



## **GROWTH EFFECT OF MONEY MARKET INSTRUMENTS: THE NIGERIAN EXPERIENCE**

**Ademola, Abimbola Oluwaseyi**

Department of Banking and Finance,  
Osun State University, Osogbo, Osun State, Nigeria

Email: [abimbola.ademola@uniosun.edu.ng](mailto:abimbola.ademola@uniosun.edu.ng)

### **ABSTRACT**

Money market is an integral part of the Nigerian economy and plays pivotal role in the economic growth process of the country. This study therefore examined the growth effect of money markets instruments (Treasury Bills (TRB); Bankers Acceptances (BAC); Development Stock (DVS) and Certificate of Deposit (CTD) on Nigeria's economy and it also investigated the direction of causality between money market instruments and GDP (proxy for economic growth). Secondary data were sourced from CBN Statistical Bulletin from years 2006-2020. Descriptive statistics, unit root test, correlation analysis, granger causality test and ordinary least square (OLS) model were employed for the analysis. Findings showed that TRB, BAC and CTD have strong and positive correlation with GDP, while DVS exhibited moderate but negative correlation with GDP. Moreover, result of regression analysis shows that TRB, BAC and CTD have positive and significant effect on GDP; however, DVS has a positive but insignificant effect on GDP. The result of the Granger causality test indicates that TRB, BAC and CTD demonstrate unidirectional causal relationships with GDP whereas no causal relationship exists between GDP and DVS in both directions. It was concluded that the operations in the money market can be a virile stimulant for economic growth in Nigeria if well monitored and properly regulated. It is therefore recommended that government should put in place relevant and sound macroeconomic policies (fiscal and monetary) to boost the development of the money market with a view to promoting productive activities and investments.

**Keywords:** Money market, treasury bills, economic growth, bankers' acceptance



## **1. INTRODUCTION**

Financial markets are institution or arrangements which facilitates the exchange of financial assets such as deposit and loans, stock and government securities (Martin, 2014). They play significant role in the mobilization of financial resources for long term investment. Well-functioning financial markets are very crucial for the promotion of global integration and economic growth. An efficiently functioning domestic financial market can better position a country's competitiveness in the market for global capital growth (Jalloh, 2009). Financial markets exist to balance the financial disequilibrium within an economy. The market can be divided into two, money markets and capital markets. Ogbulu (2009) asserted that the capital market is a network of special institutions which bring together suppliers and users of capital thus facilitating the issuance and secondary trading of long-term financial instruments. Money market on the other hand, is a market for short term debt instruments. Mohammed (2014) affirmed that money market engenders trading in short-term instruments to meet the little needs of large users of funds such as the government, banks and large corporate organizations. The money market is effectuated though money market instruments principally for short term investments. These money market instruments include treasury bills and certificates, certificate of deposits, commercial papers, bankers' acceptances, among others. The money market also allows for efficient distribution of liquidity in the financial system, allocation of capital as well as the hedging of short-term risks (Oghenekaro, 2013).

The money market is an integral part of the Nigerian economy and plays a pivotal role in the economic growth process of the country (Kehinde & Adejuwon, 2011). Specifically, it plays a key role in banks' liquidity management and the transmission of monetary policy (Rigg & Zibell, 2009). It allows refinancing of short-and-medium term loans to facilitate and mitigate business liquidity and risk (Iwedi & Igbaniho, 2015); controls money supply and demand-pull inflation and also determines short-run interest rate (Ekmekcioglu, 2013). Unarguably, a developed, active and efficient interbank market enhances the efficiency of central bank's monetary policy, transmitting its impulses into the economy's best policy. Thus, the growth of the money market smoothens the progress of financial intermediation and boosts lending to economy hence; improving the country's economic and social welfare (Ochei & Osabuohien, 2012; Dabwor, 2009). Therefore, the growth of the money market is in all stakeholders' interest; the



banking system itself, the Central Bank of Nigeria (CBN) and the economy as a whole.

However, the role of money market transactions in economic growth and development of Nigeria has continued to attract the attention of some policy makers and scholars in recent times. This is due largely to the fact that most of the past researches had focused attention on capital market developments, and not much was done on money market activities. Furthermore, review carried out shows that despite the short period of the establishment of money market, they have performed well in the financial market but were often faced with numerous challenges like high liquidity in the hands of commercial banks and fiscal indiscipline in government's activities which impacts negatively on their performances. Furthermore, some researchers like Ikpefan and Osabuohien, (2012); Nwosu and Hamman (2008); Iyiegbuniwe (2005) asserted that the market is shallow and is characterized with inadequate securities, paucity of instruments and also lacks breadth, resilience and depth to effectively discharge its primary functions of financial intermediation. These developments have no doubt affected the growth and development of the Nigeria's money market when compared with advanced countries.

Moreover, Akinlo and Olufisayo, (2007); Edo and Ikelegbe (2014); Fakiyesi and Akano (2005) opined that it will be erroneous to state that the Nigerian money market has lived up to its expectations since inception compared to money markets of developed economies. They observed that money market activities are characterized with operational inefficiency, low capital base, absence of efficient and cost-effective system for transferring ownership of securities in a repurchase transaction of the secondary money market, as well as delay of payment to owners of securities in same market. Owing to these, findings of previous studies linking the effect of money market to economic development showed a lack of consensus among researchers. This lack of consensus clearly indicates the existence of a research gap which this study attempted to bridge, and by so doing contribute to the existing literature. As a result, there is need to evaluate the effect of money market on Nigeria's economic growth. This study therefore seeks to examine the effect of money markets instruments (treasury bills, bankers' acceptances, development stock and certificate of deposit) on Nigeria's economic growth and also determine the direction of causality between money market instruments and GDP (proxy for economic growth).



## **2. LITERATURE REVIEW**

### **Conceptual Review**

#### ***Money Market***

Money market refers to the market where securities of short term nature of not more than one year are bought and sold. Unlike the organized securities and commodities exchanges, it has no central location; businesses are usually transacted on telephone, fax, telex or it can be executed online via what is generally referred to as money market instruments (Ikpefan & Osabuohien, 2012). The major participants in the money market are deposit money banks, government, corporations, enterprises, money market mutual funds, CBN etc. Uruakpa (2019) opined that money market provides commercial banks with a ready market where they can invest their excess reserves and earn interest while maintaining liquidity. Ezirim (2005) also stressed that money markets are used to mobilize funds from the surplus units of the economy to the deficit unit. They are used by intermediary agents especially banks to bridge financial gaps or disequilibrium in an economy.

Mohammad (2014) observed that money market instruments such as treasury bills, commercial papers, bankers' acceptance, certificate of deposit are very liquid and considered extraordinarily safe, they are characterized by high degree of safety, some of the instruments yield interest at maturity and are generally exempted from government income taxes, which makes them particularly attractive to investors in high income tax brackets, for instance treasury bills.

#### ***Economic Growth***

Economic growth is an important concept that is used to assess the performance of an economy. Pietak (2014) described economic growth as a measure of describing the dynamics of economic processes in a country. It refers to the increase in the market value of the goods and services produced by an economy over time. Cvetanovic, et al., (2019) described economic growth as the "increase in the value of a country's production over time". According to them, the extent of growth that a country can achieve depends on its ability and capacity to accumulate the direct factors of production and invest in knowledge acquisition. Economic growth can be measured in nominal or real terms. It can also be measured as the percentage of increase in real gross domestic product (RGDP)



## **Theoretical Review**

### ***Financial Intermediation Theory***

Financial intermediation theory was first formalized in the work of Goldsmith (1969) McKinnon (1973), and Shaw (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 (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 complimentary 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 furthermore, Show (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.

## **Empirical Review**

Obi (2021) investigated the relationship between the money market instruments and economic growth of Nigeria using time series analysis from 1981-2019. Findings showed that there is significant relationship between money market instruments and economic growth in Nigeria. However, no significant relationship was found between money market instruments and the development of the Nigerian financial system. Furthermore, Krokeme and Eze (2021) examined the effect of money market instruments on capital market performance in Nigeria using time series spanned data over a period, 1981-2018. The result of the study indicates that



treasury bills (TB) and commercial papers (CP) exhibited negative relationship with annual market capitalization but they found positive relationship between bankers' acceptance (BA) and annual market capitalization.

Orogun, Saliu and Ajayi (2020) examined the impact of selected money market instruments (treasury bill, certificate of deposit, commercial papers, development stock) on economic growth. Findings revealed that Treasury bills and commercial papers have a positive relationship with GDP, but its effect is insignificant in the long run. However, bank acceptance and credit to the private sector has a positive and significant effect on GDP in the long run. In contrast, development stock has no significant effect on GDP in the short run and the long run with no granger causal relationship with GDP. Uruakpa (2019) examined the impact of money market reforms on economic growth of Nigeria for the period 1990 -2017. Result indicates that money market value has positive and significant effect on GDP, however, treasury bill rate has negative and significant effect on GDP.

Akarara and Eniekezimene (2018) investigated the effect of selected money market instruments on the growth of the Nigerian economy. The results revealed that money market variables are positively related with economic growth rate both in the short and long-run, except for Certificate of Deposit (COD) and Commercial Paper (CPR) that has an inverse relationship with economic growth in the long-run. Ibrahim, Ogunde and Shaeed (2014) also investigated the impact of money market operation on economic growth of Nigeria. Using data obtained from the CBN statistical Bulletin for the period 1981 to 2013, findings indicate 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.

Ehigiamusoe (2013) examined the impact of money market on economic growth in Nigeria using data for the period 1980-2012. Econometrics techniques such as Ordinary Least Squares Method, Johanson's Co-integration Test and Vector Error Correction Model were used to examine both the long-run and short-run relationship. Evidence from the study suggested that though a long-run relationship exists between money market and economic growth, but the present state of the Nigerian money market is significantly and negatively related to economic growth. He further stressed that the link between the money market and the real sector of the economy remains very weak.



### **3. METHODOLOGY**

The study adopts quasi-experimental design. This is used because the study investigates the strength of relationship between two or more economic factors. The secondary data was mainly used in this study sourced from Central Bank of Nigeria Statistical Bulletin from 2006-2020. Descriptive statistics, unit root test, correlation analysis, granger causality test and ordinary least square (OLS) model were employed for the analysis.

#### **Model Specification**

The model specification involves identifying the independent (x) and dependent (y) variables and the relationship between the variables. Using the linear regression model, the independent variables in this study are treasury bills, bankers' acceptances, certificate of deposit and development stock while the dependent variable is gross domestic product which is a measure of Nigeria's economic growth. The model looks thus:  $Y = f(x)$

$$GDP = F(\text{TRB, DVS, CTD and BAC}) \dots \dots \dots (1)$$

Mathematically, this can be re-presented as:

$$GDP_t = \beta_0 + \beta_1 \text{TRB}_t + \beta_2 \text{DVS}_t + \beta_3 \text{CTD}_t + \beta_5 \text{BAC}_t + U_t \dots \dots (2)$$

Where:

$\beta_1 - \beta_5$  are parameter estimates for the independent variables  
 $U_{it}$  = Error terms;  $\beta_0$  = intercept of  $GDP_t$  model;  $t$  = number of years

### **4. RESULTS AND DISCUSSION**

The result of descriptive analysis is displayed in Table 1. It shows overview of statistics such as the mean, median, standard deviation, and metrics of the distribution's symmetry and normality. According to the analysis, TRB has the highest mean score (15.85), followed by CPD (12.95) and BAC (12.59) with DVS having the lowest mean (11.05). The result may be due to the fact that TRB is more preferred because of its low costs, favorable tax treatment and security. Findings revealed that the standard deviation whose value exceeds the mean value indicates that the significant distance between the highest and lowest values hence values are dispersed and skewed. Also, since all the skewness of the variables are positive ,



with values ranging from -1 to +1, it is an indication that the data are positively and normally skewed right, meaning that the right tail of the distribution is longer than the left. Furthermore, the kurtosis coefficients indicate that all of the variables under evaluation have tiny tails, with kurtosis values lesser than three. The Jarque-Bera statistics which is a test of normality revealed that all the variables have probability values that are greater than 0.05 critical values. Thus, findings showed that all of the variables were properly and normally distributed.

**Table 1**  
**Summary of Descriptive Statistics**

	<b>GDP</b>	<b>TRB</b>	<b>DVS</b>	<b>CTD</b>	<b>BAC</b>
Mean	83554.32	15.85818	11.05273	12.95455	12.59091
Median	68490.98	15.99000	9.000000	13.50000	13.00000
Maximum	172331.1	18.98000	18.20000	14.00000	15.00000
Minimum	57511.04	12.85000	5.500000	11.00000	6.250000
Std. Dev.	89431.32	16.951686	14.08201	13.03572	13.43996
Skewness	1.653352	0.075790	0.453937	-0.581600	-1.645260
Kurtosis	2.899691	2.075102	1.974705	2.001113	2.239340
Jarque-Bera	5.382548	0.402605	0.859588	1.077455	7.260993
Probability	0.067795	0.817665	0.650643	0.583490	0.086503
Sum	919097.6	174.4400	121.5800	142.5000	138.5000
Sum Sq. Dev.	1.55E+10	38.09076	166.6288	10.72727	59.53409
Observations	15	15	15	15	15

TRB = Treasury bills; BAC= Bankers' acceptances; CTD = Certificate of deposit;  
DVS=Development stock; GDP = Gross Domestic Product

**Source: Authors' computation, 2022**

Results of correlation analysis are displayed in Table 2. The correlation coefficient between GDP and TRB is 0.729 which indicate that TRB correlates positively and significantly with GDP. This implies that the higher the frequency of TRB usage, the higher the GDP. Also, BAC, having a coefficient of 0.707 demonstrated strong and positive relationship with GDP which indicates that as BAC usage increases, GDP also increases. Findings further showed moderate and positive correlation between CTD and GDP with a coefficient of 0.636. However, DVS with coefficient of -0.517 exhibited moderate but negative relationship with GDP, indicating that as usage of DVS increases, GDP reduces.





**Table 2**  
**Correlation Matrix**

	GDP	TBR	DVS	CTD	BAC
GDP	1				
TRB	0.729895	1			
DVS	-0.517093	-0.348197	1		
CTD	0.636835	-0.3272043	0.583269	1	
BAC	0.707601	-0.251579	0.388722	0.650994	1

TRB = Treasury bills; BAC= Bankers' acceptances; CTD = Certificate of deposit;  
DVS=Development stock; GDP = Gross Domestic Product

**Source: Authors' computation, 2022**

The summary of unit root test is displayed in Table 3. Unit root test was conducted in order to avoid spurious regression and to examine the stationarity of the variables under consideration. The test is conducted with the help of Augmented Dickey-Fuller. From the result generated it can be observed that all the variables were stationary after first difference suggesting that the variables satisfy the pre-condition of Fully Modified Ordinary Least square.

**Table 3**  
**Summary of unit root test**

Variables	Augmented Dickey-Fuller test statistic	Test critical values:			Prob.*	ORDER
		1% level	5% level	10% level		
GDP	-3.50716	-4.05791	-3.11991	-2.7011	0.0159	I(1)
TBR	-3.07343	-2.75499	-1.97098	-1.60369	0.0051	I(1)
DVS	-3.86133	-4.20006	-3.17535	-2.72899	0.0070	I(1)
CTD	-5.204513	-4.420595	-3.259808	-2.771129	0.0037	I(1)
BAC	-4.801497	-4.297073	-3.212696	-2.747676	0.0049	I(1)

TRB = Treasury bills; BAC= Bankers' acceptances; CTD = Certificate of deposit;  
DVS=Development stock; GDP = Gross Domestic Product

**Source: Authors' computation, 2022**

The result of regression analysis is indicated in Table 4. The estimated model shows that the coefficient of determination was 0.858, implying that the variables accounted for 85.8 percent of total variation in GDP in Nigeria for the period under study. The adjusted coefficient of determination which is used to measure the goodness of fit of the model was found to be 0.847 indicating that the estimated linear model is a good fit. Hence, all the explanatory variables under study are good



predictors. The F-statistic was 43.519 and Prob (F-statistic) was 0.000001 implying that the overall model is statistically significant at 5 percent level of significance. Hence, the explanatory variables jointly contributed in influencing GDP in Nigeria within the period under study. The value of Durbin-Watson statistics was found to be 2.1209 which fall within the acceptable interval of 1.5 to 2.5 implying that there is no serial correlation the residual. Hence, this model is free of being spurious.

Furthermore, the model shows that TRB has a positive and significant effect on GDP in Nigeria. By implication, 1% increase in TRB increases GDP by 1.038%. This implies that increase in amount available for TBR enhances GDP substantially. This result is consistent with the submission of Iwedi and Igbani (2015). Findings also revealed that the coefficient of BAC is positive and significant at 5% level as indicated by the p- value (0.0003). This means that 1% increase in BAC increases GDP by 0.915%. This conforms with the findings of Igbonosa and Aigbovo (2015) and Akarara and Eniekezimene (2018) that BAC significantly influence economic development in both the short-run and long-run respectively.

The coefficient of CTD is positive and significant at 5% level as revealed by the p-value (0.0042) and result shows that 1% increase in CTD increases GDP by 0.763%. This signifies that increase in the use of CTD boosts economic growth in Nigeria. Finally, the coefficient of DVS though positive was not significant as indicated by p-value (0.2924). This shows that increase in the usage of DVS does not have considerable effect on economic development within the period under study. It thus means that money market instruments exert positive and significant impacts on growth, except for DVS, which is not statistically significant. They all contribute positively to the Nigerian economy. This assertion is in line with the findings of Obi (2022) and Orogun et al. (2021).



**Table 4**  
**Regression Analysis Result**

Variable	Coefficient	Std. Error	F-stat.	Prob.
LOG (TBR)	1.038052	0.217289	4.777296	0.0004
LOG (BAC)	0.915918	0.242932	3.770264	0.0003
LOG (DVS)	0.029975	0.027104	1.105919	0.2924
LOG (CTD)	0.763621	0.122612	3.227928	0.0042
C	12.38091	0.892112	13.87820	0.0000
R-squared	0.858445		Mean dependent var	11.19736
Adjusted R-squared	0.847111		S.D. dependent var	0.533464
S.E. of regression	0.122683		Sum squared resid	0.165563
F-statistic	43.51954		Durbin-Watson stat	2.120922
Prob (F-statistic)	0.000001			
Long-run variance	0.012391			

TRB = Treasury bills; BAC= Bankers' acceptances; CTD = Certificate of deposit;  
DVS=Development stock; GDP = Gross Domestic Product

**Source: Authors' computation, 2022**

Causality test is employed to determine the causal relationship between the variables under study, the basis for conducting this test is to enable us know whether the independent variables can actually cause variations in the dependent variable or vice versa. The result of the Granger causality test in Table 5 shows that TRB exhibited a unidirectional causal relationship with GDP. It implies that TRB granger causes GDP and not GDP granger causing TRB. Also, BAC and CTD demonstrated unidirectional causal relationships with GDP, signifying that BAC and CTD granger cause GDP and not the other way round. Contrastingly, no granger causal relationship exists between GDP and DVS in both directions.

**Table 5**  
**Granger Causality Test**

Null hypotheses	Obs	F-statistics	Prob.
GDP does not granger cause TRB	13	2.17685	0.3226
TRB does not granger cause GDP		4.32816	0.0016
GDP does not granger cause BAC	13	3.56117	0.1353
BAC does not granger cause GDP		6.13481	0.0054
GDP does not granger cause DVS	13	0.00654	0.8456
DVS does not granger cause GDP		2.10564	0.2763
GDP does not granger cause CTD	13	0.23841	0.3265
CTD does not granger cause GDP		5.10452	0.0025

**Source: Authors' computation, 2022**



## **5. CONCLUSION AND RECOMMENDATION**

Money market plays significant role in the development of nation by providing short term financial instruments for obtaining short-term funds. Also, the market plays a complementary role to the capital market and provides a source of short-term funds for businesses and other financial institutions like DMBs. Thus, this study investigated the effect of money market instruments (treasury bills, bankers' acceptances, development stock and certificate of deposit) on Nigeria's economic growth and also examined the direction of causality between money market instruments and gross domestic product (GDP). Secondary data used in this study were sourced from CBN Statistical Bulletin from 2006-2020. Descriptive statistics, unit root test, correlation analysis, granger causality test and ordinary least square (OLS) model were employed for the analysis.

Findings showed that treasury bills, bankers' acceptances and certificate of deposit correlated positively and significantly with gross domestic product, while development stock exhibited moderate but negative correlation with gross domestic product. Moreover, result of regression analysis shows that treasury bills, bankers' acceptances and certificate of deposit have positive and significant effect on gross domestic product; however, development stock though positive does not have significant effect on gross domestic product. The result of the Granger causality test shows that treasury bills, bankers' acceptances and certificate of deposit demonstrated unidirectional causal relationships with gross domestic product whereas no causal relationship exists between gross domestic product and development stock in both directions.

This study therefore concludes that the operations in the money market can be a virile stimulant for economic growth in Nigeria if well monitored and properly regulated. Thus, the market can play viable complementary role to Nigerian stock market consequentially boosting the country's GDP. It is therefore recommended that appropriate legal framework needs to be put in place for the smooth introduction and operation of existing and new products in the money market. Government should put in place relevant and sound macroeconomic policies (fiscal and monetary) to boost the development of the money market with a view to promoting productive activities and investments.



### **Suggestion for further studies**

Further studies should be carried out on the effect of money market instruments on other African countries like Ghana, Kenya etc.

### **REFERENCES**

- Akarara EA, & Eniekezimene, AF (2018). Money Market Instruments and growth of the Nigerian Economy: An Empirical Analysis. *Pakistan journal of humanities and social sciences* 6(1), 30-43
- Akinlo, O., & Olufisayo M. (2005). Bank Credit and Economic Development: A Case Study of Deposit Money Banks. University of Jos. Jos
- Dabwor, T. D. (2009). "The Nigerian Banking system and the challenges of Financial Intermediation in the Twenty First Century". *Jos journal of Economics*, 4(1)
- Cvetanovic, S.; Mitrovic, U., & Jurakic, M. (2019). Institutions as the driver of Economic growth in Classic, Neoclassic and Endogenous Theory. *Economic Themes*, 57(1),111-125.
- Edo, S., & Ikelegbe, A. (2014).The Nigerian Economy Reforms, Emerging Trends and Prospects. Centre for Population and Environmental Development (CPED) Monograph .Series. 8. 1-94.
- Ehigiamusoe (2013) The link between Money Market and Economic Growth in Nigeria: Vector Error Correction Model Approach. *International Journal of Social, Education, Economics and Management Engineering* 7(12).
- Ekmekcioglu, E. (2013). Role of financial markets in a global economy and the concept of uncertainty. *International Journal of Academic Research in Economics and Management Sciences*, 2(4), 199-206
- Igbinosa, S. O., & Aigbovo, O. (2016). Capital regulations and performance of Deposit Money Banks in Nigeria. *Research Journal of Financial Sustainability Reporting*, Department of accountancy ESUT, Enugu 1 (2) 272-283
- Ezirim, B.C. (2015). Finance Dynamics: Principles, Techniques and Applications Port Harcourt: Markowitz Center for Research and Development
- Goldsmith, R. W. (1969) "Financial structure and development." New haven, Conn Yale University Press.
- Ibrahim, S.J., Ogunde, O. O., & Shaeed, B. (2014). The impact of money market operations on the economic growth of Nigeria (1981 – 2013). Retrieved from <http://www.africanscholarpublications.com>



- Ikpefan & Osabuohien (2012) “Discount houses, money market and economic growth in Nigeria (1992-2007).” *Economic insights: views and challenges*, 64(1)
- Iyiegbuniwe, W.I.C. (2005). Nigerian money market. evolution and structure. In: Fakiyesi O.O and Akano S.O. (eds) Issues in money, finance and economic management in Nigeria. Lagos. University of Lagos Press
- Iwedi, M., & Igbaniho, D. S. (2015). Modelling financial intermediation functions of Banks: Theory and empirical evidence from Nigeria. *Journal of Finance and Accounting*, 6(18), 159-174
- Jalloh, M. (2009). The role of financial markets in economic growth. WAIFEM regional course on operations and regulation of capital market, held at Accra, Ghana on July, 27th – 31st, 2009.
- Kehinde, J.S., & Adejuwon, K.D. (2011). Financial institution as a catalyst to economic development: The Nigerian experience. *European Journal of Humanities and Social Sciences*, 8(1), 322-32
- Martins, C. (2014) The Impact of Nigeria money market in accelerating economic growth and development. <http://martinslibrary.blogspot.com>
- McKinnon, R.I (1973) “Money and capital in economic development.” Washington D.C. The Bookings institution.
- Mohammed, A. H. (2014). Money market instrument in Bangladesh. Published in Education
- Nwosu, C. P., & Hamman, H. M. (2013). The Nigerian money market: issues and challenges: Bullion, Publication of the Central Bank of Nigeria, 32(2), 51-66.
- Obi, C.U (2021). Money market instruments and economic growth of Nigeria. *European Journal of Management and Marketing Studies* 6(2) <http://dx.doi.org/10.46827/ejmmms.v6i2.1018>
- Ochei, A.I., & Osabuohien E. (2012). Discount houses, money market and economic growth in Nigeria .*Economic Insights: Trends and challenges*. 1(3), 19-30.
- Oghenekaro, O. A. (2013) The Nigeria money market, Central bank of Nigeria (CBN) Understanding monetary policy Series 27
- Ogbulu, O. M. (2009). Market portfolio and capital asset prices: Conceptual issues and methodological enquiry. *African Journal of Applied & Theoretical Economics*, (AJATE), 8(1), 57-74
- Orogun, F.I., Saliu, H. T., & Ajayi, F. O. (2020). Impact of selected money market instruments on Nigerian economic growth (1981-2019). *Ilorin Journal of Human Resource Management (IJHRM)*, 4(1)



- Shaw, E. (1973) “Financial deepening in economic development.” New York, Oxford University Press.
- Pietak, L. (2014). Review of theories and models of economic growth. *Comparative Economic Research*, 17(1), 45-60.
- Rigg, R., & Zibell, L. S. (2009). The financial crisis and money markets in emerging Asia. Asian Development Bank (ADB) Working paper series on regional economic integration, (38), 1-48.
- Pavtar, A. (2016). The Nexus between money market instruments and nigeria’s economic growth: a time series analysis. *Journal of Accounting and Financial Management*, 2(3), 22-39
- Uruakpa, P. C. (2019). Impact of money market reforms on economic growth of Nigeria 1990–2017. *Archives of Business Research*, 7(2)