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Foreign Trade and Unemployment in Nigeria, 1981-2017

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***Abstract*— We queried international trade impacton unemployment in Nigeria,1981-2017.In other to accomplishset objectives, this work proxy unemployment (UNE) as regressand,import (MPT), export (XPT), exchange rate (EXR) and EDB ranking served as regressors. Descriptive statistic and ECM were employed for data analysis. The result elicitedlong run relationship exists between trade and work force cutback,determined from the Engle-Granger co-integration test. Import reduced unemployment,but exports, currency rate plusease of doing business increased unemployment from 1981-2017.Consequent upon these outcomes, we advocate that government invest 5%of GDP inagriculture and its value chains for exports and local consumption given Nigeria's exports is predominantly oil as a commodity. Play in the chocolate market, not cocoa beans market. Process 50 % of Nigeria's crude in Nigeria into a plethora of refined petroleum products using small refineries for local consumption,generation ofemployment and redistribution of wealth. Export refined value-added products to African countries. Stabilise the Naira by all means necessary. Finally, legislate Nigeria's development plans such that successive governments would focus on it until all objectives are realised before starting another plan.**

***Index Terms*— Unemployment, Import, Export, Exchange Rate, Ease of Doing Business.**

I. INTRODUCTION

Highlight Unemployment amainproblemsafflictingour country and hindering its development particularly youth unemployment. NBS and Nigeria's National Population Commission recent statistics indicate youth layoffshot up to 58.1% in 2017 (NBS, 2017). This is scandalous, considering that Nigeria's population is a youthful population.The populaceaged 15-34 yearsNigeria's total population was put at about 43 percent (NBS, 2017). Given the above scenario, Anyawu in 2013, observedthatin Africa,percentage of populace aged 15-34 years laid off rate ishigher than adult unemployment rate.Particularly because young people are those who turn up at venues for aptitude or physical fitness tests in their search for jobs buttress this observation.

The consequences to our economy are quite observable and they include: increased crime rate; vandalisation of public assets, particularly oil installations; emigration of skilled labour (brain drain syndrome); insurgency and insecurity; widespread poverty; low economic output and psychological effects of unemployment.

The country can befreed from all these consequences by putting up policies to encourage trade to create jobs.Growth in exportcurtails the atrocious povertycycle and advance development(Bosede, 2014).

According to Oaikhenan and Aigheyisi (2015)efforts on programmessuch as NEEDS 1 and NEEDS 11, seven point agenda and Sure P.Governmentjob creationyielded no positive results.Also, Meroyi (2016) noted thatseveralpolicy by each successivegovernment of Nigeria to tackle unemployment problem failed.

Available data indicate that boost in absolute trade increased unemployment in Nigeria. For instance;on an average total trade expanded from N18.9 bill in 1981/1985 to 72 billion naira in 1986/1990 to 603.8 billion naira in 1991/1996 to 2106.2 billion naira in 1996/2000 to 5657.7 billion naira in 2001/2005 to 14579.6 billion naira in 2006/2010 to 23195.6 billion naira in 2011/2017. From 1981-2017 time frame, unemployment took an upswing. It decreased from 7.36% in 1981/1985 5.18%, in 1986/1990 and later jumped to 6.88 percent in 1991/1995,8.82% in 1996/2000, 13.26 % in 2001/2005, 16.2 % in 2006/2010 and 18.4 % in 2011/2017 (CBN, 2017).

The skewed economyespecially on unemployment level suggests that the economy needs stability. These observations amongst othersmakes it imperative to query the aftermath effect oftrade on unemploymentin Nigeria from1981-2017. The paper is arranged thus: Section1 is introductionwhile section two empirical literature review; section three discusses model and methodology while section four provides dataand empirical outcomes and finally section five providesthe summary and closure.

II. LITERATURE REVIEW

2.1 Theoretical Framework

This theory developed by two Swedish economists known as Eli Heckscher and Bertil Ohlin. Their theory addressed 2 problems, determinants of absolute advantage of a nation also its consequences on trading countries.

The Heckscher – Ohlin theory focused at large natural resources, price of input and output its disparity amongst nation's significant drivers of trade. However, with theory machinery and preferences Heckscher-Ohlin contended factors endowment determine a nation's comparative advantage. This mental analysis is the foundation on which rests the theory. Their approach analysed factor endowment andinternational specialisation. The model strands; firstly, specialisation secondly, countries factor endowments

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difference.

The advanced economies like Nigeria with abundant labour concentrate on unmanufactured products, especially agricultural products as workers required for these products are high where mechanised commercial farming is not inexistence. They argued less developed economies buy completed products preferably from advanced nations. It argued that where factor for two economies are homogeneous, production surge in inputs elicits boost in outputs and long term occurs.

The proposition that it's predicated on, exposed the Heckscher-Ohlin argument to some criticisms. Factors are different. They discounted perfect competition, assumed products are differentiated, and comparative factor values are reflective disparity during benefaction. Determination of input cost occurs when supply exceed demand.

Heckscher-Ohlin theory concluded that trading increases aggregate production. International trade raise capital, commodities from other economies and all nations gain. Trade stimulates growth, generate employment that reduces unemployment in emerging economies (Akeem, 2011; Enu, Havi & Hogan, 2013).

2.2 Review of Empirical Literature

Works exist that query the consequence of international trade on unemployment of specific country. For instance; Sodipe and Ogunrinola (2013), Investigated the association amidst growth and unemployment, 1981-2006. The outcomes indicated that an absolute and compelling association exist betwixt cutback and economic growth. However, an adverse association exist amidst employment and GDP increase in Nigeria. They suggested efforts should be directed towards employment generating ventures.

Kim (2011) studiedanalytically the repercussiontrade own onaggregate unemployment on twenty OECD countries from 1961 to 2008. Kim established imports from high-income economies could increaseaggregate unemployment when the explicit fallout of trade is considered. However, no clear evidence subsist that other trade indicators such astotal trade, total imports, or imports from low-income economieshave any compellingaftereffect on cutback.

Goff and Singh (2012) questioned the reaction trade openness exact on poverty. They opinedit requires interdependent rejigging of strategies and tacticsfor an economy strong enough to compete internationally. A non-linear regression specification utilised Poverty as the responsive variables, while governance and strong financial system, education were regressors and a panel of thirty economies in Africa from 1981-2010. They established that when an economy has strong education system, deep-rooted stable institutions that tradelibralisationadd to contraction of poverty rate.

Umoru (2013) interrogated impact on international trade and job creation,1986 to 2011. VECM was deployed for data analysis. The study elicited trade flows has a negative and asubstantial aftermath effect on job creation.He advised Nigeria government should widen her trade basket, control importation such that BOP becomes favourable.

Nwaka, Uma and Tuna(2015), scrutinized the consequences international trade policy exacts on unemployment from 1970-2010 using VECM methodology to analyse the data. Nwaka et al, established that on the long run real GDP and trade liberalisation boost unemployment rate. Commodity price shocks exact absolute hike on unemployment, however, failed to normalize equilibrium. The reverse is, however, the case in short term as it dropped unemployment rate

Ikechukwu, Kalu and Gulcay (2015), studied the effect trade openness had on job cutback. The study spanned 1970-2010 and analysed the data deploying Vector Error Correction method. Variables comprised adjustment in RGDP or income per head, unemployment rate, international price shock, the recurrent spending of government on education and open trade. Their work concluded that increasing merchandise price and promoting trade openness resulted in higher unemployment,1970-2010. The long-term income per head and RGDP triggered reduction in unemployment.

Belenkiy and Riker (2015) studied the theoretical evidence linking exportscum cutback on employment. The archetype showed an intricate theoretical models compellingassociation exists amongst trade and cumulative cutback rates. They established that the factual study showed foreign trade contracted cutback on the long run.

Keawphun (2016) looked at trade openness repercussion onjob cutback. Linear regression archetype was deployed for 89 countries, 1994-2005. The study established trade had an adverse association with unemployment.And neither did differences in time frame exact a significant aftereffect of libralisation on labour cutback.

Okere and Iheanacho (2016) queried the repercussion of protectionist export approachon Nigeria's economyspanning 1990 to 2013. Theydeployed ARDL and co-integration testfor their analysis. They affirmed real GDP per head, unemployment, labour and output significantly promoted economic advancement. And suggested policieswhich could encouragetrading be implemented.

Yolanda (2017) studied impact of export development on job loss in Indonesia from 1986 to 2016 using OLS to analyse the data. Export development owned an absolute and substantialrelationship with job cutback in Indonesia. Yolanda advanced policies to trigger an upswing in Indonesian exports.

III. Method of Study

3.1 Analytical Framework and Model Specification

The analytical methoddepicts work Meroyi (2016) with further modification. Meroyi (2016) studied the aftereffect of trade Liberalization on job creation under military and civilian leadership in Nigeria by regressing employment (EMPLOY) as a roleof export (XIT), import (MIT), exchange rate (EXR), interest rate (INTR) and (FDI), 1980 to 2012. But this study deviates from this scholarby examining the aftereffect offoreign trade on unemploymentby regressing UNE as a function of Import (MPT), Export (XPT), Exchange Rate (EXR) and Ease of Doing Business (EDB) from 1981 to 2017. Hence,the archetype is explained thus:

UNE = f(MPT, XPT, EXR, EDB); (1)Where:UNE=Unemployment, MPT = Import, XPT = Export, EXR= Exchange Rate, EDB = Ease of Doing Business. From equation (1) above, theexplicit econometricarchetype is detailed as:

$UNE_t = \beta_0 + \beta_1 MPT_t + \beta_2 XPT_t + \beta_3 EXR_t + \beta_4 EDB_t + \mu_t$(2)

Where: UNE = Unemployment at time 't', MPT = Import at time 't', XPT= Export at time 't', EXR = Exchange Rate at time 't', EDB = Ease of Doing Businessat time 't', β_i = Parameter measure and μ_t = Error term

3.2 Data Sets and Estimation Method

Data on Unemployment (UNE), Import (MPT), Export (XPT), Exchange Rate (EXR) and Ease of Doing Business (EDB) came from CBN data repository1981 to 2017. Error Correction Modeling was used for analysis.

The analysis employed areexplanatory and investigative. The analytical toolused is the OLS regression method. These econometric techniques include:unit root test, co-integration test anderror correction mechanism (ECM).

IV. Empirical Results and Analysis

Chapter four arrays scrutinised data and outcomes. It further evaluated and explained the outcomes.

4.1 Descriptive Statistics

Table 1 below arrays the results.

Table 1: Descriptive Statistics Results

	UNE	MPT	XPT	EXR	EDB
Mean	11.28649	3072.365	4429.276	82.78649	42.83784
Median	9.400000	862.5000	1309.500	92.69000	0.000000
Maximum	27.40000	11076.10	15262.00	305.7900	170.0000
Minimum	3.200000	6.000000	7.500000	0.610000	0.000000
Std. Dev.	6.062643	3992.370	5367.481	80.40607	64.01585
Skewness	1.054028	1.064298	0.883832	0.713596	0.881859
Kurtosis	3.363411	2.489995	2.270978	2.868120	1.956980
Jarque-Bera	7.054622	7.386170	5.636506	3.167002	6.472825
Probability	0.029384	0.024895	0.059710	0.205255	0.039305
Sum	417.6000	113677.5	163883.2	3063.100	1585.000
Sum Sq. Dev.	1323.203	5.74E+08	1.04E+09	232744.9	147529.0
Observations	37	37	37	37	37

Source:*Author's Computation (2018)*

Table 1 array standard deviation determined for export as most changeable array with a figure of 5367.48, unemployment was least capricious ficklecalculated to be 6.06. Computedamountof skewness statistic for all fickle – UNE, MPT, XPT, EXR, and EDB were absolutely skewed, indicating their dispersionown a long right tail. Again, the kurtosis statistics of MPT, XPT, EXR and EDB.

Jarque-Bera statistics (J-B) for UNE, MPT and EDB variablesdenied the axiom for usual dispersion while XPT and EXR variables do not reject the axiom of usual dispersion at 5% level of importance. The outcomes suggests the presence of non-stationary in the array.The Augmented Dickey Fuller (ADF) unit root testsprocedures were adopted.

4.2 Unit Root Test

Table 2 below presents outcomes of these regressors and regressand; UNE, MPT, XPT, EXR and EDB were stationary at 1st difference.

Table 2:Unit Root Test Results

Augmented Dickey Fuller (ADF) Test				
Variables	Level	1st Difference	Status	Remarks
LOG(UNE)	-1.587240	-6.571605	I(1)	Stationary
LOG(MPT)	-1.074857	-6.787992	I(1)	Stationary
LOG(XPT)	-1.181633	-6.197897	I(1)	Stationary
LOG(EXR)	-1.905764	-5.101654	I(1)	Stationary
LOG(EDB)	-0.100453	-4.913223	I(1)	Stationary

Critical Values	Level	1st Difference
1%	-3.626784	-3.632900
5%	-2.945842	-2.948404
10%	-2.611531	-2.612874

Source:*Author's Computation (2018)*

4.3 Co-integration Test Result and Analysis

Because the array is order I(1), co-integration analysis is required, therefore, Engle-Granger two-step processwas deployed. The result of the Engle-Granger Co-integration aregiven in Table 3 below.

Table 3: Engle and Granger Co-integration Test Result

Variable	Level	5% Critical Values	Order of Integration	Remarks
RESID(ECM)	-3.436143	-2.948404	I(0)	Co-integrated
Stationary at both 5% and 10% Level of Significance				

Source: *Author's Computation (2018)*

The Engle and Granger (1987), two-step co-integration process of the archetype details that leftovers from the reversion were stationary and symbolic at 5%, affirming that (MPT, XPT, EXR and EDB) are co-integrated with unemployment (UNE) from 1981-2017 connoting long term association amidst regressor and regressandin Nigeria.

4.4 Parsimonious ECM test result and Analysis

To affirm the presence of co-integrating vector amidst the fickle, ECM is used. Interpretation stretch from the broad to concise rules as detailed in Table 4 below.

Table 4: Parsimonious ECM Result

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	0.009154	0.055101	0.166137	0.8693
DLOG(UNE(-1))	0.257446	0.153790	1.674008	0.1057
DLOG(MPT(-1))	-0.250265	0.112847	-2.217730	0.0352
DLOG(XPT)	0.142592	0.100280	1.421945	0.1665
DLOG(EXR(-1))	0.053467	0.136857	0.390678	0.6991
D(EDB(-2))	0.002099	0.002404	0.873184	0.3903
ECM(-1)	-0.553187	0.143804	-3.846815	0.0007
R2 = 0.458; Adj-R2 = 0.337; D.W. = 1.868; F-Stat. = 3.797				

Source: *Author's Computation (2018)*

Presented in Table 4 are determined Adjusted-R square of 0.337, suggesting that the regressorsin the archetype are responsible for 34% of the cumulative differences in unemployment(UNE). The remaining 66%are determined by externalities to the archetype, but accounted for by residual.

Regression decisions of the active archetype is compelling at 5% level as F-calculated of 3.797 is above the table value of 2.92. The ECM is accurate and symbolic. It indicates55% disequilibrium in UNE in the past year is rectifiedwiththe year as the array of data are annual. The Durbin-Watson (D-W) statistics amountof 1.868, conveys nonexistence ofserial interrelationship in the archetype.

The numerical quantity of previous lag (1) fromimport (MPT) is unfavourableat -0.250265, implying that 1%hike ofimports reduces unemploymentby 0.25 percent. The constant quantity of previous lag (1) ofimport (MPT)conforms to presumptive as with economic axiom and is numericallysymbolic at 5% level

The results furthersuggestnumerical quantity of recent export (XPT) is positivewith a value of 0.142592. Therefore, 1%upswing in export (XPT) increasesunemployment by 0.14%within time span reviewed. The numeric quantity of export (XPT) denies theaxiomand numericallyinconsequential with unemployment in Nigeria.

The constant quantity ofprevious lag (1) for exchange rate(EXR) own apositivevalue of0.053467, implyinga1% gain in previous lag (1) for exchange rate (EXR) increases unemployment by 0.05%. The numerical quantity of former lag (1) of exchange rate (EXR) is infinitesimal onjob cutbackat 5% level. While numerical quantity of prior lag (2) for ease of doing business (EDB) with positiverate of 0.002099,connoting 1%deterioration in prior lag (2) of ease of doing business (EDB) increases unemployment by 0.002%. The constant quantity of former lag (2) of ease of doing business (EDB) inconsequential on unemployment at 5% level.

4.5 Diagnostic Testing Results

Table 4.5 arraysresults from these tests**;** Breusch-Godfrey Serial Correlation LM Test, Heteroskedasticity Test and Stability test (CUSUM & CUSMSQ test). These final analysis test affirmed that the archetype properly modelled and stability endured within 5% critical boarder as depicted by the CUSUM and CUSUMSQplots.

Table 5: Diagnostic Test Results

Test	Result	Prob.
Breusch-Godfrey Serial Correlation LM Test	0.610392	0.4665
Heteroskedasticity Test	0.791562	0.5195

Source: *Author's Computation (2018)*

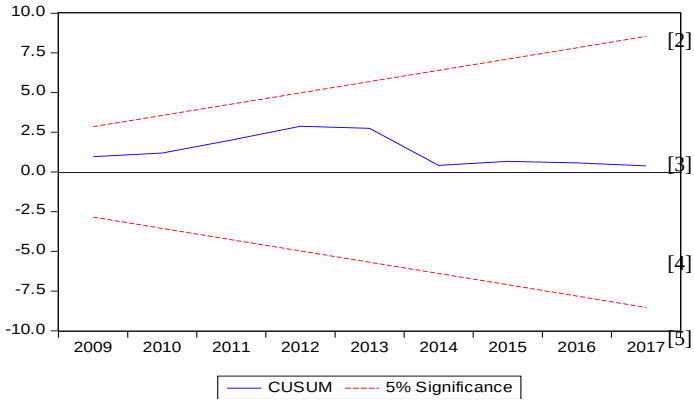

Figure 1: Stability Test Result based on CUSUM

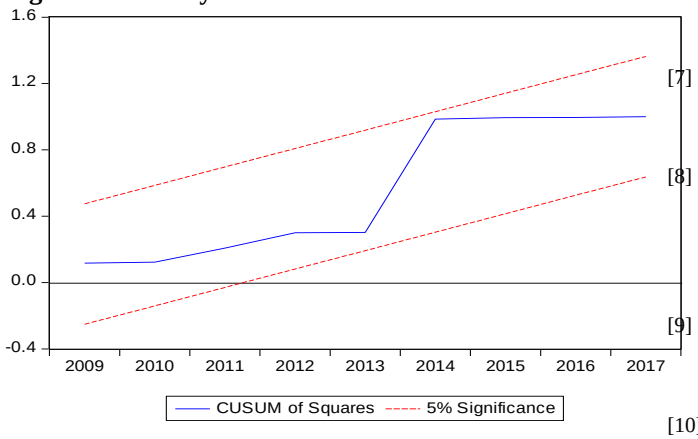

Figure 2: Stability Test Results based on CUSUMSQ

V. Conclusion and PolicyRecommendation

We scrutinised foreign trade association with unemployment from 1981 to 2017. For inquiry, we used Engle-Granger Co-integration and Error Correction Modeling procedures. Datasets used for reasoning were annual and sourced from, CBN, NPC, and NBSamongst others. The outcome affirmed the presence of long term associationbetween foreign trade and unemploymentelicited from Engle-Granger co-integration test. Furthermore, the paper revealed that import reducedjob cutback while exports, exchange rate and thedeteriorating ease of doing business environment increased unemployment.

We advisedthat government invest 5% of GDP in crop production and its value chains for exports and local consumption given Nigeria's exports is predominantly oil as a commodity. Play in the chocolate market, not cocoa beans market. Process 50 % of Nigeria's crude in Nigeria into a plethora of refined petroleum products using small refineries for local consumption which will generate employment, and redistribute wealth. Export refined finished products to African countries. Stabilise the Naira by all means necessary. Finally, legislate Nigeria's development plans such that successive governments would focus on it until all objectives are realised before starting another plan.

References

[1] Akeem, U. O. (2011). Performance evaluation of foreign trade and economic growth in Nigeria. *Research of finance and accounting*, 2(2): 12-25. Retrieved from http://www.iiste.org.

[2] Belenkiy, M. &Riker, D. (2015). Theory and Evidence Linking International Trade to Unemployment Rates. Office of Economics Working Paper U.S. International Trade Commission No. 2015-01B, 1-13.

[3] Bosede, O. (2014). Effect of international trade on Nigerian economic growth. An unpublished M.sc thesis, Department of economics, Ajayi Crowther University.

[4] Central Bank of Nigeria (2017) Statistical Bulletin. Abuja: Central Bank of Nigeria

[5] Engle, R.F., & Granger, C.W.J. (1987). Cointegration and error correction: Representation, estimation, testing. Econometrica, 55, 251–76.

[6] Enu, P., Havi, E. D. K. & Hogan, E. (2013). The impact of foreign trade on economic growth of Ghana. *International journal of academic research in economics and management sciences*, 2(5), 174-191.

[7] Goff, M., Raju, J.&Singh R. J., (2012), Does trade reduce poverty? A view from Africa. Journal of African Trade. 1. 10.1016/j.joat.2014.06.001.

[8] Ikechukwu, D. N., Kalu, E. U., &Gulcay, T., (2015). Trade openness and unemployment: Empirical evidence for Nigeria, Volume: 26 issue: 1, page(s): 117-136, http://oer.funai.edu.ng/wp-content/uploads/2016/11/The-Economic-and-Labour-Relations-Review-2015-Nwaka-117-36.pdf

[9] Keawphun, L. (2016). Impact of trade opening on unemployment. Southern Illinois University Carbondale Open SIUC Research Papers Graduate School.

[10] Kim, J. (2011). The effects of trade on unemployment: Evidence from 20 OECD countries. Journal of International Economics, 64 (2), 411-439.

[11] Meroyi, Y. (2016). Comparative Analysis of Impact of Trade Liberalization on Employment Generation during the Military and Civilian Regimes in Nigeria (1980-2012). International Journal of Academic Research in Business and Social Sciences, 6(11), 110-134.

[12] National Bureau of Statistics. (2017). Social Statistics in Nigeria. Abuja: National Bureau of Statistics of Nigeria.

[13] Nwaka, I. D., Uma, K. E. & Tuna, G. (2015). Trade openness and unemployment: Empirical evidence for Nigeria. The Economic and Labour Relations Review, 26(1), 117 –136.

[14] Oaikhenan, H. E., & Aigheyisi, O. S. (2015). Investment, government expenditure and unemployment in Nigeria. *The Nigerian Journal of Economic and Social Studies*, 57(2), 201-224.

[15] Okere, K., & Iheanacho, E. (2016). The impact of trade protectionist policy on the economic growth of Nigeria. *International Journal of Finance and Accounting*, 5(4), 171-183. Doi: 10.5923/j.ijfa.20160504.02

[16] Sodipe, O. A. & Ogunrinola, O. I. (2011). Employment and Economic Growth Nexus in Nigeria. International Journal of Business and Social Science, 2(11), 232-239.

[17] Umoru, D. (2013). Employment and International Trade Flows In Nigeria: VECM Analysis. *International Affairs and Global Strategy*, 8, 1-18.

[18] World Bank (2011). World development indicators. Washington, DC: World Bank.

[19] Yolanda, H. (2017). Impacts of export development on unemployment in Indonesia. European Research Studies Journal, XX (3A), 758-773.