



## **Does Foreign Trade Have an Impact on Poverty Level in Nigeria? Reality on Ground**

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### **Abstract**

The purpose of this thesis is to determine scientifically, the effects of international trade on poverty reduction in Nigeria between the periods of 1995 -2018. The study is essential as Nigeria was recently declared the headquarters of poverty, with 47% of its population living in extreme poverty. The method used for the analysis is the ordinary least square method and Augment Dickey-Fuller test for unit root test to carry out the regression analysis on the secondary data collected from CBN statistical bulletin covering a period of 1995-2018. After the tests conducted, it was discovered that international trade had some level of impact on poverty reduction. Four independent variables were used, which were, inflation, unemployment, trade balance and exchange rate. The exchange rate had little impact on poverty as opposed to other variables which showed some level of significance. The result of the study shows that international trade, inflation and unemployment have a significant positive impact on poverty reduction in Nigeria. Based on the outcome of the research, we recommend that the government should create an enabling environment that would facilitate trade and generate employment through the support of small and medium scale Enterprise. Efforts should also be made towards improving exchange rate stability. Favorable fiscal and monetary policies should be put in place to control the level of inflation in the Nigerian economy.

**Keywords:** International Trade, Trade Balance, Inflation and Unemployment.

### **INTRODUCTION**

International trade is defined as the exchange of technology, goods, and services across countries or territories. In most countries, international trade represents a significant share of gross domestic product (GDP).

Industrialization, advanced transportation, multinational corporations, offshoring, outsourcing all have a major impact on world trade. The growth of international trade is an important aspect of globalization. An absolute trade advantage exists when a country can produce a commodity with less cost per unit produced than its trading partner. By the same thought, it should import commodities in which it has an absolute disadvantage.

Trade is recognized as an indispensable tool for economic growth and development. For developing countries like Nigeria, the contribution of trade to overall economic development and poverty alleviation is enormous owing largely to the fact that most of the vital elements for development such as technology, capital goods, raw materials and technical know-how are mostly imported because of inadequate domestic supply. Therefore, the higher the level of international trade, the greater the level of specialization (Ajaji, p. 120).

International trade is measured by net export in Nigeria. Net export is measured by the value of a country's total exports minus the value of its total imports. It is used to measure a country's

expenditures or gross domestic product in an open economy. A positive balance of trade (export-import) means a country export more than it imports, which will lead to an increased income for the country.

According to Can and Maigari (2019), after prolonged foot dragging by the strongest economy in the continent, 2019 at the 12th Extraordinary Session of African Union on African Continental Free Trade Agreement (AfCFTA) Nigeria alongside Benin signed the Agreement, leaving Eritrea as the only state yet to sign this agreement. The AfCFTA will bring together all 55 member states of the African Union covering a market of more than 1.2 billion people, including a growing middle class, and a combined gross domestic product (GDP) of more than US\$3.4 trillion.

Nigeria's main export includes; petroleum and petroleum products, chemicals, vehicles, aircraft parts, vessels, vegetable products, processed food, beverages, and imports includes; industrial supplies, machinery, appliances, vehicles, aircraft parts, chemicals, base metals (World Bank, 2010)

The U.S. is Nigeria's largest buyer of crude oil, which makes up 40% of Nigeria's total oil exports; Nigeria provides about 10% of overall U.S. oil imports and ranks as the fifth-largest source for U.S. imported oil. (World Bank, 2010). Currently, oil contributes 63% of the country's revenues and only 9% of the (United Nations , 2019).

Despite the revenue obtained from oil export, Nigeria is still ravaged with poverty and inequality due to some institutional problems it is facing such as insecurity, corruption, tribal wars and inefficiency in the public sector. Also, Nigeria is an import driven economy. We import consumer goods and primary export products which yields little or no returns in terms of revenue.

Efforts are being made to remedy these troubles. "In the pursuit to better the standard of living of Nigerians, several programs were introduced and implemented at different periods by different governments such as Operation Feed the Nation of 1977 (OFN), the green revolution of 1980, Directorate of Foods, Roads and Rural Infrastructure (DFFRI), the National Directorate for Employment (NDE), Poverty Alleviation Programs (PAP), up to the National Poverty Eradication Programme" (NAPEP) (World Bank, 2010).

Nigeria's main problem today is the issue of poverty. Nigeria ranks 152 out of 157 countries on the World Bank's human capital index. Over 90 million Nigerians are now living in extreme poverty currently. This represents 47% of its population of 190 million in 2018. According to the World Bank, a person can be said to be living in extreme poverty if they live below \$1.9 or N693.5 per day.

Currently, in the global economy today, it is on record that Nigeria is rated to be twentieth (20th) poorest country in the world (9<sup>th</sup> in Africa), the great "Giant of Africa. Most foreign countries are scared to do business with Nigerians. The political instability in the country does not help matters. According to a recent report by Sunday mail "overseas suppliers have reduced level of shipments of an automotive component to Nigeria customers as fear has gripped them that the present political crisis can lead to civil unrest (WHO, 2019).

All these have a direct implication on the well-being of a country's citizens in that it reduces the country's GDP, foreign direct investment and the country's income. The implication of these is that it will affect the government's expenditure and budget directly, which will, in turn, affect employment level, basic education enrollment, availability of primary healthcare and housing and poverty at large (WHO, 2019).

## **LITERATURE REVIEW**

Over the years, the relationship between foreign trade and poverty reduction has been the debate of economic research in academe. In the study of international trade, the view of economist differs from those of the public.

Economists believe that all forms of trade are advantageous. Other non- Economists believe that exports are better than imports and it is more advantageous to trade with members of one's country alone.

The classical school of economics believed that foreign trade promoted economic growth in two ways. On the one hand, foreign trade improved the optimal distribution of resources and productivity consequentially and then stimulated economic growth;

The most famous theories were comparative advantage theory of David Ricardo, which was postulated in 1817, which seeks to explain why countries engage in international trade. The theory states that under free trade, a country should produce more of the goods in which it has a comparative advantage and import commodities for which it has a comparative disadvantage. For instance, if Nigeria has a comparative advantage in the production of crude oil and a disadvantage in the production of cars, Nigeria will produce crude oil and export, and it will import vehicle which it has a comparative disadvantage. Having a comparative advantage means its cost or marginal cost of production is lower when compared to other countries.

Heckscher-Ohlin Model (HO MODEL) is also another classical who propounded the factor proportions model. The theory talks about how countries export products that use their abundant and cheap factors of production and import products for which it has scarce factors. The idea is that a country with a high ratio of capital to labor will import labour-intensive goods and export goods that are capital intensive.

Paul Krugman postulated another theory of trade. The theory of increasing returns model of international trade. It talks about the more a country produces a commodity, the more efficient they get at it, which leads to specialization. Specialization and efficiency exist because of positive feedbacks.

Foreign trade indeed promotes economic growth and poverty reduction of a country. Increased international trade has so many benefits to a country. Some of which are, increased per capita income and GDP, increased level of employment, foreign exchange earnings and improvement in social infrastructure through the sharing of ideas and information between countries.

Poverty is characterized by a lack of purchasing power, insufficient access to social and economic services, and low-income generation. Poverty is a vicious cycle that reflects lack of productive resources, skills for gainful employment and inadequate income to afford necessities of life such as primary medical health care and basic education (ILO, 2000).

Some consensus has emerged as to the basic definition of poverty. Traditionally, poverty is viewed in terms of insufficient income for securing the necessities of life such as food, clean water clothing, shelter and primary education.

The various manifestations of poverty according to World Bank and United Nations include lack of income and productive resources, ill health, hunger, limited or lack of access to education and other essential services, homelessness, degraded environment, social discrimination and inequality.

Therefore, as Ozden and Udeh indicate (2018, p. 2) "poverty is one of the major challenges facing the world with massive implications for sustainable development, which entails meeting human development goals of the present while at the same time sustaining the ability for the future".

### **Empirical Review**

International trade brings welfare and efficiency gains to all countries irrespective of their initial conditions, level of development, technological abilities and natural resources endowments (Krugman and Helpman, 1998). Empirically, the effect of foreign trade on poverty reduction has been

an important and controversial subject for several decades. Several studies, using different approaches, have found growth to be enhanced by trade openness, or liberalization.

Decaluwe, Dumont et al. (1999) compared results from income and poverty analysis using three approaches: representative households, use of household data to infer distributional effect and integration of household data with the CGE model. The study showed that microsimulation approach is superior to other methods because of its holistic analysis of poverty and distributional impact.

In Nigeria, studies on vulnerability to poverty/poverty dynamics are scanty. They include Ogwumike and Aromolaran (2001), Alayande and Alayande (2004), Anyanwu (2005), Adesanoye and Okunmadewa (2007), Oyekale and Oyekale (2008) and Oni and Yusuf (2008).

Ogwumike and Aromolaran (2001) examined poverty dynamics in some detail. The study found that widows (especially those without adult children), orphans, the physically challenged and migrants were among the most at risk and insecure groups. The study was based mainly on the National Consumer Survey (NCS) of 1980, 1985, 1992 and 1996, which cannot be considered as panel data.

Anyanwu (2005) examined rural poverty determinants and exit path in Nigeria based on NCS 1996. The study found that the probability of being poor in Nigeria is highly correlated with household characteristics such as household size, education level of household head and production and other activities.

Mutlu et.al. (2012) examined to found out the ``Ankara's Urban Poverty Map`` through research hypotheses were measured with the help of a questionnaire. The research area was Ankara. While determining the research population, central districts of Ankara, have been selected as the research environment by utilizing Ankara's Urban Poverty Map.

Bello (2013) unravels the problem of unemployment in Sub-Saharan Africa. The author discovered a large number of factors that account for this

Problem by assessing past and present employment policy programs formulated to tackle the problem. The result shows that economic factors hold back the performance of the programs.

O.A. Adelowokan, O.E. Maku, A.O. Babasanya, A.B. Adesoye examines the nexus of unemployment, poverty and economic growth in Nigeria between the periods, 1985-2015, the result revealed that there is no long-run relationship between unemployment, poverty and economic growth in Nigeria.

In conclusion, the empirical evidence suggests that the literature is characterized by mixed findings. Although some studies have presented results, which concur to the argument, that international trade leads to poverty reduction (Khan & Bashir, 2011) in India and Cockburn, Corong, Decaluwe, Fofana, & Robichaud, 2010), some others have shown that it does not seem to be a very important determinant of poverty reduction unless complemented by other domestic policies and sustained growth (Filho, 2009 for Brazil). The worst-case scenario observed is that free trade among countries aggravates poverty, especially in developing countries.

Between 2006 and 2017, Nigeria's gross domestic product (GDP) grew at an average rate of 5.7% per year, as volatile oil prices drove growth to a high of 8% in 2006 and to a low of -1.5% in 2016". While Nigeria's economy has performed much better in recent years than it did during the previous increase in oil-price cycles, such as in the late 1970s or mid-1980s, oil prices continue to dominate the country's growth pattern (World Bank, 2010).

A key player in West Africa, with a population of approximately 190 million, Nigeria accounts for about 47% of West Africa's population and has one of the largest populations of youth in the world. A federation that consists of 36 states, Nigeria is a multi-ethnic and culturally diverse society. With vast resources, it is Africa's biggest oil exporter, and also has the largest natural gas reserves on the continent (WHO, 2019).

Nigeria imported US\$34.2 billion of goods in 2017. China (28%) was the leading source of import closely followed by, the Belgium-Luxembourg (8.9%), the Netherlands (8.3%), South Korea (6.4%), the United States (6.0%) and the Republic of India (4.6%). Major imports were manufactured goods, machinery and transport equipment, chemicals, and food and live animals.

In 2017, Nigeria exported about US\$46.68 billion of goods. In 2017, main export partners were India (18%), the United States (14%), Spain (9.7%), France (6.0%) and the Netherlands (4.9%). In 2017 oil accounted for 83% of merchandise exports. Natural rubber and cocoa are the country's major agricultural exports (WHO, 2019).

Nigeria has improved in socio-economic terms in recent years, but its human capital development remains low due to under-investment. Nigeria is ranked 152 of 157 countries in the World Bank's 2018 Human Capital Index. This means human development and skill enhancement is awfully low.

Human Development Index (HDI), is a measure of three dimensions of human development: (i) life expectancy, (ii) educational attainment and (iii) standard of living, measured by income

Nigeria has been classified as a developing nation; a situation which is rather unfortunate considering the vast resource base of the country.

70.2 % of the Nigerian population lives on less than \$1 a day. Furthermore, the country continues to practice massive developmental challenges, which include the need to reduce the dependence on oil and diversify the economy, remedy insufficient infrastructure, and build reliable and efficient institutions, as well as governance issues and public financial management systems.

A large number of Nigeria's population still lives in poverty, without adequate access to essential services, and could benefit from more inclusive development policies. The poverty situation in Nigeria has continued to worsen because of several reasons. The leading causes/reasons of poverty in Nigeria are; inadequate access to employment opportunities, the low endowment of human capital, exponential growth in population, insecurity, small infrastructural development, insufficient power supply and a host of others.

The lack of a strict regulatory and monitoring system has allowed for rampant corruption. This has flawed past poverty alleviation efforts in no small extent since resources which could pay for public goods or directed towards investment (and also create employment and other opportunities for citizens) are being misappropriated. Corruption and poverty are interrelated and encourages each other. When looking at human development, Nigeria is at the bottom of the scale and corruption scores highest.

Ending poverty in Nigeria will entail improving the country's economic productivity through international trade. This will mean investing in human capital and creating jobs for young people, increasing financial access and opportunities and advancing in technological innovation." Alleviating poverty will also entail eliminating trade barriers, insecurity, faulty government policies and a high exchange rate.

## **METHODOLOGY**

This chapter explicitly deals with the methodology employed in the course of the research. In the previous chapter, there was an argument in support of and against international trade as an engine of growth and poverty reduction. However, relying on this notion will not provide us with an optimal solution for achieving the desired result as there is a need for empirical verification through econometric methods, putting in mind the supporting criteria.

This research work examines the effect of trade on the Nigeria economy. The variables required for this study, like most other studies are both dependent and independent variables. For this paper, per

capita income is a function of net export, exchange rate, Inflation and unemployment level. Per capita income is the dependent variable while net export, exchange rate, inflation and unemployment level are the independent variables.

**The OLS technique and unit root** was adopted for the specification of the model in the form

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + \epsilon$$

Where,

Y= the dependent variable

b<sub>0</sub>= intercept or the equation constant

b<sub>1</sub>= the coefficient of X<sub>1</sub>

b<sub>2</sub>= the coefficient of X<sub>2</sub>

b<sub>3</sub>= the coefficient of X<sub>3</sub>

b<sub>4</sub>= the coefficient of x<sub>4</sub>

ε= the error term

Specifically, the following functional relationship is stated for this study

$$\text{Per capita income} = f(\text{nex}, \text{exch}, \text{uemp}, \text{infl})$$

Where,

PCI= Per capita income

nex= net export

exch= exchange rate

uemp= unemployment level

infl =inflation

## DATA ANALYSIS AND INTERPRETATION

This chapter shows the presentation and analysis of the result obtained from various sources (CBN statistical bulletin, world bank group 2018, atlas media (WHO, 2019). The data independent variables are unemployment, inflation, net export and exchange rate, while the dependent variable is GDP per capita which measures poverty in this case. The research seeks to evaluate the effect of international trade on poverty reduction in Nigeria.

**Table 1:** Macro-economic indicators relating to the study (1995-2017)

year	exchange rate	trade balance billion \$	unemployment rate %	GDP per capita \$	inflation rate %
2018	306.1	19.3	22.6	2,033.50	12.09
2017	305.8	12.7	18.5	1,994.70	16.5
2015	192.4	8.3	17.6	2,763.20	9
2014	158.6	47.4	17.1	3,268.40	8
2013	157.3	41.5	16.7	3,042.10	8.5
2012	157.5	75.7	16.2	2,797.90	12.2

2011	153.9	61.30	15.8	2,582.60	10.8
2010	150.3	39.7	21.1	2,365.00	13.7
2009	148.9	12.7	19.7	1,958.60	12.5
2008	118.5	42.7	14.9	2,234.40	11.6
2007	125.8	26.4	12.7	1,822.80	5.4
2006	128.7	30.3	12.3	1,591.30	8.2
2005	131.1	23.2	11.9	1,245.10	17.9
2004	132.9	15.9	13.4	983.00	15
2003	129.2	8.4	14.8	797.60	14
2002	120.6	5.7	12.6	748.30	12.9
2001	111.2	8.6	13.6	598.30	18.9
2000	101.7	15.02	18.1	570.20	6.9
1999	21.9	7.5	17.5	496.00	6.6
1998	21.9	2.92	3.5	1,861.00	7.9
1997	21.9	8.53	3.4	1,713.00	10.7
1996	21.9	9.11	2.8	1,618.00	29.3
1995	21.9	7	1.9	1,273.00	72.8

(cbn statistical bulletin), (group, 2018)

## Presentation of results

### Ordinary Least Square

Dependent Variable: GDP\_PER\_CAPITA\_\$\$

Method: Least Squares

Date: 06/06/19 Time: 13:42

Sample: 1995 2017

Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1320.726	516.6965	2.556097	0.0198
EXCHANGE_RATE	6.322380	2.686880	2.353056	0.0302
INFLATION_RATE__	-6.138779	11.61191	-0.528662	0.6035
TRADE_BALANCE_BILLION_\$\$	24.92305	7.046664	3.536858	0.0024
UNEMPLOYMENT_RATE__	-59.69991	39.34064	-1.517512	0.1465
R-squared	0.532381	Mean dependent var	1762.278	

Adjusted R-squared	0.428465	S.D. dependent var	827.0727
S.E. of regression	625.2662	Akaike info criterion	15.90389
Sum squared resid	7037240.	Schwarz criterion	16.15074
Log likelihood	-177.8948	Hannan-Quinn criter.	15.96597
F-statistic	5.123216	Durbin-Watson stat	0.616346
Prob(F-statistic)	0.006192		

"The results showed that the R2 of 0.53 means that the four independent variables explained about 53 per cent of the poverty rate from 1995 through 2017 in Nigeria.

The F-stat of 5.1 shows that the model is significant while the DW = 0.61 falls within the acceptance region (1.59 -2.41) of no autocorrelation.

The results show that the coefficient of exchange rate, inflation and trade balance are positively related to poverty while unemployment is negatively related to poverty but statistically insignificant at 5%.

**Unit root test**

Null Hypothesis: EXCHANGE\_RATE has a unit root

Exogenous: Constant

"Lag Length: 0 (Automatic – based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	0.835951	0.9923
Test critical values:		
1% level	-3.769597	
5% level	-3.004861	
10% level	-2.642242	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(EXCHANGE\_RATE)

Method: Least Squares

Date: 05/31/19 Time: 15:14

Sample (adjusted): 1996 2017

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
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EXCHANGE_RATE(-1)	0.070375	0.084186	0.835951	0.4131
C	4.646319	11.09407	0.418811	0.6798
R-squared	0.033761	Mean dependent var		12.90455
Adjusted R-squared	-0.014551	S.D. dependent var		23.50897
S.E. of regression	23.67939	Akaike info criterion		9.253596
Sum squared resid	11214.27	Schwarz criterion		9.352781
Log likelihood	-99.78955	Hannan-Quinn criter.		9.276961
F-statistic	0.698814	Durbin-Watson stat		1.472371
Prob(F-statistic)	0.413059			

Null Hypothesis: "D(EXCHANGE\_RATE) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.968970	0.0544
Test critical values:	1% level	-3.788030	
	5% level	-3.012363	
	10% level	-2.646119	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: "D(EXCHANGE\_RATE,2)

Method: Least Squares

Date: 05/31/19 Time: 15:15

Sample (adjusted): 1997 2017

Included observations: 21 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EXCHANGE_RATE(-1))	-0.699691	0.235668	-2.968970	0.0079
C	10.20706	5.757617	1.772793	0.0923
R-squared	0.316910	Mean dependent var		2.490476

Adjusted R-squared	0.280958	S.D. dependent var	27.76469
S.E. of regression	23.54344	Akaike info criterion	9.245965
Sum squared resid	10531.58	Schwarz criterion	9.345443
Log likelihood	-95.08263	Hannan-Quinn criter.	9.267554
F-statistic	8.814781	Durbin-Watson stat	1.962317
Prob(F-statistic)	0.007885		

Null Hypothesis: GDP\_PER\_CAPITA\_\$ has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.182641	0.6628
Test critical values:		
1% level	-3.769597	
5% level	-3.004861	
10% level	-2.642242	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP\_PER\_CAPITA\_\$)

Method: Least Squares

Date: 05/31/19 Time: 15:16

Sample (adjusted): 1996 2017

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_PER_CAPITA_\$(-1)	-0.123904	0.104768	-1.182641	0.2508
C	249.8481	202.8828	1.231490	0.2324

R-squared	0.065361	Mean dependent var	32.80455
Adjusted R-squared	0.018629	S.D. dependent var	409.4989
S.E. of regression	405.6666	Akaike info criterion	14.93545
Sum squared resid	3291308.	Schwarz criterion	15.03463
Log likelihood	-162.2899	Hannan-Quinn criter.	14.95881

F-statistic	1.398641	Durbin-Watson stat	1.653075
Prob(F-statistic)	0.250820		

Null Hypothesis: D(GDP\_PER\_CAPITA\_\$\$) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.941398	0.0072
Test critical values:	1% level	-3.788030	
	5% level	-3.012363	
	10% level	-2.646119	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(GDP\_PER\_CAPITA\_\$\$,2)

Method: Least Squares

Date: 05/31/19 Time: 15:16

Sample (adjusted): 1997 2017

Included observations: 21 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP_PER_CAPITA_\$\$(-1))	-0.894023	0.226829	-3.941398	0.0009
C	13.22009	92.59849	0.142768	0.8880
R-squared	0.449827	Mean dependent var		-26.58095
Adjusted R-squared	0.420871	S.D. dependent var		554.2784
S.E. of regression	421.8088	Akaike info criterion		15.01737
Sum squared resid	3380530.	Schwarz criterion		15.11685
Log likelihood	-155.6824	Hannan-Quinn criter.		15.03896
F-statistic	15.53462	Durbin-Watson stat		2.016159
Prob(F-statistic)	0.000876			

Null Hypothesis: TRADE\_BALANCE\_BILLION\_\$\$ has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.046340	0.2665
Test critical values:		
1% level	-3.769597	
5% level	-3.004861	
10% level	-2.642242	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(TRADE\_BALANCE\_BILLION\_\$\$)

Method: Least Squares

Date: 05/31/19 Time: 15:17

Sample (adjusted): 1996 2017

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TRADE_BALANCE_BILLION_\$\$(-1)	-0.337642	0.164998	-2.046340	0.0541
C	7.927873	4.995762	1.586920	0.1282
R-squared	0.173127	Mean dependent var		0.259091
Adjusted R-squared	0.131783	S.D. dependent var		16.62946
S.E. of regression	15.49502	Akaike info criterion		8.405423
Sum squared resid	4801.914	Schwarz criterion		8.504608
Log likelihood	-90.45965	Hannan-Quinn criter.		8.428788
F-statistic	4.187509	Durbin-Watson stat		2.042429
Prob(F-statistic)	0.054096			

Null Hypothesis: D(TRADE\_BALANCE\_BILLION\_\$\$) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.282151	0.0004
Test critical values:		
1% level	-3.788030	
5% level	-3.012363	
10% level	-2.646119	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(TRADE\_BALANCE\_BILLION\_\$,2)

Method: Least Squares

Date: 05/31/19 Time: 15:17

Sample (adjusted): 1997 2017

Included observations: 21 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(TRADE_BALANCE_BILLION_\$\$(-1))	-1.199811	0.227144	-5.282151	0.0000
C	0.121475	3.738934	0.032489	0.9744
R-squared	0.594892	Mean dependent var		0.418571
Adjusted R-squared	0.573571	S.D. dependent var		26.23524
S.E. of regression	17.13201	Akaike info criterion		8.610167
Sum squared resid	5576.610	Schwarz criterion		8.709646
Log likelihood	-88.40676	Hannan-Quinn criter.		8.631757
F-statistic	27.90112	Durbin-Watson stat		1.960972
Prob(F-statistic)	0.000042			

Null Hypothesis: UNEMPLOYMENT\_RATE has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.675496	0.0941
Test critical values:		
1% level	-3.769597	

5% level -3.004861  
 10% level -2.642242

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(UNEMPLOYMENT\_RATE)

Method: Least Squares

Date: 05/31/19 Time: 15:18

Sample (adjusted): 1996 2017

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
UNEMPLOYMENT_RATE(-1)	-0.473446	0.176956	-2.675496	0.0145
C	6.352688	2.295454	2.767509	0.0119
R-squared	0.263576	Mean dependent var		0.768182
Adjusted R-squared	0.226755	S.D. dependent var		5.094945
S.E. of regression	4.480206	Akaike info criterion		5.923723
Sum squared resid	401.4449	Schwarz criterion		6.022909
Log likelihood	-63.16095	Hannan-Quinn criter.		5.947088
F-statistic	7.158282	Durbin-Watson stat		1.878442
Prob(F-statistic)	0.014536			

Null Hypothesis: D(UNEMPLOYMENT\_RATE) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.767039	0.0012
Test critical values:		
1% level	-3.788030	
5% level	-3.012363	
10% level	-2.646119	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(UNEMPLOYMENT\_RATE,2)

Method: Least Squares

Date: 05/31/19 Time: 15:19

Sample (adjusted): 1997 2017

Included observations: 21 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(UNEMPLOYMENT_RATE(-1))	-1.103581	0.231502	-4.767039	0.0001
C	0.822573	1.170611	0.702687	0.4908
R-squared	0.544634	Mean dependent var		0.176190
Adjusted R-squared	0.520667	S.D. dependent var		7.696097
S.E. of regression	5.328305	Akaike info criterion		6.274336
Sum squared resid	539.4259	Schwarz criterion		6.373815
Log likelihood	-63.88053	Hannan-Quinn criter.		6.295926
F-statistic	22.72466	Durbin-Watson stat		2.041360
Prob(F-statistic)	0.000134			

Null Hypothesis: INFLATION has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-11.93149	0.0000
Test critical values:		
1% level	-3.769597	
5% level	-3.004861	
10% level	-2.642242	

\*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(INFLATION)

Method: Least Squares

Date: 05/31/19 Time: 15:41

Sample (adjusted): 1996 2017

Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INFLATION(-1)	-0.733193	0.061450	-11.93149	0.0000
C	8.388817	1.242585	6.751099	0.0000
R-squared	0.876817	Mean dependent var		-2.559091
Adjusted R-squared	0.870658	S.D. dependent var		10.92797
S.E. of regression	3.930150	Akaike info criterion		5.661741
Sum squared resid	308.9217	Schwarz criterion		5.760926
Log likelihood	-60.27915	Hannan-Quinn criter.		5.685106
F-statistic	142.3605	Durbin-Watson stat		1.718452
Prob(F-statistic)	0.000000			

The results from the OLS showed that the R<sup>2</sup> of 0.53 means that the four independent variables explained about 53 per cent of the poverty rate from 1995 to 2017 in Nigeria.

The F-stat of 5.1 shows that the model is significant while the DW = 0.61 falls within the acceptance region (1.59 -2.41) of no autocorrelation.

The results show that the coefficient of exchange rate, inflation and trade balance are positively related to poverty, while unemployment is negatively related to poverty but statistically insignificant at 5%.

The four variables explained only 53% of poverty in Nigeria. This is explained by externalities which affect the country a great deal. Some of these externalities include inadequate security, corruption in the public sector, political and civil unrest, income leakages which occur as a result of inefficiency in tax collection and administration.

Inequality in income distribution is also another factor affecting the country.

**Unit root.** All the variables have unit root and are stable at 0.054

These show our variables are relevant to the studies.

However, the exchange rate is responsible for just 31% of poverty rate, trade balance has 59% significance, and unemployment has 54% significance while inflation had the most impact with 87%. This shows that inflation affects poverty the most.

## CONCLUSION AND RECOMMENDATION

The major aim of this study is to examine how international trade (measured by net export), inflation and unemployment affect poverty and the ways to reduce poverty in Nigeria. The study found out that there is a relationship between poverty reduction and the practice of international trade in Nigeria. There a relationship between economic growths and poverty reduction. W.T.O rules help in poverty reduction in Nigeria. Trade liberalization will help poverty reduction processes in Nigeria.



Nigeria has gained from engaging in international trade over the years. However, the gains of trade could be more if the economy and the production structures had been responsive and more adaptable to changes both internally and externally on the basis of the international economic system. In an ever-changing and highly competitive global environment, Nigeria needs to continually re-examine sources of strengths, weaknesses, opportunities and threats (SWOT analysis) to develop appropriate policy strategies which can lead to maximum national benefits within the context of identified problems.

Based on the findings of the study, the following recommendations were made; Since there is a positive long-run relationship between exports and economic growth, the Nigerian economy needs to export more goods in which it has comparative advantage and import less to improve on its balance of payment which will, in turn, affect the exchange rate positively, as there is a positive relationship between GDP per capita and exchange rate. From the studies above in 2017, Nigeria has a GDP of \$1,994 when the exchange rate was at its maximum rate of 305 naira per dollar. There was a negative growth of GDP by 1.9%. Looking at the year 2014, when the exchange rate stood at 158 naira to a dollar, the GDP per capita was at its maximum of \$3,268. This shows that there is a positive relationship between low exchange rate and high GDP per capita.

Also, other factors that affect the exchange rate are, recession, terms of trade, interest rate, inflation and political stability. An increased level of interest rate will attract foreign capital and thereby improve the exchange rate. Inflation affects exchange rate negatively. A country with a consistently lower inflation rate exhibits a rising currency value. In contrast, a country with higher inflation typically sees depreciation in its currency and is usually accompanied by higher interest rates.

Balance of payment also affects a country's exchange rate in that a country's current account reflects the balance of trade and earnings on foreign investment. It consists of the total number of transactions, including its exports, imports, debt, etc. A deficit in the current account due to spending more of its currency on importing products than it is earning through the sale of exports causes depreciation on its currency.

"Political instability and recession also affect a country's exchange rate because a country's political state and economic performance can affect its currency strength. A country with less risk for political turmoil is more attractive to foreign investors. As a result, drawing investment away from other countries with more political and economic stability. Increase in foreign capital, in turn, leads to an appreciation in the value of its domestic currency. A country with sound financial and trade policy does not give any room for uncertainty in the value of its currency. But, a country prone to political confusions may see depreciation in exchange rates".

When a country experiences a recession, its interest rates are likely to fall, decreasing its chances to acquire foreign capital. As a result, its currency weakens in comparison to that of other countries, therefore lowering the exchange rate.

i). There is a negative relationship between inflation rate and GDP per capita.

In 2014, Nigeria experience the highest GDP per capita rate of \$3,268 with an inflation rate of 8%, in 1995, the inflation rate was seen at 72.8% which led to a GDP of \$1,237. Inflation is caused by a lot of factors which includes deficit budget, ineffective monetary and fiscal policy, political instability and increase in the money supply.

The solution to inflation is an effective monetary policy which will control the level of money supply in the economy. The financial sector policymakers need to adopt sustainable fiscal policies to cushion

the economy and to avert double-digit inflation. The efficient tax system is also useful to reduce the government's deficit budget instead of borrowing, which will increase the deficit budget.

ii). Unemployment has a direct impact on the poverty level. In 2017 the unemployment rate in Nigeria was 18.8 % which gave a GDP per capita rate of \$1994, in 2010 when the unemployment rate was 5% the GDP per capita rate was \$2,365, which shows that unemployment impacts negatively on poverty. Nigeria was recently declared the headquarters of poverty with 90 million of its population living in abject poverty, which represents 47% of its total population.

Solutions to unemployment include government support of small and medium enterprise in areas of providing low-cost funds at a single-digit rate to enable expansion of their business, which will lead to more employment. Also, tax holiday should be given to import substitution industries to encourage them to produce more and expand, this will also generate more employment and improve the balance of payment deficit which is a significant cause of inflation. An improvement in power supply will also have a direct impact on the cost of doing business in Nigeria. Manufacturers spend a lot on diesel and other alternative sources of power because of the inadequate power supply in Nigeria. A lot of companies have been shut down in Nigeria because of the cost of power supply. If this problem is taken care up, more industries will sprout up, which means more employment. With an improvement in the employment level, poverty will be reduced in Nigeria.

There is a need to exploit all our resources to generate a high level of productivity required to feed, educate, clothe and sustain our selves at a standard of living which makes life worth living and enjoyable.

In summary, government policies should encourage a pleasant investment climate and provide incentives for firms to invest productively, create jobs, expand and stimulate the economy. Formulate plans to reduce poverty, inequality and the health status of the citizenry.

There should be improved access to affordable healthcare services.

Entrepreneurship should be encouraged through an improvement in the economic and financial system, granting cheap funds to small and medium enterprise, promoting export companies, encouraging import substitution industries through giving tax holiday or a reduced level of tax.

A pleasant investment climate will lead to increased profit, increased job creation, lower prices of goods and services, support innovation, broadened government revenue through efficient tax collection and ultimately reduced poverty.

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