THE INFLUENCE OF FOREIGN CAPITAL ON ECONOMIC GROWTH IN AFRICA

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Abstract

This study explores the influence of foreign capital on economic growth in Africa's ten largest economies from 1994 to 2023. Using the Feasible Generalized Least Squares (FGLS) estimation technique, the analysis assesses the influence of three key external financial sources: Foreign Direct Investment (FDI), Official Development Assistance (ODA), and Remittances on economic growth, measured by Gross Domestic Product per Capita (GDP per capita). The findings reveal that FDI significantly positively affects economic growth, underscoring its role in capital accumulation, technology transfer, and productivity enhancement. Conversely, ODA demonstrates a negative impact, suggesting inefficiencies in aid utilisation or potential dependency effects. On the other hand, remittances contribute positively to economic growth, highlighting their role in household income support and investment. These results provide crucial policy implications for African economies, emphasising the need to attract FDI, optimise aid effectiveness, and harness remittances to foster sustainable economic growth.

Keywords: *External Financial Inflows, Economic Growth, FDI, ODA, Remittances, Africa, FGLS Estimation*

1.0 INTRODUCTION

Africa has undergone significant economic transformations in recent decades. The ten largest economies are leading this economic evolution. These economies exhibit diverse industrial structures, ranging from resource-based to service-oriented and agricultural sectors. Despite these differences, one common factor influencing their economic growth is the inflow of external financial inflows. Foreign capital includes foreign direct investment (FDI), official development assistance (ODA), remittances, and portfolio investments (Younsi et al., 2021; Moloi, 2024). Historically, African economies have encountered significant challenges, leading to a reliance on external financing. This dependence arises from constraints such as limited domestic savings rates and inadequate capital formation within the countries. Foreign Direct Investment (FDI) has become a crucial driver of economic growth in the region. It not only injects essential capital into local markets but also facilitates the transfer of technology, which can enhance productivity and foster innovation. Additionally, FDI often brings managerial expertise that helps improve operational efficiencies and the overall business environment (Mairafi et al., 2024).

Furthermore, official development assistance (ODA) has been instrumental in supporting African nations, particularly those facing fiscal deficits and heavy debt burdens. ODA has been pivotal in funding critical social projects, including healthcare and education, and infrastructure developments such as roads, energy, and water supply systems. These investments are crucial for establishing the foundation for sustainable economic growth and enhancing the quality of life for millions across the continent. Remittances sent back home by the African diaspora significantly boost household income and help alleviate poverty in various communities. These financial transfers support daily living expenses—such as food, education, and healthcare—while empowering families to invest in small businesses and housing. Moreover, the consistent inflow of remittances contributes to the overall development of the financial sector, facilitating access to banking services and promoting financial inclusion. As a result, these funds strengthen local economies and encourage sustainable growth within the region risks (Driffield & Jones, 2013; Marwan et al., 2025).

While external financial inflows present opportunities for economic growth, they also carry inherent risks. Over-reliance on foreign capital can result in macroeconomic vulnerabilities, such as currency depreciation, inflationary pressures, and the accumulation of external debt. Countries that receive continuous aid may depend on it rather than developing self-sustaining economic policies. This dependency can diminish incentives to enhance domestic industries and tax systems. Furthermore, critics argue that households benefiting from remittances may become reliant on these funds, leading to decreased participation in productive economic activities, which can hinder local employment and entrepreneurship. Additionally, migration searching for better-paying jobs can deplete the skilled labour force, weakening the domestic economy and stalling growth in the home country. Therefore, it is crucial to understand the specific impacts of these financial inflows on Africa's leading economies to formulate informed economic policies that maximise benefits while mitigating risks (Moloi, 2024; Marwan et al., 2025).

The role of foreign capital in shaping the economic landscape of developing countries has been widely debated. African economies, particularly the largest ones, continue to attract significant financial inflows from FDI, REM, ODA, and portfolio investments. These inflows are critical catalysts for economic growth, infrastructure development, poverty reduction, and industrialisation. However, their impact on macroeconomic stability, exchange rate

fluctuations, inflationary trends, and long-term economic sustainability remains controversial (Younsi et al., 2021).

While existing literature explores the relationship between foreign capital and economic growth, the implications for Africa's largest economies remain underexplored. An empirical investigation is needed to assess whether external financial inflows contribute to sustainable economic growth, foster economic resilience, or exacerbate economic vulnerabilities. Previous studies conducted by Driffield and Jones (2013), Zardoub and Sboui (2018), Das and Sethi (2020), Moloi (2024), and Marwan et al. (2025) have yielded a range of findings concerning the influence of FDI, ODA, and REM on economic growth. These studies present mixed outcomes, with effects that vary from positive to negative and instances of statistically insignificant results. This study seeks to address these gaps by examining the impact of foreign capital on the economic performance of Africa's ten largest economies.

Studying foreign capital's influence on economic growth in Africa is crucial for several reasons. First, foreign inflows, which encompass foreign direct investment (FDI), remittances, and official development assistance, play a significant role in shaping the economic landscape of African nations. We can better understand how these financial resources contribute to national development, infrastructure improvement, and job creation by investigating their effects. Secondly, Africa is a continent rich in natural resources yet often experiences challenges such as poverty, unemployment, and unstable economic conditions. Understanding the dynamics between foreign inflows and economic growth can provide valuable insights into effective strategies for harnessing these resources for sustainable development.

Moreover, as global competition for investment intensifies, it is essential to analyse how well African countries attract and manage foreign inflows compared to their counterparts in other regions. This study can inform policymakers about the reforms and incentives required to create a more favourable investment climate. In addition, the impact of foreign inflows on economic growth can vary significantly across African countries due to diverse political, social, and economic contexts. A comprehensive study can highlight these disparities, shedding light on best practices that could be adopted by other nations within the continent.

2.0 LITERATURE REVIEW

The Solow-Swan Model underpins this study

2.1 The Solow-Swan Model

The Solow-Swan Model is a foundational framework in economic theory that addresses the factors contributing to long-term economic growth. This neoclassical growth model emphasises three main components: capital accumulation, labour force growth, and technological advancement. The model is expressed as:

$$Y=AK^{\alpha}L^{1-\alpha}$$

Where:

- Y represents output (GDP),
- A is technological progress,

- K is capital stock,
- L is labour and
- α ($0 < \alpha < 1$) represents the capital share of output.

The model posits that economic growth is primarily driven by savings and investment, which facilitate capital accumulation and technological advancements. Furthermore, foreign capital, including FDI, REM, and ODA contribute to the capital stock and indirectly enhance productivity growth. Consequently, these factors significantly impact steady-state output.

The Solow-Swan model provides a robust framework for analysing the impact of FDI, REM, and ODA on economic growth in Africa's largest economies. While each inflow contributes to capital accumulation, its effectiveness depends on policy frameworks, governance, and institutional quality. By implementing sound economic policies, African nations can harness these financial inflows to drive sustainable economic growth.

2.2 EMPIRICAL REVIEW

Driffield and Jones (2013) explored the effect of foreign capital inflows on economic growth for a comprehensive sample of emerging nations between 1984 and 2007. The study employed the Three-Stage Least Squares (3SLS) estimation technique to assess the impact of FDI, REM, and ODA GDP. The study results indicate that FDI and REM significantly positively influence economic growth. On the other hand, they found that ODA significantly negatively impacts economic growth.

Zardoub and Sboui (2018) empirically investigated the effect of FDI, ODA, and REM on Nigeria's economic growth. Their study utilised annual time series data from 1984 to 2014. They employed the Autoregressive Distributed Lag (ARDL) model alongside the Error Correction Mechanism (ECM) technique to analyse the relationship between these macroeconomic variables and economic growth. The study identified Gross Domestic Product (GDP) as the dependent variable, while FDI, ODA, and REM were used as independent variables. The estimation results revealed that FDI and ODA significantly positively impacted Nigeria's economic growth. Conversely, remittances (REM) significantly negatively affected economic growth.

Das and Sethi (2020) investigated the effect of FDI, ODA, and REM on India and Sri Lanka's economic growth between 1980 and 2016. The authors employ advanced econometric techniques, including the Granger causality test, the Vector Error Correction Model (VECM), and vector decomposition analysis, to explore the dynamic relationships between these variables. Their findings suggest that FDI, REM, and ODA have an insignificant effect on Sri Lanka and India's economic growth.

Moloi (2024) investigates the effect of foreign capital inflows on economic growth in 30 African nations from 1980 to 2018. The study employs a threshold analysis test to assess the impact of two key foreign capital inflow components—FDI and ODA—on economic growth, measured by GDP per capita. The results indicate that FDI significantly positively affects GDP per capita. However, ODA exhibits a significant negative effect on economic growth.

Marwan et al. (2025) examined the influence of foreign capital inflows on economic growth in India from 1975 to 2022. The study employed the Autoregressive Distributed Lag (ARDL)

model and Forecast Error Variance Decomposition (FEVD) to analyse data. Gross Domestic Product (GDP) per capita was used as the dependent variable, while the independent variables included FDI, ODA, and REM. The findings showed that FDI and REM significantly negatively affected GDP per capita. Conversely, ODA exhibited a significant positive effect on economic growth.

3.0 METHODOLOGY

3.1 Sample Size and Sources of Data

The sample comprises Africa's ten largest economies: Nigeria, Egypt, Morocco, Ethiopia, Algeria, Côte d'Ivoire, South Africa, Kenya, Tanzania, and Angola. The dataset includes annual observations from 1994 to 2023 from the World Bank's World Development Indicators.

3.2 Model Specifications

$GDP_{it} = \Phi_0 + \Phi_1 LFDIit + \Phi_2 LODA_{it} + \Phi_3 LREM_{it} + \mu_{it}$

Where:

GDPC = Gross Domestic Product per Capital (current US$)

FDI = Foreign Direct Investment (current US$)

ODA = Official Development Assistance (current US$)

REM = Remittance (current US$)

μt = error term

4.0 DATA ANALYSIS AND RESULTS

4.1 Descriptive Statistics

Table 4.1 displays the descriptive statistics

Table 4.1: Descriptive statistics

Stats	GDP (current US$)	FDI (current US$)	ODA (current US$)	REM (current US$)
Mean	121,000,000,000	1,870,000,000	1,380,000,000	3,540,000,000
Min.	4,440,000,000	-7,400,000,000	20920000	0.0000
Max.	574,000,000,000	40,700,000,000	11,400,000,000	31,500,000,000
Std. Dev.	127,000,000,000	3,590,000,000	1,390,000,000	6,570,000,000
Skewness	1.4714	4.8757	2.4920	2.3513
Kurtosis	4.2587	51.2696	13.9021	7.5752
Obs. (N)	290	279	290	279

Source: Authors' Computation (2025)

GDP: The average GDP of the ten largest African economies is 121 billion USD. Among these, the smallest economy has a GDP of 4.44 billion USD, whereas the largest reaches 574 billion USD. This significant difference illustrates the vast disparity in economic size within this group. A standard deviation of 127 billion USD indicates a high level of dispersion in GDP values, suggesting considerable variation from the mean. The skewness of 1.47 implies that a few economies, such as Nigeria, South Africa, and Egypt, pull the average upward. Furthermore, a kurtosis value of 4.2587, above 3, signifies a leptokurtic distribution.

FDI: These economies received an average of approximately $1.87 billion in foreign direct investment (FDI). The negative value reveals that at least one country experienced a net FDI

outflow of $7.4 billion. The highest recorded FDI inflow was $40.7 billion, underscoring significant variations among different countries. A relatively high standard deviation of $3.59 billion suggests considerable variability in FDI inflows across nations. The notable positive skewness of 4.8757 indicates a long right tail, implying that most FDI values are relatively small, while a few exceptionally high inflows elevate the average. Furthermore, the highly high kurtosis of 51.2696 suggests the presence of numerous outliers or extreme FDI values, reflecting an uneven distribution characterised by sharp peaks.

ODA: The average official development assistance (ODA) these economies receive is approximately $1.38 billion. The lowest recorded ODA is $20.92 million, indicating that certain countries receive minimal assistance. In contrast, the highest ODA received is $11.4 billion, demonstrating that some economies attract significantly more aid. With a standard deviation of $1.39 billion, there is substantial variation in ODA amounts across these nations. This suggests notable discrepancies in aid distribution, where some countries benefit from considerably more support than others. The positive skewness of 2.4920 reveals that the ODA distribution is markedly right-skewed, indicating that many countries receive disproportionately large sums of aid while the majority receive relatively lower amounts. The high kurtosis value of 13.9021 also indicates a leptokurtic distribution, suggesting that the ODA data includes extreme values or outliers. This further reinforces the notion that a select few economies are receiving exceptionally high aid levels compared to the rest.

REM: The average remittance inflow stands at $3.54 billion, highlighting that these economies receive a considerable amount of remittances on average. The minimum value is $0, suggesting that at least one country in the dataset experienced no measurable remittance inflows at some point. Conversely, the maximum value reaches $31.5 billion, revealing a significant disparity among these economies. Countries such as Nigeria, which has long been known to receive the highest remittance inflows in Africa, likely contribute to this impressive figure. A standard deviation of $6.57 billion is considerably large in relation to the mean, indicating substantial variation in remittance inflows across these countries. This suggests that while some nations benefit from high remittance levels, others receive little. Additionally, a skewness of 2.3513 indicates a pronounced right (positive) skew, meaning that most countries experience relatively low remittance inflows while a few receive markedly higher amounts. The kurtosis value of 7.5752, significantly above 3, points to a leptokurtic distribution with heavy tails, suggesting that extreme values—either very high or very low remittance figures—may reflect a highly uneven distribution of remittances across these economies.

4.2 Test for Multicollinearity

Tables 4.2 and 4.3 display the results of the correlation matrix and the Variance Inflation Factor (VIF) test.

Table 4.2: Correlation Analysis

	LFDI	LODA	LREM
LFDI	**1.0000**		
LODA	**0.2996**	**1.0000**	
LREM	**0.2940**	**0.2669**	**1.0000**

Source: Authors' Computation (2025)

Table 4.3 Variance Inflation Factor

Variable	VIF
LFD	**1.1600**
LODA	**1.1400**
LREM	**1.1400**
Mean VIF	**1.1500**

Source: Authors' Computation (2025)

FDI and ODA (0.2996)—A weak positive correlation exists between foreign direct investment (FDI) and Official Development Assistance (ODA), suggesting that while an increase in ODA may be associated with a rise in FDI, the relationship is not particularly strong. ODA and Remittances (0.2669)—This is the weakest correlation among the three pairs, suggesting that these financial flows tend to operate largely independently within African economies. In this analysis, the Variance Inflation Factor (VIF) values for all variables are well below the critical threshold of 10, with the highest value being 1.1600 for LFD. These findings indicate that the independent variables do not show significant multicollinearity, which ensures the reliability of the regression analysis.

4.2 Empirical Results

4.2.1 Pre-Estimation Checks

Table 4.4 Pre-Estimation Checks Results

Variables	Pesaran CD Test	Im-Pesaran-Shin Test		Westerlund Test
		Level	1st Diff.	
LGDP	33.1200***		-7.8484***	-1.8940**
LFDI	17.4950***	-4.1827***		
LODA	7.0650***	-3.5251***		
LREM	19.0190***	-3.4852***		

Source: **Authors' Computation, 2025**
Statistical significance levels: 0.10*, 0.05 **, and 0.01 ***

The Pesaran Cross-sectional Dependence (CD) test results indicate strong statistical significance at the 1% level for all variables, suggesting the presence of significant cross-sectional dependence. This implies that one country's economic shocks, policies, and trends influence other economies within the sample, given the economic interconnectivity of African nations. The Im-Pesaran-Shin (IPS) panel unit root test results indicate that the natural logarithm of GDP (LGDP) is non-stationary at the level but becomes stationary after first differencing. In contrast, the natural logarithms of LFD), LODA, and LREM are stationary at the level. The Westerlund (2007) co-integration test results investigate a long-run relationship among the panel variables. The test statistic of -1.8940 is statistically significant at the 5% level. These results confirm the presence of a stable long-term relationship, thereby supporting the validity of subsequent long-run estimations in this study.

Table 4.5: Empirical results

Variable	Coefficient	Prob.
C	**19.8096*** **	**0.0000**
LFDI	**0.1972*** **	**0.0000**
LODA	**-0.2200*** **	**0.0000**
LREM	**0.2843**	**0.0000**
Wald-statistic	**343.2500*** **	**0.0000**

Source: **Authors' Computation, 2025**
Statistical significance levels at 0.10*, 0.05 **, and 0.01 ***

Table 4.5 presents the results of the Feasible Generalised Least Squares (FGLS) estimation. The Wald-statistic value of 343.2500 ($p < 0.01$) confirms the overall significance of the model, suggesting that the explanatory variables jointly have a significant effect on the dependent variable.

Foreign Direct Investment (LFDI): The coefficient of 0.1972 ($p < 0.01$) indicates that an increase in FDI significantly positively impacts the dependent variable. This result aligns with economic growth theories emphasising the importance of FDI in enhancing productivity and capital accumulation in African economies. The results agree with Younsi et al.'s (2021) and Moloi (2024) findings. However, the results contradict the conclusions of Benmamoun and Lehnert (2013) and Das and Sethi (2020), who found that FDI does not affect economic growth.

Official Development Assistance (LODA): The coefficient of -0.2200 ($p < 0.01$) suggests ODA statistically negatively influences the dependent variable. This finding implies that excessive reliance on foreign aid may not lead to economic growth and could be linked to inefficiencies or dependency issues within the recipient economies. These results align with Driffield and Jones's (2013) and Moloi's (2024) studies. Nonetheless, they contradict the conclusions of Younsi et al. (2021) and Marwan et al. (2025), who found that ODA significantly positively affects economic growth.

Remittances (LREM): The coefficient of 0.2843, though significant at the 1% level, indicates a positive effect of remittances on the dependent variable. This underscores the role of diaspora remittances in fostering economic activities and household welfare in African countries. The findings of this study align with those of Driffield and Jones (2013) and Benli et al. (2022). However, they contradict Javaid's (2017) and Das and Sethi's (2020) conclusions, which reported that REM has no significant effect on economic growth.

5.0 CONCLUSION AND RECOMMENDATIONS

This paper explores the influence of foreign capital on economic growth in Africa's ten largest economies from 1994 to 2023 using the FGLS estimation technique. The results reveal that FDI significantly impacts economic growth, indicating that increased FDI inflows contribute to higher Gross Domestic Product (GDP) per capita. Conversely, ODA has a negative effect, suggesting that reliance on aid may not be conducive to sustainable economic growth. Additionally, REM positively affects GDP per capita, highlighting its role in supporting household consumption, investment, and economic stability.

The findings underscore the importance of attracting foreign investment while reconsidering the efficiency of development aid. The positive impact of remittances suggests that policies facilitating diaspora engagement and financial inclusion can further bolster economic growth. The empirical findings provide important insights for policymakers in African economies:

- **Enhancing FDI:** Governments should implement policies that attract and retain foreign direct investment by improving the business environment, ensuring macroeconomic stability, and investing in infrastructure.
- **Rethinking ODA Utilisation:** Policymakers should reassess the effectiveness of foreign aid, emphasising its optimal allocation toward productive sectors rather than fostering aid dependency.
- **Leveraging Remittances:** Governments should develop policies that channel remittances into productive investments, such as financial inclusion programs and small business development.

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