FINANCIAL SECTOR DEVELOPMENT AND ECONOMIC GROWTH IN NIGERIA

Emmanuel Onwioduokit[1]

West African Monetary Institute, Accra, Ghana

Abstract

One of the most enduring debates in economics is whether financial development causes economic growth or whether it is a consequence of increased economic activity. Most empirical studies on this issue have been limited to testing for the Granger causality between variables. This paper fills this lacuna by moving a step further to estimate the relationship between financial sector development indicators and economic growth. The Granger-causality tests show a causal relationship moving from financial sector variables to economic growth. Evidence of a feedback was, however, not found. The findings tend to support the view that, in emerging market economies, which have a less sophisticated financial system, there is a predominant demand-following relationship, where financial development induces economic growth. Furthermore, the results from an economic growth model indicated that financial sector development positively impacts on economic growth in Nigeria. Thus, advancement in the financial sector, including diversification of financial instruments, should be pursued to facilitate economic development in Nigeria.

Keywords: financial development, Granger causality, economic growth

JEL classification: C19, C22, C59, E44

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[1] Views expressed in this paper are clearly those of the author.

1. Introduction

The centrality of financial sector development to economic growth has been the subject of copious studies for several years. Some research findings, both at theoretical and empirical planes, have identified the import of having a well developed financial system as an enhancer of economic growth. The findings revolve around two main issues. The first is on causality: 'Is it financial development that spurs economic growth, or is it economic growth that leads to financial development, with the latter passively responding?' The second one is on whether financial sector development results in a much faster development of an economy.

The relationship between economic growth and financial development is dynamic, such that the latter, at one stage, influences the former, while at another stage, the former may influence the latter. Thus, finance is not always exogenous. At an early stage of development, entrepreneurs mainly depend on their savings for the needed investment funds. As the economy develops, banks emerge to facilitate the financing of new investments. Further growth in the economy sees the development of markets for tradable securities. Such markets do not replace but complement banking functions. For Nigeria, identifying the relationship between financial development and economic growth is crucial, in view of the continuing progress of its financial sector, particularly the recent consolidation exercises within the banking and insurance sectors.

For a long time, the literature has thoroughly studied the functional activities of financial intermediaries. Despite this, only recently have economists focussed specifically on the role of financial intermediation in the process of economic development. The results of these studies are essentially inconclusive.

Financial intermediation frees resources in the economy by reducing transaction costs through the economies of scale involved in their activity. In addition, they supply specific services, such as brokerage, which reduce friction and allow easy financial flows at a lower cost. Financial intermediaries also bring about significant improvements in risk diversification by supplying a wide array of financial assets with very specific features. This should increase the propensity of risk adverse agents to save and invest. Moreover, financial intermediaries engender the maturity of transformation of financial assets. The consequent increase in the range of financial assets stimulates the supply of financial funds and of savings and investments. For instance, banks collect and produce large amounts of information, so as to reduce the intensity of information asymmetry between lenders and borrowers and improve the allocation of resources. Furthermore, financial intermediaries facilitate long-term relationships and commitments. Long-term relationships are very important, particularly when firms have no established long-term track records and reputation problems are, therefore, severe. Under these circumstances, long-term relationships may decrease the amount of credit rationing, which otherwise would be very high given the reputation problems.

While progress in the literature on financial intermediation and economic growth has been quite substantial, literature on the specific roles of financial development in the process of economic growth in Nigeria is still quite scanty; mostly limited to testing causal relationships between selected financial sector variables and economic growth; many aspects of this matter remain to be explored. This paper tries to fill that gap, by using causality tests as well as estimating an economic growth model to empirically examine the relationship between finance and economic growth in Nigeria. The main aim of the paper is to examine the relationship

between financial development and economic growth in Nigeria. The paper is divided into 5 sections. Section 1 is the introduction, while section 2 deals with theoretical and empirical issues. In section 3, the structure of the Nigeria financial system is discussed, while in section 4, methodology and results are discussed. Section 5 contains some concluding remarks.

2. Theoretical and Empirical Issues

2.1 Theoretical framework

Modern growth theory identifies two specific channels through which the financial sector might affect long-term growth: through its impact on capital accumulation (including human as well as physical capital) and through the rate of technological progress. These effects occur from the intermediation role of the financial institutions, which enable the financial sector to:

- mobilize savings for investment;
- facilitate and promote inflows of foreign capital, including FDI, portfolio investment and bonds, and remittances; and
- optimize the allocation of capital between contending uses, thus ensuring that capital goes to its most productive use.

Levine (1997) recognizes five basic purposes of financial intermediaries: savings mobilization, risk management, information acquisition about investment opportunities, monitoring borrowers and exerting corporate control, and facilitating the exchange of goods and services. The mobilization of savings is perhaps the most apparent and imperative function of the financial sector. The provision of savings services enables households to store their money in a safe place and permits such money to be

put to productive use, including lending to individuals or enterprises, to finance investment, thus encouraging capital accumulation and promoting private sector development.

The lack of access to savings facilities constrains people to save in physical assets, including precious metals. However, bringing these savings into the financial sector, where they can be utilized productively, is a significant contribution to growth. In addition, returns on investment can create positive returns for the saver; and this may in turn increase savings. It can also facilitate the development and adoption of better technologies.

McKinnon (1973) elucidated on this with an example of a farmer who cannot afford a particular investment out of his own savings – he needs to borrow in order to buy some pieces of equipment (ie, to invest in new technologies) so as to increase production and, consequently, income. Hence by mobilizing savings and, thus, increasing the availability of credit, financial intermediation facilitates investment in new technologies across the economy and, hence, increases overall productivity. Credit may also be made available to financial investment in education or health, which in turn promotes the accumulation of human capital. Thus, savings mobilization can have a significant impact on growth by increasing investment, productivity and human capital.

The next three functions of the financial sector identified by Levine (1997) are the key functions of the financial sector that have growth-enhancing prospects – these are risk management, information acquisition, and monitoring of borrowers. Many enterprises require medium to long-term commitment of capital, while most savers prefer to have the option to draw on their savings or move them into another investment opportunity, should the need arise; i.e., they like their savings to be 'liquid'. Since banks and other financial intermediaries combine many households' savings, and because savers do not usually want to

exchanges that collect this information on behalf of many investors and share the costs of doing so between them, will improve resource allocation and increase investment. These intermediaries can facilitate selection between projects on the basis of informed judgements about expected returns, thus eliminating the inefficient projects and ensuring that capital is allocated optimally (Greenwood and Jovanovic, 1990). They may also increase the rate of technological progress by identifying and thus allocating capital towards those innovations with the best chances of succeeding (King and Levine, 1993).

Equally, the ability of financial intermediaries to monitor the performance of enterprises on behalf of many investors, who would not otherwise have the resources to do so individually, and to exercise corporate control helps to ensure that investors receive returns that properly reflect the enterprise's performance and creates the right incentives for the managers of the borrowing enterprise to perform well. Thus, financial arrangements that improve corporate control tend to promote faster capital accumulation and growth by improving the allocation of capital (Bencivenga and Smith, 1991).

Finally, the financial sector facilitates transactions in the economy by physically providing the mechanisms to make and receive payments and by reducing information costs in the ways outlined above. So by providing financial intermediation in this way, the financial sector reduces transaction costs, and facilitates the trading of goods and services between businesses and households. Thus, the financial sector permits greater specialization which in turn makes possible productivity gains and allows more technological innovation and growth. Overall, anything that reduces transaction costs and facilitates better exchange of goods and services, whether it is faster payment systems, more bank branches, or improved remittance services,

which are embodied in financial sector development, promotes growth.

2.2 Empirical review

Earlier studies that examine the relationship between financial development and economic growth included Bagehot (1873), Schumpeter (1912) and Hicks (1969). Schumpeter (1912) discussed the finance/growth relationship as a supply-leading one, in which the financial sector leads economic growth by successfully identifying and funding high yielding projects. This is based on the view that a financial system that is functioning well would encourage technological innovation by selecting and financing businesses that are expected to be successful. Bagehot (1873) and Hicks (1969), on the other hand, argued that financial development was an important channel in the industrialization of England, by helping the movement of large amounts of funds for 'immense' works.

Later works include those of Greenwood and Jovanovic (1990), Levine (1997), and Bencivenga and Smith (1991), which involved theoretical models, wherein an efficient financial market raises the quality of investments, thus leading to economic growth. Specifically, Greenwood and Jovanovic (1990) built in their model a financial sector whose main objective is to direct 'funds to high-yielding investments with the assistance of information. This then would lead to economic growth, which would in turn enable the implementation of expensive financial structures.

Levine (1997) explained how stock markets influence growth by improving a firm's efficiency. Furthermore, Bencivenga and Smith (1991) explained that a well-functioning financial system would improve the level of investment towards non-liquid objects,

which will be beneficial to the economy. Saint-Paul (1992), on the other hand, explained the role of the financial sector in helping business enterprises to specialize, as it allows investors to hedge by holding diversified portfolios. This in turn would bring about growth in productivity.

Sustaining this argument, Atje and Jovanovic (1993) explicated how the financial system can help investors disperse risk and provide funding, thereby guiding them to the best investments which are profitable to the economy. More studies include that of Maurice Obstfled (1994), who argued that financial openness and access to international financial markets bring benefits to businesses as well as the economy. Bencivenga et al. (1995) noted that industries, which require a longer period to implement new technologies, benefit more relatively from developments in the financial market. Rajan and Zingales (1998) concluded that as the market develops, firms that are less firmly established and have difficulty with self-funding projects, would benefit better from external funding methods and, therefore, expand relatively faster.

Blackburn and Hung (1996) found that in a developed financial system, the task of monitoring projects can be undertaken by financial intermediaries lowering transaction costs and channelling greater savings towards new investments, thus boosting economic growth. Moreover, the authors explain how a country can be trapped in a situation of low economic growth and low financial development. Levine and Zervos (1996) argued that higher returns and improved risk could encourage a lower savings rate, which would lower economic growth, with more liquid and internationally integrated financial markets. Furthermore, Tsuru (2000) discussed how the development of the financial sector is able to affect the savings rate and, by extension, the rate of economic growth.

Rousseau and Watchel (2005) retested the finance–growth hypothesis with data ranging from 1960 to 2003; they found that the relationship disappeared over the 1985–1989 period for the coefficient of M_3 as a percentage of gross domestic product (GDP) and during the 1990–1994 period for the coefficient on private sector credit. These were periods when numerous developing states, especially in Latin America, went through rapid financial liberalization and opening to world economic markets. The findings of Rousseau and Watchel (2005) on the breakdown of the empirical relationship between finance and growth suggest that in the absence of stable financial institutions, rapid liberalization may be counterproductive and may provide perverse incentives for banks to lend imprudently. Such activity may result in a severely strained or collapsed domestic financial sector, as imprudent lending often leads to non-performing loans, illiquidity, insolvency, and capital flight.

Pill and Pradhan (1995) looked into four indicators of financial development: broad money, base money, bank credit to the private sector, and real interest rates. They concluded that private sector credit is the only factor that can directly correlate with financial development. Real interest rates in a domestically liberalized economy are likely to be higher than those in an internationally liberalized economy. Also, broad money is expected to be higher in a domestically liberalized economy than in other stages of economic development. The relationship between base money and financial development cannot be determined *a priori*, as it is determined by the authorities' choice of fiscal and monetary policies. In the long run, however, it will be determined by demand for base money. While credit to the private sector is the most appropriate financially deepening indicator among the generally available ones, it is still not perfect — its relationship to financial development could be affected by

financial innovation, especially the emergence of non-bank credit, and by commercial bank lending to other financial intermediaries. Khan et al. (2001) observed that domestic credit to the private sector, as a share of GDP, is a more limited proxy for financial depth; however, data on this are widely available.

Ndebio (2004) concluded that financial deepening, as represented by the growth rate of per capita (real/nominal) money balances (GPRMB/GPMB) and degree of financial intermediation (FDY) does positively affect per capita growth of output in sub-Saharan Africa. Balogun (2007) reviewed the perspective of banking sector reforms since 1970 to date. He noted four eras of banking sector reforms in Nigeria, viz: pre-SAP (1970-1985), post-SAP (1986-1993), reforms lethargy (1993-1998), pre-Soludo (1999-2004) and post-Soludo (2005-2006). Using both descriptive statistics and econometric methods, three sets of hypothesis were tested: first, that each phase of reforms culminated in improved incentives; second, that policy reforms which resulted in increased capitalization, exchange rate devaluation, interest rate restructuring and abolition of credit rationing may have had positive effects on real sector credit; and thirdly, that implicit incentives which accompany the reforms had salutary macroeconomic effects. The empirical results confirm that eras of pursuits of market reforms were characterized by improved incentives. However, these did not translate to increased credit to the real sector. Also, while growth was stifled in eras of control, the reform eras were associated with a rise in inflationary pressures. Among the pitfalls of reforms identified by the study are faulty premise, wrong sequencing of reforms, many conflicts emanating from adopted theoretical models for reforms and, above all, frequent reversals and/or nonsustainability of reforms. The study concluded that there is need to bolster reforms through the deliberate adoption of policies that would ensure a

convergence of domestic and international rates of return on financial market investments.

In summary, the literature survey put forward three views concerning the importance of finance in economic growth. While the first considered finance as a critical element of growth (Schumpeter, 1911; Goldsmith, 1969; McKinnon, 1973; Shaw, 1973; Odedokun, 1996; King and Levine, 1993a, 1993b), finance was regarded by the second as a relatively unimportant factor in growth (Robinson, 1952; Lucas, 1988; Stern, 1989). The third view concentrated on the potential negative impact of finance on growth (Van Wijnbergen, 1983; Buffie, 1984). Parallel to these views, studies on the effects of financial development on economic growth have produced mixed evidences, showing no special role or positive relationship (Xu, 2000). Regarding the existence of causality running from financial intermediary development to economic growth, it is not possible to address the direction of causal relationship between two variables due to independent factors (Sinha and Macri, 2001).

3. The Nigerian Financial System

The Nigerian financial system can be generally categorized into two broad segments: the informal and the formal. The informal sector includes the local money lenders, the cooperatives and a battery of savings associations. This segment is scantily developed, restricted in outlook and seemingly detached from the formal financial system. The formal financial system includes money and capital, and money market institutions. Unlike the informal sector institutions, the formal institutions are regulated by various authorities.

Other distinct sub-sectors of the Nigerian financial system are banking, insurance, capital markets, investment management, and

regulatory. Financial services companies are concentrated in Lagos, while national companies dominate the various sub-sectors. Except for the banking industry, the majority of operators in the nation's financial services industry are considerably small in size. There is a dearth of long-term funds in the industry. While banks, capital markets and investment management companies seem to be well capitalized, the insurance industry, until very recently, was plagued by undercapitalisation. And although competition is high across all sub-sectors, this is more so in the banking sub-sector. Entry barriers are high for banking, moderate for insurance and low for investment management and capital market activities.

There are ongoing major structural reforms in the following sub-sectors: banking, pension funds and capital markets. In the 1970s and 1980s, the banking system in Nigeria was dominated by what were then known as the big three banks: Union Bank, First Bank and United Bank for Africa. But the industry was deregulated in 1986, and the number of banks increased to over 100, many of the new entrants being characterized by weak capitalization and poor management quality; there was also weak regulatory supervision. All of these led to the collapse of some of the new banks in an industrial shakeout. By 2003, there were about 89 banks left and seven were appointed as settlement banks for the whole industry. During this period, however, the big three, plus four of the strong new generation entrants, were comparatively small in size — the total capitalization of all the banks in the country was less than $46 billion.

In July 2004, the Central of Bank of Nigeria (CBN) announced certain reforms in the banking sector. The first phase of the reforms was designed to ensure a diversified, strong and reliable banking sector, which would ensure that depositors' money is safe. The banks were also expected to play active

developmental roles in the nation's economy and to be competitive both in the African and global financial systems. The second phase involves encouraging the emergence of regional and specialized banks. The consolidation plan raised the minimum shareholders' fund for banks to ₦25 billion (US$200 million) from the former level of ₦2 billion (US$15 million). The plan provided incentives for banks in the country to consolidate through mergers and acquisitions. Many banks recapitalized to meet the new minimum shareholders' fund requirement through private placements, right issues and public offers.

These reforms led to a series of mergers and takeovers, as banks tried to build up sufficient financial reserves to escape sanctions. As a result of the process, the number of banks operating in Nigeria shrunk from 89 to 25. Industry consolidation has also been carried out in the insurance segment of the financial system.

The Nigerian financial sector has achieved more significant profits and growth than many other sectors of the economy. The universal banking system currently operating in country enables most banks to provide a wide range of services covering core banking areas such as lending, treasury, trade finance, private banking and financial advisory services. Some of these bank products and services are asset-based finance, structured trade finance, equipment leasing, finance leasing, loan syndication, advances, bonds, guarantees, cash management, mutual funds, company flotation, capital reconstruction and restructuring, mergers and acquisitions, project finance, custodial services, and trust services.

The main institutions in the capital market include the Securities and Exchange Commission (SEC), which serves as the regulatory body of the market; the Nigerian Stock Exchange (NSE); issuing houses; and stockbroking firms. Currently, there

are six branches of the Nigerian Stock Exchange. Clearing, settlement and delivery of transactions on the exchange are done electronically by the Central Securities Clearing System (CSCS), a subsidiary of NSE.

Other institutions within the nation's financial sector are finance and investment companies, bureaux de change, primary mortgage institutions and the Nigerian Social Insurance Trust Fund (NSITF). The Pension Act 2004 also established a contributory pension system for the country. About twelve pension fund managers have been licensed. The financial system is regulated by the following bodies: Central Bank of Nigeria, Nigeria Deposit Insurance Corporation, National Insurance Commission, Securities and Exchange Commission, and the Ministry of Finance.

4. Model Specification and Empirical Results

Developments in the financial sector require a set of indicators for formulating, implementing and evaluating effective policies. Hence in the literature, there is no precise definition of 'financial sector development'. According to scholars, however, the key to financial sector development is the reduction and, ultimately, unification of fragmented financial markets. This involves a complete set of indicators mainly covering credit intermediation, liquidity management and risk management characteristics of the financial system. Goldsmith (1969) used a set of measures, which he called the 'financial interrelations ratio', to trace the relationship between financial sector and economic development. In many other studies, the ratio of broad money (M2) to GDP is used to observe the changes in the size of the financial system relative to that of the economy. The advantage of this ratio was such that the IMF and World Bank largely standardized it across countries.

It is hard to find 'an indicator' that can directly measure the development of the financial sector. Onwioduokit and Adamu (2005) analysed eleven indicators[2] of financial depth in Nigeria and found that interest rate spread, broad money/GDP, and loan/deposit worsen during reform periods, compared to the control period. Most empirical literature on the subject considers cross-country regression to examine the growth effects of financial development; it is also essential to study individual-country evidence for the purposes of policy formulation. In this regard, and following from the reviewed studies, this paper identifies several indicators of financial development (LDR – the ratio of loan to deposits; and M3Y – the ratio of broad money to GDP) as most appropriate, since they have been used widely as a prime indicator of financial development; and data on these are reasonably available. The financial development variable adopted in standard GDP growth model is in most recent studies, LDR and M3Y.

However; the current study included interest rate spread as an additional variable for explaining economic growth. In the study, the relationship between financial development and economic growth is measured by adapting the model specified by Ram (1999), which was slightly modified by Odedokun (1996). The

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[2] The eleven measures are explained as follows: broad money (M2) as a ratio of gross domestic product (GDP) at current market prices; banking sector credit to the private sector (PSC) as a ratio of GDP; currency outside bank (COB) as a ratio of broad money (M2); interest rate spread (IRS) measured as the difference between savings and prime lending rate; real interest rate (RIR), measured as the difference between inflation rate and savings rates; loan as a ratio of deposit (L/DR); total assets of banks (TA) as a ratio of GDP; loan and advances (LA) as a ratio of GDP; gross savings (GS) as a ratio of GDP; gross domestic investment (GDI) as a ratio of GDP; and capacity utilization in manufacturing (MCU).

model, which is a variant of Odedokun (1996), is specified in the equation thus:

$$YGR = a_0 + a_1 POPGR + a_2 XGR + a_3 INVY + a_4 LDR + a_5 M3Y + a_6 IRS + U_t \quad (1)$$

Where:

YGR	= annual real GDP growth rates
POPGR	= annual growth rate of population[3]
XGR	= annual growth rates of export
INVY	= the ratio of domestic investments to GDP
LDR	= the ratio of loans to deposits
M3Y	= the ratio of broad money supply to GDP
IRS	= Interest rate spread (difference between deposit and prime lending rate)
U_t	= Error term

The expected signs of the coefficient *a priori* are: $\alpha_1 > 0$; $\alpha_2 > 0$; $\alpha_3 > 0$; $\alpha_4 > 0$; $\alpha_5 > 0$; and $\alpha_6 < 0$

4. Data and Properties

Data for the study variables are evaluated from 1970 to 2006. The data were sourced from the Central Bank of Nigeria, Nigeria's National Bureau of Statistics, World Bank development reports, and the West African Monetary Institute's database. The unit root test is used to find out the stationarity of any time series. The ADF tests and PP tests were undertaken under the assumption of the existence of a unit root (H_0) and a stationary variable in the alternative hypothesis (H_a). If the calculated statistics is greater

[3] Population is included here as a control variable as well as a human capital indicator which have been identified as an important determinant of growth.

than McKinnon's critical value, then H_0 which states that the variable is not stationary is not rejected.

4.1 Empirical results

The results of the ADF and PP tests are presented in table 1. Table 1 shows that all the series, with the exception of IRS and M3Y, are stationary at certain levels. However, the first differences of the variables IRS and M3Y turn out to be stationary. Based on the integration test results, cointegration tests are undertaken to verify whether there exists a long-run relationship between financial development variables and economic growth variables.

Table 1. Unit root results

	ADF critical values		*PP critical values*		
Variable	*Level*	*Difference*	*Level*	*Difference*	*Conclusion*
YGR	-5.47	-10.42	-5.52	-13.45	I(0)
INVY	-3.22	-4.78	-3.13	-5.89	I(0)
IRS	-1.25	-6.82	-1.02	-6.95	I(1)
M3Y	-1.57	-4.61	-1.74	-4.64	I(1)
POPGR	3.56	0.28	-3.91	-22.51	I(0)
XGR	-6.33	-9.41	-6.31	-11.41	I(0)
LDR	-5.92	-7.39	-8.09	-7.82	I(0)

As can be seen from table 1, while some of the variables are stationary, others are non-stationary. One critical outcome of this finding is that real sector variables, including GDP growth, population growth, and investment, are I(0), indicating that these variables are not sufficiently volatile. To examine the casual relationship between economic growth and financial development, Granger causality tests were carried out; the results are presented

in table 2. The tests result show that IRS, LDR, and M3Y granger-causes YGR at 1 per cent significance level:

IRS → YGR

LDR→ YGR

M3Y→YGR

POPGR→YGR

Table 2. Causality test results

Null hypothesis	*Prob. value*	*Remark*
INVY does not granger-cause YGR	0.025	Rejected
YGR does not granger-cause INVY	0.014	Rejected
IRS does not granger-cause YGR	0.0499	Rejected
YGR does not granger-cause IRS	0.6412	Accepted
LDR does not granger-cause YGR	0.0582	Rejected
YGR does not granger-cause LDR	0.1463	Accepted
M3Y does not granger-cause YGR	0.0121	Rejected
YGR does not granger-cause M3Y	0.2475	Accepted
POPGR does not granger-cause YGR	0.059	Rejected
YGR does not granger-cause POPGR	0.142	Accepted
XGR does not granger-cause YGR	0.6986	Accepted
YGR does not granger-cause XGR	0.3582	Accepted

Note: Rejecting the null hypothesis means that one variable actually granger-causes the other; while accepting the null hypothesis confirms that there is no causation between both variables at 1.0 per cent significance level.

Economic growth did not, however, granger-cause interest rate spread. Also, economic growth did not granger-cause loan deposit ratio and growth in broad money. Curiously, export growth did not granger-cause economic growth in Nigeria. Perhaps this could be explained by the dominance of oil in the nation's export, which has very little domestic value-added. It was also established that population growth rate granger-causes economic growth, while the reverse could not be established. This is consistent with the theory that investment granger-causes economic growth.

Table 3 shows the estimated results of the model. The *a priori* expectations of the variables were met with regard to their signs. Except for XGR, all the variables are statistically significant. The coefficient of XGR was not significant at the 5 per cent level. The implication of these results is indeed revealing. Investment has a positive impact on economic growth; a unit increase in investment would lead to 4.9 per cent growth in the economy. With respect to interest rate spread, a negative relationship was established. This implies that a unit reduction in the spread would increase growth by 1.2 per cent. Perhaps the implication of the negative spread could be that irrespective of the state of the financial sector development the spread in interest rate would be counterproductive to economic development. Thus, any serious effort to ensure the strengthening of the financial sector contributes to significant growth should be preceded by a narrowing of the interest rate spread.

With regard to the loan-deposit ratio, the results show that a 1 per cent increase in the ratio could raise growth by about 2.6 per cent. Similarly, a 1 per cent increase in the liquid-liabilities ratio increases economic growth by about 1.1 per cent. The role of human capital, proxy by the population growth rate was also positive, indicating that increase in population can account for

about 2.7 per cent growth in the economy. Curiously, however, the growth of exports was found to be insignificant in explaining economic growth in Nigeria. This may be explained by the fact that Nigeria's huge oil exports have not translated significantly to any meaningful increase in the standard of living for many Nigerians. More so, exports of primary commodities, including oil, have persistently suffered from the declining terms of trade in what has been dubbed the Prebisch-Singer hypothesis. These may have accounted for the insignificant impact of exports on economic growth in Nigeria.

Table 3. Estimation results

Regressors	*Coefficient*	*Std. error*	*T-statistic*	*Prob. value*
C	0.216853	9.311855	0.023288	0.9816
INVY	4.854536	1.746724	2.519441	0.0399
IRS(-1)	-1.150124	0.508939	-2.26397	0.0365
LDR	2.620379	0.769782	3.407931	0.0115
M3Y(-1)	1.109492	0.185466	6.113262	0.0597
POPGR	2.700621	1.326357	1.989324	0.0077
XGR	0.038935	0.021653	1.798098	0.083

R-squared	0.663224	Mean dependent var	1.833629
Adjusted R-squared	0.630415	SD dependent var	6.173391
SE of regression	5.415669	Akaike info criterion	6.393326
Sum squared resid	821.2253	Schwarz criterion	6.704396
Log likelihood	-104.8832	Hannan-Quinn criterion	6.500708
F-statistic	7.696606	Durbin-Watson stat	2.298896
Prob (*f*-statistic)	0.034093		

5. Concluding Remarks

Various theoretical and empirical studies confirm the linkage between financial system development and economic growth. Overall, Nigeria's financial sector has grown in size and activity

over the past three decades and has become more important to the economy. This study also examined the causal link between financial development and economic growth, using selected financial variables and economic growth indicators. Empirical results reveal a relationship predominantly running from financial development to economic growth. However, evidence of feedback was not found.

The findings of this study support the view that in emerging economies, financial systems tend to experience more of a demand following relationship, in which financial development induces economic growth. Although Nigeria's financial system has become more liberalized since the early 1980s, there exists a lack of depth and sophistication in the market. Thus, advancement of the financial system should see a diversification of financial instruments and in turn more funds available to finance economic development in Nigeria.

While this study has provided some useful insights into how Nigeria's financial sector relates to growth in the economy, it should be noted that the results have been obtained using a specific set of financial development and economic growth variables. Other variables could possibly yield different results. For the future, the availability of data could allow the extension of the empirical investigation to include stock and bond market indicators. Furthermore, it may also be useful to conduct the same in a two-time period – a pre and post-reform period, as well as sector-specific impact of financial development.

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