

# Causality between Financial Deepening, Economic Growth and Poverty in Nigeria

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## Key words

Finance, growth, poverty, causality, Nigeria

## Abstract

*This study investigates the dynamic causal relationship between financial deepening, economic growth and poverty in Nigeria using annual time series covering 1960 to 2011 periods. The Johansen co-integration test is used to examine the long-run relationship between finance, growth and poverty. The short and long run causality between these variables is tested using a modified Hsiao-Granger causality within a Vector Autoregressive (VAR) and Vector Error Correction Model (VECM) framework. The results indicate no evidence of long run equilibrium relationship between finance, economic growth and poverty. Therefore, we focus on short-run causality. Our results show a short-run unidirectional causality from growth to poverty conditional on finance. This supports the indirect channel through which finance affects poverty via growth. We also found evidence of causality from poverty to financial deepening conditional on growth. These findings have important policy implications. A more balanced policy approach that also takes into account other fundamental growth factors such as institutions, investment in physical and human capital may help strengthen the finance-growth-poverty dynamics.*

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## Introduction

The establishment of the Millennium Development Goals has set poverty reduction as a fundamental objective of development. In recent years, there has been an upsurge of interest in the impact of development on poverty. Poverty has increasingly become a major global issue, with halving extreme poverty by 2015 constituting the first, and perhaps the most critical, goal of the Millennium Development Goals (MDGs). Poverty in Nigeria has been assuming wider dimensions including household income poverty, food poverty/insecurity, poor access to public services and infrastructure, unsanitary environment, illiteracy and ignorance, insecurity of life and property, and poor governance. About 68 and 84.5 percent of the population lives below \$1.25 and \$2 a day, respectively while the Gini index stands at 48.8 as at 2010 (World Bank, 2012). Nigeria's human development index is very low standing at 0.459 as at 2011. Thus, Nigeria ranks 156 out of 187 countries and 18 out of 45 African countries (UNDP, 2011, 2012). This poverty situation is worse in the rural areas where over 70 percent of the people reside and earn their living through agriculture than in the urban areas. In Nigeria, domestic output (GDP) growth has shown mixed developments between 1981 and 2011. During this period, the economy registered declines in the real GDP (at 1990 constant basic prices) in five years (1982, 1983, 1984, 1987 and 1991) ranging from -7.1 per cent in 1983 to -0.6 per cent in 1987. For the rest of the period, the annual real GDP growth was positive. The economy witnessed high growth rates of 10.2 and 10.5 per cent in 2003 and 2004 before declining to 6.0 per cent in 2008, followed by a mild recovery of 6.7 per cent in 2009. As at 2011, the GDP grew by 7.4 per cent (Central Bank of Nigeria (CBN), 2012).

Although, a number of factors could have contributed to the above scenarios, this study focuses on examining whether financial development may be a significant factor for

economic growth and welfare improvement in Nigeria given that several policies have been implemented in an attempt to integrate financial services into poverty reduction in Nigeria. Further, the global financial crisis has illustrated the potentially disastrous consequences of weak financial sector policies for financial development and their impact on the economic outcomes. The crisis has challenged conventional thinking in financial sector policies and has led to much debate on how best to achieve sustainable development. Nigerian financial market has been noted to be one of the largest in Sub-Saharan Africa with regard to diversity of institutions and instruments (CBN, 2005). The Nigerian financial system can be broadly divided into two sub-sectors, namely: the informal and the formal sectors. The informal sector comprises the local money lenders, the thrifts, savings associations, etc. This component is poorly developed, limited in reach, and not integrated into the formal financial system. The formal financial system on the other hand can be further sub-divided into capital and money market institutions. It is made up of the banks and non-bank financial institutions<sup>1</sup>. The system became liberalized in the 1980s when the structural adjustment programme was introduced. The system has undergone significant changes in terms of the policy environment, number of institutions, ownership structure, depth and breadth of markets, as well as in the regulatory framework. The financial system comprises of the central bank, commercial banks, mutual funds, brokerage firms, discount houses, and stock exchange, to mention just few. These institutions trade in financial instruments such as domestic currency, foreign currency, stocks, bonds, derivatives and so on, and in the process mobilize funds from surplus unit (savers) to deficit unit (investors). Although a wide variety of financial institutions and markets exist, commercial banks overwhelmingly dominate the financial sector and traditional bank deposits represent the major forms of financial saving. Therefore, the financial markets have been adjudged to be shallow when compared with advanced and emerging economies (CBN, 2005).

Theoretically, there exists some form of linkage between finance and growth, finance and poverty, growth and poverty. This relationships and the channel through which it occurs is explained in detail in the next section. Empirically, a number of studies have examined the relationship between finance and growth, growth and poverty and finance and poverty.<sup>2</sup> The results are often mixed resulting in some cases due to methodology used, proxy for financial development used and whether it is cross-country or country-specific study. As far as our country of study is concerned, only few studies have examined these links. For instance, the link between finance and growth is examined by Olofin and Afangideh, 2008; Odeniran and Udejaja, 2010; Fadare, 2010; Adenuga, 2010; Ujunwa and Salami, 2010; Aye, 2012; Shittu, 2012. The link between growth and poverty is investigated by Aigbokhan, 2000; Osinubi, 2005; Addison and Wodon, 2007; Adigun et al, 2011 and Ijaiya et al. 2011. Studies linking microfinance and poverty reduction include Okpara, 2010; Nudamatiya et al., 2010; Akangbe, et al. 2012 and Yahaya et al., 2012 among others. One of the major weaknesses of majority of these studies is that they investigated the relationship without considering the issue of causality or reverse causality. It is however widely accepted now that the existence of a relationship does not imply causality. Moreover, to the best of our knowledge no study has investigated the finance- growth-poverty nexus together for Nigeria. To fill these gaps, the current study contributes to literature by examining the causal relationship between formal finance, economic growth and poverty in Nigeria. Specifically, we test for causality between financial deepening and poverty, capturing indirect linkages between finance and poverty by also scrutinizing the relationship between

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<sup>1</sup> The micro-financial institutions which fall under the non-bank institutions could be best described as semi-formal

<sup>2</sup> See Zhuang, et al. 2009; Odhiambo, 2009, 2010a, 2010b; Ho and Odhiambo, 2011 for detailed literature.

finance and growth. Causality is tested using a modified Hsiao-Granger causality test within a Vector Autoregressive (VAR) and Vector Error Correction Model (VECM) framework.

### **Theoretical basis for the study**

In this section, we consider the finance-growth theories and finance-poverty theories.

#### **Financial development and growth: theory**

One of the oldest debates in economics has remained the relationship between financial development and economic growth. Its root can be traced to Schumpeter (1912), when he posits that finance is paramount for economic growth. However, Robinson (1952) argues that economic growth promotes financial development. Financial markets provide an economy with vital services comprising, for example, the management of risk and information, and the pooling and mobilization of savings (Gries et al., 2011). Theoretically, the linkage between finance and economic growth may take different forms. On the one hand, the financial sector may affect growth through the accumulation channel and the allocation channel. The accumulation channel emphasizes the finance-induced growth effects of physical and human capital accumulation (Pagano, 1993). The allocation channel focuses on the financed-induced efficiency gains in resource allocation that enhances growth (King and Levine, 1993). Following these considerations, causality runs from finance to growth (*supply-leading hypothesis*). On the other hand, financial development may also be stimulated by economic growth. For instance, in a growing economy, the private sector may demand new financial instruments and an improved access to external finance. Financial activities then simply expand in step with general economic development (Robinson, 1952), positing the so-called *demand-following hypothesis*. Additionally, finance and growth may be mutually dependent. The real sector may provide the financial system with the funds necessary to enable financial deepening, eventually allowing for a capitalization on financial economies of scale which in turn facilitates economic development (Berthelemy and Varoudakis, 1996). The latter hypothesis postulates *bidirectional causality*. Countries with better-developed financial systems are therefore expected to grow faster over long periods of time. Following more skeptical views (Lucas, 1988), the financial and real sector may also be independent of each other, thereby naturally putting emphasis on other factors that may determine economic development (*insignificant causation*).

#### **Financial development and poverty reduction: theory**

Theoretically, there are two channels through which financial sector development can impact poverty reduction. One works indirectly through growth. The other works directly through the poor benefiting from accessing financial services (Zhuang, et al. 2009). With respect to the indirect channel, the impact of growth on poverty reduction runs through a number of possible channels. First, economic growth could generate jobs for the poor. Second, it has been suggested that a higher rate of growth could reduce the wage differentials between skilled and unskilled labor at a later stage of development (Galor and Tsiddon, 1996), which benefits the poor. Third, high growth could lead to higher tax revenues, enabling the government to allocate more fiscal resources on social spending such as health, education, and social protection, and hence benefiting the poor; and the poor would also be able to invest more in human capital (Perroti, 1993). Fourth, as capital accumulation increases with high economic growth, more funds would become available to the poor for investment purposes (Aghion and Bolton, 1997), thus increasing their income. There were however different views on the growth-poverty reduction nexus in the earlier literature. The popular Kuznets's inverted-U hypothesis (Kuznets 1955, 1963) suggests that economic growth may increase income inequality at the early stage of development, but reduce it at the mature stage of industrialization. The asset-rich classes who can self-finance

or have easy access to finance would reap the early harvest of industrialization and thus garner a higher share of the economic pie, leaving the poor disadvantaged. On the other hand, the “trickle down” (shared-growth) theory postulated that economic growth would either trickle down to the poor through job creation and other economic opportunities or create the necessary conditions for the wider distribution of the economic and social benefits of growth (Todaro, 1997). With respect to the direct channel, many believe that financial sector development can directly contribute to poverty reduction by providing or broadening the poor’s access to financial services. Many economists are of the view that financial intermediary development will have a disproportionately beneficial impact on the poor. This is because informational asymmetries produce credit constraints that are particularly binding on the poor as they do not have the resources to fund their own projects, nor the collateral to access bank credit (Banerjee and Newman 1993; Galor and Zeira 1993; Aghion and Bolton 1997). These credit constraints restrict the poor from exploiting investment opportunities, thus slowing aggregate growth by keeping capital from flowing to its highest-value use. A poorly functioning financial system will produce higher income inequality by disproportionately keeping capital from flowing to “wealth-deficient” entrepreneurs. Financial sector development reduces information and transaction costs and, therefore, (i) allows more entrepreneurs—especially those less well-off—to obtain external finance, (ii) improves the allocation of capital, and (iii) exerts a particularly large impact on the poor. Fields (2001) argues that much would be gained by developing credit and finance markets since an underdeveloped credit market contributes to continued poverty, higher income inequality, and slower economic growth. There are, however, also skeptical views on whether financial sector development can lead to a broadening of access to finance by the poor, especially at early stages. Some argue that it is primarily the rich and politically connected who would benefit from improvements in the financial system (Haber 2004). As such, greater financial development may only succeed in channeling more capital to a select few. Given these conflicting views, it is left to empirical investigation to determine whether or not financial system development accelerates economic growth and reduces poverty. Therefore, country-specific investigation cannot be undermined and this provides justification for the current study.

### **Data and empirical procedure**

We use the entire historical annual time-series data, which covers the 1960 to 2011 periods. The ratio of broad money (M2) to nominal GDP is used as an indicator of financial deepening.<sup>3</sup> The series is labeled *FINDEEP*. For economic growth, the real GDP per capita is used and the series is labeled *GROWTH*. We use per capita consumption as a proxy for poverty reduction. This measure is consistent with the World Bank’s definition of poverty as “the inability to attain a minimal standard of living” measured in terms of basic consumption needs (World Bank, 1990). The series is labeled *POVERTY*. All series are used in their natural logarithms. The data is obtained from World Development Indicators and Central Bank of Nigeria statistical bulletins.

Prior to the causality test, some preliminary tests are performed on the time series. First, unit root tests are conducted to check if the time series are stationary. Augmented Dickey Fuller, (ADF), Phillips and Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) unit root tests are used. If unit root is found, a difference filter is employed to obtain stationarity. Second, the trivariate VAR model is tested for the rank of cointegration, following Johansen (1988, 1991).<sup>4</sup>

<sup>3</sup> It should be noted that other indicators exist.

<sup>4</sup> Cointegration analyses are also conducted in all bivariate cases but not reported.

Following Gries et al. (2011), Granger causality is tested in a modified framework proposed by Hsiao (1979, 1982). In standard Granger causality analyses, all variables are constrained to enter at the same lag length; this may lead to inconsistent results (Braun and Mittnik, 1993). The procedure followed in this study avoids such problems as the variables may enter at different lag lengths. Granger's (1969) definition of non-causality states that if one is able to better predict a series  $x_t$  when including information from a series  $y_t$  instead of only employing lagged values of  $x_t$ , then  $y_t$  Granger-causes  $x_t$ , denoted  $y_t \Rightarrow x_t$ . Bidirectional causality, or feedback, is present when  $x_t$  also Granger-causes  $y_t$ . By combining this causality definition with Akaike's (1969) Final Prediction Error (FPE), causality can be tested for in the Hsiao–Granger sense. In its basic form, the causality testing procedure requires first the consideration of an autoregressive process

$$y_t = \alpha + \sum_{i=1}^m (L)\beta y_t + u_t \quad (1)$$

The summation sign before  $L$  indicates the lag order of the series.  $L$  is the lag operator,  $Ly_t = y_{t-1}$ .  $u_t$  is a white noise term with the usual statistical properties,  $\alpha$  is a constant term and  $\beta$  is the coefficient of the exogenous variable.

The lag order that yields the smallest FPE, denoted  $FPE_y(m, 0)$ , is chosen, where the individual FPE are calculated as per the following equation with lags varying from 1 to  $m$

$$FPE_y(m, 0) = \frac{(T+m+1)}{(T-m-1)} \times \frac{SSE}{T} \quad (2)$$

where  $T$  is the number of observations and SSE the residual sum of squares.

Allowing another variable  $x_t$  to enter the model, obtains the subsequent VARs with the established notations

$$y_t = \alpha + \sum_{i=1}^m (L)\beta y_t + \sum_{j=1}^n (L)\gamma x_t + u_t \quad (3)$$

$$x_t = \alpha + \sum_{j=1}^n (L)\gamma x_t + \sum_{i=1}^m (L)\beta y_t + v_t \quad (4)$$

While  $y_t$  steadily enters Equation 3 with the lag order from Equation 2 that yields the smallest FPE,  $m^*$ ,  $x_t$  enters with a sequence of lags varying from 1 to  $n$ . The FPE of Equation 3 are computed, with the specific lag order  $m^*$ ,  $n^*$  being chosen that generates the smallest FPE, denoted as  $FPE_y(m^*, n^*)$ , from

$$FPE_y(m^*, n) = \frac{(T+m+n+1)}{(T-m-n-1)} \times \frac{SSE}{SST} \quad (5)$$

By comparing the two minimal FPEs, we can draw conclusions on short run causality between finance and agricultural growth. If  $FPE_y(m^*, 0) > FPE_y(m^*, n^*)$ ,  $x_t \Rightarrow y_t$ ; thus, Granger causality is established. If  $FPE_y(m^*, 0) < FPE_y(m^*, n^*)$ ,  $x_t \not\Rightarrow y_t$  and no Granger causality is detected. Testing for causality from  $y_t$  to  $x_t$  requires a repetition of the previously described steps, now with  $x_t$  as the dependent variable as shown in Equation 4.

To avoid the possibility of spurious causality, empirical analyses are conducted in trivariate systems, so we test for causality between two series, conditional upon the presence of a third one.<sup>5</sup> Short-run causality inferences are made by comparing the minimal FPE of

<sup>5</sup> Specifically, we test for finance–poverty, finance–growth and growth–poverty causality. The previous discussion of potential interactions between finance, openness and growth provides the ground for such analyses.

the bivariate and trivariate system. If a cointegration relationship is found, an Error Correction Model (ECM) is included; hence any VAR passes into a VECM (Engle and Granger, 1987). In VECM, the ECM estimate is interpreted as evidence of long run causality, where such an interpretation is only feasible if the ECM term is negative and statistically significant (Wickens, 1996). If no cointegration is accounted for, then we run the analyses in simple trivariate VAR in differences. Here, we examine the respective F-test results that indicate significance of the VAR coefficients; if the F-test statistics are not significant, then causality inferences may be spurious (Gries et al., 2011).

### Results and discussion

The unit root results are reported in Table 1. Both ADF and PP tests do not reject the null hypothesis of the existence of a unit root for all level data. Using the KPSS test, the null hypothesis of stationarity is rejected for the three series. The conclusion is that all the series are non-stationary. However, when the first differences are taken, the ADF and PP tests rejected the null hypothesis of non-stationarity while the KPSS test could not reject the null hypothesis of stationarity. The examined time series are thus I(1) at levels and I(0) when the first differences are taken, so a difference filter was employed to obtain stationarity.

For cointegration analysis based on Johansen, two tests are available: the trace statistic and the maximum eigenvalue test. The presence of a cointegration implies that finance, economic growth and poverty share long run equilibrium relationship. Table 2 shows the cointegration results for the trivariate VAR model. Both trace and the maximum eigenvalue tests indicate no cointegration relationship at both 5% and 1% significance levels. It is noted that two lags were used in the analysis as suggested by both final prediction error and Akaike information criterion.

Augmented Dickey Fuller Test		
	Level	First difference
<i>GROWTH</i>	-0.542	-3.392***
<i>FINDEEP</i>	-1.984	-4.869***
<i>POVERTY</i>	1.181	-5.332***
Phillips-Perron Test		
	Level	First difference
<i>GROWTH</i>	-0.987	-4.873***
<i>FINDEEP</i>	-1.400	-4.738***
<i>POVERTY</i>	0.903	-5.338***
Kwiatkowski-Phillips-Schmidt-Shin Test		
	Level	First difference
<i>GROWTH</i>	0.549**	0.086
<i>FINDEEP</i>	0.540**	0.106
<i>POVERTY</i>	0.946***	0.283

\*, \*\*, and \*\*\* denote significant at 10%, 5% and 1% levels, respectively

**Table 1: Unit Root Tests**

Hypothesized No. of Cointegrating Equation(s)	Trace Statistic	5% critical value	1% critical value
None	21.690	29.680	35.650
At most 1	4.583	15.410	20.040
At most 2	0.688	3.760	6.650
	Max Statistic	5% critical value	1% critical value
None	17.107	20.970	25.520
At most 1	3.895	14.070	18.630
At most 2	0.688	3.760	6.650

\* and \*\* denote rejection of the respective hypothesis at the 5% and 1% significance levels, respectively.

**Table 2: Johansen Tests for Co integration**

For the causality analysis, first we investigate the causal interaction between financial deepening and economic growth using a modified Hasiao-Granger causality test procedure. The theory suggests that finance may either be an important or a negligible factor of growth. As for the former, one may expect support for supply-leading or bidirectional causality; as for the latter, one may expect evidence of demand-following or insignificant finance-growth causation. The fact that no co integration is found in our analysis excludes a VECM. Therefore, we implement the modified Hasiao-Granger causality test in a VAR framework. Table 3 gives the results of the interaction between *FINDEEP* and *GROWTH* conditional on *POVERTY*. We could neither establish causation from financial development to growth nor from growth to financial development. Therefore, we find support for the insignificant causation hypothesis.<sup>6</sup> These findings are consistent with the findings for Venezuela, Ecuador, El Salvador and Jamaica in Gries et al. (2011). According to Gries et al. (2011), any demand-following or disconnected causal relationship may indicate that a matching of financial development and the general development level has not yet been reached in the specific country. It appears that only if financial deepening corresponds to the needs of the development process will the financial sector become a growth factor. This does not imply that finance does not matter to growth. However, past policies of financial reform in Nigeria have apparently not yielded satisfying results as earlier indicated in the introductory section.

	Lag order	<i>FINDEEP</i> ⇒ <i>GROWTH</i>	Lag order	<i>GROWTH</i> ⇒ <i>FINDEEP</i>
<i>FPE</i> ( <i>m</i> , 0, <i>p</i> )	(4, 0, 1)	0.0043	<i>FPE</i> ( <i>m</i> , 0, <i>p</i> )	(1, 0, 1) 0.0196
<i>FPE</i> ( <i>m</i> , <i>n</i> , <i>p</i> )	(4, 1, 1)	0.0044	<i>FPE</i> ( <i>m</i> , <i>n</i> , <i>p</i> )	(1, 3, 1) 0.0202
ECM	-	-	ECM	-
Short-run		No	Short-run	No
Long-run		-	Long-run	-

Notes: The *m*, *n*, *p* denote the lags leading to the respective smallest FPE. \*, \*\*, and \*\*\* denotes the significance of the ECM at 10%, 5% and 1% levels, respectively

**Table 3: Causality analysis for financial deepening and economic growth**

Next, we consider the financial deepening-poverty causality. Some contributions suggest that financial sector development can impact poverty indirectly through growth or directly by providing or broadening the poor's access to financial services. Following more skeptical views, it is also possible not to find any evidence of significant finance-poverty causality especially in the short-run. Table 4 shows the results for the causal inferences of *FINDEEP* and *POVERTY*, controlling for *GROWTH*. Our finding shows that there is a unidirectional causality from poverty to financial development meaning that improvement in welfare of the generality of the population can lead to financial sector development. On the other hand, we find evidence of indirect effect of finance on poverty via its impact on economic growth. This can be seen from the results of the causality analysis for *GROWTH* and *POVERTY*, conditional on *FINDEEP*, reported in Table 5. We can therefore interpret our

<sup>6</sup> The outcome may be different if a different financial development proxy is used. Moreover, more recent but shorter time series may produce a different result on the assumption that the longer time series may have some structural breaks.

results in line with the indirect channel hypothesis. This implies first that, higher economic growth could generate jobs for the poor. Second, it could also reduce the wage differentials between skilled and unskilled labor at a later stage of development, which benefits the poor. Third, high growth could lead to higher tax revenues, enabling the government to allocate more fiscal resources on social spending such as health, education, and social protection, and hence benefiting the poor; and the poor would also be able to invest more in human capital. Fourth, as capital accumulation increases with high economic growth, more funds would become available to the poor for investment purposes, thus increasing their income. However, our findings do not suggest a leading influence of poverty on economic development.

	Lag order	<i>FINDEEP</i> ⇒ <i>POVERTY</i>		Lag order	<i>POVERTY</i> ⇒ <i>FINDEEP</i>
<i>FPE</i> ( <i>m</i> , 0, <i>p</i> )	(1, 0, 1)	0.0329	<i>FPE</i> ( <i>m</i> , 0, <i>p</i> )	(1, 0, 3)	0.0198
<i>FPE</i> ( <i>m</i> , <i>n</i> , <i>p</i> )	(1, 3, 1)	0.0336	<i>FPE</i> ( <i>m</i> , <i>n</i> , <i>p</i> )	(1, 1, 3)	0.0192
<i>ECM</i>	-	-	<i>ECM</i>	-	-
Short-run	-	No	Short-run	-	Yes
Long-run	-	-	Long-run	-	-

\*, \*\*, and \*\*\* denotes the significance of the ECM at 10%, 5% and 1% levels, respectively

**Table 4: Causality analysis for financial deepening and poverty**

	Lag order	<i>GROWTH</i> ⇒ <i>POVERTY</i>		Lag order	<i>POVERTY</i> ⇒ <i>GROWTH</i>
<i>FPE</i> ( <i>m</i> , 0, <i>p</i> )	(1, 0, 3)	0.0327	<i>FPE</i> ( <i>m</i> , 0, <i>p</i> )	(4, 0, 1)	0.0043
<i>FPE</i> ( <i>m</i> , <i>n</i> , <i>p</i> )	(1, 1, 3)	0.0319	<i>FPE</i> ( <i>m</i> , <i>n</i> , <i>p</i> )	(4, 1, 1)	0.0044
<i>ECM</i>	-	-	<i>ECM</i>	-	-
Short-run	-	Yes	Short-run	-	No
Long-run	-	-	Long-run	-	-

Notes: The *m*, *n*, *p* denotes the lags leading to the respective smallest FPE. \*, \*\*, and \*\*\* denotes the significance of the ECM at 10%, 5% and 1% levels, respectively

**Table 5: Causality analysis for economic growth and poverty**

## Conclusion

The causal interaction between finance and economic growth and poverty in Nigeria was tested. Modified Hsiao's version of the Granger causality test was employed within VAR and VECM framework in order to avoid lag length selection problems. We could not establish a co integrating relationship between finance, growth and poverty. Therefore, we focused on analysis of short-run causality. Evidence of short-run unidirectional causality from poverty to financial deepening was found, implying that improving the welfare of Nigerian citizens is important for financial development. This is plausible since traditional bank deposits represent the major forms of financial saving in Nigeria. Therefore, policies that succeed in putting more money in the hands of the poor may encourage them to save more with the banks. Also, we found evidence of short-run unidirectional causality from economic growth to poverty while controlling for financial deepening. This supports the indirect channel through which finance affects poverty via growth. These findings have some policy implications. The study has illustrated that access to finance is not the only constraint that micro- and small scale enterprises face and hence a panacea for poverty



reduction. Other constraints and challenges faced by these enterprises often highlighted in the literature include access to markets, access to know-how and technologies, and other market failures. Therefore, finance-related policies should work on consolidating finance-growth links in more holistic ways. For instance, better macroeconomic stability or improved institutional quality, investment in physical and human capital may influence financial deepening favourably. Through this, the development of financial systems in Nigeria may gradually correspond more adequately to real sector activities, consequently facilitating economic development and poverty reduction.

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