# IMPACT OF NON-OIL EXPORT ON NIGERIAN ECONOMY (1986-2010)

BY

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## A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLEMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc) DEGREE IN ECONOMICS

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### **APPROVAL PAGE**

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### DEDICATION

This work is dedicated to my dearest brother and friend Jibunor .C. Henry for his patient and support throughout my academic pursuit.

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I thank the Almighty God for granting me success in my studies and for His unending love, protection and favour throughout my stay in Caritas University.

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### **ULAKPA .N. MERCY**

### ABSTRACT

The study investigated the impact of non-oil exports on Nigerian economy during the period of 1986-2010. This study was carried out against the background of the crucial role non-oil export can play as an alternative source of revenue apart from crude oil exports. To achieve this objective, multiple regressions were used in analyzing the data. The empirical result shows that non-oil export is statistically significant to Nigeria economic growth. On hand, Government Expenditure (GEX) was not the other significant Nigerian economy. Due to to this. some recommendations made which were include encouraging financial institutions, improving in data collection and banking, efficient allocation and use of resources, and creating economic environment that will help boost the activity of non-oil export sector.

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#### **CHAPTER ONE**

#### INTRODUCTION

### **1.1 BACKGROUND OF THE STUDY**

There are a number of reasons for a country to be concerned about its rate of economic growth. Economic growth is designed by both affluent and non-affluent economies. Economic growth is the desire for higher levels or real per capital income, real output which must grow faster than the production of the economy in question. Economists, policymakers, public and private sectors work ceaselessly forwards attaining economic growth by the use of development and growth models and policies. Among the policies used are trade policy (import and export policies, monetary policy, exchange rate policy, fiscal policy, market, etc). In this study, the non-oil exports and economic development in Nigeria will be examined.

Non-oil exports are the products which are produced within the country in the agricultural, mining, and querying and industrial sectors that are sent outside the country in order to generate revenue for the growth of the economy excluding oil product. These non-oil export products are coal, cotton, timber, groundnut, coca, beans, etc.

Today, as in the past, the growth of Nigeria economy remains partly dependent upon increasing productivity of the agricultural sector.

Helleiner, 2002 state that no matter how much development and structural transformation achieved, it will remain its relative dominance in the economy to many decades to come. Precisely, it is from agricultural exploits that the economy has received its principal stimulus to economic growth.

Agricultural sector can assist through the exportation of principal primary commodities which will increase the nation's foreign earnings and which can be used to finance a variety of development projects. The growth of the agricultural sector can make a substantial contribution to the total revenue, as well as having some implications for intersectional terms of trade. Also in the area of capital formation, the savings generated in this sector can be mobilized in development purposes, while increase in rural income as a result of increasing agricultural activities can further stimulates the product of the modern sector.

The needs of the agricultural sector could indirectly influence the creating of additional infrastructures which are in dispensable to rapid economic development (Olaloku, 2001).

Another non-oil export to be developed on is industrial sector. It is the fastest growing sector in Nigerian economy. It comprises of many manufacturing and mining. Nigeria has manufacturing base prior to 1960 and shortly after.

The problem was due to lack of modern technological skills, managerial experience of complex organizations and financial back-up. The problem was further aggravated by the colonialists merchants convincing arguments on the goodness of comparative cost- advantage.

Nigerians were coaxed into concentrating their efforts in the production of primary agricultural products and exporting them to the metrological industries in Europe.

Our industrial sector took off after independent relied on satellite firms representing British interest. The bank sector, which is constellation of colonial bank braches and some companies that were able to invest in manufacturing were the multi-national that have access to funds, technology, and managerial expertise. This greatly hindered the progress of indigenous entrepreneurs. The

Nigerian manufacturing sector has been described by Ikediala (1983) as consisting of more assembling plants. He says that the implication of this is that the industries have very little background linage in the economy, since the bulk of the inputs is imported, thus the manufacturing sector depends or imported raw-materials of 42%. The capacity utilization of manufacturing industries has always been low in this country. The reasons as put by CBN (1998) are not unconnected with raw materials scarcity, consumers' resistance due to high prices, and increase in cost of manpower. Others mentioned are equipment breakdown due to poor technology, lack of spare parts. Time lies between when inputs are ordered for and when they arrive, cash flow problem in industries becomes a permanent features.

The Nigeria civil war brought about the deterioration of the oil palm grooves and plantations were abandoned and little if any new planting was undertaken. As a result of that, the output of palm oil and palm kernel declined drastically. But according to Onwuka (1985), the problems of palm products are due to the stagnation in the production of this wild palm tress, which are of low-yield quality, and the difficulties experience in harvesting them. In addition, the old system of pricing which guarantees low

production prices for palm produce discourage substantial investment from being made for further production of this product. Also, the problem of marketing boards cannot be overlooked.

Marketing board is an institution set up by the government with the exclusive right to buy and sell certain agricultural products. They purchase some products locally export sales are made through the Nigerian.

Marketing company, which is jointly owned by the state, one of the marketing functions of the marketing board is to stabilize the prices or our cash crops and hence creates stability of income for formers and to accumulate funds for development purposes. But the operation has failed to provide incentives to farmers to increase their input. Also, the producers aid unnecessary tax and they took from the producers some money, which should have gone to them as income they this reduced the amount of capital available to the producers.

This criticism, according to Adenira (1991) made the federal Government to reform the marketing board some with a view to increase producers' prices and income. He said that the essential

features of the new authority while producer taxation (export duty and produce sale tax) has been abolished. Another major boards with the responsibility of market specific products wherever they are produced in the country. These boards are likely to reduce administrative problem and be more economical compared with all oil – produce state market boards previously in existence.

The major fault of the successive government that are supposed to sustain this sector through the building of macro-economic structures and incentives diverted their attention away from agriculture. The result was sharp in the export/import equation as country started importing even palm oil that was hither to imploring from Nigeria. The situation was becoming worrisome thus by 1975 there were attempts to recapture the lost of glory of agriculture. General Olusegun Obasanjo's Operation feed the nations becomes the first real expressed official attempt in this direction. It was followed by the establishment of two river basin development authorities in 1977 by 1978 and 1979, the federal government made budgetary provision to establish 4,000 hectares of mechanized farms in each of the 19 states then, by 1979, there was a relunch of "operation feed the nation" with a

new tag "Green Revolution" with various committees set up for its implementation (Oko, 1999).

If the efforts of the two leaders - General Olusegun Obasanjo and Alhaji Shenu Shagari's regimes could have brought vigor to the agricultural sector, the activities of the sic-commodity boards did not assist much Oko said that fixing export product prices without recourse to cost inputs discourages agriculture therefore remained slow because food demand was growing at the rate of 3.5% in the SD's while agricultural output was crawling at 11%. Between 1990 and 1998, GDP in agriculture declined to 6.2%. then the distributions of agriculture inputs to producers were neglected, infrastructure facilities, like motor able feeder roads, and irrigation facilities, etc made it difficult to increase agricultural production CBN mandate to bank with regard to bank loans to agriculture as priority sector for preferential leading was floated

The table below shows yearly palm production and coca products

Year	Plan products	Cocoa products
1990	730	1190
1991	760	1363
1992	792	1321
1993	825	419
1994	837	503
1995	871	403
1996	920	591
1997	938	635
1998	992	683
1999	1003	721
2000	1411	832
2001	1603	925
2002	114	1160
2003	1701	1165
2004	1770	1200

Production in tones, which cover from 1990-2004.

Source: CBN-Annual report and statement of Account 2000

### **1.2 STATEMENT OF THE PROBLEM**

Nigeria remained a net exporter of agricultural products between 1960 and 1970. Goods exported include palm oil, palm kernel cotton, groundnut, etc; agriculture through export of non-oil products has a rosy record contribution up to 80% of the gross domestic product and providing employment for over 70% of the work population. But recently there has been a steady decline in terms of agricultural product, to export and an abandonment of sector by a large percentage of the workforce.

But the story of its decline is as pathetic as its impact on industry that relied heavily on the sector for raw material. Thus, the decline comes with surge of revenue from oil (oil export). But the discovery of crude oil alone cannot be held responsible completely for the misfortunes or decline of the agricultural sector. The policy instruments put in place by successive government were more of lip- service than concrete action.

The creation of marketing board contributes greatly to the decline of non-oil export since the board has the stole right to export the commodities. It is also pertinent to say that fixing of export product prices by marketing board discouraged further private investments in the sector. Further, the sector suffers from inadequate credit facilities; they have no security to back up their loan applications. Those who are lucky to be given loans do not make proper use of them. Even existence serious was neglected, infrastructural facilities, not provided, CBN objectives on agricultural loans floated. The package of policies used did not

only discriminate against export development but also disturbed the economy in several other ways. For instance an exchange rate of an artificially high level was maintained which in turn reduce the profitability of exports, raised domestic cost alone world process and reduced level maintenance uncompetitive in the world market.

In view of these problems resulting from the inappropriate use of policies persisted over times and necessitated the need to change policy direction. More emphasis was directed towards the promotion of non-oil exports. Various monetary and fiscal policies have been restored to various governments in Nigeria to encourage the non-oil performance and the economy generally.

The question today is to what extent has the redirection in policy affected the performance of non-oil export in Nigeria? But more simply, this research work is set to answer the following research questions:-

(1) To what extent has the non-oil exports sector contributed to

the overall gross domestic product (GDP) of the economy? It is on this background that this research work is focused.

### **1.3 OBJECTIVE OF THE QUESTION**

This research has a particular focus that aim at examining the causes of growth in government revenue using non-oil revenue of the government as an instrument. The non-oil revenue takes the range of products as agriculture and manufacturing. The major objectives are broadly defined as follows;

a) To empirically find out the impact of non-oil export earnings on the nation Gross Domestic Product (GDP)

B) To evaluate government policies or measures towards boosting non-oil sector contribution to the economy.

### **1.4 STATEMENT OF HYPOTHESIS**

To carry out this research, the following hypotheses were formulated:-

- H<sub>o</sub>: b<sub>1</sub> = o: Non-oil export has no significant impact on the Gross Domestic Product (GDP)
  H<sub>1</sub>: b<sub>1</sub> ≠ o: Non-oil export has a significant impact on the Gross Domestic product (GDP)
- H<sub>1</sub>: b<sub>1</sub> = o: Government policies has no significant impact in boosting the non-oil sector of the Economy

H<sub>1</sub>:  $b_1 \neq o$ : Government policies have a significant impact in boosting the non-oil sector of the economy.

### **1.5 SIGNIFICANCE OF THE STUDY**

The study of the contributions of non-oil export to the growth of Nigerian economy is significant and important, for this knowledge, it will enable the policy makers to formulate appropriate policies that will aim at improving on the quota of the total revenue brought about by the non-oil sectors of the economy. This study is also important and significant in that it will examine the various ways of improving non-oil sector towards raising the living standard of Nigerians in the period under review (1986-2010).

Since not so much works have been done on the contributions of non-oil exports to Nigerian economic growth, this study will be of great importance.

### **1.6 SCOPE AND LIMITATIONS OF THE STUDY**

This study is an attempt to evaluate and review agricultural products and policies in the economy towards economic growth and development in Nigeria. It intends to cover the period 1986 to 2010. It also intends to evaluate the contribution of non-oil exports to Nigeria economic growth and development.

This study would be based largely on secondary data the reliability of the findings of this study would largely depend on the liability of these data.

Again, our discussions will be restricted to non-oil exports even though we realize that the GDP of the country is composed of Oil and non-oil exports.

#### **CHAPTER TWO**

#### **2.0 LITERATURE REVIEW**

### **2.1 THEORETICAL LITERATURE:**

Non-oil export products are those commodities excluding crude oil (petroleum products), which are sold in the international market for the purpose of revenue generation.

According to CBN publication (1998) on the Nigeria export product guidelines oil export and non-oil export had to be distinguished because of the great different in terms of volume and value of export earning between the two oil export products accounting for over 92% of total volume of export and 86% of total volume of export earnings (CBN 2001).

There had been serious concern over the dependency of oil export earnings in the development of Nigerian economy. Following this successive government had tried to embark on diversification of the export base of the country thus; there had been efforts in the past and present, to increase the non-oil export of Nigeria both in volume and earning (value). As Soludo (2002) noted that the easiest way to fastening over nation's economic recovering and development is to broaden over export base of non-oil exports,

which will invigorate the oiling sector of the economy and help place the economy on the sustainable development path. According to CBA publication (2001), non-oil export products can

be broadly classified into three major groups. These include:

- (a) The Agricultural commodities and products
- (b) The solid mineral export products
- (c) The craft and manufactured export products

### **2.1.1 The Agricultural Commodities and Products Export:**

This category of export products was once the major source of export earnings to Nigeria and it was before and immediately after the nation independence period to the oil boom of late 1960s and 70's. The value products like groundnuts and cotton, in the west, we had coca and rubber while in the eastern part, we had palm oil and palm kernel products. In recent time, we had other exportable agricultural products and commodities like cashew nut, sealer seed, 2004 had declared the nation's readiness to export cassava products worth over \$4 billion (US dollar) TO countries in Europe and Asia within four years period.

Thus there had been a quite cassava production revolution in the country to meet this demand. More government actions are

needed in this direction to achieve this objective. In effect, there had been a concerted effort by the government to boost the agricultural exports of the country to enhance our economic development.

### **2.1.2 The Manufacturing and Craft Export Products:**

This is another part of non-oil export. In the country, the contribution of this category of export product is not encouraged in years fast. According to Ikpeazu (2000) the problem of manufacturing sector are numerous and these had cost the country to have its own fair share in the export of manufactured goods due to the quality and not meeting international standard. In the observation made by MAN (Manufacturing Association of Nigeria) in their 2002 general meeting, the government can help to revamp the sector by increasing the capacity utilization via infrastructure development programme and financial assistance to the sector.

There was a boost in the craft and manufactured export product. Following the launching of the African Growth and Opportunity Act (AGROA) by the united states government in 2001, which allowed for increased export of African goods and commodity to

us market in (2004); it was reported by the ministry of commerce that Nigeria exports to us under the AGROA programme increased greatly amounting to over and 3.2 dollar ministry of commerce publication (2004). More efforts should regard towards this direction to help widen Nigeria export share in the world market, thus help to build a solid and sound economy.

### 2.1.3 The solid mineral export product

This is the last category of the non-oil export as discussed by CBN. It contributed significantly to the export earning of the country before the advent of oil. Solid mineral like coal, tin ore, columbines, limestone, etc, were once the pride of the nation or the part and region where they were mined like coal for Enugu, tin ore for Jos, limestone for Nkalagu, etc, their dwelling fortune could be attributed to the high de-pendency of oil and the neglect of those sector.

The quality of coal and tin ore had declined greatly over the years. But according to Mrs. Ezekwesiri, the former minister of solid minerals during her acceptance speech in Abuja recently said that the solid mineral hold the key to Nigeria fortune as if well harnessed, the revenue from the sector can convert surpasses that of the products its derivates in the near future, coal for example, Poland and export market in mail, Britain, Poland and other European countries as these had indicates their interesting import of the Nigeria coal which had been adjudged the best in the world as it was surplus free.

### **2.2 EMPIRICAL LITERATURE**

Many writers in Nigeria's export have chosen the stance of relating the behavior of the country's exports to change national income as one of the major determinants of the country's imports from Nigeria. One of such works undertaken by Olayide (1980) covered the pricing of Nigeria's export commodities. He observed that Nigeria's approach to empirically obtain the co-efficient of flexibility for prices of numbers of Nigeria.

Many empirical studies have been carried out to determine or evaluated the role of export promotion on economic growth and development. Most of these studies employed cross sectional analysis of inter – country data on export and Gross Domestic product (GDP) or Gross National Product (GNP)

Maizzls (1968) carried out a study on the relationship between exports and economic growth in sixteen countries. In estimating

the relationship, he performed time series analysis of exports and GNP.

Maizzls found out that, there is no strong association between export and the growth of the economy. He however, offered two plausible explanations for this.

First, is the small sample sizes, and second, the relative instance of export in national incomes as not taken into account in each of the countries.

Mazzls, Pearson and Fitch (1972) limited their study to eleven Latin-American countries. They employed a single equation model and found that export earnings appear to make a remarkeable impact on the growth of output.

Fajana's (1979) study was meant to test the validity of the widely held view that trade has been a major relate to economic growth in Nigeria. Fajana employed a chancery. Generally, the result indicates a positive and strong relationship between output changes and hence provides empirical support for this thesis that trade has been an important factor in Nigeria's growth.

In 2001, Olayide and Dupe Olatundasun working together conducted another study to the demand for Nigeria's export for the period 200-2001. They employed a linear correlation coefficient analysis and included that only groundnuts, groundnut oil, palm kernel, and cotton in their investigation. Their interest lied mostly in determining the elasticity of demand for the mentioned non-oil export products and the other factors responsible for fluctuations in the demand for those products. They included changes in income of the importing countries in their model. But again, their work was rendered rather detective by the inclusive of a variable for a measure of export control should a positive sign, which means the higher export of these products. This dedication could not have been plausible.

Another defect of the Olayide – Olatundasun's work is that total Nigeria coca export was regressed on the means of real income of only four importers. This formulation wrongly presumes that the demand of the four countries whose real income was used constitutes the total demand for Nigeria's exports. It would have been more logical to estimate the individual function in each country. They forget to acknowledge the fact that the conditions that influence the demand for Nigeria coca for instance, many vary from one country to the other.

Oni (1986) conducted a research in Nigeria's palm oil export using the person and spearman correlation analysis. His main point of deviation from other people's work is that instead of aggregating, he took a separate study of the quantities each of the major trading partners. This new approach will finish information on the demand condition that might exist in each of the countries importing Nigeria palm oil.

Akinole (2001) in his study, he adopted the ordinary least square (OLS) regression technique. He investigated the prospects for Nigerian petroleum, groundnut, coca and palm oil in the expanded economic commodity. He discovered that the demand for Nigeria oil by the common market countries is price elastic. But the membership of Nigeria in the organization of petroleum exporting countries, a collective bargaining organization makes the exploitation of the high price elasticity of demand unlikely. He said that there exist an effective competition between Nigeria's groundnut and soya bean in the following common market countries, France, nether lands, Belgium, Luxemburg and United Kingdom. He said that Nigeria groundnut oil and cake are not

inferior goods in these markets. He observed that this might be due to the fact that the quantities of proportions of total quantities observed. As a result, Nigeria should shift from the export of groundnuts by groundnut oil and cake and this should be boasted by an effective export promotion in market currently exploited and for Nigeria coca is inelastic in Britain but elastic in many other R.E.C countries. He said that the Britain lack response to changes in the Nigeria price of coca – is a price of valuable information to our policy makers who have long been concerned with the effect of Britain's entry into the common market on Nigeria's cocoa export. Therefore the higher tariff of 4% which Nigeria cocoa export to Britain now faces should not be exported to have any serious repercussions on Nigeria's cocoa export to Britain.

He summarized by saying that the prospect of Nigeria's petroleum export to the EEC is bright. However, it should be expected that recession or low rate of real growth in the EEC would seriously diminish Nigeria's foreign exchange earning derive from oil. Since he observed that groundnuts become interior goods at higher levels of per capital real income, he concluded that the role played in export earnings by groundnut

would diminish significantly over the years. As for groundnuts products the elusive increase in their export earnings will depend large on the effectiveness of export promotion schemes. He also concluded that future increase in the foreign exchange earnings of cocoa would depend heavily in the growth in per capital real income in the less important cocoa consuming countries of EEC since the income elasticity for cocoa are much higher there.

Helleiner (2002) carried out a study using the Keynesian export multiplier approach and two variants of the two – gap frame work, incorporating, and the Harrod Domar model, which shows that only a small part if total agricultural out part of the developing countries receive elaborates local processing, since the bulk is usually sent abroad. He points out that the agriculture normally better in the supply of intermediate inputs to other rectors than in the use of other intermediate inputs.

Asanebi (2007) carried out a research using linear correlation co – efficient analysis and observed that the performance of non – oil sectors exports was below expectation in aggregate terms and so, has not made significant impact on the GNP of the country, cannot sustain the country in terms of economic growth and development. He also came up with the following findings;

- That primary commodities dominates Nigeria's basket of non oil export
- That introduction of the structural adjustment programme (SAP) came with export promotion policy that saw some improvement in the proportion of semi – manufactures and manufactures.
- Though the performance of non-oil exports below expectation in terms of market diversification, it however, recorded some success in terms of a gradual growth in the proportion of value added exports.

Furthermore, he identified some major constraints that militated against non – oil export performance like inefficient credit scheme, etc. his period of research covered 1990 – 2000

Okoro (2009), in his work on the impact of non – oil export the Nigeria economy" using econometric growth without the industrial, agricultural and manufacturing sectors improving from their present state. He states that a very strong link exists between these three sectors and other sectors of the economy. His period of study covered 1995 – 2005.

Ogbonna (2010) emphasize that the contributions of the non – sector export to the GDP is still marginal and almost insignificant. What this implies is that all the export promotion strategies adopted failed to achieve the desired results, which is to improve the performance of the sector. In her research on "the impact of export promotion policies on Nigeria's non –oil export" using ordinary least square (OLS) regression technique she noted that there is general need for policy frame work, otherwise, the non – oil sector will continue to make less contribution to the country's balance of payments their research work however covered the period from 1981 – 2000.

Ozoudo (2010) also discovered using econometric method that the dominance of petroleum / crude oil in the export sector's export. He as well recorded that the inefficient performance of the non – oil marketing of board deterred progress the of non – oil sector. His research covered the period from 1991 – 2008.

### **3.2 LIMITATION OF PREVIOUS STUDIES**

It is a common knowledge that on research work exists in a competence that is devoid of flaw and lapses, but the ability to reduce or make those lapses within the limit of this research work.

However, other works (period's studies) are limited in the area of including the contribution of oil and the performance of other developed countries in compares with less developed countries especially Nigeria.

This study therefore intends to cover these lapses by focusing on Nigeria only and the impact of non – oil export earnings on the national's cross domestic product from the period 1986 2010. Agenri, this work seeks to advocate the policies or measures that would boast non – oil sector to the economic growth of Nigeria which previous studies neglected.

#### **CHAPTER THREE**

#### **3.0 RESEARCH METHODOLOGY**

This chapter is concerned with the presentation of research methodology employed in the study that is the acquisition of relevant data and analyzing the data using appropriate statistical tools.

The method of research to be employed in this study is the econometric procedure of data analysis. The ordinary least square (OLS) method is used and the normal liner regression equation of the line is used. This will enable us ascertain the veracity of our model and will enable use determine the explanatory power our variables. This method will also enable us interpret our results in percentage.

The stochastic term will capture the other Venetian's not accounted for by the explanatory variables. Another reason for the use of OLS is that the computational procedure of OLS is fairly simple as compared with other econometric techniques and the data requirements are not excessive.

### **3.1 MODEL SPECIFICATION**

Now, it is obvious that non - oil export is not the only independent variable that affect cross Domestic product (DCP) in

Nigeria. As such, other variables do affect GDP. Specification of model involves the determination of the dependent and independent variables, the appropriate expectations about the signs and size of the parameter of the function, and the mathematical forms of the mode. These are several economic models that can be used to dire the estimators of the parameters of economic relationships. In this study, a two – way multiple regression models is used to analyze and establish the relationship variable. The two – way multiple regression techniques is used because it gives the best fit, and is an unbiased estimator.

Our model is give as; GDD = F (Noil, oil, GEX) Where

GDP - Gross domestic Product at Current Market Prices

Noil - Non – oil export Revenue.

Oil - Oil export Revenue.

GEX - Government Expenditure

The mathematical form is as follows:

 $GDP = b_0 + b_1 Noil + b_2 Oil + b_3 GEX + U$ 

Where;

b<sub>0</sub> = the intercept of the regression lineb<sub>1</sub>, b<sub>2</sub>, b<sub>3</sub> = the slope of the regression line
## U = Error term or disturbance term

### 3.2 METHOD OF EVALUATION

## (a) <u>Evaluation based on Economic Apriori Criteria:</u>

This test is carried out to check if the signs and magnitudes of the estimated parameters conform to what economic theory postulates.

## (b) <u>Evaluation based on statistical criteria:</u>

The coefficient of determination (R<sup>2</sup>)

Thus  $R^2$  explains the total variation in the dependent variable (GDP) cause by variations in the explanatory variable included in the model.

### The F – Test:

This test is used to test whether the variables included on the work are significant or not in determining the level of domestic saving in Nigeria. Each element of S follows the distribution with N-K degree o production.

## The T – Test:

This test is used to test the overall significant of the regression model.

(c) Evaluation Based on Econometric Criteria:

This is to test whether the errors corresponding to different observation are uncorrelated. The test will adopt the Durbin – Watson statistic because of the presence of the lagged dependent that the model is an autoregressive model (Gugarati, 2004).

### <u>Test for Normality</u>

This test will be carried out of test whether the error term follows the normal distribution. The normally test would adopt the Jarque – Bera (JB) test of normality. The JB test of normality is an asymptotic or large sample test. It will also be based on the OLS residuals.

### <u>Test for heteroscedasticity:</u>

This test would be conducted ascertain whether the error U, in the regression model a common or constant variance. The white heteroscedesticity test (with no cross term will be adopted.

### <u>Test for multicollinearity:</u>

This test is carried out using partial coefficient of determination (partial  $R^2$ ). When the partial  $R^2 > R^2$ ; that is, coefficient of determination, we say that there is presence of multicollinearity, otherwise there is no presence of multicollinearity.

### **3.3 MODEL JUSTIFICATION**

The study employed by the economic techniques of multiple linear regressions. The regression analysis is one of the most frequent used techniques in economics and the most research to estimate relationship of causal nature, Koutstyianis (1979). It enables us to predict unknown variables from known variables. The non – oil measure is expected to show positive relationship with the development of the Nigeria economy.

### **3.4 SOURCES OF DATA AND SOFTWARE PACKAGES**

Data used for the study are mainly secondary data which were collected from CBN statistical bulletin (2010). Data were collected for the role of non – oil export to the development of the Nigeria economy. The data was gathered for the period of 25 years (1986 – 2010).

The econometric software to be used is P.C Five 8.00 for the analysis. The excel software will be used in inputting the data

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### **CHAPTER FOUR**

### 4.0 PRESENTATION AND ANALYSIS OF RESULTS

### **4.1 PRESENTATION OF RESULT**

The result of the regression with 3 regresses is presented in

the table below.

Table 4.1:	Modeling	GDP by	OLS
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Variable	Coefficient	Std. Error	t-value	t-prob	PartRy
Constant	3.4244e+005	1.3508e+006	0.254	0.8023	0.0031
NOIL	24.504	38.100	0.643	0.5271	0.0193
OIL	0.10429	1.0212	0.102	0.9196	0.0005
GEX	4.1682	5.1833	0.804	0.4303	0.0299

 $R^2 = 0.771394$  F (3, 21) = 23.62 [0.0000] DW = 2.35

 $GDP = 3.4244 + 24.504NOIL + 0.10429OIL + 4.1682 + e_t$ 

## 4.2 RESULT INTERPRETATION

### **4.2.1 ANALYSIS OF THE REGRESSION COEFFICIENTS:**

From the result above, when all the independent variables are

equal to Zero, the intercept for GDP becomes 3.4244.

NON-OIL EXPORT REVENUE: A unit change in non oil export

revenue increases Gross Domestic Product by 24.504 units

OIL EXPORT REVENUE: A unit change in oil export revenue

increases Gross Domestic Product by 0.10429 units.

GOVERNMENT EXPENDITURE: A unit change in government

expenditure increases the Gross Domestic Product by 4.1682

units

# 4.2.2 EVALUATION BASED ON ECONOMIC CRITERIA

This criteria show if the a priori expectations conform to the empirical findings.

Independent	Expected	Observed	Remark
variable	signs	signs	
NOIL	+	+	It conforms
OIL	+	+	It conforms
GEX	+	+	It conforms

# 4.2.3 EVALUATION BASED ON STATISTICAL CRITERIA

This test includes;

- a) Goodness of Fit Test (R<sup>2</sup>): From the result obtained in the regression, R<sup>2</sup> is 0.771394 showing a goodness of fit of 77.1%, on the grounds that the explanatory variables explain 77.1% of the explained or dependent variable.
- b) Student's T-test: In order to test if the independent variables are statistically significant, we use the n-k degree of freedom at 0.025 level of significant. At 0.025 levels, the critical

value is 2.080. The decision rule is to reject the null

hypothesis (H<sub>0</sub>) if t cal> 2.080 and accept it if otherwise.

Variables	<b>T-Statistic</b>	5% critical value	Decision
Constant	0.254	2.080	Not significant
NOIL	0.643	2.080	Not significant
OIL	0.102	2.080	Not significant
GEX	0.804	2.080	Not significant

## Table 4.3: t-table

c) THE F-TEST: This test is conducted to see if the regression model is well specified. The decision rule is to reject  $H_0$  that the model is well specified in forecasting and policy analysis if F <sub>cal</sub>> F<sub>0.05</sub>

 $F_{cal} = 23.62$ 

 $F_{tab} = 3.07$ 

Hence  $f_{cal} > F_{tab}$ , we reject  $H_0$  and accept  $H_1$  concluding that the model is well specified and considered as being good and adequate for forecasting and policy analysis.

# 4.2.4 EVALUATION BASED ON ECONOMETRIC CRITERIA1. TEST FOR AUTOCORRELATION:

The Durbin-Watson d\* statistics would be used to test for the presence of autocorrelation. The decision rule is given below:

NULL HYPOTHESIS	DECISION	If
No positive autocorrelation	Reject	$0 < d^* < d_L$
No positive autocorrelation	No decision	$d_{\rm L} \le d^* \le d_{\rm U}$
No negative autocorrelation	Reject	4-d <sub>L</sub> <
		d* < 4
No negative autocorrelation	No decision	$4-d_L \le d^* \le 4-d_L$
No autocorrelation positive or negative	Do not reject	$d_U \leq d^* \leq 4 - d_U$
Given:		

Given:

d\* = Durbin-Watson Statistic = 2.35

- $d_L$  = Lower boundary = 1.123
- $d_U$  = Upper boundary = 1.654
- At 0.05 significance level

The decision falls under  $d_U \leq d^* \leq 4 - d_U$  (i.e.  $1.654 \leq 2.35 \leq 2.35$ ).

Thus, we will not reject the null hypothesis, but conclude that

there is no positive or negative autocorrelation in the residuals.

# 2. TEST FOR HETEROSCEDASTICITY:

This test follows the chi-square distribution with degree of

freedom equal to the number of autoregressive term.

Hypothesis

H<sub>0</sub>: $\beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_P = 0$  (If the variance is constant)

H<sub>1</sub>: $\beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_p \neq 0$  (If the variance is not constant)

# **Decision Rule:**

Reject H<sub>0</sub> if  $X^{2}_{cal} > X^{2}_{tab}$  @ 5% level of significance, accept if

otherwise.

 $X_{tab}^2 = 12.6$ 

 $X^{2}_{cal} = 19.035$ 

# **Conclusion:**

Since  $X_{cal}^2 > X_{tab}^2$  that is 19.035 > 12.6 we reject the null hypothesis and conclude that the variance of the error term is not constant.

# 3. Multicollinearity Test:

The test is carried out using the correlation matrix. This suggests that if the pair wise correlation coefficient between two repressors is in excess of 0.8 then we say that there is multicollinearity.

 Table 4.5: Correlation matrix:

	GDP	NOIL	OIL	GEX
GDP	1.000			
NOIL	0.8684	1.000		
OIL	0.8480	0.9351	1.000	
GEX	0.8757	0.9747	0.9682	1.000

From the correlation matrix above, all the pair-wise are observed to have values in excess of 0.8, therefore, we conclude that multicollinearity exists between all the pair-wise in the model.

# 4. NORMALITY TEST

This test is carried out to check whether the error term follows a normal distribution. The normality test adopts the Jargue-Bera (JB) test of Normality. The test computes the skewness and kurtosis a measure of the OLS residuals and follows the chi-square distribution.

Hypothesis

 $H_0: \sigma = 0$  (The error term does follow a normal distribution) Against

 $H_1$ :  $\sigma$  =0 (the error term does not follows a normal )

At a=5% with 2 degree of freedom.

Decision Rule: Reject  $H_0$  if  $JB^*>JB_{tab}$  at 2df and accept  $H_0$  if otherwise.

From the result of the normality test

JB\*=23.863

 $JB_{tab}$ =5.99147

Therefore  $JB^*>JB_{tab}$  at 5% level of significance we reject  $H_o$ and conclude that the error term does not follow a normal distribution.

### 4.3 EVALUATION OF THE RESEARCH HYPOTHESIS

The hypotheses have earlier been stated as;

Hypothesis 1:

H<sub>o</sub>: b<sub>1</sub> = 0: Non-oil export has no significant impact on the gross domestic product in Nigeria.

 $H_0$ :  $b_1 \neq 0$ : Non-oil export has a significant impact on the gross domestic product in Nigeria.

Conclusion: Based on the various tests conducted, we accept  $H_0$ . This is due to the fact that the t-test result shows that non-oil export has no significant impact on the gross domestic product in Nigeria.

Hypothesis 2:

 $H_0$ :  $b_1 = 0$ : Government policies have no significant impact in boosting the non-oil sector of the economy.

H<sub>0</sub>:  $b_1 \neq 0$ : Government policies have a significant impact in boosting the non-oil sector of the economy.

**Conclusion:** From the results gotten, non-oil export was revealed to have a positive relationship with the gross domestic product in Nigeria. Thus, policies geared towards the development of the non-oil sector, will have a positive effect on it and thereby resulting to an increase in the gross domestic product. Therefore, we reject the null hypothesis and conclude that government policies have a significant impact in boosting the non-oil sector of the economy.

## **4.4 Policy Implications**

The result shows that the non-oil sector has made a positive impact on the Gross Domestic Product of Nigeria over the years under study. It also reveals a positive relationship with the gross domestic product in Nigeria. This implies that the performance of the non-oil sector is a very important determinant of Nigeria's Export at any given time.

The results of the second and third order test also reveals that government expenditure has well contributed to the economy's total export and gross domestic product (GDP) over the years respectively.

The model used for this analysis is a very useful one. This is because it can be used efficiently for both economic analysis and forecasting.

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### **CHAPTER FIVE**

#### **5.0 SUMMARY, RECOMMENDATIONS AND CONCLUSION**

### **5.1 Summary of Findings:**

The essence of this project work has been to determine the effect of non-oil exports on economic growth of Nigeria between the periods 1986-2010. Bearing in mind the non-oil export alone is not the only determinant of economic growth; other variables were added on our methodology. After the analysis, it was discovered that non-oil exports revenue, oil export revenue are significant and government expenditure is not significant.

Based on the empirical findings, recommendations are made on how best to improve the contributions of non-oil export to the Nigerian Gross Domestic Product (GDP). In the final analysis, a conclusion is drawn based on the various findings.

### **5.2 Policy Recommendations**

In order to improve on the contributions of non-oil exports to Nigeria's GDP, the following recommendations were made.

1. Encouragement of Export Promotion:

The government should endeavor to support various export promotion programmes and institutions. This could be achieved by encouraging financial institutions, both formal and informal, to make loans available at reduced rates of interest for investors as to increase the level of investment in this country.

2. Diversification of Export Base:

There should be a quick diversion from monoculture economy to a multicultural one. This is so since the oil which Nigeria depends on is prone to shocks beyond the control of the nation. As such, crude oil revenue should be put to use so as to make Nigerian economy self- sustaining.

3. Reduction or Removal of Import Tariffs:

Tariffs paid on imports of equipment necessary to boost non-oil production in Nigeria are so much that productions are averse to risk their resources. So there should be a down-ward review of tariff/tax structures to reduce the cost of production in Nigeria.

4. Efficient Resource Allocation and Use: The resources at the disposal of government should be efficiently allocated and utilized if Nigeria's non-oil exports are to improve.

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5. Proper Policy Implementation:

Over the years, a policy has been made without their full implementation. So to review the economy, proper policies must be squarely implemented as to promote non-oil exports.

6. Improvement in Data:

Collection and Banking Data in modern world play vital roles in planning; the government or policy-makers should make provisions for a systematic collection of data and their banking by equipping the relevant ministries and parastatals with computers and other ICT gadgets that will improve the collection and accessorily of these data by researchers.

7. Political Stability:

The political condition of this country has to remain stable as to attract both foreign and local investments in Nigeria. This is because on investor will be willing to invest in an atmosphere of politically instability were policy change rapidly.

### **5.3 Conclusion.**

The contributions of non-oil exports to the Nigerian economy over the years (1986-2010) have been declining compared to its level in the 1960s. Most policies and programs of government towards improving the non-oil sector of the economy either failed completely or partly in achieving its goals. From the result of our study, we therefore conclude that non-oil exports add positively on the GDP of Nigeria, and as such efforts should be made to increase the tempo of economic activities in the non-oil sectors of the economy. We therefore hope that the results of our findings will be a source of consultations for policy makers and other related bodies in a bid to achieve development in Nigeria.

### BIBLIOGRAPHY

- Akinole (2001) The Role of Government in Promoting Agricultural Production and Export Trade in Nigeria. Ibadan: Yinela Bola Publishing Company.
- Adenira, A.A (1999) The Agricultural Sector in Nigeria: Problems and Prospects. Lagos, Ibabaki Publishers.
- Asanebi, R.E. (2000), An Analysis of Nigeria's Non-Oil Export Performance (1986-1998), A B.SC Project Report, department of Economics ESUT, Enugu.
- CBN (2001) "Annual Statement of Account" December 2001.
- CBN (1998) "Export Guidelines" CBN Publication Vol.5, No.4.June 1998, Abuja.
- Helleiner, G.K. (2002). Peasant agricultural Government and Economic. Growth in Nigeria: Ibadan, Homewood Publishers.
- Ikepeazu, C. (2000) "Tackling the Problems of Manufacturing Sector of the Nigeria Economy" Article of the Nigerian Industrial Policy.
- Ogbonna, M. (2010) "The Contributions of Non-Oil Export to the GDP of Nigeria: Asaba, Lincoln Publishers.
- Ojo, M.O. (1999) " A Review and Appraised of Monetary and Other Policy Measures in Federal Government Budget for 1999" CBN Bulletin, VOL. 23, No. 1.
- Oko, A.O. (1999) "Agricultral Sector: The Impact in Increasing Productivity in Non-Oil Products" The Guardian, March 20.
- Okoro, F.C. (2009), The Impact of Non-Oil Export on the Nigerian Economy. Lagos: Evans Publishers.
- Olaloku, F.A. (2001), Structure of the Nigerian Economy. Lagos: University of Ibadan Press.

- Osuala, E.E. (1993), Introduction to Research Methodology: 3<sup>rd</sup> Edition African Feb. Publisher Ltd, Onitsha.
- Soludo,C. (2002) "Repositioning Nigeria For Regional Economic Power: A Paper Presented by the CBN Governor at the Seminar Organized by Nigeria Export Position Council" August 4, 2002. Lagos.
- Todera, M.P. (1985) "Economic Development in the Third World Edition" Longman: New York.

## **JOURNALS**

- Olayide, S. (1980). Some Estimate of Supply and Demand Elasticity Selected Commodities in Nigerian Foreign Trade: Journal of Business and Social Studies, Lagos. VOL.1.
- Ozoudo, P.J. (2010), Reviving Nigeria's Non-Oil Sector for Economic Development; CBN Economic and Financial Review. 35, 4 (Dec, 2010)
- Tyler, W.G. (1981) "Growth and Export Expansion in Development Countries: Some Empirical Evidence" Journal of Development Economics, VOL.9, 120-13

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