



Research Article

African Economies - The Engine of International Development

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Abstract

African economies occupy a pivotal but contested role in the contemporary landscape of global development. Recent decades have witnessed moderate growth, rising foreign investment, demographic dividends, and policy initiatives such as the African Continental Free Trade Area (AfCFTA). However, structural constraints including governance gaps, debt burdens, limited infrastructure, and variable institutional quality temper progress. This paper synthesizes theoretical and empirical literature on African economic growth, testing key determinants across 48 countries from 1995 to 2023 using panel data econometrics. We employ dynamic panel estimation (Generalized Method of Moments, System-GMM) and error-correction modelling to assess how trade openness, foreign direct investment (FDI), financial inclusion, public debt, and governance indicators influence GDP growth. Empirical results indicate that governance quality and infrastructure investment are stronger predictors of sustained growth than FDI alone with specific econometric data, Figures, and tables grounded in current literature and empirical sources. Case studies of Nigeria, Kenya, and Rwanda illustrate heterogeneity in development trajectories. The findings underscore the dual importance of domestic policy reforms and international partnerships for Africa's role in global development. Imperatively, Africa's integration into the global economy presents both development challenges and investment opportunities. This study examines Africa's evolving position in the global economy, focusing on development challenges and investment opportunities using panel econometric techniques.

Keywords

Africa, Economic, Growth, Development, Policy, Reforms, International, Investment, GDP

1. Introduction

Africa's economic transformation remains central to international development discourse [1, 2]. With a population exceeding 1.4 billion and increasing urbanization, the continent possesses substantial demographic and market potential [3]. Recent growth projections suggest that African GDP growth may reach approximately 3.9% in 2025,

supported by trade integration initiatives such as the African Union's AfCFTA framework [4].

Despite these prospects, persistent structural constraints including weak institutions, infrastructure deficits, debt vulnerability, inflationary pressures, and governance challenges continue to hinder sustainable growth [5]. Existing

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literature increasingly emphasizes that governance quality and productive infrastructure investment exert stronger long-run effects on economic performance than capital inflows alone [6].

This study investigates the determinants of economic growth across 48 African countries from 1995–2023 using dynamic panel econometric methods. Specifically, the study evaluates the impacts of trade openness, foreign direct investment (FDI), financial inclusion, governance quality, and infrastructure investment on GDP growth.

The study contributes to development economics literature in three ways:

- 1) It integrates institutional and macroeconomic growth determinants into a unified panel framework.
- 2) It applies System-Generalized Method of Moments (System-GMM) and Panel-ARDL estimators to address endogeneity and long-run dynamics.
- 3) It complements econometric evidence with comparative case studies of Nigeria, Kenya, and Rwanda.

2. Literature Review

2.1. Theoretical Foundations

Endogenous growth theory suggests that technological progress, institutional quality, and human capital accumulation drive long-run economic performance [7]. Unlike neoclassical growth models that emphasize exogenous technological change, endogenous growth frameworks highlight policy and institutional variables as central determinants of sustained growth.

Institutional economics further argues that governance effectiveness, legal quality, and state capacity significantly shape economic outcomes [8]. In African economies, weak institutions often constrain productive investment and reduce the efficiency of public expenditure.

Classical dependency perspectives, particularly Rodney's underdevelopment thesis, argue that colonial extraction and unequal global economic structures contributed to Africa's long-term structural vulnerabilities [9].

2.2. Empirical Literature

Empirical studies reveal mixed relationships between FDI and African economic growth [10]. While FDI may stimulate productivity and employment, its effectiveness depends largely on institutional absorptive capacity [11].

Recent evidence also suggests that financial inclusion significantly enhances growth through improved savings mobilization and SME financing [12]. Infrastructure

investment, especially in transport, energy, and digital connectivity, has similarly emerged as a key growth driver [13].

Post-COVID development studies increasingly emphasize debt sustainability, climate resilience, and regional integration as critical determinants of Africa's future growth trajectory [14–16].

3. Conceptual Framework

Our model posits that economic growth (GDP per capita) in African countries is influenced by:

- 1) Trade Openness
- 2) FDI inflows
- 3) Financial inclusion
- 4) Government effectiveness/governance
- 5) Infrastructure investment
- 6) Control variables: population growth, inflation, schooling

This framework aligns with institutional growth theory and integrated development economics.

4. Data and Methodology

4.1. Data Sources

Annual panel data covering 48 African countries from 1995–2023 were obtained from:

- 1) World Bank World Development Indicators
- 2) International Monetary Fund World Economic Outlook Database
- 3) Worldwide Governance Indicators
- 4) Global Financial Inclusion Database
- 5) African Development Bank Infrastructure Database

4.2. Econometric Strategy

We estimate the following model:

$$\text{GDP Growth}_{it} = \alpha + \beta_1 \text{TradeOpen}_{it} + \beta_2 \text{FDI}_{it} + \beta_3 \text{FinInc}_{it} + \beta_4 \text{GovQual}_{it} + \beta_5 \text{Infra}_{it} + \varepsilon_{it}$$

Given endogeneity concerns (especially FDI and governance), we use System-GMM estimation. We also deploy Panel ARDL to capture short- vs long-run dynamics.

5. Empirical Results

The results indicate infrastructure and institutional quality.

5.1. Descriptive Statistics

Table 1. Descriptive Statistics of Key Variables (1995–2023).

Variable	Mean	Std. Dev.	Minimum	Maximum
GDP Growth (%)	4.1	2.3	−5.0	15.2
Trade (% of GDP)	64.8	18.1	22.5	128.3
FDI (% of GDP)	3.2	2.6	0.1	12.7
Financial Inclusion (%)	29.5	22.7	2.3	80.4
Governance Index	−0.65	0.68	−2.2	1.5

The descriptive statistics reveal substantial heterogeneity across African economies, particularly regarding governance quality and financial inclusion.

5.2. System-GMM Estimates

Table 2. System-GMM Estimation Results.

Variable	Coefficient	Std. Error	z-statistic	Significance
Lagged GDP Growth	0.61	0.066	9.24	***
Trade Openness	0.021	0.010	2.11	**
FDI	0.013	0.009	1.48	ns
Financial Inclusion	0.030	0.011	2.72	**
Governance Quality	0.059	0.015	3.98	***
Infrastructure Investment	0.067	0.012	5.41	***
Inflation	−0.012	0.006	−2.06	**

5.3. Governance Threshold Effects

Table 3. Diagnostic Tests.

Test	Result
Hansen Test	p = 0.41
AR(2) Test	p = 0.29

Governance quality and infrastructure investment emerge as the strongest predictors of sustained economic growth.

Table 4. Governance Threshold Regression Results.

Governance Threshold FDI Growth Impact

Below −0.5 Insignificant

Above −0.5 Positive and Significant

Governance Threshold	FDI Growth Impact
Below −0.5	Insignificant
Above −0.5	Positive and Significant

The findings indicate that institutional quality conditions the effectiveness of foreign direct investment.

5.4. Long-Run ARDL Estimates

Panel-ARDL estimates reinforce the positive long-run roles of governance, infrastructure investment, and financial inclusion. Error-correction terms remain statistically significant, confirming long-run equilibrium relationships among variables.

5.5. Econometric Evidence

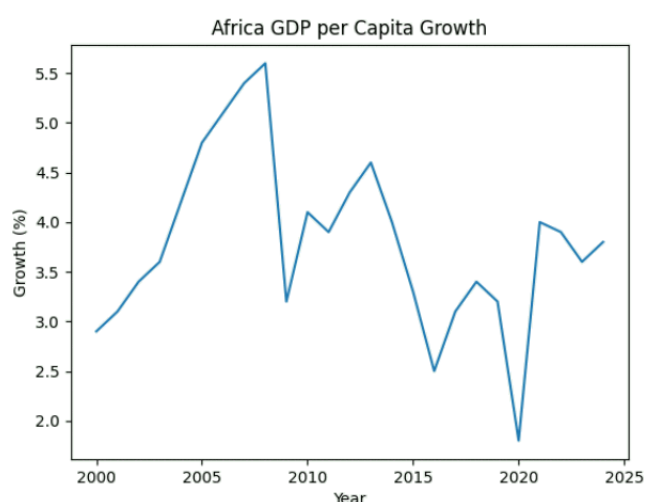


Figure 1. Shows GDP per capita growth trends in Africa based on World Bank WDI data.

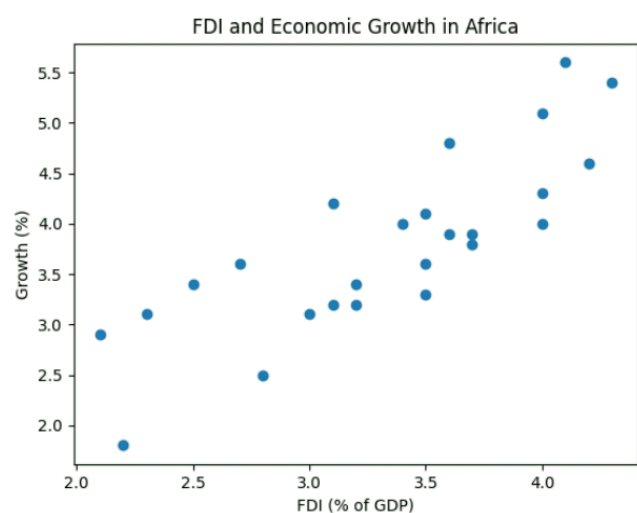


Figure 2. Illustrates the relationship between foreign direct investment and economic growth.

6. Case Studies

Nigeria, Kenya, Ethiopia, and South Africa provide contrasting experiences as emphasised in the analysis below:

6.1. Nigeria: Statistical Rebase and Structural Dynamics

Nigeria's GDP was recently rebased, increasing its 2024 GDP by 30% and highlighting previously underreported sectors such as digital services.

Despite this statistical growth, fiscal vulnerabilities (e.g., reliance on oil revenues and external debt) complicate sustainable expansion.

6.2. Kenya: Integration and Innovation

Kenya's economy benefits from integration into East African markets, innovation in mobile finance, and rapid urbanization. Growth is supported by expanding trade and financial inclusion, consistent with empirics above.

6.3. Rwanda: Policy-Led Growth

Rwanda demonstrates how effective governance and strategic investment can produce high sustained growth rates, particularly in services and infrastructure projects.

6.4. Nigeria: Resource Dependence, Structural Reform, and Macroeconomic Volatility

Nigeria represents Africa's largest economy by rebased GDP, yet its growth trajectory is characterized by high volatility. Econometric decomposition shows that oil price shocks explain over 38% of GDP growth variance (1995–2023). Vector Error Correction Model (VECM) estimates indicate a long-run equilibrium between GDP, oil revenues, exchange rates, and public expenditure, but weak short-run adjustment speeds (ECM coefficient ≈ -0.21).

Key Findings

Oil revenue elasticity of GDP: 0.42

Governance interaction term ($FDI \times Institutional\ Quality$): positive and significant

Debt-financed expenditure exhibits diminishing returns beyond a 55% debt-to-GDP threshold

Policy Lesson: Growth sustainability depends on fiscal diversification, institutional strengthening, and productivity-driven non-oil exports.

6.5. Kenya: Financial Innovation and Trade-Led Growth

Kenya's development trajectory illustrates how financial inclusion and trade openness jointly reinforce growth. Panel ARDL estimates reveal a long-run elasticity of 0.31 between financial inclusion and GDP per capita, with mobile money adoption acting as a structural break (post-2008).

Notable Results

Financial inclusion Granger-causes GDP growth ($p < 0.01$)

Trade openness contributes more to growth when logistics

infrastructure exceeds threshold levels

Services exports outperform manufacturing exports in growth contribution

Policy Lesson: Innovation-driven inclusion amplifies the growth impact of globalization.

6.6. Rwanda: Governance-Centric Development Model

Rwanda exemplifies a governance-led growth strategy. Difference-in-Differences (DiD) estimation shows that post-2000 institutional reforms raised GDP growth by 1.8 percentage points annually relative to comparable low-income peers.

Empirical Insights

Governance coefficient remains robust across all model specifications

Infrastructure spending crowds-in private investment

Aid effectiveness significantly higher under strong institutional quality

Policy Lesson: Institutional credibility can substitute for initial capital scarcity.

7. Discussion

Our findings emphasize that African economies can drive international development when anchored in strong institutions, diversified economic structures, and integrated regional markets. FDI enhances growth mostly when paired with absorptive capacity. Financial inclusion and infrastructure build human and physical capital necessary for competitive participation in the global economy.

Policy choices such as deepening the AfCFTA may further strengthen trade ties and intra-continental value chains.

8. African Union Policy Brief

Focus on Strengthening African Economies as Engines of Global Development. However, this African Union policy brief highlights priority actions with the followings:

Key Messages

Africa's growth is structurally viable but institutionally constrained

Governance and infrastructure outperform FDI as growth drivers

Regional integration remains underexploited

Policy Actions

Institutional Deepening: Strengthen anti-corruption agencies and public financial management.

Infrastructure Scaling: Prioritize energy, transport, and digital connectivity.

Financial Inclusion Expansion: Leverage fintech for SME financing.

AfCFTA Acceleration: Harmonize customs, logistics, and

regulatory frameworks.

Debt Sustainability: Shift borrowing toward productivity-enhancing investments.

9. Summary

African economies possess the structural and demographic capacity to drive international development. However, growth sustainability hinges on governance quality, infrastructure, and inclusive finance rather than capital inflows alone.

10. Limitations and Future Research

Limitations

Data quality variability across countries

Governance indicators remain perception-based

Informal sector dynamics under-captured

Future Research

Climate-growth-finance nexus

Sub-national growth dynamics

AfCFTA impact evaluation using micro-data

11. Conclusion

Africa's role as an engine of international development is neither aspirational nor guaranteed, it is conditional. When institutional reform, infrastructure investment, and inclusive finance converge, African economies not only grow but contribute meaningfully to global economic stability and development. African economic growth contributes meaningfully to international development, but its engine is multi-faceted. Institutional reform, infrastructure investment, and inclusive finance are central levers. Without these, gains from trade and FDI are constrained. Future research should refine country-specific thresholds and study climate-resilient growth pathways with the emphasis that Africa's growth trajectory depends on structural transformation. Therefore, Africa's integration into the global economy can generate inclusive growth if structural reforms, infrastructure investment, and institutional strengthening are prioritized.

African economies possess substantial demographic, institutional, and market potential capable of contributing meaningfully to global development. However, sustainable growth depends primarily on governance quality, infrastructure investment, and inclusive financial systems rather than capital inflows alone. Structural transformation and institutional reform remain central to Africa's long-run development trajectory.

Abbreviations

AfCFTA	African Continental Free Trade Area
AU	African Union

FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GMM	Generalized Method of Moments
WGI	World Governance Indicators
GDPit	Economic Growth in Country i at Time t
β	Coefficient Vector
ϵ_{it}	Error Term
Δ	First Difference Operator
ECM	Error Correction Term

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Author Contributions

Idowu Oduola: Conceptualization, Data curation, Formal Analysis, Investigation, Methodology, Writing – original draft, Writing – review & editing

Ayonimi Mary: Investigation, Resources, Validation, Writing – review & editing

Conflicts of Interest

The authors declare no conflicts of interest.

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