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Impact of Nigeria External Economic Interactions on Economic Sustainability: A Dynamic ordinary Least squares Approach

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ABSTRACT : Countries of the world interact either bilateral or multilateral in different forms to achieve economic benefits. Thus the paper investigated the impact of economic external interactions and economic sustainability of Nigeria. The specific objectives of the study were to examine the variance decomposition of one variable on another, and to investigate the impulse response function (shocks) of one variable on another. The investigation span from 1980 -2023, time series data for the variables captured were sourced from CBN bulletins and National Bureau of Statistics (NBS). A vector autoregressive (VAR), model was specified and estimated. The real gross domestic product (RGDP) was a proxy for economic sustainability and the dependent variable. Export (EXP), imports (IMP), exchange rate (EXCH), and external debt (EXTD) were proxies for external economic interaction, and the independent variables. The impulse response function and the variance decomposition were estimated to examine the effects of shocks of one variable on another in both short run and long run. Findings revealed that, the greatest shocks are own shocks in the short run both more shocks from other variables in the long run. On the basis of the findings the study recommend for increase in exports and external debt reducing policies by channelling external debt to real sectors of the economy.
KEY WORDS: *Economic sustainability, External interaction, External debt, Exports, Imports*

I.   INTRODUCTION

The desire towards international interactions among countries both developed and developing has generated intellectual discourse about its benefits in terms of economic and economic rationale. The advocates of open economy through trading and other forms of countries interaction observed that an open market policy will lead to a permanent direct annual increase in Gross Domestic Product (GDP), in addition to the indirect benefits that accrue in the form of reduced regressive tax burden and positive dynamic externalities (Mankiw, Romer and Weil, 1992).

Historically, export trade in raw agriculture products in Nigeria dates back to the 16th century. This resulted to bilateral trade between Nigeria and Western World with Nigeria having comparative advantage over agricultural produce in exchange for finished goods and this broadened the Nigeria's foreign earnings through the export of palm oil, cocoa, palm kernel,this constituted the mainstay of Nigerian economy contributing about 54.7 per cent to GDP (National Bureau of statistics, 2017).

However, the detection of oil changed the composition and structure of export trade in Nigeria with a radical shift from agriculture, as our major export to oil exportation. The Nigerian economy expanded rapidly, as oil production and export rose phenomenally. During and some few years after SAP, the main manufactured exports were textiles, beer and stout, cocoa butter, plastic products, processed timber, tyres, bottled water, soap and detergents as well as iron rods. However, some of these products have disappeared from the export list owing to poor enabling environment (Export Import Bank, 2019).

More so, the growth of imports during this period is attributed to several factors. These include the need to pursue economic development, the expansion in crude oil export that considerably raised foreign earnings and the over-valuation of the local currency, which artificially cheapened imports in preference to local production (Ajayi, 2021). The astronomical expansion of domestic absorption is a key factor that should not be ignored. As a result part of the growth in domestic absorption had to be satisfied by imports.

Overall, the Nigerian economy is import dependent with very little non-oil exports. It relies heavily on crude oil and gas exports with other sectors trailing far behind. For example, in the recent time crude oil accounts for about 90 per cent of foreign exchange earned by the country while non-oil exports account for the balance. The economy is, therefore, susceptible to external shocks, which by extension occasioned the internal and external debt accumulation to finance deficit. From the foregoing the study examines the impact of international economic interaction on Nigeria economic sustainability.

II. LITERATURE REVIEW

2.1.1　Theoretical review

　　The paper reviewed relevant theories that captured international interactions. These include: the classical theory and neo-classical theory, also known as the modern theory. These theories according to their proponents maintained that international trade as a form of international interaction plays important role in promoting economic growth of the nations. The theories take cognisance that export trade is important for generating foreign exchanges that are needed for importation of goods that cannot be domestically produced. The theories are anchored on the principle of comparative advantage; that support the value of specialization, division of labour and free trade. For those theories, the advantage of external trade is fully maximized when it is entirely free from natural and man-made barriers. Both theories emphasise the gains from external trade.

2.1.2 The Comparative Advantage Theory

　　Ricardo (1817), in his famed theory of comparative advantage, demonstrate that countries benefit by specializing in the production of those goods with the lowest opportunity cost and trading the surplus of production over domestic demand, taking as given appropriate exchange-rate regimes. Under this model, a country will quickly specialise in sectors in which it has a comparative advantage. The classical theory is easily couched in terms of comparative cost specifically; the theory states that a country will tend to export the commodity whose comparative cost is higher in pre-trade isolation. Given the assumption of constant cost, a country will specialise completely in the production of commodity in which it has comparative advantage.

2.1.3 The neo-classical (modern) theory

　　This theory is an attempt of modifying some unsatisfactory aspects of the classical theory. The neoclassical theory therefore, advanced a more satisfactory explanation for the existence of comparative cost differences between countries: introduced capital as a second factor of production and allowed for international differences in the pattern of demand. The introduction of a second factor of production proves very important. This makes approach of the classical theory and its main variant that is, Heckscher-Ohlin theory, to be successive in the handling of the relationship between factor allocation, income distribution and international trade.

2.1.4 The Heckscher-Ohlin theory

　　Ohlin postulates that trade arises from differences in comparative cost that in turn arise from inter-country differences in relative factor endowments (or relative factor abundance) are the most important single causes of international differences in price structures. According to the theory, a nation should produce and export a product for which the large amount of the relative abundance resources is used. Such country should import the commodity in which a great deal of its relative scarce and expensive factors is used.

Intuitively, from these theories, international economic interactions of any sort increase total world output as all countries benefits from those interactions, which enables countries to secure capital and consumption of goods from other parts of the world. In this way, trade stimulates growth or serves as engine of growth.

Trade has been known to be a major contributor to the growth and development of economies. Domestic, national or international studies by economic historians have shown that in the progressive development of human society, from subsistence levels to modern economic system, the scale and level of trading is of crucial importance. Thus, while trade among the different regions or one country has its advantages and benefits, these are much smaller in scale than the potential gains derivable from participating in international trade.

Therefore, in assessing the nexus of Nigeria economic interactions for sustainable economic growth, many factors must be put in perspective taken . These include economic, social and political factors. In addressing the problems of international trade among less developed countries, it is necessary to examine the structure of the economy itself. This, in turn, is rooted in colonial economic policy, which served as the foundation for the prevailing structure of external trade in these countries.

2.2 Empirical Review

　　Literatures that aligned with the issue under discourse; the impact of external economic interactions on economic growth of developing countries with particular reference to Nigeria. Only a few studies have examined holistically the impact of various forms of interaction that impacts on Nigeria general economic growth. Early researchers in this area of study,(Darrat ,2002) conducted a study in the countries of Asia using time series data from 1960-2000 The study showed that there is a significant statistical association between export and economic growth. Similarly,(Kruger and Ito,2004) analysed the economic growth of East Asian countries from 1965-2003, and found that export enabled the countries' economy to grow at an annual average between 4-8%. In the same vein, Langley (2008), Onitiri (2011) and Ojo (2015) examined the effects of external trade on Nigeria's economic growth and the basic conclusion from these studies was that exports have been instrumental to the growth process. Since most of these studies used bivariate statistical and single equation regression techniques, they were naturally subject to the criticism of not allowing for feedback.

In taking care of this, Omoke and Ugwuanyi (2020) investigate the relationship between export, domestic demand and economic growth in Nigeria using Granger causality and cointegration tests. The study results from Trace and Maximum Eigen Value test conducted showed that the variables do not have long-run relationship, but the Pair-wise Granger Causality test showed that economic growth Granger causes both export and domestic demand, while a bilateral causality exists between export and domestic demand. In a related study by Mohamed, Liew and Mzee (2016) on Tanzania using Vector Autoregressive (VAR) technique to analyse annual data from 1980 to 2014 to determine the long-run relationship between exports trade and economic growth. Their results also find no evidence for long-run relationship between export of goods and growth but suggest existence of a long-run nexus between export of services and economic growth in Tanzania.

In their own study on international trade and its effects on economic growth in China, Sun and Heshmati (2021) applied both econometric and nonparametric approaches based on a 6-year balanced panel data of 31 provinces of China from 2002 to 2020. The study demonstrates that increasing participation in the global trade helps China reap the static and dynamic benefits, stimulating rapid national economic growth.

As in the case of Safdari (2021), they examined the long-run relationship between foreign trade and economic growth in Iran between 1975 and 2019 using a VAR method of analysis. The results from their study showed that total population, trade volume, gross capital formation and tariffs have positive effect on economic growth.

Similarly, Adesuyi and Odeloye (2019) investigate foreign trade and economic growth in Nigeria between 1980 and 2010 using the Ordinary Least Square method to analyse the data. The result shows that Non-oil export value, Non-oil import value and Oil export value are positively related to GDP for the period under the study. Arodoye and Iyoha (2019) examined foreign trade-economic growth nexus with evidence from Nigeria using VAR model to analyze quarterly time series data for 1981Q1 through 2010Q4. The results show that there is a stable, long-run relationship between foreign trade and economic growth. Also, the variance decomposition results show that the predominant sources of Nigeria economic growth variation are due largely to "own shocks" and foreign trade innovations.

In addition, Hashim and Masih (2020) examined the relationship between trade and economic growth in Malaysia with emphasis on both the role of exports and imports using Granger causality test. The results confirm the bidirectional long run relationships between the economic growth and exports, and economic growth and imports.

Studies by Albiman and Suleiman (2022) investigate the relationship among Export, Import, Capital Formation and Economic Growth in Malaysia using time series data from 1967-2010 and VAR analysis. Cointegration test results revealed no long run relationship among the variables. For causality analysis, export ratio and economic growth granger cause domestic investment. The impulse response function show that, the economic growth responds both positive and negative way depending on time period, due to the shock of domestic investment, import and export.

Simultaneously, Égert (2013) tests the Reinhart and Rogoff data set by using formal econometrics methods in order to see whether public debt has a negative nonlinear effect on growth if public debt exceeds 90% of GDP, the concludes that the negative relationship between debt and growth is sensitive to modelling choices including the time dimension, country coverage considered, data frequency and assumptions on the minimum number of observations required). Concentrating on advanced economies, Panizza and Presbitero (2020) survey the recent literature on the links between public debt and economic growth and conclude that although most empirical works using simple back-of-the-envelope calculations suggest the existence of a negative effect on economic growth, this effect is likely to be small.

Furthermore, the application of sophisticated econometric models often yields uncertain results on the relationship between debt and growth. Panizza and Presbitero (2022), in another study observed that a negative correlation between debt and growth does not by itself imply causality because low economic growth leads to high levels of debt. As regards the empirical estimations concentrating on the causality relations between debt and growth, recent empirical tests have provided some answers but they are still rather inconclusive. On one side, we have works supporting the (mostly negative) causality running from debt to economic growth. Among these contributions,

Chowdhury (2019) uses panel causality tests to analyse the impact of foreign debt on growth in low and middle income countries, covering 1982–2017, and concludes that the causality runs from debt to growth, with a significant negative causal impact of debt on growth.

Pattillo (2022) find evidence of a negative and significant causality effect running from total external debt to economic growth (even after accounting for the possible endogeneity of debt to the growth process). These authors also state that their results are shown to be compatible with a simultaneous significant effect of growth on debt ratios. On the contrary, some authors find empirical evidence that confirms the existence of causality occurring between output growth and debt ratios. Representing this strand of the literature, Easterly (2022) maintains that lower growth decreases tax revenues and primary surpluses, and without adjustment, debt ratios will explode, as occurred after the worldwide slowdown in growth in the 1970s. This growth slowdown was an important cause of

the debt crises in middle income countries in the 1980s, the crisis in highly indebted poor countries in the 1980s and 1990s and the increased public debt burden of industrialized countries in the same decades.

Finally, there is also empirical support for both directions of causality between debt and growth. For instance, Abbas (2022) use a specific public domestic debt database, covering 93 low income countries and emerging markets over 1975–2020, and apply Granger causality regressions and panel data methods to test the relationship between debt and economic growth. They conclude that there is bidirectional and statistically significant causality; public domestic debt has a strong positive impact on per capita income and although not as statistically strong, economic growth also has a clear positive impact on public domestic debt.

Jayaraman and Lau (2019) apply panel Granger causality estimations to examine the relationship between external/public debt and economic growth in six Pacific island countries during 1985–2017. Their empirical results indicate a lack of evidence of a long-run Granger causality relationship between real output and the external debt to GDP ratio or between the same output index and the budget deficit to GDP ratio; however, in the short run, there is a significant causal relationship running from external debt and also budget deficit to output. In regard to the reverse relationship, in the long run, the results also point to the absence of causality; and in the short run, there is evidence of Granger causality running from output to external debt but not from output to public deficit. Butts (2019) also empirically test the direction of the Granger causality relationship between economic growth and short-term external debt in 27 Latin American and Caribbean countries over the period 1970–2016. The main results of this work suggest the existence of bidirectional causality relationships between the two variables for several countries, which means that the performance of both variables is interrelated. There is also clear evidence that in the short and long run, Granger causality from economic growth to short-term external debt is present in 13 Latin American and Caribbean countries. Ferreira (2019) addresses the Granger causality relationship between public debt and GDP, more precisely between the growth in real GDP per capita and public debt, represented by the current primary surplus/GDP and gross government debt/GDP ratios. By using OECD annual data for 20 countries between 1988 and 2001, clear Granger bidirectional causality was found.

Sulaiman and Azeez (2022) studied the effect of external debt on the economic growth of Nigeria using gross domestic product as the endogenous variable measuring economic growth as a function of ratio of external debt to export, inflation and exchange rate proxy as the exogenous variable. Data were gathered covering 1970-2020. Analysis of date was done using the econometric technique of ordinary least square. The result showed that external debt has contributed positively to Nigeria economy. A similar research was done by Iya, Gabdo, and Aminu (2013) with the same result. Ogege and Ekpudu (2010) examined the impact of debt burden on the Nigerian economy using time series data from 1970-2007. Ordinary least square (OLS) was used to test the relationship between debt burden and growth of the Nigeria economy. The result showed a negative relationship between debt stock of internal and external; and gross domestic product, meaning that an increase in debt stock will lead to a reduction on the growth rate of Nigerian economy.

Similarly, Momodu (2021) examined the correlation between debt servicing and economic growth in Nigeria. The study sought to find a relationship between the Gross Domestic product (GDP) and Gross Fixed Capital Formation of Current Market Prices (GFCF) using Ordinary Least Square multiple regression method. The study revealed that debt payment to Nigerian creditors has significantly impacted on the GDP and GFCF. Furthermore, Ezeabasili, (2019) studied the relationship between Nigeria's external debt and economic growth between1975-2015, with an error correction approach. Error correction estimate revealed that external debt has negative relationship with economic growth in Nigeria.

In a similar study, Bamidele and Joseph (2021) examined the effect of financial crisis, external debt management on the economic growth of Nigeria using GDP as endogenous variable while exogenous variables measuring economic growth were Foreign Direct Investment, external debt, external reserve, inflating, and exchange rate proxies. Annual time series of 1980-2018 were used. OLS, Augmented Dickey Fuller (ADF) unit roof tests and the Granger causality test were employed in analysis. The result showed a positive relationship between FDI and economic growth while inverse relationship existed between external debt and economic growth.

This study builds on the more recent time series data to examine the impact of export and import on economic growth in Nigeria. Morisset (2019) examined the effect of debt reduction within a macroeconomic Frame work and tested various direct and indirect relationships between external debt, investment and economic growth. He estimated models and carried out simulations for Argentina during 1962-2017 using the three-stage least squares method. In order to explain the drastic reduction in private investment, some direct and indirect channels are considered. It is argued by most authors that if private sector is credit rationed, then the high level of foreign debt affects productive investment through a disincentive effect. Since the government in most debtor countries appeared unable (or unwilling) to meet increasing debt-service payments, private investors anticipated higher rates of taxation on real and financial assets as well as more instability in the economic environment. These changes affected private investment negatively through the debt overhang effect, which refers to the reduced incentives to invest. In addition, as foreign assets become more attractive relative to domestic assets, this often led to an increase in domestic interest rates, reducing private investment further.

The results show that the effect of 30% debt relief is 2.43 % and 5.40% on GDP level for the first and the fifth year respectively, since debt reduction includes a liquidity effect and an incentive effect; the liquidity effect

includes the reduction in net transfers and the incentive effect comes from decline in the stock of debt. Thus, from the perspective of the debtor country as a whole, the debt overhang acts like a high marginal tax rate on the country lowering the return to investment and providing a disincentive to domestic capital formation. The external debt of developing countries is not a primary cause of economic slowdown. The results of this study support this claim and it is also argued that there is no urgent need for establishing an international institution for organising debt relief and debt rescheduling negotiation between indebted developing countries and their private creditors. The direct effect of the public and publicly external debt on GNP is negative for Latin America.

III. METHODOLOGY

3.1 Methodology
To achieve the objectives of the study, the paper specified a dynamic ordinary least squares model , used time series data from 1980 – 2023 of the variables captured as proxies for the study.

3.2 Model Specification
The specification of dynamic ordinary least squares takes the pattern of stock and Watson (1993), as;

$$Y_{t} = \alpha_0 + BX_t + \sum_{0=ce}^{=r} d\Delta x_t - 1 + E_t \text{ --------------- 1}$$

Specifying the DOLS model in relation to the variables of interest for the study, and on the assumption that lags and leads are incorporated. The regressors are differenced to address the problem of autocorrelation and endogeneity.

Specifying the model with one lag and one lead.

$$RGDP_t = \alpha_0 + B_1 X_t + B_2 X_{t+2} + B_3 X_{t-1} + E_t - - - - - - \ 2$$

Applying the lead and lag for all the regressors

$$RUDP = \alpha_0 + B_1 EXP_t + B_2 EXP_{t+1} + B_3 EXP_{t-1} + B_4 Imp_t + B_5 Imp_{t+1} + B_6 Imp_{t+1} + B_7 Exp_t +$$
$$B_8 EXD_{t+1} + B_9 EXD_{t-1} + B_{10} EXR_t + B_{11} EXR_{t+1} + B_{12} EXR_{t-1} + E_{t-4} - - - - - - 3$$

differencing the equation3

$$RGDP_t = B_0 + B_1 EXP_t + B_2 d\Delta EXP_{t+1} + B_3 d\Delta EXP_{t-1} + B_4 IMP_t + B_5 d\Delta IMP_{t-1} + B_6 EXD_t + B_7 EXR_t$$
$$+ B_8 d\Delta EXR_{t+2} + B_5 d\Delta EXR_{t-2} + E_2 - - - - - - - -4$$

Where,
$RGDP_t$ =Real Gross Domestic Product at time t
EXP_t = Exports at time t
IMP_t = Imports at time t
EXD_t = External Debt at time t
EXR_t = Exchange Rate at time t
T + 1= lead 3

Apriori Expectation
a_1 is expected to be positive i.e. $\alpha_1 > 0$ which implies that, as the volume of export interaction increases there will be increase in economic growth, α_2 is expected to be negative i.e. $\alpha_2 < 0$ because import interaction is regarded as a withdrawal from the economy., α_3 is expected to be positive i.e. $\alpha_3 > 0$ and a_4 is expected to be negative or positive i.e. $\alpha_4 <$ or > 0 because when exchange rate increases worth of the local currency is expected to decrease, this will bring about inflation and eventually reduces GDP and vice versa . This is similar to external debt; it could be negative or positive either in the short or long run.

Analysis of Unit root Results
Augmented Dickey Fuller (ADF) unit root test

Table. 1: ADF Unit Root Test

Variables	Level	First Difference	Order of integration
Exr_t	0.4431	-4.2251*	1(1)
Exp_t	-0.6007	-7.3114**	1(1)
Gdp_t	3.90238	-5.5531*	1(1)
Imp_t	1.8222	-6.7368*	1(1)
Exd_t	-2.6627	-5.8567*	1(1)

Note. *, **, *** significant at 1%, 5% and
10% respectively
Source: Author's Compilation (2024)

The Augmented Dickey Fuller (ADF) unit root test results in Table 1 above revealed that all the variables: R GDP, exports, imports, exchange rate and external debt are not stationary at level but at first difference. In other words, all series under the study, are integrated at order one, i.e. I(1). This means that the mean and variance are not constant.

Cointegration Results

Table. 2: Johansen's multivariate cointegration test results

Hypothesized No. of CE(s)	Eigen value	Trace Statistic	Critical Value	P value	Max-eigen Statistic	Critical value	P value
None *	0.7675	68.1742	47.8561	0.0002	48.1394	27.5843	0.0000
At most 1	0.3993	20.0345	29.7971	0.4205	16.8186	21.1316	0.1807
At most 2	0.0895	3.2159	15.4947	0.9562	3.0924	14.2646	0.9404
At most 3	0.0037	0.1235	3.8415	0.7252	0.1235	3.8415	0.7252

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
*denotes rejection of H0 at 5% significant level, ** denotes p-values
Source: Author's data Analysis (2007)

The results of Johansen's multivariate cointegration test in table 2 shows that there exists one cointegration equation amongst the variables at both the trace statistic and maximum Eigen value statistic exceeded the critical values at 5% level. This confirms the existence of co-integrating among the variables and follows a common long run path. Since the variables are co-integrated, the existence of a long-run relationship between the real RGDP, exports, imports, external debt and exchange rate is confirmed.

Table 3: Long run dynamic ordinary squares result.

Dependent Variable: RGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IMP	-8.242009	1.307-08	-2.635436	0.5531
EXP	0.313266	0.224363	4.396246	0.0215
EXD	-0.000185	9.843405	-5.880951	0.0187
EXR	6.182267	2.440126	2.533585	0.0423
R-squared	0.910005	Mean dependent var		665.0963
Adjusted R-squared	0.874020	S.D. dependent var		186.8022
S.E. of regression	66.30282	Akaike info criterion		11.29019
Sum squared resid	21980.32	Schwarz criterion		12.13327
Log likelihood	-107.1921	Hannan-Quinn criter.		11.48880
F-statistic	10.10586	Durbin-Watson stat		2.470764
Prob(F-statistic)	0.009068			

Result in table 3 which is interpreted excluding the nuisance parameters shows that all the variables are significant in explaining their impacts on real gross domestic prochet with probability of less than 5% with t-values of more than 2, both in absolute term. The result also revealed that import (imp) has negative impact of RGDP (-8.24) implying that a one unit increase in imports could result to 8.24% decrease in RGDP ceteris paribus. Export (exp) on the other hand shows a positive impact of RGDP as indicated by 0.31 indicating a one unit increase in export5 could cause 0.31 units increase in RGDP. External Debt (EXD) ceteris paribus, as an aspect of external interaction reveals a negative impact on economic performance (RGDP) could result to 0.0001 decline in RGDP ceteris paribus.
Formally, Real Exchange Rate (REXR) in the long- run has negative impact on RGDP as a one percent increase in real exchange rate could influence 6.18 percent fall in economic performance ceteris paribus. This is consistent with the appriori expectation, and agreed with Iortyer, (2023)

   Thus, from the result, only export external interaction variable that exert positive impact on economic performance. The adjust R square value of 0.874 indicated that about 87% of RGDP behaviour or variation is caused by the four external interaction variables captured in the model (IMP, EXP, EXD, EXR). The F- statistic reveals a joint significant of the variables in the model.

Post estimation test result

Table 4 :Breusch-Godfrey Serial Correlation LM Test:

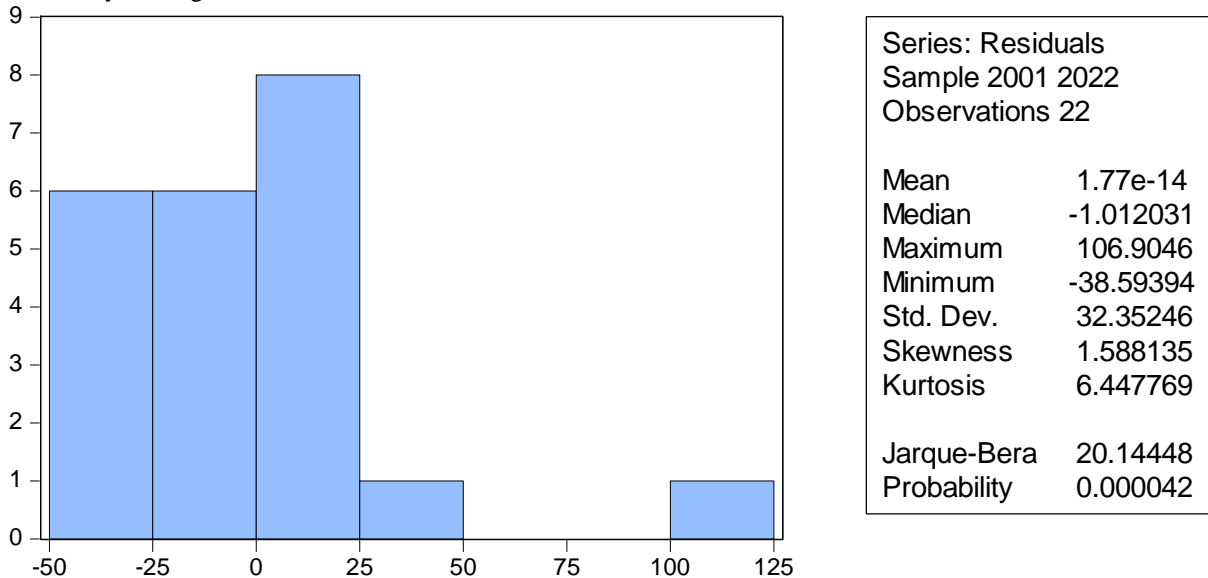|			
F-statistic	5.652395	Prob. F(2,3)	0.0960
Obs*R-squared	17.38616	Prob. Chi-Square(2)	0.0002

The result and revealed in the table indicates the absence of serial correlation with the F-statistic probability value of more than 5%.

Table 5 :Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.224830	Prob. F(16,5)	0.9901
Obs*R-squared	9.205265	Prob. Chi-Square(16)	0.9047
Scaled explained SS	1.295149	Prob. Chi-Square(16)	1.0000

The Breusch- pagen test of Heteroskedasticity indicate the absences of Heteroskedasticity with the f- statistics probability value of more than 5%.

Normality test Fig 1

Series: Residuals	
Sample 2001 2022	
Observations 22	
Mean	1.77e-14
Median	-1.012031
Maximum	106.9046
Minimum	-38.59394
Std. Dev.	32.35246
Skewness	1.588135
Kurtosis	6.447769
Jarque-Bera	20.14448
Probability	0.000042

The model is normally distributed based on the Jarque- Beras value of 20.19448 and probability value of less than 5% ((0.000042).

Ramsey RESET Test

	Value	Df	Probability
t-statistic	1.718194	4	0.1609
F-statistic	2.952190	(1, 4)	0.1609
Likelihood ratio	12.16077	1	0.0005

The Ramsey test for stability show that the model is stable because the t-statistis and F-statistics prob. Values are above 5%

Cusum test for normality
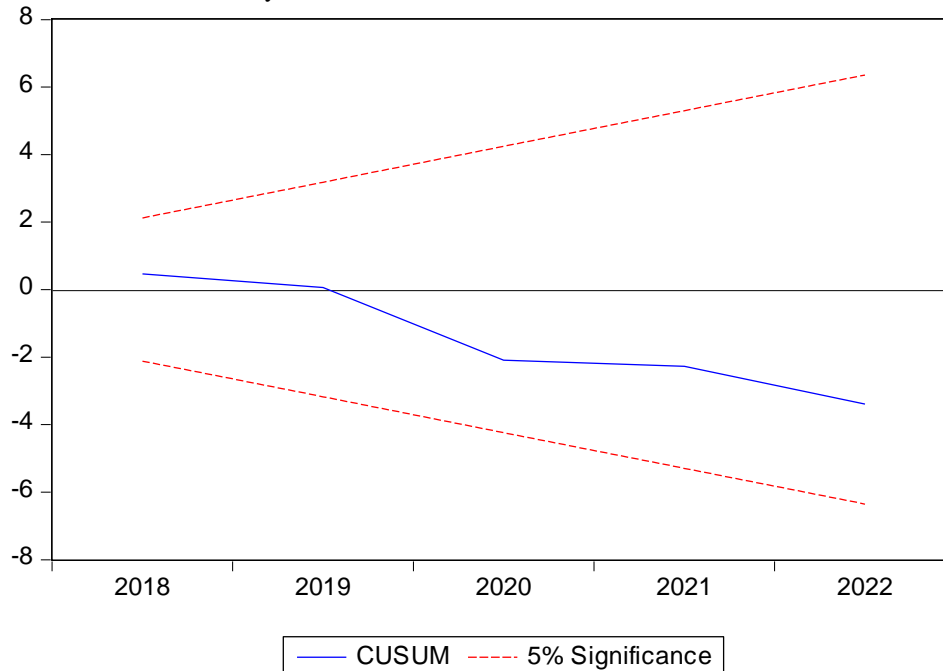
The Cusum stability test reveals that the model is stable as the trend is within the critical boundaries

V. CONCLUSION AND RECOMMENDATIONS

Conclusion

The study examined the impact of Nigeria external economic interaction on economic growth, disaggregated into; export, import external debt and exchange rate. The paper used time series data from 1980-2023. VAR model was specified and analysis. The results of Johansen Cointegration test showed that there is a long run relationship between the variables. The results of the forecast error variance decomposition analysis showed that innovations in the variables are mostly explained by their own shocks. While the impulse responses of gross domestic product, exchange rate, export, import and domestic debt with respect to the identified shocks (innovations) are consistent with the results of variance decomposition analysis. Based on the results obtained, it implies that there is a positive relationship between export-import and economic growth in Nigeria. In conclusion, Major policies have to be reformed to ensure long run impact of external economic interactions on economic growth.

Recommendations

On the basis of the empirical findings, the following policy recommendations are made:

1   Appropriate trade and foreign exchange policies in favour of export expansion should   be encouraged because exports drive economic growth. Nominal exchange rate also revealed itself as a strategic and versatile variable for influencing economic growth.

2   Proper implementation of import control measures that will certainly sharpen the understanding of the determinants of import behaviour.

3   Proper channelling of external debt to real sectors of the economy to spur increase In   general output level.

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