Financial Deepening, Financial Intermediation and Nigerian Economic Growth: Time Variant Analysis

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ABSTRACT

This study examines financial deepening, financial intermediation and Nigerian economic growth. The main purpose is to examine the relationship between financial deepening and Nigerian economic growth while the specific objectives are to examine the impact of interest rate, capital market development, rational savings, credit to private sector and broad money supply on the growth of Nigerian. Secondary data of the variables were sourced from the publications of Central Bank of Nigeria (CBN) from 1981-2017. Nigerian Real Gross Domestic Product (RGDP) was used as dependent variable while Broad money supply (M2), Credit to Private Sector (CPS), National Savings (NS), Capital Market Capitalization (CAMP) and Interest Rate (INTR) was used as independent variables. Multiple regressions with E-view statistical package were used as data analysis techniques. Cointegration test, Augmented Dickey Fuller Unit Root Test, Granger causality test was used to determine the relationship between the variable in the long-run and short-run. $R^2$, F – statistics and $\beta$ Coefficients were used to determine the extent to which the independent variable affects the dependent variable. It was found from the regression result that Broad Money Supply, credit to private sector have position effect on the growth of Nigerian Real Gross Domestic Product while National Savings, Capitalization and Interest Rate on Nigeria Real Gross Domestic Product. The co-integration test revealed presence of long-run relationship among the variables, the stationary test indicated stationarity of the variables at level. The Granger Causality Test found bi – variant relationship from the dependent to the independent and from the independent to the dependent variables. The regression summary found 99.0% explained variation, 560.5031, F – statistics and probability of 0.00000. From the above, the study concludes that financial deepening has significant relationships with Nigerian economic growth. We recommend that government and the financial sector operators should make policies that will further deepen the functions of the financial system to enhance Nigerian economic growth.

Keywords: Financial Deepening, Financial Intermediation, Nigerian Economic Growth, Time Variant Analysis

INTRODUCTION

The role of the financial sector in any economy is that of financial intermediation by channeling savings from the area of surplus to that of deficit. This function bridges the savings and investment gap and enhances the realization of macroeconomic goals; it is also the transmission mechanism for the realization of government monetary and macroeconomic policies. There is strong perception of economic growth to be associated with the financial sector development through other sectors such as the real sector (Azege, 2014). Financial deepening is to improve economic performance through increase competitive efficiency within the financial market thereby indecently benefiting non-financial sectors of the economy (Nzoth & Okeseke, 2009)

Theoretically, the main stream economists such as Schumpeters (1911), Goldsmith (1969), Shaw (1973) and McKirion 1973 emphasizes the importance of the financial system in economic growth, for instance, the industrialization process in England was promoted by the development of the financial sector which increase access to financial services such as profit financing (Odenum & Udeajam 2010). Financial deepening is refers to the measures of providing financial services with wider choice of services geared to the development of all level of society (Olofin, 2010).

The size is usually measured by the monetization ratio and intermediation ratio of the financial system. Monetization ratio include money based indicators or liquidity liabilities such as broad money supply to Gross Domestic Product (M2/GDP), intermediation ratios consists of indicators concerning bank-based measures like bank credit to the
private sector (CP/GDP), (GNS/GDP) and capital market based ratio such as the capitalization ratio of stock market (Nnanna, 2011). The level of financial deepening reflects the soundness of the financial sector and the ability with which credit are created with respect to lending and deposit rates (Ndebbio, 2004). Financial deepening theory defined the positive role of financial system on economic growth by size of the size of the sectors activity. Well functioning financial institutions enhance overall economic efficiency, create and expand liquidity, mobilized savings, promote capital accumulation, transfer resources from the traditional non-growth sector to the modern growth inducing sectors and encourage a competent entrepreneur respond development needs of the economy (Shitta, 2012).

The essence of emphasize on the development of the Nigerian financial sector is in the theory of financial repression which posited that efficient utilization of resource via highly organized development and liberal financial system will enhance economic growth. This is the so-called supply led theory of finance-growth Nexus. One of the oldest debate in economic has remain the relationship between financial development and economic growth. Its root can be traced to Schumpeter (1912) when he posited that finance is prominent to economic growth while Robinson (1952) argued that economic growth promote finance.

Over the years, Nigerian government has embarked on structural and institutional policy reforms in the financial sector to deepen the operational efficiency of the institution for the realization sets monetary and macroeconomic goals, for instance the deregulation of interest rate in 1986 was aimed at reducing the cost of fund and allocate financial resources to preferred investors and sectors (Anyanwu, 2010). The banking sector consolidation aimed at repositioning the banking sector to be an active player in the global financial market rather than a spectator (Toby, 2006), while the internationalization of the Nigerian capital market was aimed at attracting foreign real and portfolio investors (Onoh, 2007). The extents to which these policies have affected financial deepening for the realization of macroeconomic goals remain a knowledge gap and attract empirical research. However, despite the growing literature on financial sector reforms and economic growth, the effect of various measures of financial deepening on economic has not been captured in previous studies, therefore this study intend to examine the relationship between financial deepening and Nigerian macroeconomic growth.

LITERATURE REVIEW

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).

Supply - Leading Hypothesis

The supply-leading hypothesis suggests that financial deepening spurs growth. The existence and development of the financial markets brings about a higher level of saving and investment and enhance the efficiency of capital
accumulation. This hypothesis contends that well-functioning financial institutions can promote overall economic efficiency, create and expand liquidity, mobilize savings, enhance capital accumulation, transfer resources from traditional (non-growth) sectors to the more modern growth inducing sectors, and also promote a competent entrepreneur response in these modern sectors of the economy. The recent work of Derniguc-Kunt& Levine (2008) in a theoretical review of the various analytical methods used in finance literature, found strong evidence that financial development is important for growth. To them, it is crucial to motivate policymakers to prioritize financial sector policies and devote attention to policy determinants of financial development as a mechanism for promoting growth.

**Demand - Following Hypothesis**

The demand-following view of the development of the financial markets is merely a lagged response to economic growth (growth generates demand for financial products). This implies that any early efforts to develop financial markets might lead to a waste of resources which could be allocated to more useful purposes in the early stages of growth. As the economy advances, this triggers an increased demand for more financial services and thus leads to greater financial development. Some research work postulate that economic growth is a causal factor for financial development. According to them, as the real sector grows, the increasing demand for financial services stimulates the financial sector. It is argued that financial deepening is merely a by-product or an outcome of growth in the real side of the economy, a contention recently revived by Ireland (1994) and Demetriades and Hussein (1996). According to this alternative view, any evolution in financial markets is simply a passive response to a growing economy.

**Empirical Review**

Agu & Chukwu (2008) in his effort to ascertain the direction of causality between “bank based” financial deepening variables and economic growth in Nigeria found that financial deepening variables and economic growth were positively co-integrated and that there was only one co-integrating vector indicating a stable and sustainable long run equilibrium relationship in the full Information Maximum Likelihood (FML) multivariate Johnson.

Arestis and Demetriades (1996), in particular, using twelve countries as case study, show that the direction of causality depends on the variable used and that each country exhibit different results. These results do not exhibit a pattern for developed or developing countries which confirms the hypothesis that institutional considerations and policies of countries do play a role in the relationship between finance and growth.

Arestis and Demetriades (1996) show that King and Levine’s causal interpretation is statistically fragile and that cross-sectional datasets cannot address the question of causality in a satisfactory way. Arestis and Demetriades (1997), using time series analysis, later conclude that the evidence favors a bidirectional causality relationship between financial development and economic growth. Moreover, Murinende and Eng (1994) find evidence of such bi-directionality in the case of Singapore, as do Demetriades and Hussein (1996) for 16 developing countries. Likewise, Luintel and Khan (1999), who investigate the finance-growth nexus in a multivariate VAR model, find bidirectional causality between financial development and economic growth in all their sample countries.

Ndebbio (2004), using an ordinary least square regression framework, finds that financial sector development weakly affect per capita growth of output. He attributed the result to shallow finance and the absence of well-functioning capital markets. The finding of Nnanna (2004) was more disturbing. He, also using ordinary least square regression technique, concluded that financial sector development did not significantly affect per capita growth of output.

Nzotta and Okereke (2009) based on two stages least analytical framework for a period starting from 1986 t0 2007, concluded that financial deepening did not support economic growth in Nigeria. However, Afangideh (2009), using three stage least square estimation technique on a data spanning 1970 to 2005, found that a developed financial system alleviates growth financing constraints by increasing bank credit and investment activities with resultant rise in output. The finding of Agu and Chukwu (2008) is quite different from other authors on Nigeria. They employed the augmented Granger causality test to ascertain the direction of causality between financial deepening and economic growth in Nigeria between 1970 and 2005. Their findings revealed evidence to support both demand- and supply-leading hypotheses, depending on the financial deepening variable that is used, in addition to the existing literature on finance and economic growth, this study sets to investigate the path of finance-growth nexus in Nigeria.
Darrat and Al-Sowaidi (2010) assess the role of information technology and financial deepening in Qatar, a fast growing economy. The study employs vector-error-correction modeling technique with its attendant short-run causal dynamics and found that real economic growth in Qatar is robustly linked over the long-run to both financial deepening and information technology and concluded that financial development, rather than IT, is more critical for enhancing economic growth over the short-run horizon.

Ardic and Damar (2006) analyze the effects of financial sector deepening on economic growth using a province-level data set for 1996-2001 on Turkey. The period covered was associated with a weakly regulated and relatively unsupervised expansion of the banking sector which led to the 2001 financial crisis. The results indicate that a strong negative relationship between financial deepening, both public and private, and economic growth exists. The study argues that it is possible that financial development may not always contribute to economic growth, and the conditions under which such a contribution takes place should be investigated further.

Guryay, et al., (2007) examine the relationship between financial development and economic growth. The study employed ordinary least squares technique to show that there is insignificant positive effect of financial development on economic growth for Northern Cyprus. They posit that causality runs from growth to financial development without a feedback.

Wadud (2005) examines the long-run causal relationship between financial development and economic growth for three South Asian countries namely India, Pakistan and Bangladesh. He disaggregated financial system into “bank-based” and “capital market based” categories. The study employed a cointegration vector autoregressive model to assess the long-run relationship between financial development and economic growth. The empirical findings suggest that the results of error correction model indicate causality running from financial development to economic growth. Waqabaca (2004) examines the causal relationship between financial development and growth in Fiji using low frequency data from 1970 to 2000. The study employed unit root test and co-integration technique within a univariate VAR framework. Empirical results suggest a positive relationship between financial development and economic growth for Fiji with causality running from economic growth to financial development. He posits that this outcome is common with countries with less sophisticated financial systems.

Nzotta and Okereke (2009) examine financial deepening and economic development in Nigeria between 1986 and 2007. The study made use of time series data and two stages least squares analytical framework and found that four of the nine variables; lending rates, financial savings ratio, cheques/GDP ratio and the deposit money banks/GDP ratio had a significant relationship with financial deepening and concluded that the financial system has not sustained an effective financial intermediation, especially credit allocation and a high level of monetization of the economy.

Agu and Chukwu (2008) employ the augmented granger causality test approach developed by Toda and Yamamoto (1995) to ascertain the direction of causality between “bank-based” financial deepening variables and economic growth in Nigeria between 1970 and 2005. Their co-integration results suggest that financial deepening and economic growth are positively co-integrated. In the Toda-Yamamoto sense, the study finds that the Nigerian evidence supports the demand-following hypothesis for “bank based” financial deepening variables like private sector credit and broad money; while it supports the supply-leading hypothesis for “bank-based” financial deepening variables like loan deposit ratio and bank deposit liabilities. Thus, the study concludes that the choice of bank-based financial deepening variable influences the causality outcome.

Shittu (2012) examines the impact of financial intermediation on economic growth in Nigeria with time series data from 1970 to 2010. Employing cointegration test and error correction model, he finds that financial intermediation has a significant impact on economic growth in Nigeria.

Azege (2004) examines the empirical nexus between the level of development by financial intermediaries and growth. The study employed data on aggregate deposit money bank credit over time and gross domestic product to establish that a moderate positive relationship exist between financial deepening and economic growth. He concludes that the development of financial intermediary institutions in Nigeria is fundamental for overall economic growth.

Olofin and Afangideh (2010) examine the financial structure and economic growth in Nigeria by using annual data from 1970 to 2005. Small macro econometric model to capture the interrelationships among aggregate bank credit
activities, investment behaviour and economic growth given the financial structure of the economy was developed. They adopted three stage least square estimation techniques, while counter factual policy stimulations were conducted. The results of these tests indicate that a developed financial system alleviates growth financing constraints by increasing bank credit and investment activities with resultant rise in output. One major outcome of this study is that financial structure has no independent effect on output growth through bank credit and investment activities, but financial sector development merely allows these activities to positively respond to growth in output.

Odeniran and Udeaja (2010) examine the relationship between financial sector development and economic growth in Nigeria. The study employs granger causality tests in a VAR framework over the period 1960-2009. Four variables, namely; ratios of broad money stock to GDP, growth in net domestic credit to GDP, growth in private sector credit to GDP and growth in banks deposit liability to GDP were used to proxy financial sector development. The empirical results suggest bidirectional causality between some of the proxies of financial development and economic growth variable. Specifically, the study finds that the various measures of financial development granger cause output even at one per cent level of significance with the exception of ratio of broad money to GDP. Additionally, net domestic credit was equally found to be driven by growth in output, thus indicating bidirectional causality. The variance decomposition shows that the share of deposit liability in the total variations of net domestic credit is negligible, indicating that shock to deposit does not significantly affect net domestic credit.

Okoli (2010) examines the relationship between financial deepening and stock market returns and volatility in the Nigerian stock market for the period 1980-2009. The study employs the popular GARCH (1, 1) model. Four modeled equations were estimated and analyzed. Financial deepening was represented by two variables, the ratio of the value of stock traded to GDP (FD1t) and the ratio of market capitalization to GDP (FD2t). Empirical results revealed that financial deepening (FD1t) measured as the ratio of value of stock traded to GDP do not affect the stock market and there is no news about volatility. But financial deepening (FD2t) measured as the ratio of market capitalization to GDP affect the stock market. It indicated that financial deepening reduces the level of risk (volatility) in the stock market. Result also recorded that the conditional volatility of returns is slightly persistent.

Sulaiman, et al., (2012) critically explore the effect of financial liberalization on the economic growth in developing nations with its assessment focusing on Nigeria with annual time series data from 1987-2009. The study employs co-integration and error correction model (ECM) by making Gross Domestic Product as a function of lending rate, exchange rate, inflation rate, financial deepening (M2/GDP) and degree of openness as its financial liberalization indices. Co-integration result confirms the existence of long run equilibrium relationship while the ECM results show a very high R2 in both the over-parameterized model (95%) and parsimonious model (91%). The study therefore concludes that financial liberalization has a growth-stimulating effect on Nigeria.

Johannes et al. (2011) using Johansen cointegration established positive relationships between financial development and economic growth in the long run and short run for Cameroon for the period 1970-2005 for Cameroon at 5% level of significance. The result agreed that financial sector development cause economic growth in the long run and the short run. Economic growth is as a result of financial sector development.

Azege (2004) examines the empirical relationship between the level of development by financial intermediaries and growth. The study employed data on aggregate deposit money bank credit over time and gross domestic product to establish that a moderate positive relationship exist between financial deepening and economic growth. He concludes that the development of financial intermediary institutions in Nigeria is fundamental for overall economic growth.

Wadud (2005) examines the long-run causal relationship between financial development and economic growth for 3 South Asian countries namely India, Pakistan and Bangladesh. The study employed a cointegrated vector autoregressive model to assess the long-run relationship between financial development and economic growth. The results indicate causality between financial development and economic growth but running from financial development to economic growth.

Odhiambho (2004) investigates the role of financial development on economic growth in South Africa. The study uses three proxies of financial development namely; the ratio of M2 to GDP, the ratio of currency to narrow money and the ratio of bank claims on the private sector to GDP against economic growth proxied by real GDP per capita. He employed the Johansen-Juselius cointegration approach and vector error correction model to empirically reveal
overwhelming demand-following response between financial development and economic growth. The study totally rejects the supply leading hypothesis.

Waqabaca (2004) examines the causal relationship between financial development and growth in Fiji using low frequency data from 1970 to 2000. The study employed unit root test and cointegration technique within a bivariate VAR framework. Empirical results suggest a positive relationship between financial development and economic growth for Fiji with causality running from economic growth to financial development. He posits that this outcome is common with countries that have less sophisticated financial systems.

Unalmis (2002) investigates the direction of causality between financial development and economic growth in Turkey using Granger non-causality in the context of VEC model. The study finds that in the long run, there exists bidirectional causality between financial deepening and economic growth. Adam (2011) examines how efficient the financial intermediation process has been in Nigeria’s growth performance. The study employed the 2SLS approach. The empirical results show that financial intermediation process is sub-optimal and caused by high lending rate, high inflation rate, low per capita income, and poor branch networking.

Samson & Udeaja (2010) examined financial sector development and economic in Nigeria. The study unlike most early studies; the major empirical results show that financial deepening does not have influence on economic growth. The VAR results indicate that changes in net domestic credit impact on economic growth while per capital output also influences net domestic credit and economic growth. Changes in deposit liabilities appear to have no major impact on economic growth. More recently, Samson & Elias (2012) examine the relationship between financial sector development and economic growth in Nigeria. It tests the competing financial growth nexus hypothesis using granger causality tests in VAR framework over the period 1969 to 2009.

RESEARCH METHODS

Documentary evidence constitutes the instrument of data collection as the study is based on secondary data. The data is time series collected from the Central Bank of Nigeria statistical bulletin. The data for the study is the aggregate of banking sector credits, market capitalization and foreign direct investment to financial sector and real GDP from 1981-2017. This period is regarded as period of financial liberalization and control. The variables for aggregate banking sector credits, market capitalization, foreign direct investment to financial sector and real GDP met the requirement for the quantitative data available for the study periods of 1980 to 2014. Based on this, the hypothesis was tested using vector error correction model. This study is interested in the long run predictive effect of financial sector development on economic growth. The advances in econometric techniques however, enable recent researchers to use techniques such as stationarity tests (i.e. unit root test), co-integration test and causality test in their analysis to reanalyze the traditional regression applied in earlier studies. The steps used in this analysis are discussed below.

Model Specification

\[ \text{RGDP} = f(\text{CPS, NS, CAPM, INTR}) \] .............................(1)

Transforming eqn(1) to empirical model

\[ \text{RGDP} = \beta_0 + \beta_1 \text{M2} + \beta_2 \text{CPS} + \beta_3 \text{NS} + \beta_4 \text{CAPM} + \text{INTR} + \mu \]  .......... 2

Where:

\[ \text{RGDP} = \] Nigerian Real Gross Domestic Product

\[ \text{M2} = \] Broad Money Supply

\[ \text{CPS} = \] Credit to Private Sector

\[ \text{NS} = \] National Savings

\[ \text{CAPM} = \] Capital Market Performance
INTR = Interest Rate

\[ \beta_0 = \text{Regression Intercept} \]

\[ \beta_1 - \beta_5 = \text{Coefficient of the independent variables to the Dependent variable} \]

**Stationarity (Unit Root) Tests**

We investigate the stationarity properties of the time series data using the Augmented Dickey Fuller (ADF) test. According to Nelson and Plosser (1982), Chowdhury (1994) there exist a unit root in most macroeconomic time series. While dealing with time series, it is necessary to analyze whether the series are stationary or not. Since regression of nonstationary series on other non-stationary series leads to what is known as spurious (bogus) regression causing inconsistency of parameter estimate. The Null hypothesis of a unit root is rejected against the one sided alternative if the t-statistics is less than the critical value. Otherwise, the test fails to reject the null hypothesis as a unit root at 5% significance level.

**Co-integration Test**

Next, we employ Johansen Multivariate Co-integration Test. Co-integration is the existence of a long run equilibrium relationship among time series variables. Johansen (1988, 1991) pointed out that a linear combination of two or more nonstationary time series may be stationary. If such a stationary linear combination of two or more non-stationary time series exists, the non-stationary time series are said to be cointegrated and may be interpreted as long-run relationship among the variables. The lag length is one and is based on the Akaike (1969) information criterion (AIC). The lag is taken into account at Mckinnon critical values at 5% level. If the residuals from the regression are 1(1) or 2(2), i.e stationary, then variables are said to be co-integrated and hence interrelated with each other in the long run.

**Vector Error Correction (VEC) Technique**

We investigate the direction of causality for the hypotheses using Vector Error Correction (VEC) model based causality technique. The presence of co-integrating relationship forms the basis of the use of Vector Error Correction Model. Eviews econometric software used for data analysis, implement vector Auto-regression (VAR)- based co-integration tests using the methodology developed by Johansen (1991,1995). The non-standard critical values are taken from Osterward Lenun (1992).

**ANALYSES, AND DISCUSSIONS**

This section deals with the presentation, analyses and interpretation of data obtained from publications of Central Bank of Nigeria. The purpose of the study is to investigate the effect of financial deepening on Nigerian economic growth. In this study, financial deepening is measured as interest rate, credit to private sector, national savings, capital market proxy by market capitalization and Broad money supply while Nigerian economic growth is measured as Real Gross Domestic Product.

**PRESENTATION OF REGRESSION RESULTS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>12700.76</td>
<td>1692.484</td>
<td>7.504211</td>
<td>0.0000</td>
</tr>
<tr>
<td>M2</td>
<td>4.333063</td>
<td>0.830968</td>
<td>5.214474</td>
<td>0.0000</td>
</tr>
<tr>
<td>CPS</td>
<td>1.081742</td>
<td>0.797931</td>
<td>1.355683</td>
<td>0.1869</td>
</tr>
<tr>
<td>NS</td>
<td>-1394.199</td>
<td>140.6354</td>
<td>-9.913570</td>
<td>0.0000</td>
</tr>
<tr>
<td>CAPM</td>
<td>-0.000619</td>
<td>0.001449</td>
<td>-0.427139</td>
<td>0.6728</td>
</tr>
<tr>
<td>INTR</td>
<td>-149.6007</td>
<td>88.60707</td>
<td>-1.688360</td>
<td>0.1033</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.990808</td>
<td>Mean dependent var</td>
<td>13623.61</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.989040</td>
<td>S.D. dependent var</td>
<td>22098.76</td>
<td></td>
</tr>
</tbody>
</table>
**Interpretation of Regression Result**

The summary of the relationship between financial deepening using multiple regressions using the Ordinary Least Square analysis is as shown in the table above.

The coefficient of $R^2$ and adjusted $R^2$ measures the explanatory power of the multiple regression models. From the results there is a high coefficient of determination of 0.990808 $R^2$ and 0.98040 adjusted $R^2$ (99.0% and 98%). This implies that the variables in the equation are useful for explaining the level of economic growth to the power of 99.0% and 98.0% between 1980-2013. The standard error of the estimate also known as the residual standard deviation has values stable for the analysis of the results.

The F-statistics is found to 560.5031 with probability of 0.00000 implies that the model is significant at the 5% level, the Durbin Watson (DW) statistics of 1.038689 shows that there is no problem of serial correlation in the regression models. This is a case of positive serial correlation. This also indicates that the multi-colinearity which other presents in cross-sectional data seems to be non-existence in the models.

The estimation results from the regression model indicate that Broad money supply; credit to private sector has positive relationship with Nigerian Real Gross Domestic Product while national savings, capital market and interest rate have negative effect on Nigerian Real Gross Domestic Product.

**STATIONARITY TEST (ADF LEVEL)**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>ADF STATISTICS</th>
<th>MACKINON VALUE 1%</th>
<th>CRITICAL 5%</th>
<th>CRITICAL 10%</th>
<th>ORDER OF INTEGRATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>-4.641147</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>I(1)</td>
</tr>
<tr>
<td>M2</td>
<td>-3.392431</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>I(1)</td>
</tr>
<tr>
<td>CPS</td>
<td>4.737006</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>I(1)</td>
</tr>
<tr>
<td>NS</td>
<td>7.353168</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>I(1)</td>
</tr>
<tr>
<td>CAPM</td>
<td>-5.937106</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>I(1)</td>
</tr>
<tr>
<td>INTR</td>
<td>-3.093153</td>
<td>-3.679322</td>
<td>-2.967767</td>
<td>-2.622989</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

**Source:** Computed by Researcher from E-view 7.0

The stationarity test shows that the variables are stationary; this implies that the null hypothesis of non stationarity is rejected and alternate accepted.

**JOHANSEN’S CO-INTEGRATION TEST**

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob. **</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.927383</td>
<td>182.5713</td>
<td>95.75366</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.782402</td>
<td>111.7624</td>
<td>69.81889</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.750892</td>
<td>70.58449</td>
<td>47.85613</td>
<td>0.0001</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>0.509753</td>
<td>33.05808</td>
<td>29.79707</td>
<td>0.0203</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.304525</td>
<td>13.81126</td>
<td>15.49471</td>
<td>0.0883</td>
</tr>
<tr>
<td>At most 5 *</td>
<td>0.137886</td>
<td>4.005928</td>
<td>3.841466</td>
<td>0.0453</td>
</tr>
</tbody>
</table>
Discussion of Findings

The achievement of economic growth has been one of the major policy thrust of Nigerian government since 1960, this is because economic growth signify the well being of the economy and the people. Government recognizes that financial sector can facilitate and enhance the realization of the policy through efficient and effective functioning of the financial market. From the findings of this study, financial deepening in Nigeria has significant effect on the growth of Nigerian economy, represented by Nigerian Real Gross Domestic Product. Findings reveal that the positive value of 4.433063 as parameter for money supply and 1.081742 as parameter for credit to private sector reveal that an increase of 1% in the variables will lead to increase in Real Gross Domestic Product by 4.3% and 1.08%, this finding is expected in the result as theories such as financial intermediation theories has noted that an effective and efficient financial sector is required to achieve economic growth. The finding is also expected because of the various reforms Nigerian government has put in place over the years to increase the operational functioning of the financial market such as the financial sector reforms. The findings consolidate the opinions that finance granger cause economic as oppose to the opinion that economic growth granger cause finance. It also validates the demand leading hypotheses as opposed to the supply leading hypotheses. However, findings reveal that with negative coefficient of -1394.199 as parameter for national savings, the negative value of 0.000619 as parameter for capital market development and negative coefficient of 149.6007 as parameter for capital market development indicates that an increase of 1% will lead to decrease in Nigeria Real Gross Domestic Product by 1394%, 149% and 001%, this finding is contrary to the expectation of the result as the variables are expected to add positively to the growth of Nigerian economy. The negative effect of the variables can be traced to the marginal performance of the financial sector such as the financial dualism that contracts deposit mobilization of the formal financial market. It can also be blamed on the financial sector crises within the period of this study, for instance the banking sector crises within the period have the capacity of affecting negatively the economic growth of the country. It can also be traced to monetary and macroeconomic instability within the period of this study.

CONCLUSION AND RECOMMENDATIONS

Conclusions

From the findings in the study, the following conclusions were drawn;

- There is positive and significant relationship between Broad Money Supply and the growth of Nigerian economy. This finding confirms the A-piroi expectation.
- There is positive but insignificant effect between credit to private sector and the growth of Nigerian economy.
- National savings have negative and significant relationship with the growth of Nigerian economy, this findings is the expectation of the results.
- Capital market development proxy by All Share Price Index has negative but insignificant relationship with Nigerian economic growth. This finding is contrary to the study expectation.
- Interest rate have negative but insignificant relationship with the growth of Nigerian economy, the findings is contrary to the expectation of the results.
- That 99.0% and 98% variation in Nigerian Real Gross Domestic Product can be explained by variation in the independent variables in the model.

Recommendations

From the conclusions above, the study makes the following recommendations:

- There should be structured monetary and macroeconomic policies that will enhance the performance of the financial system to achieve economic growth.
- Policies that antagonize the operational efficiency of the financial system should be abolished to enhance the performance of the financial market.
- The monetary authorities and operators in the financial market should come up with policies that will enhance the operational performance of the financial system for economic growth.
- The financial institutions such as the banking should effectively perform its financial intermediation function to enhance economic growth.
- There should be expansionary monetary policy with guided deregulation to enhance availability of investment fund for economic growth.
- There should be policies to manage the interest rate structure to avert the negative effect of investment borrowings in Nigeria.

REFERENCES


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