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THE IMPACT OF SELECTED MONETARY POLICY INSTRUMENTS ON NIGERIAN BANKING INDUSTRY CREDIT TO THE PRIVATE SECTOR, 1981-2021

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ABSTRACT: *This study examined the impact of selected monetary policy instruments on credit to the private sector in Nigeria. The study applied an auto-regressive distributed lag model (ARDL) for analysis of the data covering the period of 1981 to 2021. Data for the study were collected from the Central Bank of Nigeria (CBN) statistical bulletin. The objectives of the study were to: analyze the impact of monetary policy rate on credit to the private sector in Nigeria, examine the impact of liquidity ratio on the private sector credit in Nigeria. Liquidity ratio (LIQ) had a positive but statistically non-significant impact on credit to the private sector. Monetary policy rate (MPR) had a negative but statistically non-significant impact on credit to the private sector. The study recommends that the government needs to benchmark best practices in monetary policy development from those economies that are more advanced in order to develop better monetary control policies that can improve the performance of the banking industry for rapid economic growth and development.*

KEYWORDS: Monetary policy rate, Liquidity ratio, Private sector credit.

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INTRODUCTION

Most countries of the world do make frequent significant amendments in the design and conduct of their regulatory policy so that the current economic situations would be taken care of. These adjustments in policies are applied by both advanced and developing economies so as to reflect the changes in economic changes in various countries or regions. Regulatory policy is a very essential element in achieving desired objectives such as promoting economic growth, achieving full employment level, cutting down the inflationary level, sustenance of good balance of payment, maintenance of growth in Nigerian economy, upward movement in economic stability and industrialization. The money market institution is a sector, one of the industries that play an outstanding function in the distribution of capital resources and risk sharing of future flows in any economy or country. A good functional banking sector in any of the countries in the world is likely to facilitate increased growth and welfare, which will smoothen business cycles. There are several functions that are carried out by banks thus making them more appropriate channels of regulatory policy implementation. For instance, banks provide money changing and preparation of payment procedures and services, transformation of assets in relation to their maturity, quality and denomination and more recently management and control of risks. These functions give banks a principal position within the process of investment and savings allocation. However, these functions make banks vulnerable to different sources of incidental shocks, which have an adverse influence on the country as a result of banks' central role. As a result, there is a case for strong regulations in a banking environment. Due to the type of functions banks perform, it is important to have in place, proper regulatory policy involving issues like barriers to entry, market concentration, the borrower-lender relationship, deposit insurance, and the encouragement of intermediation function for the purpose of improving the smooth running of the financial market (Ahumada & Rodrigo, 2004).

Succinctly put, financial policies and guidelines did help to facilitate capital formation and generate progress in the society, but the consistent and persistent financial intermediation roles of money markets or banks were able to foster international and national development and growth via the means of directing resources into sectors of priority for sustainable development. Since the era of Structural Adjustment Programme in 1986 to date, the development of the Nigerian financial system has been remarkably identified by positive changes in structure, growth and associated challenges (Soyinbo & Adekanye, 1992).

Statement of the Problem

Nigeria has experienced an unstable macro-economic environment in the past few years which led to modifications in monetary policy. These changes in regulatory instrument forced most of the banks to shift the effects to their depositors or customers. Shifting these changes to customers may or may not have an effect on the positive outcome of banks activities. Studies indicate that regulatory policy and bank performance show different results on the existing relationship. For instance, Ajayi and Atanda (2012) carried out a study on monetary policy and bank performance in Nigeria. The findings confirmed that exchange rate, inflation rate and bank rate can enhance total credit; however, cash reserves ratio and liquidity ratio cause a negative effect on banks total credit. Another finding reveals that although only cash reserve ratio and exchange rate found to be significant. Despite the studies mentioned above, limited studies were carried out to establish the effect of finance policy, especially monetary policy on

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the credit to the private sector in Nigeria. Nigeria varies her policies frequently and it is important to fish out the effect of these variations on the activities of money deposit banks.

Research Gap

The new or modern day research is now posing a serious challenge on theories; old theories are facing subjective empirical investigations with the help of progress in information communications technology and computerized econometric software. The studies are few and it is important to carry out more studies to discover the authenticity of the previous finding. Also, the methodologies are poorly specified; therefore, it is vital for more advanced methodology like the autoregressive distributed lag model (ARDL), hence the research gap.

Objectives of the Study

The main focus or objective of this study is to evaluate the impact of monetary policy instruments as selected on credit to the private sector in Nigeria. The specific objectives are as follows:

i. To ascertain the impact of liquidity ratio especially on private sector credit in Nigeria; and,

ii. To evaluate the effect of monetary policy rate on credit to the private sector in Nigeria.

Research Questions

i. How far has the liquidity ratio affected private sector credit in Nigeria?

ii. To what extent has monetary policy rate affected credit advanced by banks to the private sector in Nigeria?

Research Hypotheses

Based on the objectives of this study, the following research hypotheses are therefore formulated:

Ho_1: Liquidity ratio does not have a positive and significant effect on credit made by banks to the private sector in Nigeria.

Ho_2: Monetary policy rate does not have a positive and significant effect on advances made by banks to the private sector in Nigeria.

Scope of the Study

The study covers the task of the apex bank (regulatory body) of Nigeria, as it relates to the banking industry in time past, which is thirty four years through the accounts of Nigeria general strike of may 1981 on the struggle between Nigeria military regime and organized labor, would be limited to the period of 1981-2021. However, in the past decades, according to Muyiwa (2005), this period was characterized by a more severe overhauling in banking by the regulatory bodies which was occasioned by the perceptive link between finance and development and the appetite to fully harness the banking industry's contribution to Nigeria's economic development. Secondly, the Nigerian banking industry before the 2004 transformation was a case of a system heading to a total collapse as incidence of failure and liquidation arising from weak capitalization and operational inefficiency were common phenomena (Ike 2006).

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REVIEW OF RELATED LITERATURE

Concept of Monetary Policy

Monetary policy has to do with the Central Bank's stated guidelines and instruments for managing the quantity and currency supply in a country to achieve articulated objectives. It is a thoughtful action of the central bank to influence the cost, quantity, and availability of money credit so as to achieve desired macroeconomic objectives of endogenous and exogenous balances. The action is performed through changing money supply and/or interest rates with the aim of managing the quantity of money in the country. The relevance of currency in economic life has made the central bank and other relevant stakeholders to accord special importance to the conduct of monetary policy. Administration of monetary policy in Nigeria is solely vested in the central bank. Monetary policy could be contracting or expanding, although it depends on the policy objectives of the financial authorities. It is contractionary when the actions reduce the quantity of money supply available in the economy or constrains the growth or ability of the commercial bank to grant further credit.

The Objectives of Monetary Policy in Nigeria

The aims of financial policy in any country may vary, depending on the advancement of the economy concerned; but invariably, they capture the administration of external payments equality, as well as employment promotion and output growth, sustainable economic development, and arrive at price stability. Irrespective of the type of economy, these objectives are critical for the attainment of exogenous and endogenous balances, and ultimately the advancement of long-run economic growth:

i. Inflation as a monetary phenomenon;

ii. The public expectation of future inflation (this is crucial in the setting of current wages and prices). A corollary to this is that there is no evidence of long-run trade-off between unemployment and inflation to anchor expectations;

iii. Proactive and rule-based monetary policy (for instance, under the Taylor's rule, for monetary policy to stabilize prices, the nominal interest rate must be raised by more than the level of inflation); and

iv. The necessity for monetary policy to be undertaken outside the control of the political authorities i.e. freedom of the apex bank to conduct monetary policy.

Price Stability and Monetary Policy

The major aim of monetary policy for most central banks is the attainment of price stability. An associated objective is stable growth with full employment (accompanied by stable long-term interest and real exchange rates). In pursuit of price stability objectives, the apex banks recognize the existence of conflicts amongst the objectives and the importance of trade-offs. The attainment of internal balance and external viability are pursued through Nigerian monetary policy strategy. This philosophy was occasioned by the techniques and instruments. In recent times, the CBN recognized that achieving stable prices would require a continuous reassessment and evaluation of its monetary policy initiatives to enable it respond to the ever-changing economic and financial environment. Against the requirement for external and

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internal balance, the CBN publicized a new monetary policy initiative which became effective on the 11th of December, 2006. The objective of the new implementation initiative was to achieve a stable value of the local currency through stabilization of short-term interest rates around an Operating Target - the interest rate, which is managed by the CBN. The Operating Target rate, also the Monetary Policy Rate (MPR), serves as an indicative rate for transactions in the money market just like other Deposit Money Banks' (DMBs) retail interest rates**.**

Monetary Policy Committee

The CBN in the country conducts monetary policy using the Monetary Policy Committee (MPC). The MPC is statutorily authorized to carry out responsibility for the management of the monetary policy of the Bank. The MPC uses the monetary policy instruments available with the Bank to affect fluctuations in the liquidity of the banks which affect the money supply. Often the MPC takes monetary policy decisions through tinkering with the Monetary Policy Rate (MPR) so as to affect short-term interest rates.

Concept of Bank Credit to Private Sector

Credit is the extension of money from the lender to the borrower. Spencer (1977) notes that credit means a situation whereby a person is promised by another to pay an amount for money borrowed or goods and services received from the lender, hoping that the agreement will be completed on payback date. There is no way credit can be avoided from the banking sector as long as the bank is still in business of borrowing and lending, since the bank acts as a conduit for funds to be received as deposits from the surplus units through the intermediation role. Banks are therefore known as perpetual debtors to the depositors of funds (customers) as long as deposits are usually accepted and creditors to the borrowers of funds. According to Nwanyanwu (2008), bank credit is the borrowing capacity provided to an individual, government, firm or organization by the banking system in the form of loans. CBN Briefs (2003) defines bank credit as the amount of loans and advances given by the banking sector to the various economic agents. CBN Monetary Policy Circular (2010) identifies such bank credit facilities to include loans, advances, commercial papers, banker’s acceptance, bill discounted, with banks credit risk.

Private Sector Credit and Interest Rate

The interest rate has a direct effect and negative relationship on private sector investment. When interest rates increase, private sector investment decreases because the loans will cost much more to repay therefore demand for credit by the private sector falls and when interest rates fall then demand for credit rises as the cost of financing investments reduces. While interest rates are set by the market, the Central Bank influences the direction of the benchmark rate through the availability of liquidity in the economy. Adamopoulos and Vazakidis (2009) contend that financial liberalization designed to suit an appropriate rate of return on real cash is an engine of economic growth because of its relevance as a promoter. Low or negative real interest rates discourage saving, as they argue, because expenditure is automatically increased. Reduction in savings reduces the loan-able funds in an economy for investment resulting in higher interest rates, low output in turn, lowering the rate of economic growth. Thus, the “McKinnon-Shaw” model suggests that a more relaxed financial system will cause an increase in investment and savings, therefore promoting economic growth.

Concept of Bank Regulation

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Bank regulation depends on the notion of market failure – the interference with the market ideal of perfect competition that might arise. (Houthakker et al., 1996). The reasons include elements of monopoly or oligopoly, the presence of externalities, lack of information in general or the presence of asymmetric information. Giddy (1984) and Sheng (1999) provide some rationales on which banks should be regulated. Number one is attributed to the monetary policy, the banks' ability to create money. Second, as channels of credit or investments, banks are involved in credit allocation. Third, banks are controlled to guarantee healthy struggle and improvement by preventing the organization of cartels. The fourth is for prudential directive reasons and to fight against the problem of irregular information. The idea is supported by two experts, namely Howells and Bain (2004). They categorically state the reason why bank regulation emanates from the experience obtained from asymmetric information to be that customers are not properly informed or lack adequate information at their own detriment in favor of the bank. The case for bank regulation is further strengthened by worries about the consequences of banks' poor performance and their eventual failure (CBN/NDIC,1995). Howells et al. (2004) further state that banks' liabilities form the means of payment (in an economy) and bank regulation therefore, aims to guarantee the integrity of the transactions' medium and to prevent it from failing.

Bank Regulation and the Concept of Financial Inclusion

According to Abiola, Folasade and Alexander (2015), there is an increasing development in financial inclusion due to greater effect of regulation and policies in the banking industry. They argue that financial inclusion is achieved when grown-ups have easy contact with a wide spectrum of financial products designed according to their requirements and provided at affordable costs. These products include insurance, pensions, payments, savings, and credit. This definition is attached to three thrusts. The first is how possible it is to have access to financial products by the citizens and services which implies that financial products must be affordable with soft conditions attached to it for acceleration of associability for all groups of people and should eliminate unnecessary rigorous requirements, such as challenging Know-Your-Customer procedures. Secondly, a broad range of financial services and product should be made available to those without access to banking services too. Financial inclusion means access to a wide array of financial services such as insurance, pension, credit, and savings. Thirdly, the products are expected to be patterned in line with the needs of those that do not have access to banking products, taking their income levels and access to distribution channels into consideration and lastly, it has to and necessarily be provided at a cost possible for others to meet up with.

Banking Industry Performance in Nigeria

Financial sector (Banking Industry) is the pivot of economic operations as it performs the important functions of intermediation, provider of payment services and the agents of monetary policy enforcement. Financial systems have long been identified as a sector that has an important role to play in the development of any economy (Adekunle, Salami & Adedipe, 2013). The financial sector is remarkably known to be an engine for economic growth, only when it is developed and healthy (Adeoye, 2007). The reforms of our sector especially in the finance area has improved the scope, depth and volume of activities in the market to provide a wide range of opportunities where large scale investors can raise funds to finance long-term projects and it has also led to increase in employment opportunities as a result of increase in

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the number of branches of banks. Through financial intermediary roles of the financial institutions, savers are linked up.

Theoretical Review

Some factors such as macro-economic, institutional, regulatory and legal are influenced by commercial banks performance. Some features of the theories advocate that in attempting to make profits, banks need to comply with liquidity considerations and capital adequacy. However, Uchendu (1995) rightly avers that regulatory influences of monetary authorities include those on interest and exchange rates, bank reserves (indicating credit availability), labor cost or productivity.

1. The Monetarist Theory: The Monetarist Economist recognizes that money is not just a close substitute for a small class of financial assets but rather a substitute for a wide range of financial and real assets. An increase in money supply raises the actual proportion of money relative to the desired proportion, giving an equilibrium. Symbolically, the monetarist conception of money transmission mechanism can be summarized below: □OMO □□MS□ Spending□□GNP. The monetarist argument centers on the old quantum theory of money. If velocity of money in circulation is constant, variation in money supply will directly affect prices and output or income (GNP) (Jhingan, 2005).

2. The Keynesian Theory: Monetary policy works primarily through interest rate as suggested by Keynesian Economist. An increase in the money supply leads to a fall in interest rate to include the public to hold additional money balances as suggested by Keynesian transmission mechanism. Consequently, a drop in interest rate level may stimulate investment. Through the multiplier, the increased investments also increase the level of income or output, which may stimulate economic activities. Interest rates and investment are affected by monetary policy, indirectly through economic activity. A highly detailed sector building up of aggregate demand and a detailed specification of portfolio adjustment process which is characterized by the Keynesian transmission mechanism which attaches key role to interest as an indirect linkage between fiscal demand and monetary policy. The monetary mechanism of Keynesians stresses on the role of money in simple terms, but involves an indirect link of money with total demand through the interest rate as representatively shown below: □OMO□□ R□□MS□□r □ I□□GNP Where, OMO = Open Market Operation R = Commercial Bank Reserve MS = Stock of Money r = Interest Rate I = Investment GNP = Gross National Product. On a more analytical note, if the economy is initially at equilibrium and there is open market purchase of government securities by the Central Bank of Nigeria (CBN), this Open Market Operation (OMO) will increase the commercial banks reserve (R) and raise the bank reserves.

3. Anticipated Income Theory: This theory states that banks should involve themselves in a wide array of lending which may include long-term loans to business, consumer installment loans and amortized real estate mortgage loans considering that the possibility of loan repayment which generate streams of payments that supplement bank liquidity as function of anticipated income of the borrower and not the use made of the funds per se. This implies that a high excess reserve increases banks profitability by making the loan-able investment funds available.

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4. Shiftability Theory: The central thesis of this theory holds the fact that liquidity of a bank depends on its ability to shift its assets to someone else at a predictable price. Better still, the theory of shift ability exposes the banks vulnerability to government security for liquidity. Whether or not a bank can quickly realize liquidity through this means is a function of marketability of the securities and their relative prices. The theory tries to broaden the list of assets that are legitimate for ownership and hence redirects the attention of bankers and the banking authorities from loan to investment as source of bank liquidity. It is hypothesized that an increase in capital investment will lead to commercial banks profitability. However, increase in profits may also motivate further increase in capital investment, which in turn expands the scope of banking operations for increased profitability.

5. Liquidity-Profitability Trade-Off Theory: The Liquidity-Profitability Trade-Off theory is another theory upon which this study is hosted. The theory posits that a trade-off exists between the liquidity and the profitability of a firm, and that a firm cannot pursue the two objectives of being profitable and being liquid at the same time without automatically affecting the other. The theory presupposes that the regulation of money market institutions is important to guarantee safety and sound financial system, to the level at which banks financial obligations are met without difficulties. The recognition that liquidity is as important to the bank stability, as are capital requirements is the result of the recent financial crises.

6. Public Interest Theory of Regulation: The Public Interest Theory of regulation (PIT) is adopted to anchor this study because it explains the ethical obligation which the financial regulatory bodies like the CBN have in rationalizing economic activity of firms in a more proficient and useful manner. The theory is an economic theory propounded by A. C. Pigou in 1939 to argue that regulatory intervention occurs for the purpose of promoting social welfare, objectives, and public interest at large against externalities and market failure.

7. Credit Channel Theory: Analysis of the relationship between monetary policy and output reveals that credit plays a significant role. Kahn (2010) explains that conventionally changes in short-term interest rates brought about by the central bank, through open-market operations change the cost of capital, which then changes the rate of fixed investment (housing expenditures, inventories). The change in aggregate demand then leads to a change in output (GDP). Citing Bernanke and Gertler (1995), Kahn (2010) posits that empirical evidence to support the conventional view of the effects of monetary policy on GDP is weak and this led to the development of the credit channel theory, whose basic premise is that market frictions create a spread between a firms' internal and external financing sources. They argue that changes in what Bernanke and Gertler (1995) call the "external finance premium" can better explain movements in investment and overall output, than interest rates.

Empirical Review

Rasheed (2011) used Johansen's Cointegration Model and Granger's Causality Techniques to evaluate the relationship between money and real variables, using a long run error correction model in Pakistan from 1972 to 2008. Results among others indicated that the credit to the private sector is evidenced to have caused reserve money. Similarly, Bellalah, Ali and Masood (2013) observed, amongst others, using Johansen and Juselius framework, the long-run error correction model on relationship between domestic credit to private sector and money supply using time series data from 1980 to 2009. Olweny and Chiluwe (2012) used quarterly data from 1996 to 2009 to determine the relationship between monetary policy and private sector

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investment using correlation techniques in Kenya. Monetary policy and private sector investment are positively related which involve the test of stationary as shown in the results of unit roots test, integration test and vector error correction model, amongst others.

Existing empirical studies conducted using Nigerian data largely concentrated on the correlation between bank credit and economic growth. Mamman and Hashim (2013) disclosed evidence that there exists a significant impact of credit to the private sector and real sector growth in Nigeria. Their conclusion was to increase the credit flow to the private sector by the government as a result of its importance which is strategic in creating and generating growth of the economy. Similarly, Nwakanma, Nnamdi and Omojefe (2014) examined the long-run relationship which exist between private sector credit and Nigeria economy growth and the directions of its causality between them for the period 1981 to 2011, using the autoregressive lag model as a corrective measure and for cause/effect, using Granger Causality method. Evidence of long-run relationship was shown by their result between private sector credit and Nigeria economy growth; however there was no significant causality in any direction. In the same vein, Emenike (2016) examined the relationship which exists between monetary policy and private sector credit and also the impact of structural break on the relationship as made mention initially by using some tools of econometric tests on Nigeria data. It shows that a long-run relationship exists on the variables between monetary policy and credit to the private sector through cointegration techniques. In the same manner, long-run error correction model results indicate that changes in credit have positive and significant short-term impact on variations in monetary policy.

METHODOLOGY

Research Design

A research design means a blueprint that provides the guidelines for the researcher in his or her efforts to investigate problems and analyses (Onwumere, 2005). This study used the style of the *ex-post facto* research design. The inability of the researcher to manipulate these variables is a basic feature of *ex-post facto* research design. Thus, it perfectly suits this research. Hence, this study tries to critically review and evaluate the implication of policies and regulation as it relates to the effects on banks in Nigeria which aimed at ascertaining their efficiency and effectiveness in meeting desired objectives especially in banking sector, and realistic recommendations which will improve and equipped the Nigerian banking industry to be globally competitive and relevant. Therefore, this research follows the empirical studies of Emori et al. (2014).

Sources and Natures of Data

To execute this empirical analysis, the study employed secondary data. The data for this study which are relevant have been obtained from the Central Bank of Nigeria (CBN) reports which are published annually and statement of account, published quarterly and Central Bank of Nigeria (CBN) statistical bulletin covering the period between 1981 to 2015. The study was based on time series data collected on annual basis from the period. The data set was tailored to the need of the empirical framework and it contained information on economic variables such as financial assistance to private sector (CPS), which captures bank performance from the perspective banking development in Nigeria. The regulatory instruments are the monetary

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policy rate (MPR) and liquidity ratio (LR). This study adopts the autoregressive distributed lag model (ARDL) to evaluate the impact of selected monetary policy instruments, using some variables of secondary nature on Nigeria banking industry credit to the private sector.

Model Formulation and Specification

This involves expressing the model to explore the economic phenomenon empirically. The linkage between capital market and economic growth has become a central nerve which poses tremendous attractions in the development literature. In examining Nigeria's data, the study, the neoclassical growth method, otherwise referred to as the growth accounting framework, is used to explain the source of growth in an economy. To determine the extent of correlation between the explained or controlled variable and the independent variables which is also known as explanatory variables of this study, the model for the study is specified and the function capturing them is initially stated as: BIP= (SRI) Where: BIP = Bank Industry Performance serving as the explained variable, and SRI = Selected regulatory instrument representing the explanatory variables proxied using monetary policy rate (MRR), and liquidity ratio (LR). Based on the variables specified, the final regression model for testing the hypotheses and ascertaining the empirical results of the study are stated as:

$BIP_{it} = \alpha_0 + \alpha_1 MPR_{it} + \alpha_2 LTD_{it} + \varepsilon_{it}$ Where: αo represents the constant or the intercept of the model; α_1-α_2 : represents the coefficients of the explanatory variables to be estimated in the model; *i*: denotes the individual sampled bank; t : is time-period; while εit is the stochastic error term or disturbance for bank i at time t.

Technique of Data Analysis

In order to ascertain the degree of relationship that exists among variables, we specify ARDL model and apply the diagnostic test using Unit roots techniques and parameter stability test to investigate the nature of its stationarity.

AN PRIORI EXPECTATION: The following linear equation is obtained from the specified model CPS = B_0 < B_1MPR <B_2LQ<et. B_0, B_1 and B_2 are the functional representations of the data to be estimated while et is the standard error term. It is expected that an increase/higher MPR, LQ resulted in an inverse relationship with bank performance captured with credit to the private sector within the period under review.

Decision rule: Accept the null hypothesis if the coefficient of T-statistic is not positively signed, otherwise accept the alternate.

Table 1: Unit root table

Variables	ADF stat	At 5%	P-values	Diff Order	Result	Condition
CPS	-5.89.47	-3.5342	0.0002	1(1)	Stationary	Intercept/Trend
MPR	-3.2920	-2.9369	0.0219	1(0)	Stationary	Intercept
LR	-6.9715	-2.9390	0.0000	1(1)	Stationary	Intercept

Source: Researchers' computation

CPS- credit to private sector, MPR-monetary policy rate and LR-liquidity ratio.

The dependent variable CPS is stationary at different order one 1(1) which resulted in -5.8947 ADF stat at 5% critical value of -3.5342, less than ADF value in absolute terms. The probability

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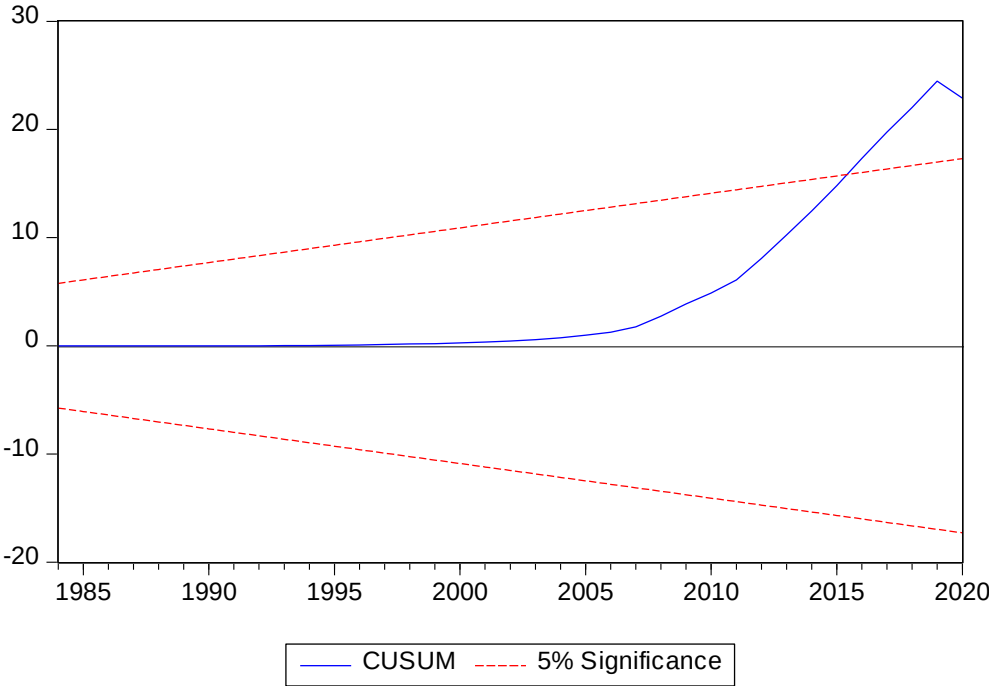
value is less than 5% level of significance (0.0002). Monetary policy rate(MPR) is stationary at difference order zero 1(0), where the ADF stat (-3.2920) is more negative than the critical value at 5% significance level (-2.9369). The p-value is less than 5% (0.0219). Liquidity ratio is stationary at first difference 1(1) where the ADF stat showed -6.9715 which is in absolute terms greater than the critical value at 5% level of significance (-2.9715). The probability value is 0.0000 less than 5%. We can conclude by stating that all the variables are stationary over the period under study.

Table 2 : Parameter Stability Test on (Credit to Private Sector)



Source: Researchers' computation

The blue line represents the CPS line which falls in between the 5% significance red lines indicating that the parameter to be estimated is stable except in 2016 where the CPS line deviated and sloped down again to 2018.

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Table 3: Parameter Stability Test on (Monetary policy rate)

Source: Researchers' computation

Monetary policy rate deviated and returned to a feasible region at several points in date, such as 1988, 1990, 1992, 1994 and 1995 before stabilizing over the years as seen in Table 3.

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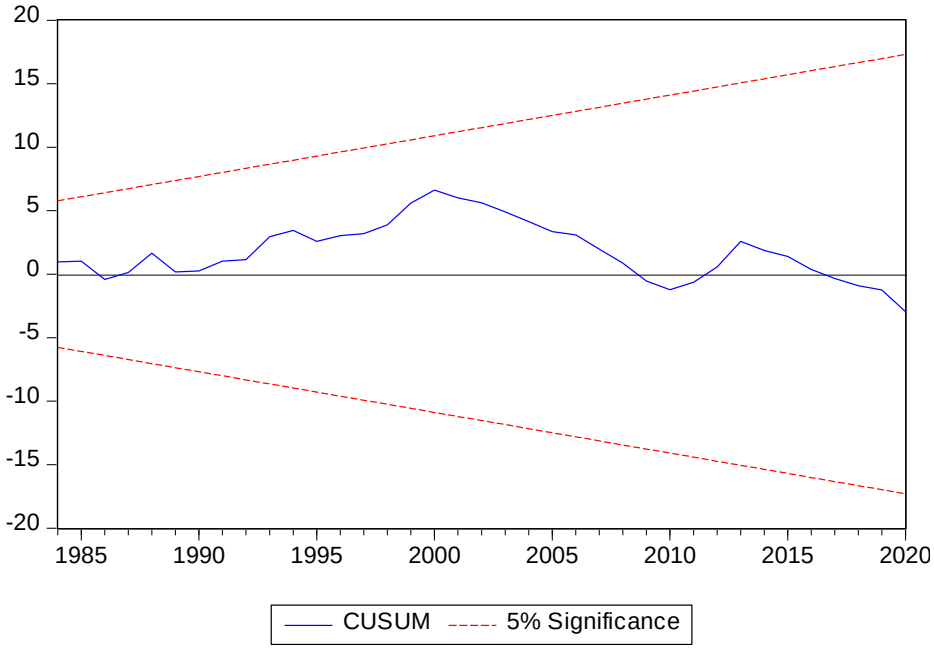
Table 4: Parameter Stability Test-on (Liquidity rate)



Source: Researchers' computation

The liquidity ratio line is lying in between the 5% significant red lines from point of origin to year 2020, as displayed in Table 3. This implies that there is evidence of parameter stability over the period under study.

Table 5: Autoregressive distributed lag (ARDL Table)

Variables	Coefficients	R-squared	Adj R^2	DW start	P(F- stat)	P-values @5%
CPS		0.78	0.75	1.67	0.0000	
MPR	89.6976					0.6783
LIQ	52.1266					0.4828

Source: Researchers' computation

CPS- credit to private sector, MPR-monetary policy rate and LR- liquidity ratio.

Table 5 indicates that the coefficients of the explanatory variables (MPR and LIQ) are 89.6976 and 52.126 which are positively signed, while their corresponding probability values are 0.6783 and 0.4828 which are not less than 5% level of significance. The R^2 of 0.78 shows that variations caused by MPR and LIQ were explained by 78 %, while 22% unexplained as a result of variables not included in the model. The adjusted R^2 indicates that 75% regression line fits the model as estimated. The Durbin-Watson statistics of 1.67 is evidence of positive serial autocorrelation, while the p-value of F-statistic (0.0000) indicates that overall regression is statistically significant since the value is less than 5% level of significance.

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Decision

Hypothesis One: The study failed to accept the null hypothesis and state that liquidity ratio has a positive and non-significant impact on private sector credit in Nigeria.

Hypothesis Two: The study accepts the alternate hypothesis since the monetary policy rate has a positive, but non-significant impact on private sector credit in Nigeria.

Findings

Our empirical findings support that selected monetary instruments are a significant component of the banking performance in Nigeria. This finding can be identified in the T-test (T-statistics). The findings emanating from this study are as follows: Liquidity ratio had a positive and statistically non-significant impact on credit to the private sector (CPS) in Nigeria and monetary policy rate had a positive and statistically non-significant impact on credit to private sector (CPS) in Nigeria.

CONCLUSION

The research findings, non-significant positive effect on the credit to private sector in Nigeria is made by instruments of monetary policy. To obtain the desired level of credit to private sector, effective combination of the regulatory instrument (monetary policy) variables is vital. All the explanatory variables in this study have elasticity less than unity (Es > 1). This implies that a proportionate change in any of the independent (X's) variables will result in direct proportionate change in credit to the private sector. That the liquidity ratio maintained by the commercial banks will be essentially adjusted from time to time by the monetary authorities. This can be achieved as commercial banks' liquidity ratio is increased or raised to a reasonable amount to enable them to respond to their primary obligations (that is, servicing their demand and time deposit liabilities). And, any eventual surplus or statutory reserve should be channeled to private sectors and this should be enforced as a matter of policy.

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