THE IMPACT OF MONEY MARKET OPERATIONS ON THE ECONOMIC GROWTH OF NIGERIA (1981 – 2013)

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ABSTRACT
The study examined the impact of money market operation on the economic growth of Nigeria. In the model specified Gross Domestic Product is used as the constant (Dependent variable) while money market interest rate, ratio of loan to deposit, commercial bank deposit, credit to private sector are the independent variable. Data was collected from the CBN statistical Bulletin for the period between 1981 – 2013. The statistical techniques used for the analysis is the ordinary least square techniques with the aid of SPSS 16.0 software package. The research indicated that money market interest rate and ratio of loan to deposit in Nigeria within the period under study have a negative relationship with the GDP. While commercial bank deposit has a positive relationship with the GDP but does not have significant effect on the economic growth and credit to private sector also has a positive relationship with the GDP. To help increase the performance of the variables, government should increase money market interest rate MMI so that it can induce investment in the money market instruments. The Ratio of Loans to Deposit RLD should also be increased to help boost economic growth.

KEYWORDS: Economic growth, Money market, GDP, Deposit.

INTRODUCTION
It has been emphasized that money market Operation plays a vital role in stimulating investment in any economy thereby boosting the level of economic growth. Not only does the money market as a whole serve as catalyst in economic growth but also as large scale investors as well.

The role of money market operation as a wholesale market for low risk, highly liquid, short term debt instrument and open market operation in worth stressing (CBN 2004). By definition, money market is a market where instruments that mature within one year are traded (Kurfi 2006). It is simply a market for short term debt instruments. It’s major function is to facilitate the raising of
short term funds from the surplus sector of the economy to the deficit sector which could be public or private who obtain funds from the market to bridge budgetary gaps by trading in short term instruments such as treasury bills, treasury certificate, call money, certificate of deposit and commercial papers, with the commencement of the open market operation (OMO) by the CBN.

**OBJECTIVES OF THE STUDY**

The objectives of this study are:

To establish the relationship that exist between money market operation and economic growth.

To ascertain the relevance of money market operation for business expansion in Nigeria.

**HYPOTHESIS**

Ho: There is no significant relationship between money market operation and economic growth in Nigeria.

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Nwankwo (2000) defines money market as a market for short term instruments which provides services that are essential to a modern economy-by facilitating trade and production sequel to this definition, it is reasonable to say that money market is a mechanism for development since it connotes the factors of production. Peter, (1991) defined financial institution as a market that provides facilities for buying and selling of financial claims and services this definition offered by Nwankwo although Seyer extends a little further in showing certain similarities between the two concept in the assertion financial market are classified as money market “as these performs a function of transforming resources to the producers. Therefore which ever concept is used by scholars either money market or financial institution. It should be noted that we are referring to the subject matter “money market”.

Erb, (1991) observed that the role of money market in economic development of any nation is to ensure the mobilization of idle funds from the surplus unit to the deficit sectors which accordingly appropriate surplus funds which are left in banks or channeled into the system create room for new innovations, business opportunities which further create employment that brings about income generation and better social welfare by enhancing and improving the standard of living of those engaging in arrays of new opening through multiplier effect.

However the money market instrument include: Treasury Bills (TBs), treasury certificates (TCs), Call money (CM), commercial papers (CPs), Eligible development stock (Eds), Bank Unit Fund (BUF), Certificate of Deposits (CDs) Banker acceptance (Bas), Commercial Bills (CBs) and CBN certificates.

**THEORETICAL FRAMEWORK**

affect long-run growth in a country. They include, catalyzing the capital accumulation (including both human and physical capital) and by increasing the rate of technological progress. The five basic functions of an efficiently working financial sector (such as mobilizing and pooling savings; producing information ex-ante about possible investment and allocating capital, monitoring investment and exerting corporate governance, facilitating the trading, diversification and management of risk and facilitating the exchange of goods and services) allow the above two channels to work for promoting growth by mobilizing savings for investment, facilitating and encouraging capital inflows and allocating the capital efficiently among competing uses.

Financial intermediation theory was first formalized in the work of Goldsmith, R.W. (1969), McKinnon, R.I. (1973) and Shaw, E. (1973) who see financial market, both money and capital market playing a pivotal role in economic development, attributing the differences in economic growth across countries to the quantity and quality of services provided by financial institutions. According to Goldsmith, R.W. (1969), the positive correlation between financial development and the level of real per capital GNP is attributed to the positive impact that financial development has on encouraging more efficient use of the capital stock. Also, the growth process has impact on financial market because it creates incentives for further financial development. McKinnon’s thesis is based on the complimentary hypothesis, which is in contrast to the Neo classical monetary growth theory. He argued that there is a complimentarily link between money and physical capital which is reflected in money demand. This complimentary links the demand for money directly and positively with the process of physical capital accumulation because the constitutions of money supply have a first order impact on decision to save and invest further more, Show, E. (1973) proposed a debt intermediation hypothesis, whereby expand financial intermediation between the savers and investors resulting from financial liberalization (higher real interest rates) and development increase the incentive to save and invest, stimulate investment due to an increase supply of credit, and raises the average efficiency of investment. This view stresses the importance of free entry into and competition within the financial markets as prerequisites for successful financial intermediation.

Mackinnon, R.I. and Show, E. (1973) also posited that policies that adversely affect the financial markets would adversely affect the incentive to save because it will cause repression of the financial markets. The key elements of financial repression according to them include; high reserve requirement on deposit, legal ceilings on bank lending and deposit rates, direct credit restriction on foreign currency capital transaction; and restriction on entry into banking activities. Even through the Mackinnon – Show framework informed many law income countries to design and reform their financial sectors, experiences later showed that the Mackinnon – Shaw framework explain some of the qualitative changes in savings and investment at the aggregate level but it tailed to describe the micro-level interactions in the financial markets and among financial institutions. This affect the supply of savings and the demands for credit by economic agents and the subsequent effect on economic growth. Consequently, the agency theories of financial intermediation were developed.

The money market provides channel for the injection of central bank. Cash into the system of the economy there by boosting economic development of the nations economy.

REVIEW OF EMPIRICAL LITERATURE
Several studies have been conducted on the relationship between financial intermediation and economic growth. The financial system has long been known in the literature to play an important role in the economic development of a country. Some earlier studies have examined the relationship between the capital market and economic growth in Nigeria and majority of these studies have showed that capital market promotes economic development.

Goldsmith, R.W. (1969) using a cross-section of 80 countries during the period 1960-1989 found that financial development promotes economic growth when other growth conditioning variable are taken into account.

Gelbard, E, and Leife, P.S. (1999) provide evidence that although there remains much to be done, financial reforms in money adjusting African countries has contributed positively to economic growth.

Khan, M.S. and Senhadji, A.S. and Smith, Bruce D. (2006) employed a dataset comprising 159 countries over 1960-1999 and their analysis confirm a strongly positive depth indicator covering banking system and securities market and economic growth.

Shan, J.Z. and Morris, A. (2002) used a Granger causality procedure to investigate the relationship between financial development and economic growth for nine OECD countries and China by estimating a Vector Auto Regression (VAR) model. The results of their study show that five out of ten countries have a bilateral Granger causality. Those of them have reverse causality with economic growth leading to financial development while two countries do not have a causal effect at all.

Schoar, A. (2009) agree that a competitive banking sector is necessary in facilitating firm growth and competition, and that equity markets constitute only a small position of overall financing in developing countries. The author underscores the importance of scale for banks and tiny bank will gaines sufficient capital to finance small businesses for expansion. In particular, the banking sector should be established and tailored to improve the real economy and as a tool to create jobs and opportunities.

Agha, A.I., Ahmed, N and Mubarak, Y.A. (2005) in a study of the transmission mechanism of monetary policy in Pakistan asserted that the role of Bank lending is prominent because of the dominance of the banking role included financial reforms, market based credit allocation and crowding in of private sector credit due to the decline in fiscal dominance. The extent literature show that the banks lending channel is an important medium through which monetary policy permeates the real sector of the economy.

According to Levine, R. (2004), the form and function of financial institution are country-specific and would rely on the legal and political system as well as the evolving economic activities. He, therefore, argues that a suitable policy objective would be to craft laws, regulations, and institution that would create an enabling environment to engender competition among financial institution in the provision of essential credit, risk, and liquidity services to the real economy. He states that although the stock markets do not provide much capital to forms, they provide complementary risk, diversification services that facilitate efficient allocation of credit.
Zingalas, L. (2001) favors a more fragmented and competitive banking sectors which according to him creates a fluid transition from a pure banking system to a system that relies both on market and bank, as economic activities expand.

Thomas, M. (2009), suggested that developing countries require not only small banks and microfinance institution that support small borrowers, but could also do with relatively sophisticated financial instruments such as hedging price risks through futures market, insuring against crop failures. Purchasing, farm equipment through pooling arrangement and managing the problem brought about by seasonality.

Ehigiamusoe, U.K (2013) examined the impact of money market on the economic growth of Nigeria using data for the period 1980-2012. Econometrics techniques such as Ordinary Least Squares method, Johansen’s Co-integration Test and Vector Correction model were used to examine both the long run and short run relationship. The link between the money market and the real sector of the economy remains very weak.

Neha, P (2012) The paper analyzed the real effect of financial market subsequent to financial liberalization in an economy with risk averse saves learning by lending, he discovered that transition from full financial repression to full liberalization might initially slow down to the growth process or even induce a recession, whenever the initial level of valuable known by the financial institution is scanty.

Okpe, I.I (2013) Examined the contribution of money market to the growth of small and medium scale enterprises during the period of 1980-2007 with special emphasis on the performance appraisal of the stock market. The result from the empirical analysis carried out using Ordinary Least Squares estimation techniques revealed that the Nigeria stock exchange market appears to be considering the position of the government and the players in the industry in the area of formation and implementation of favorable policies.

Ikpefan, O.A and Osabuohien, E (2012) The study investigated the interaction between discount house, money market instrument and economic growth in Nigeria and using time series on data obtained from the Central Bank of Nigeria and employing Co-integration and Vector Error Correction techniques. The result of the findings showed a long run relationship between discount houses operation and economic growth and money market instruments.

**Model of Specification**

The model used in this study is guided by the work Ehigiamusoe (2013). The models for estimation and analysis are stated

\[ \text{GDP} = \text{F}(\text{MMI}, \text{RLD}, \text{CBD}, \text{CPS}) \]

Where

GDP = Gross Domestic product

MMI = Money market interest rate

RLD = Ratio of loan to deposit
CBD = Commercial Bank deposit
CPS = Credit to private sector

**Estimating Techniques**

The estimating techniques adopted for the research work is the ordinary least square estimating techniques, precisely the multiple regression version. A single model was employed in order to empirically investigate the determinants of economic growth in Nigeria. The ordinary least square (OLS) method of multiple regressions is adopted because the OLS appears appropriate as it yields estimates which are best linear, un-biased and efficient. The following are the reason for employing the OLS method.

1. The mechanism of OLS are easy to understand
2. The OLS interpretation procedure is fairly simple.
3. The OLS has been used in a wide range of economic relationship with fairly satisfactory result.
4. The OLS is an essential component of most other econometric techniques.

**Sources of Data and Collection Procedure**

Basically data needed for the study are purely secondary and therefore secondary source was consulted using data from the CBN statistical bulletin (2013).

**Presentation of the empirical Result**

The model estimation of the empirical models presented as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Ad R²</th>
<th>Std. error of the estimation</th>
<th>df</th>
<th>F</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.968</td>
<td>.937</td>
<td>.928</td>
<td>3.18355E6</td>
<td>4</td>
<td>199.47</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Source:* Authors computation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard error</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.319E6</td>
<td>5.571E6</td>
<td>0.775</td>
</tr>
<tr>
<td>MMI</td>
<td>-95119711</td>
<td>138985.514</td>
<td>-0.684</td>
</tr>
<tr>
<td>RLD</td>
<td>-10744.336</td>
<td>60646.959</td>
<td>-0.177</td>
</tr>
<tr>
<td>CBD</td>
<td>.857</td>
<td>0.366</td>
<td>2.339</td>
</tr>
<tr>
<td>CPS</td>
<td>1.812</td>
<td>0.454</td>
<td>3.991</td>
</tr>
</tbody>
</table>

*Source:* Authors Computation

Regression model:

GDP = 4.319E6 – 95119711 * MMI – 10744.34 * RLD + 0.857 * CBD + 1.812 * CPS
Parameters
MMI = Money market interest rate
RLD = Ratio of loan to deposit
CBD = Commercial Bank deposit
CPS = Credit to private sector
GDP = at current basic prices

The method of ordinary least square (OLS) was employed for the analysis to examine the impact of money market on economic growth of Nigeria. In order to understand the relationship between money market and economic growth, GDP was used to proxy economic growth while money market was proxies by indicator such as MMI, RLD, CBD, and CPS.

The variable used in the studies shows a statistical significance obviously made clear by the P-value of the estimation. The model has a goodness of fit with desirable characteristic.

In the estimated regression line above by which is the constant term is 4.319E6, this implies that holding the value of all other variable constant, the value of GDP will be about the value of the constant term.

Money Market Interest Rate (MMI) has a negative relationship with the GDP, which imply that as the GDP increases the money market interest rate (MMI) decreases. Many people would go to the market to get the money market instrument at a cheaper rate. So therefore the solution to this is to increase the money market interest rate (MMI).

Ratio of Loan to Deposit (RLD) also have a negative relationship with the GDP economic growth. The ratio of loan to deposits is not good enough to bring growth to the economy. The amount release for loan is not much. The ration of loan should be increased so that people would have more access to the loan which would directly increase investment which would lead to economic growth.

Commercial Bank Deposit (CBD) has a positive relationship with the GDP but does not have significant effect on the economic growth. Because as the deposit grows, the ratio of loan also grow which would increase economic growth. It has a 0.852 which is not significant. Also as CBD increase, GDP also increase.

Credit to Private Sector (CPS) has a positive relationship with the GDP because as CPS increase GDP also increases. If more credit are given to the private sector it would help boost the economic activity in the country where by it would lead to economic growth (GDP).

The R square is of good characteristics which show that 95.7% of total variation in GDP was explained by the independent variables.

The F-Statistic is 100.474 And the probability of F-statistics is 0.000 (P-value) which is less than the level of significant alpha = 0.05.
INFERENCES FROM THE RESULT

Findings from the result have shown that a long run relationship exist between money market and economic growth of Nigeria, but the present state of Nigerian money market does not have significant impact on economic growth. The ratio of loan to deposit GDP and the money market interest rate to GDP and credit to private sector to GDP did not show enough evidence to suggest that they have positive and significant impact on economic growth. This shows that the Nigeria money market is not yet developed enough to produce the needed growth that will propel the economy.

REFERENCES


