

# Policy Uncertainty and Foreign Direct Investment: The Moderating Role of Institutional Quality

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**Abstract.** This study investigates the impact of economic policy uncertainty (EPU) on foreign direct investment (FDI) inflows and examines how this relationship is moderated by institutional quality. The analysis is based on data from 37 developing countries over the period of 2002–2021. The World Uncertainty Index (WUI) and Worldwide Governance Indicators (WGI) serve as the primary data sources. Employing a two-step system Generalised Method of Moments (GMM) estimation for dynamic panel data, the study yields two key findings. First, policy uncertainty significantly reduces FDI inflows. Second, institutional quality – measured by the average of WGI dimensions – alleviates this negative effect. Robustness checks, including OLS estimation and analyses based on individual WGI components, confirm these results. Overall, the findings suggest that the adverse impact of policy uncertainty on FDI is conditional on the host country’s institutional strength; in countries with stronger institutions, FDI inflows are less susceptible to uncertainty.

**Keywords:** Policy uncertainty, foreign direct investment, institutional quality.

## 1. Introduction

Developing countries<sup>1</sup> consider FDI as a source of economic development, growth and employment and therefore try to make their national policies favourable for an environment that can maximise foreign investment inflows. After the 1990s, traditional factors such as the exchange rate (Ayenew, 2022; Lajevardi & Chowdhury, 2024; Sultana *et al.*, 2024), growth (Sokhanvar & Jenskin, 2021; Wondimu, 2023, Shinwari *et al.*, 2024), inflation (Agudze & Ibhaghui, 2021; Mensah *et al.*, 2024) and openness (Akorsu & Okyere, 2023; Xiao *et al.*, 2024) have become insufficient in explaining FDI volatility, primarily due to their relative stability over time. This has prompted researchers to explore alternative

<sup>1</sup> Albania, Algeria, Argentina, Armenia, Bangladesh, Belarus, Brazil, Bulgaria, Chile, China, Colombia, Costa Rica, Croatia, Dominican R., Ecuador, Egypt, Oman, Georgia, Guatemala, Hungary, India, Indonesia, Malaysia, Mali, Mexico, Nigeria, Pakistan, Paraguay, Peru, Philippines, Poland, Romania, Russia, South Africa, Thailand, Türkiye, Uruguay,

determinants of FDI. For example, Albuлесcu and Ionescu (2018) argue that changes in the financial environment of the host country can better explain the fluctuations in FDI. However, many studies provide evidence that FDI fluctuations are more related to global and domestic policy uncertainties (Chen *et al.*, 2018; Nguyen & Lee, 2021). In response to the changing dynamics in this field, the current research poses the following questions: How does EPU influence FDI inflows in developing countries? Does institutional quality moderate the impact of EPU on FDI? Accordingly, the research hypotheses derived from both theoretical considerations and empirical findings are examined by using panel data modeling techniques.

EPU, which refers to the uncertainty about the future economic policies of governments, affects firms' decisions regarding FDI. EPU can influence FDI both directly and indirectly through the above-mentioned traditional determinants of FDI (Canh *et al.*, 2020). This issue has gained scholarly attention. For instance, Andrikopoulos *et al.* (2022) argue that the impact of EPU on FDI can be realised through three primary transmission channels. The first is the 'wait-and-see' effect, whereby investors delay investment decisions during periods of heightened uncertainty. The second channel is related to investors' risk-taking behaviour. Accordingly, due to risk aversion, international capital flows tend to decline during periods of an increased policy uncertainty. The third channel involves the adverse relationship between policy uncertainty and expected investment returns in financial markets.

Because investment decisions are typically irreversible, they tend to be the most vulnerable element of aggregate output under conditions of uncertainty (Jardet *et al.*, 2022). This irreversibility hampers the mobility of capital across borders, leading to a shift of bargaining power to the host country (Inada & Jinji, 2023). Moreover, since foreign investments generally incur higher costs than domestic ones (Julio & Yook, 2016), and because foreign investors often lack sufficient information about the political environment and receive limited protection from host country institutions (Bénassy-Quéré *et al.*, 2007), FDI dynamics have become increasingly sensitive to uncertainty.

Compared to developed countries, developing economies are more reliant on foreign resources and exhibit greater economic fragility, making them more vulnerable to global shocks. In this context, policy uncertainties caused by global developments – such as wars and economic crises – affect developing countries more, and ultimately lead to the interruption of international capital flows. However, the impact of EPU on FDI may not be the same for every country. At this point, country-specific structural characteristics – such as the degree of openness and institutional structure – may play a decisive role in the impact of EPU on FDI. Numerous studies explaining the causes of growth and productivity differences between countries emphasize the critical role of institutional quality (Keefer & Knack, 1997; Acemoglu *et al.*, 2005; Durguti *et al.*, 2024; Tmava *et al.*, 2025). Corruption, inefficient bureaucracy, and a lack of legal robustness significantly undermine a country's ability to attract foreign investment. According to Daude and Stein (2007), weak institutional structures discourage investment by both elevating transaction costs and creating ambiguity about future profitability. Investors tend to avoid countries where

institutional frameworks foster bureaucracy, nepotism, and corruption, as these factors raise the overall cost of conducting business. Conversely, the presence of a robust governance structure can instill investor confidence, not only encouraging greater foreign investment (Globerman & Shapiro, 2002) but also mitigating the negative impact of EPU on FDI.

Despite contributions from studies like Julio and Yook (2016) and Choi *et al.* (2020) regarding the mediating influence of institutional environment on the policy uncertainty–FDI relationship, scholarly research in this area remains insufficient. This study contributes to the literature by focusing on the role of institutional quality in the relationship between policy uncertainty and FDI in developing countries. Another contribution of the study is that, unlike previous studies which used a limited number of indicators for institutional quality, it uses six sub-indices to examine the role of institutional quality in the policy uncertainty–FDI relationship. Thus, it becomes possible to compare how various aspects of a country’s institutional framework influence this relationship.

At this point, it is observed that studies on the relationship between uncertainty and FDI are limited in the literature, and that empirical findings on the regulatory role of institutional quality in this relationship are insufficient. However, strong institutions can support foreign capital inflows by increasing investor confidence in times of uncertainty. Building on this gap, the present study aims to examine how economic policy uncertainty affects FDI in developing countries, and whether this effect is contingent upon the strength of institutional structures. In the study, institutional quality is considered as a regulatory variable that mitigates the possible adverse effects of EPU on FDI and is analysed by using the GMM with data from 37 developing countries for the period of 2002–2021. The findings indicate that institutional quality plays an important moderating role in the EPU-FDI relationship and point to the importance of strong institutional frameworks for sustainable and long-run growth.

## 2. Literature

### 2.1. *Literature on the Impact of Institutional Quality on FDI*

Schneider and Frey (1985) were among the pioneers in examining how institutional quality influences foreign direct investment; they concluded that political instability tends to reduce FDI inflows. Similarly, Wei (2000) reaches the conclusion that corruption in the host country represents significant impediments to FDI. Subsequent studies employing disparate measures of institutional quality have reached a consensus that institutional quality is a crucial driver of FDI flows.

As Globerman and Shapiro (2002) note, the characteristics of a country’s institutional environment significantly shape foreign direct investment inflows. In this context, the authors highlight the significance of institutional quality in attracting foreign capital and facilitating the emergence of multinational companies capable of investing abroad. Bénassy-Quéré *et al.* (2007) also highlight that institutional indicators exert an effect on FDI. Daude and Stein (2007) demonstrate that robust institutions exert a significant effect on

FDI. In a similar vein, Buchanan *et al.* (2012) show that institutional quality not only has a positive impact on FDI but also reduces its volatility. Aziz (2018) supports these findings, highlighting the positive effects of multiple institutional dimensions on FDI inflows. Sabir *et al.* (2019), by using panel data and the GMM approach, analysed both developed and developing countries and concluded that stronger institutional frameworks consistently promote FDI across country categories. Antonietti and Mondolo (2023) present evidence of a bidirectional relationship, suggesting that while better institutions attract more FDI, FDI can also contribute to improving institutional quality in host countries. Khan *et al.* (2024) found that the voice and accountability, control of corruption and political stability increase FDI inflows in developing countries, whereas government effectiveness and regulatory quality significantly reduce FDI inflows. The findings of Bhujobal *et al.* (2024) and Tabash *et al.* (2024) further support the notion that institutional strength plays a crucial role in attracting FDI.

## ***2.2. Literature on the Impact of Economic Policy Uncertainty on FDI***

Although capital is relatively more mobile than other factors of production, its international mobility is constrained during periods of heightened uncertainty. Given that uncertainty is not directly observable, it may prove challenging to empirically test the effects of uncertainty. Nevertheless, the existing literature on this subject finds a negative relationship between EPU and FDI.

Azzimonti (2019), by using the Partisan Conflict Index, demonstrates that a partisan conflict over trade policy uncertainty in the United States is associated with a reduction in FDI inflows. Similarly, the timing of elections has been identified as another factor influencing FDI decisions. Julio and Yook (2016) find that US firms' investment in foreign countries decreases during election years in the US or destination countries. Nevertheless, the authors demonstrate that the impact of election-related uncertainty on FDI is transient, with these effects dissipating over time. In a large panel study comprising 216 countries, Chen *et al.* (2018) observed a notable decline in FDI during electoral periods characterised by a heightened policy uncertainty. However, this decline was particularly pronounced in democratic countries. The authors posit that this decline is attributable to an increase in policy uncertainty associated with elections. Likewise, using election periods as an indicator of policy uncertainty, Jahn and Stricker (2022) find a negative relationship between policy uncertainty and short-term capital flows. However, they observe that higher institutional quality diminishes the negative effect of uncertainty.

Recent studies increasingly use new uncertainty indices such as the *Economic Policy Uncertainty* index (EPU) developed by Baker *et al.* (2016) and the WUI developed by Ahir *et al.* (2022). Inspired by the real options theory, these studies consistently point to a negative relationship between policy uncertainty and FDI (Jahn & Stricker, 2022). Gao *et al.* (2024), by utilizing data from 264 Chinese cities, identified a negative correlation between EPU and FDI inflows. Their findings also indicate that FDI inflows in more developed cities exhibit greater sensitivity to EPU.

The literature discussed above has inspired us to formulate the following hypotheses.

*H<sub>1</sub>: Policy uncertainty reduces FDI inflows;*

*H<sub>2</sub>: Institutional quality moderates the negative impact of policy uncertainty on FDI.*

### 3. Data and Methodology

#### 3.1. Data

The panel of this study includes 37 developing countries and covers the period of 2002–2021. The dependent variable is the net inflow of FDI as a percentage of GDP, obtained from the World Bank's *World Development Indicators* (WDI). FDI net inflow consists of equity capital, reinvestment of earnings, and the sum of long- and short-term capital (WB, 2024a). To investigate the influence of policy-related uncertainty on FDI, WUI is adopted as the main independent variable. Comprising 143 developed and developing countries' uncertainty measures, the WUI is constructed using Economist Intelligence Unit (EIU) country reports. The index is based on how often the term 'uncertainty' appears in country reports published by the EIU. The WUI not only measures domestic economic policy uncertainty for each country, but also provides analyses and forecasts of key economic and political issues and conditions. Apart from the WUI, many researchers have measured policy uncertainty using different methods (Baker *et al.*, 2016; Altig *et al.*, 2021; Caldara & Iacoviello, 2022). However, these indices are limited to developed countries and most of them use data after 1990. WUI is important in terms of eliminating this deficiency (Ahir *et al.*, 2022).

This analysis uses the WGI created by Kaufmann *et al.* (2010) as a measure of institutional quality. It is not possible to use all governance indicators in the same equation due to the high correlation between them (Globerman & Shapiro, 2002; Daude & Stein, 2007; Buchanan *et al.*, 2012). Therefore, as in Canh *et al.* (2020), the average institutional quality indicator (IQ<sub>AVR</sub>) obtained from the average of these indicators is used as a regressor. On the other hand, in order to test the robustness of the model estimation results for IQ<sub>AVR</sub>, the impact of each indicator on FDI is analysed in different models. Moreover, in order to determine the role of institutional quality in the impact of policy uncertainty on FDI, interaction terms consisting of the interaction of existing quality indicators and WUI are included in the models.

In addition, the models incorporate control variables that are theoretically expected to affect FDI inflows. Among these, the *Financial Globalisation* index (FG) measures a country's openness to international financial flows and investments (Gygly *et al.*, 2019). *Fixed Capital* formation (FC) represents the domestic investment climate (Buchanan *et al.*, 2012). The *Real Effective Exchange Rate* (RER) measures the relative prices of goods. In the analysis, the real exchange rate (RER) is derived by dividing the domestic price index by the foreign price index, while ensuring that both are denominated in local currency. Thus, when the real exchange rate increases, it implies that the purchasing power of the domestic currency has strengthened. (Darvas, 2021). In order to enhance normality, this

study employed the logarithm of the real exchange rate and the financial globalisation index. Table 1 shows the definitions and sources of the data used in the analysis.

**Table 1.** Definitions of variables, data sources and references

<i>Variable</i>	<b>Description</b>	<b>Source</b>
<i>FDI</i>	Foreign direct investment, net inflows (% of GDP)	WB (2024a)
<i>WUI</i>	World Uncertainty Index	Ahir <i>et al.</i> (2022)
<i>FG</i>	Natural logarithm of Financial Globalisation Index, scaled from 1 to 100	Gygli <i>et al.</i> (2019)
<i>RER</i>	Natural logarithm of Real Effective Exchange Rate	Darvas (2021)
<i>FC</i>	Fixed capital formation (% of GDP)	WB (2024b)
<i>IQ<sub>AVR</sub></i>	Average institutional quality (Mean of Worldwide Governance Indicators, scaled from -2.5 to 2.5)	Author's own calculations

*Source:* Author's own calculations.

### 3.2. Methodology

In contrast to static models, dynamic panel models include past values of the dependent variable as regressors. This structure leads to endogeneity issues, as these lagged values tend to be correlated with the model's error term. (Barros *et al.*, 2020). Endogeneity, which is seen as an important problem in econometrics, can be caused by neglecting the relevant variable, measurement error, simultaneity or sample selectivity. Estimation methods such as GLS and OLS neglect endogeneity, resulting in biased estimates (Baltagi, 2005). The System GMM, developed by Arellano and Bover (1995) and Blundell and Bond (1998), is very effective in eliminating the endogeneity problem. Since the lagged levels of the series in finite samples provide poor instruments for first differences, the forecasting power of the difference GMM may be weakened, leading to biased results. Unlike the difference GMM, the system GMM can provide relatively more reliable results by allowing the use of more instrumental variables. However, using too many instrumental variables may lead to overfitting and biased results (Roodman, 2009). Overfitting reduces the reliability of the Hansen test, which tests the validity of instrumental variables. To overcome this problem, it is appropriate to equalise or reduce the number of instrumental variables to the number of groups (Soto, 2009).

Dynamic panel data models are defined by the inclusion of lagged dependent variables among the regressors, reflecting the dynamic nature of the relationships being studied. This relationship in dynamic panel data models can be estimated by the following equation (Baltagi, 2005):

$$Y_{it} = \alpha Y_{i,t-1} + \beta X_i + \varepsilon_{it} \quad (1)$$

$$\varepsilon_{it} = \mu_i + v_{it} \quad (2)$$

In Equation (1),  $i$  is the number of units,  $t$  is the time,  $Y$  is the dependent variable,  $Y_{i,t-1}$  is a lagged value of the dependent variable, and  $X_i$  represents control variables. In Equation (2),  $\varepsilon_{it}$ ,  $\mu_i$ , and  $v_{it}$  denote the error term, fixed effects, and shocks, respectively.

In this study, the effect of policy uncertainty on FDI and the role of institutional quality in this effect are estimated by using a two-step system GMM approach. The two-step GMM estimator yields a smaller asymptotic variance, which enhances the efficiency and asymptotic power of associated statistical tests relative to the one-step estimator. To improve the efficiency of the GMM estimator and the statistical power of its associated tests, researchers frequently adopt a two-step approach within the commonly applied GMM framework (Hwang & Sun, 2018). To this end, the following *FDI* models are constructed:

$$FDI_{it} = \alpha FDI_{it-1} + \beta WUI_{it} + \gamma X_{it} + \varepsilon_{it} \quad (3)$$

$$FGI_{it} = \alpha FDI_{it-1} + \beta(IQ_{it} * WUI_{it}) + \gamma X_{it} + \varepsilon_{it} \quad (4)$$

In analyses with the two-step system GMM, standard errors can be biased downwards if the sample is small. This study follows Windmeijer (2005) in its undertaking to obtain robust standard errors.

#### 4. Results and Discussion

Table 2 provides summary statistics for the variables included in the empirical analysis. The results reveal that fixed capital formation has the highest average value, while average institutional quality demonstrates the lowest value. Furthermore, *FC* and *FDI* exhibit considerable variability across countries, as indicated by their high standard deviations. This indicates a high degree of heterogeneity across countries with regard to both *FDI* and *FC*. In contrast, the low standard deviation of the real effective exchange rate and policy uncertainty suggests that these variables are relatively stable.

**Table 2.** Descriptive statistics of variables

<i>Variable</i>	<b>Observations</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>FDI</i>	740	3.542	6.409	-40.086	109.025
<i>WUI</i>	740	0.067	0.054	0	0.417
<i>ln(FG)</i>	740	1.758	0.114	1.441	1.93
<i>ln(RER)</i>	740	2.010	0.081	1.685	2.269
<i>FC</i>	740	23.201	6.496	11.960	46.833
<i>IQAVR</i>	740	-0.196	0.553	-1.267	1.218

*Source:* Author's own calculations.

Table 3 reports the correlation coefficients among the variables. The absolute values of the coefficients indicate that the highest correlation is 0.5729 whereas the lowest value is 0.0027, with the remaining coefficients falling between these two opposites. Low correlation coefficients suggest the absence of multicollinearity issues within the model. This increases the reliability and validity of the results (Naimoğlu, 2023).

**Table 3.** Correlation matrix

<i>Variable</i>	<i>FDI</i>	<i>WUI</i>	<i>LFG</i>	<i>LRER</i>	<i>FC</i>	<i>IQ<sub>AVR</sub></i>
<i>FDI</i>	1.0000					
<i>WUI</i>	-0.074	1.0000				
<i>ln(FG)</i>	0.205	-0.067	1.0000			
<i>ln(RER)</i>	-0.067	-0.061	-0.002	1.0000		
<i>FC</i>	0.072	-0.211	-0.120	0.039	1.0000	
<i>IQ<sub>AVR</sub></i>	0.247	0.012	0.572	-0.020	-0.089	1.0000

Source: Author's own calculations.

Table 4 presents the results of the Levin-Lin-Chu (LLC), Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) panel unit root tests. According to the  $p$ -values of the tests, the null hypothesis ( $H_0$ ), which states that there is a unit root in the panel, is rejected, while the alternative hypothesis ( $H_1$ ), which states that there is no unit root, is accepted.

**Table 4.** Panel unit root test

<i>Variable</i>	<i>Tests</i>					
	<i>LLC</i>		<i>ADF</i>		<i>PP</i>	
	<i>Statistics</i>	<i>p-values</i>	<i>Statistics</i>	<i>p-values</i>	<i>Statistics</i>	<i>p-values</i>
<i>FDI</i>	-3.816	0.000	146.736	0.000	221.539	0.000
<i>WUI</i>	-5.485	0.000	163.016	0.000	201.794	0.000
<i>ln(FG)</i>	-5.130	0.000	146.801	0.000	227.626	0.000
<i>ln(RER)</i>	-4.973	0.000	107.615	0.006	63.430	0.804
<i>FC</i>	-2.986	0.001	90.194	0.059	81.748	0.251
<i>IQ<sub>AVR</sub></i>	-2.056	0.019	64.905	0.765	78.812	0.096

Note. LLC, ADF and PP denote Levin-Lin-Chu, Augmented Dickey-Fuller, and Phillips-Perron tests, respectively.

Source: Author's own calculations.

Table 5 presents the results of estimations of both systems, i.e., GMM and OLS. In this study, a two-step system GMM is preferred as the research method. However, in order to test the robustness of the results, the findings of the one-step system GMM and OLS estimators are also reported. Columns 4 to 6 show the two-step system GMM estimation results. To identify the effect of policy uncertainty on  $FDI$  inflows, Equation (3) is initially estimated. Consistently with previous studies, column 4 indicates that policy uncertainty ( $WUI$ ) is associated with a meaningful negative effect on the inflows of  $FDI$ , thereby supporting hypothesis  $H_1$ . Subsequently, the model is estimated with the inclusion of institutional quality ( $IQ_{AVR}$ ), and the results in column 5 reveal a positive and statistically significant effect of institutional quality on  $FDI$ . Finally, in order to investigate the effect of institutional quality on the relationship between policy uncertainty and  $FDI$ , an interaction term between  $IQ_{AVR}$  and  $WUI$  is added in Equation (4). As the interaction term does not represent the level of policy uncertainty or institutional quality, the approach of

Alfaro *et al.* (2004) is followed by including both variables independently in the model. As seen in column 6, the interaction term's coefficient is both positive and statistically meaningful. These results indicate that institutional quality mitigates the negative impact of policy uncertainty on *FDI*. This finding, which demonstrates that the impact of policy uncertainty on *FDI* is conditional on the level of institutional quality, is consistent with previous empirical studies (Julio & Yook, 2016; Choi *et al.*, 2020; Jahn & Stricker, 2022), thus supporting hypothesis  $H_2$  proposed in this study.

**Table 5.** Policy uncertainty and FDI: the role of average institutional quality (GMM and OLS estimation results)

Variables	One-step System GMM			Two-step System GMM			OLS		
	1	2	3	4	5	6	7	8	9
$FDI_{t-1}$	0.28*** (0.00)	0.28*** (0.04)	0.29*** (0.04)	0.28*** (0.04)	0.29*** (0.04)	0.29*** (0.04)			
$WUI$	-5.16** (2.03)	-5.18** (2.05)	-3.77** (1.99)	-4.49** (2.15)	-4.61** (2.05)	-1.83 (2.42)	-5.29*** (1.61)	-6.40*** (1.44)	-2.39 (1.89)
$\ln(FG)$	7.76** (3.07)	4.90** (2.09)	7.05** (2.83)	6.93** (3.09)	3.79** (1.83)	6.06** (2.69)	11.90*** (2.61)	5.49*** (1.74)	9.128*** (1.97)
$FC$	0.05** (0.02)	0.06** (0.02)	0.05*** (0.02)	0.05** (0.02)	0.052* (0.03)	0.059** (0.02)	0.090** (0.03)	0.092** (0.03)	0.09** (0.03)
$\ln(RER)$	-5.94** (2.58)	-3.39* (1.76)	-5.35** (2.38)	-5.39* (2.59)	-2.37 (1.51)	-4.67* (2.64)	-5.72** (2.27)	-5.36** (2.16)	-5.46** (2.23)
$IQ_{AVR}$		1.57*** (0.57)			1.71*** (0.64)			2.29*** (0.41)	
$IQ_{AVR} * WUI$			6.78** (2.93)			8.29** (3.59)			17.55*** (4.30)
Observations	703	703	703	703	703	703	740	740	740
No. of groups	37	37	37	37	37	37	37	37	37
No. of instruments	23	24	24	23	24	24			
Wald T. p-value	0.000	0.000	0.000	0.000	0.000	0.000			
AR (1) p-value	0.193	0.186	0.189	0.263	0.263	0.266			
AR(2) p-value	0.314	0.314	0.314	0.315	0.316	0.315			
Hansen T. p-value	0.131	0.209	0.153	0.131	0.209	0.153			
Dif. Hansen T. p-value	0.129	0.499	0.136	0.129	0.499	0.136			
$R^2$							0.05	0.08	0.07
F Statistic p-value							0.000	0.000	0.000

Note. Parentheses show the robust standard errors. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10 % significance levels, respectively.

Source: Author's own calculations.

As shown in Table 5, the result of one-step system GMM and OLS estimations clearly support those obtained from the two-step system GMM, thereby reinforcing the robustness of the findings. Table 5 also illustrates the impact of control variables on *FDI*. The results indicate that financial globalisation has a significant and positive effect on *FDI* inflows across all models. As noted by Poelhekke (2016), financial globalisation facilitates *FDI* inflows by reducing transaction costs. Fixed capital formation (*FC*), which is another control variable representing the domestic investment climate, also positively influences *FDI* inflows. Buchanan *et al.* (2012) posit that fixed capital formation serves a key signal for foreign investors. Consistent with earlier studies (Kok & Acikgoz Ersoy, 2009), growth in fixed capital formation is found to positively impact *FDI* inflows across all model specifications. Lastly, the real effective exchange rate (RER) exerts a negative influence on *FDI*. An appreciation of the exchange rate may result in a reduction in *FDI* inflows, due to the increased costs associated with local assets for foreign investors. As evidenced in Table 5, the real effective exchange rate has a significantly adverse impact on *FDI* inflows.

For the GMM estimator to produce consistent results, the error term must not exhibit second-order serial correlation (AR (2)), the instrumental variables should be valid, and the overall model must be stable. The *p*-values of AR (2), Hansen test and Difference-in-Hansen test ( $p > 0.05$ ) indicate that there is no second order autocorrelation, and that the instrumental variables and the subset of instrumental variables are valid, respectively. In addition, the Wald test *p*-value ( $p < 0.05$ ) indicates the stability of the system GMM model, while the F-test *p*-value ( $p < 0.05$ ) verifies the reliability of the OLS model.

The findings presented in Table 5 indicate that in countries with stronger institutional frameworks, the negative impact of policy uncertainty on *FDI* inflows is significantly reduced. In these models,  $IQ_{AVR}$  serves as a proxy for institutional quality. To assess the reliability of this result, a robustness test is required. To this end, new models are estimated in which each of the *WGI* indicators is used as an independent variable instead of  $IQ_{AVR}$ . Table 6 illustrates whether the *WGI* indicators exert a moderating effect on the impact of policy uncertainty on *FDI*.

As illustrated in Table 6, all governance indicators exhibit a positive effect on *FDI*. Among these, the rule of law indicator has the greatest impact. This finding is consistent with prior studies, including Hossain and Rahman (2017), who employed *WGI* indicators in their analysis. Studies that find that regulatory quality has positive effects on *FDI* emphasise the ease of starting a business (Hasan *et al.*, 2024). Sabir *et al.* (2019) also found that government effectiveness encourages *FDI* inflows in both high-income and upper-middle-income countries. The impact of political stability on *FDI* inflows has been a topic of considerable debate in previous studies. Political instability can discourage investment as it is often associated with expropriation. While numerous studies, such as Rashid *et al.* (2017), have identified a positive correlation between political stability and foreign direct investment (*FDI*), some research, including Shan *et al.* (2018), presents conflicting findings suggesting that political stability may not always lead to increased *FDI* inflows. Column 3 shows that the voice and accountability indicator also positively influences *FDI*, which is consistent with the findings of Lacroix *et al.* (2021). However, Mathur and Singh (2013) found a negative relationship between democracy and *FDI*,

arguing that political freedoms without accompanying economic freedoms cannot attract *FDI* inflows. One of the institutional factors affecting *FDI* inflows is corruption. It is often viewed as an additional cost of production or an implicit tax (Al-Sadig, 2009), which discourages investment. As can be seen in Table 6, the positive coefficient of the control of corruption (*CC*) supports these expectations. Nevertheless, Jetin *et al.* (2024) have concluded that there is a non-linear relationship between corruption and *FDI*.

**Table 6.** Policy uncertainty and *FDI*: the role of WGI indicators

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
<i>FDI<sub>t-1</sub></i>	0.29** (0.04)	0.29** (0.04)	0.29** (0.04)	0.29** (0.04)	0.29** (0.04)	0.29** (0.04)	0.29*** (0.04)	0.29*** (0.04)	0.29** (0.04)	0.29** (0.04)	0.29** (0.04)	0.29** (0.04)
<i>WUI</i>	-4.04* (1.85)	-1.69 (2.2)	-5.5** (2.1)	-4.29* (2.44)	-4.31** (2.07)	-0.89 (2.69)	-4.2** (2.0)	-3.81 (2.42)	-4.8** (2.08)	-1.75 (2.52)	-4.5* (2.0)	-3.2 (2.26)
<i>ln(FG)</i>	4.35** (2.13)	6.11** (2.73)	5.3** (0.0)	6.35** (2.9)	4.87** (1.88)	6.22** (2.57)	3.01 (1.89)	6.13** (2.86)	5.20** (2.41)	6.48** (2.84)	5.23** (2.31)	6.55** (2.89)
<i>FC</i>	0.04 (0.02)	0.05** (0.02)	0.08** (0.03)	0.07** (0.03)	0.050* (0.03)	0.05** (0.03)	0.061* (0.03)	0.074* (0.03)	0.05* (0.03)	0.05** (0.03)	0.04 (0.03)	0.06** (0.03)
<i>ln(RER)</i>	-2.79 (1.77)	-4.70* (2.29)	-4.11* (0.88)	-4.97* (0.93)	-3.27 (1.49)	-4.8** (2.16)	-1.99 (0.46)	-4.76** (2.41)	-3.5* (1.95)	-5.01** (2.37)	-3.6** (1.80)	-5.06* (2.40)
<i>IQ<sub>PS</sub></i>	0.88** (0.42)											
<i>IQ<sub>PS</sub>*WUI</i>		4.30* (2.61)										
<i>IQ<sub>VA</sub></i>			0.97** (0.43)									
<i>IQ<sub>VA</sub>*WUI</i>				5.95** (2.81)								
<i>IQ<sub>RQ</sub></i>					1.42** (0.62)							
<i>IQ<sub>RQ</sub>*WUI</i>						8.54** (3.74)						
<i>IQ<sub>RL</sub></i>							1.57*** (0.46)					
<i>IQ<sub>RL</sub>*WUI</i>								5.71** (2.47)				
<i>IQ<sub>CC</sub></i>									1.30** (0.47)			
<i>IQ<sub>CC</sub>*WUI</i>										7.77* (3.68)		
<i>IQ<sub>GE</sub></i>											1.06* (0.58)	
<i>IQ<sub>GE</sub>*WUI</i>												4.93 (3.07)
<i>Obs.</i>	703	703	703	703	703	703	703	703	703	703	703	703
<i>Groups</i>	37	37	37	37	37	37	37	37	37	37	37	37
<i>Inst.</i>	24	24	24	24	24	24	24	24	24	24	24	24
<i>AR(2)</i>	0.316	0.315	0.315	0.315	0.315	0.315	0.316	0.315	0.315	0.315	0.315	0.315
<i>Hansen T.</i>	0.177	0.165	0.112	0.136	0.247	0.150	0.238	0.126	0.193	0.146	0.195	0.144
<i>D. Hansen</i>	0.100	0.312	0.091	0.233	0.454	0.080	0.225	0.113	0.281	0.090	0.467	0.086

Note. Parentheses show the Windmeijer-corrected standard errors. \*\*\*, \*\*, \* denote significance at the 1%, 5% and 10% significance levels, respectively.

Source: Author's own calculations.

The effect of governance indicators on *FDI* also shapes the policy uncertainty-*FDI* relationship. With the exception of Government Effectiveness ( $IQ_{GE}$ ), the remaining five governance indicators serve to moderate the effect of policy uncertainty on *FDI*. These findings lend support to the results presented in Table 5.

## 5. Conclusion and Policy Implications

While most studies confirm the adverse effect of EPU on *FDI* inflows, limited attention has so far been given to the potential moderating role of institutional quality in this relationship. This study contributes to the existing literature by empirically examining how institutional quality shapes the impact of policy uncertainty on *FDI* inflows in developing countries. To achieve this, the study conducted a dynamic panel data analysis. The findings indicate that policy uncertainty and institutional quality are important determinants of *FDI* inflows in developing countries. In line with expectations, policy uncertainty has a negative impact on *FDI* inflows. Institutional strength plays a buffering role against the adverse consequences of policy uncertainty for *FDI*. The moderating role of governance quality is statistically confirmed through both average and component-level governance indicators. The findings imply that the influence of EPU on *FDI* inflows is contingent upon the strength of institutional frameworks. Therefore, the quality of institutions is an important factor determining the economic effects of policy uncertainty on capital flows.

These findings offer several implications for policymakers. Given the irreversibility of *FDI* and its dependence on future expectations, it remains highly sensitive to economic policy uncertainty. Despite its contribution to economic growth, *FDI* does not occur automatically; thus, policies must be implemented to ensure a favourable investment environment. In this context, uncertainty can be reduced through the implementation of rule-based monetary and fiscal policies. Such frameworks reduce discretion and increase predictability, which are key in investor decision-making. Nevertheless, a rule-based policy framework alone may not be sufficient for *FDI* inflows. Beyond predictability, the success of such policies also depends on policymakers' genuine commitment and willingness to implement them consistently and wholeheartedly. For example, although central bank independence and fiscal discipline are legally established in many countries, policymakers often disregard these regulations in practice. Therefore, an institutional culture, i.e., sound institutions, is needed to support these policies. Differences in institutional quality are a key reason for the varying impact of policy uncertainty across countries. In countries with high institutional quality, the negative impact of EPU on *FDI* and thus on the economy is relatively weaker. Therefore, building sound institutions is essential along the way towards mitigating the adverse effects of policy uncertainty on *FDI*. A sound institutional structure can only be created through institutional reforms. Accordingly, reduction of bureaucratic complexity is a key step towards lowering barriers to foreign investment. It is also necessary to implement a fair judicial system with provisions to protect individual and property rights. Finally, it is essential to establish a transparent and democratic system of governance. Transparency backed by strong institutions can encourage *FDI* inflows by increasing predictability and credibility.

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