Export earnings and Nigeria's domestic investment

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ABSTRACT

This study evaluated export earnings and Domestic investment of Nigeria for the periods of 1981 – 20117. The study adopted time series econometrics analysis of export earnings and Nigeria's domestic investment. The main objective is to determine if there is any significant impact of exports earning on domestic investment in Nigeria within the period under study. In order to achieve this, econometric tests such as unit root, co-integration, Vector Error Correction Mechanism (VECM) were carried out, using annual time series data from CBN statistical bulletin. In the end, the result of unit root test showed that all variables were stationary at the first difference and also co-integrated of the same order in the long run. Similarly, the VECM result showed 64.9% speed of adjustment for the short disequilibrium and long run equilibrium annually. Also, it reveals that there is a significant impact of export earnings on Nigeria's domestic investment. Also, the Durbin Watson value of 1.9 revealed absence of autocorrelation. Based on the findings above, the study recommends among other things that Federal Government of Nigeria should revamp both local industries and agriculture through subsidies, concessions, uninterrupted power supply, technical assistance, improving security of lives and properties and the creation of enabling business operating environment. Also sound macroeconomic policies are needed to reinforce the globalization exercise for a better result.
Keywords: Export, Earnings, and Domestic Investment

INTRODUCTION

The need for the relationship between trade and export earnings is recognized by most economists, with trade described by some as the main source of growth and investment capability of any country. Also, the study of export earnings and investment cannot be properly discussed without mentioning trade as an engine of export and investment, be it domestic or international trade. The new classical economists, for example, got historical evidence from the nineteenth Century, likened trade to an "engine of growth" [1]. Also, [2] described trade to be the "handmaiden of growth". It, therefore, become imperative for every economy to pay keen attention to issues relating to trade especially how to boost real productivity in the export sector.

Exports are goods and services produced domestically and purchased by foreigners. Net exports are the difference between total exports and total imports.

[3], had it that the surplus goods and services of a country that are sent to other countries in the world for sale. In the same vein, export is any legitimate commodity transported from one country to another for use in trade [4].

The export earnings of Nigeria, include both oil and non-oil exports. Non-oil exports include all other sectors that are not from the oil sector such as agricultural, mining, manufacturing, services, telecommunications banking etc that are sent outside the country in order to generate revenue for the country. These non-oil export products are coal, cotton, timber, groundnut, cocoa, beans etc [5]. [6] states that, the growth of Nigerian economy remains partly dependent upon increasing productivity of the agricultural sector and other sectors including the oil sector. The products from all these sectors mentioned above help to produce export

commodities which will increase the nation's foreign earnings and which can be used to finance a variety of development projects. The output from these sectors can contribute substantially to the total tax revenue, as well as having some implications for inter-sectional terms of trade. Also in the area of capital formation, the savings generated in this sector can be mobilized for investment purposes.

Every other non oil sector were found to be doing well in Nigeria till the advent of oil in 1959, followed by the oil boom in the 1970s which diverted the attention of the economy to oil due to increase in the prices of crude oil. These changes also aaffect3ed the nation's exports and earnings in no small measure [7]

However, in the 1980s the world oil market crashed. The crash resulted in drought in oil earnings and budgetary receipts without a matched slow down in fiscal and external deficits. In a bid to finance the domestic and external deficits, government resorted to heavy borrowing from the banking system, international financial institutions and depleting of external reserves. The subsequent decline in foreign exchange earnings also triggered an unperfected economic crisis [8]. It is in response to these immense problems that the structural Adjustment program (SAP) was introduced in the late 1980s. This was aimed at liberalizing and diversifying the economy. SAP was designed to pay more attention to exports, especially in the non oil sector, which witnessed the worst neglect. The adoption of SAP was followed by formulation of several export promotion policies especially on manufacturing export. Which include various incentives on export, Researched and Development (R&G), privatization of state owned enterprises and host of others [9]. Nigerian exports earning seems to have improved recently following the emergence of the APC government since 2015 till date which came with policies such as increase in investment in agriculture, increase in the use of domestic goods, and above all the border closure. The fact is that all these policies may have either positive or negative impact on the nation's exports earnings and investment.

In the light of the above, this research work aims at analyzing the effect of export earnings fluctuations and Nigeria's investment capabilities.

Objectives of the Study

The objective of this study is to evaluate; the significant relationship between export earnings and domestic investment. Specifically, the objective of this study includes;

1. To examine the impact of export earnings on Nigeria's investment.

2. To empirically investigate if there is any significant long run relationship between export earnings and investment in Nigeria.

3. To determine the causal relationship between export earnings and investment in Nigeria.

THEORITICAL LITERATURE

Export earnings instability otherwise known as export earnings fluctuation can be defined as short-term variations corrected for trend. Some of trend correction is needed to avoid interpreting a constant year-to-year increase or decrease as indicating instability. Investigation has been presented with evidence supporting the fact that developing countries experience greater export earnings changes than the developed countries. [10], [11], [12], [13], all support the view that while export earnings variations for both group of countries, developing countries in general suffer a greater degree of export earnings instability than the developed countries.

Researches on international trade suggests that exports have a positive impact on economic growth is known as the export–led-growth [14]. The present literature presents several plausible theoretical arguments supporting the view that exporting activities and overall growth and investment are positively associated. On the one hand, exporting implies that a country gain access to the wider external demand, which act as a stimulus to domestic output and hence growth and investment. Second, it is frequently argued that small domestic

markets may not grow continuously and that any positive economic shock leading to the expansion of the domestic market is more likely to decay quickly. On the other hand, large external markets do not always encompass growth restrictions on the demand side, and this leads to the exploitation of economies of scale [15].

[16], opined that mercantilists prohibited the ultimate good import (for it causes valuable mine output) and aimed to increase the import of valuable mine by increasing export. In contemporary phrasing, this situation necessarily means running the balance of payments surplus and this aim states the essential intention of mercantilism [17].

[18] had it that whenever the value of imports of an economy is less than its export, it means a favorable trade, while the opposite is unfavorable balance of payments but when both values are equal then is balance of payments equilibrium.

The Export Crop Sector in Nigeria

In 1977 the commodity marketing boards were established by the federal military Government with the purpose of taking care of specific crop such as cocoa rubber roots and tuber, etc. food imports were limited but crop production for export was intensified during the period of liberalization, the overall objectives of trade policy in Nigeria include a marketing Board Policy (1960- 1977) through which all exportable agricultural products were purchased by the Government at prices far lower than world prices, and incentive were given to farmers to increase their acreage and adopt some important technologies [19].

The liberalization and diversification of the economy of Nigeria was a major aim of the structural adjustment programmed of 1986. The diversification of export was focused on moving the export base away from oil and the expansion of non-oil exports, especially agricultural exports cocoa increasingly accounted for the largest percentage of non-oil exports in Nigeria. In general, average figures for the period 1993- 1995 show that cocoa rubber, fish and shrimps, and cotton were the major agricultural commodities being exported from Nigeria.

EMPIRICAL REVIEW

Empirical investigation into the relationship between export earnings, investment and economic growth has been done by various authors using various econometric techniques. For instance, [20], used a VAR containing two lags to establish a model with variables such as nominal interest rate, yield on investment grade corporate bonds with remaining maturity of 5-10 years to capture long term interest rate, real GDP, oil prices, equity returns and real effective exchange rate made positive contribution in that direction. He posited that credit availability proxied by survey results on lending standards is an important driver of the business cycle, accounting for over 20% of the typical contribution of financial factors to growth. A net tightening in lending standards of 20% basis points reduces economic activity by ¾% after one year and 1¼% after two years was recommended for the US economy.

[21] investigated whether countries pursuing export promotion policies are likely to grow faster than those not pursuing such policies specifically. He sought to determine the precise relationship between economic policies, middle income developing countries between growth and export expansion as well as capital formation and economic growth. The result shows a positive relationship between export promotion policies and economic growth for the countries involved.

[22] examined if oil exporting countries grows as their earnings on oil rents increases, using PC-GIVE10, (ordinary least squares regression). The result shows that there is a positive and significant relationship between investment and economic growth and also on oil rents. In conclusion, oil rents in most rich oil developing countries in Africa do not promote economic growth.

[23] examined the impact of export earnings and economic growth and concluded that there is a relationship between exports and economic growth in Nigeria through a causality approach, using Johansens multivariate co-integration technique. The result shows

thatthere is stationary relationship betwe en exports and Gross Domestic Product (GDP).

[24] investigate the impact of income generated from oil exports on economic growth in Iran. Using cobb-douglas production function, the economy of Iran adjusts fast to shocks and there is progress in technology in Iran. It was discovered that oil exports contribute to real   income through real capital accumulation.

[25], discovered the impact of international trade especially export earnings instability on economic growth through savings and investment), using Cross-sectional data for 38 developing countries which included 18 Latin American countries for a particular time using ordinary least square method (OLS). The conclusion of this study was that export fluctuations had no significant impact on economic growth for less developing countries in long run while in short-run it had negative effects on the savings which further affect the economic growth negatively

GARCH (Generalized Autoregressive Conditional Heteroskedasticity) model was used to measure the export instability index. The time series data was used to investigate the relationship between export volatility and economic growth for two countries Philippines and Thailand. This study concluded that both countries relied on exports for their economic growth. This study also concluded that export volatility is permanent for these countries and is significant for the prediction of future volatility [26].

The relationship had been investigated among the export instability, investment and economic growth for nine Asian countries [27]. The time series data analysis was used with co-integration method. The results of this study were mixed. In some countries export instability affects the economic growth negatively and in some countries it affects positively. In some countries export instability had no effects on the economic growth. And investment had positive relationship with the economic growth.

Diversification policies had been adopted by different countries to control the export instability problem and to increase their economic growth since 1950s. [28], examined the effect of diversification polices on economic growth for developing countries. Solow growth model was used to find out the relationship between these variables for 1961-2000 time periods. The conclusion of this study was that export diversification had positive relationship with economic growth in developing countries and developed countries could perform better by adopting specialization. [29] conducted study on effects of export instability on economic growth for Malaysia economy by using Augmented Dickey Fuller (ADF) and residual based test to check the stationarity of the variables and cointegrated test to find out the long run relationship between export instability, export growth and economic growth ang investment. This study concluded that export instability had negative and significant effect on the economic growth of Malaysia economy and investment. It affected the economic plans and reduced capital formation that led to increase in unemployment rate.

[30] in their analysis of strategic issues in promoting Nigeria's non-oil exports, determined the effects of exchange rate uncertainty on Nigeria's non-oil export performance as a side analysis. This is the pioneering effort in Nigeria to determine the effect of exchange rate risk on export. However, their model did not take into consideration the cross price effect. Exchange rate acts as shock absorber if rigidly fixed, the shock of inflation and deflation from abroad are transmitted to internal economy system. But variations in the exchange rate can wind off the invasion of the inflationary and deflation any forces. If demand and supply could work excellently in economic sense, it would be better to allow exchange rate to be freely determined by both demand and supply.

[31] examined the relationship between export and investment and economic growth process in Nigeria for a period of 39 years using standard econometric method of unit root, cointegration and

VAR . it was discovered that investment and export are correlated and that if both increases GDP will also increase.

[32] explored the association between export earnings fluctuations and capital formation in Nigeria. He discovered that export earnings fluctuation adversely impinges on investment in the short run within the period under study. His result was got by using a reduced form equation built around the flexible accelerator model and adopting a co-integration technique.

[3] investigated on the applicability of the Export led Growth (ELG) hypothesis for Nigeria using annual secondary time series data from 1970-2010 and the result obtained did not support the Export-led Growth hypothesis for Nigeria. They concluded that government must diversify the product base of the economy, promote non-oil exports, and build up an efficient service infrastructure to drive private domestic and foreign investment.

[11] investigated the impact of export trading on economic growth in Nigeria using annual time series data from 1986-2011.The method used was OLS and granger causality tests. From the result obtained, it was discovered that both oil and non-oil export have a positive and significant impact on GDP and investment capabilities in Nigeria.

[22] examined export diversification and investment in Nigeria using a thirty (30) year data set of oil, manufacturing and agriculture share of total exports of Nigeria as independent variables and per capita income as the dependent variable. The result obtained shows that all the variables used are stationary at first difference and also the Johansen co-integration test confirm the existence of a long run relationship between per capital income and all the variable except agricultural share of export. The paper confirms the need for the Government to look into diversifying the economy.

However, it is noted that in all this empirical studies, the focus were on how oil and non-oil exports earning impact on Nigeria's investment. This work, however, goes little bit further as it incorporates exchange rate in the work; in order to determine its impact on investment, none used BOP and exchange rate and extended period of study to 2017.

METHODOLOGY

The methodology to be adopted is the vector Error Correction Mechanism method, but before then Unit Root test will be used to test for the stationary of the variables. This will be presided by contraption test [17].

Model Specification

The model is specified as follows:

INV=f (EX, OILEXP, NON-OILEXP)

Where;

INV	= Domestic investment
OEXP	= Oil Export
NOEXP	= Non-Oil export
EX	= Exchange Rate
BOP	= Balance of Payment

The model specification for the analysis is given as INV = b_0 + b_1OILEXP + b_2 NON-OILEXP + b_3 EXR +b_4BOP+ U_t 3.1

Where;

b_0= Constant term/ parameter intercept

b_1,b_2, b_3 and b_4 = Coefficients of the parameters estimates.

U_t= Error Term

As efforts will be made to rescale the data, the log function is thus expressed as follows:

LOG (INV) = b_0+b_1 LOG (OIL-EXP) + b_2 LOG (NON-OILEXP) + b_3 LOG (EX) b_4 LOG (BOP) + U_t 3.2

Estimation Procedures

Unit Root Test: It is used to test for the stationary of the time series data. This involves testing of the order of integration of the individual time series under consideration. These test are initially performed at levels and then in first difference form. Three different models with varying deterministic components are considered while performing the tests. These are (1) model with an intercept which assumes that there are no linear trends in the data such that the first differenced series has zero mean (2) model with a linear trend which includes a trend stationary variable to take account of unknown exogenous growth and (3) a model which neither includes a trend nor a constant. The most

popular ones are Augmented Dickey-Fuller (ADF) test due to Dickey and Fuller (1979, 1981). Augmented Dickey Fuller (ADF) test statistics shall be compared with the critical value at 5% level of significance. A situation whereby the ADF test statistics is greater than the critical value with consideration on absolute values, the data at the tested order will be said be stationary. Augmented Dickey-Fuller test relies on rejecting a null hypothesis of unit roots (the series are non stationary) in favor of the alternative hypotheses of stationarity. The test conducted with and without a deterministic trend (t) for each of the series.

The general form of ADF test is estimated by the following regression:

$$\Delta y_t = \beta_0 + \beta_1 y_{t-1} + \Sigma \beta \Delta y_t + e_t - \qquad 3.3$$
$$\Delta y_t = \beta_0 + \beta_1 y_{t-1} + \Sigma \beta \Delta y_t + \mu_1 + e_t \qquad 3.4$$

Where: y is a time series, t is a linear time trend, Δ is the first difference operator, β_0 is a constant, n is the optimum number of lags in the dependent variable and e is the random error term.

The null hypothesis is that $\beta_1=0$. If the null hypothesis $\beta_1=1$, then we conclude that the series under consideration $\Delta (y_t)$ has unit root and is therefore non-stationary.

If the ADF test fails to reject the test in levels but reject the test in first differences then the series contain one unit root and is of integrated order one 1(1). If the test fails to reject the test in level and first differences but rejects the test in second differences, then the series

contains two unit root and is integrated order two 1(2). The Phillip-Perron(pp) unit root test is implementing to justify the results of ADF test.

The equation thus:

$$\Delta y_t = \beta_0 + \beta_1 y_{t-1} + e_t \qquad 3.5$$

Co-integration Test: Engle and Granger (1987) state that if several variables are all I (d) series, their linear combination may be co-integrated, that is, their linear combination may be stationary. This means that the variables exhibit long-run relationship.

Decision Rule: Accept H_o: (There is no significant co-integration relationship) if t-statistic is greater than asymptotic critical-value or if the P-values is less than the level of significance, otherwise accept Hi: (there is significance relationship) if test statistic is less than the asymptotic critical values or if the p-value is greater than the level of significance. Testing sequence terminates if the null hypothesis cannot be rejected for the first time.

Vector Error Correction Mechanism (VECM)

The purpose of the error correction model is to indicate the speed of adjustment from the short-run equilibrium state. However, the greater the coefficients of the error term (VECM), the higher the seed of adjustment of the model form the short-run to the long-run equilibrium.

The VECM (p) form is written as:

$$\Delta y_t = \partial + p y_{t-1} + \Sigma \varnothing \Delta y_{t-1} + \pounds_t - \qquad 3.6$$

Where, Δ is the differencing operator, such that $\Delta y_{t-1} = y_t = y_{t-1}$

PRESENTATION AND ANALYSIS OF RESULTS

Unit Root Test

In other to test for the presence or absence of unit root in the data used for

the empirical analysis, Augmented Dickey-Fuller (ADF) test was employed and the test result is as presented below:

TABLE 1: UNIT ROOT
Augmented Dickey Fuller Result at Level and First Difference, Trend only

Variables	ADF @ Level	1st difference	2ND Difference	Critical value (5%)	Order of integration	Remarks
D(INV)	-2.225840	-5.847891	-	-3.557759	I1)	Stationary
D(OEXP)	-1.627913	-4.475059	-	-3.557759	I(1)	Stationary
D(NOEXP)	-0.298555	-5.989984	-	-3.557759	I(1)	Stationary
D(EXR)	-2.145050	-5.316857	-	-3.557759	I(1)	Stationary
D(BOP)	-2.250937	-5.301110	-	-3.557759	I(1)	Stationary

Source: Author's Computation.

From table 1 above, the result revealed that none of the variables were stationary at level while at first difference all the variables become stationary given the 5% level of significance, since the absolute value of the calculated ADF exceeds the absolute value of 5% critical value of the ADF. Hence, since all the variables are not stationary at the level, co-integration analysis is justified. We therefore proceed to conduct the long run relationship of the variables and their short term speed of adjustment to equilibrium.

Co-integration Test

This test is used to test for the long run relationship between the variables; it was carried out using the augmented eagle – Granger test on the residuals under the following hypothesis:

H_0: $\delta = 0$ (Not- co-integrated)
H_1: $\delta \neq 0$ (co-integrated)

Decision Rule:
Reject H_0 if t*.Adf (LR) > t-Adf (CV), accept if otherwise.

COINTEGRATION TEST: TABLE 2

Series: INV OEXP NOEXP BOP EXR
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.956513	203.3280	69.81889	0.0000
At most 1 *	0.917313	102.9988	47.85613	0.0000
At most 2	0.365201	23.23275	29.79707	0.2348
At most 3	0.235615	8.690450	15.49471	0.3948
At most 4	0.002889	0.092578	3.841466	0.7609

Trace test indicates 2 cointegratingeqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Computation.

From table 2 above, since the computed trace statistic i.e. (203.3280, 102.9988) is less than their respective T-Adf .i.e. the critical value (69.81889, 47.85613) at 5% levels of significance or since the probability value (0.0000>0.05) is greater than 5% level of significance, we cannot reject H_0 and conclude that there is no co-integrating equation and that all the variables are cointegrated. Put differently,

there is a sustainable long-run relationship (i.e. steady-stated path) between Domestic Investment (INV), Oil Export (OEXP), non Oil Export (NOEXP), Exchange Rate (EXR), and Balance of Payment (BOP).

The Long run Equation on Nigerian Investment

INV
= -0.089242(OEXP) + 0.223985(NOEXP)-4.244820(EXR)-0.582978(BOP)
(0.30776)   (0.41618)
(0.67935)   (0.34095)

The result above is the coefficient of the explanatory variables which indicate the direction of strength of the relationship between explanatory variables and investment in the long run. The figures in the parenthesis were the asymptotic standard error. The result revealed that one million increase in Oil Export will bring about ₦-89242 decrease on Nigeria's Domestic investment, at the same time one million increase in Non Oil export will bring about ₦223985 increase on Domestic Investment, again one million increase in Exchange Rate will bring about ₦-4244820 decrease on Domestic investment, another one million increase in Balance of Payment will bring about ₦-582978 decrease in Domestic investment, all other factors affecting Domestic investment remaining constant. What this means is that in the long run Oil export, Exchange rate and Balance of payment will have negative correlation with INV if Nigerian economy fails to diversify and research into new products for international standards.

Vector Error Correction Mechanism

The existence of a long- run co-integrating equilibrium provides for short-term fluctuations. In order to strengthen out or absolve these fluctuations, an attempt was made to apply the Vector Error Correction Mechanism (VECM). As noted, the VECM is meant to tie the short-run dynamics of the co-integrating equations to their long-run static dispositions. Table 3 below shows the Vector error correction mechanism result.

TABLE 3 VECTOR ERROR CORRECTION MECHANISM RESULT

Sample (adjusted): 1984 2014

Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Remark
C	296.3202	58.6111	5.05570	0.0000	Reject
D(INV(-1))	0.502189	0.13153	3.81812	0.0002	Accept
D(OEXP(-1))	0.020716	0.13349	0.15519	0.8770	Reject
D(NOEXP(-1))	0.035721	0.17033	0.20971	0.8343	Accept
D(BOP(-1))	-0.183538	0.18610	-0.98621	0.3265	Accept
D(EXR)	-8.530133	2.65044	-3.21838	0.0000	Reject
VECM(-1)	-0.649132	0.09400	-6.90549	0.0000	Reject

Source: Author's Computation.
R^2 = 0.885459 **D-W =** 1.95
F (3, 25) = 13.35, F*(P-value) = 0.0000

From the result the coefficient of vector error correction term is -0.649132. This shows that 64% of the errors in the short run are corrected each year. Thus, the coefficient captures the speed for adjustment at which the short-run of INV ties with its long-run. The result is significant since the coefficient of multiple determinations (0.885459) is greater than zero. And also, the vector error correction coefficient has negative sign which indicate that there is feedback from the previous year's disequilibrium or that the explanatory variables have power to correct the disequilibrium from the short run in the long run each year.

Coefficient of Multiple determinations:
Also the computed R^2 value (0.885459) of which is the coefficient of multiple determinations indicates that our model satisfies the requirement for goodness of fit. The value showed that 88% of the variation in the Domestic Investment (INV) is explained by the variation of the explanatory variables namely; Oil Export (OEXP), Non-Oil Export (NOEXP), Exchange Rate (EXR), and Balance of Payment (BOP) while the remaining 22% is explained by variables not included in the model.

T-test: A mere observation of the individual's parameters will reveal that none of the variables used in the regression were statistically significant at 5% level of significance, since their P-value is greater than the 5% level of significance.

F-test: Furthermore, the joint influence of the explanatory variables on the dependent variable is statistically significant. This is also confirmed by the F-probability which is statistically zero i.e. the P-value of F-statistics is less than 5%. This means that Export earning has impacted on Nigerian investment.

Durbin-Watson Test: At the same time the Durbin-Watson is 1.9 approximately. Using 5% level of significance, 4 explanatory variables and 31 observations, the tabulated Durbin-Watson statistics for lower and upper limit are 1.23 and 1.67, since the calculated Durbin-Watson is greater than upper limit of Durbin-Watson but less than 4-du (195), we conclude that there is no evidence of first order serial correlation.

This was further confirmed by the LM serial correlation test. The result is presented below.

Table 4 SERIAL CORRELATION TEST RESULT

VEC Residual Serial Correlation LM Tests
Included observations: 31

Lags	LM-Stat	Prob
1	5.96895	0.4321
2	8.13410	0.2341
3	11.5934	0.0753

Probs from chi-square with 25 df.

Given the optimal lag length, we accept the null hypothesis of no serial correlation. The result clearly revealed the absence of serial correlation as the LM probability value at optimal lag level (0.2341) is greater than 5% level of significance. The implication is that the result can be fully relied on to make sound policies.

Test of Hypothesis

Hypothesis I: The main objective of this study is to examine the impact of Export earnings on Nigeria Investment. With respect to this, the null hypothesis and alternative hypothesis are stated as fellows;

H_0: Export earning has no significant impact on domestic Investment in Nigeria.

F- Test: Is employed in testing the hypothesis. This test will help to capture the joint influence of the explanatory variables on the dependent variable.

Decision Rule;
If F-cal. > F-tab reject the null hypothesis or if the P-value is less than 5% level of significance, otherwise accept the null hypothesis. Using 5% level of significance at 4 and 28 degree of freedom, the tabulated F-value is 2.76. Since, the calculated F-value (13.28) is greater than the tabulated F-value at 5% level of significance; we reject the null hypothesis and conclude that Nigeria export earnings have significant impact on Domestic investment within the sample period.

Hypothesis II:

H_0:   That Export earnings does not have significant long-run relationship with Investment in Nigeria.

Decision Rule: Reject H_0 if t*.Adf (LR) > t-Adf (CV), accept if otherwise

Reject H_0 if t*.Adf (LR) > t-Adf (CV), accept if otherwise

From data in table 2, the computed trace statistic i.e. (203.3280, 102.9988) is less than their respective T-Adf .i.e. the critical value (69.81889,47.85613) at 5% levels of significance or since the probability value (0.0000>0.05) is greater than 5% level of significance, we cannot reject H_0 and conclude that there is no co-integrating equation and that all the variables are cointegrated. Put differently, there is a sustainable long-run relationship (i.e. steady-stated path) between Domestic Investment (INV), Oil Export (OEXP), non Oil Export (NOEXP), Exchange Rate (EXR), and Balance of Payment (BOP).

Hypothesis III:

H_0:   There is no significant causal relationship between exports earning and Domestic investment in Nigeria.

Implication of the Result

Economic theory imposes a restriction on the signs and magnitudes of economic relationships. In view of this, the coefficients of the explanatory variables in the estimated model presented above all conform to the a priori expectations as analyzed below.

From the analysis above, it is evidently clear that export earnings have significantly impacted on Nigeria investment within the sample period, this was revealed by the F-test. The reason for this may not be far from the fact that oil export revenue contribute to over 80% of Nigeria revenue. We noticed from the result of the VECM that there for Nigeria economy at large.

The negative sign of the VECM result means that the variables has the ability to adjust to short term variations in oil export earnings by the Nigeria domestic investment. What this means is that export earnings should be made stable by diversifying the economy as the domestic investment to a large extent are affected by it.

SUMMARY OF FINDINGS

The paper investigated the impact of Nigeria export earnings on domestic investment in Nigeria from1981 to 2014. Vector error Correction Mechanism was used to estimate the regression result. Co-integration test, Unit root test and LM Serial Autocorrelation test was also conducted to determine the stationarity and long-run relationship between the variables.

The result of the Co-integration test revealed that there is a sustainable long-run relationship (i.e. steady-stated path) between Domestic Investment (INV) and the explanatory variables (OEXP,NOEXP, EXR and BOP).

The Vector error Correction Mechanism result indicates that the coefficient of error correction term is -0.648. This revealed that 64% of the errors in the short run are corrected each year. Thus, the coefficient captures the speed for adjustment at which the short-run error of INV ties with its long-run dynamics.

The Unit Root Test result revealed that none of the variables used in this research work was stationary at level. But after differencing the variables all of them became stationary at first difference given the 5% of significance. Hence, the result of the regression can be fully relied on to make policy analysis and recommendation.

The entire regression plane was statistically significant; this means that the joint influence of the explanatory variables OEXP, NOEXP, EXR and BOP), on the dependent variable (INV) is statistically significant.

The result of the coefficient of multiple determinations indicates that our model satisfies the requirement for goodness of fit. The value shows that 88% the variation in the Domestic Investment (INV) are explained by the variation of the explanatory variables namely; Oil Export (OEXP), Non-Oil Export (NOEXP), Exchange Rate (EXR), and Balance of Payment (BOP)

while the remaining 22% is explained by variables not included in the model.

Lastly, the LM Serial correlation test revealed the absence of serial correlation

presenting the model as a good one that policy makers can rely on its finding to make sound policies.

CONCLUSION

The empirical research revealed that Nigeria export earnings captured by changes in Oil Export (OEXP), Non-Oil Export (NOEXP), Exchange Rate (EXR), and Balance of Payment (BOP) had significant influence on Nigeria Investment during the period under review.

The significant impact of export earnings on Domestic investment is key factor for policy makers to consider. This stem from the fact that demands for exported goods

and favourable exchange rate is key to boosting investment in the country.

The absence of autocorrelation in this research work entails that the parameter estimate can be fully relied upon to make sound inferred decision. The negative sign of the VECM indicates that the dependent variable has power to adjust to short term variations of the explanatory variables in the long-run.

POLICY RECOMMENDATIONS

Based on the findings of this research work, it is necessary to provide a set of policy recommendation that would be applicable to the Nigeria economy.

i. The Federal Government of Nigeria should revamp both local industries and agriculture through subsidies, concessions, uninterrupted power supply, technical assistance, improving security of lives and properties and the creation of enabling business operating environment.

ii. Also sound macroeconomic policies are needed to reinforce the globalization exercise for a better

result. The positive sign is an indicator that Nigeria is benefitting from globalization; this could be a product of the oil export in Nigeria which makes Nigeria to enjoy a favourable balance of payment.

iii. Nigeria must look beyond the mono-product type of business (oil sector) and research into other sectors for new products of international standard.

The Federal Ministries of Commerce and Industries (FMCI) should focus more attention on the development of the home industry with a view to increasing the county's share of non-oil trade.

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