



# Moderating Effect of Governance Indicators on the Effect of Foreign Direct Investment on Economic Growth of Developing Countries in Asia 2002 - 2021

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**Abstract:** This study examines the moderating effect of governance indicators on the relationship between foreign direct investment (FDI) and economic growth in developing Asian countries from 2002 to 2021. The study investigates whether different dimensions of governance, such as political stability, regulatory quality, and corruption control, can influence the economic outcomes of foreign direct investment (FDI). The objective is to provide a detailed and nuanced understanding of the manner in which governance affects the efficacy of FDI as a tool for economic development in 29 Asian developing countries. The methodology entails a quantitative analysis utilizing panel data from 29 Asian developing countries. The study employs advanced econometric techniques, including fixed effects and random effects models, to analyse the data, thereby accounting for the heterogeneity of countries' economic conditions and governance structures. The Worldwide Governance Indicators are employed in conjunction with FDI and GDP data in order to assess the interplay between governance and economic growth. The findings reveal that FDI significantly enhances long-term economic growth in developing Asian countries. Effective utilization of FDI is strongly associated with stable political environments, robust infrastructure, and a skilled workforce. Additionally, a conducive regulatory environment is critical for attracting and maintaining foreign investment. Based on these insights, the study recommends strengthening governance frameworks to maximize the economic benefits of FDI, suggesting that systemic enhancements in governance could lead to more effective absorption and utilization of foreign investment for sustainable development.

**Keywords:** Governance Indicators, Foreign Direct Investment, Economic Growth

## 1. Introduction

This study aims to unravel the intricate relationship between Foreign Direct Investment (FDI), governance quality, and economic growth in 29 developing Asian countries (listed by the World Bank) from 2002 to 2021. Building upon the findings of Njangang and Nawo's (2018) investigation into the impact of FDI and governance quality on economic growth in African countries, this thesis endeavors to extend these understandings to the diverse landscape of developing Asian nations. Many Asian developing countries are experiencing rapid economic growth and transformation. Understanding the interplay between governance, FDI, and economic growth in developing Asian countries can inform policies that aim to achieve sustainable economic development, balance foreign investment inflows, and improve governance standards.

Economic growth is a fundamental objective for nations as they seek to improve the quality of life, reduce poverty, and increase overall prosperity. Defined as the sustained increase in a country's production of goods and services over time, economic growth serves as a critical measure of a nation's economic health. Factors influencing growth are diverse, ranging from internal policies to external investments and governance quality. Among these, foreign direct investment (FDI) and governance indicators play a important role in shaping the trajectory of economic development.

Studying Foreign Direct Investment (FDI) and economic growth in diverse developing countries across Asia is imperative due to the heterogeneous policy landscapes influencing FDI inflows and GDP per capita growth. These countries vary significantly in their policy approaches, governance structures, and institutional frameworks, leading to differential impacts on economic outcomes. Understanding the nuanced interplay between policy environments, governance quality, and economic development is essential for policymakers and practitioners to formulate targeted interventions that foster sustainable and inclusive growth tailored to each country's specific needs and challenges. By examining how policy heterogeneity shapes FDI patterns and economic performance across different regions in Asia, researchers can offer valuable insights that inform evidence-based policy decisions and contribute to advancing knowledge in development economics and international business.

The relationship between economic growth, FDI, and governance is complex and interdependent. High levels of FDI can stimulate growth, but their impact is mediated by governance quality. Similarly, economic growth can improve governance by fostering institutional capacity and accountability. This shows the need for holistic policies that not only attract FDI but also strengthen governance frameworks to maximize their developmental impact.

## 2. OBJECTIVES

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The general objective of the study is to determine the moderating effect of governance quality on the effect of foreign direct investment on the economic growth of Developing Asian countries.

### **3. MATERIALS AND METHODS**

#### **3.1 Research Design**

This study adopts a descriptive research design to examine the intricate relationships between Foreign Direct Investment (FDI), GDP per capita, and six government indicators (control of corruption, government effectiveness, political stability and absence of violence/terrorism, regulatory quality, rule of law, and voice and accountability) across 29 out of 30 Asian developing countries from 2002 to 2021 because of the limited data and information available.

#### **3.2 Data Analysis**

In analyzing the complex relationships between Foreign Direct Investment (FDI), GDP per capita, and various government indicators across 29 Asian developing countries, this study employed the Statistical Package for the Social Sciences (SPSS) for its data analysis. The comprehensive approach adopted here involved several key steps to elucidate the dynamics at play, ensuring both the robustness and reliability of the findings.

Initially, descriptive statistics were generated for all variables, including FDI, GDP per capita, and the six government indicators: Control of Corruption, Government Effectiveness, Political Stability and Absence of Violence/Terrorism, Regulatory Quality, Rule of Law, and Voice and Accountability. This step provided an overview of the data distribution, mean values, and standard deviations, offering insights into the central tendencies and variability within the dataset.

### **4. RESULTS AND DISCUSSION**

#### **4.1 The regional trend of the economic growth in Asia by region from 2002 to 2021**

The Real GDP Growth Rate trends of developing countries in Central Asia, specifically focusing on Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. From the period of 2019 to 2021, The COVID-19 pandemic has significantly impacted the economic growth of developing countries in Central Asia, as measured by the real GDP growth rate. The negative association between COVID-19 death rates and GDP growth rates was evident, with higher death rates correlating with lower GDP growth in many Asian countries, including those in Central Asia (Xu et al 2023). The stringency of lockdown measures also played a crucial role in influencing GDP growth, with more stringent restrictions leading to greater economic contraction, particularly in emerging and developing economies (Gagnon et al 2023). Additionally, the manufacturing industry, foreign investment, and total consumption were critical factors affecting economic growth in the region, with the labor force playing a moderating role in some cases (Albar & Ratnasari 2023).

China's economic growth has been a subject of extensive study and analysis, revealing a multifaceted and dynamic trajectory. Over the past few decades, China has experienced explosive growth, establishing itself as one of the world's largest economies. This growth has been significantly influenced by globalization, which has facilitated technology transfer, trade expansion, and foreign direct investment (FDI). These factors have enabled China to close the technological divide, expand its industrial base, and boost productivity, making it a major exporter and enhancing its human capital through knowledge transfer and educational exchanges. Despite the impressive growth, recent years have seen fluctuations, with economic growth slowing to 3.3% in 2022 due to the impact of the omicron variant and recurring lockdowns. However, a rebound is expected, with growth projected to reach 4.6% in 2023 and 4.1% in 2024, supported by infrastructure investment and measures to stabilize the real estate sector [Yiwei An,2024].

West Asia's economic growth performance has shown significant potential and challenges over the years. Historically overshadowed by East Asia, West Asia, which includes Southern, Central, and Western Asia, is projected to surpass East Asia in terms of gross regional product (GRP) by 2050 and to be 40% larger by 2100, with India's economy expected to be a major driver, surpassing China's GDP by 2050 and being 50% larger by 2100 [The Economies of West Asia,Lauren A]. Despite this promising outlook, the region has faced economic difficulties, particularly since 2008, with low investment rates and worsening external balances hampering growth. The oil-dependent economies in the region have performed worse than non-oil ones, and the prospects for achieving the Sustainable Development Goals (SDGs) have become bleaker, especially post-COVID-19 [Agarwal M 2024]. The region's economic growth has been driven by extraordinary inputs like labor and capital rather than efficiency gains, similar to the Soviet Union's high-growth era. However, sustainable growth and poverty elimination require institutional reforms, industrial development, and macroeconomic stability [Menon S.V]. Human capital development is crucial for economic growth, particularly for oil-dependent economies facing declining reserves.

#### **4.2 Level of Foreign Direct Investment of Asian Countries 2002 to 2021**

The relationship between GDP and FDI is complex; while GDP growth attracts more FDI, the effectiveness of FDI in boosting GDP growth is questionable, as GDP growth in this region depends on other variables beyond FDI. Central Asian countries have implemented various reforms and incentive policies to attract foreign capital post-independence, recognizing the potential benefits of FDI, such as new technologies, increased competitiveness, and enhanced export performance [Syzykova A &Massadikov K]. Overall, the trend of FDI in Central Asia is shaped by a combination of economic growth, macroeconomic stability, and strategic reforms aimed at creating a favorable investment climate, although the direct impact of FDI on GDP growth remains a subject of debate among researchers and policymakers.

The concentration of FDI in low value-added and low processing industries has exacerbated industrial imbalances, as seen in Inner Mongolia, suggesting a need for strategic distribution of FDI to promote industrial upgrading and technological innovation [Zhang Y X 2019]. Overall, FDI remains a more stable and substantial source of external financing for Mongolia compared to other forms of financial inflows, such as official aid and remittances, underscoring its critical role

in the country's economic landscape [Savchenko A]. However, the future success of FDI in Mongolia will depend on addressing challenges related to economic diversification, political stability, and optimizing the industrial structure to ensure sustainable growth and development.

Furthermore, both global (push) and domestic (pull) factors are essential, with the sequential opening of the capital account and macroprudential regulations being recommended to manage FDI inflows effectively [P Dua & N Verma2023]. In the context of West African countries, which share similarities with West Asia in terms of emerging economies, the richness of natural resources, market size, trade openness, and exchange rate are pivotal in attracting FDI [P Gyimah 2022]. The key sectors that attract FDI in West Asia include those related to natural resources, particularly oil and gas, as well as sectors benefiting from urbanization and infrastructure development, such as construction and real estate [M Alharth et al.2024]. Overall, a holistic approach that considers economic, institutional, and political factors is essential for understanding and enhancing FDI inflows in West Asia, with economic factors being the most dominant (Faruq 2023).

#### 4.3 The governance indicators of Asian Countries

There are six government indicators for 5 regions of Asia, six government Indicators are control of corruption, rule of law, regulatory quality, government effectiveness, voice and accountability, political stability and absence of violence/terrorism, these indicators are recorded from 2002 to 2021 though the global economy.com as second hand data. The effectiveness of these agencies has been inconsistent, often hampered by the unique socio-political landscapes of each country. The spread of organized crime, including drug and weapon trafficking, further complicates anti-corruption efforts, as these illicit activities often intersect with corrupt practices, impacting regional security and stability Saadeldin (2022). Additionally, the relationship between corruption and economic, educational, and touristic development has been a focal point, with corruption negatively affecting foreign direct investment and operations by multinational corporations [D Windsor].

The E-Government Development Index (EGDI) has also been shown to impact governance indicators, particularly in government effectiveness and regulatory quality, which in turn influence corruption control. The adoption of digital bureaucracies in various sectors has contributed to reducing corruption in some Southeast Asian countries [M Sukarno,A Nurmandi 2023]. However, the effectiveness of governance and rule of law are critical, as they significantly impact economic growth and help curb corruption, unlike other indicators such as voice and accountability or political stability, which do not show a significant effect on economic growth [M Abidin 2023].

The diversity of governance indicators in Western Asian countries highlights the varying degrees of democracy and governance quality. The study emphasizes the importance of democracy as a component of good governance, which can influence trust and prosperity in societies (Alhanaqta & Alhanaqta 2018). The need for democracy to achieve good governance and economic growth is debated, suggesting that while democracy can enhance governance, it is not the sole determinant of governance quality (Alhanaqta & Alhanaqta 2018). In Arab countries, including those in West Asia, governance indicators such as political stability, voice and accountability, and regulatory quality significantly impact corruption levels.

#### 4.4 Structural Equation Model to Sustain / Improve the Regional Economic Growth in Asia

The table presents an in-depth analysis of the long-run relationship and short-run dynamics between Foreign Direct Investment (FDI) and economic growth (GDP) in Asian developing countries, revealing distinct patterns over time. In the long run, the positive coefficient of 0.6676 for lagged FDI (FDIt-1) indicates that for every 1-unit increase in FDI, GDP grows by approximately 0.67 units. This suggests that FDI plays a crucial role in driving economic growth by providing financial resources, boosting productivity, and stimulating job creation. The p-value of 0.024 confirms that this relationship is statistically significant at the 5% level, reinforcing the idea that sustained FDI contributes meaningfully to long-term economic development.

**Table 1. Long-run relationship and short-run effect of foreign direct investment to economic growth of Asian developing countries**

In terms of equilibrium adjustment, the error correction term (CointEq1) for GDP has a coefficient of -0.4493 and is highly significant (p = 0.0035). This coefficient implies that 45% of any deviation from the long-run equilibrium between FDI and GDP is corrected within a single period. In other words, if there is a short-term disruption, the GDP tends to move back toward its equilibrium path relatively quickly. This result suggests that economic growth in these countries is resilient and adjusts effectively over time in response to fluctuations in FDI.

| Variable  | Coefficient | Standard Error | t-Statistic | P-value | Interpretation     |
|---|-------------|----------------|-------------|---------|--------------------|
| <b>Cointegrating Equation (CointEq1)</b>  |             |                |             |         |                    |
| FDIt-1  | 0.66762     | 0.29577        | [2.25725]   | 0.024   | Significant        |
| Constant  | -8.584198   | -              | -           | -       | -                  |
| <b>Error Correction: D(GDP)</b>   |             |                |             |         |                    |
| CointEq1  | -0.449298   | 0.15317        | [-2.93324]  | 0.0035  | Highly Significant |
| ΔGDPt-1   | -0.493204   | 0.18455        | [-2.67247]  | 0.0081  | Significant        |
| ΔGDPt-2   | -0.324632   | 0.18833        | [-1.72372]  | 0.0897  | Not Significant    |
| ΔGDPt-3   | -0.370441   | 0.16864        | [-2.19660]  | 0.0314  | Significant        |
| ΔGDPt-4   | -0.098073   | 0.14804        | [-0.66247]  | 0.5102  | Not Significant    |
| Constant ©  | -0.207207   | 0.40656        | [-0.50966]  | 0.6123  | Not Significant    |
| <b>Error Correction: D(FDI)</b>   |             |                |             |         |                    |
| CointEq1  | -0.165251   | 0.17239        | [-0.95856]  | 0.3382  | Not Significant    |
| ΔFDIt-1   | -0.264252   | 0.15634        | [-1.50176]  | 0.1378  | Not Significant    |
| ΔFDIt-2   | -0.368152   | 0.16062        | [-2.29212]  | 0.0223  | Significant        |
| ΔFDIt-3   | -0.055497   | 0.14775        | [-0.37561]  | 0.7105  | Not Significant    |
| ΔFDIt-4   | 0.147268    | 0.11933        | [1.23412]   | 0.2224  | Not Significant    |
| Constant  | -0.466212   | 0.45758        | [-1.01887]  | 0.3116  | Not Significant    |
| F-stat = 7.564      p-value < .001      R <sup>2</sup> = 0.5676      Adjusted R <sup>2</sup> = .05003 |             |                |             |         |                    |

third lags of GDP (-0.4932 and -0.3704, respectively) are significant, with p-values of 0.0081 and 0.0314, showing that recent economic performance has a meaningful impact on current growth. These results indicate that the economy's momentum is carried forward, as both the 1-period and 3-period lagged changes continue to influence the present period.

However, the second and fourth lags of GDP are not statistically significant, suggesting that not all past changes consistently affect current performance. This irregularity may reflect the complexity of economic cycles, where external factors or delayed responses can influence growth patterns. The short-run dynamics for FDI, however, present a different picture. The error correction term for FDI is not significant ( $p = 0.3382$ ), indicating that FDI does not exhibit a strong tendency to return to equilibrium in the short run. This implies that fluctuations in FDI are more volatile and less predictable in the short term, potentially due to external shocks, market uncertainties, or investor behavior.

Additionally, only the second lag of FDI has a significant impact ( $p = 0.0223$ ), suggesting that FDI levels from two periods ago have a meaningful influence on current FDI levels. The other lags (first, third, and fourth) are not significant, showing that FDI flows are not consistently influenced by their past values, which could reflect varying investment cycles or other dynamic factors influencing foreign investments.

The model as whole demonstrates that FDI contributes positively to economic growth in the long run, underscoring the importance of attracting sustained foreign investments to maintain growth momentum. However, the short-run effects of FDI are less consistent, with limited evidence of equilibrium correction and only occasional significant lagged effects. In contrast, GDP exhibits stronger short-run dynamics, with significant adjustments and influences from previous periods, highlighting the economy's ability to respond and adjust to short-term shocks.

The model's F-statistic (7.564), with a p-value of less than 0.001, confirms that the overall model is statistically significant, meaning that the included variables explain a substantial part of the variation in GDP. The  $R^2$  value of 56.76% indicates that more than half of the variation in GDP is captured by the model, while the adjusted  $R^2$  (0.05003) suggests that the explanatory power remains reasonable, though reduced slightly when accounting for the number of predictors.

The analysis highlights the importance of FDI as a long-term growth driver, though it also points to the challenges of managing short-run fluctuations in FDI. Policymakers may focus on creating stable economic environments that attract and sustain foreign investments to leverage their long-term benefits while also ensuring that the economy remains adaptable to short-term volatility

#### 4.5 Effect of Foreign Direct Investment on Economic Development

The analysis reveals that while FDI positively impacts economic growth in some Asian developing countries, this relationship is not uniform across all countries studied. The significance and direction of FDI's impact on economic growth depend on various country-specific factors, and in many cases, FDI alone does not significantly drive economic growth.

Foreign Direct Investment (FDI) has substantially influenced China's economic landscape from 2002 to 2021, enhancing employment and driving technological innovation. The strategic deployment of FDI, especially in underdeveloped western provinces and the service sector, has led to notable job creation, amplified by digitalization [Ukraynets 2024; H-J Liu 2024]. This investment has not only fostered economic growth but also introduced environmental challenges, underscoring the need for robust environmental policies [S H Zeng & Y Zhou 2021]. In Lebanon, similarly, FDI has bolstered economic activity as indicated by the central bank's Coincident Index, with positive correlations to GDP and financial development [A Awdeh, Z Jomaa, M A Zeaier 2019; S Chehade 2021; H. Humta & I. E. Şahin 2024].

However, political stability remains a critical factor influencing FDI flows and, by extension, economic growth, with political risks posing significant challenges [N Bitar, M Hamadeh, R Khoueiri 2019]. Both regions exemplify the dual-edged nature of FDI, where despite accelerating economic development and technological advancements, it necessitates careful management to mitigate associated environmental and political risks.

**Table 2. Effect of Foreign Direct Investment to Economic Growth of Asian Developing Countries using Cross-Sectional Fixed Effect**

| Variable                                  | Coefficient | Std. Error | t-Statistic | p-value | Decision to Ho   | Interpretation  |
|---|-------------|------------|-------------|---------|------------------|-----------------|
| (Constant)                                | 4.068       | 1.276      | 3.187       | 0.002   | Reject           | Significant     |
| Foreign Direct Investment, percent of GDP | 0.237       | 0.049      | 4.791       | 0       | Reject           | Significant     |
| Armenia                                   | 0.592       | 1.821      | 0.325       | 0.745   | Failed to Reject | Not Significant |
| Azerbaijan                                | 0.328       | 1.946      | 0.168       | 0.866   | Failed to Reject | Not Significant |
| Bangladesh                                | 1.802       | 1.806      | 0.998       | 0.319   | Failed to Reject | Not Significant |
| Bhutan                                    | 1.872       | 1.806      | 1.036       | 0.301   | Failed to Reject | Not Significant |
| Burma (Myanmar)                           | 2.955       | 1.815      | 1.628       | 0.104   | Failed to Reject | Not Significant |
| Cambodia                                  | 0.41        | 1.876      | 0.219       | 0.827   | Failed to Reject | Not Significant |
| China                                     | 3.95        | 1.812      | 2.18        | 0.03    | Reject           | Significant     |
| Georgia                                   | -0.946      | 1.864      | -0.508      | 0.612   | Failed to Reject | Not Significant |
| India                                     | 1.71        | 1.808      | 0.946       | 0.345   | Failed to Reject | Not Significant |
| Indonesia                                 | 0.448       | 1.808      | 0.248       | 0.804   | Failed to Reject | Not Significant |
| Iran                                      | -1.273      | 1.806      | -0.705      | 0.481   | Failed to Reject | Not Significant |
| Jordan                                    | -1.739      | 1.842      | -0.944      | 0.345   | Failed to Reject | Not Significant |
| Kazakhstan                                | -0.227      | 1.84       | -0.123      | 0.902   | Failed to Reject | Not Significant |
| Kuwait                                    | -1.221      | 1.805      | -0.676      | 0.499   | Failed to Reject | Not Significant |
| Kyrgyzstan                                | -1.464      | 1.825      | -0.802      | 0.423   | Failed to Reject | Not Significant |
| Laos                                      | 1.443       | 1.823      | 0.791       | 0.429   | Failed to Reject | Not Significant |
| Lebanon                                   | -4.537      | 1.855      | -2.446      | 0.015   | Reject           | Significant     |
| Malaysia                                  | -0.368      | 1.814      | -0.203      | 0.839   | Failed to Reject | Not Significant |
| Maldives                                  | 0.051       | 1.858      | 0.027       | 0.978   | Failed to Reject | Not Significant |
| Mongolia                                  | -0.19       | 1.897      | -0.1        | 0.92    | Failed to Reject | Not Significant |
| Nepal                                     | -0.02       | 1.805      | -0.011      | 0.991   | Failed to Reject | Not Significant |
| Pakistan                                  | -0.196      | 1.807      | -0.109      | 0.913   | Failed to Reject | Not Significant |
| Philippines                               | 0.437       | 1.808      | 0.242       | 0.809   | Failed to Reject | Not Significant |
| Sri Lanka                                 | 0.549       | 1.807      | 0.304       | 0.761   | Failed to Reject | Not Significant |
| Tajikistan                                | 2.381       | 1.82       | 1.308       | 0.191   | Failed to Reject | Not Significant |
| Thailand                                  | -1.308      | 1.81       | -0.722      | 0.47    | Failed to Reject | Not Significant |
| Uzbekistan                                | 2.066       | 1.808      | 1.142       | 0.254   | Failed to Reject | Not Significant |
| Vietnam                                   | 0.988       | 1.824      | 0.542       | 0.588   | Failed to Reject | Not Significant |

F-stat = 2.471; p-value = 0.000042; R2 = 0.115252 Adjusted R2 = 0.068602; DW Stat = 2.032648

significant effect of FDI, with a coefficient of 3.95 ( $p = 0.03$ ). This aligns with China's reputation as a major FDI

The table presents the effect of Foreign Direct Investment (FDI) on the economic growth of various Asian developing countries, using cross-sectional fixed effects to capture country-specific influences. The results indicate that, for most countries, the relationship between FDI and economic growth is statistically insignificant. Specifically, the coefficients for countries like India, Indonesia, Iran, Jordan, and others show no meaningful impact of FDI on their GDP, as evidenced by high p-values (greater than 0.05). This suggests that, for many of these countries, FDI inflows have not translated into measurable economic growth in the short term, possibly due to structural challenges, inefficiencies, or inconsistent investment policies.

However, there are three notable exceptions where the coefficients are statistically significant. Lebanon has a coefficient of -4.537 with a p-value of 0.015, indicating a negative and significant impact of FDI on economic growth. This may reflect political instability, poor investment environments, or capital outflows that counteract the potential benefits of FDI. Conversely, China shows a positive and

recipient that leverages foreign investments for rapid economic expansion. The constant term (4.068) is also significant ( $p = 0.002$ ), suggesting that factors unrelated to FDI play a significant role in driving economic growth across these countries.

The overall impact of FDI (as a percentage of GDP) on economic growth is positive and highly significant, with a coefficient of 0.237 and a p-value of 0.000. This indicates that increasing FDI by 1% of GDP leads to a 0.237% increase in economic growth, reinforcing the idea that, on average, FDI contributes positively to economic development across the region. However, the adjusted  $R^2$  value of 0.0686 suggests that only about 7% of the variability in economic growth is explained by FDI and other included variables. This relatively low explanatory power implies that other macroeconomic factors and country-specific conditions significantly influence growth beyond FDI.

The F-statistic (2.471) with a p-value of 0.000042 confirms that the overall model is statistically significant, meaning that the included variables jointly affect economic growth. The Durbin-Watson statistic (2.03) suggests that the model does not suffer from serious autocorrelation, meaning the residuals are randomly distributed.

While the model demonstrates that FDI has a positive impact on economic growth on average, its effect varies across countries. Some nations, such as China, have effectively leveraged FDI for growth, whereas others, like Lebanon, may have struggled to convert investments into economic gains. For most countries in the sample, however, the impact of FDI remains statistically insignificant, highlighting the need for effective policies and institutional frameworks to fully harness the benefits of foreign investments.

#### 4.6 Effect of Foreign Direct Investment to Economic Growth when Governance Indicators Moderates

Table 3 presents an analysis of how governance quality moderates the relationship between Foreign Direct Investment (FDI) and economic growth in Asian developing countries. Control of Corruption (COC), Government Effectiveness (GEI), Regulatory Quality (RQI), Voice and Accountability (VAI), political stability and absence of violence/terrorism (PSI) and Rule of Law (ROLI) show varying levels of significance, indicating their roles as moderating factor.

**Table 3. Effect of Foreign Direct Investment to Economic Growth when Moderates**

| Variable | Coefficient | Std. Error | t-Statistic | p-value | Decision to Ho   | Interpretation  |
|----------|-------------|------------|-------------|---------|------------------|-----------------|
| C        | 4.531738    | 0.272458   | 16.6328     | < .001  | Reject           | Significant     |
| FDI      | 0.122365    | 0.047221   | 2.59135     | 0.0098  | Reject           | Significant     |
| FDIXCOC  | -0.012687   | 0.089766   | -0.1413     | 0.8877  | Failed to Reject | Not Significant |
| FDIXGEI  | 0.184005    | 0.109172   | 1.68547     | 0.0925  | Failed to Reject | Not Significant |
| FDIXPSI  | 0.112008    | 0.045265   | 2.47451     | 0.0136  | Reject           | Significant     |
| FDIXROLI | -0.067825   | 0.155668   | -0.4357     | 0.6632  | Failed to Reject | Not Significant |
| FDIXRQI  | -0.165965   | 0.099      | -1.6764     | 0.0942  | Failed to Reject | Not Significant |
| FDIXVAI  | -0.074884   | 0.064685   | -1.1577     | 0.2475  | Failed to Reject | Not Significant |

The regression results indicate that FDI has a significant positive effect on economic growth, with a coefficient of 0.122365 and a p-value of 0.0098. This finding suggests that, overall, increased FDI contributes to economic growth in the region.

However, the interaction effects of various governance quality indicators on the FDI-growth relationship show mixed results. Government effectiveness (GEI), for example, does not significantly enhance the positive impact of FDI on economic growth, with a p-value of 0.0925. Similarly, other governance indicators such as the control of corruption (COC) and regulatory quality (RQI) also fail to show significance interaction effects, with p-values of 0.8877 and 0.0942, respectively. This implies that the presence of good governance alone does not necessarily amplify the benefits of FDI on economic growth.

On the other hand, political stability and absence of violence/terrorism (PSI) do show a significant interaction effect, with a p-value of 0.0136. This indicates that in environments where political stability is higher, the positive impact of FDI on economic growth is more pronounced. This highlights the importance of maintaining a stable political environment to maximize the economic benefits of foreign investments.

Foreign Direct Investment (FDI) significantly impacts economic growth, and this effect is further moderated by political stability and the absence of violence or terrorism. Research indicates that FDI contributes positively to economic growth by enhancing trade, providing financial support, and addressing balance of payments issues, as seen in the Indian context where a strong correlation between FDI and GDP growth was observed [A P Dhawan & V. R Devi 2024]. Similarly, in Pakistan, the rule of law and political stability were found to be crucial for maximizing the benefits of FDI, as these factors foster an environment conducive to economic development [M A Husnain, P Guo, G Pan 2023].

The study on selected Asian countries, including Brunei, Indonesia, Malaysia, Thailand, and Vietnam, also underscores that institutional quality, such as political stability and the absence of violence, is essential for FDI-driven growth. These countries have experienced higher FDI inflows due to their stable macroeconomic policies and robust institutional frameworks, which in turn positively influence their GDP growth rates [T A Khin & H Kim 2022]. In Algeria, the positive correlation between natural resources, FDI, and economic growth highlights the need for political stability to ensure sustainable development and economic diversification beyond volatile resource sectors [F Mahfoudi, S Riache, B Louail 2024]. Furthermore, in South Asia, including India, Bangladesh, Pakistan, and Nepal, empirical studies show that FDI has a statistically significant positive effect on economic growth, although the impact of public expenditure and inflation varies [S Sapkota & D R Gautam 2023].

Overall, the evidence suggests that political stability and the absence of violence or terrorism are critical moderators that enhance the positive effects of FDI on economic growth, emphasizing the importance of sound governance and robust institutions in fostering an environment where FDI can thrive and contribute to sustainable economic development.

#### **4.7 Proposed Inputs to Policy to Enhance the Economic Growth in Developing Countries in Asia**

This study has elucidated the significant relationship between FDI and economic growth and with the different type of Governance Indicators Moderates, particularly highlighting the long-run benefits of FDI and stable environment for the FDI. The insights derived suggest that targeted policy measures can further optimize the positive impacts of FDI. Therefore, the proposed policy inputs focus on areas that could enhance the effectiveness and benefits of FDI in fostering sustainable economic development.

To enhance economic growth in developing Asian countries through foreign direct investment (FDI), a multifaceted approach is crucial. Strengthening investment policies by enhancing stability and transparency in political and regulatory environments can significantly boost investor confidence and attract sustainable FDI, as evident in China and Lebanon where FDI has positively influenced economic growth. This strategy is supported by Van Chien Nguyen's 2023 findings that contractionary monetary policies attract FDI and trade liberalization enhances a country's appeal to foreign investors. Furthermore, the quality of human resources is essential, indicating that policies fostering education and skill development are crucial.

However, the effectiveness of these measures is contingent on robust governance. As Jannatul Ferdous (2024) highlighted that governance in South Asia has been weak, undermining democracy and economic progress. Strengthening governance structures and enhancing public trust in institutions are imperative. Effective governance ensures that policies are implemented efficiently and that foreign investments achieve their intended economic benefits.

Therefore, proposed policy inputs should focus on creating a conducive investment climate through clear and stable economic policies, liberalizing trade, and improving educational standards to enhance workforce quality. Simultaneously, governments should commit to strengthening governance by improving institutional performance, engaging citizens in democratic processes, and ensuring that public institutions are transparent and accountable. These measures will collectively enhance the environment for FDI, thereby driving long-term economic growth in developing Asian countries.

It is important to focus on the effective use of FDI to boost economic growth in developing Asia, which is greatly helped by a stable political environment, robust infrastructure and skilled labour. Drawing insights from research by Qurat-ul-Ain and Asim Iqbal (2023), it is evident that aligning policies with the United Nations' Sustainable Development Goals (SDGs) can substantially impact economic sustainability, (SDGs) involves shaping national and regional strategies to achieve targets across a broad spectrum of social, economic, and environmental challenges identified by the UN. These SDGs aim to promote sustainable development by addressing critical areas such as poverty, inequality, climate change, environmental degradation, peace, and justice. The policy implementation seeks to integrate these goals into government planning and actions to ensure that growth is inclusive, sustainable, and resilient, benefitting all sectors of society and preserving resources for future generations. Key areas such as financial development, education, and governance are crucial. Investment in infrastructure, notably in fixed assets like buildings and roads as highlighted in Yongxiang Xiong's 2022 study on China, plays a pivotal role in stimulating economic activities and supports the assertion that such investments, along with fostering a skilled labor force through education and training, are fundamental for sustainable economic growth.

Furthermore, the importance of governance cannot be overstated. Effective governance practices contribute to GDP growth and create a conducive environment for FDI. As demonstrated in China, the synergy between consumption, investment in fixed assets, and exports catalyzes economic development, underscoring the need for comprehensive policies that promote financial development, strategic educational investments, and the fortification of governance structures. These policies should not only aim to attract and optimize FDI but also ensure that it leads to broad-based economic benefits, enhancing stability, equity, and long-term economic success in the region.

## **5. CONCLUSIONS**

Based on the findings, the following conclusions were drawn:

1. From 2002 to 2021, economic growth trends across Asian regions were shaped by global and local events, with governance quality and policies playing key roles in outcomes.
2. Foreign Direct Investment (FDI) as a percentage of GDP from 2002 to 2021 varied significantly across Asia, reflecting diverse investment landscapes and regional economic contexts.
3. Governance indicators from 2002 to 2021 emphasized the importance of rule of law and political stability in fostering economic and social stability across Asia.
4. The Structural Equation Model (SEM) revealed a strong long-term positive relationship between Foreign Direct Investment (FDI) and economic growth in developing Asian countries.
5. The impact of Foreign Direct Investment (FDI) on economic growth varied across Asian countries, influenced by regional economic and political contexts.
6. Governance indicators, particularly political stability, significantly moderated the relationship between Foreign Direct Investment (FDI) and economic growth in developing Asian countries.
7. Enhancing political and regulatory stability, investing in infrastructure and education, and ensuring transparent governance are vital for sustainable economic growth in developing Asian countries.

## 6. RECOMMENDATIONS

In light of the findings and conclusions generated from this study, the following recommendations are offered:

1. Implement policies to increase transparency and stability in the political and regulatory environments to boost investor confidence and attract more sustainable Foreign Direct Investment (FDI).
2. Allocate resources to improve infrastructure and educational systems to support economic activities and cultivate a skilled workforce, which are critical for leveraging FDI effectively.
3. Simplify and clarify regulatory frameworks to reduce bureaucratic hurdles for businesses, making the investment climate more attractive and conducive to growth.
4. Strengthen mechanisms that ensure political stability and the absence of violence to create a secure environment for investors and businesses, enhancing the overall effectiveness of FDI.
5. Develop policies that enhance the Enhance Public Sector Management: Enhance the efficiency, transparency, and accountability of public sector management to ensure that governmental policies and actions are effective, fair, and conducive to economic growth, thereby maintaining high levels of investor confidence.

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