Monetary Policy Dynamics and the Nigeria's Global Competitiveness: The Missing Link

Oghenekparobo Ernest Agbogun[1]*, Omolegie Bruno Oshiobugie[2], Oghenero Godday Oboro[3]

Dennis Osadebay University, Asaba, Delta State, Nigeria[1]
Delta State University of Science and Technology, Ozoro, Nigeria[2, 3]
Corresponding Email: oghenekparobo.agbogun@dou.edu.ng*

Abstract

Despite the series of monetary policies adopted by the Nigerian government over time, the (Nigerian) economy in comparison to other countries in the world like South Africa, the USA, Ghana, and the like is still improvised. Still, inconsistency between monetary policy formulation and implementation remains another major issues yet unattended to. It is in this regards that, the current study is dedicated towards examining the effect of monetary policy dynamics and the Nigeria's global competitiveness from 1992 to 2021 (i.e., 30 years) using Autoregressive Distributed Lag (ARDL) model. The study disclosed that, the variables are integrated at level and first difference while the ARDL Bound test evidenced that, the series cointegrates. Specifically, monetary policy rate has a positive minimal effect on Nigeria's global competitiveness, while the CRR improved Nigeria's global competitiveness significantly. However, both lending rates and exchange rates have a significant negative effect on economic competitiveness. Consequently, the paper concludes that both the cash reserve ratio and the Nigeria's demeaning state are attributed to the high exchange rate (EXR) and high lending rates. Thus, the paper submits that the current monetary policy rates are sustained and that all DMBS should adhere to the stipulated Cash Reserve Ratio (CRR) since it has improved the Nigeria's global competitiveness significantly. Lastly, the study confirmed that, the missing link is the policy surmount on the part of the Nigerian government.

Keywords: Monetary Policy, Dynamics Nigeria's Global Competitiveness, Missing Links

Introduction

Globally, the banking industry plays a pivotal role in the economy in that it helps to ensure that the economy is relatively stable. Justifiably, it ensures the macroeconomic stability

as regards monetary stability, sustainable (high) economic growth, price stability, and full employment rates. As argued by Osakwe, Ibenta, and Ezeabasili (2019), the banking industry's role in ensuring that the economy is relatively stable has been factored in since the Central Bank of Nigeria was founded on July 1, 1959. To further ensure that the whole banking industry is relatively stable, the CBN enacted various intervention policies. One of these interventions is the 2009 recapitalization; during this period, the CBN uses various monetary policy stances to achieve this goal. One such policy stance is direct support for industries. This is with a view to improving the ailing state of the Nigerian industrial sector (CBN, 2017).

The transmission path between monetary policies and economic competitiveness is such that the monetary policy measures and parameters can be used to regulate the state of the economy such that, if the economy is depressed, the Nigerian government may decide to reduce its discount rate while banks in turn will have to reduce their lending rate. This action stimulates investors to invest in the economy, which in turn will improve economic competitiveness. Conversely, the government may decide to tighten her monetary policy measures (increasing her CRR).

It is no doubt that, without the use of quantitative monetary policy tools, these aforementioned intervention policies cannot be efficient. Examples of these policies include: required reserve ratio (RRR), bank rate, open market operation (OMO), lending rate, moral suasion liquidity ratio, selective credit control, money supply, and exchange rate (Adesina, Nwidobie, & Amadi, 2018). It is therefore expected that changes in these monetary policy measures will have the capacity to either reduce or improve economic competitiveness to a very great extent. Specifically, a high exchange rate (currency devaluation) will reduce the level of economic competitiveness of a country (Omolegie, 2023). This is rationalized by the fact that, as the demand for imported goods increases, the domestic currency in relation to foreign currency will lose value over time. This, in turn, reduces the economic competitiveness of such a country. Meanwhile, if the cost of capital (lending rate) increases, investors will be demotivated to invest. This, in turn, reduced the Nigeria's economic competitiveness.

From the foregoing, the major thrust of this paper centers on the efficacy of the monetary policy stance in improving the under-developed nature of the economy. Justifiably, even with the series of monetary policies adopted over time, our (Nigerian) economy in comparison to other countries in the world like South Africa, the USA, Ghana, and the like is still improvised. This, by extension, has created room for the yearly budget deficits, an inefficient payments system, and poor saving culture, since the apex bank (CBN) was not able to control currency in circulation. More so, the issue of ineffective credit deliveries to the productive (efficient) sectors of the economy remains a recurring policy issue. Hence, the paper is targeted at addressing the missing link so far.

Again, existing monetary policy dynamics and economic competitiveness studies are inconsistent, mixed, and contradictory (see the studies of Ezeaku, Ibe, Ugwuanyi, Modebe, & Agbaeze 2018; Onakoya, Ogundajo, & Babatunde 2017). A possible attributable factor that the current studies desire to fill lies in the choice of variable and method used most specifically. To fill these gaps, the current study adopted the auto-regressive distributed lag (ARDL) model.

In light of the above, the paper seeks to address the following questions:

1. Does Monetary Policy Rate (MPR) affect Nigeria's global competitiveness (RGDP)

2. To what degree has the Cash Reserve Ratio (CRR) improved Nigeria's global competitiveness (RGDP)?

3. By what magnitude has exchange rate (EXR) improved Nigeria's global competitiveness (RGDP)?

4. To what degree has the lending rate (LER) improved Nigeria's global competitiveness (RGDP)?

To address the aforementioned research questions, the paper turned the four (4) research questions to four (4) hypotheses which were further stated all in null forms. For purposes of clarification, the paper is delineated. In terms of Geographical coverage, the paper centered on Nigeria's global competitiveness. Meanwhile, in terms of time scope, the paper spanned from 1992 down to year 2021 (i.e., 30 years). In terms of variable scope, the study considered four (4) monetary policy proxies which are (1) Monetary Policy Rate-MPR (2) Cash Reserve Ratio-CRR (3) exchange rate-EXR; and lending rate-LER.

Summarily, the rest of the segments of this paper are structured (organized) into a literature review, methodology, result estimations and their implications, conclusion, and recommendations.

Literature Review

According to Amadeo (2017), monetary policies are various economic measures that monetary authorities (CBN) use to control the flow of money or regulate a nation's liquidity improve economic stability. Put differently, these are actions taken by the CBN to influence national (macro) economic goals (Stiglitz, 2018). To achieve this, the government controls the amount (volume) of money supply, the target interest rate, credit, and the cost of credits. According to Okanyal and Paseda (2019), monetary policy parameters are any conscious or intentional tool that a nation's central bank uses to regulate supply, demand, and cost of money in order to achieve a specific set of goals.

Furthermore, monetary policy measures can be either indirect or direct. Examples of direct (quantitative) monetary policies include: selective credit control-SCC, special deposits-SDEP, the administered interest regime, advance import deposits, and moral suasion, while examples of indirect (quantitative) instruments are open markets operations-OMO, CRRs, liquidity ratios, the minimum rediscount rate, and the lending rate. Evidently, the latter is our major focus since it is quantitative in nature.

Theoretical Underpinning

The Neoclassical Growth (NEOG) Theory was used to underpin the study.

Neoclassical Growth theory is stated as follows:

Y(t) = Fk(t), A(t)L(t) ………………………………..(2.3)

Where:

Y - National output

K - Capital,

A - Aggregate productivity

L - Labour force.

According to the preceding equation, growth in national income derives from greater efficiency of productive inputs, A, or augmentation of inputs k and L. Positive level of development can be sustained if and only if the decreasing returns to accumulation of k is compensated for by an increase in labor force or human capital L or if the marginal rate of productivity of capital is frequently shifted higher by advances in technology in a balance of growth, e.g., there is expected to be no decline in the value of the value of capital and, considering A(t), output will grow. The fluctuation in time of the scale factor A(t) reflects countries' differences in growth experiences. This external source of economic development has been identified as technical advancement (Mugableh, 2019).

The relevance of the EOG theory to this paper is that, the essence of implementing monetary policies is raise capital stock (overall productivity index) of a country. This is with the intent that, income growth (i.e. higher RGDP) might result from increase a country's level of competitiveness on a global scale. As such, a country's extent of global competitiveness is strongly hinges on the efficacy of its monetary policy mechanism.

Empirical Studies

Ozili, Oladipo, and Iorember (2023) studied whether the abnormal rise in credit (money) supply improved Nigeria's global competitiveness or not, having factored in the quality (state) of the Nigerian legal system, CBN bank assets, bank insolvency risk, and the banking industry's cost efficiency. They employed the generalized method of moments (GMM). They reaffirmed that an abnormal rise in credit (money) supply reduced the real GDP to a great extent. Again, Islam, Hossain, Sudipto, and Ema (2021) reported that high lending rates deterred Bangladesh's growth from 1980 to 2019. This was reaffirmed by Osakwe, Ibenta, and Ezeabasili (2019). Similarly, Nwoko, Nnenna Ihemeje, and Anumadu (2016) reported that the interest rate reduced growth significantly. However, Kelilume (2017) reported that the lending rate improved Nigeria's growth from 2007 to 2012.

In terms of the studies on CRR and economic competitiveness, Adeagbo (2021) reported that CRR stabilized the Nigerian economy between 1971 and 2018. Also, Rahman, Nower, Tushar, Abbas, and Musa (2019) affirmed that the CRR improved the stability of the Bangladesh economy. Also, Amiri and Gang (2018) evidenced that, CRR improved the stability of the African economy from 1970 down to year 2016. Similarly, Onoh and Nwachukwu (2017) reaffirmed extent that CRR improved credit delivery in Nigeria. By extension, it reduces economic instability. Also, Anowor and Okorie (2016) reported that CRR improved Nigeria's economic competitiveness from 1982 to 2013. Conversely, Chowdhury,

Rana, Akter, and Hoque (2018) examined the extent impact of economic (fiscal and monetary) policies affect Bangladesh's global competitiveness. The study adopted the OLS estimates. They evidenced that, monetary policy variables (variable reserve ratio, flexibility in credit rationing, and margin requirements specifically) significantly influenced Bangladesh's competitiveness.

In terms of the studies on exchange rate and economic competitiveness, Anifowose (2021) reported that a high exchange rate improves Nigeria's global competitiveness. Again, Alasha (2020) reaffirmed that high exchange rate fluctuations improved the Nigeria's global competitiveness between 1980 and 2018. This was further reaffirmed by Long, Ignatius, and Yang (2019). However, Morina, Hysa et'al (2020) reported that currency volatility distorted the developed of the sampled (Central & Eastern European) countries from 2002 to 2018.

In terms of the studies on lending rates and economic competitiveness, Ayodeji, and Oluwole (2020) reported that lending rates improved Nigeria's global competitiveness. This was reaffirmed by Asukwo, Owui, Hycenth, Olugbemi, and Ita (2020) and Akinwale (2018). However, Greenwood and Jovanovic reported that bank lending rates decreased Nigeria's global competitiveness to a large extent. These conflicting/contradictory findings rationalized the main reason why the research was conducted.

Research Methods

The *ex-post* facto (causal) research design was chosen since the series/variables are secondary in nature and have occurred in retrospect. Both the population and sample size are Nigerian since the work is domiciled in Nigeria. Hence, the census sampling technique was considered most appropriate technique for this paper. The paper sourced data from both the CBN bulletin and the World Bank Data Base, 2022, from 1992 to 2021 (i.e., 30 years). Again, the paper consulted existing empirical documentation. Meanwhile, the ARDL methodology was the main model estimate. Justifiably, the main estimation tool used in this study is appropriate considering the fact that, the ARDL methodology captures both the short and long-run dynamics of the model. Unlike the other cointegration techniques like the Johanson Cointegration test, the ARDL cointegration (Long run/Bound) test is more reliable since it considers variables with longer sample size say 25 years. Also, this model estimate ensures that, variables with mixed stationarity to be analyzed together. Again, this model estimate reiterates that, if series reports mixed stationarity/integrity say they are integrated both at order 0 (At level) and 1 (At lagged Level), they should be analyzed together.

Furthermore, being a more superior estimation technique than the OLS estimate, the ARDL methodology considers both the short and long-run dynamics. Hence, the study stands out admist the studies of Anifowose (2021); Alasha (2020); Morina, et al (2020); Asukwo, Owui, et al (2020) and Akinwale (2018). Specifically, for this model estimate being ARDL methodology to be valid, it must follow the following procedures:

(1) Unit Root Test: This test otherwise known as the stationarity test is used to test if the series is spurious or not. Arguably, if a series is non-stationary, it gives a spurious result

but if it stationary, the series is dependable. The rationalization here is that, should a model be stationary suggests that such model has a constant mean and a finite variance and that the possibility of such series to return to their mean value is known with certainty (Olokoyo, 2023). The decision rule here is that, if series is considered stationary if the ADF test statistics value is above the test critical value. More so, a prob. value above 5% is considered non-stationary while a prob-value below 5% is considered stationary. Generally, unit root test assume implicitly that the time-series $[yt]_{t=1}^{T}$ can be expressed as:

Yt = Dt + zt + εt--1

Where:

Dt = Determistic Component

zt = Stochastic Component

εt = Stochastic Error Process

Preferably, Unit root test with mixed integration is most desirable.

(2) ARDL Bound (Wald) Test: Having ascertained that, the model exhibit mixed integration, the next test to conduct is the ARDL Bound (Wald) test with the intention to test if the model jointly cointegrates or not. Should the calculated F-statistics is above the Critical upper Bound value @ 0.05 suggests that, long run exist but if the calculated F-statistics is far below the Critical upper Bound value @ 0.05 suggests non-existence of long run (Osunkoya et al, 2023). This is econometrically presented as:

$$H1: \lambda1 = \lambda2 = \lambda3 = \lambda4 = \lambda5 = 0$$

$$Ho: \lambda1 \neq \lambda2 \neq \lambda3 \neq \lambda4 \neq \lambda5 \ 0$$

Preferably, ARDL Bound (Wald) Test in support of H1 (alternate Hypothesis) is most desirable.

(3)   Error Correction Term (ECT): Having established that, mixed (order 0 and 1) exist, the series cointegrates (long run exist), the next test to conduct is to test for extent at which the series deviated from short to long-run are corrected. The essence of introducing the ECM estimate is to ascertain the major difference between true and the estimated value.
Preferably, an ECT with a negative coefficient with values below 0 and 1 and is significant is considered most appropriate (Osunkoya et al, 2023).

Before performing the econometric data analysis, various robustness tests were conducted. These include the multi-collinearity test, the stationarity (unit root) tests, the ARDL Cointegration (bound), Heteroskedasticity and the Ramsey reset test. The aforementioned were possible through the instrumentality of E-Views version 9.0. This statistical package emanates from its user-friendliness and universal acceptability.

Econometrically, the operational model is stated as:

LnRGDPt = βo + β₁LnMPRt + β₂LnEXRt + β₃LnCRR + β₄LnLER + Ut...……..................... (2)

ARDL Form:

$$\Delta \ln RGDP_t = \alpha_0 + \alpha_1 \Delta \ln RGDP_{t-1} + \sum_{i=0}^{m}(X_i \Delta \ln MPR_{t-l}) + \sum_{j=0}^{n}(X_j \Delta \log LER_{t-j}) +$$

$$\sum_{j=0}^{0}(X_j \Delta \ln CRR_{t-k}) + \sum_{j=0}^{p}(X_j \Delta \ln LER_{t-k}) + \mu t \text{---- (3)}$$

Where:

$\beta 0, \beta 1, \delta 1 - \delta 4$	=	Short-run coefficients;
Δ	=	First difference;
$\varphi 1$ to $\varphi 4$	=	Long-run coefficients;
μt	=	Error term with the usual properties

The essence of logging all the data is both for the purposes of uniformity and to avoid scaling problems.

Table 1: Variable Description/Measurement

Denotation	Nature of Variable	Mode of Measurement	Expected Sign
RGDP	Dependent	Aggregate Sum	Nil
MPR	Independent	Percentage	Positive
EXR	Independent	Naira/US	Negative
CRR	Independent	Percentage	Positive
LER	Independent	Percentage	Negative

Source: Researchers' Compilation (2023)

Results

This section dealt extensively with the result estimation and its implication. Meanwhile, some pre-estimation (preliminary) tests were considered. They include: descriptive statistics for ascertaining the extent of variation (volatility) of reviewed variables, average values of reviewed variables, least and highest values; correlation analysis for considering the degree (magnitude) of linearity of reviewed variables; Multicolinearity test for checking if the series/model is free (i.e. deviated) from multicollinearity problems or not; variable specification test using the Ramsey Reset Approach; Heteroskedasticity Test for checking if the residuals spreads evenly (Homoskedastic) or unevenly (Heteroskedastic). The essence of introducing these test is to ensure that the right estimation technique is used. This would also prevent us from over-parameterizing the model. Usually, such results are usually not considered fit enough for policy formulation. For ease of reference, each of the sub-sections is presented thus:

Table 2: Descriptive Statistics

Variable	Mean	Maximum	Minimum	Std. Dev.	Observations
RGDP	39205.05	72390.00	15263.93	20598.92	30
MPR	13.05333	26.90000	6.000000	4.110907	30
CRR	9.820000	22.50000	1.100000	7.040672	30
EXR	126.9491	414.0000	4.017942	109.8510	30
LER	18.55943	29.80000	11.68000	3.738306	30

The descriptive statistics in Table 2 evidenced that RGDP, MPR, CRR, EXR, and LER had average values of N39205.05 billion, 13.05%, 9.82%, N126.95, and 18.60%, but deviated by N20598.92 billion, 4.11%, 7.04%, N109.85, and 3.74%. This reveals that the values of the DP, MPR, CRR, EXR, and LER fluctuated around their mean values. However, to check the stability of the series/model, the unit root (stationarity y) test was conducted. Meanwhile, RGDP, MPR, CRR, EXR, and LER had min. values of N15263.93 billion, 6.00%, 1.10%, N4.017, and N11.68000 and maximum values of N72390 billion, 26.90%, 22.50%, N414, and 29.80%. This clearly evidenced that the values

Table 3: Correlation Analysis

Variables	RGDP	MPR	CRR	EXR	RGDP
RGDP	1.000000				
MPR	0.658874	1.000000			
CRR	0.488993	-0.137766	1.000000		
EXR	-0.719447	0.014505	-0.116319	1.000000	
LER	0.761925	0.155176	0.370549	0.124699	1.000000

Source: E-Views 9.0 (2023)

Table 3 reaffirmed that MPR and CRR has direct moderate (MPR = 0.658874 and CRR = 0.488993) relationship with RGDP. By implication, if both MPR and CRR increases by a unit, ECG will increase moderately. Meanwhile, both EXR and LER have a non-linear relationship (EXR = -0.719447 and LER = 0.761925) with RGDP. That is, high EXR and LER reduce the Nigeria's global competitiveness.

Again, none exhibited a high correlation, signaling that the possibility of a multicollinearity problem is very low. To substantiate this claim, the VIF and tolerance values are below 10 and 5, respectively. This reaffirmed that the series/model is free from multicollinearity problems (see table 4).

Table 4: Multicolinearity Test

S/N	Variables	Centered VIF (CVIF)	Tolerance Value (TOV)
1	MPR	1.6533	0.6049
2	CRR	1.2186	0.8206
3	EXR	1.6150	0.6192
4	LER	1.2247	0.8165
Average		**1.4279**	**0.7153**

Source: E-Views 9.0 (2023)

The Multicolinearity test strongly evidenced that, MPR has a centered VIF value of 1.6533 which is <10 and a tolerance value of 0.6049 which is >0.10; CRR has a centered VIF value of 1.2186 which is <10 and a tolerance value of 0.8206 which is >0.10; EXR has a centered VIF value of 1.6150 which is <10 and a tolerance value of 0.6192 which is >0.10; and LER has a centered VIF value of 1.2247 which is <10 and a tolerance value of 0.8165 which is >0.10. On the average, their VIF values is 1.4279 which is <10 while their tolerance value is 0.7153 which is >0.10. By implication, no variables exhibit high similarities. As such, no variables should be dropped and that, the OLS classical assumption of no multi-collinearity in the series is sustained.

Table 5: Summary of Unit Root Test

Study Variables	ADF test statistic	Test critical values At 5%	Prob.*	Order of Integration	Decision
RGDP	-5.564392	-2.954021	0.0001	Order 1 (i.e. 1(1))	Stationary
MPR	-3.153068	-2.951125	0.0320	Order 0 (i.e. 1(0))	Stationary
CRR	-5.316696	-2.954021	0.0001	Order 1 (i.e. 1(1))	Stationary
EXR	-3.539020	-2.954021	0.0130	Order 1 (i.e. 1(1))	Stationary
LER	-7.465463	-2.954021	0.0000	Order 1 (i.e. 1(1))	Stationary

Source: E-Views 9.0 (2023)

From the ADF test (table 5), only MPR was stable/stationary at Order 0 (i.e. 1(0)) but when further subjected, the rest monetary policy parameters (CRR, EXR, & LER) became stationary. Evidently, at Order 0, MPR has an ADF test statistic -5.564392 and Test critical value of -2.954021 (0.05 level). Since the ADF test statistic of MPR is > its Test critical value at (0.05 level), the study evidenced that, MPR possesses no unit root (stationarity). This result was only peculiar to MPR at order 0. As in Order 1, rest monetary policy parameters (CRR, EXR, & LER) reported ADF test statistic of MPR is > their Test critical value. By implication, the series/model is not spurious (i.e. the model is reliable) .This therefore rationalizes the need to further subject the model to ARDL bounds (cointegration) test (see table 6):

Table 6: ARDL Bounds (Cointegration) Test

Included observations: 30			Critical Value Bounds @ 5%		Decision
Test Statistic	Value	K	I0 Bound	I1 Bound	
F-statistic	4.6128	5	2.62	3.79	Long run Exist

Source: E-Views 9.0 (2023)

To further ensure that, econometric analysis is sustained, other robustness tests were considered. They are presented. The two main diagnostic tests conducted are: Heteroskedasticity Test (for checking for equal or unequal variance) and Ramsey RESET Test (for testing for model specification/mis-specification). They are presented, tested, and discussed thus:

Table 7: Other Robustness Tests

Heteroskedasticity Test	F-statistic	3.243240	Prob. F(4,25)	0.1145	Homoskedastic
Ramsey RESET Test-RRT	F-statistic	0.912731	Prob. F(1,4)	0.4130	Well-specified

Source: E-Views 9.0 (2023)

The reported evidenced that, the model is Homoskedastic and well-specified. Justifiably, the model has an F-Statistics value of 3.243240 and prob. value of 0.1145 as in Heteroskedasticity Test. Meanwhile, as in RRT, model has an F-Statistics value of 0.912731 and prob. value of 0.4130. By implication, the model again passed another preliminary analysis

Regression Results

To properly place the model, the ARDL regression was introduced; the result is presented herein therefore carefully give a true picture of the monetary policy dynamics:

Table 8: ARDL Short and Long-run Estimates

Short Run Estimate			
Testable Forms	**Coefficient**	**Prob.**	**Decision**
Ho$_1$: MPR $\neq$ $RGDP$	0.054584	0.1184	Positive Coefficient while MPR $\neq$ $RGDP$ is sustained
Ho$_2$: CRR $\neq$ $RGDP$	0.417919	0.0365	Positive Coefficient while CRR $\neq$ $RGDP$ is rejected
Ho$_3$: EXR $\neq$ $RGDP$	-0.599970	0.0102	Negative Coefficient while EXR $\neq$ $RGDP$ is rejected
Ho$_4$: LER $\neq$ $RGDP$	-0.789160	0.0110	Negative Coefficient while LER $\neq$ $RGDP$ is rejected
Long Run Estimate			
Testable Forms	**Coefficient**	**Prob.**	**Conclusions**
Ho$_1$: MPR $\neq$ $RGDP$	0.068016	0.3602	Positive Coefficient while MPR $\neq$ $RGDP$ is sustained
Ho$_2$: CRR $\neq$ $RGDP$	0.491458	0.0000	Positive Coefficient while CRR $\neq$ $RGDP$ is rejected
Ho$_3$: EXR $\neq$ $RGDP$	-0.610789	0.0083	Negative Coefficient while EXR $\neq$ $RGDP$ is rejected
Ho$_4$: LER $\neq$ $RGDP$	-0.798216	0.0186	Negative Coefficient while LER $\neq$ $RGDP$ is rejected
R-squared		0.623485	Adjusted R-squared	0.610184
Mean Regressed var.		39205.05	Durbin-Watson stat	2.076048
F-statistic		15.90104	Prob(F-statistic)	0.000000

Source: E-Views 9.0 (2023)

The ARDL estimate (Table 8) clearly evidenced that monetary policy dynamics jointly had an F-statistic value of 15.90104 and a Prob. (F-statistic) value of 0.000. By implication, the model has a high statistical joint effect. Meanwhile, the Durbin-Watson statistic of 2.076048 suggests that the series/model is free from serial (auto) correlation problems. By implication, the model is reliable. More so, both the unadjusted R^2 and Adj. R^2 values of 0.623485 and 0.610184, respectively. That is, the series (model) has high predictive power and can be heavily relied upon for forecasting future outcomes of the Nigerian monetary policies

say in the Next ten (10). The result reaffirmed that, if there is a huge change in the monetary policies, Nigeria's global competitiveness index would rise in same magnitudes. By extension, the model held on to the classical assumptions of econometric modelling both in terms of relative and global statistics.

Furthermore, MPR was able to improve the Nigeria's global competitiveness on the short run by an inconsiderable value of 0.054584 and an inconsiderable value of 0.068016 on the long runs. By implication, MPR is still not efficient enough to improve the level of global economic competitiveness of Nigeria. This further suggests that MPR is only effective on the short-run; its effect on the long run is inconsiderable. Consequently, the research hypothesis is rejected on the mean time (short-run) but on the long-runs, it is sustained/retained. This result conforms to Eko, Ehigocho, and Okoiarikpo (2016) findings but deviates sharply from Islam, Hossain, Sudipto, and Ema (2021); Akinyede and Elumah (2017); and Kelilume (2017) findings. However, a higher CRR has high predictive power and is also instrumental the Nigeria's global competitiveness index. Put differently, the higher the CCR, the higher the Nigeria's global competitiveness index.

The implication of above finding to the present day Nigerian economy is that, the CRR is strongly to the Nigerian economy and that, the more the Nigerian government ensures that, conventional banks keeps huge funds in the reserve, the more the Nigerian economy can compete favourably with the foreign sector.

Lastly, the study evidenced that, high exchange rate and high lending rates reduce Nigeria's global competitiveness such that, if the Naira depreciates, the dollar will appreciate while the Nigeria's global competitiveness would fall. Justifiably, EXR had a negative coefficient value of-0.599970 on the short-run and -0.610789 on the long-runs, but their p-values are below the 0.05 level. Meanwhile, LER had a negative coefficient value of -0.789160 on the short-run and 0.798216 over time. Premised on this outcome, the study clearly evidenced that, if the rate of exchanging the Nigeria's domestic rate of exchanging the Naira in for the US dollar (foreign currency) depreciates, such country's RGDP will reduce drastically both in the mean (short-run) and over time (long run).This is in tandem with Morina, Hysa, Ergün, Panait, and Voica (2020) findings whom reported that currency volatility distorted the development of the sampled countries from 2002 down to the period of 2018. However, it deviated from Anifowose (2021) studies that reported that a high exchange rate improves Nigeria's global competitiveness. Again, Alasha (2020) reaffirmed that high exchange rate fluctuations improved Nigeria's global competitiveness between 1980 and 2018. These differing results therefore revalidate the major crux why the current study was conducted to fill the missing established gap.

The implication of above finding to the present day Nigerian economy is that, if the domestic currency (Nigerian Naira) constantly depreciates while the foreign currency (US Dollar) constantly appreciates, the Nigerian economy will debase more. As such, opined that, the currency devaluation policy of the Nigerian government has high demeaning effects on the stability of the Nigerian economy. This further reaffirmed the Purchasing Power Parity (PPP) Theory suggesting that, high negative exchange reduces the buying/purchasing power of the domestic currency also reduces the level of competitiveness of a country. Hence, the theory

reaffirmed that, the manner at which Nigerian Naira (domestic currency) is exchanged for the US Dollar (foreign currency) is a major factor which influences a country's level of competitiveness.

Conclusion

Although, it is believed that if economic (monetary) policies are efficient, the economy would perform optimally, the question of the potency of the monetary policy dynamics of the Nigerian government motivated the research. The paper breaks the monetary policy proxies into four (4) which are: while the global economic competitiveness of Nigeria is measured by RGDP of Nigeria. The study reported that, high lending and EXR adversely (non-linear) affected Nigeria's global competitiveness but monetary policy rates and CRR has a high positive (linear) effect on Nigeria's global competitiveness both on the short and long runs. Consequent upon the various findings recorded earlier, the paper concludes that both the CRR and money supply are instrumental to Nigeria's global competitiveness though high EXR and lending rates reduce the country's level of competitiveness. Hence, the paper submits that the current monetary policy rates are sustained and all DMBS should adhere to the stipulated CRR since it has improved the performance of the Nigerian economy significantly. More so, the current parallel exchange should be re-evaluated. Lastly, regulatory authorities of Nigerian banks should ensure that, banks lower their lending rate since a high lending rate can discourage domestic investors from investing.

Policy Suggestions for Future Research

Based on the outcome and conclusions reached, new knowledge frontiers have been created. First, though monetary policy parameters could either be quantitative or qualitative, the current study is only delineated to the quantitative measures only. Arguably, the inclusion of qualitative would have given robust result. As such, the current study therefore submits that, subsequent studies should research on the qualitative measures such as open market operations-OMO, moral suasion amongst other parameters using questionnaire (primary data source).

Another area that, future researches need to address is to widen the monetary policy scope beyond the shores of Nigeria. A look at various countries' monetary policies would create a more robust analysis that may be paramount to monetary reforms aimed at improving the under-developed state of most African countries.

The study only used yearly (time-series) data, the use of quarterly data would have produced a more robust and true picture of the monetary policy issues within the Nigerian business environment. Hence, future researchers should consider incorporating quarterly data. Again, the paper still could not introduce trend analysis. The use of trend analysis clearly gives a pictorial analogy of the movement (behaviour) of our variable. On this note, the paper affirmatively states that, subsequent researchers are employed to introduce trend analysis. This would to a large extent create a more vivid view on how best to track deviations.

Lastly, the study was only limited at evaluating the CBN's activities. Hence, could not give a scholarly explanation on how the activities, policies and reforms of the fiscal authorities affect Nigeria's global competitiveness. As such, the study is advocates that, subsequent researchers should do a comparative analysis on the extent the activities, policies and reforms of both the fiscal and monetary authorities affect Nigeria's global competitiveness. Hence, if the activities, policies and reforms of both the monetary (CBN) and the fiscal (ministry of finance) are addressed, the missing link practices and policies made by these two major bodies in the Nigerian context would be addressed hitherto.

Declaration of conflicting interest

The authors declare that there is no conflict of interest in this work.

Data Access (Availability) Statement: The data that was used for running the analysis are readily available upon request.

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