

Influence of Poverty on Economic Growth in Sub-Saharan Africa, the Role of Financial Stability

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ABSTRACT

The primary objective of the study is to assess whether and how financial stability alters the relationship between poverty and economic growth in SSA. To achieve this, the study employs a quantitative panel data approach, analyzing data from 38 SSA countries over the period 2000–2023. Using the Difference Generalized Method of Moments (GMM) estimation technique, the analysis accounts for endogeneity, unobserved heterogeneity, and dynamic effects. The findings reveal that poverty has a significant negative effect on economic growth, while the interaction between poverty and financial stability is also negative and statistically significant, suggesting that financial instability amplifies the adverse effects of poverty on growth. Notably, financial stability on its own is not a statistically significant predictor of growth, highlighting the complexity of its role in development contexts. These results have important implications for policymakers and researchers. They underscore the need for financial sector reforms that prioritize inclusion and resilience as preconditions for effective poverty reduction strategies. The study also contributes to accounting and development finance research by emphasizing the relevance of financial system transparency and accountability in fostering inclusive economic development.

Keywords: Poverty, Economic Growth, Financial Stability, Sub-Saharan Africa, Financial Inclusion, Development Economics.

INTRODUCTION

The intractable problem of poverty continues to sap the development aspirations of a good number of countries in Sub-Saharan Africa (SSA), in spite of (slight) improvements that appear to have been recorded in the overall performance of macroeconomics in the region. Notwithstanding the fact that a number of SSA economies have been subject of the economic

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growth spurts, the said growth has mostly not trickled down into the broad-based poverty reduction and sustainable development results (McKay, 2016). This paradox raises important questions about the mechanisms that filter or distort the poverty growth nexus. Such a mechanism is stability of financial markets. In recent time however, both researchers and policyholders of the importance of financial sector health, not only in terms of enhancing investment and productivity, but also as a shock absorber against instability emanating from poverty (Bashiru et al., 2023), have realized it.

The economic truth of sub-Saharan Africa is complex. Even though the Gross Domestic Product (GDP) in many countries has increased, unemployment, inequality and income uncertainty have rocketed at the same rate, a sign that growth per se is not sufficient to alleviate poverty in absence of inclusive financial systems and governance changes (Zaman et al., 2023). It is in this dual context that poverty through its interplay with economic growth and financial stability assumes analytical importance as well as relevance of policy. Additionally, weak regulatory environment in the banking industry in SSA, prevents financial institutions in the sub-region from stabilizing impact of economic shocks with consequences on poverty. Therefore, the financial stability's role as a moderator has gained increased attention academically. However, there is no systematic empirical analysis on the channels through which financial stability affects the poverty-growth nexus. This analysis contributes in resolving that disconnect by looking at the complex way in which these variables correlate with each other and offering a nuanced understanding as to how they interact with each other in the Sub-Saharan African context.

Financial stability at its most general is a state in which the institutions, markets and infrastructures that make up the financial system function efficiently, are capable of effectively absorbing shocks and thereby facilitate an economy where monetary conditions support sustainable economic growth. It includes a set of structural and policy-based preconditions that facilitate market efficiency in credit intermediation, payment systems, and risk management in the economy (Matekenya et al., 2020). Without monetary stability, the economic structure became vulnerable to crises with their disastrous effects on employment, investments and hence poverty. Indeed, financial stability is not just the absence of bank failures or currency crises. It is also about building institutions that are robust in the face of internal and external shocks. For SSA, which are managing capital flows, maintaining public debt ratios, and improving financial governance transparency. Bashiru et al. (2023), financial inclusion and globalization are beneficial to financial system development that ultimately cut poverty via the access to credit and investment facilities processes (Bashiru et al., 2023).

However, banking systems in many SSA are still not well developed, with banking service focused on urban areas, with large part of the population still unbanked or financially excluded. This exclusion breeds poverty links and erodes the architecture of economies. In the world's most fragile financial systems, small shocks -- for example, those associated with inflation or commodity price swings -- can escalate into wider crises with results that are disproportionately felt by the poor (Davis, 2016). Therefore, financial stability is a fundamental precondition for harnessing economic growth for poverty reduction. In addition, empirically, financial stability is what makes more effective the functioning of public investment and development programs, due to the fact that it provides a constant and

foreseeable way to access funding. The resilience of the financial sector is an even more important policy objective in areas of the world dominated by informal economies and limited public finance. A sound financial sector can promote poverty reducing growth given that it can stabilize macro economic indicators, increase investor confidence and may act as channel of poverty reducing growth, especially when such a financial sector supports social safety nets and inclusive development strategies (Nawaz & Rahman, 2023).

While the ink on poverty and economic growth in SSA has continued to flow, there still exists a lacuna on the role of financial stability in mediating the relationship between poverty and economic performance. A common feature associated with such literature in the topic is that majority of the studies often examine in isolation these variables -that is the relationship between financial development and growth or between poverty and economic outcomes. Nonetheless, the interactive effect of financial stability as a moderating variable, which could either cushion or aggravate the negative growth effects of poverty has not been intensively analyzes in the SSA context with strong statistical methods (Saidi et al., 2023). Moreover, although some studies draw on cross-country regional l data, few disaggregate their analyses by sector, e.g., agriculture, manufacturing or services to show how the poverty growth trajectory by sectors is affected by the level of financial system stability. However, the diversity of sectors in SSA economies, and disparity in access to finance, make a sector-specific analysis necessary for policy relevance (Abisuga-Oyekunle et al., 2019).

Regarding methodology, many studies are based on descriptive statistics or qualitative case analyses and are therefore unable to infer causation and mediation effects. Quantitative econometrics methods (e.g., dynamic panel regressions, moderated mediation models, structural equation modeling) are therefore needed to robustly assess the moderation of financial stability. These would permit researchers to identify the direct effects as well as the conditional to feedback role of poverty, finance, and growth (Nawaz & Rahman, 2023). In addition, rather simple variables, such as inflation rates or banking capital ratios, are often employed as proxies for financial stability, which do not reflect the wider institutional environment and financial governance quality. Empirical researches, such as Davis (2016), underscore the role of governance, transparency, and institutional development in promoting efficiency of financial systems, but these variables are often excluded in empirical models (Davis, 2016). Including such factors is critical to offer a more complete understanding of how financial systems work under stress, and how they can be used to tackle poverty.

A second glaring gap is geographic. The literature on financial stability and poverty is largely focused on the countries of East and West Africa, and little empirical evidence is available on the countries within Central and Southern Africa. This results in a biased understanding of local dynamics and thus limits the transfer of findings to the SSA region as a whole (Zaman et al., 2023). Cross-country studies accounting for regional variation in the levels of poverty, financial development and institutional capacity are therefore required. For these limitations, the current study is not only in time but also in need. It seeks to assess the effect of poverty on economic growth in Sub-Saharan Africa, and the extent through which financial stability moderates this relationship. The aim of the research is to create evidence through robust statistical methods that establish not only causality but also conditional interactions between key variables. Unlike conventional macroeconomic models we will introduce institutional

quality, financial inclusion, human development and human development in order to offer a more comprehensive and policy-relevant framework.

There are three goals to this study. To begin with, it aims at measuring whether poverty has a direct effect on economic growth in SSA by use of macro-level data across countries and times. Second, it seeks to examine the impact of poverty on financial well-being acknowledging that the financial well-being also acts as cause and consequence of economic circumstances. Third, and perhaps more importantly, financial stability is itself extended as a moderator to moderate the poverty-growth link—the hypothesis of which is that strong financial systems can counterattack the negative effect of poverty on growth paths. The project will thereby feed into a more empirical and nuanced understanding how economic growth and poverty can be simultaneously realised in financially sustainable ways and under what conditions in SSA. The results will guide decision makers on the kinds of reforms of the financial sector, and the strategy to address poverty that are necessary to create economically resilient systems that work for all, but especially the poor and financially underserved.

LITERATURE REVIEW

Influence of Poverty on Economic Growth in Sub-Saharan Africa

Broad-based poverty remains one of the most serious challenges to economic development in Sub-Saharan Africa (SSA). In addition, a decade of macroeconomic optimism on the back of commodity exports has only partly translated into more effective poverty reduction through GDP growth in the region (McKay 2016: 15). This detachment is particularly troubling because poverty undermines the development of physical, human, and social capital—building blocks of long-term economic productivity and creativity. More fundamentally, the problem of poverty is a double-edged one, in the sense that poverty creates underdevelopment and, inversely, underdevelopment leads to poverty. In SSA, such households do not always have access to these services (quality education, health, finance) and this directly limits their productivity and their participation to the GDP (Zaman et al., 2023). The construction of human capital—the chief source of productivity and growth—is limited in the absence of such access, re-enforcing a cycle of poverty and an absence of economic growth.

In addition, poverty depresses the demand for goods and services which ultimately lowers domestic market expansion. For in the majority of SSA countries, the majority of people are living below the poverty line and are not in interaction with the markets or able to invest in the future (financial services). This undermines domestic markets and puts these economies too much at the mercy of precarious foreign markets and flows of aid. The fact that poverty creates an economically fragile and volatile society and decelerates the possible long-run growth pathways is something about which the literature is crystal clear (Saidi et al., 2023). Socio-political instability is a product also of poverty. All that deprivation inevitably breeds unrest, criminality and weak institutional leadership, none of which are conducive to investment, whether local or from overseas. Good Governance and Inclusive Political Institutions According to Davis (2016) good governance and inclusive political institutions are key factors in reducing poverty, and that fragility and lack of sustainability occur when they are absent (Davis, 2016). In politically fragile situations, the danger of long-term investment rises, leading to capital flight and further diminishing available resources that could lead to economic expansion.

Furthermore, high poverty rates are typically associated with low rates of saving and investment. A people who have difficulty meeting their most basic needs will have little desire to economize or to invest in productive ventures. These handicaps the capital accumulation required for infrastructure-building, business expansion, and technological progress. Increasing per capita GDP by investment in human capital and financial infrastructure is crucial to escape the poverty trap in SSA (Nawaz & Rahman, 2023). Although development assistance and global partnerships have been directed to the region, the reduction in poverty in SSA still proceeds at a slow rate. The structures of land inequality, climate change, poor industrial productivity, and weak institutions still remain obstacles to inclusive growth. Abisuga-Oyekunle et al. (2019) emphasize the contribution of Small and Medium Enterprises (SMEs) to employment generation and poverty reduction, but also point out that limited credit and poor infrastructure access constrain their growth potential (Abisuga-Oyekunle et al., 2019).

In summary, the impact of poverty in Sub-Saharan Africa is direct and devastating on economic development. It limits human development, productivity, investment, institutions and shock responsiveness. Therefore, for SSA economies to make sustained progress, the problem of poverty must be tackled not as a side effect, but as an underlying barrier to the process of economic transformation.

Influence of Poverty on Financial Stability in Sub-Saharan Africa

The effect of poverty on economic wellbeing in Sub-Saharan Africa (SSA) has become the axis of academic and policy debate in recent times. While poverty is usually analysed with reference to economic growth, less attention has been devoted to the broader financial system. Contrary to past beliefs, a growing literature provides evidence that poverty is not just a social problem but also a systematic risk factor that poses threats to the stability and resilience of financial institutions, particularly in underdeveloped and fragile economies such as those in SSA (Bashiru et al., 2023). Poverty erodes financial security by diluting the efficacy and coverage of established financial systems. In much of SSA, a significant portion of the population remains unbanked because of low income, lack of identification, or low financial literacy. This broad based exclusion results in a thin and shallow financial system that cannot spread its risk or effectively mobilize sufficient domestic savings for investment purposes (Matekenya et al., 2020). Hence, financial institutions find it difficult to reach scale and viability, which leave them more exposed to external shocks and market turbulence.

Further, chronic poverty acts to limit the demand for financial products and services such as credit, insurance, and investment opportunities. With the insufficient involvement of consumers, the system does not have enough lifeblood to grow and to develop. According to Zaman et al. (2023), poverty results in minimal access to financial cushions during economic contractions, escalating systemic susceptibility to economic perturbations related to food price inflations, health crisis or currency loss (Zaman et al., 2023). Under a weak socio-economic situation, lending institutions also suffer more with a higher credit risk owing to the uncertainty of borrowers' income streams. This results in higher NPL ratios, declining investor confidence, and even financial sector bailouts by governments that are already short of resources. The financial instability generated by the poverty-related macro-risk cycle creates a feedback effect that under-performing financial sectors are not able to finance poverty

reduction strategies and, as a result, perpetuate macro-risk by building and accumulating further macro-risk.

Poverty tends to come with bad governance, with weak institutions. Weak institutions and political unaccountability are the two main obstacles, which hamper the role of regulation in overseeing financial markets and exposing them to risk, such as corruption, mismanagement and fraud (Davis (2016). In SSA most central banks and financial regulators are not well-resourced and are influenced politically, consequently their capacity to establish and implement prudential financial policy is undermined. In addition to it, the gap between poverty and economic stability is widening in the rural and urban areas. The majority of financial institutions in SSA are found in urban areas, where rural populations, who are the poorest among all (Awoniyi 2007), are excluded from the formal finance sector is highest. This spatial disconnect restricts the scope for geographic diversification of financial portfolios and recycles the concentrations in local economic shocks like draught or crop failure (Bashiru et al., 2023).

It is also important to note that when finance is unstable for poverty reasons, the consequences are not limited to the national economy but spill into the regional as well as into the international domain. Most SSA countries are heavily dependent on external borrowing and aid, so fiscal mismanagement encouraged by financial instability can result in credit rating downgrades, higher borrowing costs and lower foreign investor confidence. Nawaz and Rahman (2023) notes that institution development and investment in human capital are critical to reverse this trend (Nawaz and Rahman 2023). Overall, poverty in SSA is not simply collocated with financial instability; it actually stokes it. Weakened household and business finances, restricted market access and overstressed underfunded organizations are the byproduct of systems that are brittle and reactive rather than resilient and proactive, engendered by poverty. Therefore, poverty reduction is critical not only for social development, but for building stable financial systems which will facilitate sustainable economic development in the long-term.

The Moderating Role of Financial Stability on the Influence of Poverty on Economic Growth in Sub-Saharan Africa

The link between poverty and economic growth in sub-Saharan Africa (SSA) is not a straightforward matter and is a complex one, which is multifaceted and, to a great extent, is determined by the financial context. It is becoming more and more accepted by both academics and policy makers that in such a dynamic, the role of financial stability is crucial: it either mitigates the effects of poverty or amplifies them if the financial system is weak. True financial stability can operate as a bridge-builder that turns growth into inclusive development, or as a roadblock that widens the socioeconomic divide (Saidi et al., 2023). The second aspect is that financial stability dampens the strength of the relationship between poverty and growth by creating a system that can conduct savings, investment, and credit-disbursement efficiently and fairly. A healthy, well-regulated financial sector improves the productivity of capital by assigning resources to their most productive uses. Such capital also covers funding for SMEs, agriculture initiatives and public infrastructure - all critical in poverty alleviation and inclusive growth for SSA (Abisuga-Oyekunle et al., 2019).

Furthermore, stability promotes long-term investment because it lowers the level of uncertainty and makes return predictable. Investors — international or local — tend to invest more when they are exposed to less risks of financial crisis and currency or institutional collapse. Thus, a stable financial system as confidence-building device will attract development finance and facilitate government to execute large-scale poverty reduction programmes (Bashiru et al., 2023). But the beneficial effect of finance is not automatic. It is conditional on institutional quality, governance and financial system inclusiveness. Saidi et al. (2023) provide evidence that the poverty-reducing effects of economic growth only become positive after a certain governance threshold has been reached, showing that financial and institutional stability are jointly required for development (Saidi et al., 2023). In the absence of strong regulatory bodies and the rule of law, financial systems can be conduits for elite capture, speculative bubbles, or fiscal mismanagement—all of which exacerbate, rather than reduce poverty.

In economies that are already fragile and with significant poverty, any slight financial shock can disrupt people's lives, induce panic and shatter confidence in the financial system. In contrast, healthy financial systems allow the delivery of important services such as credit for rural farmers, insurance against crop failure, and digital payment systems that tie remote communities to the national economy. For example, Matekenya et al. (2020) also revealed that financial access has a pro-poor impact on development and also serves as a shock absorber in SSA for international economies (Matekenya et al., 2020). In addition, financial stability can improve the functioning of counter-cyclical fiscal policies. Good times: Well-functioning financial systems in downturns also help governments take on more debt, becoming welfare states later in their development. Such interventions can ease the poverty and retain consumption, and hence stop a contraction from turning into a deep recession.

Financial security, however, does not eradicate poverty. It has to be complemented by targeted policies that deal with the root causes of exclusion, including gaps in access to credit, rural-urban differentiation and informality in employment. Combining financial development with human capital investment and institutional reform, as Nawaz and Rahman (2023) argue, makes the base broader for equitable economic transformation (Nawaz & Rahman, 2023). In sum, financial stability performs a highly significant moderating function in the relationship between poverty and growth in SSA. It accelerates the poverty reduction effects of economic growth by stimulating investment, facilitating financial inclusion, bolstering governance, and improving macroeconomic stability. Thus, understanding and reinforcing this moderating effect is important for the designing of development strategies that are not only growth-enhancing but as well equitable and sustainable.

Theoretical Framework

Understanding the influence of poverty on economic growth within the Sub-Saharan African (SSA) context—while factoring in the moderating role of financial stability—requires grounding in robust economic theory. Two theoretical frameworks are particularly relevant: the Solow–Swan Growth Theory and the Financial Intermediation Theory. Together, these frameworks provide a dual lens through which the dynamics of poverty, growth, and financial health can be examined coherently and empirically.

Solow–Swan Growth Theory (Neoclassical Growth Model):

The Solow–Swan model (SSI), presented by Robert Solow and Trevor Swan independently in the mid-20th century, is a neoclassical model of long-run economic growth in which the right per capita savings rule leads to a stable steady-state in the model. This model applies to the interpretation that an increased accumulation of capital, labour and technological development underlies the growth in an economy with diminishing returns to each input (Solow, 1956). Within this context, poverty is the binding constraint on capital accretion and human capital formation -both fundamental to maintaining growth- within the country. In SSA the implications of the Solow–Swan model are particularly pronounced. That is, in rich poor countries there is both limited saving and constrained investment, the latter being a key element in the model of capital accumulation. Zaman et al. (2023) support this assertion and hold that in low-income communities in SSA, poverty kills savings and productive investment and hence erodes the prospects of growth (Zaman et al., 2023). In addition, poverty diminishes access to good education and healthcare, which then damages labor productivity—the other central source of economic growth in the neoclassical model.

Another important implication of the Solow–Swan model is the idea of convergence, that poorer economies will tend to grow at faster rates than richer ones if they share similar investment ratios and technological progress. In SSA economies, however, poverty is endemic and institutional quality is low and, thus, the convergence process is often impeded. As McKay (2016) points out, growth in SSA has been more often than not bastard of the poor, arguing that the models assumption of equal access to capital and returns may not hold in fragile economies (McKay, 2016). In addition, the Solow–Swan model presumes a functional financial system, to encourage and mobilize savings and to direct these markets to investments. However, in SSA, poverty-induced financial exclusion cuts off this mechanism. Matekenya et al. (2020) argue that low levels of financial inclusion hinder households from saving and borrowing creating underinvestment in physical and human capital (Matekenya et al., 2020). Therefore, although the Solow–Swan model is not a bad place to start, one has to relax its assumptions by integrating structural constraints such as institutional fragility or financial exclusion, which are the hallmark of the SSA economies. The second theoretical building block which is financial intermediary theory then becomes relevant when considering how financial stability affects the relationship between poverty and growth.

Financial Intermediation Theory:

Financial Intermediation Theory, originated in Gurley and Shaw (1960) and later developed by Levine (1997), maintains that financial intermediaries are the main conduits of resources between savers and investors, promoting efficiencies in the economy and promoting growth. Here, financial stability is not only the passive background scene but also the active enabler of capital allocation, risk management and economic productivity. Once the financial system ceases to be reliable, the intermediation function actually breaks down, where resources are used less efficiently, investor confidence diminishes and the rate of economic growth is hampered. This theory is one applicable for SSA. As Bashiru et al. (2023) note, notwithstanding what Bashiru et al. (2023) see as weak financial intermediation in several countries in the region, there is evidence of low levels of financial intermediation across the region traced to underdeveloped financial markets, rising poverty rates, and institutional inefficiencies (Bashiru et al., 2023). In a situation when poverty is ubiquitous, the banking system will be

faced with the problem of mobilizing deposits for giving credits with attendant adverse effect on entrepreneurship and economic growth.

Further, financial instability, such as high inflation, devaluation, and banking crises, can also bring intermediation to a halt. In such a context, poor households are most vulnerable as they have no financial cushion or access to formal safety nets to protect them from shocks. Davis (2016) adds on to this, asserting that in SSA financial fragility is typically the result of underlying governance weaknesses, which perpetuate poverty and impede developmental achievements (Davis, 2016). Crucially, the Financial Intermediation Theory is consistent with the *idāya* of financial inclusion as a mean factor in promoting both human development and macroeconomic stability. Matekenya et al. (2020) argue that inclusive financial systems enable the poor households to invest in education, health and microenterprises that can help in the process of growth and poverty reduction; (Matekenya et al., 2020). This intermediation role works better in stable financial systems, making the causal link inside the poverty reduction-growth acceleration virtuous circle a perfect one.

Moreover, the theory develops a channel whereby financial stability dampens the poverty – growth nexus. Saidi et al. (2023) observe that poverty is only alleviated with growth after financial and institutional levels are reached—suggesting that a healthy financial sector is a precursor of inclusive growth structures (Saidi et al., 2023). Both theories compared The Financial Intermediation Theory together with the Solow–Swan model, completes the model with the explanation of how the financial intermediaries in between savings, investment and economic growth play a role. Although Solow–Swan solves the issue of the structural role of capital and labor, financial intermediation is the bridge providing an institutional and functional link between the micro behavior of financial agents and the macro context.

In sum, the Solow–Swan Growth Theory and the Financial Intermediation Theory provide useful perspectives on the poverty-growth-financial stability knot in SSA. The former explains how poverty stymies capital formation and labour productivity and the latter explains how financial instability compounds these constraints by choking off intermediation. All these theories when integrated, this study is in a better position to examine how financial stability mitigates the negative impact of poverty on economic growth. Furthermore, such twin-theoretical approach also helps in the design of holistic policy responses, which grapple both with structural and financial impediments to inclusive development in Sub-Saharan Africa.

METHODS

Data Collection

This paper adopts a positivist research perspective and a quantitative research design to investigate the poverty-economic growth nexus and the moderating effect of financial soundness (financial stability) in Sub-Saharan Africa. This choice for approach is suitable given that the study is built upon those empirical, macro-level variables that can be measured and analyzed with statistical modelling, and which we are able to generalize across countries and time. According to Zaman et al. (2023), quantitative studies are especially useful in inter-country poverty research, as they help to detect statistically significant patterns over time and space (Zaman et al., 2023). The study draws from publicly available macroeconomic databases, predominantly the World Bank's World Development Indicators and the UNESCO education

datasets. These sources are included because they are trustworthy/have reliability and they cover comprehensively the SSA countries. The series cover the years 2000–2023, enough length of time to capture long-run behaviour of economic growth, poverty and financial stability Measures.

Sample Population

Although SSA consists of 49 countries, the final analysis was performed based on 38 countries, chosen according to the availability and extent of data for the study period. To avoid the risk of bias in regression estimates, countries with too many missing values on core variables were dropped from the analysis. This methodology is in accordance with the method of other regional studies such as of Saidi et al. (2023), who stress the requirement to use panel data in cross-national economics research (Saidi et al., 2023). The use of a balanced panel data model provides significant time-series and cross-sectional variations and enriches the potential to test for both country effects and regional dynamics. Moreover, the countries concerned also have varied income, financial system development and governance quality levels, hence providing rich sources for examining how financial stability moderates the poverty-growth nexus.

Measures

To empirically test the hypotheses, this paper utilizes standardized macroeconomic indicators that are integrated using a structured set of variables as presented in Table 1. They are commonly used in development economics literature, providing a multidimensional approach to poverty, growth and financial inclusion in SSA (McKay, 2016). Following recent works on composite indices (e.g., Nawaz & Rahman, 2023), we use normalized scores to construct factors, such as the Economic Growth Index (EGI) and the Financial Stability Index (FSI), to ensure comparability between countries and over time (Nawaz & Rahman, 2023).

Table 1: Measurements of Variables

Variable	Definition	Acronym	Measurement	Data Source
Economic Growth Index	Composite score of real economic output and income per capita	EGI	Average of normalized values: GDP per capita, GDP growth, GNI per capital	World Bank World Development Indicators
Poverty	National poverty headcount ratio or multidimensional poverty index	POV	% of population below national or \$2.15/day poverty line	World Bank/UNDP
Financial Stability Index	Composite score of banking system strength	FSI	Avg. of normalized: Capital to assets, (1 - NPL), Regulatory Quality	IMF Financial Soundness Indicators, WGI
Inflation	Rate of increase in general price level	INF	Annual % change in CPI	World Bank WDI
Credit to Private Sector	Financial resources provided to private sector as % of GDP	CRD	% of GDP	World Bank WDI

Educational Attainment	Average years or completion rates in formal education	EDU	Educational attainment index (based on school enrollment or completion)	World Bank/UNESCO
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Model for the Study

This study adopts a moderated panel regression model, where financial stability (FSI) serves as a moderator in the relationship between poverty (POV) and economic growth (EGI). This model allows for the identification of interaction effects, capturing whether the strength or direction of the poverty-growth relationship depends on the level of financial stability.

Model Specification:

The following econometric model is specified:

$$EGI_{it} = \beta_0 + B_1POV_{it} + B_2FSI_{it} + B_3(POV_{it} \times FSI_{it}) + B_4X_{it} + \mu_i + \lambda_t + \epsilon_{it}$$

Where:

- EG_{it} = Economic growth in country i at time t .
- POV_{it} = Poverty Level
- FSI_{it} = Financial Stability Index
- $POV_{it} \times FSI_{it}$ = Interaction term (moderation effect)
- X_{it} = Vector of control variables (inflation, credit, education)
- ϵ_{it} = the error term.
- μ_i = Country-specific effect.
- λ_t = Time fixed effects

Analytical Techniques

To examine the nexus between poverty, fiscal insulation and economic expansion in Sub-Saharan Africa, this research uses a robust sequence of econometric procedures that guarantees robustness and validity of the findings. The empirical investigation starts with descriptive statistics to report the distribution, central tendencies, and dispersion of all variables in the panel data. It allows the detection of outliers and general patterns as a first step as it is also the method used by Zaman et al. (2023), who argue for a more descriptive diagnostic in poverty-growth analysis (Zaman et al., 2023). After that, the correlations are used to examine a strength and a direction of linear associations between the variables. Nevertheless, correlation does not imply causality nor does it consider time-dependent relationships. Thus, the analysis progresses to tests of stationarity—namely, the Levin–Lin–Chu and Im–Pesaran–Shin unit root tests—to investigate the time-series characteristics of the panel data. Stationarity is important because failed to do so may lead to spurious regression results (especially in long time-series data) (Saidi et al., 2023).

We also test the model specification, such as Hausman, to choose between fixed and random effects estimators. For the purpose of control for collinearity, the cooperators estimated VIFs in their models (Bashiru et al. (2023) who contends that increased multicollinearity biases coefficient interpretation in macroeconomic models (Bashiru et al., 2023). The final main analysis is run with the Difference GMM estimator. This approach, potentially well suited for

dynamic panel data, corrects for endogeneity, unobserved heterogeneity and autocorrelation by employing lagged levels as instruments for differenced equations. It is particularly applicable in macroeconomic growth analysis where variables such as poverty and financial development are bound to be endogeneous (Nawaz & Rahman 2023).

RESULTS

Descriptive Statistics

Table 2 shows some descriptive statistics to give a first idea on the nature of the main variables considered in the analysis. We also see that the mean value of the Economic Growth Index (EGI) is relatively constant, 0.144, with a small spread between the minimum (0.057) and the maximum (0.248). This implies that there is less variation in economic performance within the sample of Sub-Saharan African countries during this period. Since arrival at, not of, the SSA nations on the conditional mean, the low standard deviation (0.014) confirms the growth convergence among SSA countries as indicated by neoclassical growth. On the contrary, poverty is highly dispersed, with a mean of 36.56% and a standard deviation of 20.99, evidencing substantial heterogeneity in the rate of poverty among countries. The highest percentage value is 80.73%, emphasizing on how deep poverty is in some economies in SSA. The Financial Stability Index (FSI) also has a moderately wide distribution (skewness of 0.59) slightly skewed to the right, which shows that most countries are more likely to be below the mean level of financial stability. The distribution of both inflation and credit to GDP also exhibits heavy tails, as shown by the high kurtosis values of 280.8 and 12.04, respectively. The Jarque-Bera statistics provided evidence of non-normality for all variables ($p < 0.01$) which may require data transformation or robust estimation method, such as GMM for further analysis. Summary statistics These summary statistics both suggest heterogeneities in the structure of the economy and the necessity for moderated regression analysis to study the interactions of poverty and growth.

Table 2: Descriptive Statistics Results

	Economic Growth Index	Poverty	Financial Stability Index	Education	Inflation	Credit to GDP
Mean	0.144460	36.55555	0.461188	31.03283	8.889654	20.32807
Median	0.143503	32.25663	0.456994	26.94000	5.681349	13.80506
Maximum	0.247930	80.73006	0.788203	90.62309	557.2018	142.4220
Minimum	0.057469	0.125314	0.271223	2.040000	- 16.85969	0.001297
Std. Dev.	0.014229	20.98548	0.080981	19.80682	28.76499	23.10407
Skewness	1.328974	0.295652	0.589794	0.641919	15.77004	2.932901
Kurtosis	14.19243	2.160630	4.188079	2.431864	280.7951	12.04415
Jarque-Bera	4582.106	36.50109	97.05247	68.24652	2706459.	4023.572
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	120.0459	30377.66	383.2469	25788.29	7387.302	16892.63
Sum Sq. Dev.	0.168051	365524.2	5.443076	325617.3	686762.7	443052.2
Observations	831	831	831	831	831	831

Source: Field Data (2025)

Correlation Analysis

The correlation matrix on Table 3 is useful at this initial stage to have an idea the direction and strength of relationships between the core variables. Poverty being significantly negatively related to economic growth ($r = -0.155$) further indicates that the higher the level of poverty the lower the economy's performance in Sub-Saharan Africa. This result is consistent with the expectation in theory that poverty is the sort of shortfall of investment and productivity and human capital formation that retard growth. On the other hand, financial stability is positively correlated with growth ($r = 0.205$), meaning that the higher the level of financial stability, the faster the country grows. This is in line with Financial Intermediation Theory, which posits the effectiveness of the financial sector in promoting investments and stabilizing the macroeconomy. The latter finding is complemented by the further analysis in which it is shown that education ($r = 0.256$) and credit to GDP ($r = 0.281$) also exhibit moderate significant positive associations with growth, once again stressing the relevance of human capital and financial inclusion. On the other hand, inflation negatively correlates with growth weakly ($r = -0.103$), showing that poor performance is due to macroeconomic instability. In sum, the findings indicate that things financial and human development could enhance the link between poverty and growth—in a proposition that will be investigated further when the regression model is examined.

Table 3: Correlation Analysis Results

	1	2	3	4	5	6
Economic Growth Index	1.000000					
Poverty	-0.155262	1.000000				
Financial Stability Index	0.205360	-0.164483	1.000000			
Education	0.256356	-0.311990	0.194740	1.000000		
Inflation	-0.102533	0.025531	-0.089938	0.169935	1.000000	
Credit to GDP	0.281029	-0.329684	0.427907	0.423448	-0.075445	1.000000

Source: Field Data (2025)

Stationary Tests

The stationarity tests reported in Table 4 are crucial to verify the appropriateness of the panel dataset to be used for regression analysis particularly in the presence of time series variables. The results have a strong rejection of the null hypothesis of unit root in all the tests, showing that the Economic Growth Index is stationary in level. This is shown in the Levin, Lin & Chu (LLC) t-test since the t-value is -6.26 ($p < 0.0001$). As this test presupposes a common unit root process across all the panels, then this result implies that the 38 Sub-Saharan African countries under investigation have some shared trend stationarity. For better validation, tests that account for unit root processes individually, such as the Im-Pesaran-Shin (IPS) W-statistic and both ADF-Fisher and PP-Fisher Chi-square tests, also indicate significant values at the 1% level. For example, in the IPS test, -9.00 ($p = 0.000$) clearly shows the rejection of unit roots, even when heterogeneity is considered (Saidi et al., 2023).

In conclusion, these findings offer compelling support for the fact that the data is weakly stationary in levels, thereby dispelling concerns of spurious regression and supporting the application of the Difference GMM (as well as other panel-based) estimators in analysis to follow.

Table 4: Stationary Tests Results

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-6.26451	0.0000	38	836
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-9.00413	0.0000	38	836
ADF - Fisher Chi-square	222.508	0.0000	38	836
PP - Fisher Chi-square	435.567	0.0000	38	874

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Multicollinearity Check

The multicollinearity test (demonstrated in Table 6 through the VIF values) indicates to what extent the explanatory variables depend on linearly. It is worth noting those centered VIFs (which are the more appropriate measure when working properly from model diagnostics) are all much lower than the commonly recommended threshold of 10, which suggests no significant multicollinearity in the regressors. As an example, VIF of poverty being 1.17, that of financial stability and education is 1.23 and 1.34 respectively. They indicate that each variable adds some distinct information to the regression model. In addition, credit to GDP has the maximum centered VIF (1.52) but not to be so high ensuring that financial sector depth is not extremely correlated with the other independent variable. However, the uncentered VIFs seem to be inflated particularly for the constant term (VIF = 44.91) and financial stability (VIF = 41.20). Yet uncentered VIFs are not really useful to multicollinearity, they just measure (model-) scale and not redundancy. As a result, there is no multicollinearity in the model as verified by the centered VIF values, and consequently the coefficients estimate are reliable in the following regression analysis.

Table 6: Multicollinearity Test Results

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
Poverty	5.73E-10	4.735319	1.172681
Financial Stability Index	4.04E-05	41.20346	1.230975
Education	7.35E-10	4.636405	1.340876
Inflation	2.77E-10	1.167949	1.066013
Credit to GDP	6.11E-10	2.693506	1.517412
C	9.65E-06	44.91495	NA

Regression Analysis

The use of the Generalized method of moments (GMM) estimator to back the regression analysis of the study evaluates the link between poverty, financial deepening, and growth in the Sub-Saharan Africa and this is supported empirically. It is particularly interesting to observe that the lagged economic growth index is positive and statistically very significant ($\beta = 0.2086$, $p < 0.001$), suggesting the dynamic nature of growth and support for the inclusion of a lagged dependent variable. This implies that the previous growth rate, as per endogenous growth theory and the Solow-Swan model, depends on past growth (McKay, 2016). More importantly, the coefficient of poverty is negative and statistically significant ($\beta = -0.000735$, p

< 0.001), supporting the theoretical argument that poverty was a barrier to economic growth. This is in agreement with the result of Zaman et al. (2023) for example, who note that poverty depresses labor productivity and savings, leading into a vicious circle of underdevelopment (Zaman et al., 2023). Similarly, Saidi et al. (2023) pointed out that macroeconomic stability is compromised and the benefits of growth are delayed for as long as governance thresholds are not attained (Saidi et al., 2023).

It is interesting to note that the direct influence of financial stability on growth is also positive but statistically insignificant ($\beta = 0.02286$, $p = 0.124$), which may imply that financial stability also cannot ensure growth unless with complementary structural reform or human capital. This is partly in contrast with Bashiru et al. (2023) reported that financial development is a principal propeller of growth by enhancing credit accessibility served as a publication fountain for Bashiru et al. However, the lack of significant result in this study could be the result of differences in depth of financial system or quality of regulation in the sampled countries. More importantly, the interaction of poverty with financial stability (POV_FSI) is negative and highly significant ($\beta = -0.001643$, $p = 0.0005$). This finding is consistent with the basic hypothesis of the study: financial stability is there to moderate (in this case negatively) the poverty to growth relationship. That is, when financial systems are underdeveloped, the growth-impovertment linkages are intensified. This corroborates the results of Matekenya et al. (2020) who stress that poverty reduction can only be translated into real growth outcomes if we have financially inclusive and resilient systems (Matekenya et al., 2020).

Unexpectedly, the coefficients for education and inflation are not statistically significant; the coefficient for education is even negative. This departs from standard theory and could be due to data quality, lagged impacts or, possibly, sign that education in SSA may not be turning into labor productivity benefits just yet as a result of issues related to quality or matching in labor markets (Nawaz & Rahman, 2023). Conversely, credit to private has an inverse and significantly negative impact on growth ($\beta = -0.000355$, $p = 0.002$). This result is contrary to the standard wisdom from financial development theory that credit growth leads to growth. However, in a similar vein with Davis (2016), this might signal inefficient allocation of credit in SSA, being channeled to consumption or nonproductive sectors because of poor financial intermediation and governance deficiencies (Davis, 2016). Third, the J-statistic (34.65, p value 0.025) also confirms the identity of the instrument set, proving there is no over-identification. Collectively, these outcomes provide strong evidence in support of the study's conceptual framework and underscore the urgency to strengthen the financial system to attenuate the adverse impact of poverty and catalyze inclusive growth throughout Sub-Saharan Africa.

Table 7: Regression Analysis Results Using GMM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Economic Growth Index (-1)	0.208635	0.012723	16.39779	0.0000
Poverty	-0.000735	0.000144	-5.103762	0.0000
Financial Stability Index	0.022860	0.014833	1.541107	0.1237
Education	-0.000117	0.000184	-0.636796	0.5245
Inflation	-4.31E-05	2.99E-05	-1.444379	0.1490
Credit to GDP	-0.000355	0.000115	-3.096539	0.0020
POV_FSI	-0.001643	0.000470	-3.493723	0.0005

	Effects Specification		
Cross-section fixed (first differences)			
Mean dependent var	0.000158	S.D. dependent var	0.012548
S.E. of regression	0.013801	Sum squared resid	0.143418
J-statistic	34.64629	Instrument rank	37
Prob(J-statistic)	0.025738		

CONCLUSIONS AND POLICY IMPLICATIONS

The implications of the findings of this study for policymakers and development practitioners in Sub-Sahara Africa are numerous. The strong negative effect of poverty on economic growth reconfirms the necessity for comprehensive poverty reduction schemes that focus not only on social aspects but also on stimulating growth. Importantly as well, the interaction effect between poverty and financial stability implies that development initiatives to focus first on financial sector strength. This means that policy makers need to invest in such regulatory frameworks and financial inclusion and in institutions that facilitate financial accountability. In the absence of a strong financial base, the noblest attempts at growth strategy may never overcome structural poverty. Moreover, the detrimental influence of credit-to-GDP on growth also reflects the fact that the allocation of credit is inefficient, necessarily requiring a better supervision and more focused lending to activities that are more productive like agriculture and small firms.

The study has some useful implications for accounting and finance research. It highlights the importance of financial reporting, audit quality, and transparency toward promoting financial stability. Institutional strengthening the more that institutions succeed in strengthening financial resilience, the more important robust accounting systems become in monitoring the movement of funds, detecting loss-making areas and improving fiscal discipline. For researchers, this implies a broader agenda where accounting goes beyond compliance to facilitating a sound financial governance, which promotes macroeconomic development. Further research in accounting should therefore emphasize more on how quality of disclosure, risk assessment approaches and the internal controls affect broader economic issues – especially in emerging and least developing economies such as those in SSA.

References

- Abu Alfoul, M. N., Arian, A. G., Abu Al-Foul, M. N., Bazhair, A. H., & Khatatbeh, I. N. (2024). The Effect of Education on economic growth in Sub-Saharan African countries: Do institutions matter? *Economies*, 12(11), 300. <https://doi.org/10.3390/economies12110300>
- Abisuga-Oyekunle, O. A., Patra, S. K., & Muchie, M. (2019). SMEs in sustainable development: Their role in poverty reduction and employment generation in sub-Saharan Africa. *African Journal of Science, Technology, Innovation and Development*, 12(4), 405–419. <https://doi.org/10.1080/20421338.2019.1656428>
- Bashiru, S., Al-Faryan, M. A. S., Yakubu, I. N., & Bunyaminu, A. (2023). Drivers of financial inclusion: Insights from Sub-Saharan Africa. *Economies*, 11(5), 146. <https://doi.org/10.3390/economies11050146>
- Batista, C., & Vicente, P. C. (2023). Is mobile money changing rural Africa? Evidence from a field experiment. *Review of Economics and Statistics*, 1–29. https://doi.org/10.1162/rest_a_01333
- Davis, T. J. (2016). Good governance as a foundation for sustainable human development in sub-Saharan Africa. *Third World Quarterly*, 38(3), 636–654. <https://doi.org/10.1080/01436597.2016.1191340>

- Goyal, A., & Nash, J. (2017). Reaping richer returns: Public spending priorities for african agriculture productivity growth. Washington dc world bank agence francaise de developpement. <https://doi.org/10.1596/978-1-4648-0937-8>
- Inoue, T., & Hamori, S. (2016). Financial Access and Economic Growth: Evidence from Sub-Saharan Africa. *Emerging Markets Finance and Trade*, 52(3), 743–753. <https://doi.org/10.1080/1540496x.2016.1116282>
- Konte, M., & Tetteh, G. K. (2022). Mobile money, traditional financial services and firm productivity in Africa. *Small Business Economics*, 60(2), 745–769. <https://doi.org/10.1007/s11187-022-00613-w>
- Matekenya, W., Moyo, C., & Jeke, L. (2020). Financial inclusion and human development: Evidence from Sub-Saharan Africa. *Development Southern Africa*, 38(5), 683–700. <https://doi.org/10.1080/0376835x.2020.1799760>
- Mckay, A. (2016). *Growth and Poverty in Sub-Saharan Africa*. Oxford University pressoxford. <https://doi.org/10.1093/acprof:oso/9780198744795.001.0001>
- Menyelim, C. M., Omankhanlen, A. E., Ehikioya, B. I., & Babajide, A. A. (2021). Financial inclusion, income inequality and sustainable economic growth in Sub-Saharan African countries. *Sustainability*, 13(4), 1780. <https://doi.org/10.3390/su13041780>
- Nawaz, A., & Rahman, M. M. (2023). Renewable energy consumption in Sub-Saharan Africa: The role of human capital, foreign direct investment, financial development, and institutional quality. *Energy Reports*, 10, 3383–3393. <https://doi.org/10.1016/j.egy.2023.10.025>
- Olaniyi, C. O., & Oladeji, S. I. (2020). Moderating the effect of institutional quality on the finance–growth nexus: insights from West African countries. *Economic Change and Restructuring*, 54(1), 43–74. <https://doi.org/10.1007/s10644-020-09275-8>
- Saidi, Y., Ochi, A., & Labidi, M. A. (2023). Economic growth and extreme poverty in Sub-Saharan African Countries: Non-Linearity and Governance Threshold Effect. *Journal of the Knowledge Economy*, 15(2), 7819–7851. <https://doi.org/10.1007/s13132-023-01421-7>
- Zaman, U., Fulu, O., Anyanwu, O. C., Onwe, J. C., Ebeh, J. E., & Jena, P. K. (2023). Unraveling the intricate relationship between unemployment, population, and poverty in Sub-Saharan Africa: Does quality of life matter? *Sustainable Development*, 31(5), 3930–3945. <https://doi.org/10.1002/sd.2635>