External Sector Aggregates and Economic Growth in Nigeria
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Abstract

The study examined the impact of the external sector aggregates on economic growth in Nigeria for the period 1980-2016. The external sector aggregates used were external debt, exchange rate and export. A combination of correlation analysis and Error correction mechanism was employed in this study. Pre-estimation tests showed no evidence of multicollinearity and all the variables were integrated of order one, I (1). Johansens cointegration test showed four cointegrating equations indicating the existence a long-run relationship which provides a reason for error correction modeling. The error correction results showed that EXR had a negative and significant impact on economic growth while external debt (EXD) and export (EPP) had positive and significant impact on GDP, respectively. The ECM term had the hypothesized negative sign and was statistically significant at 5% level. Economic growth adjusts to long-run at the speed of 29.98% per annum. There was no serial correlation problem. Results are therefore appropriate for policy analysis. The study concluded that external sector aggregates have significant impact on economic growth in Nigeria but the impact could be positive or negative depending on the variable of interest. Among other things the study recommended that there should be promotion of the country’s export trade and stimulation of domestic production.

Keywords: Aggregates, economic, growth, GDP, ECM, EXR, stimulation.

INTRODUCTION

Vibrant external sector is important to the growth of every open economy. This is because the external sector is a measure of the bouquet of economic activities and reflects the economic transactions between the residents of an economy with the rest of the world. An economy with a fairly constant growth in output would be considered to be a growing economy. Thus, economic growth is usually seen as a desirable state for advanced and emerging nations [1].

The emergence and over dependence on oil had created distortions in the structure of the Nigerian economy. The non-oil (cocoa, groundnuts, rubber, cotton, and palm produce) export sector dropped and this changed the structure of the external trade thus creating undesirable imbalance in the economy. A cursory inspection of data on the pattern and trend of external trade and balance of payment positions further explain or reveal the over dependence of the economy on oil, which has continued to remain often vulnerable to external shocks. The dependence of domestic production and consumption on the availability of foreign exchange was so high that when the price of oil collapsed in the 1980’s, a spiral effect was felt on all sectors of the economy. The rate of growth of the economy took a downturn, with the GDP growth averaging 5.82% within the period, and this was exacerbated by government’s excessive domestic and external borrowings. Similarly, the Central bank of Nigeria (CBN) report in 2014 revealed that inflation rate averaged 8.7% between 1980 and 1990. It then increased to 30.60 percent between 1991 and 2000. Inflation rate which was 9.9 percent between 1991 and 2000, drastically increased to 15.65 percent between 2001 and 2015. The cumulative effects was a sharp rise in the external debt service burden on an economy that had significant deficit budget financing.

In the same vein, fluctuations in Nigeria’s currency (Naira) exchange rate, which is a component of the external sector variables, caused economic instability in the country, between the year 2000 and 2014 the exchange rate rose from 102.11: US $1.00 to 161.00: US $1.00. The official exchange rate released by the National Bureau of Statistics (NBS) for the last quarter of 2016 stood at 365.00: US $1.00. Conversely, Nigerian oil export (oil and non-oil) which stood at 14.2m in 1980 increased to N109.9 million in 1990, and then to 1945.7 million in 2000. In fact, it got a peak of 12011.5m in 2010 and then fell to 10067.300m in 2014. It appears that the performance
of the external sector variables did not translate into increase in economic growth. The much awaited benefits from the external sector seemed yet to be felt. It is based on the above state of affairs that his study examined the impact of the external sector aggregates on economic growth in Nigeria.

LITERATURE REVIEW

Theoretical Review

There are a variety of theories that link growth of an economy to the components of the external sector. Such theories include the Two-Gap model of development, the Balance of Payment Constrained Growth model, the Elasticity Approach of Exchange theory, and the Factor Endowment Theory of Trade. However this study adopted a combination of these theories.

The Balance of Payment Constrained (BPC) Growth Model

Thirlwall’s Balance of Payment Constrained Growth model states that the rate of growth of an individual country is restrained by the Balance of payment, as the economy cannot grow faster than what is consistent with the Balance of payment equilibrium, or at least consistent with a sustainable deficit in the Balance of payment. Thirlwall [2] noted that no country can grow faster than the rate consistent with the Balance of payment equilibrium on current account unless, it can finance ever-growing deficits, which is generally believed to be daunting.

Accordingly, the basic idea of the model is that export performance and import behavior determine the rate of economic growth in the long run. Increasing revenue of foreign exchange from exports of goods and services make up the only sustainable means of financing increasing imports caused by the expansion in domestic activity or aggregate demand. It therefore assumes that trade balance equilibrium are related to domestic income only. Explaining further, Ferreira and Canuto [3] says that the Balance of payment constraint arises because export growth and the growth of investment in import substitution are the only components of aggregate demand that are not only able to increase the growth of GDP, but also to relax foreign constraints. Favorable Balance of Payment enhances the capacity of an economy to expand while at the same time maintaining an equilibrated current account.

Thirlwall [2] used a dynamic analogue of the Harrod trade multiplier to show that the post-world war II actual growth experience of most developed countries equals the rate of growth of real export divided by the income elasticity demand for imports. Darku [4] however notes that Thirlwall and Hussain [5] extended the BPC growth model to incorporate two factors that can make a country’s growth rate differ from the rate predicted by the basic model, namely, capital flows and changes in relative prices.

Testing the extended model on developing countries, they found that capital flows have enabled the countries to grow slightly faster than the basic model rate. Despite this modification, it has been criticized for excluding the savings-investment gap, fiscal gap and monetary implication of the BOP. It also does not show the foreign exchange requirement relating to the maintenance of level of reserves.

The reason for this theory is that it examined BOP as an important determinant of external sector. Also, BOP constrained growth model is relevant to this study because export performance and import behavior determine the BOP and hence the rate of economic growth.

The Factor Endowment Theory

The theory was first developed by two Swedish economists, Heckscher [6] and Ohlin [7]. The theory states that countries can have comparative advantage when they are richly endowed with a particular resource. For example, countries with vast endowments in oil and gas resources may generally produce these endowments cheaper, and would therefore have comparative advantage in oil and gas production. The theory points out that there exist differences in relative factor endowment that explain observed differences in comparative production cost between countries, therefore prompting the need for international trade for a country’s surplus goods. Given different factor endowments, relative factor prices will differ and for this reason, factor combinations and commodity price ratios will differ i.e. a country that has labour in abundance but lack capital will have relative cost advantage over other countries in the production of such goods and services that are labour intensive. Such a country may therefore concentrate on the production of labour-intensive productions which will give them surpluses to export.

Similarly, countries with available capital would command relative production cost advantage of goods and services that require abundant capital. Such a country should therefore engage in the production of capital intensive goods and services which will give them surpluses to export. The theory shows that both countries will benefit from specialization, increased output and trade. According to Akrani [8] the theory has been criticized for being restrictive as it assumed the production of only two commodities, by two countries with two factors. Furthermore, Ohlin’s theory is based on attaining partial equilibrium; it fails to give a complete, comprehensive and general equilibrium analysis thereby also neglecting other factors that influence international trade.

The theory is relevant for this study because Nigeria, so endowed with oil and gas resources should command comparative advantage in oil/gas production
and export, thereby achieving increase in foreign exchange earnings, which is one of the variables of external sector performance.

**EMPIRICAL LITERATURE**

A number of studies and literature exist on the effect of external sector variables on economic stability of Nigeria. This is same for some other countries. For instance, Mukamil and Rizwan [9] investigated external sector and economic growth of Pakistan. The study used quarterly data that covered the period from 1990 to 2010 and applied Vector Auto Regression and Vector Error Correction Model. External sector indices have been developed containing financial integration, net foreign assets and trade integration. The Augmented Ducky fuller test confirmed that all variables in the study were non-stationary at level, but stationary at first difference. The co-integration test suggested one co-integrating vector among the variables. The empirical findings of co-integration analysis showed that financial integration had positive, while trade integration had negative effect on economic growth of Pakistan in the long run. However, the short run dynamics showed that output lag accounts for error correction confirming Granger representation theorem. The estimated CUSUM and CUSUM-Square stability test showed that the coefficients of the model remained stable in the given sample period.

Ijeoma [10] assessed the impact of debt on selected macroeconomic indicators in the Nigerian Economy. Secondary data on External Debt Stock, External Debt service payment, Exchange Rate, Gross Domestic Product and Gross Fixed Capital formation for the period 1980-2010 was drawn from Debt Management Office, CBN, and Statistical Bulletin and analyzed with Linear Regression. The study found that Nigeria’s external debt stock has a significant effect on her economic growth. It also revealed that there is a significant relationship between Nigeria's Debt service payment and her Gross Fixed Capital Formation.

Alimi and Muse [11] examined the role of export in the economic growth process in Nigeria using time series data covering 1970 to 2009 and adopting unit root testing, co-integration analysis and VAR Granger causality/Exogeneity Wald test to analyze the time series. The researchers discovered long run relationship amongst the variable and uni-directional causality running from economic growth to export.

Aliyu [12] examined imports-exports demand functions and BOP stability in Nigeria. He used secondary data on exchange rate, income, and imports capacity, level of foreign reserves on imports and applied co-integration and error correction modeling methods. The result showed that as world income increases, Nigeria’s export expands because of very high income elasticity, the Marshall-Lerner condition holds in Nigeria (devaluation impacts positively on economic growth), it also showed that SAP was anti exports.

Rahnaddi and Ichhashi [13] examined the evolution of export structure and competitiveness in Indonesia’s manufacturing sectors from 1987 to 2008. Using Constant Market Share (CMS) analysis and Revealed Comparative Advantage (RCA) indicators, Rahnaddi and Ichhashi revealed that Indonesia exports performance deteriorated by negative contributions of commodity composition, market distribution, and competitiveness effects. In addition, export competitiveness in manufacturing commodities has been diminishing in recent years and Indonesia still specializes in NRI and ULI manufacturing exports even though world demand growth of those commodities is lower than that of commodities with highly technology-embedded. The study recommended competitiveness enhancing measures and development of more advanced technology-embedded commodities.

Usman, Ashfaq and Mushtaq [14] in an attempt to understand the causality between export and economic growth, investigated the impact of export on economic growth in Pakistan using ordinary least square, and discovered a strong positive and significant effect of export on economic growth,

Udeh, Ugwu and Onwunka [15] examined the impact of external debt on economic growth in Nigeria for the period 1980-2013. Model was formulated and data was analyzed using Ordinary Least Square. Diagnostic tests were conducted using Augmented Dickey Fuller Unit Root Test, Co-integration and Error Correction Model. The independent variable was GDP, while the explanatory variables were External Debt Stock, External Debt Service Payment and Exchange Rate. The findings showed that External Debt had a positive relationship with Gross Domestic Product in the short run, but a negative relationship at the long run. Also, while External Debt Service Payment had negative relationship with Gross Domestic Product, Exchange Rate had a positive relationship with it.

Abdullahi, Aliero and Addullahi [16] examined the relationship between external debt and economic growth in Nigeria”. They studied the relationship between external debt and economic growth in Nigeria using the unit root test, co-integration test and Granger causality test. They tested GDP on external debt and other determinants of economic growth. They found that there is non-existence of long run relationship between external debt and economic growth in Nigeria which indicates that increase in external debt could result to decrease in GDP. Atique and Malika [17] in their work “the impact of domestic debt and external debt on the economic growth of Pakistan” examined the impact of domestic debt and external debt on the economic growth of Pakistan; using OLS they tested GDP on external debt, net total
investment, inflation, labour participation rate and corruption index. Their result showed that external debt and economic growth have an inverse relationship. Furthermore, external debt slowed down economic growth more than domestic debt.

Kasidi and Said [18] in their study of “the impact of external debt on economic growth: a case study of Tanzania” for the period 1990–2010 used OLS method to test GDP on external debt and debt servicing. Their result revealed that that external debt has a positive effect on GDP while debt service has a negative effect. They also did not find a long run relationship between the external debt and GDP. Ajayi and Ake [19] investigated the effect of external debt burden on the economic growth and development of Nigeria. In their work, “the effect of external debt on economic growth and development of Nigeria” was examined using the OLS technique. They tested national income on debt service payment, external reserves and interest rate. They found that external debt burden had an adverse effect on the National income.

Akpan and Atan [20] examined exchange rate macro-economic aggregates in Nigeria” for the period 1986–2010 using a Generalized Moment Method (GMM) and simultaneous equations. They tested rate of inflation, economic growth, real exchange rate, real exports, real government revenue, and real government expenditure. Their results showed that there is no evidence of a strong direct relationship between changes in the exchange rate and inflation growth rate. Rather Nigeria’s economic growth was affected by fiscal and monetary policies and other economic variables particularly the growth of export. The factors tend to sustain a pattern of RER overvaluation which has been unfavorable for growth.

Hua [21] in his work “economic and social effects of real exchange rate evidence from Chinese provinces” used the one-step Generalized Movement Model (GMM) and panel data, to test variables of GDP, RER, capital intensity, share of employment, education level, export share, coastal provinces etc. His result found that exchange rate appreciated has negative effect on the economic growth higher in coastal than in inland provinces contributing to minimizing of the GAP of GDP per capita between the two provinces. The result also showed that RER appreciation had a negative effect on employment.

Ifionu and Ogboagu [22] examined an econometric evaluation of exchange rate and external sector performance in Nigeria under the regulation and deregulation era. They tested BOP on exchange rate, external debt burden, external debt service, external reserve and exchange rate regime using the OLS regression technique. They found that external sector performance was better under a deregulation regime than during a regulated regime, they recommended that the government should adopt a mixed exchange rate policy and diversify the productive base of the economy.

Amini, Oushehi, Ahranjani and Amini [23] examined the extent of trade liberalization on BOP and economic growth in Iran using auto regressive distributed lags and the ECM method. They tested for trade balance, internal income, foreign income, real exchange rate, and trade liberalization. Their results showed that the effects of trade liberalization on the trade balance and economic growth is positive and significant in the long run, but its effects on the current account of BOP are not significant.

Imoisi [24] examined the nexus between BOP and inflation rate in Nigeria using OLS method. He found that there was an insignificant relationship between BOP and inflation, while the relationship between BOP, exchange rate and interest rate was significant. This is in conformity with economic theory.

Most of the empirical works cited examined the indicators of external sector performance separately. They failed to evaluate the impact of external sector aggregates on economic growth in Nigeria as a whole. This study therefore serves to cover the apparent gap. Also, the current study adopts co-integration and Error Correction Method of econometric techniques and also extending the time frame of previous work to 2016.

**METHODOLOGY**

**Model Specification**

An eclectic approach using a combination of BOP constraint growth and factor endowment theories is used in formulating the model. The functional form of the model is presented as:

$$\text{GDPGR} = F(\text{EXR}, \text{EXD}, \text{EXP})$$

(1)

The linear and log-linear forms of the model are stated thus:

$$\text{GDPGR} = \beta_0 + \beta_1 \text{EXR} + \beta_2 \text{EXD} + \beta_3 \text{EXP} + U$$

(2)

Where:

- GDPGR is Gross domestic product growth rate
- EXR is exchange rate
- EXD is external debt
- EXP is export
- U is error term; t is time;
- $\beta_{1}$s are slope coefficients.

On the apriori, it is expected that $\beta_1 > 0$, $\beta_2 < 0$ and $\beta_3 > 0$

**Technique of Data Analysis**

The study used the Co-integration and Error Correction Model methods. The Augmented Dickey-Fuller integration and Error Correction Model methods. The Augmented Dickey-Fuller
Fuller test (ADF) was employed to test for the stationarity of the time series. Also, the Co-integration was used to test for the long run relationship among the variables in the model and the ECM to correct the pitfall of the short run model.

**Diagnostic Test**

These tests were carried out as a post estimate test to ascertain if the statistical criteria of the estimated model are met and as well as ascertain if the general model is good for policy recommendation. Thus, the various test conducted include; heteroskedasticity test via Autoregressive Conditional Heteroskedasticity (ARCH) test, normality test via Jarque-Bera and Wald test.

**Sources and Method of Data Collection**

The data for the study are secondary in nature. They include data on economic growth, external debt, exchange rate and export. The relevant data for the study were sourced from the publications of the Central Bank of Nigeria (CBN): statistical bulletin, CBN statements of account and annual reports, as well as National Bureau of Statistics publications, and also the author’s computation for relevant years.

**RESULTS AND DISCUSSION**

**Pre-Estimation Tests**

This study employed correlation matrix to test for multicollinearity. The correlation matrix is presented in Table-1. The results showed that correlation coefficients among the explanatory variables are well below 0.90 indicating that there is no multicollinearity problem and that the explanatory variables can therefore be used together in the same regression model. The Augmented Dickey Fuller (ADF) test was used to investigate stationarity and the order of integration of the variables. The results which are presented in Table 2 indicate that GDPGR proxy for economic growth was stationary at level, I(0) but other variables attained stationarity after differencing once, I(1). The Johansen approach to cointegration breaks down since at least one of the variables in I(0). In such cases the more appropriate approach is the ARDL bounds testing approach to cointegration and error correction mechanism.

<table>
<thead>
<tr>
<th>Covariance Analysis: Ordinary</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation</td>
<td></td>
</tr>
<tr>
<td>t-Statistic</td>
<td>LNEXP</td>
</tr>
<tr>
<td>LNEXP</td>
<td>1.000000</td>
</tr>
<tr>
<td>LNEXD</td>
<td>6.378440</td>
</tr>
<tr>
<td>EXR</td>
<td>8.471821</td>
</tr>
<tr>
<td>GDPGR</td>
<td>-1.475601</td>
</tr>
</tbody>
</table>

**Table-1: Correlation Matrix of the Series**

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF Test @ Level</th>
<th>Critical Value</th>
<th>ADF Test @ 1(^{st}) Diff</th>
<th>Critical Value</th>
<th>-I(d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPGR</td>
<td>-104.7634</td>
<td>-3.6329</td>
<td>-2.9484</td>
<td>-2.6129</td>
<td>1(0)</td>
</tr>
</tbody>
</table>

**Table-2: Augmented Dickey Fuller Unit Root Test**

This study adopted the Engle-Granger (EG) and Philips – Ouliaris (PO) single equation residual test approaches to cointegration since the Johansens technique breaks down in the presence of at least one I(0) variable and others I(1). Also bounds test results indicate zone of indecision and so decision could not be reached concerning existence of a long-run relationship among the variables since the test statistic (3.5312) lies between the lower bound (3.23) and the upper bound (4.35) critical values at 5% significance level. Hence, this study resorted to the Engle-Granger and the Philips-Ouliaris residual test approaches for which results are present in panels a and b of Table-3. Both the Engle–Granger and Philips – Ouliaris residual test results showed single cointegrating equation which was observed in the GDPGR equation, indicating that the explanatory variables have a common mean governing their evolution with GDPGR in the long-run, that is if there are short-run fluctuations such that causes GDPGR to wander away from its long-run path there is the tendency that GDPGR will adjust back to equilibrium. The speed at which this adjustment takes place can only be estimated by the error correction results. This means the existence of a long-run relationship amongst the variables thereby satisfying the sufficient condition for estimating an error correction model.
Estimation Results

To incorporate long-run dynamics into the short-run behavioral model the EG type single equation model was estimated. The error correction results are presented in Table-4. The speed of adjustment that is, the ECM term showed the right sign being negative and was statistically significant at better than 1% percent level. Specifically the results indicate that 10% of previous errors are corrected annually, in other words, if there are short-run fluctuations such that causes GDPGR to drift away from its long-run equilibrium at the speed of about 10% per annum. The coefficient on D(LNEXD) showed a negative sign and was statistically not significant, implying that external debt has no significant short-run impact on economic growth in Nigeria for the period 1980 – 2016. The coefficients on D(EXR) showed positive signs up to the third lag. The first and second lags were significant at 7% and 8% respectively but the third lag was statically significant at better than 1% level. The implication is that exchange rate impacts on economic growth in Nigeria positively but with time lags, this negates a priori expectation. This is however not surprising since the Nigerian economy is largely import dependent. Over 38% of variations in D(GDPGR) was explained by the model as indicated by R-squared (0.3878) and the Breusch-Godfrey LM test explained was by the model as indicated by R-squared (0.3878) and the Breusch-Godfrey LM test showed no evidence of serial correlation, the chi-square value of 0.88038 and the corresponding probability value of (0.6504) of the chi-square statistic exceed the 0.05. The implication is that the model is adequate for policy analysis (See Table-5).

Table-3: Residual Test Cointegration Results

<table>
<thead>
<tr>
<th>Dependent</th>
<th>tau-statistic</th>
<th>Prob.*</th>
<th>z-statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNEXP</td>
<td>-2.034929</td>
<td>0.8610</td>
<td>-10.67537</td>
<td>0.6978</td>
</tr>
<tr>
<td>LNDEXD</td>
<td>-2.570030</td>
<td>0.6547</td>
<td>-11.42461</td>
<td>0.6477</td>
</tr>
<tr>
<td>EXR</td>
<td>-0.646873</td>
<td>0.9958</td>
<td>-5.101817</td>
<td>0.9602</td>
</tr>
<tr>
<td>GDPGR</td>
<td>-11.70138</td>
<td>0.0000</td>
<td>-34.74942</td>
<td>0.0019</td>
</tr>
</tbody>
</table>


(b) Philips – Ouliaris Cointegration Test Results

<table>
<thead>
<tr>
<th>Dependent</th>
<th>tau-statistic</th>
<th>Prob.*</th>
<th>z-statistic</th>
<th>Prob.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNEXP</td>
<td>-2.294121</td>
<td>0.7732</td>
<td>-12.74870</td>
<td>0.5574</td>
</tr>
<tr>
<td>LNDEXD</td>
<td>-2.692533</td>
<td>0.5968</td>
<td>-12.35619</td>
<td>0.5842</td>
</tr>
<tr>
<td>EXR</td>
<td>-1.142006</td>
<td>0.9843</td>
<td>-9.501707</td>
<td>0.7722</td>
</tr>
<tr>
<td>GDPGR</td>
<td>-8.655254</td>
<td>0.0000</td>
<td>-42.54966</td>
<td>0.0000</td>
</tr>
</tbody>
</table>


Source: Researcher’s Computation, 2018

Table-4: Error Correction Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LNEXD)</td>
<td>-0.012405</td>
<td>0.010685</td>
<td>-1.160885</td>
<td>0.2562</td>
</tr>
<tr>
<td>D(LNEXP)</td>
<td>0.017060</td>
<td>0.021650</td>
<td>0.787999</td>
<td>0.4378</td>
</tr>
<tr>
<td>D(EXR(-1))</td>
<td>0.001105</td>
<td>0.000610</td>
<td>1.810725</td>
<td>0.0818</td>
</tr>
<tr>
<td>D(EXR(-2))</td>
<td>0.001137</td>
<td>0.000653</td>
<td>1.741796</td>
<td>0.0934</td>
</tr>
<tr>
<td>D(EXR(-3))</td>
<td>0.002267</td>
<td>0.000638</td>
<td>3.556216</td>
<td>0.0015</td>
</tr>
<tr>
<td>C</td>
<td>-0.032682</td>
<td>0.013183</td>
<td>-2.479167</td>
<td>0.0200</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.100114</td>
<td>0.031943</td>
<td>-3.134102</td>
<td>0.0042</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.387820</td>
<td>Mean dependent var</td>
<td>0.001491</td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.246548</td>
<td>S.D. dependent var</td>
<td>0.054038</td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>0.046906</td>
<td>Akaike info criterion</td>
<td>-3.095530</td>
<td></td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>0.057203</td>
<td>Schwarz criterion</td>
<td>-2.778089</td>
<td></td>
</tr>
<tr>
<td>Log likelihood</td>
<td>58.07625</td>
<td>Hannan-Quinn criter.</td>
<td>-2.988721</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>2.745200</td>
<td>Durbin-Watson stat</td>
<td>2.537775</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.033459</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table-5: Breusch-Godfrey test for Serial Correlation Test

<table>
<thead>
<tr>
<th>Breusch-Godfrey Serial Correlation LM Test:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>0.307859</td>
</tr>
<tr>
<td>Prob. (F(2,23))</td>
<td>0.7380</td>
</tr>
<tr>
<td>Obs*R-squared</td>
<td>0.860388</td>
</tr>
<tr>
<td>Prob. (Chi-Square(2))</td>
<td>0.6504</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation, 2018
DISCUSSION OF FINDINGS

The analysis of the empirical result shows that exchange rate has a significant impact on economic growth. Thus, a strong value of the naira in relation to US dollar significantly impact on economic growth in Nigeria over the study period. The policy implication of the finding is that a well-articulated monetary policy in a bid to make the naira to more valuable with other international currencies will cause an increase in the growth of the Nigerian economy. External debt had a negative and statistically not significant impact on economic growth. Thus, a unit increase in external debt retards economic growth in Nigeria. The policy implication of the finding is that external borrowing has not supported real sector growth in Nigeria. Export had a positive and but statistically not significant impact on economic growth. Thus, a unit increases in export increases economic growth. The policy implication of the finding is that the growth of the Nigerian economy is triggered by both export. The finding alludes to the empirical work of Usman, Ashfaq and Mushtaq [14], who investigated the impact of export on economic growth and found that export has a positive and significant impact on economic growth.

CONCLUSION AND RECOMMENDATIONS

This study focused on external sector aggregates and economic growth in Nigeria during the period of 1980-2016. As Nigeria strives for development vis-a-vis increase economic growth, there is the need for contribution and improvement in the external sector of the economy vis-à-vis exchange rate, external borrowing debt and export amongst others. Meanwhile, the country’s debt became a source of worry and subject of discussion when the projects for which the loans were contracted for, could not generate enough revenue to offset the credit and their accommodated interests. Added to this, are interrelated factors such as the declining real exchange receipts due to fall in oil price, naira depreciation. The implication of all these is that a productive external sector through exchange rate, export and external debt help to improve the growth of the Nigerian economy. Hence external sector seriously impacted on economic growth.

Based on the above findings, the following recommendations are made:

- External borrowing should be well utilized in a bid to increase the growth rate of economy. Similarly, to achieve long-term solution to the problem of external debts burden, there should be promotion of the country’s export trade and stimulation of domestic production to liberate the Nigerian economy from the shackles of wants and excessive dependence on external economies, which build up debt.

- Government should formulate and implement policy towards export expansion will in turn increase productivity by offering potential for economic of scale. Similarly, government should encourage export of manufactured product. This will encourage a vigorous domestic economy and hence the performance of the economy.

REFERENCES