumes, interest rates, and providing sensitive tests by using different proxies of DTTs and FDI. Our research is more advanced than prior research on the relationship between DTTs and FDI (Murthy & Bhasin, 2015; Braun & Fuentes, 2016) as we address dynamic endogeneity and potential causality between macroeconomic factors by employing system generalized method of moments (GMM) estimation.

The rest of the paper is structured as follows. Section 2 reviews the literature and provides hypothesis development. Section 3 provides the research methodology and data. Section 4 presents regression results. Section 5 concludes the paper.

### 2. LITERATURE REVIEW

#### 2.1. Vietnam's double taxation treaties

Vietnam's DDTs not only eliminate double taxation through exemption or credit but are also based on international standards (General Department of Taxation, 2016). For business income, taxation rights are shifted to the resident country. If a company based in a foreign country generates profits in Vietnam as a DTT partner, those profits are taxable only in that foreign country (the company's home country) and vice versa. In the case of a Permanent Establishment (PE — fixed business establishment carries out all or part of its business activity in another country, rather than its home country), profit related to that PE may be taxed in the other country, but only the portion of attributed profit to the PE. When calculating the profits of a PE, deductions are allowed for expenses incurred for the PE's business purposes, including executive and general administrative costs. This article can create a loophole in shifting taxable profits from Vietnam to developed countries. For example, management services would be taxed as business profits in the company's home country, rather than the source country where a PE is allocated. Furthermore, the right to tax passive income, such as interest, royalties, and dividends, is also passed to the country of residence. However, the source countries are allowed to impose limited taxation on dividends and interest payments. The withholding tax rates may be reduced through double taxation treaties compared to domestic laws. The difference in withholding tax rates between countries due to bilateral tax treaties may prompt companies to seek alternative methods of repatriating profits to optimize after-tax earnings.

# 2.2. Double taxation treaties and foreign direct investment

DDTs play a key role in international taxation, aiming to eliminate or reduce double taxation on the same income arising from cross-border trade and investment between two or more countries (OECD, 2017). DTTs lessen the tax burden as income is taxed only once by the exemption method or reduced by the credit method. Additionally, countries that sign DTTs become more attractive to foreign investors because they eliminate tax-related uncertainties (Erokhin & Zagler, 2024). In particular, DTTs outline clear tax rules that both countries agree on, giving investors confidence about the applicable tax rates and procedures. Without DTTs, foreign investors face uncertainty about how their profits and repatriation of profits will be taxed in two jurisdictions, the source country and the resident country. DTTs also provide a stable framework by ensuring that the tax treatment of their foreign profits will not unexpectedly change, thus it is easier to predict future tax liabilities, which is particularly attractive to foreign investors seeking long-term investments. Furthermore, DTTs can serve as a signal of a country's commitment to creating a favourable environment for foreign investment (Baker, 2014). In other words, by signing multiple DTTs, a country might send a signal that the country is willing to cooperate with international tax standards with transparent, predictable tax policies. Lukoianova (2013) argues that treaties such as bilateral investment treaties can balance the rights of foreign investors and the host country and serve as a signalling device, indicating the quality of the host country's investment environment. Thus, based on the signalling theory, signing DTTs can be a signal that encourages FDI inflow to a country.

The literature provides empirical evidence on the positive relationship between DTTs and FDI (Hurrah et al., 2025; Sharadh & Krishnamoorthy, 2025; Shehaj & Zagler, 2023; Barthel et al., 2010; Murthy & Bhasin, 2015; Braun & Fuentes, 2016). In particular, using the US's outbound FDI stocks during the 1970-2001 period, Neumayer (2007) found that developing countries that sign a double taxation treaty with the US experience an increase in both the total stock of FDI and the proportion of that stock originating from US investors. Developing countries that sign more DTTs with major capitalexporting developed countries also see an overall rise in FDI stock, receive more FDI inflows, and capture a larger share of these inflows. In line with Neumayer (2007), Murthy and Bhasin (2015) found that all 14 economies having FDI inflows to India during 1993-2011 have benefited from tax treaties to varying degrees. Especially for the US, the UK, Singapore, and Japan, the age of the tax treaty led to a more rapid increase in FDI inflows to India following the implementation of tax treaties, compared to other countries. Similarly, using a sample of Spain's inward and outward FDI for 1993-2013, Castillo-Murciego and López-Laborda (2019) found that, as a host country for investments. tax savings derived from DTTs are positively related to Spain's outbound investment. Braun and Fuentes (2016) also showed that middle-income countries entering into a DTT with Austria can anticipate a rise in FDI projects from Austrian companies based on a sample of 104 potential host countries over the 1990–2011 period.

However, using a sample of FDI inflows in 15 developing countries across Latin America and the Caribbean from 1983 to 2013, Shah and Qayyum (2015) found that DTTs do not significantly influence FDI inflows. These countries appear to rely more on other location-specific factors like larger domestic markets, development levels, trade openness, resource efficiency, and improvements in services and manufacturing to attract inward FDI. In line with Shah and Qayyum (2015), Rosidiana (2019) could not find any significant positive impact of DTTs on inward FDI in a sample of Indonesia's FDI inflow during the 2005–2017 period.

Given the role of DTTs in international

Given the role of DTTs in international taxation, reducing the tax burden, providing a stable framework, and signalling the willingness to collaborate with international tax standards, we then hypothesize that:

H1: DTTs positively affect inward FDI.

#### 3. RESEARCH METHODOLOGY AND DATA

Research on the relationship between DTTs and FDI employs a variety of methodological approaches. The main methods include:

1) Econometric analysis using large panel data: Many studies use large bilateral panel datasets covering multiple countries and years to empirically estimate the impact of DTTs on FDI flows. These studies control for standard determinants of FDI (such as gross domestic product, GDP, distance, and institutional quality) and apply various econometric specifications, including fixed effects, difference-indifferences, and instrumental variables, to address endogeneity issues. For example, Barthel et al. (2010) use an extensive dyadic panel dataset and find that DTTs lead to higher FDI stocks after controlling for confounding factors.

- 2) Descriptive and theoretical framework analysis: Some research relies on descriptive methodologies to analyse the economic and legal framework of DTTs and their theoretical implications for FDI. This involves reviewing legal regulations, international tax principles, and reports from organizations like the OECD, combined with economic theory to understand how DTTs might influence investment decisions. This approach is common in studies focusing on specific regions such as Latin America and the Caribbean.
- 3) Micro-level firm data analysis: A smaller but important set of studies analyses firm-level data to examine how DTTs affect the tax burden and investment decisions of multinational enterprises. These micro-level analyses allow for controlling firm heterogeneity and assessing the impact of DTT provisions on effective tax rates and investment behaviour, including considerations of treaty shopping and tax planning strategies.

In summary, research on DTTs and FDI combines quantitative econometric techniques with descriptive legal-economic analysis and micro-level firm data studies, often incorporating advanced methods to control for endogeneity, heterogeneity, and treaty-specific characteristics. This multimethod approach reflects the complexity of assessing DTT's impact on international investment flows. In this research, the first method is preferred.

#### 3.1. Empirical model

To investigate the impact of DTTs on FDI, we use the following baseline empirical model:

$$FDI_{i,t} = \beta_0 + \beta_1 FDI_{i,t-1} + \beta_2 DTT_{i,t} + \beta_3 Control_{i,t} + \varepsilon_{i,t}$$
 (1)

 $FDI_{i,t}$  represents the inward FDI in Vietnam from partner country i each year. We measure FDI by the natural logarithms of the number of FDI projects of country i investing in Vietnam in year t.  $DTT_{i,t}$  is our main interest variable, which is measured by the number of years that the DTT between Vietnam and country i has been implemented in year t. An older DTT might also signal a stable and long-standing tax relationship between the two countries. Following our hypothesis, we expect  $\beta_1$  to be positive and statistically significant in the model (Barthel et al., 2010; Castillo-Murciego & López-Laborda, 2019).

*Control*<sub>it</sub> is a vector that represents other factors influencing inward FDI. The first variable is  $GDP_{i,t}$  is the ratio of real GDP between country i and Vietnam in year t, and  $GROWTH_{i,t}$  is the difference in economic growth between country i and Vietnam in year t. Investors are typically attracted to markets with larger or faster-growing GDP because these markets offer better opportunities for sales, revenue generation, and long-term growth (Blonigen, 2005; De Castro et al., 2013; Bokpin et al., 2015; Saini & Singhania, 2018; Aziz & Mishra, 2016; Chen et al., 2019). INTEREST<sub>i,t</sub> is the ratio of lending interest rates between country i and Vietnam in year t. FDI flows tend to move from countries with high interest rates to those with lower rates, as firms seek to minimize financing costs and optimize investment return (Goldberg & Kolstad, 1995; Blonigen, 2005; Siddiqui & Aumeboonsuke, 2014; Musyoka & Ocharo, 2018; Chen et al., 2019). *OPEN*<sub>tt</sub> is the ratio of trade to GDP of Vietnam in year t. A higher level of trade openness in the host country incentivizes firms to

relocate production or expand operations to benefit from more favourable trade conditions (Blonigen, 2005; Babatunde, 2011; Aziz & Mishra, 2016; Zaman et al., 2018; Chen et al., 2019). *GFCF*<sub>it</sub> is the natural logarithm of investment in Vietnam each year. Host country with high GFCF attracts more FDI because

investors perceive the higher capital formation as an indicator of economic dynamism and the ability to support productive investments (Hasli et al., 2017; Saini & Singhania, 2018). Table 1 provides the variable description with the source of data.

**Table 1.** Data description

Variables	Source	Description	
FDI	Ministry of Planning and Investment	The natural logarithm of the number of FDI projects from country $\it i$ to Vietnam.	
DTT	General Department of Taxation	Number of years that the double taxation treaty with country $i$ has been implemented.	
GDP	World Bank	The ratio of GDP between country <i>i</i> and Vietnam.	
GROWTH	World Bank	The difference in economic growth rate between country <i>i</i> and Vietnam.	
INTEREST	World Bank	The ratio of lending interest rates between country <i>i</i> and Vietnam.	
OPEN	World Bank	The ratio of trade between country <i>i</i> and Vietnam.	
GFCF	World Bank	The natural logarithm of gross fixed capital formation in Vietnam.	

This paper employs the fixed effects estimator as the primary estimation method to account for time-invariant characteristics within the panel data. If the individual effect exists, unobserved characteristics may lead to biased results due to the correlation between the predictors and the non-zero expected value of the error terms (Wooldridge, 2010).

On the other hand, the relationship between FDI and macroeconomic variables is complex with potential causality. The presence of the lag of dependent variables still leads to endogeneity problems, and hence fixed effect model will be biased. Based on Blundell and Bond (1998) and Li et al. (2021), our study employs the system GMM estimation method to address the dynamic panel bias caused by the dynamic endogeneity and causality.

#### 3.2. Data

Data for FDI was collected from the Ministry of Planning and Investment. Data is available for 183 countries invested in Vietnam from 2001-2021. Data for DTTs was extracted from the General Department of Taxation. As of 2023, there are 80 countries signed DTT with Vietnam. We also collect the Freedom Index from the Heritage Foundation database. Other macroeconomic indicators were collected from the World Bank database. Data is merged based on country code and year. The final data includes 494 observations from 50 countries (11 low-income, 12 middle-income, and 27 high-income countries) for the 2001–2021 period.

Figure 1. The total amount of inward FDI inflow to Vietnam from 50 countries for the 2001-2021 period

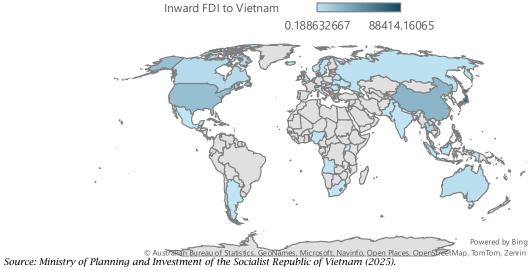


Figure 1 shows the total amount of FDI inflow to Vietnam from 50 countries in our sample during the research period. FDI inflows from 50 countries in the sample accounted for at least 73% of Vietnam's total annual FDI, averaging 87.5% during the study period. Among foreign investors, South Korea ranked first in terms of total FDI, with firms US\$88.4 billion investing approximately the research period, accounting for an average of 19.42% of Vietnam's total FDI inflows. Singapore followed US\$67.07 billion closely with investments, while Japan contributed over US\$66.5 billion from 2001 to 2021.

The total inward FDI of Vietnam had increased significantly by the 2009 financial crisis, from US\$1.5 billion in 2001 to a peak of more than US\$45.7 million in 2008 (largely driven by high- and mid-income country investment). The drop in Vietnam's total inward FDI post-2019 might reflect the reduction in the capacity of firms and investors major developed economies, which were the largest contributors to Vietnam's FDI inflows. FDI did not bounce back and recovered until 2012. However, post-COVID-19 pandemic, FDI fell by 22.5% in 2019 compared to the previous year. Table 2 shows the descriptive statistics of our variables.

The average FDI in our sample is 2.9 with a standard deviation of 1.6. The average number of projects is 53, with an average value of US\$625.8 million during 2001–2021.

Vietnam has also been actively expanding its network of DTTs with 80 countries since 1992. Three-quarters of the countries in our sample signed and implemented DTTs with Vietnam. The average FDI inflow to Vietnam from countries with DTTs reached approximately US\$712.8 million, more than double the amount from countries without DTTs, while the number of projects for the former (62 projects) is three times that of the latter. In terms of income levels, the average duration of DTTs signed between Vietnam and middle- and high-income countries exceeds 11 years, compared to 9 years for lower-income countries. The average DTT

for the whole sample is 11.22 years with a standard deviation of 8 years.

**Table 2.** Descriptive statistics

Variables	Obs.	Mean	Std. Dev.	Min	Max
FDI	494	2.596	1.556	0	6.059
DTT	494	11.225	8.094	0	29
GDP	494	6.528	9.609	0.003	32.952
GROWTH	494	-3.279	3.891	-19.498	11.231
INTEREST	494	0.77	0.523	0.192	4.552
OPEN	494	143.517	18.642	113.978	186.468
GFCF	494	24.846	0.406	23.949	25.428

Table 3 shows the correlation matrix of variables. The correlation between FDI and DTTs is 0.341, reflecting a positive and significant correlation between FDI and DTTs at the 1% level.

**Table 3.** Correlation matrix

Variables	(1)	(2)	(4)	(5)	(6)	(7)	(8)
(1) FDI	1.000						
(2) DTT	0.341	1.000					
(4) GDP	0.470	0.023	1.000				
(5) GROWTH	0.096	0.068	0.091	1.000			
(6) INTEREST	-0.353 ***	-0.237 ***	-0.303 ***	0.029	1.000		
(7) OPEN	0.029	0.194	-0.140 ***	-0.004	0.241	1.000	
(8) GFCF	-0.005	0.304	-0.248 ***	-0.088	0.233	0.710	1.000

Note: Robust standard errors in parentheses. \*\*\*, \*\*, and \* denote significant level at 1%, 5%, and 10%, respectively.

#### 4. RESULTS AND DISCUSSION

## 4.1. Baseline results

Table 4 reports the regression results of the baseline model. In Table 4, columns (1) and (2) report

the results of the full regression model using ordinary least squares (OLS) and fixed effects, respectively. Column (3) presents the results of the reduced-form regression model with fixed effects.

Table 4. Baseline model regression result

	(1)	(2)	(3)
Variables	OLS	Fixed effects	Fixed effects
	FDI	FDI	FDI
L.FDI	0.912***	0.438***	0.455***
L.FDI	(0.0185)	(0.0446)	(0.0424)
	0.00601**	0.0258**	0.0388***
DTT	(0.00294)	(0.0122)	(0.00597)
	(0.116)	(0.459)	
GDP	0.00894***	0.00557	
GDP	(0.00227)	(0.0161)	
GROWTH	0.000837	-0.0105	
GROWIH	(0.00496)	(0.00866)	
INTEREST	0.0429	0.102	
INTEREST	(0.0467)	(0.130)	
OPEN	0.000570	0.00289	
OPEN	(0.00175)	(0.00743)	
GFCF	-0.0110	-0.196	
GFCF	(0.0943)	(0.340)	
Observations	494	494	494
R-squared	0.898	0.521	0.453

Note: Robust standard errors in parentheses. \*\*\*, \*\*\*, and \* denote significance level at 1%, 5%, and 10%, respectively.

The coefficient of DTT remains positive and statistically significant at the 5% significance level in columns (1) and (2), and at the 1% significance level in column (3), suggesting a positive effect of DTT on FDI. Based on the empirical results, FDI inflow to Vietnam is higher from a country where its double taxation treaty with Vietnam has been implemented for an extended duration. The results support our hypothesis of a positive relationship between DTT and FDI. This positive effect can be explained by

a reduction in tax costs arising from DTTs. DTTs also reduce tax-related uncertainties, making crossborder investments more attractive (Erokhin & Zagler, 2024). Furthermore, our result can be explained by the signalling theory that DTTs serve as signals to foreign investors about a stable and supportive investment environment in Vietnam.

We further explore the impact of DTTs on inward FDI to Vietnam by focusing on home countries' income levels that are categorized by the World Trade Organization (WTO) into low-income, middle-income, and high-income groups. Table 5 provides the regression results of the DTTs-FDI relationship based on home countries' income levels using fixed effects. In Table 5, columns (1) and (2) report the results of the full regression model using fixed effects for the high-income and low and middle-income groups, respectively.

Meanwhile, the positive and significant coefficient of DTT at 5% level in column 2 (Table 4) shows that for a one-year increase in DTT, the number of FDI projects from low and middle-

income countries increases by 4% on average. We separate this group into low-income countries and middle-income countries and report the regression results in columns (3) and (4) in Table 5, respectively. Both coefficients of DTT in both columns are positive, but the significant impact of DTT at 5% level remains only in column (4). This result shows that an increase in DTT can lead to an increase in FDI only for home countries from the middle-income group. This result might be limited by the number of observations in each group.

**Table 5.** DTT and FDI inflow by home country's income levels

	(1)	(2)	(3)	(4)
Variables	Fixed effect FDI	Fixed effect FDI	Fixed effect FDI	Fixed effect FDI
	High income	Low and middle	Low income	Middle income
L.FDI	0.397***	0.454***	0.563***	0.288**
L.FDI	(0.0590)	(0.0723)	(0.116)	(0.118)
DTT	0.0162	0.0408**	0.00496	0.0598**
DII	(0.0165)	(0.0204)	(0.0347)	(0.0298)
GDP	-0.0114	0.0269	-0.155	0.0550
GDF	(0.0181)	(0.181)	(0.411)	(0.213)
GROWTH	0.00463	-0.0157	-0.00219	-0.0249
GROWIH	(0.0119)	(0.0134)	(0.0278)	(0.0163)
INTEREST	0.504**	-0.265	-0.876**	-0.0709
INTEREST	(0.198)	(0.196)	(0.391)	(0.247)
OPEN	0.00389	-0.00607	0.00265	-0.00987
OPEN	(0.0105)	(0.0109)	(0.0167)	(0.0150)
GFCF	0.0855	-0.328	-0.419	-0.423
Grer	(0.471)	(0.511)	(0.867)	(0.698)
Observations	296	198	99	99
R-squared	0.543	0.590	0.688	0.611
No. of countries	27	23	11	12
Country	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes

Note: Robust standard errors in parentheses. \*\*\*, \*\*\*, and \* denote significance level at 1%, 5%, and 10%, respectively.

#### 4.2. Robustness checks

#### 4.2.1. Sensitive tests

We conduct several tests to check the robustness of our baseline results, including alternative measurements of the dependent variable and the explanatory variables.

Table 6 reports the regression results of the baseline model using alternative variable measurements. Columns (1) and (2) report the results of the full regression model using *L.DTT* and *DTT\_p* as other proxies of DTTs, respectively. The regression results using *FDI\_w* and *Ln\_FDI* are reported in columns (3) and (4), respectively.

Table 6. Robustness check

	(1)	(2)	(3)	(4)
Variables	Fixed effect FDI	Fixed effect FDI	Fixed effect FDI_w	Fixed effect LnFDI
L.FDI	0.438***	0.450***		
L.FDI	(0.0446)	(0.0444)		
L.FDI_w			0.391***	
L.FDI_W			(0.0464)	
L.Ln_FDI				0.0632
L.LH_ITDI				(0.0485)
DTT			52.91**	0.0499*
DII			(26.49)	(0.0293)
L.DTT	0.0256**			
L.D11	(0.0121)			
DTT_p		0.644***		
Β11_μ		(0.227)		
GDP	0.00584	-0.00415	-15.64	0.0288
GDI	(0.0161)	(0.0155)	(34.80)	(0.0388)
GROWTH	-0.0106	-0.0101	-8.834	-0.00967
GROW III	(0.00866)	(0.00869)	(18.84)	(0.0209)
INTEREST	0.102	0.113	92.29	0.988***
IIVIERESI	(0.130)	(0.130)	(273.3)	(0.309)
OPEN	0.00287	0.0866***	9.204	-0.00678
OTEN	(0.00744)	(0.0323)	(16.06)	(0.0179)
GFCF	-0.192	-3.829**	-590.2	1.388*
	(0.339)	(1.541)	(724.2)	(0.812)
Observations	494	494	494	494
R-squared	0.521	0.516	0.309	0.335
Country/Year	Yes	Yes	Yes	Yes

Note: Robust standard errors in parentheses. \*\*\*, \*\*\*, and \* denote significance level at 1%, 5%, and 10%, respectively.

The results are consistent with baseline regression results, as both positive coefficients of *L.DTT* and *DTT\_p* are significant at 5% and 1% levels, respectively. One-year lagged *DTT* and the expansion of the double taxation treaty network do positively impact the inward FDI to Vietnam. Additionally, both coefficients of *DTT* in columns (3) and (4) of Table 6 are positive and significant at 1% level when *FDI\_w* and *Ln\_FDI* are replaced as proxies of inward FDI to Vietnam. Thus, higher DTT increases not only the growth in the number of FDI projects but also the amount of inward FDI to Vietnam.

#### 4.2.2. GMM estimation

Based on Blundell and Bond (1998), we use the system GMM estimation method to deal with dynamic endogeneity and potential causality between FDI and economic growth in our model. In the first-difference GMM equations, firm-specific unobserved heterogeneity in the error term is eliminated by transforming the data internally using first differences. Additionally, lagged values of the independent variables serve as instrumental variables (IVs), as they are expected to be uncorrelated with the error term. Table 7 reports the system GMM regression results.

**Table 7.** GMM regression result

Variables	(1)				
variables	System-GMM FDI				
L.FDI	0.454***				
L.FDI	(0.118)				
DTT	0.0294**				
DII	(0.0140)				
GROWTH	-0.0134*				
GROWIH	(0.00789)				
INTERPOT	0.0863				
INTEREST	(0.116)				
CDR	0.0417***				
GDP	(0.0118)				
OPEN	0.00252				
OPEN	(0.00231)				
GFCF	0.329				
GFCF	(0.214)				
Observations	494				
No. of countries	50				
Year	YES				
N	494				
J	25				
ar1p	0.000658				
ar2p	0.122				
Hansenp	0.171				

Note: Robust standard errors in parentheses. \*\*\*, \*\*\*, and \* denote significance level at 1%, 5%, and 10%, respectively.

The results in Table 7 are robust to the baseline regression results reported in Table 4. The coefficient of *DTT* remains positive and significant at 5% level. The result indicates that countries with higher DTT are more likely to experience higher levels of inward FDI in Vietnam.

The coefficient on *L.FDI* is positive and statistically significant at the 1% level (0.454\*\*\*), indicating strong persistence in FDI inflows. This suggests that past FDI levels positively influence current FDI, reflecting possible investment complementarities, investor confidence, or ongoing

projects. The coefficient on economic growth is negative (-0.0134) and statistically significant at the 10% level (\*). This unexpected negative relationship may suggest that rapid short-term growth could coincide with economic volatility or structural changes that temporarily deter FDI, or that investors may be cautious during transitional growth periods.

The coefficient on interest rates is positive (0.0863) but not statistically significant, indicating that interest rate variations do not have a clear impact on FDI inflows in this sample. GDP has a positive and highly significant effect on FDI (0.0417\*\*\*). Larger economies tend to attract more FDI due to bigger markets, better infrastructure, and more opportunities. The coefficient on trade openness is positive (0.00252) but statistically insignificant, suggesting that openness to trade alone may not be a strong determinant of FDI in this model. The coefficient on *GFCF* is positive (0.329) but not statistically significant, indicating that domestic investment levels do not have a clear direct effect on FDI inflows here.

#### 5. CONCLUSION

This study provides empirical evidence on the impact of DTTs on FDI inflows to Vietnam. The findings indicate that DTTs have a positive and significant effect on FDI inflows, with stronger impacts observed from middle-income countries. The results suggest that DTTs reduce tax-related costs and uncertainties, thus encouraging crossborder investments. The robustness of the findings was confirmed through various sensitivity tests, and addressing the endogeneity of potential causality in the baseline model by employing the system GMM approach also reaffirms the positive relationship between DTTs and FDI. Additionally, the positive effect of DTDs on FDI is significant in middleincome countries, but it is insignificant for highincome countries. Overall, the research emphasizes the significance of DTTs in enhancing FDI in Vietnam while also noting that their effectiveness relies on the broader economic and institutional context.

Given that our findings indicate that effective DTTs lower tax costs and provide stability for investors, the introduction of a global minimum tax may reshape the landscape of DTTs. Countries may need to renegotiate existing treaties to align with the minimum tax rates, ensuring that they remain competitive in attracting FDI. The necessity of DTAs may evolve as countries adjust their tax policies in response to the global minimum tax, potentially altering the dynamics of investment flows.

This study concentrates solely on Vietnam, which may limit the broader interpretive implications of the findings. Thus, future research can extend the research sample globally. Additionally, given the limitation in data, as the global minimum tax is set to be implemented in 2024, future research can explore the evolving relationship between DTTs, global tax reforms, and FDI.

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