Economic Growth Effects of Recession:
Lessons from Nigeria's Export Performance

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Abstract
In the heat of severe macroeconomic volatility that accompany the current economic recession in Nigeria, policy makers in the country are faced with the challenge of identifying the sectors through which the country's economic performance are affected. Most policy analysts viewed recession as hindering growth of the export sector. No doubt Nigeria finances its budget using revenue earned from export (especially oil export). Hence, there is need to find out how Nigeria's export sector has fared in the era of recession. Therefore this work aimed at finding out the extent to which the current economic recession in Nigeria has affected the contribution of export to the country's economic performance. Data on the variables, exports and GDP (Gross Domestic Product) were collected. All data series were quarterly and span the period 2013-Q1to 2015-Q4 (before recession) and 2016-Q1 to 2016-Q4 (during recession). The dummy variable approach to the study of structural sensitivity analysis was adopted. In line with a priori expectation, the study found export to have a significantly positive impact on the growth of Nigeria's economy both before and during the economic recession. Both the differential intercept and differential slope were found to be statistically significant. This is an indication that there is a structural break between the two periods. The economy of Nigeria fared better during recession by NGN6.276927 than in the preceding period, with respect to export sector contribution. This could be attributed to the fact that Nigerians worked harder than before to remedy the economic situation. It is therefore concluded that export-led growth hypothesis holds for Nigeria, even during economic recession.
Key words: Export Performance, Recession, Economic Growth, Nigeria.

Introduction
Economic growth and development have become the targets of most government in developing nations of the world. Over the decades, these governments (including the Nigerian government) have adopted several measures aimed at enhancing growth and development in their respective economies. This has led to the implementation of sound economic policies in these nations. No doubt, most of these policies are geared towards exports promotion. This is why export-led growth in its various guises has been the dominant economic development model since the 1970s (Johnston, 2016). The relevance of export stems from the fact that no country can produce all goods and services which people require for consumption largely owing to resources differences and constraints. Hence, according to Agosin (1999), Giles and Williams (2000) and Grossman and Helpman (1990), exports expansion can be argued to be a stimulus of economic growth.

Nigeria's export performance has been undermined by major setbacks, particularly in the oil sector. This came as a result of oil price fall and oil pipeline vandalism that resulted in a decline in crude oil production. In the second quarter of the year 2016, exports slumped by 29.4 percent from the first quarter value of 1566020.16. This was attributed to 24.2 percent drop in sales of minerals product which accounted for 92.7 percent of total exports, namely oil. The country exports goods mainly to India, United States of America, Spain, Netherlands and South Africa [Nigeria's bureau of statistics (NBS)]. This reduction in the amount of crude oil available for exports is like an addition of blindness to the problem of a crippled man. There is already a global fall in crude oil price and production level. From 2.2 million barrels per day, production came down to between 600,000 and 800,000 levels (NBS), hence foisting on us a twin affliction of reduced volume and reduced price resulting in reduced revenues. This decrease in oil revenue reduced the ability of the Central Bank of Nigeria (CBN) to provide importers the required foreign exchange. This leads to a reduced manufacturing output, as essential foreign raw materials inputs cannot be sourced. Consequently, companies have to reduce production capacity, buy less local inputs, sack more workers, pay less or no tax and finally close down, Noko (2016)

The Nigeria's policy makers' responses to the likely effects of this shock were meek initially, either they did not understand the shock or they underestimated its size. The decline in oil price since mid-year 2014 has continued to expose the Nigerian economy to both domestic and external vulnerability. The economy had a negative growth of -0.36 percent in the first quarter of 2016 compared to a growth of 2.11 percent in the last quarter of 2015. Having grown by an average of 6 percent over the last years, the -0.36 percent growth rate

recorded in Q1 2016 is Nigeria's worst quarterly growth rate since 2004. This has moved the economy into the negative growth zone. The non-oil sector also witnessed a negative growth of -0.18 percent particularly in mining and industries despite the 3.09 percent and 0.8 percent growth in agriculture and services respectively (NBS).

In the first quarter of 2016, both the International Monetary Fund (IMF) and the CBN agreed that Nigerian economy has plunged into recession. According to them, Nigerian economy may not in the near future regain stability; hence, the recession that ravaged the Nigerian economy has profound implication for exports and economic growth.

No doubt, promotion of economic growth is one of the major objectives of international trade. However, in recent times this objective has been underachieved in most developing countries. This could be attributed to instability in most macroeconomic indicators such as consumer prices, employment and balance of payment. Despite the effort of the Nigerian government to improve economic growth, given the exports of the country, through polices like trade policies, fiscal policies and monetary policies, the GDP has been on a declining rate. In the first quarter of 2013, the GDP stood at 18,295,631.91 and increased to 21,401,579.78 million in the fourth quarter of 2013 by a total growth rate of 16.2 percent. The growth rate dropped by 5.8 percent at

the first quarter of 2014, the value rose again from 21,734,829.86 in the second quarter of 2014, to 24,205,863.34 million at the last quarter of 2014 by a total growth rate of 18.8 percent. It dropped by 13 percent in the first quarter of 2015.

During the same period, there were fluctuations in the performance of export. The value of export increased from 3603486.85 million in the first quarter of 2013 to 4387232.22 million in the second quarter by 22 percent. However the value dropped from 3714476.47 million in the third quarter to 3458491.93 million in the first quarter of 2014 indicating a percentage decrease of 8.5 percent. In the second quarter of 2014, the value of export increased by 2.1 percent. The decrease in export continued in quarter three of 2014 until quarter one of 2015 and fell by a total rate of 42.5 percent. Hence, considering all these variations in the values of these variables, it is not unwise not to suspect that the changes in economic growth could be a result of changes in export performance.

Moreover, over the years, empirical evidence on the relationship, between exports and economic growth has been tested using data for a number of countries. Some authors such as Arnade and Vasavada (1995), Fosu (1996) and Thornton (1996). argued that export growth precedes economic growth thereby giving support to the export-led growth (ELG) hypothesis. On the other hand, other authors such as Lancaster (1980),

Krugman (1987), Henriques and Sadorsky (1996) and Al- Yousif (1999) among others have it that economic growth precedes export growth, i.e. in support of the growth-led export hypothesis (GLE). It then becomes worthy of mention that evidence generated has not been translated into series. Also, it has been noticed that empirical literature investigating the impact of export on economic growth such as Feder (1983), Fosu (1990), Hussain (1998), Greenaway, Morgan and Wright (1999), Srinivasan and Bhagwati (2001), Herger, Norwak-Lehmann and Siliverstove (2004) as well as Giles and Williams (2000) have over concentrated on Asia, Latin America and Europe which has created a huge knowledge gap for Africa in general and Nigeria in particular. In an effort to fill this gap, this study tries to find out the extent to which the current economic recession in Nigeria has affected the contribution of export to the country's economic performance.

Literature Review

Export-Led Economic Growth Hypothesis: A Theoretical Guide

One of the major areas that have been given much attention by development economists is the relationship between export performance and economic growth. The debate on this issue has broadly classified economists into two (those that support the export-led growth hypothesis and those that reject the hypothesis).

The notion of trade as a catalyst for economic growth has been given much emphasis by many economists. The idea that international trade brings about economic growth and increases the welfare of a nation came into light during the 17th century from the mercantilists. According to them, for a nation to become powerful, it must have a favourable balance of trade where the resulting exports surplus is used to purchase precious metals like gold and silver. The government in its power has to control import and stimulates the nation's exports.

Adam Smith attacked the main mercantilist's views and proposed the classical theory of international trade based on the concept of absolute advantage model. According to him, stock of human, man-made and natural resources rather than stock of precious metal were the true wealth of a nation and argued that the wealth of a nation can be expanded if the government would abandon mercantilist controls. In addition, he showed that trade can make a nation better off without making another worse off (Debel, 2002).

David Ricardo later introduced the model of comparative advantage to replace the principle of absolute advantage. Following this model, a country will specialize in the production and export of commodities for which it has abundant resources (that is, the commodity it can produce at the lowest relative cost). Also, J.S Mill in his own wisdom formulated the principle of reciprocal demand which

was later developed by Edgeworth and Marshall. In this theory, both demand and supply conditions determine the terms of trade and hence trade between countries.

The proponents of the traditional theory of international trade argued that trade can contribute greatly to the development of primary exporting countries. However, other economists are of the belief that the gains from international trade is biased in favour of the advanced industrial countries and that foreign trade has crippled industrial development in poor nations. These economists argued that international trade has being irrelevant for developing nations and the development process.

Developing countries of the world have over the decades adopted two policies adopted namely, import substitution and export promotion. According to Todaro (1994), the outward looking development policies "encourage not only free trade but also movement of capital, workers, enterprises and students, the multinational enterprises, and open system of communication''.

In contrast, those who oppose Todaro's view advocate an inward looking development policy. This policy stresses the need for the developing countries to adopt their own styles of development and use indigenous technologies appropriate for their locally tapped resources.

The Eli Hecksher and Berli Ohlin (H-0) factor endowment theory later evolved. According to this theory, different relative proportions and countries have different endowments of factors of production. Some countries have huge amount of capital (capital abundant countries) while others have little capital and much labour (labour abundant countries). This theory suggests that each country has a comparative advantage in the production of that commodity which uses the its abundant factor. Capital abundant countries are expected to specialize in the production and export of capital intensive goods while labour abundant countries are expected to specialize in the production and exports of labour intensive commodities. This theory encouraged third world countries to focus on the production of primary products which are labour and land intensive.

However, it was argued that by exchanging these primary products for manufactured goods of the developed countries, third world nations could realize enormous benefits obtained from trade with the richer nations. (Debel 2002).

Review of Related Literature
The contribution of export to economic growth has been tested by different economists using different econometric techniques. Emery (1967) investigated the effect of export growth on GNP growth of 50 countries. Applying OLS techniques on a cross sectional data for the period 1953-1963, he found support for the export-led growth hypothesis. Other studies that found support for the

export-led growth hypothesis are Syron and Walsh (1968), Serven (1968), Kravis (1970), Michaely (1977), Balassa (1978, 1985), Jung and Marshall (1985), Ram (1985), Darrat (1987), Heitger (1987), Moschos (1989), Fosu (1990), Kugler (1991), Sengupta (1991), Al- yousif (1997), Vohra (2001), Lin and Li (2002), Durbarry (2004), Sengupta and Espana (1994), Makki and Somwaru (2004), Karbasi, Mohamadi and Ghofrani (2005), Fosu and Magnus (2006), Konya (2006), Sanjuan-Lopez and Dawson (2010), Odularu (2008), Samad (2011), Rahmaddi (2011), Mohsen and Firouzjaee (2011), Seabre and Galimberti (2012), Farida (2012), Gilbert, Linyong and Divine (2013), Changi, Simo-Kengne, and Gupta (2013), Panagiotidis and Chisiridis (2016), among others.

On the other hand, Mah (2005) studied the long run causality between export and growth with the help of error correction term, ECT-1. This study also indicated that export expansion is insufficient to explain the patterns of real economic growth. Other studies that did not find significant support for export-led growth hypothesis include Akanni (2007), Pazim (2009), Waithe, Lordeb, and Francis (2011) among others.

However, Rana (1988) questioned Balassa (1985)'s finding that the contribution of exports to growth has increased in the post 1973 period compared with the pre 1973 period. He argued that Balassa's analysis used heterogeneous samples.

He used a balanced sample of 45 developing countries and found that the contribution of exports, although significant but reduced in the post 1973 period. Also, some studies built on the import-growth relationship have found positive impact of import on growth on growth especially through the impact of technology imports in the production process of developing countries (Perreira 1996).

Rodriguez and Rodrik (2000) provided a critique of the various studies that concluded that liberal trade foster growth. They found fault with the various data, variables, specifications and methodology adopted by most of these studies on the ground that they were based on anecdotes and case studies. They however supported Dollar and Kraay (2000) that debunked the generalization of these studies by using international economic data for over 100 countries.

Cooper (2001) addressed the influence of foreign trade and investment on growth via inequality and distribution of income in developing countries. He argued that survey of theory and empirical evidence are inconclusive. He stated that there are no compelling theoretical reasons to believe in general, that trade promotes growth, and that empirical works supporting a connection at country level has been heavily criticized on methodology grounds (Rodriguez and Rodrick, 2000). He further argued that it would be difficult to believe that trade liberalization has

not contributed significantly to the growth of the world economy in the second half of the 20th century. He concluded that trade was a product of economic growth and that the world economy would have grown as rapidly as it did even if trade barriers are as high as they were in the 1950s. This implies that other factors aside trade also promotes growth.

From the foregoing, the numerous studies on the relationship between export and economic growth as found in the literature were conducted along various methodological lines. Moreover, most empirical studies concentrated on developed countries of Europe, Asia and America. Hence, this study tends to bridge this gap by studying Nigeria. In addition, this study would ascertain how the current economic recession in Nigeria has affected the contribution of export to the country's performance.

Methodological Issues

Theoretical Framework

The so called export-led growth (ELG) hypothesis is at least as old as the classical school, as both Adam smith and David Ricardo supported it (Richard 2001). The export-led growth policy is a trade and economic policy aiming to speed up the industrialization process of a country by exporting goods for which the nation has a comparative advantage. The export expansion is one of the main determinants of growth; it holds that the overall growth of countries can be generated not only by increasing the amounts of labour and capital within the economy, but also by expanding exports. According to its advocates, exports can perform as an "engine of growth "; also export expansion can be argued to be a stimulus of economic growth (Agosin, 1999; Giles and William, 2000; Grossman and Helpman, 1991).

However, not only has the economic literature adopted a supply side approach as the basic framework for testing empirically, the relationship between export and growth; but also almost all the studies mentioned in the review of the literature have specified a linear relationship. As a consequence of this, this current study will follow this strategy and in the first instance estimate a simple cobb-Douglas production function using a linear equation,

$$Y_t = \theta + \theta_1 P_t + \theta_2 I_t + \mu_t \dots\dots\dots\dots(1)$$

As used by Medina-Smith (2001), in (1), Y_t, P_t, I_t are real GDP, population, real GDI (subcase a) or GFCF (subcase b) as a proxy of the stock of physical capital respectively.

The Model

Following Medina-Smith (2001) model, the model for this study could be specified, though with slight modification. Since the purpose of this study is strictly to ascertain if the contribution of export to Nigeria's economic growth has changed between

two periods: periods before the current economic recession and during this economic recession, the variables, P and I in equation (1) are dropped. To build a model for this study, we adopt in its entirety, a model used by Oguanobi, Nzeribe and Ekesiobi (2016) to study the effect of export on Nigeria's economic performance before and during the country's banking sector reforms. In this model which is an already modified version of Medina-Smith (2001), export was introduced as an explanatory variable. Thus, two separate models are specified for the two periods in this study as follows:

$$GDPN = \alpha_1 + \alpha_2 EXPN + \mu_{1t} ...(2)$$

For the period before recession
And

$$GDPN = \beta_1 + \beta_2 EXPN + \mu_{2t} ..(3)$$

Where GDP= (Gross Domestic Product)
EXPN = Exports
α and β = the parameters to be estimated
μ = stochastic error term

However, this approach involves pooling together all the observations in equations (2) and (3) and estimating a model of this form, with an introduction of a dummy variable:

$$GDPN = \alpha_1 + \alpha_2 K_i + \beta_i EXPN + \beta_2 (K_i EXPN) + \mu_t ..(4)$$

Where α_2 = *Differential intercept explaining by how much the*

two intercepts from equations (2) and equation (3) differs.

β_2 = *Differential slope coefficient explaining by how much the slopes from equations (2) and (3) differs.*
K= Dummy variable {0 before recession and 1 during recession}

The objective of this paper would be achieved by estimating model (4) and determining the value of the parameter, β_2. This parameter would explain by how much the contribution of export to economic growth differs between the periods (before and during the current economic recession). The choice of model (4) for this study was based on existing literature. It was successfully used by Oguanobi *et al* (2016) to study the effect of export on Nigeria's economic performance before and during the country's banking sector reforms. Gujarati (1995) justified this by adopting the model as the only model that can be used for studies like this. Hence, its use becomes inevitable. The data used for the study is a time-series quarterly data, sourced from central bank of Nigeria statistics database. These quarterly data are gathered for the period 2013-Q_1 to 2016-Q_4.

Results
This section presents the result of model (4) which is the hub around which this study revolves. The

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estimated result is presented in table 1 below.

Table 1: Result of the Estimated Model

Variable	Coefficient	STD. Error	T-statistic	T-prob
C	374246.4	618575.3	0.605014	0.5574
K	-12767912	4325913	-2.951495	0.0132
EXPN	0.072255	0.090433	0.798993	0.4412
KEXPN	6.2040672	1.998547	3.104592	0.0100

R^2 =0.489528, F statistic =3.516222, D-Watson statistic =2.833064

Source: E-views 8 regression output

NB: the table is a summary of the result. Details of the full result is presented in the appendix

From model (4) it could be deduced that.

$$E(GDPN / K_i = 0, EXPN) = \alpha_1 + \beta_1 EXPN....(5)$$

and

$$E(GDPN / K_i = 1, EXPN) = \alpha_1 + \alpha_2 + \beta_1 EXPN + \beta_2 EXPN....(6)$$

From table A3 in the appendix, the estimate of model (4) as deduced in models (5) and (6) are

$$E(GDPN / K_i = 0, EXPN) = 374246.4 + 0.072255 EXPN....(7)$$

and

$$E(GDPN / K_i = 1, EXPN) = -12393665.6 + 6.276927 EXPN...(8)$$

The differential intercept and differential slope are statistically significant. This is an indication that there is a structural break between the periods (before recession and during recession). This is also an indication that model (2) and model (3) are dissimilar regression models. The economy of Nigeria underperformed during recession by NGN12019419.2 intercept compared to the period before recession. This conforms to a prior expectation. The implication of this outcome is that even if Nigeria had closed its borders in 2016 (period of recession) and earned zero revenue from export, its income would have fallen by about 3211.7 percent.

Also significant at explaining what happened to Nigeria's income, the differential slope coefficient has shown that the economy fared better in period during recession than in the preceding period. Nigeria's export earnings during this period increased by about 8587.2 percent, the implication of this result is that, the economy by 2016 (during the recession) fared better than the preceding period, with respect to export sector's contribution. Nigeria as we all know is blessed with human and natural resources which was drastically put into use when the economy dripped into recession. People started working hard in order to remedy the situation, federal government designing policies and programs to shift the mainstay of Nigerians export earnings from being dominated by oil sector, industries stepped up their game, agricultural sector was improved upon, locally produced goods increased (example is the breakthrough in rice production in the

country), cassava production also increased which in turn, increased output and export of the economy. These have resulted to increased agricultural production, increased manufacturing output and other output of other sectors of the Nigerian economy.

Drawing from the result in table 1, the coefficient of determination (R^2) shows that the explanatory variable (export) explained the dependent variable (GDP) to the tune of 48 percent. This implies that 48 percent of the variation in GDP is explained by changes in export performance. The result shows that the overall regression is statistically significant with F-statistic of 3.51622. Hence, Nigeria's economic recession has significantly affected her growth through the export sector. This is shown by the significance of the differential slope (β_2) of model (4). Therefore, the null hypothesis that Nigeria's economic recession has not significantly affected her growth through the export sector is rejected.

Summary
This study is an attempt at ascertaining the economic growth effect of Nigeria's current recession, with respect to the country's export performance. To achieve this objective, data on Nigeria's economic growth (proxied by its GDP) and export performance were collected for 12 (twelve) quarters (Q1-2013 to Q4-2015) before recession and 4 (four) quarters (Q1-2016 to Q4- 2016) during

the recession. The study adopted the dummy variable approach of studying structural breaks in economic models. The significance of the differential slope of the adopted model indicated that the periods (before and during the recession) differs significantly. It was found that the export sector contributed more to Nigeria's performance during recession than before recession. Based on the summary, conclusions are made.

Conclusions
This study, as one of the empirical investigations on the economic growth effects of recession given export performance in Nigeria has provided a good understanding of the level of impact export has on the growth of the Nigerian economy. As summarized in section 5:1, the study found that export had a significantly positive impact on the growth of Nigeria's economy both before and during economic recession. Based on this, it is therefore concluded that export led growth hypothesis holds for Nigeria, even during economic recession.

Recommendations
Based on the conclusion above, this study recommends as follows:
* *Diversification of the export base – There should be a quick diversion from monoculture economy to a multicultural one. This is so, since the oil sector which Nigeria depends on, is prone to shocks that are beyond the controls of the country. Both*

vertical and horizontal diversification of export should be adopted by the government so as to take advantage of all the benefits that comes with export trading.

- *The Nigerian government should display a high sense of transparency in the country's fiscal operations. Greater percentage of its revenue should be channeled to productive investments like road constructions, electricity provision, water supply and other infrastructural facilities, which will be creating an enabling environment for the survival of industries. This will serve as incentives for increased productivity and high Gross Domestic Product (GDP).*

- *Exchange rate policy should be designed to bridge the gap between export and import, domestic productivity and export should be enhanced in the medium to long term while aggregate demand should be curtailed in the short run. To reduce exchange rate volatility, exchange market should be policed to ensure that only those who have the aim to add value to the real sector get attention. This among other steps would at least increase the value of the naira against major world currencies and leave the country with only the prices increase occasioned*

by increase in local money supply.

- *Efficient resource allocation and use- The resources at the disposal of the government should be efficiently allocated and utilized to ensure growth in the economy. Moreover, over the years, several policies have been made without full implementation. For greater economic performance, proper policies must be squarely implemented. This recommendation is informed by the fact that even in the absence of export, Nigeria's economy underperformed during recession. This could be attributed to inefficient allocation of national resources.*

References

Agosin, B. M. (1999). Export and economic growth in Nigeria: An empirical analysis. *A paper presented at the 2009 national conference of the Nigerian Economic Society (NES)*

Akanni, O. P. (2007). Oil wealth and economic growth in oil exporting countries. *AERC Research Paper 170.*

Al- Yousif, Y .K. (1997). Exports and economic growth: Some empirical evidence from the Arab Gulf countries. *Applied Economics, 29*(6), 693-97.

Al-Yousif, Y. K. (1999). On the role of exports in the economic growth of Malaysia: A

multivariate Analysis. *International Economic journal 13*(3), 67-75.

Arnade, C. & Vasavada, U. (1995). Causality between productivity and export in agriculture: Evidence from Asia and Latin America. *Journal of Agricultural Economics, 46,* 174-186

Balassa, B. (1978). Exports and economic growth: Further evidence. *Journal of Development Economics, 5*(2), 181-89.

Balassa, B. (1985). Exports policy choices, and economic growth in developing countries after the 1973 oil shock, *Journal of Development Economics,4*(1), 23-35.

Cooper, N. R. (2001). Growth and inequality: The role of foreign trade and investment, *Paper Delivered at World Bank Conference on Development Economics, December.*

Darrat, A. F. (1987). Are exports an engine of growth? Another look at the evidence. *,Applied Economics,19*(2), 277-83.

Debel, G. (2002), Exports and economic growth in Ethiopia: An empirical investigation. *A thesis submitted to the school of graduate studies in partial fulfilment of the requirements for the degree of Master of Science in Economics (Economic policy analysis), June.*

Dollar, D. & Kraay, A. (2000). Trade, growth and poverty. *Economic journal, 114*(493), 22-49 Retrieved from http://dx.doi.org/10.1111/j.0013-0133.2004.00186.x.

Durbarry, R. (2004). Tourism and economic growth: The case of Mauritius. *Tourism Economics 10,*389-401.

Feder, G. (1983). On exports and economic growth. *Journal of Development Economics 12,* 59-73

Fosu, A. K. (1996). Export composition and the impact of export on economic growth of developing economies. *Economic Letters, 34,* 67-71.

Fosu, A. K. (1990). Exports and economic growth: The African case. *World Development, 18*(6) 831-835

Fosu, A. O. & Magnus, J. F. (2006). Bound testing approach to cointegration: An examination of foreign direct investment, trade and growth relationships. *Journal of Applied Sciences, 3*(11), 2079-2085

Gilbert, N., Linyong, S. & Divine, G. (2013). Impact of agricultural exports on economic growth in Cameroon: Case of banana, coffee and cocoa. *International Journal of Business and Management Review, 1*(1), 44-71.

Giles, M. & Williams, A. D. (2000). Exports and economic growth: An empirical investigation. *Journal of Development Economics, 3*(4), 419-453

Greenaway, D., Morgan, W. & Wright, P. (1999). Exports, export composition and growth. *Journal of International Trade and Economic Development, 8*(1), 41-51.

Grosman, G. & Helpman, H. (1990). Comparative advantage and long run growth. *American Economic Review, 80*(4), 796-815.

Gujarati, D. N. (1995). *Basic Econometrics (3rd ed.).* Singapore, McGraw-Hill.

Heitger, B. (1987). Import protection and export performance: Their impact on economic growth. *Weltwirtchaffliches Archiv, 130*(1), 152-174.

Henriques, I. & Sadorsky, P. (1996). Exports-led growth or growth-driven exports? The Canadian case. *Canadian Journal of Economics, 29*(3), 541-555.

Herger, D., Norwak-Lehmann, F. & Siliverstove, B. (2004). Export-led growth in Chile: Assessing the role of export composition in productivity growth. *Ibero-America Institute for Economic Research (IAI) Discussion Papers, Number 103.*

Hussain, M. N. (1998). Africa's external sector and economic growth: Broad pointers for development assistance. In K. Henock (Ed.), Towards a new partnership for African development. Abidjan, African development bank.

Johnston, M. (2016). Export-led growth strategies through history. Retrieved from www.invetopedia.com/articles/investing/011416/exportled-growth-strategies-through-history.asp)lgl=rira-baseline-vertical

Jung, W. S. & Marshall, P. J. (1985). Exports, growth and causality in developing countries. *Journal of Development Economics, 18*(1), 1-12.

Karbasi, A., Mohamadi, E. & Ghofrani, S. (2005). Impact of foreign direct investment and trade on economic growth. Paper Presented at the 12th Economic Research Forum Conferences, 19th-21st December, Cairo, Egypt.

Konya, L. (2006). Export and growth: Granger causality analysis on OECD countries with a panel data approach. *Economic Modeling, 23*(6), 978-992

Kravis, I. B. (1970). Trade as a handmaiden of growth: Similarities between the nineteenth and twentieth centuries. *Economic Journal, 80*(320), 850-872.

Krugman, P. R. (1987). Is free trade passé? *Journal of Economics Perspective, 1*(2), 131-144.

Kugler, P. (1991). Growth, exports and co integration: An empirical investigation. *Weltwirtschaffliches Archiv, 127*(1), 73-82.

Lancaster, K. (1980). Intra-industry trade under prefect and monopolistic competition.

Journal of International Economics, 10(2), 151-175.

Lin J. & Li Y. (2002), Exports and economic growth in China: A demand-oriented analysis. Mimeo, Centre for Economic Research, Pekin University, Bejing, China.

Makki, S.S & Somworu, A. (2004). Impact of foreign direct investment and trade on economic growth: evidence from developing countries. *American Journal of Agriculture Economics, 86*(3), 795-801.

Mah, M. (2005). Exports and growth: An empirical investigation, *Journal of Development Economics, 4*(1), 49-54

Medina-Smith E. J. (2001). Is the Export-led growth hypothesis valid for developing countries? A case study of Costa Rica. *UNCTAD Policy Issues in International Trade and Commodities, Study Series Number 7.*

Michaely, M. (1977). Exports and growth: An empirical investigation. *Journal of Development Economics, 4(*1), 49-53.

Mohsen, M. & Firouzjaee, B. A. (2011). Granger causality relationship between exports growth and GDP growth in developing countries: Panel cointegration approach. *International Journal of Humanities and Social Sciences, 1*(16), 223-231

Moschos, D. (1989). Export expansion, growth and the level of economic development: An empirical analysis. *Journal of Development Economics, 30*(1), 93-102.

Noko, E. J. (2016). Economic Recession in Nigeria: Causes and Solutions. Retrieved from http://educacinfo.com/economic-recession-nigeria/.

Odularu, G. (2008). Crude oil and the Nigerian economic performance. Oil and Gas Business, retrieved from http://www.ogbus.ru/eng/authors/odularo/odularo_1.

Oguanobi C., Nzeribe G. & Ekesiobi C. (2016). Export promotion in Nigeria: Has the impact of banking sector reforms been felt? *The Journal of Economic Sciences: Theory and Practice, 73*(2), 27-41

Panagiotidis, T. & Chrsiridis, K. (2016), Economic growth for Greece's trade partners and Greek export growth. Retrieved from http://blogs.Ise.ac.uk/greeceatIse/2017/01/06/economic-growth-for-greeces-trade-partners-and-greek-export-growth/

Pazim, K. H. (2009). Panel Data Analysis of "Export-led" Growth Hypothesis in BIMP-EAGA Countries. *MPRA Paper Number 13264.*

Perreira, A. (1996). Import tariffs and growth in a small open economy.

Journal of Public Economics, 60, 45-71.

Rahamadi, R. (2011). Exports and economic growth in Indonesia: A causality approach based on multivariate error correction model. *Journal of International Development and Cooperation, 17*(2), 53-73.

Ram, R. (1985). Export and economic growth: Some additional evidence. *Journal of Economic Development and Cultural Change, 33*(2), 415-25.

Rana, P. B. (1988). Exports, policy changes and economic growth in developing countries after the 1973 oil shock. *Journal of Development Economics, 28*(2), 261-264.

Richard, D. G. (2001). Exports as a determinant of long-run growth in Paraguay, 1966-1996. *Journal of Development Studies, 38*(1), 128-146

Rodriguez, F. & Rodrik, D. (2000). Trade policy and economic growth : A skeptic's guide to the cross-national evidence. *National Bureau of Economic Research (NBER) Working Paper No. 7081,* Washington.

Samad, A. (2011). Exploring exports and economic growth causality in Algeria. *Journal of Economic and Behavioral Studies, 2*(3), 92-96.

Sanjuan-Lopez, A. I. & Dawson, P. J. (2010). Agricultural exports and economic growth in developing countries, A panel co integration approach. *Journal of Agricultural Economics, 61*(3), 565-583.

Seabre, F. & Galimberti, J. K. (2012). Conditioned export-led growth hypothesis: A panel threshold regression approach. *Revista de Economia, 38*(2), 7-24.

Sengupata, J. K. (1991). Rapid growth in NICs in Asia: Test of New Growth Theory for Korea. *Kyklos, 44*(4), 561-79.

Serven, A. K. (1968). The relation of exports and economic growth: Comment. *Kyklos, 21*(3), 546-48.

Sengupta, K. & Espana, R. (1994). Exports and economic growth in Asian NICs: An econometric analysis for Korea. *Applied Economics, 26,* 41-51.

Srinivasan, T. N. & Bhagwati, J. (2001). Outward orientation and development: Are revisionist right? In D. Lai and H. Snape (eds.), Trade, development and political economy (Essays in Honor of Anne O. Kruger). New York, Palgrave.

Syron, R. F. & Walsh, B. M. (1968). The relation of economic growth: A note. *Kyklos, 21*(3), 541-45.

Thornton, J. (1996). Cointegration, causality and exported growth in Mexico, 1895-1992. *Economic Letters, 50,* 413-416.

Todaro, M. P. (1994). *Economic development (5th Ed.).* New York, London, Longman.

Vohra R. (2001). Exports and economic growth in developing countries: Evidence from time

series and cross-sectional data. *Journal of Economic Development and Cultural Change, 36,* 51-72

Waithe, K., Loredeb, T. & Francis, B. (2011). Export-led growth: A case study of Mexico. *International Journal of Business, Humanities and Technology 1*(1), 33-44

World Bank (1984). *Industrial policy and performance.* World Independent Management Consulting Services, Author

World Bank (1993). *The East Asian Miracle: Economic Growth and Public policy.* Oxford, Oxford University Press

APPENDIX

Table A1: Unit root test result for GDPN

ADF Test Statistic	-3.250194	1%	Critical Value*	-4.0681
		5%	Critical Value	-3.1222
		10%	Critical Value	-2.7042

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDPN,2)
Method: Least Squares
Date: 04/22/17   Time: 13:44
Sample(adjusted): 2013:4 2016:4
Included observations: 13 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDPN(-1))	-1.694673	0.521407	-3.250194	0.0087
D(GDPN(-1),2)	0.437794	0.335959	1.303115	0.2217
C	984815.2	624884.9	1.575995	0.1461

R-squared	0.613456	Mean dependent var	169282.0
Adjusted R-squared	0.536148	S.D. dependent var	3061896.
S.E. of regression	2085357.	Akaike info criterion	32.13795
Sum squared resid	4.35E+13	Schwarz criterion	32.26833
Log likelihood	-205.8967	F-statistic	7.935152
Durbin-Watson stat	2.396073	Prob(F-statistic)	0.008630

Table A2: Unit root test result for EXPN

ADF Test Statistic	-2.911513	1%	Critical Value*	-4.0113
		5%	Critical Value	-3.1003
		10%	Critical Value	-2.6927

*MacKinnon critical values for rejection of hypothesis of a unit root.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EXPN)
Method: Least Squares
Date: 04/22/17   Time: 13:47
Sample(adjusted): 2013:3 2016:4
Included observations: 14 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXPN(-1)	-1.300605	0.446711	-2.911513	0.0142
D(EXPN(-1))	0.169240	0.299199	0.565643	0.5830
C	4953146.	2250206.	2.201197	0.0500

R-squared	0.567232	Mean dependent var	-130217.6
Adjusted R-squared	0.488547	S.D. dependent var	7332340.
S.E. of regression	5243792.	Akaike info criterion	33.97040
Sum squared resid	3.02E+14	Schwarz criterion	34.10734
Log likelihood	-234.7928	F-statistic	7.208892
Durbin-Watson stat	2.044930	Prob(F-statistic)	0.009986

Table A3: Estimate of Equation 4

Dependent Variable: D(GDPN)
Method: Least Squares
Date: 04/22/17   Time: 13:51
Sample(adjusted): 2013:2 2016:4
Included observations: 15 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	374246.4	618575.3	0.605014	0.5574
K	-12767912	4325913.	-2.951495	0.0132
EXPN	0.072255	0.090433	0.798993	0.4412
KEXPN	6.204672	1.998547	3.104592	0.0100

R-squared	0.489528	Mean dependent var	733157.8
Adjusted R-squared	0.350308	S.D. dependent var	1940495.
S.E. of regression	1564106.	Akaike info criterion	31.58671
Sum squared resid	2.69E+13	Schwarz criterion	31.77552
Log likelihood	-232.9003	F-statistic	3.516222
Durbin-Watson stat	2.833064	Prob(F-statistic)	0.052589