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Between Finance and Growth: The Role of Financial Development in Promoting Economic growth in Africa

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Abstract

Purpose: This study investigates the impact of financial development on economic growth, with a particular focus on the roles of financial institutions' access, depth, and efficiency. It aims to provide a nuanced analysis of the finance-growth nexus and evaluate whether financial development acts as a catalyst for or a constraint on economic growth within the African context.
Design/Methodology/Approach: The study employs the Panel ARDL (Autoregressive Distributed Lag) approach to analyze the short-run and long-run effects of financial development on GDP. The analysis is conducted on a panel of 31 African countries over the period 1990–2021, capturing both cross-country variations and dynamic relationships between financial development indicators and economic growth.
Findings: The findings emphasize that financial access and depth are key drivers of long-term economic growth, whereas financial efficiency exerts a negative impact. In the short run, financial access significantly enhances GDP, while financial depth may impede growth due to transitional costs or structural imbalances. Moreover, the heterogeneous short-run effects across countries underscore the pivotal role of institutional and economic factors in shaping the financial development and economic growth nexus.
Practical Implications: Policymakers should prioritize financial inclusion and sector depth while addressing inefficiencies that may hinder economic performance. Strengthening regulatory frameworks and improving financial institutions' operational effectiveness can foster sustainable economic growth.
Originality/Value: This study provides new empirical evidence on the finance-growth nexus in African economies, considering multiple dimensions of financial development and utilizing a robust econometric approach (Panel ARDL). It contributes to the debate on financial development by distinguishing between access, depth, and efficiency.
Paper Type: Research Paper.

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INTRODUCTION

Financial development is widely recognized as a key driver of economic growth, a view supported by numerous empirical studies, including (Levine 1999). However, the precise nature of the relationship between financial development and economic growth remains a topic of extensive research and ongoing debate. While some studies highlight the positive impact of financial development in stimulating economic expansion, others emphasize the complexities introduced by institutional quality, income inequality, and regional disparities (Asante et al. 2023).

A well-functioning financial system plays a crucial role in mobilizing savings, efficiently allocating resources to the most productive investments, reducing transaction costs, distributing risks, and fostering innovation and technological advancement (Mengesha and Berde 2023). Expanding financial services and transactions within an economy enhances overall productivity, contributing to job creation, poverty reduction, and income distribution, particularly in developing nations (Abbas et al. 2022). Moreover, financial development broadens the scope of financial transactions, increasing capital availability and improving economic performance (Omri et al. 2015). At the same time, some scholars argue that economic growth itself drives financial development, as rising incomes increase the demand for financial services (Song et al. 2021).

Despite extensive research, empirical findings on the causal direction of this relationship remain inconclusive. Some studies assert that financial development precedes and accelerates economic growth, while others suggest that economic expansion stimulates the financial sector. The role of institutional quality, financial regulations, and political stability further complicates this nexus (Asante et al. 2023). Given these ambiguities, further research is essential to provide policymakers with insights into the optimal strategies for fostering sustainable economic growth through financial development.

This study contributes to the continuing discourse on the relationship between financial development and economic growth by addressing the following question: Does financial development from the perspective of financial institutions stimulate economic growth in the African countries under study?

LITERATURE REVIEW

Multiple studies have examined the relationship between financial development and economic growth, utilizing diverse objectives, methodologies, and findings. Given the theoretical challenges in determining the direction of this relationship, recent research has largely focused on empirical analysis. The literature indicates that the impact of financial development varies, manifesting as positive, negative, or neutral. The following section provides a critical review of key prior studies, highlighting existing research gaps.

Extensive research has examined the relationship between financial development and economic growth, with meta-analytical studies offering a comprehensive synthesis of empirical findings. Bijlsma et al. (2018) conduct a meta-analysis of 551 estimates from 68 studies, highlighting significant publication bias that has likely overstated the impact of financial development measured by private credit to GDP on economic growth. After accounting for this bias, the results indicate a small yet positive effect in logarithmic models, where a 10% increase in private credit leads to a 0.09 percentage point rise in growth, while linear models show no significant relationship. These findings align with the "too much finance" hypothesis, suggesting that excessive financial development may hinder rather than enhance growth. Similarly, Valickova et al. (2014) analyze 1,334 estimates from 67 studies, reporting a statistically significant positive effect of financial development on growth. However, due to methodological transformations, the study does not provide an interpretable economic magnitude of this effect. Their FAT-PET analysis finds no evidence of publication bias, although their full meta-regression analysis reveals a negative and significant association between standard errors and estimates, which is counterintuitive as it suggests a bias against large significant results. In contrast, Arestis et al. (2014) using 1,151 observations from 69 studies, also find a significant positive impact of financial development on growth but detect a positive publication bias in their FAT-PET analysis. Moreover, their full MRA reveals instances of negative and significant bias, further complicating the interpretation of results. These meta-analyses underscore the complexity of the finance-growth nexus, highlighting the influence of methodological choices, data transformations, and potential biases in shaping empirical findings.

This relationship is further influenced by institutional quality, sectoral variations, and regional disparities, rendering it a dynamic and multidimensional phenomenon. Several studies provide critical insights into this nexus, highlighting both the enabling and constraining factors influencing growth across different economies.

Financial development plays a crucial role in enhancing the effects of foreign direct investment on economic growth. An et al. (2025) show that financial institutions, rather than financial markets, are key in

mediating FDI's impact on growth. However, excessive financial development can diminish these benefits, suggesting an inverted-U relationship. Similarly, El Menyari (2019) finds that foreign bank entry stimulates growth in North and Southern Africa due to stronger financial institutions, while structural deficiencies in other regions limit its positive impact. These findings emphasize the importance of strengthening financial institutions to maximize growth benefits.

In low-income and developing economies, financial development's impact varies significantly. Bist and Read (2018) confirm a long-term positive relationship between financial development and growth in 16 low-income African nations, stressing the need to improve credit access to the private sector. An et al. (2021) further highlight income-based disparities, showing that financial development hinders growth in low- and middle-income countries due to inefficient credit allocation and weak regulatory environments, whereas in upper-income nations, financial development fosters growth. This underscores the need for tailored financial policies that address specific economic conditions.

Institutional quality emerges as a critical determinant in the finance-growth relationship. Asante et al. (2023) demonstrate that financial development significantly enhances growth, with its impact amplified in countries with strong institutional frameworks, particularly where governance, political stability, and regulatory quality are robust. Aluko and Ibrahim (2020) similarly find that while financial development is more effective in countries with strong institutions, even weaker institutional settings can benefit through informal mechanisms and external financial inflows. Fengju and Wubishet (2024) reinforce this by showing that governance factors such as corruption control and political stability significantly enhance the benefits of financial development, particularly in East Africa.

The sectoral impact of financial development is another crucial consideration. Ustarz et al. (2021) reveal that while financial development positively influences the service and agricultural sectors in sub-Saharan Africa, its benefits in the industrial sector only materialize after reaching a certain threshold. This aligns with Mlambo (2024), who finds that financial development in low-income SADC nations not only results from economic growth but also actively contributes to it by improving resource allocation. These studies emphasize the need for policies that foster financial sector development to support broader economic transformation.

The causal relationship between financial development and economic growth also varies across regions. Akinlo and Egbetunde (2010) find a long-run link between the two in ten sub-Saharan African countries, with financial development driving growth in some nations, economic growth leading financial development in Zambia, and a bidirectional relationship in others.

In contrast, Zimu and Godspower-Akpomiemie (2024) challenge conventional assumptions, showing that in South Africa, financial development and economic growth progress independently. This calls for policies that strengthen financial institutions and financial markets to improve firms' access to external finance and enhance economic performance.

Structural conditions further shape financial development's effectiveness. Ibrahim and Alagidede (2018) warn against excessive financial expansion, which can finance high-risk investments and undermine economic performance, aligning with the "too much finance" hypothesis. However, they stress that when effectively channeled, financial development supports productive investments and sustainable growth.

Collectively, these studies underscore that financial development's impact on economic growth depends on institutional quality, financial regulation, economic structure, and regional factors. Policymakers must adopt context-specific strategies, strengthen financial institutions, and ensure a balanced approach to financial expansion to maximize its benefits for economic growth.

DATA AND METHODS

This study employs the Panel Autoregressive Distributed Lag (ARDL) approach to analyze the impact of financial development on economic growth across 31 African economies. The analysis spans a 32-year period (1990–2021), with the temporal scope determined by data availability constraints for key financial development indicators across all sample countries. The panel framework is particularly suited for this investigation as it accommodates both heterogeneous dynamics across countries and long-run equilibrium relationships critical features when examining African economies with diverse financial systems and growth trajectories.

Data sources

This study relies on panel data drawn from two main sources, the World Bank's World Development Indicators (2022), which provide data on GDP as the dependent variable, and the International Monetary Fund's Financial Development Index Database (2022), which offers measures for three keys independent variables representing different dimensions of financial development. The table 1 below provides a detailed description of the variables used in the analysis, including their definitions, measurement methods, and data

sources.

Table 1. Variables and data collection sources

Variable	Source	Measurement
	Dependent Variable	
Gross Domestic Product (GDP)	(World Bank 2022)	Constant 2015 USD.
	Independent Variables	
Financial Institutions Access Index (FDA)	(IMF 2022)	Measures financial inclusion through physical infrastructure density (bank branches and ATMs per 100,000 adults); A composite index ranging from 0 to 1, where 1 indicates the highest level of access.
Financial Institutions Depth Index (FDD)		Captures financial intermediation intensity using private sector credit and institutional investments (as % GDP); A composite index ranging from 0 to 1, where 1 indicates the highest level of depth.
Financial Institutions Efficiency Index (FDE)		Evaluates institutional performance via profitability metrics (ROA, ROE) and cost ratios (net interest margin, overhead costs); A composite index ranging from 0 to 1, where 1 signifies the highest level of efficiency.

Source: Prepared by authors (2025)

Methodology

The study utilizes a Panel ARDL approach to examine the relationship between financial development and economic growth. This methodology is selected as it enables the estimation of both short- and long-run relationships, even when variables have different orders of integration (Pesaran et al. 1999). Additionally, the selection of this approach is particularly appropriate as the data series exhibit stationarity either at level I(0) or at first difference I(1), ensuring the validity of the estimation.

The analysis begins by addressing non-stationarity in the data through Panel Unit Root Tests. Specifically, the Levin-Lin-Chiu (LLC) Test, suited for panels with common unit roots, and the Im-Pesaran-Shin (IPS) Test, which accommodates individual unit roots, are applied. Next, Cointegration Analysis is conducted to investigate long-run relationships using the Kao Residual Cointegration Test and the Pedroni Heterogeneous Panel Cointegration Test.

Following this, the Panel ARDL model is applied, employing the Pooled Mean Group (PMG), Mean Group (MG), and Dynamic Fixed Effects (DFE) estimators. These estimators help capture both long-run coefficients reflecting the relationship between financial development indices and GDP and short-run dynamics, including the speed of adjustment through the Error Correction Term (ECT).

The Hausman Test is then used to determine the most appropriate estimator between PMG, MG and DFE estimation. Finally, a country-specific short-run analysis is performed by extracting individual nation results from the ECM coefficients to identify heterogeneity in short-run impacts.

RESULT AND DISCUSSION

This section presents the findings of the study and provides an in-depth discussion of the results. The analysis focuses on examining the relationship between financial development and economic growth using the Panel ARDL approach. The results of the unit root test, cointegration analysis, and estimated model parameters are discussed to highlight both short-run and long-run dynamics. Additionally, the implications of these findings are explored in the context of financial policy and economic growth in the selected African countries.

Panel unit root tests

Before estimating the model, it is crucial to assess the stability of the variables to prevent misleading regression results. This study employs two commonly used unit root tests for panel data. The first is the Levin-Lin-Chiu (LLC) test, which assumes a common unit root process across all sub-sectors (Levin, Lin and Chu 2002). This test is particularly suitable for panel data with a small number of countries and a long time series.

The second test is the Im-Pesaran-Shin (IPS) test, which allows for individual unit root processes across sub-sectors, making it more adaptable to heterogeneous panel data (Im et al. 2003). In both tests, the null hypothesis states that the data series contains a unit root, while the alternative hypothesis indicates stationarity. If the variables are found to be stationary at level I(0) or at the first difference I(1), the Panel ARDL methodology can be applied (Pesaran et al. 1999). The following table illustrates these results:

Table 2. Results of the panel unit root

Variable	Levin-Lin-Chiu (LLC)		Im-Pesaran-Shin (IPS)	
	Level	1st Difference	Level	1st Difference
GDP	11.4450	-5.3075	21.3451	-10.8945
	(1.0000)	(0.0000)	(1.0000)	(0.0000)
FDA	4.3293	-3.2827	11.6107	-11.3173
	(1.0000)	(0.0005)	(1.0000)	(0.0000)
FDD	-1.3985	-15.7023	2.3359	-16.6874
	(0.0810)	(0.0000)	(0.9903)	(0.0000)
FDE	-5.6881	-17.0526	-6.1146	-18.8499
	(0.0000)	(0.0000)	(0.0000)	(0.0000)

Note: those in ( ) are p-Value
Source: Stata 15 software output (2025)

The panel unit root tests results indicate that most variables, including GDP, FDA, and FDD, are non-stationary at the level but become stationary at the first difference, as confirmed by both the Levin-Lin-Chu and Im-Pesaran-Shin tests. Specifically, the p-values for these variables exceed 5% at the level, indicating non-stationarity, while at the first difference, the p-values fall below 5%, confirming stationarity. Conversely, FDE is stationary at both the level and first difference, as evidenced by the p-values in both tests. These findings suggest that the variables are either I(0) or I(1), making the Panel ARDL model suitable for analyzing both short-run and long-run relationships (Pesaran et al. 1999).

Panel cointegration tests

To examine the presence of a long-run equilibrium relationship between financial development indicators and economic growth, this study employs the Kao and Pedroni cointegration tests. The Pedroni test considers cross-sectional dependence and heterogeneity (Pedroni 2004), while the Kao test follows a similar approach but assumes homogeneity (Kao 1999). Rejection of the null hypothesis in either test indicates the presence of a cointegrated relationship. The following table presents the results:

Table 3. Results of the panel cointegration

Test	Statistics	p-value	Decision
Kao Test			
Modified Dickey-Fuller	4.7783	(0.0000)	**Alternative Hypothesis: Cointegration exists**
Dickey-Fuller	6.3774	(0.0000)	
Augmented Dickey-Fuller	5.5256	(0.0000)	
Unadjusted modified Dickey-Fuller	5.1538	(0.0000)	
Unadjusted Dickey-Fuller	7.3816	(0.0000)	
Pedroni Test			
Modified Phillips-Perron	3.1447	(0.0008)	**Alternative Hypothesis: Cointegration exists**
Phillips-Perron	1.8057	(0.0355)	
Augmented Dickey-Fuller	2.3224	(0.0101)	

Source: Stata 15 software output (2025)

Table 3 presents the results of panel cointegration tests, specifically the Kao and Pedroni tests, to examine whether a long-run relationship exists among the variables. The Kao test results show highly significant p-values (0.0000) across all statistics, confirming strong evidence in favor of cointegration, meaning the variables move together over time. Similarly, the Pedroni test results, including the Modified Phillips-Perron (p = 0.0008), Augmented Dickey-Fuller (p = 0.0101), and Phillips-Perron (p = 0.0355), all indicate p-values below 0.05, further supporting the presence of a stable long-term relationship. Overall, both tests confirm that financial development and economic growth are cointegrated, suggesting that changes in financial development indicators have a lasting impact on GDP.

Panel ARDL approach

The Panel ARDL model is used due to its ability to handle variables with different integration orders while capturing both short-run dynamics and long-run relationships. The main model is formulated as follows:

$$\Delta GDP_{it} = \alpha_i + \sum_{p=1}^{p} \beta_p \Delta GDP_{i,t-p} + \sum_{q=0}^{q} \gamma_{1q} \Delta FDA_{i,t-q} + \sum_{q=0}^{q} \gamma_{2q} \Delta FDD_{i,t-q} + \sum_{q=0}^{q} \gamma_{3q} \Delta FDE_{i,t-q} + \delta_i EC_{i,t-1} + \varepsilon_{it} \quad (1)$$

Where:

- GDP_{it}: GDP for country i at time t.
- FDA_{it}, FDD_{it}, FDE_{it}: Financial development indicators (access, depth, efficiency).
- $EC_{i,t-1}$: Error correction term.
- ε_{it}: Error term.

Panel ARDL model estimators and the Hausman test

This section provides an analysis of the Panel ARDL model results, utilizing three estimation methods: Mean Group (MG), Pooled Mean Group (PMG), and Dynamic Fixed Effects (DFE). It examines both short-run and long-run relationships between financial development indicators (FDA, FDD, FDE) and economic growth (GDP) in the selected African countries. The results are summarized in the following table.

Table 4. Results of MG, PMG and DFE estimation

Estimator	Mean Group (MG)		Pooled Mean Group (PMG)		Dynamic Fixed Effects (DFE)	
Variable	**Coefficient**	**p-Value**	**Coefficient**	**p-Value**	**Coefficient**	**p-Value**
			Long Run			
FDA	314.1063	0.378	190.7591	0.000	352.2051	0.017
FDD	-352.3448	0.685	159.2675	0.000	-239.3409	0.154
FDE	-62.05083	0.724	-10.75505	0.000	-48.62717	0.494
			Short Run			
ECT	-0.049262	0.068	-0.014218	0.171	-0. 018615	0.000
FDA	65.11428	0.033	87.14563	0.009	37.96531	0.001
FDD	-56.39753	0.017	-79.36094	0.040	-28.41883	0.000
FDE	-1.526893	0.562	2.578938	0.289	2.034714	0.441
Cons_	1.533818	0.633	1.113648	0.000	0.305934	0.000

Source: Stata 15 software output (2025)

To determine the appropriate model for estimating the relationship between financial development and economic growth, the Hausman Test is conducted. This test compares different estimators, including Pooled Mean Group (PMG), Mean Group (MG), and Dynamic Fixed Effects (DFE), to identify the most efficient and consistent model. It evaluates whether there are systematic differences between the coefficients of the models. If the p-value exceeds 5%, the null hypothesis is not rejected, favoring the PMG estimator. Conversely, if the p-value is below 5%, the alternative hypothesis is accepted, indicating that the MG or DFE estimator is more suitable (Hausman 1978). The test results are presented in the following table.

Table 5. Results of the Hausman test

Trade-off	Statistics	p-Value	Decision
MG/PMG	0.23	0.9719	**PMG is more efficient than the MG**
PMG/DFE	1.53	0.6750	**PMG is more efficient than the DFE**

Source: Stata 15 software output (2025)

The Hausman Test results (0.9719 for MG/PMG and 0.6750 for PMG/DFE) indicate that the Pooled Mean Group (PMG) estimator is more efficient than both the Mean Group (MG) and Dynamic Fixed Effects (DFE) estimators. The high p-values (above 5%) suggest that there are no significant differences between the coefficients, leading to the acceptance of the null hypothesis. Therefore, PMG is the preferred model for analyzing the relationship between financial development and economic growth.

Interpretation of PMG Estimation Results

The pooled mean group (PMG) estimation reveals distinct patterns in both long-run and short-run dynamics, as presented below:

Long-Run Relationships

The results indicate that the Financial Institutions Access (FDA) has a highly significant positive effect on GDP, with ($\beta = 190.76$, $p < 0.001$), suggesting that enhanced accessibility to financial institutions plays a crucial role in stimulating long-term economic growth. This finding is consistent with previous studies such as Bist and Read (2018) and Asante et al. (2023), which emphasize the positive relationship between financial development and growth, particularly in low-income African countries with strong institutional frameworks.

Financial Institutions Depth (FDD) shows significant positive elasticity ($\beta = 159.27$, $p < 0.001$), confirming that financial intermediation intensity (private credit/GDP ratio) sustains growth. This aligns with Valickova et al. (2014) 's meta-analysis and Aluko and Ibrahim (2020) 's African study, where deeper systems:

- Enhance capital accumulation;
- Improve risk diversification;
- Foster technological adoption.

Contrary to expectations, Financial Institutions Efficiency (FDE) exhibits a significant negative coefficient ($\beta = -10.76$, $p < 0.001$), indicating that improvements in financial efficiency may have a detrimental effect on long-term economic growth. This result suggests that inefficiencies within financial institutions can hinder economic performance, aligning with the "too much finance" hypothesis proposed by Ibrahim and Alagidede (2018) and supported by the findings of An et al. (2021), which emphasize the adverse effects of inefficient financial systems in low and middle-income economies. The negative relationship may be attributed to the structural and transitional costs that financial institutions face during the adjustment process, as efforts to enhance efficiency can incur substantial short-term costs. These adjustments may not yield immediate long-term economic benefits unless the expected gains materialize over a longer time horizon than that considered in the present study.

Short-Run results

The estimated error correction term (ect) shows a coefficient of -0.014 ($p = 0.171$), indicating it is not statistically significant, suggesting that in the short run, the economy may not adjust immediately to the long-term equilibrium following a shock to financial development. This aligns with the dynamic nature of the relationship between financial development and economic growth observed in various studies.

In contrast, the Financial Institutions Access (FDA) shows a statistically significant positive short-run effect on GDP, with a coefficient of 87.14563 and a p-value of 0.009, indicating that improvements in financial accessibility have an immediate positive impact on economic growth, in line with findings by Fengju and Wubishet (2024) on the role of financial accessibility in East Africa.

However, the Financial Institutions Depth (FDD) presents a significant negative short-run effect on GDP, with a coefficient of -79.36094 and a p-value of 0.040, suggesting that deeper financial systems may have a detrimental effect on growth in the short run. This contrasts with the long-term result and may reflect short-term adjustment costs or inefficiencies in a developing financial system, as noted by Akinlo and Egbetunde (2010).

Finally, the Financial Institutions Efficiency (FDE) shows no significant short-run effect on GDP, with a coefficient of 2.578938 and a p-value of 0.289, supporting the notion that financial efficiency may

take time to influence growth, consistent with Ibrahim and Alagidede (2018) findings on the delayed impact of financial efficiency.

Comparison of the study results with key previous studies

The results of the study align with previous research on the link between financial development and economic growth, focusing on the role of financial institutions. The positive long-term effects of financial access and depth on growth are consistent with studies by Bist and Read (2018) and Asante et al. (2023), highlighting the importance of improving financial access. However, the negative impact of financial efficiency on growth supports the "too much finance" hypothesis by Bijlsma et al. (2018) and Ibrahim and Alagidede (2018), suggesting excessive financial development may hinder growth. The study also shows contrasting short-term effects, with financial access positively affecting growth and financial depth negatively impacting it. This indicates that the impact of financial development may vary by region and time frame. Overall, the study emphasizes the need for balanced, context-specific financial policies to optimize the benefits of financial development for economic growth.

Short run dynamics: country specific PMG estimations

Table 6 presents the Pooled Mean Group (PMG) estimation results for short-run financial development impacts across 31 African economies, revealing substantial cross-country variation in adjustment patterns.

Table 6. Results of PMG estimation - country specific short run coefficients

Nation	ect	D(FDA)	D(FDD)	D(FDE)
Algeria	0.0123324	132.2984	-155.5122	-4.84566
Angola	-0.0152894	183.9158***	-10.04702	1.976293
Botswana	0.0026572	-1.810661	-14.01898***	-2.989185
Burkina Faso	-0.0651529***	3.960603	-4.52069	0.8840683*
Cameroon	-0.0695837***	-17.90698	38.78154***	-0.5215656
Rep.Congo	0.0403555***	-3.959476	0.4567818	1.133537
Ivory Coast	-0.09228***	56.7254	-100.6129*	10.61079**
Egypt	0.008888	437.5956***	-163.5638**	38.56473*
Equatorial Guinea	-0.0643633***	-86.4732***	0.5253728	9.841948***
Ethiopia	-0.0864774***	152.7495*	-43.65883	-5.277885
Gabon	-0.012033	9.461511	8.886967	0.6300535
Ghana	-0.0869553**	42.06831***	-88.14726*	6.705531
Guinea	-0.1110889***	-33.32236	-28.45098	1.047506**
Kenya	-0.0886626	45.38455	19.22988	6.461953*
Libya	-0.1121235	184.566	-374.8736***	-50.54235*
Madagascar	0.026808	112.8404**	-34.48675**	0.0973368
Malawi	-0.0208035**	2.150411	-7.426631	-0.9681273
Morocco	-0.0305794	16.42375	-178.3692***	15.26909
Mozambique	-0.0112739	34.50571***	-6.697442	-0.185186
Namibia	0.0010966	0.9604781	-1.279954	2.286843
Niger	0.0994694	148.6162***	-14.85066	-0.13474
Nigeria	-0.0222853*	942.000***	-1151.879***	-22.7828
Rwanda	-0.0180366***	5.445791	-4.537254	1.455988*
Senegal	-0.0501282***	-10.61204	15.60657	1.77174
South Africa	-0.0008568	5.129907	-44.89754	22.74186
Sudan	-0.0494035***	113.0074	-16.19166*	-0.7644594
Tanzania	0.0780717	53.18275	18.02849	-1.654024
Togo	-0.0135456***	-5.292597	-4.853441*	-0.0025687
Tunisia	0.0372121***	51.73695***	-101.5233***	3.161519
Uganda	0.0779395***	74.36759***	4.391212	-0.1257642
Zambia	0.055656*	51.79884***	-15.42691	-0.5086009

Source: Stata 15 software output (2025)

The individual countries short-run results highlight significant differences in the impact of financial development across African countries. The error correction term (ECT) is negative and significant in several countries, including Burkina Faso, Ivory Coast, Ethiopia, Ghana, and Guinea, indicating a tendency to return to long-run equilibrium after financial shocks. In contrast, its positive significance in the Republic of Congo and Tunisia suggests divergence from equilibrium. The Financial Institutions Access (FDA) has a strong positive short-run effect in Angola, Egypt, Ethiopia, Nigeria, and Uganda, demonstrating the immediate benefits of improved financial accessibility on economic growth, whereas Equatorial Guinea shows a significant negative effect, possibly due to inefficiencies.

The Financial Institutions Depth (FDD) negatively affects GDP in Botswana, Ivory Coast, Libya, and Nigeria, indicating that deeper financial markets may initially disrupt economic stability due to credit misallocation or structural weaknesses, while Cameroon benefits from financial depth.

The Financial Institutions Efficiency (FDE) has a positive impact in Ivory Coast, Equatorial Guinea, Ghana, and Tunisia, reflecting how improved efficiency enhances economic performance, while its negative effect in Libya, Nigeria, and Sudan highlights inefficiencies that hinder growth. The remaining countries exhibit statistically insignificant results, suggesting that financial development does not exert a meaningful short-term effect in those economies.

CONCLUSION

This study provides empirical evidence on the impact of financial development on economic growth in 31 African countries over the period 1990–2021 using the Panel ARDL approach. The findings reveal that financial institutions' access and depth significantly contribute to long-run economic growth, underscoring the critical role of an inclusive and well-developed financial sector. However, the negative impact of financial institutions' efficiency suggests that inefficiencies within financial systems may counteract growth benefits, aligning with the "too much finance" hypothesis. In the short run, financial accessibility exerts a strong positive influence on GDP, while financial depth demonstrates a negative effect, possibly reflecting transitional costs or structural imbalances in financial systems. Moreover, heterogeneous short-run results across countries highlight the complexity of financial development's impact, influenced by country-specific institutional and economic conditions.

These findings have important policy implications. Policymakers should prioritize enhancing financial accessibility and depth while addressing inefficiencies that may hinder economic performance. Strengthening regulatory frameworks and improving financial institutions' operational effectiveness can foster sustainable economic growth. Future research could further explore the role of institutional quality and financial structure in shaping the financial development–growth nexus in African economies.

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