

**THE NIGERIA CURRENT ACCOUNT BALANCE AND INFLATION RATE: AN EMPIRICAL ANALYSIS**

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**ABSTRACT**

The study examines the impact of inflation rate on current account balance in Nigeria between 1985 to 2020. The study adopted descriptive analysis, unit root test, Bound test, Autoregressive Distributed Lags Analysis, (ARDL), Error Correction Cointegrating Model (ECCM), and other post estimation tests such as Heteroskedasticity and Serial LM autocorrelation test. Based on the findings from the study, it was discovered that there were short-run and long-run relationships between inflation rate and current account balance in Nigeria. It was also discovered that there was a direct impact of inflation rate and other independent variables such as exchange rate, trade openness, interest rate and gross capital formation on current account balance. However, the study recommend that government should redesign monetary policy to support international trade to address persistence leakages across all the country's boarder. By so doing, the local investment and productivity of goods and services would rise hence, inflation would fall to curb external shocks.

**Keywords:** Current Account Balance, Inflation Rate, Nigeria.

**1. INTRODUCTION**

Inflation has remained the greatest threat to the growth of the country for the past few decades, controlling Inflation alongside the maintenance of a stable current account balance is a major economic problem facing Nigeria. The high level of inflation in the country has resulted in the uncertainty of future prices and Nigeria's current account balances has continued to show declining trends as a result of ever-increasing external debts, high level of importation, unfavorable exports, and overdependence on the oil sector as the major source of income of the country.

To the best of my knowledge, several studies have been carried out on various aspects of this subject using diverse measures to examine the relationship between the inflation rate and Current account balances (exchange rate inclusive). However, the studies have provided mixed results. While studies such as Inimimo, E.E., et Al (2019) unveiled that there is a significant impact between the exchange rate and current account balance while inflation does not have any significant impact on the current account balance in Nigeria. Aidi, H.O., Suleiman, H. I., & Saidu, I. A (2018), concluded that exchange rate and inflation have a significant negative impact on the current account balance. Akatugba D. Oghenebrume (2018) concluded that the inflation rate has a negative relationship with current account balances and the exchange rate has a positive relationship with current account balances in Nigeria.

However, in a struggle to reduce the surging inflation rate and the correct current account balances deficit, the government has instigated measures to ensure effective monetary policy, Fiscal practicality, and stabilization of the exchange rate. Unfortunately, over the years inflation policies

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and targets in Nigeria have proved abortive to achieve its desired objectives of correcting BOP disequilibrium due to misspecification of macroeconomic policies, insufficient time lag, conflicting economic plans, corruption, and economic instability.

Consequently, it has been observed that none of the previous studies has tried to investigate the link between inflation and the current account balances directly. They either look at the impact of exchange rate and current account balance or exchange rate and inflation on current account balance. Hence this study will try to fill this noted gap. Also, this study intends to update the findings from the previous studies by employing recent data, as this would allow the researcher to ascertain the recent happenings. Hence findings from this study would help to update the body of literature.

The rest of the paper is divided into the literature review, methodology, results and discussion, conclusion and recommendations.

## **2. LITERATURE REVUEW**

Aidi, H. O., Suleiman, H. I., & Saidu, I. A. (2018), examined the relationship between exchange rate, inflation, and current account balance in Nigeria using yearly time series data spanning from 1986 to 2015. The researchers adopted the Ordinary Least Squares (OLS) multiple regression techniques for analysis. The study found, among other things, that the exchange rate and inflation—the study's two main variables—had statistically significant negative effects on the current account balances (the dependent variable) throughout the time period under investigation. In addition, the result showed that domestic credit, money supply, and real gross domestic product are statistically significant drivers of current account balance in Nigeria. Sequel to the findings, the Nigerian government, economic planners, and policymakers are advised to (as a matter of urgency) make policies that will boost productivity and enhance/promote more exports of goods and services. Efforts should also be made to check the rising rate of inflation to restore stability to the Nigerian economy.

Oghenebrume, A. D. (2018) analyzed the effect of exchange rate volatility on current account balances in Nigeria from 1980 to 2016. Exchange rate volatility was measured using the GARCH approach. The empirical findings indicated that whereas real gross domestic product, inflation rate, and exchange rate volatility are all adversely correlated with current account balances, exchange rate is favorably correlated with it. Therefore, the Nigerian government should not downplay exchange rate volatility. In order to maintain a favorable trade balance, which would support a strong local currency and prevent future fall of the Nigerian naira, the government should also encourage export promotion programs.

Inimino, E. E., Akpan, J. E., Otubu, O. P., & Alex, I. O. (2019), empirically examine the impact of monetary policy on current account balances in Nigeria from 1970 to 2015. The econometrics methods of Co-integration and Error Correction Mechanism were employed as the analytical techniques. The Co-integration result revealed the existence of a long-run relationship among the variables. The outcome of the economic ECM showed that the currency rate and credit to the private sector have a big impact on Nigeria's current account balances. While money supply and interest rate do not have a significant impact on current account balances in Nigeria. Moreover, the coefficient of ECM was rightly signed (that is negative) and statistically significant at the conventional level. This means that the short-run dynamics adjust to the long-run equilibrium relationship. Based on these findings, the study recommended that monetary authorities should

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make the financial sector to be viable to provide credit at lower interest rates and adopt a managed floating exchange rate policy to redress the problem of exchange rate variation to raise the BOP's position of Nigeria.

Osisanwo, B. G., Tella, S., & Adesoye, B. A. (2019), investigated the impact of monetary policy on current account balances (BOP) adjustment in Nigeria within the periods, 1980- 2015. In order to demonstrate the relationship between Nigerian monetary policy variables (domestic credit, money supply, inflation, and exchange rate), output growth, and trade balance and BOP adjustment, the study employed the bound testing methodology. The study shows that there is a long-run relationship between monetary policy variables and current account balance adjustment. The data also revealed that money supply and trade balance have a long-term favorable effect on Nigeria's current account balances adjustment. On the other hand, exchange rate, the domestic credit, the rate of inflation, and the gross domestic product point to a detrimental effect on Nigeria's current account balances. An important finding from the empirical estimate is that, compared to other monetary policy variables, the money supply has a longer-term influence on BOP adjustment. This study suggests that in stabilizing the BOP position of the country, the apex bank should try as much as possible to balance money supply and demand for money to avoid distortion in price.

Nnamdi, N. (2020), examined the impact of exchange rate on current account balances in Nigeria. The study's data, which included the current account balances, interest rate, currency rate, trade openness, and price of crude oil, were taken from the Central Bank of Nigeria's (CBN) statistical bulletin, which covered the years 1981 through 2019. The method of data analysis adopted is the Vector Error Correction Mechanism (VECM). The findings show that the current account balances in Nigeria and the exchange rate have a positive relationship, with the exchange rate having a significant impact on the current account balances in Nigeria ( $t\text{-stat} = 2.47441$ ) and there is a causality relationship between exchange rate fluctuations and current account balances in Nigeria ( $p\text{-value} = 0.0174 < 0.05$ ). The study, therefore, recommended that the government should promote and make political and industrial peace and stability a top macro-political policy priority.

Proso, Inaya, and Okoye (2017) examine the impact of monetary policy (money supply, interest rate, and exchange rate) on current account balance in Nigeria from the periods, 1980-2015. Using Ordinary Least Square (OLS), the coefficients were all consistent with a priori expectation but money supply and interest rate had a significant relationship with current account balances whereas exchange rate was not statistically significant.

### **3. METHODOLOGY**

This aspect of the paper discusses the research method adopted for the purpose of achieving the objectives of the study. It begins with the model specifications

#### **Model Specification**

Previous studies on inflation and current account balance (exchange rate inclusive) has shown that there is a link between them. The models of this study will incorporate, Inflation rate (INF), gross capital formation (GCF), trade openness (TOP), interest rate (IR) and current account balance (BOP). In the hypothesis test, inflation rate, gross capital formation, interest rate, trade openness and exchange rate are assumed to be the independent variables and they are represented by INF, GCF, IR, TOP, and EXR respectively, while the current account balance is the dependent variable

and it is represented by CAB. Thus, the mathematical form of the relationship is stated below.

$$CAB = \alpha_0 + \alpha_1 INF + \alpha_2 GCF + \alpha_3 INR + \alpha_4 TOP + \alpha_5 EXR + \mu$$

CAB = Current account balance

INF= Inflation rate

GCF= Gross capital formation

INR = Interest rate

TOP= Trade openness

EXR= Exchange rate

$\alpha_0$ = Constant

$\alpha_1=\alpha_2=\alpha_3=\alpha_4$ = Regression coefficient

$\mu$ = Error term

#### **4. ESTIMATING TECHNIQUES**

##### **Evaluation based on economic “a prior expectation”**

The theoretical expectation of the model expects that an increase in gross capital formation will increase aggregate demand and lead to a rise in productive activities and investment opportunities in the economy. This rise in the productive activities in the economy will lead to a rise in the export of goods and services, thus, leading to a rise in the current account balances position of the country. It can also be negative as a fall in gross capital formation will result in a fall in investment and less productivity, hence the economy will have to depend on imported commodities which will have adverse effect on current account balance.

In addition, a direct relationship between trade openness and BOP is expected because balance of trade is favorable when there is a reduction or removal of barriers on the exchange of goods of services. A high interest rate will reduce the demand for loanable funds in the economy, that is, a reduction in investment and productivity which will have an adverse effect on the current account balance. It is also expected that an appreciation in exchange rate will make export more expensive and import cheaper, which will have an adverse effect on the current account balances. There is an indirect relationship between inflation rate and current account balances. When there is inflation in an economy people tends to rely on imported goods whose price does not change, therefore it brings about unfavorable current account balance.

**Table 1: A prior expectation**

Variables	Definition	A prior expectation
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Inflation	The rate at which general level of prices of goods and services is rising and subsequently, purchasing power is falling in the economy over a long period of time.	Negative (-)
Gross capital formation	This is the total of the gross increase to fixed assets over the counting period (fixed capital formation) plus the change in stock.	Positive (+)
Interest rate	The fraction of a loan that the borrower is responsible for paying as interest; this percentage is often represented as a yearly percentage of the loan balance.	Negative(-)
Trade openness	This is defined as the ratio of exports plus imports over GDP.	Positive (+)
Exchange rate	This is the value of a nation's currency in terms of the currency of another nation or economic zone.	Negative (-)

**Evaluation based on econometric criteria**

These tests are set by theory of econometrics to investigate if the assumptions of the econometric method employed are satisfied or not. The test to be carried out under this criteria include, the test for Auto-correlation, Heteroscedastic error test, Multicollinearity, Normality test and Causality test. Also, the coefficient of multiple determination ( $R^2$ ) will be used to judge the strength of the estimated regression equation.

- i. **Test for Autocorrelation:** This test is conducted to ensure that assumption of the OLS (ordinary least square is not violated). The Durbin Watson test will be applied.
- ii. **Heteroscedasticity Error test:** This will be used to test if the error term of the explanatory variables of the estimated model have equal variances.
- iii. **Multicollinearity Test:** This will be used to test the linear colinearity among the explanatory variables and correlation matrix would be employed in this test.
- iv. **Normality test:** This test is conducted to find out if the error terms are normally distributed between zero mean and constant variance. Skewness and kurtosis will be used to determine this and it will lie between 0 and 1.
- v. **Causality test:** This statistical hypothesis test is used to determine whether a time series may be used to predict another.

**Sources of Data**

The main source of data of the study will be mostly secondary since this research is focused on inflation (both past and present) and current account balances records. Data to be used will be collected from the Central Bank of Nigeria bulletin and financial reviews, federal office of statistics, National Bureau of Statistics (NBS), Federal ministry of labor and productivity. In addition, past literature and published articles will be consulted.

**5. RESULTS AND DISCUSSIONS**

This study employed time series data to investigate the impact of inflation rate on current account balance in Nigeria between 1985 and 2020. In this section, pre-estimation, estimation and post-estimation techniques were carried out to deduce the impact of inflation on current account balance in the case of Nigeria. Pre-estimation such as descriptive statistics and unit root tests were conducted on each of estimating series. While estimating techniques such as Autoregressive Distributed Lag (ARDL) Bound Testing and Error correction were carried out. Meanwhile, post-estimating techniques like Serial LM Autocorrelation test and Heteroscedascity test were performed to establish the validity and consistency of the model specified in the study.

**Table 2: Descriptive Statistics**

Variables/Stats	CAB	INF	EXR	INR	GCF	TOP
Mean	-2.40E+09	19.24440	120.5211	6.834342	1.898271	-11.39254
Median	-1.87E+09	12.38637	119.5621	7.207009	2.978241	271.9683
Maximum	-1.93E+08	72.83550	490.7777	11.06417	40.74386	6382.701
Minimum	-8.02E+09	5.388008	0.893774	0.316667	-22.79282	-21131.30
Std. Dev.	2.20E+09	17.66612	123.4148	2.546578	11.82016	3835.914
Skewness	-1.065603	1.737121	1.506028	-0.984379	0.456178	-4.668705
Kurtosis	3.051994	4.687862	5.230322	3.894102	5.216176	27.26085
Jarque-Bera	6.817115	22.37885	21.07022	7.013133	8.615743	1013.664
Probability	0.033089	0.000014	0.000027	0.030000	0.013462	0.000000
Sum	-8.65E+10	692.7986	4338.758	246.0363	68.33776	-410.1316
Observations	36	36		36	36	36

Source: Author’s computation.

Data statistics disclosed in table 1 explained the basic and summary statistics of the estimating series employed in the study between 1985 and 2020 capturing 36 years. The mean statistics reveal average coefficient of the estimating variables from dependent variable to independent variables. For example, indicator for current account balance disclosed -2.40E+09 average unit of trade transaction which represents the negative barrier to external transaction as influence by other estimating series, while an average unit of input 19.24440 from inflation for unit of general price level in Nigeria as its influences trade balances. Likewise, the least and higher mean were estimated for exchange rate and trade openness at -11.39254 120.5211, respectively. Whereas, most maximum input is accounted for by trade openness at 6382.701 unit of average while the least maximum is accounted for by the gross capital formation at -22.79282 indicator. In terms of Kurtosis, indicator for trade openness, exchange rate and gross capital formation returns the highest height from the mean point compared to other series in the study. Whereas, most of the estimating series are positively skewed except trade openness, current account balance and interest rate, which are negatively skewed to the left. Generally, the probability coefficients showed that all the series employed in the model were statistically significant. Next, is to account for the stationarity of the time series data through unit root test.

**Table 3: Unit Root Tests Results**

UNIT TEST	ROOT	ADF T-STATISTICS	ORDER OF INTEGRATION	PROB. VALUE
Current account balance (CAB)		-5.868	I(0)	0.0003
Inflation Rate (INF)		-4.521	I(1)	0.0014
Exchange Rate (EXR)		-5.648	I(1)	0.0004
Interest Rate (INT)		-6.911	I(0)	0.0000
Trade Openness (TOP)		-5.629	I(0)	0.0000
Gross Capital Formation (GCF)		-8.994	I(0)	0.0001

Source: Author’s computation.

Unit root and outcome qualities in the Table 2 represents all the estimates in the model. It showed the mixture of variables at level and at first difference for each of the unit-root test carried out in the model. The null hypothesis states that there is a unit root in each of the series that is, some of the variables are stationary at level, while some are not. Therefore, the null hypothesis cannot be rejected because the ADF statistic is greater than critical value at various significance levels. Augmented Dickey Fuller reveals that CAB, INF, EXR, INT, GCF and TOP are integrated of order one and zero i.e. I(1) and I(0). In view of this, the condition for Autoregressive Distributed Lags and Error Correction Mechanism techniques have been met. The next is to test for the Bound test.

**Bound Test**

The Bound test result was adopted in the study to ascertain whether there is long run relationship or whether there is co-integration in the model. Consequently, based on the unit root test outcomes in table 3 above, the most appropriate co-integration test is the Pesaran Bounds test. This is to support the extant econometric rule of thumb, since the test allows combination of fractionally integrated variables. That is, combination of different orders of integration. Hence, the Bounds Cointegration test result is provided as follows:

<b>Table 4: ARDL Bounds Test</b>		
Test Statistic	Value	K
F-statistic	5.4958	5
Critical Value Bounds		

Significance	I(0)Bound	I(1)Bound
10%	2.08	3
5%	2.39	3.38
2.50%	2.7	3.73
1%	3.06	4.13

*Source: Author's computation*

The ARDL Bounds test outcomes in table 4 showed that the assumption of weak exogeneity on current account balance, inflation rate, exchange rate, trade openness, interest rate and gross capital formation. The hypothesis of no long run relationship can be rejected at 1%, 5%, 10% significant levels respectively, as the F-statistic for the model is greater than 1%, 5%, 10% of both I (0) and I (1) bounds of 2.7 and 3.73, respectively. Hence, the long-run relationship between current account balance, inflation rate, exchange rate, trade openness, interest rate and gross capital formation subsists.

**Autorregressive Distributed Lags Analysis**

This subsection presents the result obtained from the Auto-regressive Distributed Lags (ARDL-Model), unrestricted error correction model and the ARDL long-run (static) model are displayed in the table 5. With this outcome, the researcher tried to examine the short-run relationships between current account balance, inflation rate, exchange rate, trade openness, interest rate and gross capital formation.

<b>ARDL MODEL</b>				
<b>Table 5</b>				
Variables	Coefficient	Std. Error	t-Statistic	Prob.*
CAB(-1)	0.469828	0.239907	1.958377	0.0819*
INF	68449355	34438641	1.987574	0.0781*
INF(-1)	-54261872	43860944	-1.237134	0.2473
EXR	21504278	11581099	1.856843	0.0963*
EXR(-1)	14775139	9761278.	1.513648	0.1644
EXR(-2)	-12576821	22298451	-0.564022	0.5865
EXR(-3)	-84616993	31889483	-2.653445	0.0263**
EXR(-4)	42710381	27780008	1.537450	0.1586
GCF	57928036	2.22E+08	0.261426	0.7996
GCF(-1)	-7.56E+08	3.01E+08	-2.514896	0.0330**
GCF(-2)	1.29E+09	3.85E+08	3.340385	0.0087***
GCF(-3)	-7.24E+08	3.40E+08	-2.126566	0.0624*
TOP	2.86E+08	1.76E+08	1.621461	0.1394
TOP(-1)	1.22E+08	45640636	2.675143	0.0254**
TOP(-2)	-4353479.	50954589	-0.085438	0.9338
TOP(-3)	-19567851	50634723	-0.386451	0.7081
TOP(-4)	-1.18E+08	46939021	-2.511668	0.0332
C	-1.57E+09	2.40E+09	-0.654927	0.5289

*Source: Author's computation*

The results obtained from table 5 revealed a positive relationship between current account balance, inflation rate, exchange rate, trade openness, interest rate and gross capital formation. Current account balance and lag year of current account balance, current year's inflation rate, current year exchange rate, current year trade openness, current year interest rate and current year gross capital formation disclosed a positive relationship among them. The lag value of current account balance is significant at 5% level to positively influence the current year current account balance. While other variables such as inflation rate, exchange rate and interest rate are positively significant at 5% level to affect current account balance. Meanwhile, variables of GCF and TOP are not significant across all the three conventional levels.

**ERROR CORRECTION COINTEGRATING MODEL OF ARDL**

<b>Table 6</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>Prob.*</b>
D(INF)	68449355	25468190	0.0000
D(EXR)	21504278	8256862.	0.0000
D(EXR(-1))	54483434	11388846	0.0000
D(EXR(-2))	41906612	12803707	0.0000
D(EXR(-3))	-42710381	17985455	0.0000
D(INTR)	57928036	1.35E+08	0.0000
D(INTR(-1))	-8.49E+08	1.64E+08	0.0000
D(INTR(-2))	4.38E+08	1.73E+08	0.0000
D(INTR(-3))	-2.86E+08	1.20E+08	0.0000
D(GCF)	1.22E+08	29223510	0.0000
D(GCF(-1))	1.37E+08	25536346	0.0000
D(GCF(-2))	1.18E+08	26813566	0.0000
D(TOP)	63611.96	48983.65	0.2264
D(TOP(-1))	-83319.96	53467.10	0.1536
D(TOP(-2))	-106044.6	60967.69	0.1160
D(TOP(-3))	-222337.4	59731.62	0.0048
CointEq(-1)*	-0.530172	0.134606	0.0034
<b>R-squared</b>	<b>0.785772</b>	Mean dependent var	-73264996
Adjusted R-squared	0.557261	S.D. dependent var	1.35E+09
S.E. of regression	8.96E+08	Akaike info criterion	44.36992
Sum squared resid	1.20E+19	Schwarz criterion	45.14860
Log likelihood	-692.9188	Hannan-Quinn criter.	44.62803
<b>Durbin-Watson stat</b>	<b>1.814403</b>		

*Source: Author's computation*

From the model outcomes in table 6, there exist both short run and long run effects subsists between current account balance, inflation rate, exchange rate, trade openness, interest rate and

gross capital formation in Nigeria. That is, the standard errors coefficients and t-statistics values are reported in table 6. Meanwhile, Cointegrating error term coefficient [CointEq (-1)\*] establishes long run cointegration in the model. It also explained the level and speed of adjustment of the model at 53%. The speed disclose how the model can respond to likely shocks at the equilibrium. It is therefore disclosed that the model speed at about -0.530172 (53%) to temporary shocks. Meaning that the models employed in the study are self-adjusting and self-correcting to errors and shocks. The Durbin-Watson stat of 1.814403 which is approximately 2 implies that the model is free from any incidence of autocorrelation. Next, is to verify the long run relationship among the series thus.

**Table 7: LONG-RUN COINTEGRATING MODEL OF ARDL**

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
INF	26760149	56236012	1.475854	0.0455**
EXR	-34336056	10479623	-3.276459	0.0096***
INTR	2.85E+08	4.46E+08	0.639289	0.5386
GCF	-37198035	2.93E+08	-0.127021	0.9017
TOP	6757.295	373474.6	0.018093	0.9860
C	-2.96E+09	4.20E+09	-0.704394	0.4990

*Source: Author's computation*

It can be observed from table 7 that inflation rate has significant effects on current account balance. For example; data for inflation rate and exchange rate significantly influence at 1% and 5% levels respectively, while data for interest rate, gross capital formation and trade openness have long run insignificant effect on the Nigerian current account balance. Whereas, data from inflation rate effects contradicts the expected a priori expectation of negative link with current account balance. Meanwhile, data for gross capital formation and interest rate contradict what the economic intuition postulated. Notably, when there is long run nexus, the Engle-Granger Theorem states need for encompassing power of the error correction mechanism over other forms of dynamic specifications. Hence, it pertinent to estimate the Error Correction Mechanism results in the table 4, as indicated that the estimated ECM in the models adjust at 53% speed. Error Correction Mechanism calculate speed of adjustment from the short run to long run. It appeared that the estimated models in the study can adjust from short run to long run at a top speed of 0.530 high. The implication of this figure is that the models can quickly re-adjust from unexpected disequilibrium point at some points to readjust to equilibrium point within the shortest possible time. Hence, with this results, it is worthy to note that the estimated models in the study are valid and consistence with the economic intuitions.

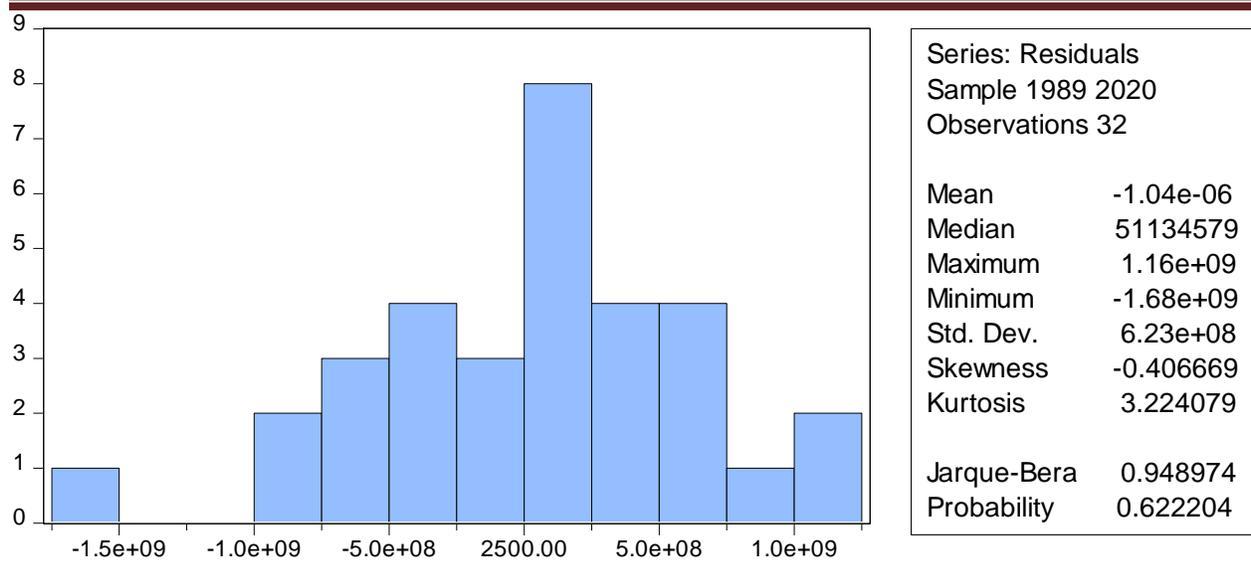


Figure1: Normality and Residual Plot

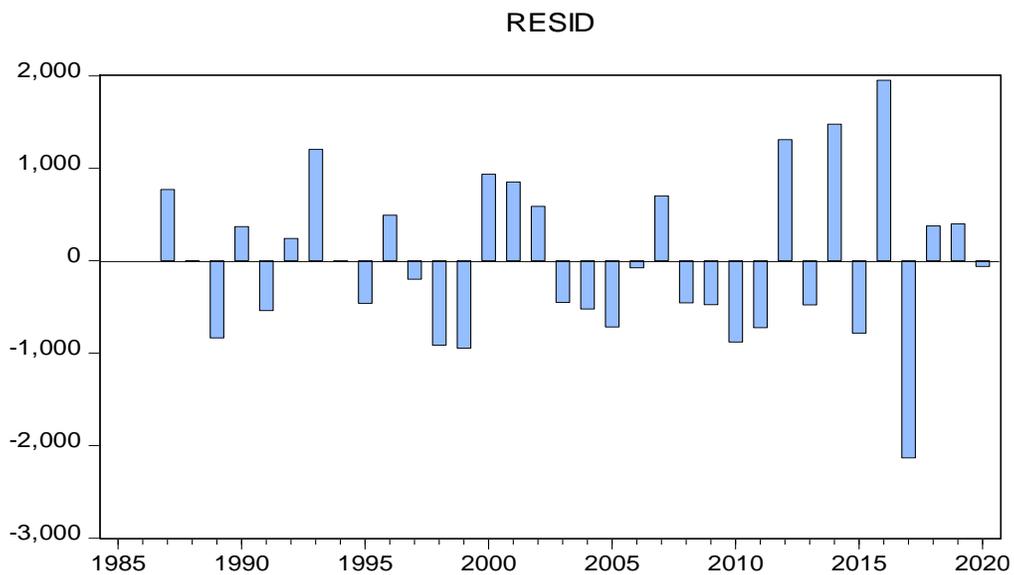
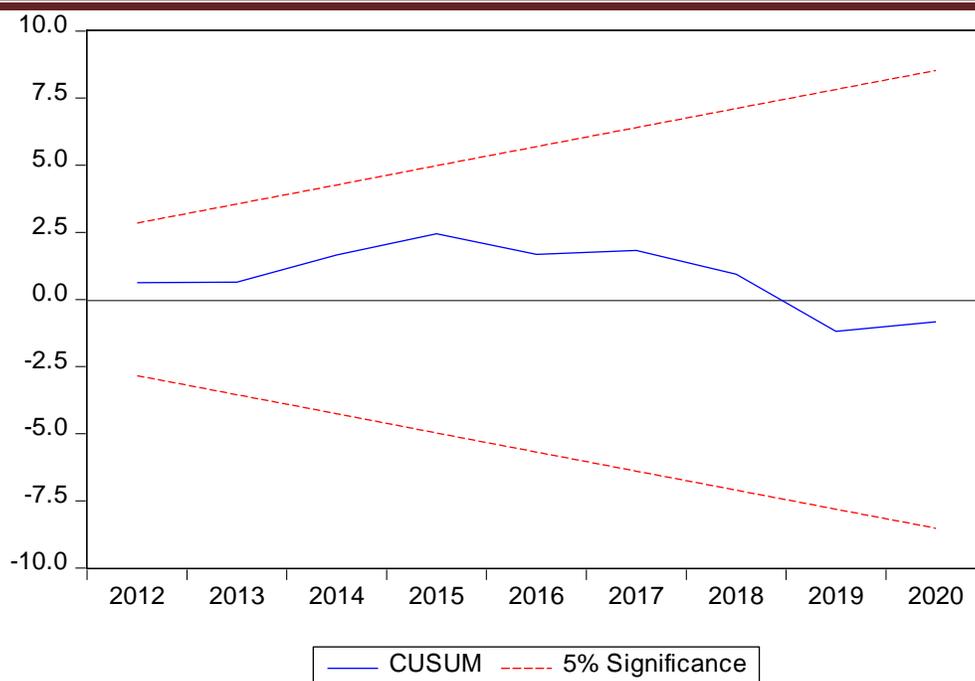


Figure 2: Residual Plot



**Figure 3: CUSUM Curve**

It can be observed that the series employed in the study are normally distributed and stable. Likewise, the residual plot disclosed the stability of the regression model. CUSUM curve established that the model is stable over throughout the thirty six year reviewed. Meaning that the model is stable around the mean. This implies that the model is free from Heteroskedasticity. However, there is need to check for serial LM autocorrelation test and Heteroskedasticity among the series such as current account balance, inflation rate, exchange rate, trade openness, interest rate and gross capital formation.

**Table 8: Breusch-Godfrey Serial Correlation LM Test.**

F-statistic	Obs*R-squared	Prob. F(2,7)	Prob. Chi-Square(2)
<b>0.481411</b>	3.869269	0.6370	0.1445

**Table 9: Heteroskedasticity Test: Breusch-Pagan-Godfrey Test.**

F-statistic	Obs*R-squared	Prob. F(22,9)	Prob. Chi-Square(20)
<b>0.830605</b>	21.44023	0.6587	0.4937

The Heteroskedasticity Test and Breusch-Godfrey Serial Correlation (LM) test suggests that the null hypothesis of autocorrelation can be rejected since the probability value is greater than 5% critical value. Therefore, the research models are free from any form of outliers and serial autocorrelation.

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## 6. FINDINGS AND DISCUSSION

The results obtained from the Autoregressive Distributed Lags in the table 5 explained a direct impact of inflation rate and other independent variables such as exchange rate, trade openness, interest rate and gross capital formation on current account balance. The dependent variable for current account balance disclosed time path effect on the current current account balance. That is, the previous year's performance predicts current year performance of current account balance.

The Bound test statistics disclosed long-run effects of inflation rate on current account balance in Nigeria. Since, Bound coefficient statistic is greater than the upper bound and the lower bound through the F-statistic outcome, which conformed the overall significance of the ARDL model.

The long run and the error correction models disclosed how pertinent the inflation rate can influence balance payment over the long period of thirty-six years. While error correction mechanism model explained that the model for Autoregressive Distributed Lag model adjust quickly to shocks and disruption from the equilibrium. The speed of adjustment is so high at 53% at shortest period, specifically from short run to long run. In conclusion, the indicators for inflation rate revealed the impact of disruptions in general domestic price stability on current account balance in Nigeria.

The outcome in figure 1, 2 and 3 explained the normal distribution, residual and CUSUM (stability) of the data in the model, while the residual trend disclosed the consistent flow of the series employed in the study along the mean. The implication of this figure is that the models are stable and can react quickly to unexpected disequilibrium point at some to equilibrium point within the shortest possible time. Hence, with this results, it is worthy to note that the estimated models in the study are valid and consistence economic intuitions. Meaning that the Nigerian current account balance is pose to different challenges that are predominantly connected with external shocks in which affects its performance but it adjust quickly to any foreign shocks.

Further tests revealed the validity of the models adopted in the study. It is pertinent to check the efficient, valid and consistency of the models employed through the necessary statistical rules. For example; from figure 1; Jarque-Beta test suggest that the residuals for both models are normally distributed since the probability value is greater than 5% significant level. Hence, the hypothesis of normal distribution for residuals cannot be rejected. The Breusch-Godfrey Serial Correlation (LM) test suggests that the null hypothesis of autocorrelation can be rejected since the probability value is greater than 5% critical value.

## 7. CONCLUSIONS AND RECOMMENDATIONS

The study examined the effect of inflation rate on current account balance in Nigeria, using annual time series data ranging from 1985 to 2020, through the ARDL and Error Correction model techniques. With the aims of analyzing how inflation rate determines current account balance performances in the case of Nigeria.

Discoveries from this research generally resolved that there are short-run and long-run relationships between inflation rate and current account balance in Nigeria. It can also be inferred that trade openness have positive effects on the Nigerian current account balance. Also, exchange rate has long run influence on current account balance in Nigeria. The coefficient of previous year's current account balance affects current year current account balance, which implies that the indicator is a time path variable and other control variable like interest rate, gross capital formation

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among others showed some levels of resilience throughout periods of analysis. Furthermore, it was established that Bound test confirmed cointegration among the indicators specified in the model. Meaning that there is presence of both short and the long run effects of inflation rate on current account balance performance in Nigeria. In view of these outcomes, the following recommended were highlighted thus.

### **Policy Recommendations**

Consequently, it is pertinent to work based on the primary focus of the study. This study examines the impact of inflation rate on current account balance in Nigeria. Based on the results from the findings in previous sections, we hereby recommend policy guides that are pertinent for way forward from the challenges bedeviling improved current account balance in Nigeria. In view of this, the study recommends the following policies for quick implementation in Nigeria for better trade transaction.

Firstly, government should redesign monetary policy to support international to address persistence leakages across all the country's boarder. By so doing, the local investment in productivity would goods would rise due to less external shocks.

Secondly, Nigeria is part of the world trade zone. Hence, there is need to reconfigure the protectionist trade laws in Nigeria. This corroborate the views of Olatu and Keji (2015). Thirdly, government should promote internationalization of trade deals via decent trade agreements inform of MOU, MOA among others. Finally, there is need for improved and remodeled international terms of trade agreements. Since, countries around the globe are embracing knowledge economy as major sources of robust trade deals, as a result, Nigerian government should strive to train its various agencies by updating their skills toward getting better trade of trade transactions treaties that would attract better domestic investment in Nigeria. Hence, this would guarantee improve balance payment.

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