

Finance and Growth Nexus in Nigeria: Do Bank-Based and Market-Based Argument Matter?

Augustine Ujunwa¹, Ogbuagu Ekumankama², Halidu Ahmad Umar³ & Mahmud Ibrahim Adamu⁴

¹ Department of Banking and Finance, University of Nigeria, Enugu Campus, Nigeria

² Department of Banking and Finance, Federal Polytechnic, Nasarawa, Nigeria

³ Department of General Studies, Federal Polytechnic, Nasarawa, Nigeria

⁴ Department of Public Administration, Federal Polytechnic, Nasarawa, Nigeria

Correspondence: Augustine Ujunwa, Department of Banking and Finance, University of Nigeria, Enugu Campus, Nigeria. E-mail: austinesilver@yahoo.com

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Abstract

This paper contributes to the finance and growth debate by examining the channels through which bank and market promote economic growth in Nigeria. The paper used 17 years time series data, 1992-2008, to fill this knowledge gap. The formulated models were estimated with the Ordinary Least Square regression. The growth rate of GDP per capita was adopted as the dependent variable, while bank size, bank activity, bank efficiency, market size, market activity and market efficiency were adopted as the independent variables. The regression coefficient for bank size, bank efficiency, market size and market efficiency were positive in promoting economic growth. However, the coefficient of bank activity and market activity were negative in promoting economic growth in Nigeria. The finding of the study relegates the financial structure arguments to the shadows, and recommends for favourable macroeconomic environment that will allow for the development of the financial system.

Keywords: economic growth, financial structure, growth channels

1. Introduction

The relationship between financial development and economic growth has generated serious debate among financial economists. This debate is traced to Schumpeter (1911), who argues that finance is important in promoting economic growth. Robinson (1952), however, counteracted this claim by arguing that “where enterprise leads finance follows”. Most followers of Robinson (1952) argued that credit may constrain economic growth in underdeveloped financial system, but for developed financial system, finance responds endogenously to economic growth.

Scholars that agree with the preposition of Schumpeter (1959) have investigated the finance and growth debate along four financial structure theories; bank-based, market-based, legal-based and the financial service-based theories. The bank-based theory emphasises the importance of banks in economic growth and development. Specifically, proponents of this view argue that banks are better positioned than market in addressing agency problems and short-termism (Stiglitz, 1985; Bhidé, 1993). They further argue that banks are better in identifying good projects and managing risk. For instance, the proponents of the bank-based view posit that since banks have expertise required for loan appraisal, they can use this expertise to distinguish between good and bad borrowers, thereby reducing the cases of delinquent loans. Levine and Zervos (1996), used cross-country data to establish that banks are more effective in promoting economic growth for countries at the early stage of development.

The market-based theorists enumerate the essentials of market-based economy as it relates to growth. The proponents of the market-based theory argue that well developed markets enhance corporate governance, facilitate risks and foster growth. Market-based theorists also counteract the bank-based theory by identifying the defects of the bank-based theory (Arestis, Luintel and Luintel, 2005). The third theory is the financial service theory, which views the bank-based and market-based debate as irrelevant. This theory relegated the bank-based versus market-based argument to the background, while placing the analytical spot on the different roles of bank

and market in a country's financial system. According to Arestis, Luintel and Luintel (2005), bank-based versus market-based argument do not matter, "it is both banks and markets that matters". The financial service theorists argue that bank and market do not compete, but exist to complement each other (Levine, 2002).

The legal-based theory –espoused by La Porta et al., (1997, 1998, 1999a, 1999b) – attributes differences in creditor legal rights, contract enforcement efficiency, and legal system effectiveness in ensuring strict adherence to established laws to differences in financial structure across countries. This theory sees "finance as a set of contracts and these contracts are defined – and made more or less effective – by legal rights and enforcement mechanisms". Thus, it is the legal system that determines the quality of financial services.

Empirically, scholars have attempted investigating the superiority of the theories across different national experience. Recent empirical studies use the dataset constructed by Beck, Demirguc-Kunt and Levine (1999) along the four competing theories. Specifically, Beck, Demirguc-Kunt and Levine (1999) constructed the dataset along structure size, structure efficiency, structure activity and structure aggregate, as commonly used measures of financial development. The inconclusive results from studies along this line might be attributed to the nature of proxies and methodology used. For instance, cross-country studies have been criticized for masking cross-country differences (Levine and Zervos, 1996), since heterogeneity of coefficients across countries (Pesaran and Smith, 1995) do not correspond to specific-country estimates (Luintel and Khan, 2004). Levine and Renelt (1992), further argue that generalization of the type using 'cross-country' regression may not be appropriate on causality between finance and growth at individual country level.

This study contributes to the debate in a number of ways. First, this study focuses on identifying the most effective channel through which bank and market promotes economic growth, rather than pursuing the arguments along the competing theories of financial structure. Second, the study used data from Nigeria for the period 1992-2008, which is one of the dominant economies in West Africa. The paper is organized as follow; next section is the review of related literature. This is followed by specification of econometric models. Section 4 is the discussion of results; while the last section concludes the paper.

2. Review of Related Literature

One of the oldest debates in economies is the 'finance and growth nexus. Scholars have traced the root of this debate to Schumpeter (1911), who postulated that finance promotes economic growth (Arestis and Demetriades, 1993). In contrast to this view is another school of thought which argues that economic growth leads to financial development. Specifically, Robinson (1952) argues that while credit may constrain economic growth in underdeveloped financial system, the same cannot be said of developed and sophisticated financial system (Arestis and Demetriades, 1993). These controversies led recent literature on finance and growth theorists to investigate this relationship along the following lines; (1) Finance promotes economic growth; (2) Economic growth promotes financial development; (3) A bi-directional relationship between finance and growth.

Most theoretical and empirical studies on finance and growth nexus investigated this relationship along Schumpeter's view, that is, finance promotes economic growth. Gershenken (1962) taxonomy which divided the financial system into bank-based and market-based broadened the argument along; the parameters for classifying a financial system either as bank-based or market-based; which of the classification promotes economic growth; and the determinants of bank-based and market-based financial structure. Scholars have further extended this classification to include the financial service and legal based theory. This allows scholars and practitioners to investigate the finance and growth nexus debate on the basis of four theories of financial structure (Levine, 2002; Arestis, Luintel and Luintel, 2005; Demirguc-Kunt and Levine, 2001, King and Levine, 1993a, b).

The bank-based theory enumerates the importance of banks in promoting economic growth. First, bank-based theorists argue that banks improve the allocation of resources, and corporate governance since bank reduces the costs of acquiring and processing information by good relationship with firms (Levine, 2002; Arestis, Luintel and Luintel, 2005). Additionally, the bank-based theory stresses that banks are more effective in financing development in developing countries than market. For instance, banks are perceived to be more effective in financing projects with substantial asymmetric information, because they have expertise for distinguishing bad borrowers from good borrowers.

The market-based theory, while counteracting the bank-based theory, stresses the important role the market on economic growth. Proponents of the market-based theory identify the role of market as source of permanent capital for businesses, avenue for mobilizing savings for investment, mechanism for wealth redistributing among investors and a good measure of economic performance. The market-based theory criticizes the bank-based theory by identifying the pitfalls associated with banks. First, they argue that since banks have

privilege position in financing firms, banks have superior information that is not available to the public, and could use such privilege information in extracting rents from firms (Arestis, Luintel and Luintel, 2005). Second, since banks are more interested in high risk projects with higher interest rates, they are naturally biased towards low risk projects with high probability of success. Therefore, the bank-based financial system can curtail technological innovation and economic growth (Levine, 2002).

The financial service theory places the analytical spot light on the importance of bank and market in the financial. Despite embracing the two theories, it relegated the importance of bank versus market argument to the background. According to the financial service view, what is important is not the sources of finance, but the quality of financial services, and the creation of an environment where financial services are effectively and efficiently provided. Financial service theory argues further that bank-based versus market-based arguments are of secondary importance, rather the primary issue is the availability and the quality these of financial services (Levine, 2002). The view notes that banks and markets exist to provide different services that complement each other, thereby placing the emphasis on creating quality and efficient banks and markets (Levine, 2002).

Another view which Levine (2005) termed “the legal-based theory” was initiated by Laporta, et al., (1997, 1998, 1999b) which is an extension of the financial service theory. They argue that finance is “a set of contracts” defined by legal rights and enforcements. According to this theory, the century long debate concerning bank-based versus market-based debate is vacuous, since it is the legal system that determines the overall quality of financial system, thus promoting economic growth.

Earlier empirical studies along this line classify Germany and Japan as bank-based economies, United States and United Kingdom as market-based economies. Scholars argue that the mix results on these four countries do not tell us anything new on the debate since Germany, USA, UK and Japan have similar long-run growth. Binh, Park and Shin (2005) investigated the impact of bank versus market, using 26 financially developed OECD countries, but with differences in the countries’ financial system. They further classified 26 manufacturing industries on the basis of technological characteristics, and found in countries with more developed banks, firms with research and development intensity, high operating risk, and high capital intensity respectively, grow faster.

Levine (2002) used cross-country dataset with various measures of financial structure for the period 1980-1995, and found strong support for financial service view. Additionally, Demircuc-Kunt and Levine (1996) used cross-country data of 44 developed and developing countries for the period 1986 to 1993. Their results showed that countries with well developed market also have well-developed banks; and countries with weakly developed market also have weakly developed banks. Their result is consistent with the financial service view. Arestis et al., (2005) utilised time series data and methods along with Dynamic Heterogeneous panel approach on developing countries, and found that significant cross-country heterogeneity exists in financial structure and growth dynamics. Also, Levine and Zervos (1998), employed cross-country regression covering the period 1976 to 1993, and found that bank and market provide different services in the financial system.

Scholars have extended the investigation to individual country levels and across the national frontier of developed and developing economies. This development raises an important research question on the suitability of such findings in policy formulation. Precisely, will it be appropriate to classify developing economies like Nigeria, Ghana, Yemen, Morocco, among others as either bank-based or market-based economy?

Such classification may not be realistic, since the level of financial development differs among countries of the world, and institutional differences are very important in the finance and growth nexus debate. For instance, the major characteristics of bank-based financial system are; close involvement of banks with firms; relatively low development of the capital market; concentrated ownership of firms (small shareholders) with large stakeholding; existence of committed and knowledgeable shareholders; strong presence of the banks in the management board; bank is the major funding source for firms and company financing mix is less of equity, and near absence of hostile takeover (Arestis and Demetriades, 1993). Under this structure, banks play prominent role in development process, which also provides efficient mechanism for removing management whenever they underperform, thereby mitigating the cost and trauma of hostile takeover.

The market-based theory on the other hand, is characterized by well developed capital market, relatively low involvement of banks in funding companies, presence of mergers and takeover, presence of large shareholders with low stakes, control residing outside the corporate sector and presence of international finance. This implies that bank and market are the major determinant of growth in the financial system. However, the superiority between bank-based argument and market-based argument might not be necessary, since the institutional arrangement is a major factor in deciding the structure that exerts more influence on economic growth.

Nigerian financial system may not be strictly or loosely labeled as either bank-based or market-based, because

the financial system does not resemble any of these structures. Nigerian banks do not have close ties with industry in the same way as banks in Japan and Germany. Another unique feature of the Nigerian financial system is the presence of extensive regulation, like administratively setting the interest rate by Central Bank of Nigeria, credit rule and regulation under the guise of risk-based approach to bank regulation. The Nigerian capital market is relatively shallow, since the major instruments traded are equity and government development bonds. Institutional investors are almost non-existence, and the level of investors' apathy is very high, a trend precipitated by the effect of the 2007/2008 global financial crisis. While it is established that internal finance is the most important source of finance, banks as the most important source of external finance might not be effective in filling in the external funding gap and securities markets are not developed to fill this gap as well. The implication of this arrangement is that firms depend heavily on government funds, which could explain the level aggressive marketing for public funds witnessed among commercial banks, and the alarming rate crony capitalism that persists among owners of industries in Nigeria.

Such institutional arrangement brings to the fore the pitfalls in investigating the finance and growth nexus causation argument along the bank-based versus market-based financial structure theories, especially in developing economies like Nigeria. In our opinion, the best approach to the debate is adopting a robust definition of financial development along finance and growth transmission channels. This is based on the premise that financial institutions are expected to resolve problems relating to information, agency problems and uncertainty in financial markets.

Based on the reasons above, we are of the view that using the four theories of financial (bank-based, market-based, financial service-view and the legal –based view) will not contribute to the finance and growth nexus debate in developing economies. However, a better approach is to investigate the channels through which finance (bank and market) promote economic growth as have been established in extant literature. The use of dataset from Nigeria along finance and growth channels will assist the researchers to empirically determine the most effective channel(s) through which finance promotes economic growth, rather than limiting the argument to the four theories of financial structure.

3. Model Specification and Econometric Method

The study adopts the Beck, Demircuc-Kunt, Levine and Maksimovic (2000), Levine (2000) modified standard growth regression equation as follows;

$$G_i = B_0 + B_1 FS_{li} + B_2 C_{2i} + U_i \quad (1)$$

Where; the subscript i runs over observation, $I=1, \dots, n$; G_i is the growth rate of GDP per capita, FS_{li} is the respective financial structures, C_{2i} the control variable, B_0 is the intercept of the regression line, and U_i is the error term (Stock and Watson, 2007).

Prior studies along this line used financial structure measures like structure activity, structure size and structure efficiency (Levine, 2000; Arestis, Luintel and Luintel, 2005; Demircuc-Kunt and Levine, 2001a and b; Beck, Demircuc-Kunt and Levine, 2001). The objective of this study is to establish the most effective channels through which finance promote economic growth. To achieve this objective, we included the individual measures of financial development indicators into the regression equation. Thus, we modify equation 2 to accommodate the six channels through which finance promotes economic growth as follows;

$$Growth_i = B_0 + B_1 (BA)_{2i} + B_3 (BE)_{3i} + B_4 (MZ)_{4i} + B_5 (MA)_{5i} + B_6 (ME)_{6i} + B_7 GOVEXP_{(control)7i} + B_8 GCF_{(control)8i} + U_i \quad (2)$$

Equation 2 is a stochastic equation used for empirical estimation. The endogenous variable is real GDP per capita growth, while the exogenous variables are BZ, BA, BE, MZ, MA, MBE, GOVEXP and GCF. Where BZ is bank size; BA is bank-based activity; BE is bank efficiency; MZ is market size; MA is market activity; ME is market efficiency; GOVEXP is government expenditure divided by GDP and GCF is Gross Capital Formation divided by GDP (see table 1 for the definition of the proxies used). The decision to control for government expenditure and gross capital formation is based on the rentier nature of Nigerian economy. In line with the study Beck, Demircuc-Kunt, Levine and Maksimovic (2001), we estimate equation 2 using the Ordinary Least Square regression.

Table 1. Description of research variables

Name of Variables	Denotations	Operational Definitions	Scholars that have used the proxies
Bank Size	BZ	Liquid liabilities (M2)/GDP	King and Levine, (1993a,b), Beck, Demirguc-Kunt and Levine (2001), Levine and Zervos (1998), Levine, Loayza and Beck (2000), and Beck, Levine and Loayza (2000), and Beck, Levine and Loayza, (2000).
Bank Activity	BA	Credit to Private Sector/GDP	Claesens, Demirguc-Kunt and Huizinga (1997), Demirguc-Kunt, Levine and Min (1998), Beck, Demirduc-Kunt and Levine, (2001) Levine and Zervos, (1996), Mohtadi and Agarwal, (2004), Xu, (2000), Pagano, (1993)
Bank Efficiency	BE	Net Interest Margin/Total Asset	Levine and Zervos (1996), Mohtadi and Agarwal (2004), Xu (2000), Pagano (1993)
Market Size	MZ	Market Capitalisation/GDP	Arestis, Demetriades and Luintel (2001), Yartey and Adjasi, (2007)
Market Activity	MA	Value of Shares Traded/GDP	Levine and Zervos (1996), Mohtadi and Agarwal (2004), Xu (2000), Pagano (1993)
Market Efficiency	ME	Value of Shares Trades/Market Capitalisation	Levine and Zervos (1996)
Government Expenditure	GOVEXP	Government Expenditure/GDP	Ujunwa et al., (2012)
Gross Capital Formation	GCF	Gross Capital Formation/GDP	

4. Results

4.1 Descriptive Statistics

Table 2. Descriptive statistics

Variable	obs	Mean	Std.Dev	Min	Max
Growth	17	2.637059	5.010089	-2.50528	18.04227
BZ	17	2.484423	2.945007	0.151957	11.33802
BA	17	3.424412	2.65629	0.475689	8.943811
BE	17	0.1651569	0.0491912	0.0571695	0.2270344
MZ	17	3.85402	5.715786	0.115232	20.9611
MA	17	0.3923155	0.6894802	0.001812	2.489459
ME	17	0.0635098	0.0434005	0.010198	0.1765
GOVEXP	17	1.979375	1.173902	0.3419646	4.803428
GCF	17	1.225676	0.8419649	0.262042	2.896475

Source: Computed from Data Collated from CBN Statistical Bulletin and annual reports of nigerian banks (Using Stata-Computa Analytical package)

Table 2 presents the descriptive statistics results. The mean value of growth rate of GDP per capita for the period under review is 264% (mean = 2.64). Also, the average value of bank size is 248%, with bank credit to the private sector divided by GDP having higher value of 342% (Mean = 3.42). This figure is very disturbing, considering the fact that bank size is measured by M2/GDP. This could be explained by the tenure of bank loans to the private sector. For example, if large portion of bank credits to the private sector are on short term basis, the average value of bank loan to the private sector as a ratio of GDP will be very high for each year given velocity of loan creation. Such short term loans do not contribute to GDP, since they are mostly used for importation of consumables or speculative investments that actually do not promote economic growth. The descriptive statistics also show that the efficiency of Nigerian banks in terms of interest revenue is 17% (mean = 0.165). This result is worrisome given the amount of profits Nigerian banks post yearly. The likely interpretation to this phenomenon is either the profits posted by Nigerian banks are mere window dressing or the bulk of bank revenue is from government funds and other fee-based financial services. Therefore, the Central Bank of Nigeria must have a rethink on its decision to abolish universal banking in Nigeria, as this policy measure has the likelihood of triggering-off banking crisis in Nigeria.

The average size of the Nigerian market is 385% (mean = 3.85) for the period under review. This figure seems to suggest that the market is more developed than banks in Nigeria. This result should be treated with caution given the fact that from 1961, market activities were modest until the banking sector reform in 2004. The decision of banks to shore-up their minimum capital to N25billion through the capital market made companies discover the excess free funds in the capital market. Thus, higher value of market capitalisation ratio might be a result of mad rush by corporations to the market during the period of boom.

The average size of the value traded ratio is 39% for the period under review. This result shows that the Nigerian financial system is bank-dominated. This could be traced from the historical development of the Nigerian financial system. For instance, African Banking Corporation was the first bank in Nigerian and was established in 1891. The Lagos branch of the bank ran into operational difficulties and was acquired by Elder Dempster and Company, a shipping company in the West African Coast on March 31, 1893. Elder Dempster and Company renamed the bank as Bank of British west Africa and the bank was formally registered and thus established in London as a Limited Liability Company with an authorized capital £100,000 on March 31, 1894. However, the Nigerian capital market commenced business in 1961 with modest activities. The Nigerian government encouraged the citizens to participate in the market through the Enterprise Promotion Decree, since the market was alien to Nigerians at that time.

The average value of market efficiency ratio is approximately 6% for the period under review. This indicator measure trading activities as it relates to market size. This shows a very low efficiency ratio compared to bank efficiency indicator. The result is a pointer to the fact that some many companies in the Nigerian Stock Exchange do not witness any activity in their company securities. About 30% of quoted companies in Nigeria have not made yearly rendition of their financial stewardship to Securities and Exchange Commission, let alone the Exchange, yet, no effort has been made to delist these firms.

4.2 Correlation Matrix

Table 3. Correlation matrix

	Growth	BZ	BA	BE	MZ	MA	ME	GOVEXP	GCF
Growth	1.0000								
BZ	0.1681	1.0000							
	0.5189								
BA	0.2608	0.9274*	1.0000						
	0.3119	0.0000							
BE	0.1855	-0.7430*	-0.6634*	1.0000					
	0.4760	0.0006	0.0037						
MZ	0.0610	0.8905*	0.9160*	-0.7480*	1.0000				
	0.8161	0.0000	0.0000	0.0006					
MA	0.0607	0.9863*	0.8865*	-0.7799*	0.9103*	1.0000			

	0.8169	0.0000	0.0000	0.0002	0.0000				
ME	0.4164	0.8607*	0.8513*	0.5172*	0.6320*	0.7784*	1.0000		
	0.0964	0.0000	0.0000	0.0335	0.0065	0.0002			
GOVEXP	0.2069	0.9181*	0.9406*	-0.6634*	0.8007*	0.8585*	0.9022*	1.0000	
	0.4256	0.0000	0.0000	0.0037	0.0001	0.000	0.0000		
GCF	0.2236	0.9032*	0.9731	-0.6460*	0.8775*	0.8672*	0.8518*	0.9103*	1.0000
	0.3882	0.0000	0.0000	0.0051	0.0000	0.0000	0.0000	0.0000	

*correlation is significant at the 0.05 level (2-tailed).

Source: Computed from Data Collated from CBN Statistical Bulletin and Annual Reports of Nigerian Banks
(Using Stata-Computa Analytical Package).

Table 3 presents the correlation results. The correlation between real GDP per capita growth and bank size is positive but not significant. Bank size and bank activity are positively and significantly correlated. This shows that the volume of bank loan to the private sector is determined by the size of financial intermediaries in a financial system. Bank activity and bank efficiency are negatively but significantly correlated. This result is consistent with our descriptive statistics results, which shows that bank profitability in Nigeria is not determined by the volume of bank lending to the private sector. This result seems to affirm the widely held belief that the bulk of bank revenue in Nigeria is from government funds and foreign exchange arbitrage. Market size and bank size are positively and significantly correlated. This suggests that the two structures do not compete, rather compliments each other. This finding is consistent with the result of Levine and Zervos (1999). Levine and Zervos (1996) found that in developing economies, though bank-based financial system tend to be more developed than market-based financial system, both structure exist to complement each other. Ratio of government expenditure and gross capital formation are positive but not significantly correlated with growth. This justifies the inclusion of these variables. Bank activity has positive and significant correlation with market activity. This result agrees with the results of the descriptive statistics. The result could be interpreted that certain percentage of bank loans to the private were for the buying and selling of securities in the secondary market. This was a common practice in Nigeria after the banking sector consolidation. Banks were giving loans to members of the public for the purchase of securities. They recommend the securities that must be purchased and at the same time doubling as the customer's portfolio manager.

4.3 Regression Results

Table 4. Ordinary least square regression result

Residual	110.14	8	13.77	Prob > F =	0.0951
Total	401.63	16	25.1	Adj R-Square =	0.4515
				Root MSE =	3.7104
Growth	Coef.	Std. Err	t	P> t	[95% Conf. Interval]
BZ	14.28	7.25	1.97	0.084	-2.44 31.01
BA	-0.85	4.3	-0.2	0.849	-10.77 9.07
BE	10.75	34.22	0.31	0.761	-68.16 89.66
MZ	1.03	1.26	0.82	0.436	-1.87 3.93
MA	-54.62	26.01	-2.1	0.069	-114.59 5.36
ME	55.42	106.38	0.52	0.617	-189.9 300.74
GOVEXP	-7.8	3.56	-2.19	0.06	-16.02 0.42
GCF	-0.68	6.07	-0.11	0.914	-14.67 13.32
_Cons	-1.52	7.17	-0.21	0.837	-18.04 15

Source: Computed from Data Collated from CBN Statistical Bulletin and Annual Reports of Nigerian Banks
(Using Stata-Computa Analytical Package)

Table 4 presents the regression results. The higher value of R^2 (73%) shows that our dataset fitted the model properly. The coefficient of bank size was positive but not significant in predicting economic growth. However, bank activity was not positive and significant in predicting economic growth in Nigeria. This result could be attributed to the unwillingness of banks to make a paradigm shift from short-term lending to long-term lending. It also shows that it is the tenure and sectors than bank loans are channeled to that matter to growth and not the bank-based versus market-based argument. The regression coefficient for bank-efficiency was positive but not significant in promoting Nigerian economic growth. The coefficient of market size is positive but not significant in promoting economic growth. This result is consistent with our a priori expectation since market size measure the total capitalisation of the market which is also a reflection of the volume of funds companies raised from members of the public through the market. However, the regression coefficient of market activity is negative and non significant in promoting economic growth. Most scholars and practitioners have berated the role of the secondary end of the market as it relates to economic growth. They argue that activities in the stock market only provide liquidity to smart investors. The regression coefficient of market efficiency is positive but not significant in promoting economic growth in Nigeria.

5. Conclusion

Finance and growth nexus are examined on the along four competing theories of financial structure- - bank-based theory, market-based theory, financial service theory and legal-based theory. The utility of each of these measures in promoting economic growth has been highlighted by different authors. The market based-theory identifies the effective role of the market in distributing risk and wealth, while counteracting the role of big banks in colluding with managers to defraud firms. The financial service relegates the bank-based versus market-based argument to the shadows, while stressing that it is the overall financial services in a financial system that promotes economic growth. The legal-based theory argues that finance is a set of contracts and what promotes economic growth is the quality law and enforcement of contracts in a financial system. Plethora of empirical studies along these theories yield mixed results.

However, we are of the opinion that examining the relationship between finance and growth along these four competing theories will not tell everything. This problem is peculiar to developing countries where their financial system can neither be classified as bank-based or market-based. For instance, the main feature of bank-based financial system is the close involvement of banks with industries through long-term financing and strong bank presence on the company boards (Arestis and Demetriades, 1993). Banks in Nigeria do not have such close ties with industries, let alone banks' strong presence on companies' boards. Market-based financial systems are characterized by well developed capital markets which provides substantial amount of the financing of industries. The Nigerian capital market is still at the rudimentary stage of struggling to restore public confidence following the recent scandals in the market.

This paper contributes to the finance and growth nexus by examining the channels through which banks and market promotes economic growth in Nigeria. The result shows that bank intermediary function promotes economic growth. The result also showed that bank activity in Nigeria does not promote economic growth. This point to the fact that one of the ways bank can promote economic growth is through long-term funding of the real sector. The result also suggests that the ability of the market to contribute to economic growth depends majorly on the ability of firms to raise fund from the market. Market activity was also found to be negative in promoting economic growth.

The findings of this study have major policy implications. First, for banks to promote economic growth in Nigeria, they must make a paradigm shift from short-term funding to long-term funding. However, given the riskiness of long-term lending in a volatile economy, the government should ensure favourable macroeconomic environment. Second, the attitude of banks in raking funds from the market to lend short should be discouraged. Such trend has the capability of making the financial system atrophied in nature. Third, there is the urgent need to educate investors that the market is the long-term end of the financial system. In some countries, the governments have taken steps to prohibit short term trading in the stock market. Similar legislation should be enacted in Nigeria, given the fact that most foreign portfolio investment exited the shores of the country at their prime during the 2008 global financial crisis from the stock market. Also, there is strong speculation that most corrupt Nigerian politicians now use the secondary end of the market to launder their illicit wealth to safe havens abroad.

References

- Arestis, P., & Demetriades, P. (1993). Finance and Growth: Is Schumpeter Right. *The Quarterly Journal of Economics*, 717-737.
- Arestis, P., Demetriades, P. O., & Luintel, K. B. (2001). Financial Development and Economic Growth: The Role of Stock Markets. *Journal of Money, Credit, and Banking*, 33, 16-41. <http://dx.doi.org/10.2307/2673870>
- Arestis, P., Luintel, A. D., & Luintel, K. B. (2005). *Financial Structure and Economic Growth*. Centre for Economic and Public Policy. University of Cambridge Working Paper.
- Beck, T., Demirgüç-Kunt, A., & Levine, R. (2001). *The Financial Structure Database*. In Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development. Eds: Demirgüç-Kunt, A. and Levine, R. Cambridge, MA: MIT Press: 17-80.
- Beck, T., Demirguc-Kunt, A., & Levine, R. (1999). *A New Database on Financial Development and Structure*. Washington, D.C.: World Bank.
- Beck, T., Demirgüç-Kunt, A., Levine, R., & Maksimovic, V. (2001). *Financial Structure and Economic Development: Firm, Industry, and Country Evidence*. In Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development. Eds: Demirguc-Kunt, A and Levine, R. Cambridge, MA: MIT Press: 189-242.
- Beck, T., Levine, R., & Loayza, N. (2000). Finance and the Sources of Growth. *Journal of Financial Economics*, 58, 261-300. [http://dx.doi.org/10.1016/S0304-405X\(00\)00072-6](http://dx.doi.org/10.1016/S0304-405X(00)00072-6)
- Claessens, A., Demirguc-Kunt, A., & Huizinga, H. (1997). *How Does Foreign Entry Affect the Domestic Banking Market*. Policy Research Department, World Bank.
- Bhide, A. (1993). The Hidden Costs of Stock Market Liquidity. *Journal of Financial Economics*, 34, 1-51. [http://dx.doi.org/10.1016/0304-405X\(93\)90039-E](http://dx.doi.org/10.1016/0304-405X(93)90039-E)
- Demirguc-Kunt, A., & Levine, R. (2001a). Financial Structure and Economic Growth: Perspectives and Lessons. Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development. Eds: Demirgüç-Kunt, A. and Levine, R. Cambridge, MA: MIT Press: 1-14.
- Demirguc-Kunt, A., & Levine, R. (2001b). Bank-Based and Market-Based Financial Systems: Cross-Country Comparisons” Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development. Eds: Demirgüç-Kunt, A. and Levine, R. Cambridge, MA: MIT Press: 81-140.
- Demirguc-Kunt, A., & Levine, R. (1996). Stock Market Development and Financial Intermediaries. Stylized Facts. *The World Bank Economic Review*, 10(2), 291-327. <http://dx.doi.org/10.1093/wber/10.2.291>
- Demirguc-Kunt, A., Levine, R., & Min, H. G. (1998). *Opening to Foreign Banks: Issues of Stability, Efficiency and Growth*. Mimeo, Policy Research Department, World Bank.
- Binh, K. B., Park, S. Y., & Shin, B. S. (2005). Financial Structure and Industrial Growth: A Direct Evidence from OECD Countries. Retrieved on June 23 2009 from <http://erens560496.pdf>
- Gerschenkron, A. (1962). *Economic Backwardness in Historical Perspective—A Book of Essays*. Cambridge: Harvard University Press.
- King, R. G., & Levine, R. (1993a). Finance and Growth: Schumpeter Might Be Right. *Quarterly Journal of Economics*, 108, 717-738. <http://dx.doi.org/10.2307/2118406>
- King, R. G., & Levine, R. (1993b). Finance, Entrepreneurship, and Growth: Theory and Evidence. *Journal of Monetary Economics*, 32, 513-542. [http://dx.doi.org/10.1016/0304-3932\(93\)90028-E](http://dx.doi.org/10.1016/0304-3932(93)90028-E)
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal Determinants of External Finance. *Journal of Finance*, 52, 1131-1150. <http://dx.doi.org/10.1111/j.1540-6261.1997.tb02727.x>
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and Finance. *Journal of Political Economy*, 106, 1113-1155. <http://dx.doi.org/10.1086/250042>
- Laporta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1999a). *Investor Protection and Corporate Governance*. Mimeo Working Paper Series.
- Laporta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1999b). The Quality of Government. *The Journal of Law, Economics, and Organization*, 15(1), 222-279. <http://dx.doi.org/10.1093/jleo/15.1.222>
- Levine, R. (2002). Bank-Based or Market-Based Financial Systems: Which Is Better? *Journal of Financial*

- Intermediation*, 11, 398-428. <http://dx.doi.org/10.1006/jfin.2002.0341>
- Levine, R., Loayza, N., & Beck, T. (2000). Financial Intermediation and Growth: Causality and Causes. *Journal of Monetary Economics*, 46, 31-77. [http://dx.doi.org/10.1016/S0304-3932\(00\)00017-9](http://dx.doi.org/10.1016/S0304-3932(00)00017-9)
- Levine, R., & Renelt, D. (1992). A Sensitivity Analysis of Cross-Country Growth Regressions. *American Economic Review*, 8(4), 942-963.
- Levine, R., & Zervos, S. (1998). Stock Markets, Banks, and Economic Growth. *American Economic Review*, 88, 537-558.
- Mohtadi, H., & Agarwal, S. (2004). Stock Market Development and Economic Growth: Evidence from Developing Countries. Retrieved from <http://www.edu.mo.htadi/PAN-4-01pdf>
- Levine, R., & Zervos, S. (1996). Stock Market Development and Long-Run Economic Growth. *The World Bank Policy Research Paper*, 582, 1-27.
- Luintel, K., & Khan, M. (1999). A Quantitative Reassessment of the Finance-Growth Nexus: Evidence from a Multivariate VAR. *Journal of Development Economics*, 60, 381-405. [http://dx.doi.org/10.1016/S0304-3878\(99\)00045-0](http://dx.doi.org/10.1016/S0304-3878(99)00045-0)
- Pagano, M. (1993). Financial Market and Growth an Overview. *The European Economic Review*, 37, 613-622. [http://dx.doi.org/10.1016/0014-2921\(93\)90051-B](http://dx.doi.org/10.1016/0014-2921(93)90051-B)
- Pesaran, M. H., & Smith, R. (1995). Estimating Long-Run Relationships from Dynamic Heterogeneous Panels. *Journal of Econometrics*, 68(1), 79-113. [http://dx.doi.org/10.1016/0304-4076\(94\)01644-F](http://dx.doi.org/10.1016/0304-4076(94)01644-F)
- Robinson, J. (1952). *The Generalisation of the General Theory*. In the Rate of Interest and Other Essays, London: Macmillian.
- Shumpeter, J. A. (1911). *The Theory of Economic Development*. Cambridge, MA: Harvard University Press.
- Stiglitz, J. E. (1985). Credit Markets and the Control of Capital. *Journal of Money, Credit and Banking*, 17, 133-152. <http://dx.doi.org/10.2307/1992329>
- Stock, J. H., & Watson, M. W. (2007). *Introduction to Econometrics* (2nd). USA: Pearson Education Inc.
- Xu, Z. (2000). Financial Development, Investment, and Growth. *Economic Inquiry*, 38, 331-344.
- Yartey, C. M., & Adjasi, C. K. (2007). Stock Market Development in Sub-Saharan Africa: Critical Issues and Challenges. IMF working paper WP/07/209.