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## Long and Short Run Dynamics of Agricultural and Petroleum Sectors in the Economic Growth of Nigeria

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*Abstract*

This study examined the economic relationship among agriculture and petroleum sectors and growth of Nigeria's economy as well as the effects of these two key sectors on the economic growth. The Bound (ARDL) test which was used to examine the long-run relationship among the variables revealed that there is a long-run relationship among agricultural and petroleum sectors and economic growth. In the short run, both sectors have positive significant relationship with the economic growth. While for every 1% change in agricultural productivity there is about 60.89% change on economic growth, petroleum sector had about 37.07% change effect. Thus, agriculture contributes more than the petroleum sector in the short run. In the long-run, both sectors also have positive relationship with economic growth. Agriculture in the long-run also contribute more than the petroleum sector. While a 1% change in agricultural productivity effects a 53.49% increase in economic growth, petroleum sector increases GDP by 43.71%. However, in the long-run, while agriculture is significant at 5%, petroleum sector is significant at 10%. In conclusion, the positive relationship of both sectors with economic growth shows that they are rather economically complimentary than competitive that the actions and inactions of the government have made them look.

*Keywords:* Agriculture, Petroleum, ARDL, Economy, Growth, Nigeria

*JEL classification:* Q18, Q32, Q38, O13

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### **Introduction**

Nigeria at independence before the discovery of oil in commercial quantity depended solely on agriculture for revenue to build other major sectors of the nation's economy. However, since the advent of crude oil which is dubbed the "black gold", attention of the government has been on the revenue accruing from the sale of this product. The neglect of the agricultural sector for oil can be summarized to be as a result of (i) it is a ready-made cash even in its crude form and (ii) the time lag within which the revenue accrue is very short compared to agriculture which is characterized by long gestation period. Agriculture accounted for about two-thirds of the Gross Domestic Product. However, over the years, the sector was relegated to the background and thus has witnessed rapid decline in its roles and contribution to the national development. The farmlands have been neglected in pursuit of crude oil. Consequently, Nigeria became a major importer of agricultural products as against her earlier position as a major exporter. This led to decline of the economically active population in agriculture in Nigeria as youths who are the backbone for agricultural labour development abandoned the rural areas for the urban centers in search of white-collar jobs which were not duly available in the cities and this has led to increase in the level of unemployment in the country.

With the discovery of oil, it is expected that the economic fortune of Nigeria was already guaranteed and secured at the same time. However, since the discovery of the "black gold" in commercial quantity, poverty incidence, depth and severity has kept on increasing. Agriculture which used to be the focal point of Nigeria economy was nearly neglected totally and the rural areas whose main occupation is agriculture and contributing immensely to economic development of Nigeria pre-oil discovery was abandoned. In fact, the crude oil which Nigeria has relied on since discovery is explored in the rural areas of the oil region of the country, i.e., Niger-Delta region. This region has been ravaged by oil spillage to the extent that the lands are covered with oil that the crops are no more productive and the waters are filled that the fishes can no more survive and their means of survival truncated. Oil spillage has led to high poverty and increased health risks in the oil communities while the discovery of oil leading to the neglect of agriculture has adversely affected all rural areas and their means of livelihood which is agriculture.

### **Brief Economic Importance of Agriculture**

According to Suberu *et al* (2015), the place of agriculture in Nigeria's economy has remained critical over the decades. Prior to the political crisis of 1967-1970, agriculture was importantly crucial to sustaining economic growth and stability. The bulk of local food demand was satisfied from domestic production thus reducing the need to utilize scarce foreign exchange resources on food

importation. A typical example is the first Nigerian skyscraper – the cocoa house in Ibadan, which was built with proceeds from the sale of cocoa as well as the now Obafemi Awolowo University, Ile-Ife, Osun state and the Liberty stadium in Ibadan. The study further stated that the crisis that developed in Nigerian economy during the civil war became more serious in the early 1970s, which coincided with the rising fortunes of the petroleum sector. From that period till date, agriculture has been relegated to the background by the government in search for oil revenues. This development is reflected in rising food prices and inflation, increased imports of food and agricultural raw materials for local industries, a relative decline in agricultural export earnings and deteriorating living conditions in the rural areas as well as heavy foreign exchange spending on goods that could have otherwise been produced locally. This has also led to wide spread poverty and expanded inequality in the Nigerian society.

### Literature Review

In the bid to empirically examine the contribution of agriculture vis-à-vis petroleum which has become the major source of income of Nigeria from 1960-2010 period, Umaru and Zubairu (2012) in “An Empirical Analysis of the Contribution of Agriculture and Petroleum Sector to the Growth and Development of the Nigerian Economy from 1960-2010”, the regression result revealed that for every unit change in agriculture and petroleum sectors, there would be 215.29% and 79.25% increase respectively in the economic growth of Nigeria which was proxy by the Gross Domestic Product. The result revealed that despite the decades of neglect of the agricultural sector in Nigeria for the quick money from petroleum, agriculture still contributes more to the growth of the Nigerian economy. Literature exist on the importance of agriculture in poverty reduction, some of which include (Diao *et al*, 2005; Ravallion and Dati, 1996; Thorbecke and Jung, 1996; Fan *et al*, 2005; Bourguignon and Morison, 1998; Okunola, 2016). Oji-Okoro (2011) is of the opinion that agriculture resource has been an important sector in the Nigerian economy over the years and is still a major sector despite the oil boom; basically it provides employment opportunities for the teeming population, eradicates poverty and contributes to the growth of the economy. A strong and efficient agricultural sector would enable a country to feed its growing population, generate employment, earn foreign exchange and provide raw materials for industries. The agricultural sector has a multiplier effect on any nation’s socio-economic and industrial fabric because of the multifunctional nature of agriculture (Ogen, 2007).

Despite the economic importance of agriculture to national development, the discovery of oil has been an impediment in its development. Even though oil in its crude form is money, it should have aided appreciable investment into sectors such as agriculture that has a greater multiplier effect on almost if not all sub-sectors

of the nation's economy in order to combat capital flight and exportation of jobs in the name of food importation as well as improve on the development of Nigeria in other sectors and in the long run, poverty will be combated and the people will be able to afford basic needs of life. It is thus ironical that the government of Nigeria over time has not paid adequate attention to the rural sector which plays host to these natural resources: agriculture and crude oil. The discovery of oil has led to the near total neglect of agriculture which is the main if not the only life-wire of the rural sector in all regions of Nigeria and as well led to the devastating state of the rural areas in the oil communities in the Niger-delta region where the waters are filled with oil and the fishes can no more survive and the land are covered that crops can no more produce yield. The rural areas of the Niger-delta region live in fear of health risk and mostly sent out of job due to oil spillage and the rural areas in other regions have been neglected in terms of socioeconomic development because their main business which should have attracted the attention of government to their plight has also been neglected for the "black gold". The actions and inactions of government since the discovery of crude oil have made sectors which hitherto should have been complementary to become competitive and thus as at today, Nigeria economy is not just oil-based, agriculture has lost its usual golden place in the overall economic performance of Nigeria.

Therefore, this study seeks to answer the following questions:

1. Is Nigeria an oil-based economy?
2. Is petroleum the lubricant in the economic wheel of Nigeria?
3. Are both agricultural and petroleum sectors complementary or competitive economic sectors?

It is against the foregoing that there is a need to study economic competitiveness or otherwise of the petroleum and agricultural sectors and their joint dynamic impact on the economy of Nigeria. A number of studies (Ukeji, 2003; Lawal, 2011; Olajide et al, 2012; Oyinbo and Rekwot, 2014) had looked into the performance of agriculture while a few (Suleiman and Aminu, 2010; Umaru and Zubairu, 2012; Nseabasi, 2012; Ugwuanyi and Abula, 2015) had studied the impact of agriculture and crude oil on the growth of Nigeria. However, this study seeks to contribute to knowledge in two ways: (i) this is the first time a competitive or otherwise study is carried out on the economic relationship between crude oil and agriculture only and their effects on economic growth and (ii) also this is the first time the long and short run dynamics of these important economic sectors in the oil producing nation of Nigeria is being studied. Apart from Ugwuanyi and Abula (2015) in "An Empirical Investigation of the Contribution of Agriculture, Petroleum and Development of Human Capital to the Economic Growth in Nigeria, 1970-2012" which used the Johansen cointegration approach to examine

the long-run relationship among economic growth, agricultural output, human development and petroleum output and then employed the Granger causality to examine the direction of relationship, other works on this subject matter had depended on the traditional Ordinary Least Square approach to study the relationship among economic growth and these sub-sectors.

### Methodology

#### Study Area

Nigeria, a country in the West of the continent of Africa has a total population 186,654,170 people (2016 estimation) equivalent of 2.48% of the world population and the 7<sup>th</sup> world most populous country has an emerging middle economic class of 34.5 million people or approximately 22.8% of her total population (AfDB, 2014) and an annual population growth rate of 2.44% (2016 estimation, CIA Factbook).

#### Data

Time series data from the bulletin of the National Bureau of Statistics from 1982-2013 were employed for this study. The data of Gross Domestic Product proxy for economic growth, contribution of agriculture and oil & gas were extracted from the bulletin.

#### Analytical Tool

As a result of the spurious nature of time series data and the short-run economic implication of the neglect of agriculture as well as to examine the long-run impact of crude oil in Nigeria, this study embarked on the use of higher time series OLS analytical tool such as the Autoregressive Distributed Lag model which is used to examine the long-run-short-run dynamics of time series data as well as to take care of the spurious nature of the time series data in the traditional OLS. The definition of variables is shown in table 1:

**Table 1**

<b>Description of variables</b>	
<b>Variale</b>	<b>Description</b>
<i>Dependent variable</i> InGDP	Natural logarithm of the Economic growth proxy by Gross Domestic Product in billions
<i>Independent Variable</i> InAgric	Natural logarithm of contribution of Agriculture to Nigeria's economic growth
InOG	Natural logarithm of contribution of petroleum sector to Nigeria's economic growth.

### Results and Discussions

The ARDL approach which according to Pesaran and Shin (1999) and extended by Pesaran et al (2001) was adopted for this study due to its ability to incorporate both I(0) and I(1) orders variables and estimate both long-run and short-run dynamics in a single model. It does not require that the variables must all be I(1) order. The condition for the application of the ARDL approach is the presence of I(0) and I(1) variables and this was verified through Augmented Dickey and Fuller (ADF) test of the natural logarithm of the variables and the result is shown in table 2:

Table 2

Variable	ADF Statistics		Critical values			Order of Integration
	Levels	1 <sup>st</sup> Difference	1%	5%	10%	
InGDP	-0.99	-4.94**	-3.67	-2.96	2.62	I(1)
InAGRIC	-1.57	-2.94*	-3.67	-2.96	-2.62	I(1)
InOG	-3.87**	-5.72	-3.69	-2.97	-2.63	I(0)

\*\*(\*)stationary at 5%(10%)

Author's Computation via Eviews 9

From the above, the variable InOG was stationary at levels while the two other variables of InAGRIC and InGDP were stationary after first difference. This thus justified the use of the ARDL model to estimate the long-run-short-run dynamics of the functional relationship as stated in the equation below:

$$\text{InGDP} = \beta_0 + \beta_1 \text{InAgric} + \beta_2 \text{InOG} + \varepsilon_i \quad \text{-----}$$

(1)

Where:

$\beta_0$ , and  $\beta_1, \beta_2 =$  constant term and parameter coefficient respectively

$\varepsilon_i =$  white noise

According to Pesaran et al (2001), equation (1) above is therefore developed into the unrestricted error correction model to test for the presence of cointegration among the variables under study. The general ARDL model is hereby given as:

$$\Delta \text{InGDP} = \gamma_0 + \sum_{i=1}^n \gamma_1 \Delta \text{InGDP}_{t-i} + \sum_{i=0}^n \gamma_2 \Delta \text{InAgri}_{t-i} + \sum_{i=0}^n \gamma_3 \Delta \text{InOG}_{t-i} + \beta_1 \text{InGDP}_{t-1} + \beta_2 \text{InAgric}_{t-1} + \beta_3 \text{InOG}_{t-1} + \varepsilon_i \quad (2)$$

Where  $\gamma_0$  is the intercept,  $\gamma_1, \gamma_2, \gamma_3$  are the short-run coefficient,  $\beta_1, \beta_2, \beta_3$  are the long-run coefficients and  $\varepsilon_i$  is the white noise.

The ARDL Bound testing is used to investigate the long-run relationship among the variables under study according to Pesaran et al (2001). The bound test is based on F-statistics. The F-statistic is used to test for the hypothesis of no

presence of cointegration as against the alternative of presence of cointegration which is stated as:

$H_0$ : i.e., there is no cointegration among the variables

$H_a$ : i.e., there is cointegration among the variables

According to Narayan (2005), the F-statistic is used to test for the joint significance of the coefficients. If the F-statistic is below the lower bound  $I(0)$ , the null hypothesis of no cointegration is accepted while if it is above the upper bound  $I(1)$ , the null hypothesis of no cointegration cannot be accepted, therefore, the alternative is accepted. However, if the F-statistic falls in-between the lower and upper bound values, the result is deemed inconclusive. The F-statistic is however compared to the critical values according to Narayan (2005) due to the small sample size nature of this study. This is based on the fact that the Pesaran et al (2001) critical values are based on large sample size. The number of lags used for his study based on the Schwarz Information Criterion is 5. The calculated F-statistics from the bound test is presented in the table 3:

**Table 3**

**Bound test result for long-run relationship**

<b>Critical Values (Restricted Intercept and no Trend)</b>	<b>Lower bound</b>	<b>Upper bound</b>
1%	5.155	6.265
5%	3.538	4.428
10%	2.915	3.695
Calculated F-statistics = 8.6068 at k=2		

**Author's computation via Eviews 9**

From the above results, the F-statistics is greater than the upper bound value, thus, the null hypothesis of no long-run relationship among the variables is hereby rejected and the alternative of presence of long-run relationship accepted. Hence, there is a long-run relationship among economic growth, petroleum and agricultural sectors. In other words, both petroleum sector and agriculture have significant roles to play in the growth of Nigeria's economy as the nation moves into the future should the country be able to maximize the revenue generation of the petroleum sector and the chains of employment agriculture is able to offer her. This can be adduced to the revenue generation potentials of crude oil which in its raw form is in fact money which is the reason why it has been referred to as "black gold" in Nigeria. Crude oil is economically a ready-made money waiting to be collected. On the other hand, agriculture has the potency to employ the teeming young Nigerians who are hitherto not employed, provide food for the largest African nation, provide raw materials for the growth of her industrial and

manufacturing sectors as well as ensure foreign earnings for the country. Thus the government of Nigeria with sound economic seriousness can employ foreign exchange earned through sales of crude oil to improve on the agriculture to secure the future of the country.

### Estimate of Long-run Parameters

With the presence of a long-run relationship among economic growth and the duo of agricultural and petroleum sectors, the parameters (elasticities) of the long-run relationship is hereby estimated in the following equation:

$$InGDP = \beta_0 + \beta_1 InGDP_{t-1} + \beta_2 InAgric_{t-1} + \beta_3 InOG_{t-1} + \epsilon_i \quad \text{--- (3)}$$

The result of the estimate is hereby stated in the table 4:

Table 4

Long-run Estimated Parameters				
ARDL(2,1,1) selected based on Schwarz Bayesian Criterion				
Variable	Coefficient	Standard Error	T-statistics	P-value
InAgric	0.5349	0.2387	2.2410	0.0350**
InOG	0.4371	0.2201	1.9796	0.0598*
Constant	1.3606	0.2420	5.6213	0.0000***
R <sup>2</sup> = 0.958		Adj R <sup>2</sup> = 0.945		

### Author's Computation via Eviews9

\*\*(\*){\*\*\*}significant at 5%(10%){1%}

From above, in the long-run, agricultural sector is the only significant sector at 5% level while oil and gas sector is significant at 10% level. Hence, as the nation moves into the future, the significant importance of oil and gas to the growth of Nigeria economy may keep declining due to the overdependence of the nation on the natural resource despite its revenue generation potential. As the population of Nigeria keeps increasing – as it has kept on increasing over the years – the per capita of the revenue from oil and gas will keep reducing and what this portends is that the revenue from oil and gas will in the future not be significantly enough to provide socioeconomic and socio-infrastructure development for all Nigerians. It is therefore expedient that the Nigeria government begins to look beyond oil as the nation moves into the future. This means the agricultural sector that has been left in the hands of nature must be taken seriously to make sure the future of the nation is economically secured. In terms of size of contribution, agriculture will contribute the most; a 1% change in agricultural productivity will lead to 53.49% growth effect in the growth of the economy while a 1% change in oil and gas revenue will have a 43.71% growth effect on Nigeria economy. This is evident in terms of the job



agricultural development can create for the enormous unemployed Nigerian youths, foreign exchange it can earn for Nigeria and income redistribution it can engineered to make sure more and more people have access to factors of production as well as better living standard. In the long-run both oil and gas and agriculture individually have positive relationship with economic growth. However, agriculture is will significantly impact on the standard of living of Nigerians than oil whose proceeds rest in the hands of very few people in the entire population.

### Estimates of Short Run Parameters

To estimate the short-run dynamics of the relationship among the economic growth, agriculture and oil and gas sector, the following equation error correction model was estimated:

$$\Delta \ln GDP = \gamma_0 + \sum_{i=1}^n \gamma_1 \Delta \ln GDP_{t-i} + \sum_{i=0}^n \gamma_2 \Delta \ln Agri_{t-i} + \sum_{i=0}^n \gamma_3 \Delta \ln OG_{t-i} + \beta_3 ECM_{t-1} + \epsilon_i \text{ -----}$$

(4)

The results are stated in the table 5:

Table 5

Short Run Estimated Parameters

Variable	Coefficient	Standard Error	T-statistics	P-value
$\Delta \ln Agri$	0.6089	0.0560	10.8680	0.0000***
$\Delta \ln OG$	0.3707	0.0217	17.0759	0.0000***
	-0.2993	0.0480	-6.2384	0.0000***

### Author's Computation via Eviews9

\*\*significant at 1%

The short run estimates above showed that indeed oil and gas has a highly significant relationship with economic growth. This can be attributed to the fact that oil in its crude form is cash and thus the government of Nigeria from the past have relied on this revenue majorly for the development of the people and the country. The logical question the nation's leadership asks by its actions has always been *why work hard to develop other sectors when oil is making the money for us?* However, agriculture despite its near total neglect is able to contribute more to economic performance of Nigeria. That is, 1% change in agriculture in the short run effect a 60.89% increase in the economic productivity of Nigeria while 1% change in the revenue generated by the oil and gas sector effect a 37.07% increase in economic growth of the onetime agrarian nation. Thus, agriculture has almost double the effect oil and gas had on economic performance in the short run. This is because as the proceeds of oil stay in the hands of very few, the majority of the people have taken their lives into their hands to at least produce their own food if they cannot have money to purchase them. This accounts for the growing backyard and

subsistence farming in among especially the urban household. The one common relationship between the two economic sectors is that they both have positive relationship with economic growth of Nigeria. This therefore reveals that both agricultural and petroleum sectors are not competing with themselves except for the neglect agriculture has been facing over the years. The neglect of the agricultural sector over the years by the Nigeria government however depicts the two sectors as competitors as if attention to one forecloses attention to the other. The error correction term has the required negative sign and is highly significant from zero at 1%. The ECT of 29.93% explains the speed of adjustment of the system from short-run disequilibrium to converge to long-run steady state in the current year.

### Diagnostic Tests

The results of the diagnostic tests are presented in table 6:

Table 6

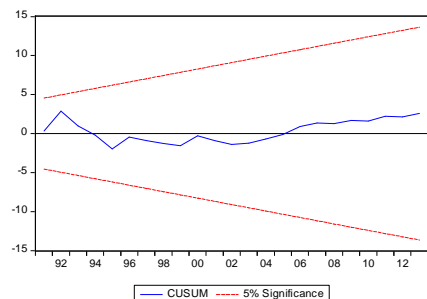
<b>Residual Diagnostic Test</b>			
<b>Test for Normality</b>			
Jarque-Bera	3.7149	Prob(Jarque-Bera)	0.1561
<b>Breusch-Godfrey Serial Correlation LM Test</b>			
Obs*R-squared	10.241	Prob.Chi-square(5)	0.0687
<b>Heteroskedasticity Test: White</b>			
Obs*R-squared	29.977	Prob.Chi-square(27)	0.3152

### Author's Computation via Eviews9

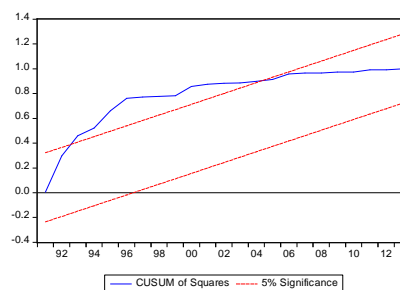
From the above, the table indicates that the model is free from serial correlation, normally distributed and free from heteroskedasticity.

### Stability Tests

As proposed by Brown, Dublin and Evans (1975), the CUSUM and CUSUMSQ tests were used to examine the stability of the model. The tests applied to the residuals indicate stability in the coefficients over the sample period. The CUSUM test is applied to the cumulative sum of the recursive residuals while the CUSUMSQ is applied to the squared recursive residuals. If the plot of the cumulative sum goes outside the area of 5% critical lines, the parameter estimates are found not to be stable. The same is applied to the CUSUMSQ test. The test results are graphically presented below:



**Fig. 1**  
**Plot of CUSUM test.**



**Fig. 2**  
**Plot of CUSUMSQ**

From the figure 1 above, the CUSUM test indicted stability of the model as the statistic stays within the 5% critical bound regions. However, the CUSUMSQ is not entirely stable as the statistic was out of the critical bound regions particularly between 1993 and 2004<sup>1</sup>. This indicates that the variance of residuals is relatively stable.<sup>2</sup>

### Summary, Conclusion and Policy Implication

Examining the time series data from 1982-2013, this study looked into the performance of the agricultural and oil and gas sectors of the Nigeria economy vis-à-vis their long and short run dynamic effects on economic growth. Since the discovery of crude oil in commercial quantity, the onetime agrarian nation and exporter of food began to slide into a mono-oil-based-economy due to the revenue generation ability of crude oil which has been dubbed “black gold”, neglecting agriculture which has over time remained the mainstay of the economy despite its near total neglect. Despite the revenue generating potential of crude oil which seems to be the only positivity of the product, the negative externalities have taken their toll on the socioeconomic development of the oil region in particular and the entire nation at large, from land degradation, exposure of the people to health hazards due to gas flaring, to oil spillage which has been responsible for the near total unproductivity of arable lands in the oil regions as well as massive migration of

<sup>2</sup> This may have been due to the political instability experienced in Nigeria especially as from 1993. In 1993, a presidential election was annulled and an interim government put in place was overthrown the same year. Nigeria economy was relatively isolated due to the presence of military regime between 1993 and 1998 which focused more on instituting its government than giving the economy adequate attention, as well as the death of the then Head of States in 1998. Between 1993 and 2001, there was also no definite major policy or program executed in the agricultural sector. Thus, the whole economy was largely oil-driven. The period 1999-2001 was spent more on stabilizing the country from political upheaval and the economy began to have attention from 2001; a period which the Fig. 2 above shows that the plot began to stabilize into 5% the critical bounds.

fishes from Nigerian waters to neighboring countries for survival. Crude oil which would have provided more than enough capital to be invested into other sectors which would have reverberating positive effects on the economy such as to provide jobs, raw materials for industries, provide goods for consumption and ensure foreign exchange earnings, among whom agriculture is, if not the only sector with such economic nature, has been made to rival other sectors and become competitive with the mainstay of Nigeria's economic mainstay – agriculture – due to actions and inactions of the government.

The foregoing therefore necessitated this study which examined the long and short run competitive or complimentary relationship of agriculture and oil and gas as well as their impacts on economic growth of Nigeria to be able to reposition the economy of Nigeria for better performance. The Autoregressive Distributed Model, ARDL, was used for this study due to the stationarity nature of the variables in this study. The optimal lag of 5 was chosen base on Schwarz Information Criterion as the Bound test was employed to test for the long run relationship among the variables. The result showed that there is the presence of long run relationship among the agriculture, petroleum sector and the economic growth of the country. The long run and short run estimates showed that both economic sectors have positive relationship with economic growth. In the short run, both oil and gas and agriculture have significant relationship with economic growth at 5% significance level. This confirms the revenue generation ability of oil and gas to meet the short term needs of the country and the natural doggedness of agriculture in the economic equation of Nigeria. However, this has not translated into development that is typical of nations endowed with crude oil. While the management of crude oil is a problem to Nigeria and this has led to political instability over time, agriculture is not also getting the required deliberate attention from the policy makers. It is left to the crude means of hoes and cutlass.

This means that proceeds from crude oil may have been diverted more into unproductive or less productive areas of the Nigeria economy where the capital investments are tied down and are not generating further revenues or economic benefits. For example, while construction of roads is socially important, ensuring feeder roads linking rural markets to urban centers would have had both social and economic impact on the economy than tying down the investment in projects that do not satisfy economic needs, e.g, using proceeds from oil to construct roads in housing estates. However, in the long run, while agriculture is significant at 5%, oil and gas managed to be significant at 10%. Hence, in the long-run, oil and gas is tending towards insignificant relationship. Hence, if care is not taken, if proceeds from oil and gas keep going into unproductive or less productive sectors and agriculture keeps getting neglected, the possibility of crude oil been unavailable whether as a matter of overuse or sociopolitical instability in the oil region, economic growth of Nigeria is going to experience serious negative shocks. The

speed of adjustment of 29.93% is highly significant at 1% and with its required sign; meaning the speed at which the model adjust to long-run equilibrium is 29.93%. The fact that agriculture is still performing its roles in economic growth despite near total neglect by the government shows that Nigeria is not a mono-product economy, i.e., crude oil may have been generating the revenue but it is not the only sector that has sustained the economy so far. Also, the positive relationship of both sectors with economic growth shows that they are not competing naturally except that the actions and inactions of government of Nigeria have made them look competitive. Hence, if revenue generating potentials of petroleum sector could be utilized as an input in the agricultural sector in terms of provision of investment capital into agriculture, Nigeria will be better for it. Agricultural sector in Nigeria requires urgent storage facility to make sure produce can be kept for future use. Many of the agricultural produce have very short shelf life and this leads to either spoilage or the farmers selling off their produce at ridiculous prices in the bid to avoid spoilage. This does not translate to profit for the farmers in the end and this does not encourage an average youths to take agriculture as a job.

It is therefore imperative that the Nigeria government stops to play lip service towards diversification of the economy. Sustainable agricultural programs and policies must be designed and seriously pursued to harness fully the potentials embedded in agriculture. The government should be economic in her finances to ensure that capital investment in agriculture is ensured and guaranteed from the proceeds from oil and gas. According to Okunola (2016), who ascertained that for agricultural programs and policies in Nigeria to survive, the limiting factor of change in government which has been one major reason programs and policies developed and executed never survived no matter how successful the programs have been, the role of legislature cannot be underscored in sustainable agricultural development. Hence, the legislative arm of Nigeria government should rise up to the task of providing legislative framework for deliberately and carefully designed programs and policies in the agricultural sector and ensure that funding is guaranteed for such programs and policies. With adequate funding, agriculture is capable of bringing making Nigeria great again and since oil and gas is capable of generating huge revenue, intentional efforts should be geared towards creating a framework that will set aside portions of the oil proceeds to be injected into the agricultural sector. This will ensure the all-time desired diversification of the economy of Nigeria. Thus, instead of the actions and inactions of government leading Nigeria towards a mono-oil-based-economy and near total neglect of agriculture, proceeds from oil and gas can stimulate very huge investment into agriculture to enable the government to provide storage facilities, inject capital into the sector and create jobs for the teeming unemployed especially the youths in the country as well as increase food production and ensure foreign exchange earnings.

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