EFFECT OF TRADE OPENNESS ON ECONOMIC GROWTH IN NIGERIA

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Abstract

The study investigated the effect of trade openness on economic growth in Nigeria. Time series data were collected from the Central Bank of Nigeria Statistical Bulletin from 1990 - 2022. While balance of payment was the proxy for economic growth (the dependent variable); the proxies for the independent variable (trade openness) were import, export and broad money supply to act as control variable. The method of data analysis employed in this study includes descriptive statistics, correlation analysis and unit root test. Ordinary Least Square was used to estimate the model. The findings revealed that import has no significant effect on balance of payment; export has significant effect on balance of payment; while broad money supply has insignificant effect on balance of payment in Nigeria. The study recommends that government should encourage huge investment on infrastructure development in order generate more economic activities; reduce the cost of doing business and increase the factors that drive productivity in Nigeria; and ensure stability in the interest, exchange rate and other monetary policy tools.

1. INTRODUCTION

Over the ages, trade has been known to be a reliable and veritable means for nations to have their goals accomplished and improve on the standard of living of their citizens (Nwakoh, 2017). Trade openness is a measure of a country's inclusion into the world economy. Because of the size of their local markets, small countries are typically thought to be more interconnected than large ones (Kovarova, 2017). However, there are lots of motivators that influence trade openness; which include the structure of the economy, the buoyancy of the financial system, local and foreign direct investment; institutional quality, human resources and natural endowment, nature of trade policy, amongst others (Wasurum, 2022). Apparently, the identification of long-term measures in sub-regional countries' openness to trade is more preferable to a straightforward cross-country comparison, which is typical of the literature on openness and growth.

According to the idea of comparative cost advantage, trade openness enables an economy to make better use of its resources by permitting the import of goods and services at a lower cost than they could be produced domestically (Ude & Agodi, 2015). Trade stimulates the market and generates foreign exchange earnings, which lead to faster economic growth. Trade liberalisation may produce large profits that support economic transformation. This implies that innovation and knowledge will spread throughout the world's other open economies. Trade openness has been acknowledged for its positive impacts on investment promotion, productivity, and the adoption and use of high-powered technology; all of which serve as avenues for promoting economic growth (Afaha & Njogo, 2012). Nigeria is determined that increasing trade integration could promote growth in the economy and reduce the scourge of poverty.

Controls were strengthened in the wake of the 2014 abrupt decrease in global oil prices and the ensuing decline in foreign exchange receipts. But as it became evident that the economy could not be controlled under a policy framework that heavily relied on direct controls; which was evidenced by counterproductivity. In Nigeria, there is a wide spread consensus that the aim of current macroeconomic policy is not only to achieve internal balance, but also external balance, despite complex challenges associated with economic development that can be broadly summarised under huge public debts, a chronic fiscal deficit, serious economic decline, inflationary pressure, and a persistent balance of payments deficit (Nwanosike, et. al. 2017). Since that changes in the external sector have an impact on the internal sector, suitable

strategies to resolve external imbalances in any economy become imperative. However, Nigeria's balance of payments records have been deficits ever since the global financial and economic crisis of 2008, which was exacerbated by the declining price of crude oil on the international oil market. The economy has made a valiant effort to promote growth through trade liberalisation.

No doubt, a lot of studies have been investigated to determine the relationship between trade openness and Nigeria's economic growth. But compared to trade openness, there has been less research on the relationship between trade openness and Nigeria's balance of payments. Furthermore, research on Nigeria's trade openness and balance of payments is still lacking and has to be done more. The following studies made the case in this study that trade openness significantly affects Nigeria's balance of payments: Embeleakpo (2016), Shehu (2007), Okpoto and Thom (2018), Abdullahi and Usman (2021), Wasurum and Tamunowariye (2022). Conversely, some of the studies included in this analysis made the case that trade openness had little to no impact on the balance of payments. Okeke (2021) and Sanni (2019) are a couple of them. In light of these contradictory results, it is evident that the true impact of trade openness on Nigeria's balance of payments is still poorly understood and needs more empirical study. The study therefore sought to find out what effect does trade openness has on balance of payments in Nigeria from 1990 - 2022. The period was chosen to demonstrate the long run 'effect' (thirty-three observations) trade openness has on balance of payments. In addition, the study also incorporates very recent periods. To this end therefore, the following specific objectives of the study are to: (i) investigate the effect of export earnings on economic growth in Nigeria; (ii) assess the effect of import earnings on economic growth; and (iii) evaluate the effect of broad money supply on economic growth in Nigeria in Nigeria.

2. LITERATURE REVIEW

Trade Openness

Trade openness according to Ejike et al. (2018) is the ratio of foreign commerce (export and import) to the GDP of a nation's domestic economy is known as trade openness. In the light of the idea of comparative cost advantage, trade openness enables an economy to make better use of its resources by permitting the import of goods and services at a lower cost than they could be produced domestically (Ude & Agodi, 2015). Trade openness gauges a nation's ability to compete internationally in the world market (Gwartney, et al. 2001).

Export

Saibu (2014) defined exporting as the act of moving products and services outside of a nation's borders. The customer who is located abroad is referred to as an importer, whereas the seller of such goods and services is known as "exporter" and is based in the exporting nation. Ude and Agodi (2015), in a related study, defined export in international trade as a good made in one nation and sold in another, or as a service rendered in one nation to a citizen or resident of another one. The overseas customer is an importer, whereas the vendor of such goods or the service provider is an exporter.

Import

O'sllivan (2013) conceptualised import as a good that is brought into a country from outside, usually across a national border. An importer is the person who brings in the commodities. Export on the other hand from the sending country is considered an import in the receiving nation. The two key financial transactions in international trade are imports and exports. Import also include transactions involving the transfer of products and services from non-residents to citizens of a jurisdiction (Okpoto & Thom, 2018).

Broad Money Supply

Broad money supply in the study is used as a control variable. Currency, deposits with an agreed maturity of up to two years, deposits redeemable with up to three months' notice, repurchase agreements, money market fund shares/units, and debt instruments with a maximum maturity of two years are all considered to be part of the wide money supply (Saibu, 2014). Similarly, Obadan (2014) defined broad money as narrow money plus savings and time deposits with banks, including deposits denominated in foreign currencies, as a measure of the entire amount of money supply in the economy. When the amount of money in circulation exceeds the level of the economy's total output, there is an excess money supply.

Balance of Payments

A nation's balance of payments, according to Harberzar (2016), is the totality of its citizens' economic exchanges with the rest of the globe during a specific time span spanning more than a year or a quarter of a year. Furthermore, according to Obadan (2014), a nation's balance of payments is the total amount of money that enters the nation within a given time period minus

the amount that leaves the nation for the rest of the world. Put differently, it refers to the exchange of goods and services between nations during a given duration.

Empirical Review

Okpoto and Thom (2018) assessed Nigeria's domestic investment and export revenue for the years 1981–2017. The study used time series econometrics to analyse Nigeria's domestic investment and export revenues. The aim of this study was to ascertain whether export earnings had a noteworthy influence on domestic investment in Nigeria throughout the studied period. Using annual time series data from the CBN statistical bulletin, econometric tests such unit root, co-integration, and Vector Error Correction Mechanism (VECM) were performed in order to do this. All variables were ultimately found to be stationary at the initial difference and to have co-integrated of the same order throughout the long term, according to the results of the unit root test. Comparably, the VECM result demonstrated an annual speed of adjustment of 64.9% for both the long-term equilibrium and the short-term disequilibrium. It also shows that Nigeria's domestic investment is significantly impacted by export profits. Additionally, there was no autocorrelation, as indicated by the Durbin Watson value of 1.9. Based on the aforementioned results, the study makes several recommendations, including that the Federal Government of Nigeria revitalise local businesses and agriculture by providing subsidies, concessions, a steady supply of electricity, technical support, enhanced property and life security, and the establishment of favourable business environments. For improved outcomes, the globalisation effort needs to be strengthened by strong macroeconomic policies as well. On the other hand, the work that is being reviewed estimates the model using the Vector Error Correction Mechanism. In contrast, the model was estimated using Ordinary Least Square Method. Although the review examined data from 1981 to 2017. More current data, from 1990 to 2022 were used in this analysis.

Furthermore, Embeleakpo (2016) conducted an empirical assessment to determine if Nigeria's growth process is driven by imports or exports. The study took cognizance of the period between 1981 and 2012. The Pre-SAP and SAP eras were covered throughout this time, which makes it noteworthy. The Granger causality test and the cointegration technique, with its implicit ECM, were employed in the investigation. The outcome demonstrates that imports significantly and favourably affect Nigeria's rate of economic growth. Although exports are important, their elasticity is low, meaning that Nigeria's economic process appears to be more driven by imports than by exports. This is indicated by the high elasticity of imports.

Additionally, the conclusion shows that there is no such association between exports and economic growth and a bi-causal relationship between imports and growth. an indication that imports are driving growth more so than exports. Additionally, the study demonstrates a causal relationship between imports and exports, suggesting that exports include a significant import component. This helps to explain Nigeria's enormous import cost, which has been a major source of lost foreign money. The outcome shows a stable long-term link between the variables and a rapid enough rate of adjustment. The report suggests, among other things, that policies be implemented to boost non-oil exports and that government initiatives like SURE-P concentrate more on the growth of SMEs in Nigeria. On the other hand, the work that is being reviewed estimates the model using an error correction mechanism. On the other hand, the current study used Ordinary Least Square Method to estimate the model. While the study under review used data from 1981 – 2012. The current study used more recent data, 1990 – 2022.

In a similar study, Okeke (2021) examined how imports and exports affected Nigeria's GDP (balance of foreign trade). Information was gathered between 2007 and 2016. Gross Domestic Product (GDP) was the dependent variable, whereas imports, exports, and openness were the independent variables. The Ordinary Least Square Method and Correlation Analysis were employed. According to the analysis, Nigeria's Gross Domestic Product (GDP) is greatly influenced by imports, exports, and openness. On the other hand, the balance of foreign trade in Nigeria (GDP) is positively and significantly impacted by imports, positively and insignificantly impacted by exports, and positively and insignificantly impacted by openness. Additionally, there is a moderately negative association between openness and the balance of foreign trade in Nigeria, as well as a perfect positive association between imports and exports on the gross domestic product and exports. These associations are significant. Additionally, there is a negative association between openness and the balance of foreign trade in Nigeria between imports and exports. Therefore, this study suggests that Nigeria should improve her tactics for promoting imports and exports and grow the import industry to facilitate imports. In contrast, the study under review used gross domestic product as the proxy for dependent variable. On the other hand, the current study used balance of payments. While the study under review used data from 2007 – 2016. The current study used more recent data, 1990 – 2022.

Furthermore, Shehu (2007) evaluated the factors influencing the demand functions for import and export. The goal is to use the Marshall-Lerner hypothesis to investigate the conditions under which balance of payments adjustment functions in the Nigerian economy, as well as to

empirically quantify the relative strengths and weaknesses of the determinants import and export. An econometric technique is the analytical framework used, and it includes a broad range of tests for stationarity, cointegration, and the definition of an error correction model. Significant causal links are shown in both models by the over-parameterized error correction model using data from the Nigerian economy from 1970 to 2004. The article specifically ties Nigeria's balance of payments adjustment to the exchange rate stability regime based on the values of the coefficient of the current and previous (lag) level of exchange rates in the two models. As a result, the study suggests that exchange rate modification be used as a powerful tool to achieve balance of payments stability in Nigeria. In contrast, the study under review used Marshall-Lerner hypothesis to estimate the model. On the other hand, the current study used Ordinary Least Square Method to estimate the model. While the study under review used data from 1970 – 2004. The current study used more recent data, 1990 – 2022.

Tamunowariye and Wasurum (2022) investigated the expansion of economies across nations has been significantly aided by trade liberalisation. This study used quarterly time-series data from 1996 to 2020 to investigate the impact of trade openness and governance on Nigeria's economic growth, given the country's strong growth concerns. The study emphasised how trade openness can help Nigeria's governance foster long-term progress. Three different good governance variables, including political stability, voice and accountability, corruption control, and the absence of violence, are used in this study as proxies for governance. The hypothesis was tested in the study using the autoregressive distributive lagged approach. The projected outcome demonstrated that while political stability, the absence of violence, and trade openness are negative predictors of economic growth, the management of corruption has a positive impact on growth. Therefore, in order to gain from higher trade openness values and rankings, the paper suggests that both the federal and state governments promote the production of capital-intensive items. In contrast, the study under review used data from 1981 – 2012. The current study used more recent data, 1990 – 2022.

Moreso, Abdullahi and Usman (2021) examined the effect of trade openness on Nigeria's balance of trade using the Vector Autoregression (VAR) methodology to examine annual series on balance of payment, trade openness, exchange rate, and foreign direct investment for the years 1981–2018. The results of the ADF unit root test indicate that although TOP and EXR are integrated of order one, BOT and FDI are integrated at level. Johansen The absence of a long-term relationship between the variables is confirmed by the cointegration test. Variance

decomposition analysis reveals that trade openness has less of an impact on Nigeria's trade balance, with trade openness changing the balance of trade by less than 1% over the course of the period, whereas foreign direct investment had a less significant impact. Exchange rates, on the other hand, have a consistent positive but minimal effect on the trade balance, which fluctuates between 0.24% and 2.25% throughout the course of the period. According to the study, governments should prioritise encouraging exports, particularly non-oil exports when combined with plans for replacing imports. This can be accomplished by diversifying the domestic production base of the economy and reviving the industrial sector. By doing this, the ageing domestic industries will be revived and upgraded to generate items that can compete globally. It is imperative to establish selective limits on specific commodities that can be produced domestically by domestic enterprises. In contrast, the study under review used Vector Autoregression (VAR) methodology to estimate the model. On the other hand, the current study used Ordinary Least Square Method to estimate the model. While the study under review used data from 1981-2018. The current study used more recent data, 1990 – 2022.

In a similar vein, Sanni (2019) investigated the connection between Nigeria's economic growth and current account balance. Using annual data from 1970 to 2016, the Auto Regressive Distributed Lag (ARDL) Bounds Testing methodology was used to examine the relationship. The study discovered a long-term correlation between Nigeria's bilateral real exchange rate, real GDP growth, and current account balance. The current account balance and real GDP growth are positively correlated, suggesting that improving the current account balance would result from higher real GDP growth. The study did discover, however, that the real exchange rate and current account balance were negatively correlated. The current account balance would deteriorate as a result of exchange rate depreciation. The currency rate management approach of the CBN is affected by the latter outcome. More specifically, given the detrimental impact of a declining exchange rate on the current account and consequently, economic growth, the CBN should continue to prioritise maintaining a stable exchange rate. In contrast, the study under review used Auto Regressive Distributed Lag to estimate the model. On the other hand, the current study used Ordinary Least Square Method to estimate the model. While the study under review used data from 1970 – 2016. The current study used more recent data, 1990 – 2022.

3. THEORETICAL REVIEW

Solow's Economic Growth Theory

The growth equation of the Harrod-Domar formulation was extended by American economist Robert Solow in his 1956 treatise, A Contribution to the Theory of Economic Growth, by include labour as a second element and technology as a third independent variable. Solow proposes a continuous production function that connects output to the interchangeable inputs of labour and capital. In contrast to the Harrod-Domar model's fixed-coefficient, constant-return-to-scale assumption, Solow's neoclassical growth model showed constant returns to both variables combined and falling returns to labour and capital separately. As the remaining component that explains long-term growth, technological advancement was thought to be determined exogenously that is, separately from all other factors by Solow. The multi-factor productivity model known as Solow's growth theory makes the assumption that there is only one commodity output as a whole whose rate of production is denoted by the letter, Y (t). It is clear that this production is the actual revenue of the community. At any one time, a portion of each product created is eaten, while the remaining portion is saved and invested. The rate of saving is sY (t), since the fraction of output saved is constant. The accumulation of the composite commodity represents the nation's capital stock, K (t). Therefore, net investment is simply the capital stock's growth rate, expressed as dK/dt or K. This gives us the fundamental identity at all times:

$$K = sY \qquad ---$$
$$(1)$$

The two production factors, labour and capital, whose rate of input is L (t), work together to produce output. A production function is used to depict technological possibilities.

$$Y \text{ equals } f(K, L) \qquad ---$$
$$(2)$$

Net output after deducting capital depreciation is what is referred to as output. Solow's theory of growth operates under the natural premise of a constant return to scale. The production function has a continuous return to scale, indicating homogeneity of the first degree. In essence, this means that there isn't a finite, non-augmentable resource such as land. The model becomes increasingly Ricardian under the scarce-land scenario, which would result in growing returns to scale in labour and capital (Solow, 1956). The Solow model is quite simple. The primary aspects that the model ignores include governance, a variety of goods, shifts in employment, natural resources, geography, social institutions, and globalisation. But it's precisely this simplification that makes it possible for us to comprehend the functions of labour, capital, and knowledge in our analysis of economic growth.

4. METHODOLOGY

The research design that was adopted in this study is the ex-post facto research design. Time series data were obtained from Central Bank Nigeria Statistical Bulleting, 2022 for the period, 1990 to 2022. The method of data analysis employed in this study includes descriptive statistics, correlation analysis and unit root test. The Augmented Dicky Fuller's unit root test was conducted to avoid spurious regression results. A non-stationary time series invalidates the normal statistical test because of time varying variance (Gujarati & Porter, 2009). Ordinary Least Square technique was used to estimate the model. The dependent variable was economic growth measured by growth was real gross domestic product; while the independent variable was trade openness measured by export earnings, import earnings and broad money supply as the control variable.

5. DATA ANALYSIS

Table 1: Descriptive Statistics

Table 1
Descriptive Statistics

	BOP	IMP	EXP	BMS
Mean	-248404	7.846827	8.215743	8.008693
Median	-453.400	8.041902	8.904345	8.242206
Maximum	2818566	11.07018	10.13828	10.97214
Minimum	-4205697	3.822492	4.641988	3.859044
Std. Dev.	1094910	1.792371	1.659676	2.106245
Skewness	-1.35856	-0.50159	-0.7337	-0.35171
Kurtosis	8.566689	2.462649	2.310603	1.843282
Jarque-Bera	52.75986	1.780783	3.614218	2.520086
Probability	0.0000	0.410495	0.164128	0.283642
Sum	-8197324	258.9453	271.1195	264.2869
Sum Sq. Dev.	3.84E+13	102.8031	88.14475	141.9606
Observations	33	33	33	33

Source: Researcher's EViews Computation, 2024

Table 1 presents the descriptive analysis for each of the variables. The balance of payments has a mean of -248404, indicating that Nigeria has a negative balance of payments on average. This means that the country is making more payments to other countries than it is receiving. The median is also negative (-453.400), and the standard deviation is high (1094910), suggesting a lot of variability in the balance of payments over time.

IMP (Imports): The mean value of imports is 7.8468, and the median is 8.0419. The maximum value is 11.0702, and the minimum value is 3.8225. The standard deviation is 1.7924, indicating a moderate amount of variability in imports over time.

EXP (Exports): The mean value of exports is 8.2157, and the median is 8.9043. The maximum value is 10.1383, and the minimum value is 4.6420. The standard deviation is 1.6597, indicating a slightly less variability in exports compared to imports.

BMS (Broad Money Supply): The mean value of broad money supply is 8.0087, and the median is 8.2422. The maximum value is 10.9721, and the minimum value is 3.8590. The standard deviation is 2.1062, indicating the highest variability among the four variables.

Table 2
Covariance Analysis: Correlation

	BOP	IMP	EXP	BMS
BOP	1			

IMP	-0.05541	1		
	0.7594	-----		
EXP	-0.08959	0.975878	1	
	0.62	0.0000	-----	
BMS	-0.05508	0.983624	0.970156	1
	0.7608	0.0000	0.0000	-----

Source: Researcher's EViews Computation, 2024

The correlation analysis of the variables are presented in table 2. The correlation between BOP and IMP is -0.05541, which is close to zero and statistically insignificant (p-value > 0.05). This suggests that there is no linear relationship between the balance of payments and imports. The correlation between BOP and EXP is -0.08959, which is also close to zero and statistically insignificant (p-value > 0.05). This suggests that there is no linear relationship between the balance of payments and exports.

The correlation between BOP and BMS is -0.05508, which is close to zero and statistically insignificant (p-value > 0.05). This suggests that there is no linear relationship between the balance of payments and broad money supply.

The correlation between IMP and EXP is 0.7594, which is strong and positive (p-value < 0.001). This suggests that there is a positive linear relationship between imports and exports. In other words, as imports increase, exports tend to increase as well, and vice versa.

The correlation between IMP and BMS is 0.9836, which is very strong and positive (p-value < 0.001). This suggests that there is a very strong positive linear relationship between imports and broad money supply. In other words, as imports increase, broad money supply tends to increase as well, and vice versa.

The correlation between EXP and BMS is 0.9702, which is very strong and positive (p-value < 0.001). This suggests that there is a very strong positive linear relationship between exports and broad money supply. In other words, as exports increase, broad money supply tends to increase as well, and vice versa.

Table 3
Unit Root Test

Variable	at levels			at 1st difference		
	t-statistic	5% level	p-value	t-statistic	5% level	p-value
BOP	-5.062662	-3.557759	0.0014	-6.441421	-3.568379	0.0000
IMP	-3.459179	-3.557759	0.0613	-6.941069	-3.562882	0.0000
EXP	-2.030163	-3.557759	0.5633	-6.580325	-3.562882	0.0000
BMS	-1.748687	-3.557759	0.7056	-3.771835	-3.562882	0.0320

Source: Researcher's EViews Computation, 2024

Table 3 presents the stationarity test (Unit root) for each variable. The null hypothesis of the unit root test is that the variable has a unit root, which means it is not stationary. A stationary time series is one that has no deterministic trend or seasonality, and its statistical properties are constant over time.

BOP: The p-value at levels (0.0014) is less than the 5% significance level, so we reject the null hypothesis and conclude that BOP has a unit root. However, the p-value at first difference (0.0000) is less than the 5% significance level, so we reject the null hypothesis and conclude that BOP is stationary after differencing.

IMP: The p-value at levels (0.0613) is greater than the 5% significance level, so we fail to reject the null hypothesis and cannot conclude that IMP has a unit root. However, the p-value at first difference (0.0000) is less than the 5% significance level, so we reject the null hypothesis and conclude that IMP is stationary after differencing.

EXP: The p-value at levels (0.5633) is much greater than the 5% significance level, so we fail to reject the null hypothesis and cannot conclude that EXP has a unit root. However, the p-value at first difference (0.0000) is less than the 5% significance level, so we reject the null hypothesis and conclude that EXP is stationary after differencing.

BMS: The p-value at levels (0.7056) is much greater than the 5% significance level, so we fail to reject the null hypothesis and cannot conclude that BMS has a unit root. The p-value at first difference (0.0320) is less than the 5% significance level, so we fail to reject the null hypothesis.

Table 4

F-Bounds Test

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	6.130832	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.50%	3.15	4.08
		1%	3.65	4.66

Source: Researcher's EViews Computation, 2024

F-bounds test indicates the term of the relationship between the dependent and independent variables as presented in table 4. The f-statistic (6.13) is greater than both the lower bound of 2.79 and upper bound of 3.67 at 5%, this clearly indicated there exist a long-term relationship between the dependent and independent variables.

Table 5

Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	5405834	5.908429	NA
IMP	10.53553	6.013490	2.397090
EXP	140.7495	5.837298	2.294924
BMS	4280.892	2.691883	1.180561

Source: Researcher's EViews Computation, 2024

Table 5 provides the Variance Inflation Factors (VIFs) of the regression model, which assess the presence of multicollinearity among the predictor variables. The centered VIF for IMP (2.39), EXP (2.29) and BMS (1.18) are all less than 10, indicating no presence of multicollinearity.

Table 6
Least Squares

Dependent Variable: BOP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6637.61	2325.045	-2.85483	0.0079
IMP	2.467859	3.245848	0.760313	0.4532
EXP	115.6773	11.86379	9.75045	0.0000
BMS	73.39166	65.42853	1.121707	0.2712
R-squared	0.889750	Mean dependent var		13618.07
Adjusted R-squared	0.878345	S.D. dependent var		15753.86
S.E. of regression	5494.805	Akaike info criterion		20.17421
Sum squared resid	8.76E+08	Schwarz criterion		20.3556
Log likelihood	-328.874	Hannan-Quinn criter.		20.23524
F-statistic	78.01282	Durbin-Watson stat		2.762615
Prob(F-statistic)	0.0000			

Source: Researcher's EViews Computation, 2024

This study has examined the effect of trade openness on balance of payments in Nigeria. The result of inferential statistics as present in table 6 shows that the value of R-square is 0.889; this result implies trade openness accounts for 88% of balance of payments in Nigeria. The remining 12% is due to other factors not considered in this study.

With respect to import (IMP) and balance of payments, the result shows that a unit increase in the import will lead to a 2.46 increase in balance of payments. The result produced a standard error of 3.24 with a correspond t-statistic value of 0.76 and a p-value of 0.45. since the p-value of 0.45 is greater than the test criteria of 0.05, the result implies that import has no significant effect on balance of payments in Nigeria.

With respect to export (EXP) and balance of payments, the result shows that a unit increase in the import will lead to a 115.6 increase in balance of payments. The result produced a standard error of 11.8 with a correspond t-statistic value of 9.75 and a p-value of 0.00. since the p-value of 0.00 is less than the test criteria of 0.05, the result implies that export has significant effect on balance of payments in Nigeria.

As of Bulk money supply (BMS) and balance of payments, the result shows that a unit increase in the import will lead to a 73.39 increase in balance of payments. The result produced a standard error of 65.4 with a correspond t-statistic value of 1.12 and a p-value of 0.27. since the p-value of 0.27 is greater than the test criteria of 0.05, the result implies that BMS has no significant effect on balance of payments in Nigeria.

Table 7

Heteroskedasticity Test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	1.322986	Prob. F(3,29)	0.2859
Obs*R-squared	3.972696	Prob. Chi-Square(3)	0.2644
Scaled explained ss	2.779327	Prob. Chi-Square(3)	0.4269

Source: Researcher's EViews Computation, 2024

Table 7 provides the results of the Breusch-Pagan-Godfrey test, which is a test for heteroskedasticity in the residuals of a regression model. based on the results of the Breusch-Pagan-Godfrey test, there is no strong evidence to reject the null hypothesis of homoskedasticity in the residuals of the regression model.

6. DISCUSSION OF FINDINGS

The first objective was to investigate the effect of import earnings on balance of payment in Nigeria. Import earnings has a negative (-0.05541) relationship with balance of payments in Nigeria. The p-value of import = 0.4532. This value is less than 0.05. This implies that import earning has no significant effect on balance of payment in Nigeria.

The second objective was to assess the effect of export earnings on balance of payment in Nigeria. Export earning has a negative (-0.08959) relationship with balance of payments in Nigeria. The p-value of import = 0.00. This value is less than 0.05. This implies that export earning has significant effect on balance of payment in Nigeria.

The third objective was to assess the effect of broad money supply on balance of payment in Nigeria. Broad money supply has a negative (-0.05508) relationship with balance of payments

in Nigeria. The p-value of broad money supply = 0.27. This value is less than 0.05. This implies that broad money supply has no significant effect on balance of payment in Nigeria.

7. CONCLUSION AND RECOMMENDATIONS

The study examined the effect of trade openness on economic growth in Nigeria from 1990 - 2022; this giving 33 observations. The study specifically examined three objectives: (i) the effect of import on balance of payments; (ii) the effect of export on balance of payments; and (iii) the effect of broad money supply on balance of payments. The theory used for the study was Solow's Economic Growth Theory propounded by Robert Solow, an American economist, whose work was published in 1956; and expanded the Harrod-Domar formulation. Data for the study was analysed using descriptive statistics, correlational analysis and unit root test. The result of the study proved that: (i) import has no significant effect on balance of payment in Nigeria; (ii) export has significant effect on balance of payment in Nigeria; and (iii) broad money supply has no significant effect on balance of payment in Nigeria. In other words, imports have no appreciable impact on Nigeria's balance of payments; exports have a considerable impact on the country's balance of payments; and (iii) a large money supply has no appreciable impact on Nigeria's balance of payments. The study recommended that:

i.   Policymakers should address poor productivity and factor productivity in order to limit imports of products and services. Large sums of money should be allocated towards infrastructure development in order to increase economic activity, lower operating costs, and raise factor productivity in Nigeria.

ii. Policymakers should concentrate on promotion measures, particularly for non-oil exports, in order to increase export earnings. This can be done through developing the industrial sector and broadening the economy's domestic production base through initiatives like grants, concurrent subsidies, infrastructure development, etc. This initiative aims to revitalise declining local sectors, enabling them to reach maximum production capacity and manufacture items that are competitive on the global stage.

iii. The Central Bank must keep a careful eye on the financial sector, particularly commercial banks, in order to ensure a broad money supply. This is to provide stability in the exchange rate, interest rates, and other instruments of monetary policy. This will provide sufficient regulation of the money supply and demand within the economy.

REFERENCES

Abdullahi, I. A. & Usman, S. (2021). Trade openness and Nigerian balance of trade. *Kebbi Journal of Economics and Social Sciences (KJESS),* 2(2). June

Afaha, J. S. & Njogo, B. O. (2012). Trade openness and its effect on the Nigerian economy (1970 -2010). *Arabian Journal of Business and Management Review* (Oman Chapter), 2(1), August.

Central Bank of Nigeria Statistical Bulletin, 2018.

Ejike, D. C.; Anah, S. A. & Onwuchekwa F. C. (2018). Trade liberalization and economic growth in Nigeria: a cointegration analysis (1980-2015), *IJRDO - Journal of Business Management.* ISSN: 2455-6661.

Embeleakpo, A (2016). Export versus import led growth: the Nigerian experience. Being a dissertation presented to the School of Post Graduate Studies, Faculty of Social Sciences, Department of Economics in partial fulfilment of the requirements for the award of Masters of Science (M.Sc) Degree In Economics, Delta State University, Abraka, Delta State April.

Gujurati, N. D. & Porter C. D. (2009). *Basic Econometrics.* 5th Edition, McGraw-Hill Companies.

Gwartney, J.; Skipton, C.D. & Lawson, R. A. (2001). Trade openness, income levels and economic growth, 1980 – 1998. *Annual Report: Economic Freedom of the World*, 24(6), 71-87.

Harberzar, A. C. (2014). Currency depreciation, income and balance of trade. *Journal of Political Economy.* HR focus 31, 4-7.

Kovarova, K. (2017). Economic globalization effects and openness to trade of the ECOWAS member states. *Ekonomia*, 10(314), 7-17.

Nwakoh, F. I. (2017). Effect of trade liberalization on the economic growth of Nigeria. A dissertation submitted to the department of Accounting/Banking & Finance, Faculty of Management Sciences, Delta State University, Abraka. in partial fulfilment of the requirements for the award of Master of Science in Banking and Finance.

Nwanosike, D. U; Uzoechina, B; Ebenyi, G. O; and Ishiwu V (2017). Analysis of balance of payments trend in Nigeria: A test of Marshall-Lerner Hypothesis. *Saudi Journal of Business and Management Studies,* Vol-2, Iss-5A (May, 2017):468-474

Obadan, M.I. (2014). Economic Globalisation, Markets and National Development: How sensibly do the poor countries (Nigeria included) stand? *Inaugural lecture series.* University of Benin, Benin City, September 18.

Okeke, C. C. (2021). Effect of imports and exports on balance of foreign trade in Nigeria (GDP). *International Journal of Economics and Financial Research,* 4(11), 349-353.

Okpoto, S. I. & Thom, O. O (2018). Export earnings and Nigeria's domestic investment. *Journal of Banking, Economics and Social Sciences* 4(1), 90-102.

O'sllivan, D. (2013). Trade Liberalization and Growth: Policy Options for African Countries in a Global Economy. African Development Bank, *Economic research papers.*

Saibu, A. (2014). *Trade Policy Reform, Integration and Export Performance in ECOWAS Sub- Region.* University of Ibadan, Nigeria.

Sanni, G. K., Musa, A. U. & Sani, Z. (2019). Current account balance and economic growth in Nigeria: An empirical investigation. *Central Bank of Nigeria Economic and Financial Review,* 57(2), June.

Shehu, U. R. A. (2007). Imports-exports demand functions and balance of payments stability in Nigeria: A co-integration and error correction modeling. *Munich Personal RePEc Archive* Paper No. 10396.

Ude, D.K. & Agodi, J.E. (2015). Does Trade Openness Make Sense? Investigation of Nigeria Trade Policy. *International Journal of Academic Research in Economics and Management Sciences*, l(1).

Wasurum, E. & Tamunowariye, C. (2022). Trade openness, governance and economic growth in Nigeria. *International Journal of Business Systems and Economics*, 13(5), 198 – 211.