

Does Fiscal Policy Impede FDI Inflows in Advanced Economies? The Role of Institutional Quality

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CroEconSur

Vol. 27

No. 1

June 2025

pp. 6-28

Received: March 25, 2024

Accepted: March 6, 2025

Research Article

doi:10.15179/ces.27.1.1



Abstract

The relationship between fiscal policy and foreign direct investment (FDI) inflows in advanced economies remains debated due to a lack of comprehensive studies on this topic. Notably, no research has explored how institutional quality moderates the fiscal policy–FDI nexus in these countries. This paper addresses these gaps by employing the difference GMM Arellano-Bond estimators (one-step and two-step) to examine the effects of fiscal policy, institutional quality, and their interaction on FDI inflows in 37 advanced economies from 2002 through 2022. Our findings reveal intriguing dynamics. While fiscal policy and institutional quality reduce FDI inflows, their interaction increases them. In addition, market size and trade openness are identified as key drivers of FDI, whereas inflation exerts a negative impact. These results offer valuable policy insights for governments in

advanced economies, emphasizing the need for carefully calibrated fiscal policies and institutional reforms to attract more FDI inflows.

Keywords: fiscal policy, FDI inflows, institutional quality, advanced economies

JEL classification: F21, H20, H50, O17

1 Introduction

In contrast to classical economists, such as Adam Smith, who downplay the importance of government involvement, neoclassical economists, particularly those of the Keynesian school, highlight the vital role the government plays in the economy through the utilization of fiscal policy instruments. Fiscal policy entails governmental actions concerning taxation and public spending to achieve macroeconomic objectives, such as fostering economic growth, generating employment, and maintaining price stability. Consequently, fiscal policy assumes critical significance, particularly during periods of economic downturn characterized by high unemployment rates or in fast-growing economies marked by high inflation rates. Practically, fiscal policy demonstrates its profound impact on economic progress and advancement. For example, governments can utilize public spending and taxation to address market failures and redistribute national income, potentially reducing societal income disparities. Government spending significantly contributes to economic development by facilitating infrastructure development, encompassing essential elements like water, electricity, and transportation networks. It enables the allocation of expenditure on education and healthcare services more efficiently and effectively than market mechanisms (Hall, 2010). Public spending can help mitigate the income inequality generated by the market by shifting funds towards those with lower incomes. Around three-quarters of the worldwide endeavor to combat climate change will be funded through government spending. Notably, Hall (2010) contends that the fairness of taxation appears diminished, as many economies adopt regressive

taxes such as VAT (value added tax), which disproportionately affect individuals with lower incomes. Additionally, despite a growing share of national income, companies are paying diminishing amounts in taxes.

FDI is a pivotal source of investment capital in several countries, playing a crucial role in fostering economic development and growth. Researchers and economists highlight the multifaceted benefits of FDI inflows, including horizontal and vertical spillovers. These spillovers encompass technological advancements, capital accumulation, innovation capacity, and knowledge acquisition within host countries. FDI inflows can promote economic growth in host countries (Siddik, 2023). Nevertheless, the implications of FDI inflows on economic outcomes remain subject to debate. On one hand, such inflows can contribute to improving environmental quality, as posited by the pollution halo hypothesis. Conversely, they may also exacerbate environmental degradation, aligning with the pollution haven hypothesis (Nguyen, 2021a). Additionally, studies indicate that FDI inflows can stimulate or hinder domestic investment in host economies (Nguyen, 2021b) while influencing income inequality dynamics—widening and narrowing disparities within recipient countries (Nguyen, 2021c).

Li and Filer (2007) argue that advanced countries exhibit rule-based governance (good institutional quality). These countries set up clear and transparent regulations and laws to attract more FDI inflows, promoting economic growth and creating more employment. Compared to developing countries, developed countries have more stable macroeconomic policies due to implementing counter-cyclical fiscal policies (Nguyen, 2022). Thus, research questions arise: Does fiscal policy effectively stimulate FDI inflows in developed countries? How does institutional quality influence this dynamic? Answering these questions is also the aim of this paper. Therefore, this paper aims to investigate how fiscal policy, in combination with institutional quality, affects the inflow of foreign direct investment in developed countries. The study focuses on a research sample of 37 advanced economies from 2002 to 2022. The two-step and one-step difference GMM Arellano-Bond estimators (2DGMM and 1DGMM)

are employed for estimation and robustness testing. The findings contribute to the understanding of how fiscal policies can be optimized in light of institutional frameworks, offering practical implications for policymakers.

In addition to the Introduction in Section 1, the paper has the following structure. Section 2 notes the theoretical framework and literature review. Section 3 suggests the empirical model and research data, while Section 4 presents the results and discussion. Section 5 comprises the conclusion and policy implications.

2 Theoretical Basis

2.1 Analytic Framework

According to the Neo-classical investment model proposed by Clark (1979), investment is theorized to depend on anticipated future interest rates, prices, and taxes (Göndör & Nistor, 2012). Various studies have delved into fiscal FDI incentives, treating them as deviations from the standard tax framework (Davies & Ellis, 2007). A significant portion of studies appears to uphold the notion that international variations in corporate taxation play a crucial role in determining the location of FDI (Mutti & Grubert, 2004; Blonigen, 2005; Görg et al., 2009). Meanwhile, Othman, Yusop et al. (2018) have shown that the investment development path (IDP), outlined by Narula and Guimón (2010), highlights five stages of international production. In the early stages, low FDI flows necessitate crucial government spending on infrastructure and human capital development. As the domestic economy becomes more competitive, it attracts market-seeking and asset-seeking FDI, propelling it through stages three and four. In the final stage, the economy achieves self-sufficiency, enabling increased FDI with less government intervention. Hence, targeted government expenditures in the initial stages can attract substantial FDI inflows during rapid economic development.

We argue that fiscal policy in host countries can pose significant challenges to FDI inflows in developed economies. In particular, efforts to increase government

revenue—such as raising taxes—can reduce the profitability of FDI enterprises. Similarly, governments in advanced economies often increase public debt to finance government spending. This growing debt burden may lead to higher tax rates in the future, further discouraging FDI investors. As a result, fiscal policies in these countries can act as barriers to foreign investment.

Meanwhile, developed countries benefit from good institutional quality characterized by transparent regulations and rule-based governance (Li & Filer, 2007). These robust legal and regulatory frameworks create a competitive environment where domestic and foreign businesses operate fairly and equitably. However, domestic enterprises in these countries often possess advanced scientific and technological capabilities, creating stiff competition for FDI enterprises in price and product quality. Consequently, while institutional quality fosters transparency and fair competition, it can inadvertently deter FDI inflows by intensifying competitive pressures on foreign investors.

However, the interaction between fiscal policy and institutional quality significantly boosts FDI inflows. This synergy stems from robust regulations managing public debt (institutional quality) and budgetary policies controlling spending in developed economies. Stringent rules in these nations limit government expenditure and budget deficits, curbing public debt growth and reducing the risk of excessive future tax hikes. This framework ensures fiscal prudence, creating an environment that attracts investors by minimizing risks tied to high debt and tax burdens.

2.2 Literature Review

FDI plays a crucial role in economic activities in host countries because of its horizontal and vertical contributions to the economy. Governments in several countries carry out fiscal policy through tax (government revenue) and public spending to attract more FDI inflows. However, so far, there are few studies on the impact of fiscal policy on FDI inflows. Accordingly, Othman, Yusop

et al. (2018) and Othman, Andaman et al. (2018) noted that public spending affects FDI inflows positively, while Dornean and Oanea (2014) proposed the opposite result.

Othman, Yusop et al. (2018) used PMG estimation for a research sample of 7 Asian economies (China, India, Indonesia, Malaysia, the Philippines, Singapore, and Thailand) between 1982 and 2016. Meanwhile, Othman, Andaman et al. (2018) employed the PMG estimation and dynamic fixed effects model for a panel dataset of 24 developing countries from 1982 through 2014. Based on the findings, Othman, Yusop et al. (2018) and Othman, Andaman et al. (2018) proposed that government spending should primarily focus on productive economic endeavors. It is because greater economic growth over time will spur economic activities within the country and lead to significant FDI inflows. By contrast, Dornean and Oanea (2014) found that public spending impedes FDI inflows, while government revenue does not affect them. Dornean and Oanea (2014) applied pooled OLS regression for 10 Central and Eastern European economies from 1995 through 2012.

Regarding the impact of institutional quality on FDI inflows, most studies use the World Bank's governance indicators as a measure of institutional quality. All studies show that institutional improvement in host countries attracts more FDI inflows. Buchanan et al. (2012) used OLS regression, fixed-effects and random-effects models, and instrumental variable estimation for a large group of 164 economies from 1996 to 2006. Meanwhile, Masron (2017) applied FMOLS and DOLS regressions for ASEAN-8 countries between 1996 and 2013. However, Ullah and Khan (2017) employed the one-step difference GMM estimator on 17 South Asian, Central Asian, and Southeast Asian economies from 2002 through 2014. Recently, Bouchoucha and Benammou (2020) used the fixed-effects and random-effects models and the two-step system GMM estimator for 41 African economies from 1996 until 2013. Unlike these other studies, Aziz (2018) used international country risk, economic freedom, and ease of doing business as a proxy of institutional quality. He employed the one-step system

GMM estimator on a research sample of 16 Arab countries from 1984 through 2012. He also noted that improvement in institutional quality promotes FDI inflows.

In summary, the literature review highlights several critical gaps in existing research. First, no studies examine the impact of fiscal policy on FDI inflows in advanced economies. Secondly, the role of institutional quality in shaping the fiscal policy–FDI inflows relationship remains unexplored, even within the context of advanced countries. Thirdly, no prior research utilizes the system/difference GMM estimators as a methodological approach to analyzing these relationships. Therefore, this paper focuses on these issues as a research gap to make a novel contribution to the literature.

3 Empirical Model and Research Data

3.1 Empirical Model

Following Othman, Yusop et al. (2018), the empirical model has the following format:

$$FDI_{it} = \beta_0 + \beta_1 FDI_{it-1} + \beta_2 FIS_{it} + \beta_3 GOV_{it} + \beta_4 (FIS \times GOV)_{it} + Z_{it} \beta' + \mu_i + \zeta_{it} \quad (1)$$

where t and i are the time and country index. FDI_{it} is FDI inflows (% GDP), and FDI_{it-1} is the initial level of FDI inflows. FIS_{it} is government revenue (REV) or public spending (SPE), a proxy for fiscal policy, GOV_{it} is one of the six dimensions of governance, a proxy for institutional quality, and $(FIS \times GOV)_{it}$ is the interaction term between fiscal policy and institutional quality. Z_{it} consists of market size, trade openness, inflation, and infrastructure (control variables). μ_i is an unobserved fixed effect, and ζ_{it} is an error term. $\beta_0, \beta_1, \beta_2, \dots$ are the parameters. From the previous related studies, the paper uses market size (Othman, Yusop et al., 2018; Othman, Andaman et al., 2018; Aziz, 2018; Masron, 2017; Ullah & Khan, 2017), trade openness (Dornean & Oanea, 2014; Aziz, 2018; Buchanan et al., 2012), inflation (Othman, Yusop et al., 2018), and infrastructure (Othman,

Yusop et al., 2018; Masron, 2017; Peres et al., 2018) as control variables in the empirical model. FDI enterprises are driven by the consumption potential in the markets where they invest, making the host country's market size a critical factor in their investment decisions. Additionally, these enterprises engage in cross-border trade, exporting goods and importing raw materials essential for production. As a result, greater trade openness in a country becomes a significant incentive for FDI investment. Conversely, high inflation increases transaction costs, reducing the profitability of FDI enterprises. Furthermore, elevated inflation signals economic instability, which acts as a deterrent to investment.

Several significant challenges in econometrics arise when estimating Equation (1). Some issues occur due to the endogeneity of government revenue / public spending, institutional quality, and inflation. These variables have a bi-directional relationship with the dependent variable (FDI inflows). Furthermore, some unobserved effects may also correlate with the independent variables. These fixed effects are embedded in μ_i . Another concern is the presence of high autocorrelation attributed to FDI_{it-1} . Lastly, working with panel data involves a relatively large number of panel units ($M = 37$) and a relatively short observation period ($L = 21$). These challenges can introduce bias into ordinary least squares (OLS) regression. Traditional panel estimators like FEM and REM are inadequate in tackling concerns regarding serial autocorrelation and endogenous factors. Conversely, the IV-2SLS estimator necessitates appropriate instruments apart from the independent variables included in the empirical model. Following the methodology proposed by Judson and Owen (1999), we employed the two-step and one-step difference GMM Arellano-Bond estimators for estimation and robustness checks.

The GMM Arellano and Bond (1991) estimator, initially introduced by Holtz-Eakin et al. (1988), utilizes all variables in the form of the first difference in Equation (1) to eliminate fixed effects (μ_i). This methodology is the difference GMM Arellano-Bond estimator (DGMM). One-step DGMM (1DGMM) was used to reduce bias in the estimates due to the endogeneity of the variables, while

two-step DGMM (2DGMM) was applied to increase the efficiency of the estimates in larger samples. Alternatively, the application of 2DGMM addresses potential endogeneity issues, while the subsequent application of 1DGMM serves as a robustness check. However, 2DGMM demonstrates greater asymptotic efficiency compared to 1DGMM. Unfortunately, the utilization of 2DGMM in small samples presents a challenge, as the proliferation of all instruments quadratically increases with the dimension of time (Roodman, 2009). Consequently, the number of instruments surpasses the number of panel units. Roodman (2009) proposed a rule of thumb to address this issue. For the validity of instruments, Hansen and Sargan tests are applied to identify endogenous phenomena, while Arellano-Bond tests AR(2) are employed to examine the serial correlation of errors in the first difference.

3.2 Research Data

The dataset includes variables such as FDI inflows, government revenue, public spending, six governance indicators, real GDP per capita, trade openness, inflation, and telephone subscribers. These data are sourced directly from the World Bank (World Bank, 2023) and the International Monetary Fund (IMF) databases (International Monetary Fund [IMF], 2023), ensuring comprehensive coverage of FDI inflows and fiscal indicators across the selected countries. The sample contains 37 advanced economies¹ from 2002 to 2022. The sample includes advanced countries as classified by the IMF. However, Andorra, Puerto Rico, San Marino, and Taiwan were excluded from the analysis due to insufficient data availability.

In the Appendix, Tables A1, A2, B1, and B2 provide the dataset's definition and descriptive statistics. According to Table B2, the governance indicators' scores

1 Australia, Austria, Belgium, Canada, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong SAR, China, Iceland, Ireland, Israel, Italy, Japan, Korea, Rep., Latvia, Lithuania, Luxembourg, Macao SAR, China, Malta, Netherlands, New Zealand, Norway, Portugal, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States.

in 37 developed economies are higher than zero, which shows that advanced economies generally exhibit good governance. This observation is consistent with the approach by Li and Filer (2007) and Li (2003), which categorized developed economies as having rule-based governance (good one).

The results in Table C1 reveal a positive correlation between FDI inflows and trade openness and infrastructure, whereas government revenue, public spending, and market size exhibit a negative association. Furthermore, all correlation coefficients among control variables are low (below 0.8), prompting the inclusion of all variables in the empirical models. In addition, the results in Table C2 emphasize that correlation coefficients among different governance dimensions surpass 0.8, indicating collinearity issues. Hence, the study employs these variables separately in empirical equations to mitigate multicollinearity.

4 Findings and Discussion

4.1 2DGMM Estimates

Table 1 and Table 2 present the 2DGMM estimates corresponding to government revenue and public spending. In the estimation procedure, we detect that inflation is endogenous, so we use it as an instrumented variable in the GMM procedure, and the remaining variables (government revenue, public spending, institutional quality, market size, trade openness, and infrastructure) as instruments in the IV procedure.

The results in Table 1 and Table 2 show that government revenue / public spending and institutional quality reduce FDI inflows, but their interaction terms increase them in advanced economies. It means that fiscal policy decreases FDI inflows in advanced countries, and this relationship is mitigated by institutional improvement. Furthermore, market size and trade openness attract more FDI inflows, but inflation hinders them.

Table 1: Government Revenue, Institutional Quality, and FDI Inflows: 2DGM Estimates

Dependent variable: FDI (% GDP)

Variables	GO1	GO2	GO3	GO4	GO5	GO6
FDI (-1)	-0.316*** (0.012)	-0.322*** (0.008)	-0.323*** (0.015)	-0.319*** (0.007)	-0.326*** (0.008)	-0.318*** (0.008)
Government revenue	-4.932*** (0.760)	-3.718*** (1.263)	-3.537*** (1.434)	-4.080*** (1.596)	-6.117*** (1.678)	-2.411*** (0.474)
Institutional quality	-121.8*** (23.631)	-118.0*** (38.610)	-168.7*** (37.789)	-130.4*** (50.886)	-167.6*** (48.743)	-102.2*** (15.173)
Gov. revenue x Ins. quality	4.034*** (0.680)	3.108*** (0.994)	4.874*** (1.066)	3.258*** (1.309)	5.122*** (1.427)	2.647*** (0.416)
Market size	0.534*** (0.070)	0.395*** (0.053)	0.273*** (0.074)	0.385*** (0.070)	0.448*** (0.059)	0.513*** (0.045)
Trade openness	0.126*** (0.042)	0.086*** (0.029)	0.176*** (0.039)	0.127*** (0.024)	0.142*** (0.033)	0.121*** (0.020)
Inflation	-1.132*** (0.185)	-0.686*** (0.255)	-0.522*** (0.178)	-0.797*** (0.229)	-0.891*** (0.200)	-0.988*** (0.137)
Infrastructure	-0.028 (0.028)	-0.011 (0.019)	-0.058 (0.042)	-0.022 (0.022)	-0.006 (0.027)	-0.064 (0.014)
Instrument	26	29	28	27	27	27
Country/Observation	37/703	37/703	37/703	37/703	37/703	37/703
AR(2) test	0.157	0.143	0.103	0.144	0.120	0.140
Sargan test	0.660	0.800	0.913	0.751	0.736	0.749
Hansen test	0.123	0.537	0.665	0.162	0.209	0.132

Note: *** denotes a 1% significance level, ** a 5% significance level, and * a 10% significance level.

Source: Authors' calculations.

The adverse impact of fiscal policy on FDI inflows can be elucidated through several channels. Firstly, a surge in government revenue often involves hiking tax rates, thereby diminishing the profitability of FDI enterprises. Consequently, this reduction in profitability discourages FDI inflows. Simultaneously, heightened public spending tends to widen budget deficits, typically financed through accruing public debt. This expansion of public debt exerts upward pressure on interest rates. Moreover, foreign investors anticipate future tax rate hikes by governments to address burgeoning public debt, further deterring their investment. These multifaceted challenges collectively dampen foreign investors' enthusiasm for investment, consequently dampening FDI inflows.

Table 2: Public Spending, Institutional Quality, and FDI Inflows: 2DGM Estimates

Dependent variable: FDI (% GDP)

Variables	GO1	GO2	GO3	GO4	GO5	GO6
FDI (-1)	-0.331*** (0.014)	-0.318*** (0.007)	-0.300*** (0.010)	-0.315*** (0.006)	-0.304*** (0.004)	-0.156*** (0.015)
Public spending	-1.553*** (0.493)	-3.102*** (0.617)	-3.352*** (0.612)	-2.168*** (0.391)	-1.121*** (0.210)	-2.066*** (0.381)
Institutional quality	-40.42*** (13.062)	-111.2*** (18.217)	-140.0*** (22.976)	-70.58*** (11.457)	-9.157*** (3.532)	-101.3*** (15.704)
Pub. spending x Ins. quality	1.715*** (0.374)	2.753*** (0.448)	3.580*** (0.619)	1.519*** (0.261)	0.675*** (0.126)	1.464*** (0.322)
Market size	0.993*** (0.107)	0.906*** (0.172)	0.373*** (0.054)	0.350*** (0.036)	0.194*** (0.037)	-0.065 (0.064)
Trade openness	0.072*** (0.023)	0.056*** (0.016)	0.091*** (0.041)	0.068*** (0.021)	0.127*** (0.022)	0.030 (0.025)
Inflation	-1.092*** (0.135)	-0.915*** (0.188)	-0.664*** (0.308)	-0.827*** (0.206)	-0.797*** (0.123)	-0.379*** (0.078)
Infrastructure	-0.021 (0.021)	-0.006 (0.018)	-0.035 (0.023)	0.004 (0.011)	-0.030 (0.015)	0.158*** (0.035)
Instrument	27	29	27	28	30	25
Country/Observation	37/703	37/703	37/703	37/666	37/703	37/666
AR(2) test	0.191	0.208	0.254	0.165	0.192	0.818
Sargan test	0.782	0.887	0.818	0.304	0.452	0.253
Hansen test	0.117	0.116	0.596	0.368	0.126	0.119

Note: *** denotes a 1% significance level, ** a 5% significance level, and * a 10% significance level.

Source: Authors' calculations.

According to Li and Filer (2007), advanced countries have rule-based governance characterized by strong institutional quality. In these countries, regulations and policies designed to attract FDI inflows are developed and enforced transparently. FDI flows freely into their markets, engaging in robust competition with domestic enterprises. Legal frameworks in these countries foster an environment of open competition, irrespective of the investment type. However, most enterprises in developed countries exhibit significant capitalization, advanced technological capabilities, and abundant human resources. Consequently, these attributes pose significant challenges and barriers to entry for FDI enterprises. Indeed, while regulations and laws promoting free competition in developed nations are robust, they can inadvertently impede FDI inflows.

Contrary to the individual effects of fiscal policy and institutional quality, their interaction yields a notable boost in FDI inflows. This synergy arises from the role of regulations and policies governing public debt (an aspect of institutional quality) and fiscal measures aimed at controlling spending in developed economies (fiscal policy). In developed nations, stringent regulations are in place to maintain public debt ceilings, preventing excessive increases in government expenditure and resultant budget deficits. These regulations, a hallmark of institutional quality, are a bulwark against unchecked government spending. By curbing the escalation of public debt levels, they also mitigate the risk of future tax hikes beyond normal levels. This regulatory framework effectively safeguards against fiscal imprudence, ensuring that public debt remains within manageable bounds. Consequently, the interaction between fiscal policy and institutional quality acts as a catalyst for FDI inflows. Investors are drawn to jurisdictions where prudent fiscal management and robust institutional frameworks mitigate risks associated with excessive public debt and potential tax burdens.

The allure of market size significantly influences FDI inflows. Larger markets enable FDI enterprises to expand their production and sales within host countries, capitalizing on the potential for increased revenue. Developed countries, boasting sizable markets and robust per capita incomes, naturally draw more foreign investors seeking lucrative opportunities. This correlation echoes findings by Othman, Yusop et al. (2018), Othman, Andaman et al. (2018), Aziz (2018), Masron (2017), and Ullah and Khan (2017). Meanwhile, policies conducive to economic openness facilitate the seamless movement of capital in and out of FDI enterprises. High levels of trade openness enhance the export potential of FDI enterprises, fostering increased trade activity with other nations. This synergistic relationship between trade openness and FDI inflows is supported by research like Dornean and Oanea (2014), Aziz (2018), and Buchanan et al. (2012). Conversely, inflation poses a formidable challenge to FDI enterprises, escalating transaction costs and eroding profit margins. The macroeconomic instability associated with inflation is a deterrent to foreign investors, dampening their inclination to invest

capital. This adverse impact of inflation on FDI investment aligns with findings from studies including Othman, Yusop et al. (2018), Masron (2017), and Peres et al. (2018).

4.2 Robustness Check

The paper employs 1DGMM to test the robustness of 2DGMM estimates. Indeed, Table 3 and Table 4 report the results in correspondence with government revenue and public spending. In line with 2DGMM estimates, the results of 1DGMM show that fiscal policy and institutional quality reduce FDI inflows, but their interaction terms promote them. In addition, market size increases FDI inflows, but inflation hinders them.

Table 3: *Government Revenue, Institutional Quality, and FDI Inflows: 1DGMM Estimates*
Dependent variable: FDI (% GDP)

Variables	GO1	GO2	GO3	GO4	GO5	GO6
FDI (-1)	-0.205* (0.120)	-0.185 (0.128)	-0.156 (0.117)	-0.199 (0.122)	-0.172 (0.127)	-0.176 (0.125)
Government revenue	-8.013** (3.894)	-16.557** (7.573)	-8.071** (3.838)	-10.086** (5.155)	-11.89*** (4.828)	-5.531** (2.798)
Institutional quality	-180.64* (100.848)	-499.7** (221.934)	-290.2** (142.266)	-298.77** (151.299)	-296.81** (131.852)	-176.7** (87.659)
Gov. revenue x Ins. quality	5.760** (2.681)	13.005** (5.788)	8.786** (4.010)	7.518** (3.898)	9.393*** (3.647)	5.136** (2.462)
Market size	0.665*** (0.268)	0.788*** (0.315)	0.271 (0.280)	0.907** (0.446)	0.428*** (0.385)	0.749* (0.414)
Trade openness	0.175 (0.155)	0.143 (0.391)	0.091 (0.391)	-0.019 (0.309)	0.239 (0.324)	0.179 (0.306)
Inflation	-1.700** (0.814)	-2.220** (1.106)	-1.733** (0.937)	-2.612*** (0.988)	-2.263** (0.998)	-1.931** (0.889)
Infrastructure	-0.120 (0.159)	-0.167 (0.164)	-0.253 (0.165)	-0.666 (0.176)	-0.022 (0.169)	0.122 (0.153)
Instrument	33	31	34	35	35	34
Country/Observation	37/666	37/666	37/666	37/666	37/666	37/666
AR(2) test	0.157	0.438	0.192	0.212	0.177	0.190
Sargan test	0.920	0.707	0.841	0.780	0.486	0.429

Note: *** denotes a 1% significance level, ** a 5% significance level, and * a 10% significance level.

Source: Authors' calculations.

Table 4: Public Spending, Institutional Quality, and FDI Inflows: 1DGMM Estimates

Dependent variable: FDI (% GDP)

Variables	GO1	GO2	GO3	GO4	GO5	GO6
FDI (-1)	-0.230 (0.146)	-0.192 (0.146)	-0.182 (0.144)	-0.206 (0.136)	-0.196 (0.134)	-0.131 (0.143)
Public spending	-7.396** (3.224)	-10.01*** (4.025)	-7.345*** (2.547)	-7.533** (3.374)	-9.079*** (3.827)	-8.106*** (3.153)
Institutional quality	-160.68* (91.993)	-281.14** (121.302)	-265.6*** (111.807)	-216.7*** (89.761)	-207.2** (98.240)	-348.7*** (131.627)
Pub. spending x Ins. quality	5.289** (2.505)	7.242** (3.167)	6.639*** (2.700)	5.167** (2.261)	6.995*** (2.819)	6.282*** (2.623)
Market size	-0.097 (0.529)	0.229 (0.567)	-0.411 (0.543)	0.689 (0.493)	0.090 (0.523)	-0.538 (0.563)
Trade openness	0.271 (0.168)	0.234 (0.170)	0.271 (0.180)	0.075 (0.157)	0.177 (0.164)	-0.141 (0.276)
Inflation	-2.370*** (0.920)	-2.570*** (0.946)	-2.664*** (0.987)	-1.867** (0.832)	-1.491* (0.821)	0.561 (0.851)
Infrastructure	-0.354 (0.294)	-0.294 (0.234)	-0.362 (0.208)	-0.185 (0.202)	-0.316 (0.226)	0.044 (0.158)
Instrument	32	31	30	29	30	29
Country/Observation	37/666	37/666	37/666	37/666	37/666	37/666
AR(2) test	0.142	0.198	0.379	0.213	0.219	0.344
Sargan test	0.522	0.492	0.948	0.818	0.920	0.396

Note: *** denotes a 1% significance level, ** a 5% significance level, and * a 10% significance level.

Source: Authors' calculations.

5 Conclusion

FDI inflows significantly contribute to economic activities in advanced countries, while fiscal policy can play a crucial role in attracting them. Furthermore, institutional quality can affect the fiscal policy–FDI inflows nexus. Given these facts, the paper investigates the role of institutional quality in the fiscal policy–FDI inflows relationship for a sample of 37 developed countries from 2002 through 2022 using 2DGMM and 1DGMM. The results note that fiscal policy and institutional quality impede FDI inflows, but the interaction terms improve them. Furthermore, market size and trade openness increase FDI inflows, while inflation decreases them.

This study highlights several critical policy implications for advanced economies aiming to enhance FDI inflows through fiscal policy and improved institutional quality. Developed countries should be careful about tax rates and public spending because these fiscal measures significantly influence FDI dynamics. Specifically, legislative bodies should prioritize implementing stringent regulations and oversight mechanisms to ensure prudent public spending. Such measures will strengthen institutional quality, creating a more stable and attractive environment for FDI. Moreover, governments can adopt targeted strategies to attract high-quality FDI, particularly investments that bring advanced technologies, addressing potential technological gaps and fostering sustainable economic growth.

A limitation of this study is the treatment of developed countries as a homogeneous group despite some notable economic, cultural, and social differences within the sampled countries. Future research should explore this topic individually for each developed country to better account for these unique characteristics. In addition, future studies can explore the different effects of fiscal policy on FDI inflows between advanced and developing countries.

Acknowledgements

This research is partly funded by the Ho Chi Minh University of Banking (HUB). Furthermore, it is also partly funded by the University of Finance – Marketing (UFM).

Appendix

Table A1: Data Description

Variable	Definition	Type	Source
FDI inflows (FDI)	“Foreign direct investment, net inflows (% of GDP).”	% GDP	World Bank (2023)
Government revenue (REV)	“Revenue consists of taxes, social contributions, grants receivable, and other revenue. Revenue increases government’s net worth, which is the difference between its assets and liabilities.”	% GDP	IMF (2023)
Public spending (SPE)	“Total expenditure consists of total expense and the net acquisition of nonfinancial assets.”	% GDP	IMF (2023)
Market size (GDP)	“GDP per capita (constant 2015 US\$).”	log	World Bank (2023)
Trade openness (OPE)	“Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.”	% GDP	World Bank (2023)
Inflation (INF)	“Inflation, consumer prices (annual %).”	%	World Bank (2023)
Infrastructure (TEL)	“Fixed telephone subscriptions (per 100 people).”	log	World Bank (2023)

Source: Authors’ calculations, World Bank and IMF data.

Table A2: Data Description–Six Dimensions of Governance

Variable	Definition	Type	Source
Control of Corruption (GO1)	“Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests. Estimate gives the country’s score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.”	value	World Bank (2023)
Government Effectiveness (GO2)	“Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies. Estimate gives the country’s score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.”	value	World Bank (2023)

Political Stability (GO3)	“Political Stability and Absence of Violence/Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism. Estimate gives the country’s score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.”	value	World Bank (2023)
Regulatory Quality (GO4)	“Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Estimate gives the country’s score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.”	value	World Bank (2023)
Rule of Law (GO5)	“Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence. Estimate gives the country’s score on the aggregate indicator, in units of a standard normal distribution, i.e., ranging from approximately -2.5 to 2.5.		
Voice and Accountability (GO6)	“Voice and Accountability captures the perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and free media. Estimate gives the country’s score on the aggregate indicator, in units of a standard normal distribution, i.e. ranging from approximately -2.5 to 2.5.”	value	World Bank (2023)

Source: Authors' calculations and World Bank data.

Table B1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
FDI (% GDP)	777	9.363	38.118	-394.47	449.082
REV (% GDP)	777	39.475	9.258	13.733	60.92
SPE (% GDP)	777	41.062	10.482	9.015	64.894
GDP (USD)	777	39533.0	21006.18	7424.39	112417.9
OPE (% GDP)	777	118.205	86.958	20.447	442.62
INF (%)	777	2.237	2.407	-4.478	19.705
TEL (subscriptions / 100 people)	777	41.360	14.263	2.576	74.040

Source: Authors' calculations.

Table B2: Descriptive Statistics–Six Dimensions of Governance

Variable	Obs	Mean	Std. Dev.	Min	Max
GO1 (value)	777	1.320	0.723	-0.190	2.459
GO2 (value)	777	1.375	0.488	0.125	2.469
GO3 (value)	777	0.814	0.514	-1.625	1.753
GO4 (value)	777	1.362	0.418	0.135	2.252
GO5 (value)	777	1.336	0.513	-0.144	2.124
GO6 (value)	777	1.122	0.433	-0.534	1.800

Source: Authors' calculations.

Table C1: The Matrix of Correlation

	FDI	REV	SEP	GDP	OPE	INF	TEL
FDI	1						
REV	-0.097***	1					
SPE	-0.094***	0.859***	1				
GDP	-0.066*	0.072**	-0.101***	1			
OPE	0.212***	-0.423***	-0.469***	0.091***	1		
INF	-0.044	0.013	-0.042	-0.083**	0.037	1	
TEL	0.085***	-0.127***	-0.071**	0.168***	0.002	-0.172***	1

Note: ***, **, and *are respectively denoted as significance levels at 1%, 5%, and 10%.

Source: Authors' calculations.

Table C2: The Matrix of Correlation–Six Dimensions of Governance

	GO1	GO2	GO3	GO4	GO5	GO6
GO1	1					
GO2	0.923**	1				
GO3	0.470**	0.443**	1			
GO4	0.840**	0.842**	0.428**	1		
GO5	0.939**	0.913**	0.485**	0.845**	1	
GO6	0.523**	0.37**	0.309**	0.304**	0.575**	1

Note: ***, **, and *are respectively denoted as significance levels at 1%, 5%, and 10%.

Source: Authors' calculations.

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