

Money market and economic growth in Nigeria

Ebi, Odi R.¹ & Ihejirika, Ugochi Ann²

^{1&2}*Department of Finance and Banking, University of Port Harcourt - Nigeria.*

Abstract

This study investigated the relationship between money market operations and economic growth in Nigeria from 1985 to 2020, utilising variables such as Treasury Bills, Commercial Papers, Certificates of Deposit, and Bankers' Acceptance against a single measure of growth, which was denoted by the nation's Gross Domestic Product during the study period. The study employed the unit root, Johansen co-integration, VECM and Granger Causality techniques. According to the study, Treasury Bills, Certificates of Deposit, and Bankers' Acceptance are important factors of what happens in the money market and are critical in determining Nigeria's economic growth. The favourable but minor long-run connection of commercial papers reflects the relatively tiny fraction of Nigerian enterprises that can easily float them, as well as their unsecured nature, which limits their potential to meaningfully influence economic growth. It is possible to detect that the money market contains instruments/activities capable of stimulating Nigeria's economic performance. Based on the findings of the study, we advocate for the continuous flotation of treasury bills and certificates of deposit, as they considerably support economic growth in Nigeria. Furthermore, there is a need to rejuvenate bankers' acceptance because it greatly boosts economic growth.

Key words: Money Market, Economic Growth, Market Instrument, Cointegration

1. Introduction

Finance is a crucial aspect of every firm, and many people use the Nigerian Money Market to obtain short-term financing. The money market constitutes a significant portion of an economy's total financial system. It is a group of financial organisations formed for the purpose of making short-term loans and dealing in short-term products that are easily convertible into cash and have maturities ranging from a few days to a year. The market provides numerous opportunities for investors and corporate financial managers with excess funds to lend in the short term, thereby meeting the needs of

borrowers who require temporary liquidity and can offer an acceptable claim to money (Etale & Ayunku, 2017).

Olulu-Briggs (2021) sees money markets as a way for financial institutions, such as banks, to secure funding through the sale of short-term instruments such as treasury certificates, treasury bills, certificate of deposits, commercial papers, bankers' acceptances, repurchase agreements, and call money, as well as low-risk investors. According to Etale and Ayunku (2017), the only short-term government debt instruments that are marketable and negotiable in Nigeria are treasury bills and treasury certificates. Treasury bills are

frequently traded in the money market since the government discontinued the use of treasury certificates in 1996, in contrast to industrialised nations such as the United States, where commercial papers have been the largest short-term debt instrument since 2007. According to Ehigiamusoe (2013), a developed, active, and efficient interbank market and money market improve the efficiency of monetary policy and the transmission of its impulses into the economy. As a result, the growth of the money market smoothed the progress of financial intermediation, increases lending to the economy, and improves the country's economic and social welfare. According to Oghenekaro (2013), the Nigerian money market has seen remarkable and significant growth and development in terms of both the breadth of securities and the volume of trading since the financial system's deregulation in 1986. It was claimed that the market still needed to be deepened in order to achieve the required vibrancy of a money market. It was also stated that this does not imply that the market is inefficient, but that there is a need to further assess its performance in relation to its contribution to the country's economic growth and development (Agbada & Odejimi, 2015).

The role of money market transactions in Nigeria's economic growth and development has recently piqued the interest of some policymakers and academics. This is largely due to the fact that most previous studies focused on capital market developments, with little attention paid to money market activities. Furthermore, previous research findings linking the activities of the money market

to economic development revealed a lack of agreement among researchers. This lack of agreement clearly demonstrates the existence of a research gap, which this study tried to fill by contributing to the current literature. As a result, based on other research studies that are closely related to this study, the goal of this study is to evaluate the relationship between money market instruments and the performance or growth of the Nigerian economy over a thirty-six-year period (1985-2020).

Money markets in developing economies such as Nigeria are still immature, and the lack of a well-developed money market in these countries makes it difficult to pool enough capital to finance private firms. Despite the recent substantial reforms and expansion of the Nigerian money market, there are still a slew of challenges. In this regard, Iwedi and Igbanibo (2015) explained that the Nigerian money market is still superficial when compared to her contemporaries in some advanced and emerging economies; it is also characterised by an immature secondary market, undiversified instruments, a lack of proper coordination in the issuance of debt instruments, and an inadequate and deficient information flow, among other things.

In comparison to other developing market economies, Nigeria's money market is particularly shallow and oligopolistic (Report of the Financial Sector National Technical Working Group, Vision 20:2020, 2009). Although the money market expanded during the review period, there were some issues that the market had to deal with. Since its inception, the

market's overall performance has been mixed. In particular, as a driver of economic growth and development, Nigeria's money market has underperformed (Nwosu & Hamman, 2008).

Other issues include: a lack of instruments and a lack of market breadth and depth, which increase market volatility; insufficient skilled manpower, which results in low market development; an oligopolistic market structure; reliance on government, which results in a narrow instrument range and slow secondary market growth; an information gap and asymmetry, which leads to market inefficiency; the market is relatively short (concentration on spot); the em (Report of the Financial Sector National Technical Working Group, Vision 20:2020, 2009).

Furthermore, one of the most difficult challenges for the Nigerian money market is the creation of a highly liquid market in which investors can buy and sell with relative ease and large transactions can be completed without significant price changes. Also impeding market development or repurchase transactions is the lack of efficient and cost-effective systems for transferring ownership of securities traded in the secondary market, as well as the funds to pay for them. In comparison to developed-economy money markets, the depth of the Nigerian money market still requires restructuring. Given the scenarios outlined above, this study set out to investigate this critical market and assess its performance in terms of its contribution to economic growth.

2. Literature Review

2.1 Theoretical Framework

2.1.1 Fry's Money Market Theory of Financial Development

Fry's theory on money market interest rates and financial development was used in this study. Finance and financial institutions, according to Fry (1997), have become significant in a world of low information, transaction, and monitoring costs. His position is that positive real interest rates encourage savers while also allowing banks to extend credit to the most efficient enterprises that can generate enough earnings to cover the high rate of borrowing. Over time, emerging market economies' financial development policies have turned toward market-based financial systems and lessons learned from financial crises. In developing countries, the approach to financial policy has evolved from primarily direct controls to more market-oriented systems. As Fry (1988) emphasises the function of money markets, he points out that financial repression can reduce the real rate of interest because liquidity preference drives the real interest rate over its equilibrium level. He highlights that in the developing world, money markets in which interest rates are freely set by the interaction of supply and demand are few and far between. According to Fry (1988), the real interest rate is a common indicator of financial intermediation. When this rate falls below competitive levels, it demonstrates the severity of financial repression. A positive real interest rate supports financial savings and financial intermediation, which increases the supply of credit to the private sector and, as a result, investment. According to Fry (1997), the establishment of the money market, through which the autonomous central bank will exercise indirect monetary policy, is a critical component of financial liberalisation.

According to him, the lack of progress in areas relating to the impact of financial development on growth is directly related to the fact that little attention is paid to the nature of banking or financial markets.

2.1.2 Financial Intermediation Theory

Financial intermediation theory was first formalised in the work of Goldsmith (1969), McKinnon (1973), and Shaw (1973), who see financial markets, both money and capital markets, as pivotal in economic development, attributing differences in economic growth across countries to the quantity and quality of services provided by financial institutions. According to Goldsmith (1969), the positive link between financial development and the level of real per capita GNP is due to financial development's favourable impact on encouraging more efficient use of the capital stock. Furthermore, the growth process has an effect on the financial market since it offers incentives for continued financial development. In contrast to the Neo-classical monetary growth theory, McKinnon's argument is founded on the complementary hypothesis. He contended that money and physical capital have a complementary relationship, which is represented in money demand. Because the compositions of the money supply have a first-order impact on decisions to save and invest, this complementary tie the demand for money directly and favourably with the process of physical capital accumulation. Moreover, Shaw (1973) proposed a debt intermediation hypothesis, according to which financial intermediation between savers and investors as a result of financial liberalisation (higher real interest rates) and development increases the incentive to save and invest, stimulates investment due to an increase in credit supply, and raises the average efficiency of investment. This point of view emphasises the significance

of open entrance and competition in financial markets as requirements for successful financial intermediation.

Mackinnon and Shaw (1973) also proposed that policies that have a negative impact on financial markets have a negative impact on the incentive to save because they promote financial market repression. According to them, the major aspects of financial repression are high deposit reserve requirements, regulatory caps on bank lending and deposit rates, direct credit restrictions on foreign currency capital transactions, and restrictions on entry into banking activities. Even though the Mackinnon–Shaw framework helped many low-income countries design and reform their financial sectors, subsequent experiences revealed that the Mackinnon–Shaw framework explains some of the qualitative changes in savings and investment at the aggregate level, but it falls short of describing the micro-level interactions in financial markets and among financial institutions. This has an impact on the supply of savings and the demand for credit by economic agents, as well as the resulting influence on economic growth. As a result, agency theories of financial intermediation emerged. As a result, the Nigerian money market serves as a mechanism for central bank infusion. Cash is injected into the economy's system, hence accelerating the nation's economic progress.

2.1.3 Modern Growth Theory

Modern growth theory, as established by Grossman and Helpman (1991), Lucas (1988), and Romer (1986), identifies two major pathways through which the financial sector might influence a country's long-run growth. They include stimulating capital accumulation (both human and physical capital) and accelerating technical progress. The five basic functions of an

efficiently functioning financial sector (such as mobilising and pooling savings, producing ex-ante information about possible investment and allocating capital, monitoring investment and exerting corporate governance, facilitating trading, diversification and risk management, and facilitating the exchange of goods and services) enable the above two channels to work for promoting growth by mobilising savings for investment, facilitating an exchange of goods and services, and facilitating the exchange of goods and services.

2.3 Empirical Review

Several studies have been conducted on the relationship between money market instruments and economic growth.

Olulu-Briggs (2021) employed the ARDL and Granger causality test to measure money and capital market investment for a 39 years sample period and found a long run equilibrium relationship existing among the variables. Specifically, movements in treasury bills, bankers' acceptances, and commercial papers precede movements in human development index. The study recommends for the handiness of differentiated assets to build up active trading and personal participation in both markets. In addition, the Central Bank should strengthen its governance policies on transparency and accountability of financial statements of quoted companies to instill investors' confidence in the markets and heighten trading activities.

Eze and Mansi (2017) examined the relationship between different money market instruments and the economic

development of Nigeria. Secondary data from 1990 to 2014 were obtained from Central Bank of Nigeria Statistical Bulletin. The methods of analysis included regression, unit root tests, co-integration tests, and parsimonious error correction. The results show that money market has significant impact on the growth of the Nigerian economy. The impact was significant with respect to bankers' acceptances and certificates of deposits.

Etale and Ayunku (2017) examine the relationship between money market and economic growth in Nigeria. The study adopted money market instruments such as treasury bills (TBs), commercial papers (CPs) and bankers' acceptances (BAs) as proxy for money market (independent variables), and gross domestic product (GDP) as proxy for economic growth (the dependent variable). Secondary time series data for the variables were collected from CBN Statistical Bulletin and the National Bureau of Statistics for the period 1989-2014. The study employed econometric techniques such as ADF, Unit Root Test, OLS, multiple regression and Granger Causality Test to analyze the study data and found strong evidence that TBs, and CPs has positive and significant influence on GDP, while BAs has positive but insignificant influence on GDP in Nigeria.

Pavtar (2016) investigates the link between money market and economic growth in Nigeria using time series data for the period 1985-2014 collected from the Central Bank of Nigeria. The study adopted treasury bills (TBs), treasury certificates (TCs), commercial papers (CPs) and certificate of deposits (CDs) as the independent variables and proxy for

money market; while gross domestic product (GDP) was used as proxy for economic growth. The study adopted an *ex-post-facto* research design, and employed descriptive statistics, OLS multiple regression techniques for data analysis. The findings revealed that TBs, TCs and CPs had no effect on GDP, but CDs had significant impact on GDP.

Iwedi and Igbani (2015) investigate the nexus of money market operations on economic growth in Nigeria during the period 1980–2013, using econometric tools of Vector Auto Regression (VAR). Johansen Co-integration and Granger causality tests in the analysis of their Data. The results indicate that there is a positive and significant short-run and long-run relationship between money market operations and economic growth in Nigeria. The results of the Causality test suggest that causality flows from economic growth proxy by gross domestic product (GDP) to money market operations but not vice versa. They concluded that money market operations (as key components of the financial system) produced short-term growth tendencies and help to ensure long-run impressive and steady economic growth rates in Nigeria.

Ehigiamusoe (2016) examined the challenges of money market development and its impact on economic growth in Nigeria, using Ordinary Least Square (OLS) techniques for data analysis. The results suggest that the Nigerian money market is significant but negatively related to economic growth. He observed that the Nigerian money market is not yet virile enough to produce the needed growth that

will propel the economy to meaningful development, and that the link between the money market and real sector of the economy remains very weak.

Agbada and Odejimi (2015) investigated the developments in money market operations and economic viability in Nigeria for the period 1981 – 2011, using multiple regression techniques for data analysis. The study adopted money market instruments such as treasury bills (TBs). treasury certificates (TCs). certificate of deposits (CDs). commercial papers (CPs) and bankers' acceptances (BAs) as independent variables and proxy for money market operations, while gross domestic product (GDP) was used as proxy for economic growth and the dependent variable. They found that the variations in the growth trends of GDP and the explanatory variables in the graphical representation appears to cast doubt on whether money market operations made significant contribution to GDP growth for the period under review. They observed that the Pearson correlation coefficient matrix substantially attested to strong linear relationship between the explained and explanatory variables.

Isibor and Okafor (2014) examined the impact of the Nigerian money market instruments on the liquidity of ten selected quoted banks from 2005 to 2014. Secondary data were used and the multiple regression econometric technique was used to analyze the data. The study found that firms' working capital and profitability have a significant impact on the money market instrument. Since the money market is very vital for financial managers to raise short-term funds.

John et al., (2015) examined the impact of money market operations on the economic growth of Nigeria. Data was collected from the CBN statistical Bulletin for the period 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.

Okpe (2013) examined the contribution of money market to the growth of small and medium scale enterprises during the period of 1987-2007. The result from the empirical analysis carried out using the ordinary least squares estimation technique reveals that the Nigeria stock exchange has contributed to some extent in financing small and medium scale enterprises. Puri (2012) analyzed the real effect of financial market subsequent to financial liberalization in an economy with risk averse savers and lenders. Evaluating assets of various maturity in a cross-sectional series, the study discovers that the money market is a key component of the financial system as it is the fulcrum of monetary operations conducted by the central bank in its pursuit of monetary policy objectives.

Ikpefan and Osabuohien (2012) investigated the interactions between money market instruments, discount

houses, and economic growth in Nigeria over a period of 1992 to 2007. Utilizing secondary sourced data, the study captured their performance indicators and employed time series data obtained from Central Bank of Nigeria. Employing cointegration and vector error correction techniques, it was established, among others, that a long-run relationship exists between discount houses operations and economic growth on one hand and money market instruments, on the other.

Maduka and Onwuka (2013) examine both the short-run and long-run relationships between financial structures and economic growth, using secondary time series data. The results indicate that financial market structure has a negative and significant effect on economic growth. According to them, information on the Nigerian financial market suggests a low level of development of the country's financial sector.

Ogege and Shiro (2013) study the role of deposit money banks in the growth of the Nigerian economy, for the period 1974 to 2010, using Co-integration and Error Correction Model (ECM) and structural analysis technique to analyze data. They found that there exists a long-run relationship between the dependent variable and the explanatory variables; and that the results conform to economic a priori expectations.

Ehigiamusoe (2013) examined the link between money market and economic growth in Nigeria for the period 1980 – 2013. He used econometric techniques such as Ordinary Least Square (OLS) method, Johansen Co-integration test and Vector Error Correction Model to examine

both the short-run and long-run relationships between money market and economic growth. The results suggest that though, a long-run relationship exists between money market and economic growth, but that the present state of the Nigerian money market is significant but negatively related to economic growth.

Similarly, Ikpefan and Osabuohien (2012) investigate the interaction between discount houses, money market instruments and economic growth in Nigeria for the period 1992 – 2007, using Co-integration and Vector Error Correction techniques. They found that a long-run relationship exists between discount house operations, money market instruments and economic growth in Nigeria. They posited that discount houses can serve as a veritable tool in stimulating economic growth in Nigeria, especially in the era of the global economic meltdown that brought serious financial challenges to the Nigerian stock market.

Previous studies shows varying influence of money market in stimulating economic performance, researchers such as Pavtar (2016), Ehigiamusoe (2016), Agbada and Odejimi (2015), John et al., (2015), Maduka and Onwuka (2013), Ehigiamusoe (2013), Ajao and Festus (2011), Adofu and Abiola (2010) discovered weak and adverse relationship between money market instruments and economic performance while the like of Eze and Mansi (2017), Etale and Ayunku (2017), Iwedi and Igbani (2015), Raja and Mahalakshmi (2015), Isibor and Okafor (2014), and Okpe (2013) saw a binding and viable relationship between the predictor and criterion. This study seeks to

put to rest discrepancies in this field with an updated evaluation of the subject matter and a richer model of four money market instruments which includes Treasury bill, commercial papers, certificate of deposit, and bankers' acceptance.

3. Methodology

In this study, we use a longitudinal research design. This is due to the fact that observations are repeated throughout a sampling period. As a result, the researcher is unable to change the data that has been acquired for this study. The data used in this study were gathered from the Central Bank of Nigeria database from 1985 to 2020, allowing for a detailed analysis. We separated money market instruments into treasury bills, commercial papers, certificate of deposits, and bankers' acceptance, like in earlier research (Olulu-Briggs, 2021; Pavtar, 2016; Etale & Ayunku, 2017), and we proxied economic growth with GDP.

To properly analyse the data, we use the Stationarity test to check for the order of integration of the variables; the Johansen cointegration test to establish the existence of a long run connection between the variables; the Error Correction Model to verify the speed at which distortions in the short run are corrected in the long run, as well as the relationship between each of the explanatory variables and the explained variable; and the Granger causality test to establish the existence of a long run connection between the variables.

From the foregoing, the functional model of the equation is stated as follows:

$$NGDP_t = f(TBILLS_t, CPAP_t, CDS_t, BAC_t)$$

1

The mathematical model is:

$$NGDP_t = a_0 + a_1TBILLS_t + a_2CPAP_t + a_3CDS_t + a_4BAC_t + e_t$$

The econometric model is:

$$NGDP_t = a_0 + a_1TBILLS_t + a_2CPAP_t + a_3CDS_t + a_4BAC_t + e_t$$

Where:

NGDP=Gross Domestic Product (Nominal)

TBILLS = Treasury Bills

CPAP = Commercial Papers

CDS=Certificate of Deposits

BAC=Bankers' Acceptance

a_0 = Constant Parameters

a_1, a_2, a_3, a_4 = Estimation parameters.

e_t = Stochastic variable

On apriori $a_1 > 0$ $a_2 > 0$ $a_3 > 0$ $a_4 > 0$

4.Results and Discussions

Table 2: Unit Root Output (Augmented Dickey Fuller)

Variable	ADF t-statistics @ 1 st diff	Critical value @ 5%	P-value	Order of Integration
NGDP	-3.377733	-3.320969	0.0464	I(1)
TBILLS	-6.528134	-2.951125	0.0000	I(1)
CPAP	-6.894067	-2.951125	0.0000	I(1)
CDS	-6.068303	-2.951125	0.0000	I(1)
BAC	-4.927962	-2.976263	0.0005	I(1)

Source: Extracts from E-Views 10 output.

Table 2 demonstrates that all of the variables used are stationary at the first difference since their p-values are less than 5%. As a result of this conclusion, we can use the Johansen co-integration test to confirm the presence of long-run form among the variables.

Table 3: Johansen Co-integration Test

Series: NGDP TBILLS CPAP CDS BAC

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.807327	124.8721	69.81889	0.0000
At most 1 *	0.682565	68.88226	47.85613	0.0002
At most 2 *	0.467632	29.86789	29.79707	0.0491
At most 3	0.219667	8.433580	15.49471	0.4203
At most 4	1.25E-05	0.000426	3.841466	0.9854

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.807327	55.98982	33.87687	0.0000
At most 1 *	0.682565	39.01438	27.58434	0.0011
At most 2 *	0.467632	21.43431	21.13162	0.0453
At most 3	0.219667	8.433155	14.26460	0.3364
At most 4	1.25E-05	0.000426	3.841466	0.9854

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Source: Extracts from E-Views 10 output.

Table 3 shows that at the 95 percent confidence interval, both the Trace and Max-Eigen Statistics show the presence of three co-integrating equations, given that their respective values are above their critical values. As a result, the variables move together in the long run. As a result, we use the VECM technique to test the extent to which short-run distortions are rectified in the long run, as well as the nature of the link between the variables.

Table 4: Vector Error Correction model

Vector Error Correction Estimates

Standard errors in () & t-statistics in []

Variables	Coefficients	Standard errors	t-statistics		
TBILLS(-1)	9.055086	(-0.64065)	[-14.1342]		
CPAP(-1)	5.183744	(6.23519)	[0.83137]		
CDS(-1)	638.9181	(-52.1196)	[-12.2587]		
BAC(-1)	756.8652	(55.8958)	[13.5407]		
C	-6331.912				
Error Correction:	D(NGDP)	D(TBILLS)	D(CPAP)	D(CDS)	D(BAC)
CointEq1	-0.022925 (0.00390) [-5.88534]	-0.020335 (0.04586) [-0.44343]	-0.000409 (0.00560) [-0.07303]	0.000662 (0.00057) [1.15375]	0.001816 (0.00042) [4.29299]
R-squared	0.853395	0.679748	0.363627	0.591067	0.868677
Adj. R-squared	0.776602	0.511998	0.030289	0.376865	0.799889
Sum sq. resids	152883.6	21189272	315911.2	3316.886	1802.400

S.E. equation	85.32391	1004.496	122.6515	12.56770	9.264372
F-statistic	11.11290	4.052133	1.090867	2.759383	12.62829
Log likelihood	-186.1002	-267.4712	-198.0757	-122.8945	-112.8310
Akaike AIC	12.00607	16.93765	12.73186	8.175424	7.565517
Schwarz SC	12.55026	17.48183	13.27604	8.719609	8.109701
Mean dependent	116.5395	1692.254	0.004491	0.340984	-0.000261
S.D. dependent	180.5223	1437.929	124.5523	15.92078	20.71001

Source: *Extracts from E-views 10.*

Table 4 shows that TBILLS, CDS, and BAC are all positive (9.055086, 638.9181, and 756.8652) and significant (-14.1342, -12.2587, and 13.5407) to NGDP. CPAP is positive (5.183744), however it is not significant (0.83137) in relation to NGDP. The Error Correction model demonstrates that errors in the short run are reversed in the long run at a rate of 2.2925 percent, which is similarly substantial (-5.88534). In other words, disequilibrium in the short run is adjusted at a rate of 2.2925 percent. According to the Adj-R-Squared, the sampled money market instruments in this study account for 77.6602 percent of changes in Nigerian NGDP. The model is significant, as evidenced by the F-statistic value of 11.11290.

Table 5: Pairwise Granger causality Test

Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
TBILLS does not Granger Cause NGDP	35	15.3728	0.0004
NGDP does not Granger Cause TBILLS		12.0261	0.0015
CPAP does not Granger Cause NGDP	35	15.9376	0.0004
NGDP does not Granger Cause CPAP		0.05560	0.8151
CDS does not Granger Cause NGDP	35	15.4399	0.0004
NGDP does not Granger Cause CDS		0.01324	0.9091
BAC does not Granger Cause NGDP	35	0.08581	0.7715
NGDP does not Granger Cause BAC		3.22127	0.0821

Source: *Extracts from E-views 10.*

The Granger Causality test of table 5 shows bi-directional movement between TBILLS and NGDP. There is the presence of uni-directional link flowing from each of CPAP and CDS to NGDP. However,

there is no causality flowing from neither BAC to NGDP; nor from NGDP to BAC.

Discussion of Findings

The study found empirically the following:

- Treasury bills have a positive and considerable impact on GDP. This

- means that a unit increase in treasury bills results in a unit rise in national output. This is due to the ease with which it has been traded in the money market. It also functions as a veritable instrument for the federal government in raising short-term loans to service current obligations that exceed her budget.
- ii. Commercial paper has a favourable but insignificant impact on Nigeria's gross domestic product. This indicates that commercial papers issued by blue chip businesses contribute to economic growth, but only marginally. We attribute this to the tiny number of Nigerian enterprises that can easily float it, as well as its unsecured character.
- iii. Certificates of deposit (CDS) have a favourable and considerable impact on the GDP. This suggests that a unit rise in CDS has the potential to increase GDP by a unit. As a result, the more certificates of deposit traded in the money market, the greater the increase in productive capacity. We attribute this to their safety, as they are backed by a government lien and can be traded in the money market.
- iv. Bankers' acceptance (BAC) has a favourable and considerable impact on Nigeria's gross domestic product. This demonstrates a close relationship between monetary instruments and productive capability in the Nigerian economy, meaning that a unit rise in BAC will result in a unit increase in national production. This is due to the relative certainty it provides merchants against default by buyers of imported products and services. This increases the ease of doing

business and the growth of the Nigerian economy.

The study highlights the importance of money market instruments in driving economic growth, hence confirming the persistence of employed variables in stimulating output in Nigeria. This study lends support to the findings of Olulu-Briggs (2021), Eze and Mansi (2017), Etale and Ayunku (2017), Iwedi and Igbani (2015), Isibor et al., (2014), and Okpe (2013) that the money market is a viable market for stimulating a country's economic stance, while John et al., (2015) confirms the negative/adverse effects of instruments like the treasury bill (Pavtar (2016), Ehigiamusoe (2016), Agbada and Odejimi (2015) discovered findings that contradicted this study. Which may be related to study periods and the study's economy.

5. Conclusion and Recommendations

This research looks at the relationship between money market instruments and economic growth in Nigeria from 1985 to 2020. We break down money market instruments into treasury bills, commercial papers, certificates of deposit, and bankers' acceptance, while GDP serves as a proxy for economic growth. At the 5% level, the unit root, Johansen co-integration, VECM, and Granger causality tests are used.

According to the study, treasury bills, certificates of deposits, and bankers' acceptance are the most important money market instruments that encourage and affect economic growth in Nigeria. This is in agreement with Olulu-Briggs (2021), Eze and Mansi (2017), Etale and Ayunku (2017), Iwedi and Igbani (2015), Isibor

et al. (2014), and Okpe (2014). (2013). Commercial papers do, nevertheless, contribute to economic growth, albeit in a little way. We attribute this to the tiny number of Nigerian enterprises that can easily float it, as well as its unsecured character.

Based on our findings, the study advocates for the continuous flotation of treasury bills and certificates of deposit, as these instruments considerably stimulate economic growth in Nigeria. Furthermore, we advocate for the revitalization of bankers' admittance into the Nigerian economy because it considerably boosts economic growth.

References

- Adofu, I., & Abula, M. (2010). Domestic debt and the Nigerian economy. *Current Research Journal of Economic Theory*. 2(1), 22-26
- Agbada, A. O., & Odejimi, D. O. (2015). Developments in money market operations and economic growth viability in Nigeria: An empirical analysis. *European Journal of Business and Management*, 7(18), 42-52
- Ajao, M. G. & Festus, B. O. (2011). Appraisal of the effect of the global financial meltdown on the Nigeria money market. *International Journal Economics and Finance*. 3(4), 95-105
- Asika, N. (1991). *Research Methodology in the Behavioural Sciences*. Lagos: Longman Nigeria Plc.
- Baridam, D. M. (2001). *Research Methods in Administrative Sciences*. Port Harcourt, Shebrook's Associates.
- Ehigiamusoe, U. K. (2013). The link between money market and economic growth in Nigeria: Vector Error Correction Model Approach. *World Academy of Science Engineering and Technology, International Journal of Social Education, Economics and Management Engineering*. 7(12), 1792-1800
- Etale, L. M., & Ayunku, P. E. (2017). Does money market spur economic growth in Nigeria? Granger causality approach. *International Journal of Development and Economic Sustainability*. 5(7), 28-37.
- Eze, G. P., & Mansi, N. (2017). Money market and economic growth in Nigeria: A causality analysis. *Online Journal of Arts, Management & Social Sciences*. 2(1), 140-163.
- Fry, M. J. (1978). Money and capital or financial deepening in economic development. *Journal of money credit and banking*. 10(4), 464-475.
- Fry, M. J. (1988). *Money, interest and banking in economic development*. London: The John Hopkins University Press.
- Fry, M. J. (1997). In favour of financial liberalization. *The Economic Journal*. 22, 754-770.
- Ikpefan, O. A., & Osabohien, E. (2012). Discount houses, money market and economic growth in Nigeria. *Economic Insight Trends and Challenges*. 1(3), 19-30.
- Isibor, A. A., & Okafor, T. C. (2014). Impact of money market on the liquidity of some selected quoted banks in Nigeria. *Money market Journal*. 2, 1-14.
- Iwedi, M., & Igbani, D. S. (2015). The nexus between money market operations and economic growth in Nigeria: An empirical investigation. *International Journal of Banking and Finance Research*. 1(2), 1-17



- John, I. S., Oluyemisi, O. O., & Bashir, S. (2015). The impact of money market operations on the economic growth of Nigeria (1981–2013). *Journal of Economics*, 3(1), 01-09.
- Maduka, A. & Onwuka, K. O. (2013). The financial market structure and economic growth: Evidence from Nigeria, *Asian Economic and Financial Review*. 3(1), 75-98.
- Mckinnon R. I. (1973). *A journal on stock market*. Unpublished work from London school of business.
- Nwosu, C. P., & Hamman, H. M. (2008). The Nigerian money market: Issues and challenges. *Bullion Publication of the Central Bank of Nigeria*. 32(2), 51-62.
- Ogege, S., & Shiro, A. A. (2013). Does deposit money banks impact economic growth? Evidence from Nigeria. *African Journal of Business Management*. 7(3), 196-205.
- Oghenekaro, O. A. (2013). The Nigeria money market, Central Bank of Nigeria (CBN) Understanding Monetary Policy Series 27.
- Okpe, I. I. (2013). Money market on the Nigerian economic development. *Journal of Economic and Sustainable Development*. 4(5), 5-11.
- Olulu-Briggs, O. V. (2021). Money and capital market investments on economic performance in Nigeria: A revisit. *IOSR Journal of Economics and Finance*. 12(2 – series 6), 9-15. <https://www.doi.org/10.9790/5933-1202060915>
- Pavtar, A. (2016) The nexus between money market instruments and Nigeria's economic growth: A time series analysis. *Journal of Accounting and Finance Management*. 2(3), 22-39.
- Puri, N. (2012). Role of money market in context to growth of Indian economy. *International Journal of Marketing, Financial Services & Management Research*. 1(9), 142-154.
- Raja, P., & Mahalakshmi, N. (2015). Impact of money market in Indian economic development. *International Journal of Advanced Scientific Research Development*. 2(01) 108-117.

**Appendix****Appendix 1: Annual Values of Gross Domestic Product (NGDP), Treasury Bill (TBILLS), Commercial Papers (CPAP), Certificate of Deposits (CDS) and Bankers' Acceptance (BAC) in Nigeria over the study period 1985 to 2020.**

Year	NGDP N'B	TBILLS N'B	CPAP N'B	CDS N'B	BAC N'B
1985	14,953.91	16.976	0.1393	0.2117	0.0203
1986	15,237.99	16.976	0.259	0.2619	0.0175
1987	15,263.93	25.226	0.4964	1.3283	0.0086
1988	16,215.37	35.476	0.6689	1.8612	0.1258
1989	17,294.68	24.13	0.60	0.13	1.22
1990	19,305.63	25.48	0.79	0.12	1.90
1991	19,199.06	56.73	0.82	0.21	1.11
1992	19,620.19	103.33	1.58	0.13	0.54
1993	19,927.99	103.33	3.37	1.86	0.09
1994	19,979.12	103.33	5.25	4.66	0.02
1995	20,353.20	103.33	10.03	8.10	0.05
1996	21,177.92	103.33	8.02	12.20	0.10
1997	21,789.10	221.80	13.39	11.72	0.00
1998	22,332.87	221.80	7.25	17.47	0.00
1999	22,449.41	361.76	20.48	11.97	0.00
2000	23,688.28	465.54	19.00	31.77	0.00
2001	25,267.54	584.54	35.35	30.75	0.00
2002	28,957.71	733.76	36.98	32.21	0.00
2003	31,709.45	825.05	47.57	33.90	0.00
2004	35,020.55	871.58	80.12	24.00	0.00
2005	37,474.95	854.83	194.59	41.12	0.00
2006	39,995.50	701.40	193.51	45.74	0.00
2007	42,922.41	574.93	363.37	81.83	2.50
2008	46,012.52	471.93	822.70	66.40	0.00
2009	49,856.10	797.48	509.08	62.24	50.50
2010	54,612.26	1,277.10	189.22	79.17	0.00
2011	57,511.04	1,727.91	203.01	73.41	0.00
2012	59,929.89	2,122.93	1.05	9.86	34.00
2013	63,218.72	2,581.55	9.32	20.47	20.50
2014	67,152.79	2,815.52	9.82	8.76	50.95
2015	69,023.93	2,772.87	6.29	28.42	75.70
2016	67,931.24	3,277.28	0.49	27.80	0.00
2017	68,490.98	3,600.53	0.48	43.17	0.00
2018	69,810.02	3,702.83	0.50	41.04	0.00
2019	70,987.12	3,777.83	0.57	26.81	0.00
2020	71,108.32	3,871.03	0.64	12.58	0.00

Source: Central Bank of Nigeria Statistical Bulletin (2017)