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***Research paper***

# Comparative Analysis of Regulatory Quality and Foreign Direct Investment (FDI) Inflows in Nigeria and South Africa

**Oghenekparobo Ernest Agbogun [1], Abass Akinsanya [2] *, Felicia Omowunmi Olokoyo [3]**

[1] *Department of Banking and Finance, Dennis Osadebay University, Asaba, Delta State, Nigeria*
[2] *Zedcrest Investment Managers Limited, 65 Karimu Kotun Street, Lagos, Nigeria*
[3] *Department of Finance, Professor of Finance, Covenant University. Ota, Nigeria*
**Corresponding author E-mail: simplyabassakinsanya@gmail.com*

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**Abstract**

This study evaluated the effect of regulatory quality (REQ) on foreign direct investment (FDI) inflows in Nigeria and South Africa from 1996 to 2023. The specific focus of the research is to ascertain: (i) what REQ have on FDI inflow to both countries; (ii) whether REQ affects FDI inflows into the South African economy than into to Nigerian economy. REQ index was sourced from the WGI database (2023), FDI inflows were sourced from the World Bank database (2023), while exchange rate (EXR), inflation rate (IFR), and gross domestic product growth rate (GDPG) were sourced from the Central Bank of Nigeria Statistical Bulletin (2023). The study adopted the Robust Regression Analysis (RRA). This comparative study evidenced that though REQ is a key FDI inflows driver in both countries, its effect is more evident in South Africa than in Nigeria. Similarly, GDPG plays a more meaningful role in enhancing FDI inflows in South Africa than in Nigeria. However, Nigeria is highly sensitive to inflationary pressures and exchange rate instability compared to South Africa. Consequently, the Nigerian government needs to prioritize stabilizing its macroeconomic environment over other policies. To achieve this, the Nigerian government should reduce inflationary pressures and manage its exchange rate volatility. There is also a need for the Nigerian government to strengthen the REQ and ensure policy consistency will further improve investor confidence. Meanwhile, the South African government needs to address its structural issues, which may deter the country from enjoying the developmental benefits of FDI inflows. Overall, government of both countries needs to adopt targeted reforms to improve absorptive capacity, infrastructure development, and efficient capital utilization will be imminent to enjoy the developmental benefits of FDI.

***Keywords***: *Regulatory Quality (REQ); Foreign Direct Investment (FDI) Inflows; Exchange Rate (EXR); Inflation Rate (IFR); GDP Growth Rate (GDPG).*

## 1. Introduction

Globally, foreign direct investment (FDI) inflows serve as channels through which emerging countries (including Nigeria) bridge their savings-investment gaps. As a major source of external funding, FDI strengthens local industries' competitiveness, encourages technology and knowledge transfer, increases domestic country's export base, promotes global market integration, encourages in profit repatriation, and creates job opportunities in host countries (; Chaudhury et al, 2020; Saurav & Sinha, 2020; Zeng & Zhou, 2021; Santos, 2023; Santos, 2023). Specifically, FDI inflows have been highly instrumental in driving Africa's structural transformation and developmental agenda (Gatare, 2024; Nubong & Ntuli, 2024; & Fambo, 2024). This increasing inflow into the African economy emphasizes the need to address the continent's infrastructure decay to enable it her gain global presence (UNCTAD, 2005; Arthur & Addai, 2022; & Erhijakpor et al., 2024).

Nevertheless, even with the huge FDI inflows into the African economy, the continent is still underdeveloped. This may be attributed to inequality, unstable foreign exchange reserves, the transfer of outdated and/or less environmentally friendly technologies, and a low investment culture (Anetor et al., 2022; Yeboah et al., 2022; Benedict et al., 2021; Anetor et al., 2020). While Nigeria and South Africa are ranked first and fourth by GDP in Africa, their FDI inflows clearly illustrate this paradox. This can be traced to the weak regulatory quality (REQ) recorded in Nigeria and the high poverty rates in South Africa. These conflicting issues necessitated a re-evaluated REQ-FDI nexus from the African context.

The earlier studies on the REQ–FDI nexus highlight major gaps. First, most of these earlier studies are country-specific. For example, Ozekhome (2022) only focused on Croatia. Similarly, Brown and Ibekwe (2018) & Akinwalere and Chang (2023) focused on Nigeria. Second, other prominent studies failed to address the nexus between REQ and FDI inflow using the robust regression analysis (Dobrowolska et al., 2023; Alzarooni et al., 2025; Lacusova & Kromkova, 2025; Rahman & Sharma, 2025; & Arbia et al., 2025). This study, however, stands out in three (3) ways. First, the study conducted a comparative analysis on the REQ-FDI nexus in both Nigeria and South Africa since both countries have distinct REQ frameworks. Second, the study deviated sharply from earlier studies by ascertaining whether REQ affects FDI inflows into the South African economy than into does into the Nigerian economy. Third, this study addresses

the methodological flaws of earlier studies by adopting the Robust Regression analysis. Consequently, the following relevant research questions were posed:
RQ1: What effect does REQ have on FDI inflow to both countries?
RQ2: Does REQ affect FDI inflows into the South African economy than it does into the Nigerian economy?
Two (2) null hypotheses were formulated in this light:
$H_1$: REQ influences FDI inflow to both countries.
$H_2$: REQ affects FDI inflows into the South African economy more significantly than it does into the Nigerian economy.
This study stands out as it will guide African policymakers in developing policies geared towards improving the African REQ. Similarly, this study advances REQ-FDI literature by controlling for macroeconomic variables such as exchange rate (EXR), inflation rate (IFR), and gross domestic product growth rate (GDPG). This study is structured into an introduction, literature review, methodology, empirical results/policy implications, and conclusions.

## 2. Literature Review

Over time, REQ has attracted the attention of scholars across various disciplines. The World Governance Indicators (WGI) defines REQ as the government's ability to design and implement sound policies and regulations that encourage the development of the private sector. It is worth noting that regulatory quality can be either efficient or inefficient (Brown & Ibekwe, 2018; Ozekhome, 2022). Justifiably, an efficient REQ characterized by moderate regulations, policy consistency, strong policy enforcement, efficient rent-seeking, efficient licensing procedures, transparent rules, low bureaucratic bottlenecks, and predictable enforcement, and a conducive business atmosphere attracts FDI inflows. However, weak regulatory regimes characterized by excessive regulations, policy inconsistencies, weak policy enforcement, and systemic corruption discourage FDI inflows (Osuma et al., 2024).
On the other hand, FDI inflows are the net investments made by foreign investors (multinational corporations and individual investors) in a host country's productive assets over time. Furthermore, FDI accounts for the transfer of capital, technology, managerial expertise, and access overseas. Such investments could be Greenfield investments, reinvestment of earnings, or acquisition of existing firms (Agbogun & Ehiedu, 2022; Anetor, 2020). The major advantages of FDI inflows are that they bridge the host domestic country's savings and investment gaps, foster technological spillovers, stimulate industrialization, create employment opportunities, and support economic growth (Erhijakpor et al., 2024).
Prominent among the theories that have provided understanding into the REQ-FDI inflow nexus are institutional theory, the eclectic paradigm (OLI framework), public choice theory, and transaction cost economics (TCE). Institutional theory stresses that institutional quality determines investors' investment behaviour (Olaniyi, 2022). Multinational companies (MNCs) prefer to invest in friendly investment climates with predictable business policies rather than unfriendly investment climates. Similarly, Dunning's eclectic paradigm, developed by Dunning, stressed that FDI brings about three (3) major advantages: ownership, location-specific, and internalisation. Hence, he termed his eclectic paradigm the "OLI framework" (Dunning, 1977; Cantwell, 2015). Location-specific advantages served as the central focus of FDI attraction out of these three (3) core advantages (Cantwell, 2015). Efficient regulatory quality strengthens the institutional and locational attractiveness of host countries, thereby reducing transaction costs and enhancing the confidence of foreign investors (Brown & Ibekwe, 2018).
Additionally, public choice theory (PCT) stresses that weak REQ reduces FDI inflows. Also, government policies are influenced by both interest groups and political incentives (Dzenis, 2025). Meanwhile, efficient REQ is characterized by the government's commitment to support the private sector through credit extension. By extension, this results in higher FDI inflows. Finally, transaction cost economics (TCE) argues that firms seek to reduce coordination and transaction costs in foreign operations (Hennart & Verbeke, 2022). By implication, sound regulatory quality improves contract enforcement, lowers uncertainty, and reduces the likelihood of opportunism. As a result, FDI is a more sustainable and highly attractive entry mode than trade, franchising, and licensing. Overall, the four theoretical reviews underscore that efficient and strong regulatory quality is a critical determinant of FDI-location decisions.

**Table 1:** Synthesis of Theories

| Theory | Basic Tenet | Implications |
|---|---|---|
| Institutional Theory | Institutional quality determines investors' investment behaviour. Multinational companies (MNCs) prefer to invest in friendly investment climates with predictable business policies over unfriendly investment climates. | Strong regulatory quality reduces policy risks, boosts investor confidence, and signals institutional reliability. |
| Eclectic Paradigm (OLI Framework) | Location advantages are key drivers of FDI attraction. | Strong regulatory quality reduces transaction costs, results in a stable business climate, and improves property rights. |
| Public Choice Theory | Government policies are shaped by interest groups and political incentives. Weak REQ encourages inefficiencies and rent-seeking behaviour. | Weak REQ hinders FDI by encouraging corruption & bureaucratic hurdles. Meanwhile, efficient REQ improves FDI inflows. |
| Transaction Cost Economics (TCE) | Firms seek to reduce coordination and transaction costs in their foreign operations. | Sound REQ makes FDI be more sustainable and highly attractive entry mode than trade, franchising, and licensing. |

Source: Researchers' Compilation (2025).

Extant empirical studies align with the theories reviewed above, though earlier studies recorded mixed findings due to varied methodological approaches. For example, Kaushal (2021) reported that the REQ improves FDI inflows in India minimally from 2006 to 2019. However, Topçu (2024) reported that legal quality and REQ have more influence on FDI inflows of emerging countries than developed countries. Meanwhile, Huang et al. (2022) reported that FDI inflows improve carbon emissions, but the REQ reduced FDI inflows of G20 economies from 1996 to 2018. Ozekhome (2022) found that economic determinants (GDP per capita & average gross wage) are the major FDI inflows in Croatia from 1996 to 2017. Ozekhome (2017) reported that democratic institutions characterized by accountability, strict adherence to the rule of law, complete enforceability of contract proceedings, government effectiveness, and transparency are major FDI and growth drivers. Other empirical studies that reported that institutional quality (REQ) variables are major FDI inflow drivers are studies of Brown and Ibekwe (2018); Ozekhome (2022); Akinwalere and Chang (2023); Alzarooni et al. (2025); Rahman and Sharma (2025); Lacusova and Kromkova (2025); & Arbia et al. (2025).
The empirical review above is country-specific; as such, it failed to do a comparative country analysis, especially with regard to Nigeria and South Africa. For example, Ozekhome (2022) only focused on Croatia. Similarly, Brown and Ibekwe (2018) & Akinwalere and

Chang (2023) focused on Nigeria; Dobrowolska et al. (2023) focused on the European Union. Second, other prominent studies failed to address the nexus between REQ and FDI inflow using the robust regression analysis (Dobrowolska et al., 2023; Alzarooni et al., 2025; Lacusova & Kromkova, 2025; Rahman & Sharma, 2025; & Arbia et al., 2025). This study, however, stands out in three (3) ways. First, the study conducted a comparative analysis on the REQ-FDI nexus in both Nigeria and South Africa since both countries have distinct REQ frameworks. Second, the study deviated sharply from earlier studies by ascertaining whether REQ affects FDI inflows into the South African economy than into does into the Nigerian economy. Third, this study addresses the methodological flaws of earlier studies by adopting the Robust Regression analysis.

# 3. Methodology

This study focused on Nigeria and South Africa, spanning 1996 to 2023. These African countries were selected because both are Africa's largest FDI destinations, though both have distinct REQ frameworks. REQ index was sourced from the WGI database (2023), FDI inflows were sourced from the World Bank database (2023), while EXR, IFR, and GDPG were sourced from the CBN Statistical Bulletin (2023). Table 1 captures how the variables were measured.

**Table 2:** Measurement of Variable

| Denotations | Variable | Nature of Variable | Sources |
|---|---|---|---|
| FDI | Dependent | FDI inflows (% of GDP) | WDI database |
| REG | Independent | Regulatory Quality Index | WGI database |
| GDPG | Control | Percentage change in GDP (Market size and economic performance) | WDI database |
| IFR | Control | Consumer Price Index (Macroeconomic stability) | WDI database |
| EXR | Control | US Dollar/Nara (Macroeconomic stability) | WDI database |

Source: Researcher's Compilation (2025).

The Robust regression analysis (RRA) served as the main estimation technique. This estimation technique is efficient as it produces consistent and unbiased parameter estimates even in the presence of outliers such as Heteroskedasticity. Unlike conventional OLS estimates, the robust regression provides an accurate result despite the fact that the series deviated from the classical assumption of econometric analysis. Also, this estimation technique is relevant especially for management science research, where most of the series are faced with measurement errors, data irregularities, and structural shifts by mitigating the distorting effects of typical time series data. Hence, the RRA estimation technique offers a comprehensive and efficient means of examining dynamic interactions in datasets that may not fully conform to classical statistical assumptions.
The baseline econometric model is presented in Equation (3.1).

$$FDI_t = \beta_0 + \beta_1 REQ_t + \beta_2 IFR_t + \beta_3 EXR_t + \beta_4 GDPG_t + U_t \quad (3.1)$$

Where:
$FDI_t$ = FDI Inflows at time t
$\beta_0$ = Constant
$REQ_t$ = Regulatory Quality at time t
$\beta_1$= Coefficient of Regulatory Quality
$IFR_t$ = Inflation Rate at time t
$\beta_2$= Coefficient of Inflation Rate
$EXR_t$ = Exchange Rate at time t
$\beta_3$= Coefficient of Exchange Rate
$GDPG_t$ = Gross Domestic Product Growth Rate at time t
$\beta_4$= Coefficient of Gross Domestic Product Growth Rate
Ut = white-noise error term
From Equation (3.1) above, two models were developed. The models are stated thus:
Model 1: Nigeria Model

$$FDI - N_t = \beta_0 + \beta_1 REQ - N_t + \beta_2 IFR - N_t + \beta_3 EXR - N_t + \beta_4 GDPG - N_t + U_t \quad (3.2)$$

Note: S denotes Nigerian symbol
Model 2: South Africa Model

$$FDI - S_t = \beta_0 + \beta_1 REQ - S_t + \beta_2 IFR - S_t + \beta_3 EXR - S_t + \beta_4 GDPG - S_t + U_t \quad (3.3)$$

Note: N denotes South Africa Symbol

# 4. Results and Discussions

## 4.1. Trend analysis

This sub-section presents a comparative analysis between FDI Inflows in Nigeria (FDI-N) and South Africa (FDI-S) from 1996 to 2023; a comparative analysis of REQ in Nigeria (REQ-N) and South Africa (REQ-S) alongside exchange rate inflation rate and gross domestic product growth rate for Nigeria and South Africa from 1996 to 2023. These stylized facts are presented in Figures 1 to 5. Specifically, Figure 1 reports the comparative dynamics of FDI inflows in Nigeria (FDI-N) and South Africa (FDI-S) from 1996 to 2023. The analysis reports that Nigeria and South Africa are the most dominant countries in Africa. However, if they are compared, there is a clear divergence caused by global oil price shocks, domestic reforms, and macroeconomic stability as evidenced by the highest FDI inflows of 2.90 in 2009 during the booming oil prices and strong global demand and the downward negative FDI inflows trajectory of -0.039 in 2022

suggesting that the Nigeria's FDI inflows were not only driven by the over-reliance of oil-price but also driven by internal structural weaknesses. Conversely, South Africa reported a more resilient trajectory with a dramatic surge in 2001 (5.37) and 2021 (9.66). Such a remarkable period was mainly driven by multinational corporate reinvestments, mergers and acquisitions (M&As), and global portfolio diversification into South African assets. Similarly, the trend analysis clearly revealed that South Africa is more resilient in maintaining positive FDI inflows despite global downturns, whereas Nigeria's FDI (FDI-N) is prone to collapse during domestic instability.

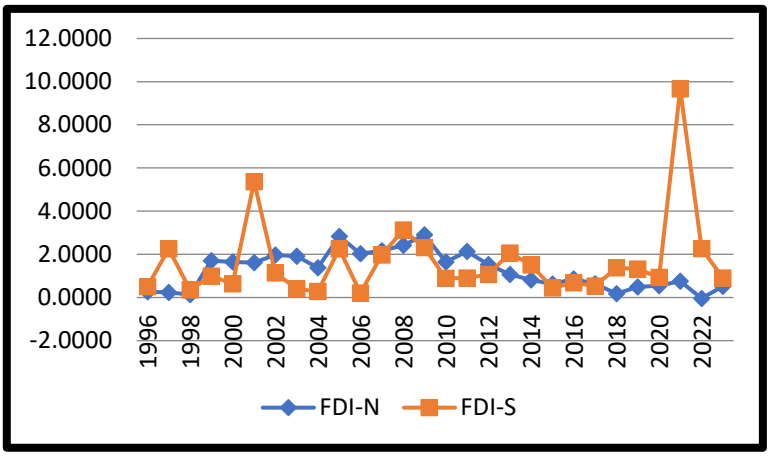


**Fig. 1:** Trend Analysis of FDI Inflows in Nigeria (FDI-N) and South Africa (FDI-S) from 1996 to 2023.

Figure 2 reports that the exchange rate movements in Nigeria (EXR-N) and South Africa (EXR-S) between 1996 and 2023 clearly highlight fundamental differences in both countries in that Nigeria experienced steep and often disorderly depreciation; South Africa's exchange rate movements (EXR-S) were relatively contained. The report further confirmed that, though the South African currency (rand) was influenced by global shocks, its depreciation was less extreme than that of Nigeria. Nevertheless, both countries were faced with policy inefficiencies, external shocks, and structural weaknesses in post-2015. However, South Africa was more resilient during the global economic meltdown than Nigeria, except in 2020.

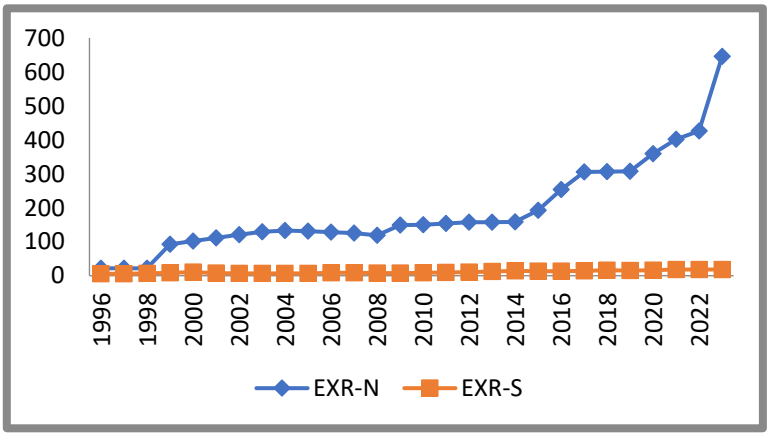


**Fig. 2:** Trend Analysis of EXR Inflows in Nigeria (EXR-N) and South Africa (EXR-S) from 1996 to 2023.

Figure 3 shows that both Nigeria and South Africa followed contrasting growth paths between 1996 and 2023. While Nigeria recorded a higher average GDP growth rate of 5.1%, it recorded greater volatility. South Africa, on the other hand, reported a lower average GDP growth rate of 2.3% with relative stability. This suggests that South Africa is constrained by deep-rooted structural weaknesses (regulatory policy overlaps). Nevertheless, both countries struggled to sustain momentum after 2014, with growth not exceeding 3% in the current years. Again, both countries were badly hit by the scourge of the COVID-19 pandemic in 2020.

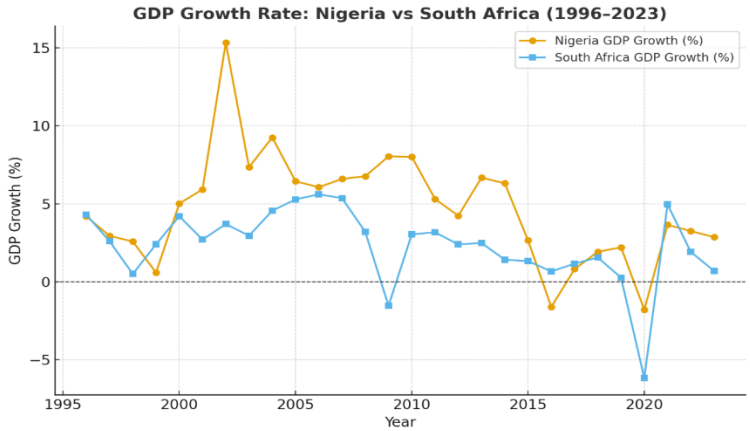


**Fig. 3:** Trend Analysis of GDP Growth Rate Inflows in Nigeria (GDPG-N) and South Africa (GDPG-S) from 1996 to 2023.

Figure 4 accounts for the inflation rate for both Nigeria and South Africa from 1996 to 2023. Accordingly, the analysis reported that the inflation rate dynamics of Nigeria and South Africa differ comparably between the reviewed periods. On average, Nigeria reported an inflation rate of 13.4%, with a persistent double-digit inflation profile and sharp volatility. Meanwhile, South Africa reported an average inflation rate value of 5.7% in tandem with the South African Reserve Bank's single-digit inflation-targeting policy. Similarly, Nigeria recorded an extremely high inflation rate of 29.3% in 1996 and renewed spikes of 18.9% in 2001, reported exchange rate pressures, supply shocks, and fiscal imbalances in 2016 and 2023, with inflation rate values of 15.7% and 24.7% in 2016 and 2023, respectively. This suggests that South Africa experienced some level of vulnerability in post-2020. Nevertheless, South Africa experienced a peak inflation rate of 9.9% in 2008 during the global financial crisis. The policy implication here is that both countries need to implement monetary tightening that does not excessively constrain economic recovery.

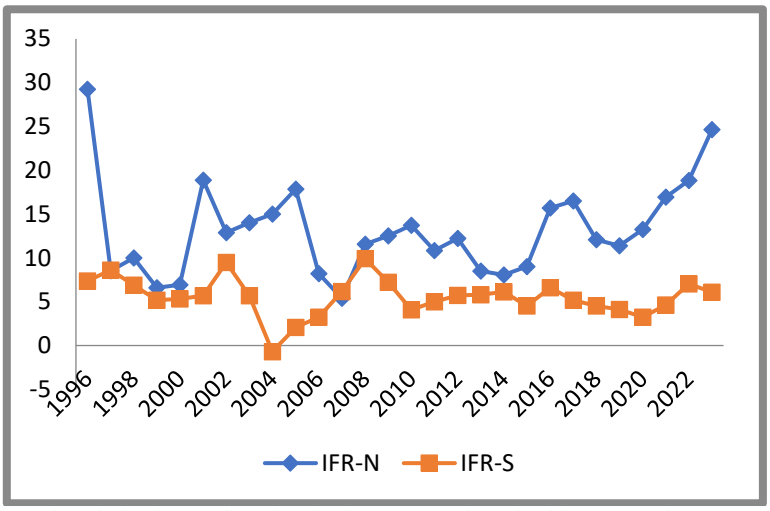


**Fig. 4:** Trend Analysis of IFR Inflows in Nigeria (IFR-N) and South Africa (IFR-S) from 1996 to 2023.

Figure 5 reported that Nigeria's REQ falls within 57% to 65% from 1996 to 2003. However, it fell to 51.4% in 2023, suggesting high policy inconsistency. However, South Africa reported average REQ above 70% in the early 2000s. However, it declined to 44.3% in 2023. The REQ gap recorded in both countries stresses the need for the governments of both countries to strengthen their regulatory agencies.

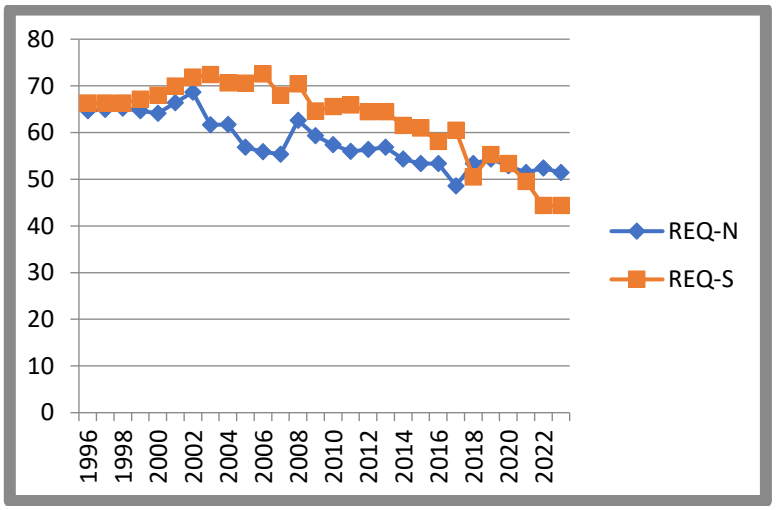


**Fig. 5:** Trend Analysis of FDI Inflows in Nigeria (FDI-N) and South Africa (FDI-S) from 1996 to 2023.

## 4.2. Summary statistics

The descriptive statistics accounted for the summary statistics for Model 1 (Nigeria) and Model 2 (South Africa). For FDI, Nigeria recorded average FDI inflows (of GDP) of 1.25% with relatively low variability (standard deviation of 0.85). Meanwhile, South Africa reported a higher average FDI inflow (of GDP) of 1.66% though it had substantial variability (standard deviation) of 1.91, with the highest values of 9.66%. This evidence that South Africa attracted larger volumes of FDI inflows than Nigeria. This further confirmed that South Africa is more exposed to variability in investor confidence than Nigeria.

In terms of economic growth (GDPG), Nigeria's GDP growth rate (GDPG-N) averaged 4.70% suggesting that South Africa reported a higher GDPG than Nigeria (2.31%). However, Nigeria's growth was more volatile, with values ranging between -1.79 and 15.33%. Meanwhile, the South's economy is comparatively more stable. The inflation profile (IFR) of both countries reported major differences. While Nigeria consistently reported double-digit inflation (IFR), averaging 13.20% and a highest IFR of 29.27%, South Africa reported a stable inflation averaging 5.5%. This analysis underscores that South Africa has the most efficient fiscal policy framework compared to Nigeria.

In terms of REQ, South Africa (REQ-S=62.99) outperformed Nigeria (REQ-N=57.99). Justifiably, South Africa's regulatory environment (REQ) reported higher variability; its stronger REQ framework remains a major factor in sustaining investor confidence. Meanwhile, the exchange rate dynamics further highlight fundamental differences between the two countries. Nigeria's exchange rate averaged

₦192.15/USD, but with extreme variability (standard deviation) of 139.40 with a minimum value of ₦21.88/USD and a highest value of ₦645/USD. However, South Africa recorded an average EXR of R10.83/USD with much lower variability (standard deviation of 4.26). This obvious difference underscores that Nigeria's currency loses value consistently compared to South Africa.

**Table 3:** Summary Statistics-Nigeria

| Statistic | FDI-N | GDPG-N | IFR-N | REQ-N | EXR-N |
|---|---|---|---|---|---|
| Mean | 1.2493 | 4.6969 | 13.1950 | 57.9958 | 192.1493 |
| Maximum | 2.9002 | 15.3292 | 29.2683 | 68.6487 | 645.1941 |
| Minimum | -0.0391 | -1.7943 | 5.3880 | 48.5714 | 21.8844 |
| Std. Dev. | 0.8515 | 3.5006 | 5.4150 | 5.4716 | 139.3976 |
| Jarque-Bera | 1.6060 | 4.4184 | 7.6992 | 1.8769 | 15.6270 |
| Probability | 0.4480 | 0.1098 | 0.0213 | 0.3912 | 0.0004 |
| Observations | 28 | 28 | 28 | 28 | 28 |

**Table 4:** Summary Statistics-South Africa

| Statistic | FDI-S | GDPG-S | IFR-S | REQ-S | EXR-S |
|---|---|---|---|---|---|
| Mean | 1.6556 | 2.3093 | 5.5277 | 62.9851 | 10.8307 |
| Maximum | 9.6603 | 5.6038 | 9.9100 | 72.5490 | 18.4502 |
| Minimum | 0.2051 | -6.1689 | -0.6920 | 44.3396 | 5.5283 |
| Std. Dev. | 1.9114 | 2.4076 | 2.1595 | 8.2174 | 4.2626 |
| Jarque-Bera | 145.0985 | 26.0341 | 2.9675 | 4.4384 | 2.8005 |
| Probability | 0.0000 | 0.0000 | 0.2268 | 0.1087 | 0.2465 |
| Observations | 28 | 28 | 28 | 28 | 28 |

Sequel to the outcome of summary statistics in Tables 3 and 4, the normality tests (Jarque-Bera statistics) were conducted. Model 1 reported an associated p-value of 0.0000, suggesting that Model 1 deviated from normality, while in the case of Model 2, South Africa reported a 0.70554, suggesting that Model 2 is normally distributed. To ensure that the model is fit for policy formulation, the Robust Regression estimation technique was adopted.

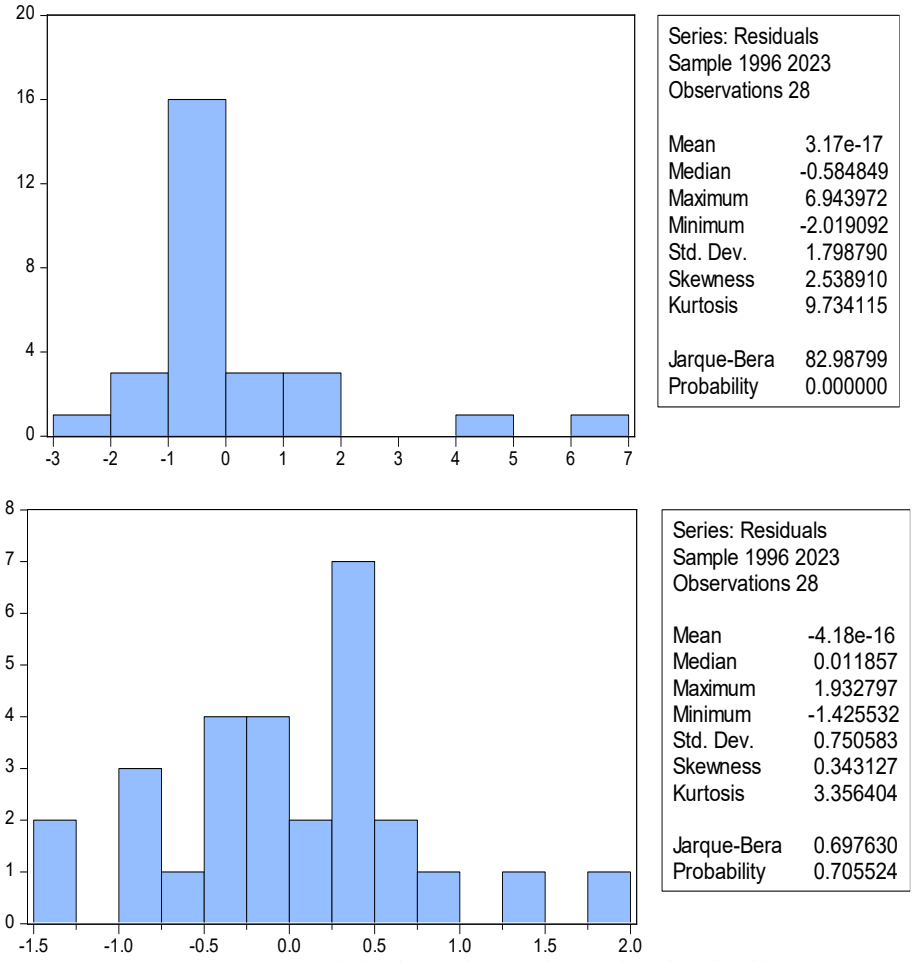


**Fig. 6:** Comparative Analysis of Normality Test for Nigeria and South Africa.

Since Model 1 confirmed that the model is not normally distributed, the Spearman Rank correlation analysis was considered the most appropriate analytical correlation tool. From Table 5, FDI inflows reported a positive moderate relationship with REQ (r= 0.684015) and GDPG (r=0.348072) but exerted a moderated adverse relationship with IFR (r=-0.512414) and EXR (r=-0.388048), respectively. However, none of the regressors reported a high correlation value, suggesting a low tendency for the presence of multicollinearity. To ascertain this, the model was further subjected to a multi-collinearity test. The estimate is presented in Table 7.

**Table 5:** Spearman Rank Correlation Analysis

| | FDI-N | REQ-N | IFR-N | EXR-N | GDPG-N |
|---|---|---|---|---|---|
| FDI-N | 1.000000 | | | | |
| REQ-N | 0.684015 | 1.000000 | | | |
| IFR-N | -0.512414 | -0.090497 | 1.000000 | | |
| EXR-N | -0.388048 | -0.038167 | 0.186120 | 1.000000 | |
| GDPG-N | 0.348072 | 0.274680 | -0.009384 | -0.167917 | 1.000000 |

Since Model 2 confirmed that the model is normally distributed, the Pearson correlation analysis was considered the most appropriate analytical correlation tool. From Table 6, FDI inflows reported a strong positive relationship with REQ (r= 0.729292) but had a moderate positive relationship with GDPG (r=0.405844). However, IFR (r=- 0.108452) and EXR (r=- 0.233209) exerted a positive weak correlation with FDI. Meanwhile, none of the regressors reported a high correlation value, suggesting a low tendency for the presence of multicollinearity. To ascertain this, the model was further subjected to a multi-collinearity test. The estimate is presented in Table 7.

**Table 6:** Pearson Correlation Analysis

| Variables | FDI-S | REQ-S | IFR-S | EXR-S | GDPG-S |
|---|---|---|---|---|---|
| FDI-S | 1.000000 | | | | |
| REQ-S | 0.729292 | 1.000000 | | | |
| IFR-S | 0.108452 | 0.022711 | 1.000000 | | |
| EXR-S | 0.233209 | -0.151727 | -0.142136 | 1.000000 | |
| GDPG-S | 0.405844 | 0.161874 | 0.124299 | -0.031451 | 1.000000 |

The multicollinearity test was conducted for both Nigeria and South Africa using the VIF and TOV. In the case of Model 1, Nigeria reported VIF values ranged from 1.1874 to 3.1154, with an overall average value of 2.0201, while the tolerance values (TOV-N) fell between 0.8421 and 0.3210, averaging 0.4950. Similarly, South Africa reported VIF values ranged from 1.1186 and 4.1130, with an average of 2.3842, and TOV varied between 0.2431 and 0.8940, with an average of 0.419. This validates that neither countries are faced with severe multicollinearity. As a result, the multicollinearity test confirmed that the estimated regressors can be interpreted without bias arising from high intercorrelation.

**Table 7:** Multicolinearity Tests

| Multicolinearity Tests | REQ-N | IFR-N | EXR-N | GDPG-N | Average |
|---|---|---|---|---|---|
| VIF-N | 2.4404 | 1.3372 | 3.1154 | 1.1874 | 2.0201 |
| TOV-N | 0.4098 | 0.7478 | 0.3210 | 0.8421 | 0.4950 |
| | REQ-S | IFR-S | EXR-S | GDPG-S | Average |
| VIF-S | 4.1130 | 1.1186 | 2.8168 | 1.4886 | 2.3842 |
| TOV-S | 0.2431 | 0.8940 | 0.3550 | 0.6718 | 0.4194 |

Note: VIF=Variance Inflation Factors; TOV=Tolerance Values.

## 4.4. Robust regression analysis

The robust regression estimation (RRE) technique was adopted as the most appropriate technique for this study in order to address the problem of outliers, which could potentially cause the OLS regression estimates to produce misleading and inaccurate outcomes. The results are presented herein in Table 10. The RRE for both Nigeria and South Africa provides interesting insights into the FDI-REQ dynamics of both countries. In terms of model fitness, both countries' models are statistically robust under the RLS approach, though South Africa reported higher explanatory power ($R^2$=0.6989 and adjusted $R^2$=0.6465) compared to Nigeria ($R^2$=0.5935 and adjusted $R^2$=0.5228). Again, the robust R-squared statistics further confirmed that both models are fit for policy formulations, though South Africa had a higher robust R-squared statistic.

Similarly, the constant (C) in both models is positive and significant (C-Nigeria=82.2417 and C-South Africa=82.2417). This is evidence that the South African economy is more efficient than the Nigerian economy. FDI inflows are negative and insignificant in both cases. In Nigeria, the coefficient is –0.9358, while in South Africa it is –0.1915. This suggests that FDI inflows do not directly contribute positively to the dependent variable in either country.

REQ emerged as a major driver of FDI inflows in both countries. Specifically, REQ has a positive and significant effect on FDI inflows in Nigeria (coef=0.1132 & p-value=0.0017). This implies that improvements in REQ directly improve FDI inflows. However, REQ directly improves FDI inflows in South Africa more (coefficient=0.6753). This evidence shows that regulatory reforms have a stronger pull effect on FDI compared to Nigeria. This difference reflects the fact that multinational investors tend to place greater value on South Africa's institutional stability and enforcement of business-friendly regulations.

EXR plays an important role, though with contrasting magnitudes. In Nigeria, the exchange rate has a significantly negative effect on FDI inflows (coefficient –0.0293, suggesting that currency depreciation hurts FDI inflows. In the case of South Africa, the exchange rate had a negative marginal effect on FDI inflows, suggesting that South Africa has deeper financial markets, which cushion the impact of the exchange rate on FDI inflows compared to Nigeria.

Further, FDI inflows had consistent influences on both countries' IFR, though it had a stronger influence on the Nigerian economy. In Nigeria, inflation has a significantly negative effect on FDI inflows (Nigeria: coefficient=–0.3113 & South Africa: coefficient= 0.3002. However, the results from both countries validate that a rise in the consumer price index (CPI) undermines the benefits of FDI inflows.

FDI inflows have a divergent effect on both countries' GDPG. For Nigeria, FDI inflows had a positive marginal effect (coefficient =0.0669 & -value = 0.0831), suggesting that the higher FDI inflows into the Nigerian economy have yet to translate to a huge developmental impact on the Nigerian economy. However, it had a positive yet considerable effect on the South African economy coefficient =0.1824 & -value = 0.0413), suggesting that the FDI inflows are a major factor that influences the South African economy. Overall, the inclusion of IFR, EXR, and GDPG into the model broadened the model's predictive capacity by addressing the complex interplay among macroeconomic stability, REQ, and FDI inflows.

**Table 8:** Robust Regression Estimate-Nigeria

Model 1:

| Dependent Variable: FDI-<br>Sample: 1996 2023 | | | Included observations: 28 | |
|---|---|---|---|---|
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| C | 1.4757 | 0.3747 | 6.5069 | 0.0000 |
| REQ-N | 0.1132 | 0.0323 | 3.5090 | 0.0017 |
| EXR-N | -0.0293 | 0.0063 | -4.6714 | 0.0000 |
| IFR-N | -0.3113 | 0.0323 | -2.6498 | 0.0140 |
| GDPG-N | 0.0669 | 0.2694 | 0.2483 | 0.0831 |
| R-squared= 0.593476; Adjusted R-squared= 0.522777 | | | | |
| Rw-squared=0.656285 & Adjust Rw-squared=0.656285 | | | | |
| Rn-squared statistic= 34.64422; Prob(Rn-squared stat.)= 0.000001 | | | | |

Model 2:

| Dependent Variable: FDI-S<br>Sample: 1996 2023 | | | Included observations: 28 | |
|---|---|---|---|---|
| Variable | Coefficient | Std. Error | z-Statistic | Prob. |
| C | 1.7047 | 0.2605 | 6.5448 | 0.0000 |
| REQ-S | 0.6753 | 0.0789 | 8.5541 | 0.0000 |
| EXR-S | -0.0396 | 0.0441 | -0.8984 | 0.3690 |
| IFR-S | 0.3002 | 0.0657 | 4.5685 | 0.0001 |
| GDPG-S | 0.1824 | 0.0850 | 2.1469 | 0.0413 |
| R-squared= 0.593476; Adjusted R-squared= 0.522777 | | | | |
| Rw-squared=0.656285 & Adjust Rw-squared=0.656285 | | | | |
| Rn-squared statistic= 34.64422; Prob(Rn-squared stat.)= 0.000001 | | | | |

## 5. Concluding Remarks

This comparative study evidenced that though REQ is a key FDI inflows driver in both countries, its effect is more evident in South Africa than in Nigeria. Similarly, GDPG plays a more meaningful role in enhancing FDI inflows in South Africa than in Nigeria. However, Nigeria is highly sensitive to inflationary pressures and exchange rate instability compared to South Africa. Consequently, the Nigerian government needs to prioritize stabilizing its macroeconomic environment over other policies. To achieve this, the Nigerian government should reduce inflationary pressures and manage its exchange rate volatility. There is also a need for the Nigerian government to strengthen the REQ and ensure policy consistency will further improve investor confidence. Meanwhile, the South African government needs to address its structural issues, which may deter the country from enjoying the developmental benefits of FDI inflows. Overall, government of both countries needs to adopt targeted reforms to improve absorptive capacity, infrastructure development, and efficient capital utilization will be imminent to enjoy the developmental benefits of FDI.

## Abbreviations

FDI = FDI inflows
REG = Regulatory Quality
GDPG =GDP Growth Rate
IFR=Inflation Rate
EXR=Exchange Rate
ARDL-ECM Autoregressive Distributed Lag–Error Correction Model

## References


[1] Agbogun, O.E. & Ehiedu, V.C. (2022). Trade policy drivers and economic performance of OPEC Member States. *International Journal of Academic Accounting, Finance & Management Research, 6*(8), 109-118

[2] Agbogun, O. E., Oshiobugie, O. B., & Oboro, O. G. (2024). Monetary Policy Dynamics and Nigeria's Global Competitiveness: The Missing Link. *Journal of Business Management and Economic Development*, *2*(02), 852–867. https://doi.org/10.59653/jbmed.v2i02.717.

[3] Akinwalere, S., & Chang, K. (2023). The Determinants of Foreign-Direct-Investment (FDI) Inflows in Nigeria. *The Journal of Developing Areas*, *57*(4), 91-105. https://doi.org/10.1353/jda.2023.a908648

[4] Alzarooni, L., Al-Shboul, M., & Maghyereh, A. (2025). The effect of regulatory quality on the nexus between foreign direct investment and bank stability in a dual banking system. *Cogent Business & Management*, *12*(1), 2532119. https://doi.org/10.1080/23311975.2025.2532119.

[5] Anetor, F. O., Esho, E., & Verhoef, G. (2020). The impact of foreign direct investment, foreign aid, and trade on poverty reduction: Evidence from Sub-Saharan African countries. *Cogent Economics & Finance*, *8*(1), 1737347. https://doi.org/10.1080/23322039.2020.1737347.

[6] Anetor, F.O. (2020). Foreign capital inflows, financial development and growth in Nigeria: a structural VAR approach. The Journal of Developing Areas 54(3), https://doi.org/10.1353/jda.2020.0025.

[7] Arbia, A., Sobhi, K., Karim, M., Chtioui, N. E., & Hoummad, R. (2025). Bayesian Model Averaging Approach of the Determinants of Foreign Direct Investment in Morocco. *International Journal of Economics and Financial Issues*, *15*(3), 139. https://doi.org/10.32479/ijefi.18612.

[8] Arthur, B., & Addai, B. (2022). The dynamic interactions of economic growth, foreign direct investment, and exchange rates in Ghana. *Cogent Economics & Finance*, *10*(1), 2148361. https://doi.org/10.1080/23322039.2022.2148361.

[9] Benedict, A., Tutu, K. B., & Salase, A. M. (2021). Does foreign direct investment generate long-term growth in Ghana. *Asian Journal of Economic Modelling*, *9*(3), 214-229. https://www.researchgate.net/profile/Benedict-Arthur/publication/354467920_Does_Foreign_Direct_Investment_Generate_Long-Term_Growth_in_Ghana/links/613b7638efc8617fadc2c6ea/Does-Foreign-Direct-Investment-Generate-Long-Term-Growth-in-Ghana.pdf. https://doi.org/10.18488/journal.8.2021.93.214.229.

[10] Brown, E. D., & Ibekwe, E. E. (2018). Effect of institutional factors on foreign direct investment in Nigeria. *The Economics and Finance Letters*, *5*(1), 12-27. https://doi.org/10.18488/journal.29.2018.51.12.27.

[11] Cantwell, J. (2015). An introduction to the Eclectic Paradigm as a meta-framework for the cross disciplinary analysis of international business", in The Eclectic Paradigm: A Framework for Synthesizing and Comparing Theories of International Business from Different Disciplines or Perspectives, Palgrave Macmillan, London, pp. 1-22. https://doi.org/10.1007/978-1-137-54471-1_1.
[12] Chaudhury, S., Nanda, N., & Tyagi, B. (2020). Impact of FDI on economic growth in South Asia: Does nature of FDI matters?. *Review of Market Integration*, *12*(1-2), 51-69. https://doi.org/10.1177/0974929220969679
[13] Dobrowolska, B., Dorożyński, T., & Kuna-Marszałek, A. (2023). The quality of governance and its impact on FDI inflows. A comparative study of EU member states. *Comparative Economic Research. Central and Eastern Europe*, *26*(3), 7-30. https://doi.org/10.18778/1508-2008.26.19
[14] Dunning, J.H. (1977). Trade, location of economic activity and the MNE: a search for an eclectic approach", in The International Allocation of Economic Activity, Palgrave Macmillan, London, pp. 395-418. https://doi.org/10.1007/978-1-349-03196-2_38.
[15] Dzenis, S. (2025). Public Choice Theory as an Explanatory Framework for PC. In *Political Correctness in Academia: A Public Choice Analysis* (pp. 77-127). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-85450-7_4.
[16] Erhijakpor, A. E. O., Moemeke, S. E., & Agbogun, O. E. (2024). Oversea investment inflows and trade policies in Sub-Saharan African countries. *International Journal of Multidisciplinary Approach Research and Science, 2*(3), 1016–1027. https://doi.org/10.59653/ijmars.v2i03.789.
[17] Fambo, H. (2024). Chinese investment and Africa's digital leap: A new era of economic growth. *Chinese Political Science Review*, 1-32. https://link.springer.com/article/10.1007/s41111-024-00271-1. https://doi.org/10.1007/s41111-024-00271-1.
[18] Gatare, R. (2024). *Foreign Direct Investment, Information Communication Technology and Economic Growth: A study in Sub-Saharan African countries* (Doctoral dissertation, Leeds Beckett University). 10.25448/lbu.28236014.v1.
[19] Hennart, J. F., & Verbeke, A. (2022). Actionable and enduring implications of Oliver Williamson's transaction cost theory. *Journal of International Business Studies*, *53*(8), 1557-1575. https://doi.org/10.1057/s41267-022-00558-y.
[20] Huang, Y., Chen, F., Wei, H., Xiang, J., Xu, Z., & Akram, R. (2022). The impacts of FDI inflows on carbon emissions: Economic development and regulatory quality as moderators. *Frontiers in Energy Research*, *9*, 820596. https://www.frontiersin.org/journals/energy-research/articles/10.3389/fenrg.2021.820596/full. https://doi.org/10.3389/fenrg.2021.820596
[21] Kaushal, L. A. (2021). Impact of institutional and regulatory quality on FDI inflow: case of a developing Indian economy. *Cogent Economics & Finance*, *9*(1), 1985201. https://doi.org/10.1080/23322039.2021.1985201.
[22] Lacusova, S., & Kromkova, J. (2025). Modelling Foreign Direct Investments to South Africa: NARDL Approach# 1. *International Journal of Economics and Financial Issues*, *15*(4), 334. https://doi.org/10.32479/ijefi.19301
[23] Le, D. K. (2025). Institutional Factors and FDI Inflows in ASEAN-7: A Bayesian Approach. *Journal of ASEAN Studies*, *13*(1), 55-86. https://doi.org/10.21512/jas.v13i1.12399.
[24] Nubong, G., & Ntuli, L. (2024). Institutions as a determinant of foreign direct investment inflows into the Southern African Development Community. *BRICS Journal of Economics*, *5*(3), 179-199. https://brics-econ.arphahub.com/article_preview.php?id=120855. https://doi.org/10.3897/brics-econ.5.e120855.
[25] Olaniyi, C. O. (2022). On the transmission mechanisms in the finance–growth nexus in Southern African countries: Does institution matter? *Economic Change and Restructuring*, *55*(1), 153-191. https://doi.org/10.1007/s10644-020-09313-5
[26] Ozekhome, H. O. (2022). Do regulatory quality, government effectiveness and rule of law matter to foreign direct investment in Nigeria. *Romanian Journal of Economic Forecasting*, *25*(1), 160-175. https://ipe.ro/rjef/rjef1_2022/rjef1_2022p160-175.pdf.
[27] Rahman, N., & Sharma, K. (2025). Does over-regulation and outward FDI deter global value chain participation in regional trade agreements? *International Economics and Economic Policy*, *22*(4), 51. https://doi.org/10.1007/s10368-025-00676-6.
[28] Rochayatun, S., Sudarmiatin, S., & Rosmiza, B. (2022). Mode of entry strategy on SMEs internationalization in East Java: A review of literature. *Asian Journal of Economics, Business and Accounting*, *22*(15), 20-32. https://doi.org/10.9734/ajeba/2022/v22i1530626
[29] Shittu, W. O., Musibau, H. O., & Jimoh, S. O. (2022). The complementary roles of human capital and institutional quality on natural resource-FDI—economic growth Nexus in the MENA region. *Environment, Development and Sustainability*, *24*(6), 7936-7957. https://doi.org/10.1007/s10668-021-01767-5.
[30] Topçu, G. (2024). Impact of legal and regulatory qualities on fdi inflow: a comparison of developed and developing countries. *Doğuş Üniversitesi Dergisi*, *25*(1), 219-239. https://doi.org/10.31671/doujournal.1301332.
[31] Unctad. (2005). World investment report 2005: Transnational corporations and the internationalization of R&D. *TRANSNATIONAL CORPORATIONS*, *14*(3), 101.https://unctad.org/system/files/official-document/wir2014_en.pdf (2014).
[32] Yeboah, S. (2023). Digging deeper: The impact of illegal mining on economic growth and development in Ghana. https://econpapers.repec.org/paper/pramprapa/117641.htm.
[33] Zeng, S., & Zhou, Y. (2021). Foreign direct investment's impact on China's economic growth, technological innovation and pollution. *International Journal of Environmental Research and Public Health*, *18*(6), 2839. 10.3390/ijerph18062839. https://doi.org/10.3390/ijerph18062839.

# Appendix A: Raw data

| YEAR | FDI-N | FDI-S | EXR-N | EXR-S | GDPG-N | GDG-S | IFR-N | IFR-S | REQ-N | REQ-S |
|---|---|---|---|---|---|---|---|---|---|---|
| 1996 | 0.2688 | 0.5001 | 21.8844 | 5.5283 | 4.1959 | 4.3000 | 29.26829 | 7.35412 | 64.67391 | 66.30434 |
| 1997 | 0.2338 | 2.2551 | 21.8861 | 6.1095 | 2.9371 | 2.6000 | 8.529874 | 8.597776 | 64.94565 | 66.30434 |
| 1998 | 0.1372 | 0.3597 | 21.8860 | 6.9398 | 2.5813 | 0.5000 | 9.996378 | 6.880545 | 65.21739 | 66.30434 |
| 1999 | 1.6991 | 0.9922 | 92.3381 | 8.6092 | 0.5841 | 2.4000 | 6.618373 | 5.181489 | 64.67391 | 67.11956 |
| 2000 | 1.6483 | 0.6384 | 101.6973 | 10.5407 | 5.0159 | 4.2000 | 6.933292 | 5.338959 | 64.13043 | 67.93478 |
| 2001 | 1.6186 | 5.3683 | 111.2313 | 7.5647 | 5.9177 | 2.7000 | 18.87365 | 5.701895 | 66.38954 | 69.91334 |
| 2002 | 1.9716 | 1.1464 | 120.5782 | 6.4597 | 15.3292 | 3.7004 | 12.87658 | 9.494714 | 68.64865 | 71.89189 |
| 2003 | 1.9146 | 0.3975 | 129.2224 | 6.3593 | 7.3472 | 2.9491 | 14.03178 | 5.679424 | 61.62162 | 72.43243 |
| 2004 | 1.3804 | 0.2742 | 132.8880 | 6.7715 | 9.2506 | 4.5546 | 14.99803 | -0.69204 | 61.69154 | 70.64677 |
| 2005 | 2.8363 | 2.2578 | 131.2743 | 7.0454 | 6.4385 | 5.2771 | 17.86349 | 2.062853 | 56.86274 | 70.58823 |
| 2006 | 2.0358 | 0.2051 | 128.6517 | 8.2612 | 6.0594 | 5.6038 | 8.225222 | 3.243908 | 55.88235 | 72.54902 |
| 2007 | 2.1692 | 1.9776 | 125.8081 | 8.4737 | 6.5911 | 5.3605 | 5.388008 | 6.177812 | 55.33981 | 67.96117 |
| 2008 | 2.4137 | 3.1269 | 118.5667 | 7.3212 | 6.7645 | 3.1910 | 11.58108 | 9.909985 | 62.62136 | 70.38835 |
| 2009 | 2.9002 | 2.3122 | 148.8800 | 7.2611 | 8.0369 | -1.5381 | 12.53783 | 7.238095 | 59.33014 | 64.5933 |
| 2010 | 1.6421 | 0.8849 | 150.2975 | 8.2100 | 8.0057 | 3.0397 | 13.74005 | 4.067496 | 57.41627 | 65.55024 |
| 2011 | 2.1331 | 0.9034 | 153.8625 | 9.6551 | 5.3079 | 3.1686 | 10.82614 | 5.000853 | 55.92417 | 65.87678 |
| 2012 | 1.5238 | 1.0649 | 157.5000 | 10.8527 | 4.2301 | 2.3962 | 12.22424 | 5.737971 | 56.39811 | 64.45498 |
| 2013 | 1.0695 | 2.0536 | 157.3117 | 12.7589 | 6.6713 | 2.4855 | 8.495518 | 5.780169 | 56.87204 | 64.45498 |
| 2014 | 0.8175 | 1.5193 | 158.5526 | 14.7096 | 6.3097 | 1.4138 | 8.047411 | 6.13283 | 54.32692 | 61.53846 |
| 2015 | 0.6215 | 0.4387 | 192.4403 | 13.3238 | 2.6527 | 1.3219 | 9.009435 | 4.518691 | 53.33333 | 60.95238 |
| 2016 | 0.8534 | 0.6846 | 253.4920 | 13.2339 | -1.6169 | 0.6646 | 15.69681 | 6.602908 | 53.33333 | 58.09524 |
| 2017 | 0.6422 | 0.5397 | 305.7901 | 14.4484 | 0.8059 | 1.1579 | 16.50227 | 5.186187 | 48.57143 | 60.47619 |
| 2018 | 0.1838 | 1.3743 | 306.0837 | 16.4591 | 1.9228 | 1.5568 | 12.09511 | 4.509873 | 53.33333 | 50.47619 |
| 2019 | 0.4858 | 1.3141 | 306.9210 | 14.7787 | 2.2084 | 0.2599 | 11.39642 | 4.102851 | 54.28571 | 55.23809 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2020 | 0.5519 | 0.9331 | 358.8108 | 16.3559 | -1.7943 | -6.1689 | 13.24602 | 3.232388 | 52.85714 | 53.33333 |
| 2021 | 0.7516 | 9.6603 | 401.1520 | 18.4502 | 3.6472 | 4.9550 | 16.95285 | 4.618745 | 51.42857 | 49.52381 |
| 2022 | -0.0391 | 2.2705 | 425.9792 | 18.3287 | 3.2517 | 1.9115 | 18.84719 | 7.039873 | 52.35849 | 44.33962 |
| 2023 | 0.5146 | 0.9042 | 645.1941 | 18.45024 | 2.8602 | 0.6985 | 24.65955 | 6.075244 | 51.41509 | 44.33962 |