Analysis of the Impact of Selected Macro-Economic Variables on Balance of Payments in Nigeria

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ABSTRACT
Given that Nigerian economy has recorded unfavourable Balance of Payment (BOP) positive in recent years, it becomes imperative to study the impact of selected macroeconomic variables on BOP in Nigeria. This study therefore sought to determine the impact of exchange rate, inflation rate, interest rate and money supply on BOP in Nigeria. This study used secondary data sourced from Central Bank of Nigeria Statistical Bulletin (2021) in its analysis. The study employed ARDL to estimate the short run and long run impact of the selected macroeconomic variables on BOP in Nigeria. The ARDL bound co-integration showed a long run relationship between BOP and selected macroeconomic variables in the country. The study recommends that the policy makers should take keen interest on how best to improve the value of Nigeria's export to the world; this will help bring to equilibrium the exchange rates and inflation that play a crucial part in determining the balance of payments. In addition, policies should be put in place to fund government plan of work for a period of time than public borrowing in the case of money supply and interest rate that has led to the increment on Balance of payment (BOP) deficit.

KEYWORDS: *Balance of payments, Exchange rates, Inflation rates, Interest rates, and money supply*

1.1. BACKGROUND TO THE STUDY

The balance of payments (BOP) also known as the balance of international payments, is a statement of all transactions made between entities in one country and the rest of the world over a defined period, such as a quarter or a year. It summarizes all transactions that a country's individuals, companies and government bodies complete with individuals, companies and government bodies outside the country. Before the 19th century, international transactions were denominated in gold, providing little flexibility for countries experiencing trade deficits. Growth was low, so stimulating a trade surplus was the primary method of strengthening a nation's financial position. National economies were not well integrated; however, steep trade imbalances rarely provoked crises. The industrial revolution increased international economic integration and balance of payment crises began to occur more frequently. The great depression led countries to abandon the gold standard and engage in competitive devaluation of their currencies, but the Bretton Woods System that prevailed

from the end of World War II until the 1970s introduced a gold-convertible dollar with fixed exchange rates to other currencies, (Investopedia Team, Kenton, & Boyle 2021).

A noteworthy fact about the balance of payments account disequilibrium is the persistent deficit on the services account. For instance, between 2020 and 2021, it rose from N16, 975.92m down to N2, 521.83m and till date, the existence of a deficit in the service account is a phenomenon common to Nigeria economy. As such, Nigeria's balance of payment (BOP) had started to show signs of adverse disequilibrium having been managed over the years within a policy framework of direct control. Following the sudden collapse of international oil prices in 2014 and the consequent fall in foreign exchange receipts, controls were tightened. However, the controls proved counterproductive as it became clear that the economy could not be managed within a policy framework that placed heavy reliance on direct controls, (CBNSB, 2021).

Presently Dollar to Naira Exchange Rate as at January 12, 2022 is ₦414.61 in CBN, ₦470.00 in Access Bank, N413.47 in FX Market, ₦378.52 in Moneygram, and N380.28 in Western Union. US Dollar to Naira rate recently moves upwards 0.04% in CBN, 0.04% in Access Bank, 0.16% in FX Market, 1.99% in Moneygram. Dollar to Naira exchange rate has the lowest value of N378.52 at Moneygram as of 2020, now Dollar to Naira exchange rate has the highest value of N470.00 at Access Bank as of January 11, 2022 which is the most recent. While some have attributed the recent depreciation to the decline in the nation's foreign exchange reserves, others argued that the activities of speculators and banks are responsible for the recent decline in the value of the naira. In addition, the quest for higher profits in the face of the global economic meltdown is forcing some banks to engage in round-tripping (CBN report January, 2022).

Due to the close relationship that exists among macroeconomic stability and economic competitiveness of a country internationally, this study sought to establish the role played by the selected macroeconomic variables on balance of payments in Nigeria. The sub-objectives include: 1.To determine the impact of exchange rates on balance of payment in Nigeria. 2. To examine the impact of inflation rates on balance of payment in Nigeria. 3. To establish the impact of interest rates on balance of payment in Nigeria. 4. To explore the impact of money supply on balance of payment in Nigeria. The remaining section of this work in section two which is the review of related literature is presented as theoretical and empirical review. Section three presents the methodology and data issues. While section four presents the empirical results and its interpretation. And finally section five presents discussion of findings and relevant recommendations.

2.0 THEORETICAL REVIEW

The balance of payments theory was developed by International Monetary fund in the1960s under the leadership of Polak as an evolution to Keynesian approach to the functioning of an open economy, to a monetary approach on balance of payments; it believed to be the modern and most satisfactory theory of the determination of the exchange rate. The theory is also known as the demand and supply theory of exchange rate. According to this theory, the rate of exchange in the foreign exchange market is determined by the balance of payment in the sense of demand and supply of foreign exchange in the market. The term 'balance of payments' is used in the sense of a market balance. If the demand for a country's currency falls at a given rate of exchange, we can speak of a deficit in its balance of payments. Similarly, if the demand for a country's currency rises at a given rate of exchange, we can speak of surplus in its balance of payments (Polak, 2001).

The Purchasing Power Parity (PPP) as developed by Keynes (1923) in its simplest form asserts that in the long run, changes in exchange rate among countries will tend to reflect changes in relative price level. Kamin & Klau, (2003) are of the view that if exchange rates are floating, the observed movement can be explained entirely in terms of changes in relative purchasing power while if it is fixed, equilibrium can be determined by comparing satisfactory methods for: Explaining the observed movements in exchange rates for countries whose rates were floating, Determining equilibrium parity rates for whose countries whose surviving rates were out of line with post war market conditions, Assessing the appropriateness of an exchange rate. Despite criticisms of PPP theory, the theoretical foundation and explanation may sound reasonable and acceptable but its practical application in real situation may be an illusion, especially in the long run (Grigorianm, 2004).

2.1 EMPIRICAL FRAMEWORK

Different scholars and researchers have reviewed the determinants of balance of payments in different countries. Below are some of the international and local reviews carried out by researchers.

In recent period, Dare & Adekunle (2020) investigated how exchange rate policy affects balance of payment in Nigeria. They adopted Autoregressive Distributed Lag (ARDL) model, similar to Nwanosike.,Uzoechina, Ebenyi, . & Ishiwu(2017) and Olanipekun & Ogunsola (2017) to examine both the short run and long run relationship between the variables from 1985 to 2018. The result of ARDL revealed that exchange rate and trade openness have significant effect on balance of payment in Nigeria. The study further tested for direction of causality between balance of payment and exchange rate and the empirical result showed no causality between them.

Limbore & Moore (2019) examined the effect of exchange rates on balance of payments using secondary data from the RBI (Central Bank of India) covering the period of 2001 to 2018. Variables employed are export, import, trade account balance, current account balance and overall balance data which were analyzed using descriptive method. The study found that exchange rate was highly unstable which negatively influenced balance of payments.

Olanipekun and Ogunsola (2017) investigated how exchange rate changes affect total balance of payments, current account balance and capital account in Nigeria. They authors employed Autoregressive Distributed Lags (ARDL) bound co-integration to examine short-run and long effects of exchange rate on trade balance. It was found that exchange rate appreciation affects BOP and current account balance negatively. However, no statistically significant effect of exchange rate on capital account was obtained while inflation rate was found to have adverse effect on BOP in the country.

Therefore, this study is filling a gap by analyzing the impact of selected macroeconomic variables like, Exchange Rate (EXR), Inflation (INF), Interest Rate (INTR) and Money Supply (MOS) on Balance of Payment (BOP) which other studies could not fill with this rage of variables as mentioned above. In terms of scope, this study is up to date as it is covering from 1981 to 2021 data statistics from Central Bank of Nigeria (CBN), and National Bureau of Statistic (NBS). Again, in terms of methodology, the study contributes to knowledge by using the Augmented Dicky-Fullar (ADF) model and Author Regressive Distributive Lag (ARDL) model which are more robust, contrary to the previous research works reviewed by Limbore & Moore (2019) as they used descriptive method in their regression in their analysis. This is a major departure and a gap in theoretical and empirical fronts.

3.0 METHODOLOGY

3.1 MODEL SPECIFICATIONS

Given that this study aims at analysing the impact of selected macroeconomic variables on balance of payments in Nigeria, the functional form of the model specification is specified as:
BOP = f (EXR, INF, INT, MOS,) …….. (3.1)

Where: BOP = Balance of payment, EXR = Exchange rate, INF = Inflation rate, INT = Interest rate, MOS = Money supply

To estimate the above equation, we transformed the functional form into an estimated model as:

$$BOP_t = \alpha_0 + \alpha_1 EXR_t + \alpha_2 INF_t + \alpha_4 MOS_t + \alpha_5 INT_t + \mu_t \text{.....(3.2)}$$

The Auto Regressive Distributed Lag (ARDL) Model which uses a bounds test approach based on unrestricted error correction model (UECM) was employed here to estimate the effects of selected macroeconomic variables on balance of payment in Nigeria. The ARDL model was developed by Pesaran (1997) and used by Pesaran, et al (2001); Masron (2009); Owusu (2012), among others. The major advantage of this approach is based on the fact that it can be applied irrespective of whether the variables are I (0) or I (1). This approach also allows for the model to take a sufficient number of lags to capture the data generating process in a general-to-specific modelling framework. Although, a dynamic error correction model (ECM) can be derived from ARDL through a simple linear transformation, Banerjee et al., 1998 and Pesaran et al., 2001, have introduced bound testing as an alternative to test for the existence of co-integration among the variables. The bounds test procedure is merely based on an estimate of unrestricted error correction model (UECM) using ordinary least squares estimator. Tang (2003) argues that the UECM is a simple re-parameterization of a general ARDL model. The ARDL model is stated as:

$$BOP_t = \alpha_0 + \sum_{i=0}^{p} \gamma_i BOP_{t-i} + \sum_{i=1}^{q} \beta_i EXR_{t-i} + \sum_{i=1}^{q} \beta_i INF_{t-i} + \sum_{i=1}^{q} \beta_i MOS_t + \sum_{i=1}^{q} \beta_i INT_t + \mu_{it} \text{.....(3.3)}$$

In order to obtain the co-integrating equation, equation 3.3 is transformed into 3.4 as follows:

$$\Delta BOP_t = \alpha_0 + \sum_{i=0}^{p} \gamma_i \Delta BOP_{t-i} + \sum_{i=1}^{q} \beta_i \Delta EXR_{t-i} + \sum_{i=1}^{q} \beta_i \Delta INF_{t-i} + \sum_{i=1}^{q} \beta_i \Delta MOS_t + \sum_{i=1}^{q} \beta_i \Delta INT_t + \phi_1 EXR_t + \phi_2 INF_t + \phi_4 MOS_t +$$

$$\phi_5 INT_t + \varphi_1 ECT_t + \mu_{it} \text{.....(3.4)}$$

Where $ECT_t = Y_t - \alpha_0 - \sum_{i=1}^{p} \gamma_1 \Delta Y_{t-i} - \sum_{i=0}^{p} \beta_i \Delta X_{t-i}$ and $\varphi = 1 - \sum_{i=1}^{p} \gamma_1 \Delta Y_{t-i}$ .....(3.5)

The Bound test procedure used equations 3.4 and 3.5 into 3.6 as:

$$\Delta Y_t = -\sum_{i=1}^{p-1} \gamma_1 Y * \Delta Y_{t-i} + \sum_{i=0}^{p} \beta_i \Delta X_{t-i} - \rho Y_{t-1} - \alpha - \sum_{i=0}^{p} \delta X_{t-i} + \mu_{it} \text{.....(3.6)}$$

Then we test the existence of level relationship as $\rho = 0$ and $\delta_1 = \delta_2 = ... = \delta_k = 0$
Where Δ = difference operator, μ = white noise error term.

3.2 UNIT ROOT AND CO-INTEGRATION TEST RESULTS

Since the validity of the ARDL approach relies on *I(0),I(1)* or a combination of both, it is important to first determine the time-series properties of individual variable that enter

equation *(3.3)*.This is done to know whether the variables are integrated of order zero or one or even more. Given that unit root testing procedures have their own limitations. Two unit root tests were considered for this research. These are the non-parametric Philip-Perron (PP) test proposed by Phillips and Perron (1988) and the popular Augmented Dickey-Fuller (ADF) unit root test. Both the ADF and the PP test the null hypothesis that the series have unit root (variables not stationary).

3.3 DATA SOURCE AND ECONOMETRICS SOFTWARE.

The data used in this study obtained from Central Bank of Nigeria (CBN) statistical bulletin 2021, the bureau of statistics 2021. The E-views 10.0 software was used in analysing the data while the Ms-Excel was used to transport the data.

4.0 DATA ANALYSIS AND INTERPRETATION

4.1 Unit Root Test

In this study, the Augmented Dickey-Fuller (ADF) unit root test was employed to test for the time series properties of the model variables. This is necessary as it helps to avoid spurious regression results. The ADF tests the null hypotheses that the series has a unit root (not stationary) as against the alternative that the variable has no unit root. The choice of lag length was based on Akaike and Schwartz-Bayesian information criteria and was selected automatically by E-views. The decision rule is to reject the null hypothesis if the ADF statistic value exceeds the critical value at a chosen level of significance (in absolute term). These results are presented in table 1 below.

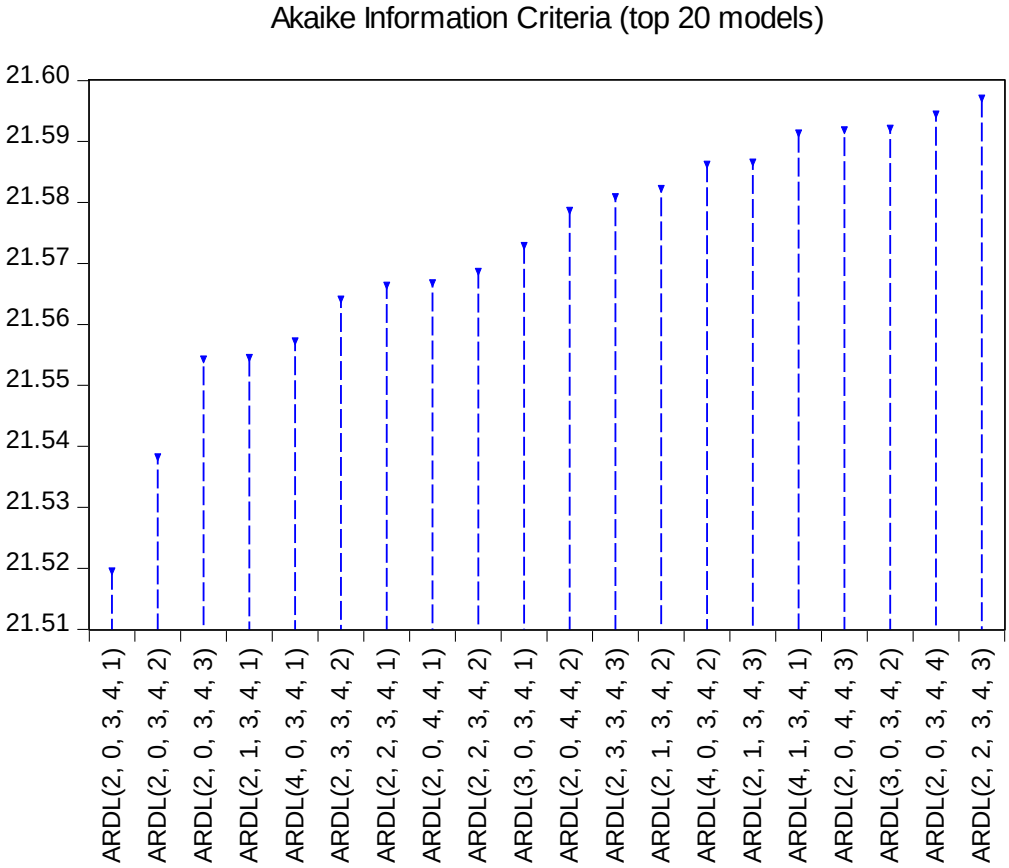
Table 1: Summary of ADF test results at 1% and 5% critical value

Variables	ADF Statistics		ADF Critical Value		Optimum Lag Length	Order of Integration	Remark
	Level	Ist Diff	1%	5%			
BOP	-3.9614		-3.6056	-2.9369	0	I (0)	Stationary
EXR	2.4472	-4.3651	-3.6105	-2.9389	0	I (1)	Stationary
IINF	-3.0475		-3.6056	-2.9369	0	I (0)	Stationary
INTR	-2.6131	-3.5188	-3.6268	-2.9458	3	I (1)	Stationary
Ln(MOS)	-1.3013	-4.0025	-3.6105	-2.9389	0	I (1)	Stationary

Source: Computed by the Researcher with Eview 10

From table 1 above, observe that the variables EXR, INTR and LnMOS were not stationary at level form but became stationary after first difference which implies that the variables are integrated of order one (I ~ (1)) whereas the variables BOP and INF were integrated of order zero (I ~ (0)) as they were stationary at level form. The decision was based on the fact the ADF statistics was greater than the critical values at 5% significance level. Since the variables are integrated of order one and zero and none of the variables is integrated of order two. We therefore, applied the ARDL bound co-integration test. But before we apply the ARDL bound co-integration test, we first determined the optimum lag length using Akaike information criteria. The result is shown in figure 1 below:

Figure 1: ARDL Optimum Lag Length Selection



After twenty (20) models automatically generated, ARDL (2, 0, 3, 4, 1) model was chosen based on Akaike information criteria.

4.2 ARDL Bound Cointegration Test

A necessary condition for testing ARDL bound co-integration test is that the variables be integrated of either of order one or zero or both (Pesaran, Shin and Smith, 2001). Since all the variables were integrated of order one and zero, we proceeded to estimate the ARDL bound test. The null hypothesis of ARDL bound co-integration is that the variables are not co-integrated as against the alternative that they are co-integrated. The decision rule is to reject the null hypothesis if the F-statistics is greater than the upper bound critical values at chosen level of significance. The result of the ARDL bound co-integration test is shown in table 2 below.

Table 2: ARDL Bound Co-integration Test Result

F-Statistics	K	Significance level	Critical Bound Value	
			10 (Lower Bound)	11 (Upper Bound)
7.276930	4	5%	2.56	3.49
		1%	3.29	4.37

Source: Author's computation

From table 2 the F-statistics is greater than the upper bound at 1% level of significance. Thus, we reject the null hypothesis and conclude that there exists a long run relationship between balance of payment (BOP) and selected macroeconomic variables in Nigeria. Therefore, we estimate the parsimonious result of the relationships between BOP and the selected macroeconomic variables in the country.

4.3 Autoregressive Distributed Lag (ARDL) Result

4.3.1. Short Run Parsimonious ARDL Result

The summary of Short Run Parsimonious ARDL result of the impact of selected macroeconomic variables on balance of payment in Nigeria is presented in table 3.

Table 3: Summary of Short Run Parsimonious ARDL Result
ARDL Model (2, 0, 3, 4, 1)

	Dependent Variable D(BOP)			
Variables	Coefficient	**Std. Error**	**t-statistics**	**Probability**
D(BOP(-1))	0.485230***	0.145044	3.345391	0.0029
D(INF)	-10.09746***	1.168178	-8.64337	0.0000
D(INF(-1))	16.31476***	2.812978	5.799816	0.0000
D(INTR)	13.58371**	5.662761	2.398778	0.0254
D(INTR(-1))	-8.227060***	1.296366	-6.346248	0.0000
D(MOS)	2.149244**	0.866313	2.480909	0.0212
ECT(-1)	-0.923327***	0.162644	-5.673493	0.0000
	R-squared = 0.844356; Adj R-Squared = 0.792474			

******[**] denotes significant of variable at 1% [5%] significance level respectively.***

4.3.2 Long Run ARDL Result

The summary of Long Run ARDL result of the impact of selected macroeconomic variables on balance of payment in Nigeria is presented in table 4

Table 4: Long Run ARDL Result

	Dependent Variable BOP			
Variables	Coefficient	**Std. Error**	**t-statistics**	**Probability**
Constant	-35744.78***	6247.615	-5.721348	0.0000
EXR	-27.71495***	4.245459	-6.528140	0.0000
INF	-10.15976***	2.596070	-3.913515	0.0007
INTR	60.68566***	9.250558	6.560216	0.0000
MOS	2.987651***	0.439172	6.802917	0.0000

******[**] denotes significant of variable at 1% [5%] significance level respectively.***

Interpretation of Short Run Result

The result in table 4 shows the short run parsimonious result. The lag value of BOP is positively and significantly influencing its current value which suggests that an increase in the immediate past state of BOP will improve the present BOP in the country. The coefficient of current inflation is -10.09 which means that a one per cent increases on inflation will lead to about 10.09 improvements in BOP in Nigeria. However, the coefficient of inflation rate at lag one is positive and significant. In the theoretical view, a low inflation rate scenario will

exhibit a rising currency rate, as the purchasing power of the currency will increase as compared to other currencies (Duarte, & Stockman, 2002).

Interest rate, as expected is positively and significantly related to BOP in the country. Specifically, the coefficient of interest rate suggests that an increase in interest rate by one percent will improve BOP by about 13.58 units. This result validates the interest rate parity by Keynes which postulates that an increase in domestic interest rate relative to foreign rate will attract capital inflow in the country and this will improve the BOP position of the domestic country. The coefficient of money supply is 2.15 which mean that a one naira increase in money supply will enhance the Nigerian BOP by 2.1 units.

The coefficient of determination R-Square and its adjusted R-Square are 0.844 and 0.792 respectively. This shows a good fit of the model and further suggests that about 84.4 % of the variations in BOP position is explained by changes in the selected macroeconomic variables (exchange rate, inflation rate, interest rate and money supply) included in the model while the remaining 15.6% of the variations is captured by the error term. The coefficient of error correction term which measures the speed of adjustment to the long run equilibrium is appropriately signed and significant. Specifically, the coefficient 0f -0.923 implies that about 92.3% of the disequilibrium in the country's BOP is corrected every year. This further suggests that it takes one year and one month for any disequilibrium in BOP position to be corrected by the selected macroeconomic variables.

Interpretation of Long Run Result.

The long run result in table 4 shows that exchange rate and inflation rate have negative but significant impact on BOP position while interest rate and money supply have positive and significant influence on BOP position in Nigeria.

4.4: Discussion of Test of Hypothesis

Hypothesis 1

H_O: There is no statistical significant relationship between exchange rate and balance of payment in Nigeria.

From table 4 above, the probability value for exchange rate (EXR) is less than 0.05. Since the p-value (EXR) is less than 0.05, we reject Ho and conclude that there is statistical significant relationship between exchange rate and BOP in Nigeria.

Hypothesis 2

H_O: Inflation rate does not have any statistical significant impact on balance of payment in Nigeria.

From table 3 and 4 above, the probability value for inflation rate (INF) is less than 0.05. Since the p-value (INF) is less than 0.05, we reject Ho and conclude that inflation rate has statistical significant impact on balance of payment in Nigeria.

Hypothesis 3

H_O: Interest has no statistical significant impact on balance of payment in Nigeria.

From table 3 and 4 above, the probability value for interest rate (INTR) is less than 0.05. Given that the p-value (INTR) is less than 0.05, we reject Ho and conclude that interest rate has statistical significant impact on balance of payment in Nigeria.

Hypothesis 4

H_O: Money supply does not have any statistical significant impact on the balance of payment in Nigeria.

From table 3 and 4 above, the probability value for money supply (MOS) is less than 0.05. Given that the p-value (MOS) is less than 0.05, we reject Ho and conclude that money supply has statistical significant impact on balance of payment in Nigeria.

4.5. Evaluation of Result based on Econometric Criteria (2nd order Test)

4.5.1 Breusch-Godfrey Serial LM Test for Auto- Correlation

The underlying assumption of autocorrelation is that the successive values of the random μ_i are temporally independent. The Breusch-Godfrey Serial Correlation statistics is used to test for the presence of autocorrelation of order q in the models.

Table5: Breusch-Godfrey tests

	F- Statistics	Probability
Breusch-Godfrey LM test for autocorrelation	0.534426	0.5941

From table 5 above, the probability value of B-Q statistics is greater than 0.05. Since the B-Q statistics is greater than 0.05, we reject the null hypothesis and therefore conclude that there exists no q order serial auto-correlation of stochastic errors terms in the model.

4.5.2 Test for Hetroscedasticity

The primary reason to test for hetroscedasticity after running for OLS is to detect violation of assumption OLS:5, which is one of the assumptions needed for the usual statistics accompanying OLS regression to be valid. The F – statistics can be used to verify this assumption, and the hypothesis is formulated as follow:

Hypothesis

H_o: (There is no hetroscedasticity, i.e. homoscedasticity)
H_1: (There is hetroscedasticity)
Decision Rule; Reject H_o if the calculated F value is greater than the tabulated F value, otherwise accept Ho. The hetroscedasticity result is as presented in table 11:

Table 6: Breusch-Pagan-Godfrey Heteroskedasticity Test

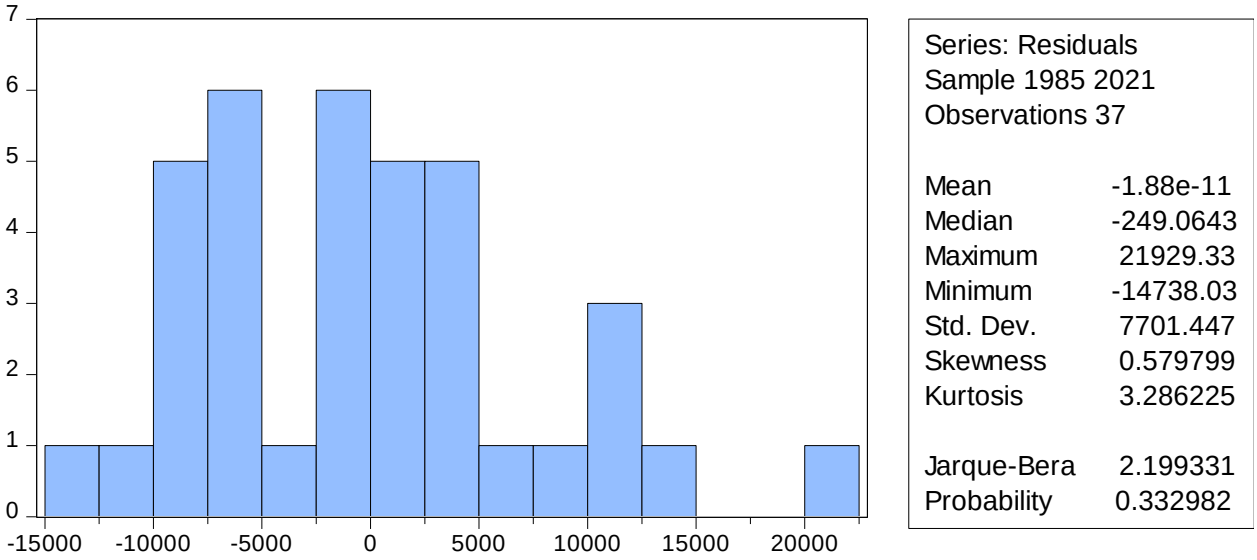
F-statistic	2.314767	Probability	0.0378
Obs*R-squared	22.03862	Probability	0.0778

Following the above result, calculated F value = 2.314767 and its probability value = 0.0378. Therefore, since the calculated value of F is significant, we reject H_o of homoscedasticity and conclude that the conditional variances of the error terms are unequal. However, on the basis Observed R-Squared and Scaled explained SS, we conclude that the conditional variances of the terms are equal.

4.5.3 Normality Test

This test is to enable us determine whether the residual follows the normal distribution as postulated by classical OLS assumption. This is tested using the Jarque-Bera test. The hypothesis is formulated as follows:
Ho: $\mu = 0$ (Residual follow normal distribution)
H_1: $\mu \neq 0$ (Residual does not follow normal distribution)
The Jarque- Bera test result is presented in Figure 2 below:

Figure 2: Jarque- Bera Test.



Evidently, the null hypothesis cannot be rejected since the Jarque- Bera probability is 0.33 (> 0.05). Thus we accept Ho and conclude that the residual follows normal distribution and that the assumption of normal distribution is hereby satisfied.

4.5.4 Ramsey Reset Test

This test is used to test for model mis-specification. The hypothesis is formulated as follows:
Ho: Model is not mis-specified
H_1: Model is mis-specified

Table 7: Ramsey RESET Test

Ramsey RESET Test
Equation: UNTITLED
Specification: BOP BOP(-1) BOP(-2) EXR INF INF(-1) INF(-2) INF(-3) INTR
INTR(-1) INTR(-2) INTR(-3) INTR(-4) MOS MOS(-1) C
Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	7.623776	21	0.0000
F-statistic	58.12196	(1, 21)	0.0000

Evidently, the null hypothesis is rejected since the probability value of F-statistic is 0.000 (< 0.05). Thus we reject Ho and conclude that the model is not well specified.

4.5.5 Multicollinearity Test: Multicollinearity test is used here to ascertain the violation of the assumption of randomness of the classical linear regression model. In carrying out the test, we make used of the correlation matrix table. The result is shown in table 7 below.
Decision Rule:
If the pair–wise or zero–order correlation coefficient between two explanatory variables is high, say in excess of 0.8, then multicollinearity is a serious problem (Gujarati and Sangeetha, 2007).

Tabie 7: Correlation Matrix. Series: EXR, INF, INTR and MOS

	EXR	INF	INTR	MOS
EXR	1.000000	-0.263472	-0.386113	0.933975
INF	-0.263472	1.000000	0.505604	-0.215258
INTR	-0.386113	0.505604	1.000000	-0.444790
MOS	0.933975	-0.215258	-0.444790	1.000000

From the result in table 7, all the partial correlation in the correlation matrix is less than 0.8 except that between money supply and exchange rate which is 0.94. Thus, there is a mild multicollinearity in the model.

5. CONCLUSION

Base on the empirical results in chapter 4, the summary of the findings are itemized as follows: 1. The ARDL Bound co-integration result shows evidence of long run relationship between BOP and selected macroeconomic variables in Nigeria. 2. There is a long run positive and significant effect of exchange rate on balance of payment in Nigeria. 3. Inflation rate has negative and significant impact on the balance of payment both in the short run and in the long run in Nigeria. 4. Equally, interest rate has short run and long run positive and significant impact on balance of payment in Nigeria. 5. Money Supply exerts balance of payment position positively and significantly both in the short run and long run in Nigeria.

5.1 POLICY RECOMMENDATION

The study recommends that the policy makers should take keen interest on how best to improve the value of Nigeria's export to the world, this will help bring to equilibrium the exchange rates that play an important role in determining the balance of payments.

The government needs to increase marketing of its exports, create awareness among local entrepreneurs of existing export market that need to be exploited while giving incentives to local industries producing for export as well as those companies that assemble locally which help curb demand for imports.

The study further recommends that policy makers should come up with the best way to fund government project or budget deficit other than public borrowing that is on the rise and as observed from the study. It is a major contributor to increase in BOP deficit.

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