

FREE TRADE AND BALANCE OF PAYMENTS PERFORMANCE IN NIGERIA

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ABSTRACT

The decision whether to adopt the policy of free trade or that of protectionism is a highly controversial one. Proponents of free trade argue that it will bring about better economic performance. On the other hand, critics hold the counter view that free trade will deteriorate a country's balance of payments position. They therefore favour trade restriction. Nigeria liberalized certain aspects of her international trade policies through the introduction of the Structural Adjustment Programme (SAP) in 1986. In spite of this, the country's balance of payments over the years has not shown any significant improvement. This study therefore examined the effect of free trade on Nigeria's balance of payments. Specifically, the study examined the impact of balance of trade (BOT) degree of trade openness (DTO) exchange rate liberalization (EXR), and inflation rate (INFR) on Nigeria's balance of payments (BOP). Inflation was used as balance variable. Annual time-series data from 1986 to 2017, obtained from the Central Bank of Nigeria annual statistical bulletin for 2017 were used. The analytical techniques used were Augmented Dickey-Fuller (ADF) unit root test, Ordinary least squares (OLS) multivariate regression analysis, and Granger Causality test. The findings indicated that free trade has a positive but weak impact on Nigeria's balance of payments performance. The Granger causality test showed unidirectional causality from exchange rate to balance of payment while a bidirectional causality was found between exchange rate and balance of trade. It is recommended, inter alia, that Nigeria should put in place policies that will encourage exports rather than resorting to restrictive trade barriers in order to improve her balance of payments position.

Keywords: Free Trade, Openness, Balance of Payment, Exchange Rate, Balance of Trade.

INTRODUCTION

Issues relating to a country's choice of international commercial policy (i.e, whether a country should adopt the policy of free trade or that of protectionism) are characterized by a great deal of controversies. This debate, according to Akpakpan (1999), predates the time of the classical economists who advocated for free trade instead of trade protection. The debate still lingers on as economists are divided over the choice of a country's international commercial policy. The proponents of free trade argue, among other things, that the gains from free trade will maximize output, income and employment leading to improved welfare in the participating countries. On the other hand, those in favour of protectionism argue that trade restriction will ensure greater domestic employment, infant industries' protection, check dumping and correct for balance of payment deficits, among other things (Ahuja, 2013).

Nigeria's international trade policies over the years can be examined under two broad regimes. These are: the period before the introduction of the Structural Adjustment

Programme (SAP) in 1986, and the post-SAP period. One common feature of both regimes is that the trade policies were aimed at achieving specific goals, for instance, ensuring balance of payments viability and export promotion (Analogbei, 2000).

During the pre-SAP era, the country's industrial sector was expanded in order to fast track the pace of development. This, according to Analogbei (2000), brought about an increase in the demand for imported industrial inputs which in turn put pressures on the balance of payments (BOPs). To lessen the pressures on the BOPs, the trade policies were restrictive in order to reduce the demand for imported goods. Exchange rate control measures were then introduced. The control measures were meant to bring about an adjustment of the demand for and supply of foreign exchange and also, to protect the external reserves from depletion (Briggs, 2007). Thus, necessary imports were given attention over other imports in the demand for foreign exchange. In addition, during the pre-SAP era, import substitution industrialization strategy was introduced. Consequently, trade barriers like import licensing and tariffs were adopted in order to strengthen the industrial policy (Anyanwu, Oyefusi, Oaikhenan, and Dimowo, (1997).

By 1983, Nigeria's short term trade arrears amounting to over ₦4 billion had accumulated. There was widespread unemployment coupled with serious balance of payments deficits. Infact, prior to 1986, the economy experienced a traumatic economic crisis. Widespread distortions and imbalances in the economy, heavy dependence on oil and imported inputs coupled with sharp decline in oil prices; rapidly depleting foreign reserves; an overvalued naira; BOPs crisis; etc. rendered the economy dangerously vulnerable to external shocks (Anyanwu, 1993). Faced with such a battered and dwindling economy, there was the need to revamp it and put it on the path of sustainable growth and development. As a result, the SAP was introduced in July, 1986. In pursuant of the broad objectives of the SAP, certain policies were adopted. With regard to international trade, the main focus was on liberalization of trade and the pricing system with emphasis on appropriate price mechanism for the allocation of foreign exchange. To this end, the second-tier foreign exchange market (SFEM) was introduced (Anyanwu, 1993). Under the SFEM, the exchange rate was to be determined by market forces. Anlogbei (2000) points out that, in addition to exchange rate liberalization, the use of import and export licencing became unnecessary and were therefore, abrogated. Thus, there was a drastic reduction in the number of commodities on the import prohibition list.

From the foregoing, it can be said that Nigeria adopted the doctrine of free trade in 1986 through the introduction of the SAP. In spite of this, the country has not made any significant improvement in its balance of payments performance. In fact, available statistics show that, except for few years (1997, 2000, 2001,2004,2005,2006,2007,2008,2011 and 2017), Nigeria has been having BOPs deficits from 1986 to 2017 (CBN, 2018). The question therefore is: could the poor performance of the country's BOPs be attributed to trade liberalization? Only on empirical investigation can provide answers to this question. This study therefore, examines the impact of free trade on the performance of Nigeria BOPs. To be specific, the study examines the influence of trade openness, balance of trade, exchange rate liberalization, and inflation on Nigeria's balance of payments. The rest of the paper is delineated into four sections. Section two is about literature review. In section three we examine the research methodology. Section four takes care of data estimation procedure and discussion of findings while in section five; we conclude the study and give recommendations.

REVIEW OF RELATED LITERATURE

Conceptual Clarifications

The Concept of Balance of Payments

The balance of payments (BOP) is a systematic record of a country's transactions with the rest of the world during a given period of time usually a year (Robinson, 2003). The BOP is structured into two main accounts; the current and capital accounts. The current account records transactions in goods and services, income and unrequited transfers. On the other hand, the capital account records the amount of the inflows and the outflows of financial resources with regard to international investments and other long-term transactions. Such transactions include direct and portfolio investments, external loans, amortization, central bank reserves, special drawing rights (SDRs), etc. The capital account therefore records changes in the nation's assets in foreign countries, and changes in foreign countries assets in the domestic economy (Akpakpan, 199, Robinson, 2003).

Apart from the current and capital accounts, the BOPs contains another item called errors and omissions or balancing item. This item takes care of possible errors and omissions made in computing the BOPs. The overall balance is therefore a summation of the current, capital and net errors and omissions (Akpakpan, 1999).

It is often said that the BOPs always balances (i.e., in equilibrium). This, according to Robinson (2003), is because the BOPs is structured on the double-entry format of book-keeping where every transaction is entered on the credit and debit sides of the accounts. However, the BOPs may not always be in equilibrium. Quite often, a disequilibrium may occur. Such disequilibrium may be in form of a deficit or a surplus. A deficit (unfavourable) balance of payments occurs when the amount that a country receives from foreigners is lower than the payments it makes to foreigners in a given period. On the other hand, a surplus (favourable) balance of payments is when a nation's total receipts from foreigners is higher than what it pays out to foreigners (Ahuja, 2013).

An overall deficit in the BOPs (especially when it results from the current account) is an indication that a country is not competitive internationally. A look at Nigeria's BOPs from 1981 to 2017 shows that the country recorded the highest deficit of ₦2789.99 billion in 2009 while it recorded the highest surplus of ₦3752.48 in 2017. The available data also show that from 1981 to 2017, the country only recorded surplus in 1984, 1997, 2000, 2001, 2004, 2005, 2006, 2007, 2008, 2011 and 2017. The remaining years showed deficit BOPs (CBN, 2018).

The Concept of Free Trade

Todaro and Smith (2011) define free trade as "the importation and exportation of goods without any barriers in the form of tariffs, quotas, or other restrictions. Free trade is measured by the degree of trade openness which shows how open the domestic economy is to international transactions. The degree of trade openness is the ratio of the sum of export and import to the total output of the economy. That is, $DTO = \frac{X+M}{GDP}$

Where DTO = degree of trade openness

X = export,

M = import and

GDP = gross domestic product

Theoretical Framework

Our concern in this section is to examine the theories of international trade that emphasize free trade. Three of such theories are examined here. They are the absolute advantage theory of Adam Smith; the comparative advantage theory of David Ricardo; and the factor proportion theory of Eli Heckscher and Bertil Ohlin.

In his theory of absolute advantage, Adam Smith believes that with unrestricted trade each nation could concentrate in the production and export of those goods in which it has absolute advantage and import those in which it is absolutely disadvantaged. As pointed out by Robinson (2003), Adam Smith believes that with unrestricted trade, specialization and international division of labour, world output will increase and the increased output will be shared by the participating nations. The theory of absolute advantage has been faulted, especially, on the grounds where one country has absolute advantage in the manufacture of both goods.

The theory of comparative or relative advantage was advocated by David Ricardo in reaction to Adam Smith's absolute advantage theory with the aim of removing some of the flaws in the later (Akpakpan, 1999, Robinson, 2003). The purpose was to show that there was still a foundation for mutually advantageous trade even in a situation where one country has absolute advantage in the manufacture of every good. What was needed, according to Ricardo was relative advantages, that is, a situation in which one country has a relative cost advantage in the manufacture of one good. In this situation, each nation concentrates in the making of that product in which its relative cost of manufacture is the least. Consequently, when a country goes into trade with another country, it will export those goods in which its comparative costs are less, and will import those in which its comparative costs are high. Hence, countries should focus on the production of the things they can efficiently produce. In the end, the countries involved in external trade will be better off. Like the Adam Smith's theory of absolute advantage, Ricardo's theory of comparative advantage was also criticized. For instance, he simply assumed that there were variances in labour productivity between the two countries. He did not explain. Also, his analysis assumed that there was only one factor of production (Akpakpan, 1999).

Because of the weaknesses found in the classical trade theories, modern economists had to search for enhanced clarification of the foundation of foreign trade. This search gave birth to the factor proportion theory which is one explanation of the basis of international trade that has continued to be popular till today.

The factor proportion theory, also called the factor endowment theory, was first developed by two Swedish economists, Eli Heckscher (1919) and Bertil Ohlin (1933), and later modified by Paul Samuelson (1948). For this reason, it is sometimes referred to as the Heckscher – Ohlin – Samuelson (H.O.S) theory (Akpakpan, 1999). The theory accepts the point made by Ricardo about variances in relative costs, but points out that it is the international dissimilarities in relative factor endowments that explain differences in relative costs and constitutes the basis for international trade. Given the differences in factor, endowments (ie, factor supplies) across international boundaries, comparative factor charges will differ and for this reason, factor combinations and commodity price ratios will differ. Thus, according to the H.O.S theory, countries should focus on the manufacture and trade of the product in the manufacture of which a greater amount of its relatively abundant and inexpensive factor is

used, and import the good in the manufacture of which a greater amount of its relatively rare and expensive factor is used. As a result of this, the forces of the unrestricted market will maximize world output and welfare (Robinson, 2003).

Empirical Literature Review

Some of the studies conducted on the impact of free trade on balance of payments are reviewed below.

Kaur and Makkar (2016) in their study examined the impact of trade liberalization on BOPs in India using annual time series data from 1991 to 2015. The study applied Augmented Dickey-Fuller (ADF) unit root and cointegration tests. The outcome of the analysis showed that trade openness has a positive but insignificant impact on BOPs. Similarly, Pacheco-Lopez (2003) studied the impact of trade liberalization on the BOPs of Mexico. A variety of econometric techniques including ADF unit test, Auto-Regressive Distributed Lag (ARDL) model and error correction mechanism (ECM) were applied on annual data covering the period 1980 – 2000. The study concludes that free trade has no significant impact on BOPs.

Santos-Paulino (2004) examines the effects of free trade on the current account balance of 22 developing countries drawn from Africa, East Asia, Latin America and South Asia. Applying dynamic panel data approach, the general conclusion drawn from the study is that free trade has negative impact on the balance of trade (BOT) and BOPs.

Qayed (2013) analyzed the trade liberalization – balance of payment nexus in Ethiopia. ADF unit test, Johanson cointegration test and ECM were applied on annual data from 1981 to 2012. The outcome of the study indicated that free trade worsens Ethiopia's BOPs.

Chowdhury and Hossain (2014) applied ARDL model to annual data covering the period 1972 – 2008 to test the impact of GDP growth rate, terms of trade, and exchange rate on trade balance in Bangladesh. The outcome showed that terms of trade has direct impact on trade balance while GDP growth rate and exchange have negative impact on trade balance. In a related study, Zakaria (2014) examined the impact of free trade on trade balance in Pakistan with quarterly data from 1981/82 to 2007/2008. Applying Generalized Method of Moments (GMM), the findings showed that free trade deteriorates trade balance.

In Nigeria, Oladipupo and Onataniyohuwo (2011) studied the role of exchange rate in the balance payments position of Nigeria by applying OLS regression technique on annual data from 1970 to 2008. The outcome showed that exchange rate has a strong inverse impact on BoP. This implies that exchange rate depreciation will improve Nigeria's BOPs.

Applying a variety of analytical techniques such as ADF unit root test, cusum test, and feasibility generalized least squares (FGLS) on a simultaneous equation model, Umoru and Nwokoye (2014) investigated the effects of terms of trade stability of Nigeria's BOPs. The study period covered 1973 – 2011. The outcome of the analysis showed that Nigeria's BOPs is inversely affected by instability in the terms of trade. The study also established that exchange rate depreciation improves Nigeria's BOPs.

Ehinomen and Da'Silva (2014) applied Phillips-Perron unit root test, cointegration test and ECM on annual data from 1970 to 2010 to test the impact of trade openness on GDP growth in Nigeria. The major conclusion from the study is that trade openness impacts positively on GDP growth.

EXR = Exchange Rate

INFR = Inflation Rate, and

F = Functional Notation

BOP is the dependent variable while BOT, DTO, EXR and INFR are the explanation variables. Inflation rate was used as a control variable. The OLS multiple regression equation based on the mathematical relation above is stated as:

$$BOP = \beta_0 + \beta_1 BOT + \beta_2 DTO + \beta_3 EXR + \beta_4 INFR + U \quad 3.3.2$$

Where β_0 = regression constant, $\beta_1, \beta_2, \beta_3,$ and $\beta_4,$ = regression coefficients of the explanatory variables.

U = random disturbance term.

All the other terms are as earlier defined.

A log – transformation of equation 3.3.2 gives us:

$$LOGBOP = \beta_0 + \beta_1 LOGBOT + \beta_2 DTO + \beta_3 EXR + \beta_4 INFR + U \quad 3.3.3$$

Where LOG refers to the natural logarithm of the variables. All the other terms are as earlier interpreted.

A Priori Expectations

$$LOGBOP = \beta_0 + \beta_1 LOGBOT + \beta_2 DTO + \beta_3 EXR + \beta_4 INFR + U$$

($\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 < 0$)

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

In this section, our concern is to present the results of the data analysis and discuss our findings.

Augmented Dickey-Fuller Unit Root Test Result

The result of the ADF stationarity test are shown in table 4.1 below.

Table 4.1 ADF Stationarity Test Result

Variable	ADF Statistic	Critical Value (1%)	Critical Value (5%)	Prob.	Order of Integration
LOG (BOP)	-5.239727	-3.737853	-2.991878	0.0003	I(0)
LOG (BOT)	-5.861861	-3.679322	-2.967767	0.0000	I(1)
DTO	-3.355659	-3.661661	-2.960411	0.0207	I(0)
EXR	-3.150788	-3.670170	-2.963972	0.0334	I(1)
INFR	-4.502567	-3.737853	-2.991878	0.0017	I(0)

Source: Author's Computation from E-views Result

The result of the ADF stationarity test presented in table 4.1 above indicates that LOG(BOP), DTO and INFR were stationary at levels. However, LOG(BOT) and EXR were stationary only after taking their first differences.

Estimated Regression Result

The estimated OLS regression result is presented in table 4.2 below.

Table 4.2: Regression Result

Dependent Variable: LOG(BOP)

Method: Least Squares

Date: 02/04/19 Time: 06:23

Sample: 19862017

Included observation: 32

Variable	Coefficient	Std. Error	t-statistic	Prob.
C	-588.1964	905.8252	-0.649349	0.5216
LOG(BOT)	0.108988	0.133357	0.817265	0.4209
DTO	4.105876	22.20864	0.184877	0.8547
EXR	2.183701	13.89745	0.466433	0.6446
INFR	-6.482225	3.569214	-.611816	0.5458

R-squared	0.618099	Mean dependent var.	59.23250
Adjusted R-squared	0.609961	S.D. dependent var.	1237.583
S.E of regression	1280.143	Akaike info criterion	17.28993
Sum squared resid	44246657	Schwarz criterion	17.51895
Log likelihood	-271.6389	Hannon-Quinn criterion	17.36585
F – Statistic	14.93257	Durbin-Watson Stat.	2.072067
Prob (F-Statistic)	0.040703		

Source: Author's Computation from E-views Results.

From the result shown in table 4.2 above, it can be seen that all the variable were in line with our a priori expectations. Hence, LOG(BOT), DTO, and EXR turned up with the correct positive signs. Similarly, INFR turned up with a correct negative sign. The t-probability values of the individual parameter estimates showed that none of the variables were statistically significant at 0.05 level.

The coefficient of multiple determination (R^2) is 0.618099. This indicates that about 61 percent of the total variations in the dependent variable (BOP) was jointly explained by the explanatory variables. The remaining 39 percent could be attributed to other factors affecting balance of payments in the country which were not explicitly specified in the model. An adjusted R^2 of 0.609961 implies that a reduction in the degrees of freedom, through the inclusion of additional regressors, would not significantly alter the R^2 .

The F-statistics is 14.93257 with prob(F-statistic) of 0.040703. This indicates that the overall regression was statistically significant at 0.05 level of significance. The Durbin-Watson statistic is 2.072067 indicating that the model was not affected by the problem of autocorrelation.

4.3 Granger Casualty Test Result

The pairwise Granger Casualty Test revealed that exchange rate Granger causes balance of payments. The casualty test result also indicate a bidirectional casualty between exchange rate and balance of trade. Hence, trade balance, trade openness and inflation denote Granger cause BOPs.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This study examined the relationship between free trade and balance of payments performance in Nigeria. In specific terms the study analyzed the effects of balance of trade, degree of trade openness, and exchange rate, and inflation on Nigeria's BOPs. Based on the outcome of the study, the following conclusions were reached;

1. Balance of trade has a positive but insignificant relationship with balance of payments in Nigeria.
2. Degree of trade openness has a positive but weak relationship with balance of payments in Nigeria.
3. Exchange induces positive change in balance of payments.
4. Inflation has a weak inverse relationship with balance of payment.

RECOMMENDATIONS

From our findings we suggest the following recommendations.

- i. Since the findings showed that the degree of trade openness is positively but weakly related to balance of payments, opening the economy further to international transactions would help to improve the balance of payments position. Recall that trade openness is expressed as the ratio of the sum of exports and imports to GDP. An improvement in the productive capacity of the economy, and increase in the volume and quality of exports will help in improving the BOPs.
- ii. There is also the need to improve the quality of our export commodities through value addition which will boost their competitiveness in the international market. To achieve value – added exports, the Nigerian export – import bank (NEXIM Bank), Nigeria's Export Promotion Council (NEPC), the Bank of Agriculture (BOA), the Bank of Industry (BOI), and other relevant agencies should put in place facilities through which producers of export commodities and exporters can acquire machineries, packaging and raw materials to create capacity for processing export commodities.
- iii. The policy of devaluing the naira so as to improve the country's balance of payment should be discouraged. The naira should be allowed to find its realistic rate through the interplay of market forces.
- iv. An improvement in the productive capacity of the economy would ensure greater availability of goods and service. An increase in the supply of goods and services would, all things being equal, reduce the rate of inflation. A reduction in the prices of goods and services would encourage export and discourage import. This will improve the BOPs position.
- v. We finally recommend that, instead of adopting import restrictive and prohibitive measures like tariffs barriers and quotas, deliberate policies aimed at stimulating exports should be put in place. This will go a long way in improving the BOPs.

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