

REPUBLIC OF TURKEY
ISTANBUL GELISIM UNIVERSITY
INSTITUTE OF GRADUATE STUDIES

Department of Economics and Finance

**DETERMINANTS OF AGRICULTURE OUTPUT TOWARDS
POSITIVE IMPACT ON ECONOMIC GROWTH OF NIGERIA
1981-2020**

Master Thesis

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Supervisor

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Istanbul – 2023

THESIS INTRODUCTION FORM

Name and Surname : PAULET UWAILA OSAGHAE

Language of the Thesis : English

Name of the Thesis : Determinants of Agriculture Output Towards
Positive Impact on Economic Growth of Nigeria 1981-
2020

Institute : Istanbul Gelisim University Institute of Graduate
Studies

Department : Economics and Finance

Thesis Type : Masters

Date of the Thesis : 30.12.2022

Page Number : 74

Thesis Supervisors : Asst. Prof. Dr. Edmund Ntom UDEMBA

Index Terms : Agriculture, Economic Growth

Turkish Anstract : Tarım, Ekonomik Büyüme

Distribution List : 1. To the Institute of Graduate Studies of Istanbul
Gelisim University
2. To the National Thesis Center of YÖK (Higher
Education Council)

signature

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DECLARATION

I hereby declare that in the preparation of this thesis, scientific ethical rules have been followed, the works of other persons have been referenced in accordance with the scientific norms if used, there is no falsification in the used data, any part of the thesis has not been submitted to this university or any other university as another thesis.

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ABSTRACT

The study examined determinants of agriculture output towards positive impact on economic growth of Nigeria and the results from the study shows that, the variables significantly impacted the agriculture output. Three research question were used for the study and related literature was reviewed. As a method of estimation, the Ordinary Least Squares method (OLS) was employed to estimate Vector auto-regression (VAR) and granger causality test. The study of this method is based on the fact that the technique is relevant to the objective of this study and has desirable property for this analysis. Moreover, it was revealed that Exchange rate (EXR), had significant and negative impact on Agricultural Output (AOUT) in Nigeria. This implied that decrease in Exchange rate (EXR) led to increase in Agricultural Output. Furthermore, the result also revealed that Inflation (INF) had no significant impact and relationship on Agricultural Output (AOUT) in Nigeria. This implied that a rise in Inflation (INF) led to decrease in Agricultural Output (AOUT). Lastly, Interest Rate (INT) is non-statistically significant. It also indicates that there is no positive connection between Interest Rate (INT) and Agricultural Output (AOUT) in Nigeria for period between (1981-2020). The study concludes that increasing effective exchange rates, interest rates, inflation rates, will positively affect Agricultural Output Nigeria's economic growth. Based on the findings the study therefore recommends that the Government policies should encourage the inflow of foreign private investment so that it can continue to encourage the production or development of the agricultural sector in Nigeria and accountability aimed at raising living standards, increased attention to cultural and human values, improved education, and the creation of more jobs will all contribute to greater individual and societal success in addition to improving material well-being.

Key Words: Agriculture, Economic Growth

ÖZET

Çalışma, Nijerya'nın ekonomik büyümesi üzerindeki olumlu etkiye yönelik tarımsal çıktının belirleyicilerini inceledi ve çalışmanın sonuçları, değişkenlerin tarımsal çıktıyı önemli ölçüde etkilediğini gösteriyor. Çalışma için üç araştırma sorusu kullanılmış ve ilgili literatür taranmıştır. Tahmin yöntemi olarak, Vektör oto-regresyon (VAR) ve granger nedensellik testini tahmin etmek için Sıradan En Küçük Kareler yöntemi (OLS) kullanıldı. Bu yöntemin incelenmesi, tekniğin bu çalışmanın amacı ile ilgili olduğu ve bu analiz için istenen özelliklere sahip olduğu gerçeğine dayanmaktadır. Ayrıca, Döviz kurunun (EXR) Nijerya'da Tarımsal Üretim (AOUT) üzerinde önemli ve olumsuz etkisi olduğu ortaya çıkmıştır. Bu, Döviz kurundaki (EXR) düşüşün Tarımsal Üretimde artışa yol açtığını ima etti. Ayrıca sonuç, Nijerya'da Enflasyonun (INF) Tarımsal Üretim (AOUT) üzerinde önemli bir etkisi ve ilişkisi olmadığını da ortaya koydu. Bu, Enflasyondaki (INF) bir artışın Tarımsal Üretimde (AOUT) azalmaya yol açtığını ima etti. Son olarak, Faiz Oranı (INT) istatistiksel olarak anlamlı değildir. Ayrıca, (1981-2020) dönemi için Nijerya'da Faiz Oranı (INT) ile Tarımsal Üretim (AOUT) arasında pozitif bir bağlantı olmadığını göstermektedir. Çalışma, artan efektif döviz kurlarının, faiz oranlarının, enflasyon oranlarının Nijerya'nın Tarımsal Üretimini olumlu yönde etkileyeceği sonucuna varıyor. Bu nedenle çalışma, bulgulara dayanarak, Hükümet politikalarının, Nijerya'da tarım sektörünün üretimini veya gelişimini ve yaşam standartlarını yükseltmeyi amaçlayan hesap verebilirliği, kültürel ve insani değerler, gelişmiş eğitim ve daha fazla istihdam yaratılması, maddi refahı iyileştirmenin yanı sıra daha büyük bireysel ve toplumsal başarıya katkıda bulunacaktır.

Anahtar Kelimeler: Tarım, Ekonomik Büyüme

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ABBREVIATIONS

AOUT	:	Agricultural Output
ARMTI	:	Agricultural and Rural Management Training Institute
ACGSF	:	Agricultural Credit Guarantee Scheme Fund
ADPS.	:	Agricultural Development Projects
EXR	:	Exchange rate
FGN.	:	Federal Government of Nigeria
INT.	:	Interest Rate
NAFPP.	:	National Accelerated Food Production
NEEDS	:	National Economic Empowerment and Development Strategy
NSS	:	National Seed Service
NCAM.	:	National Center for Agricultural Mechanization
OLS.	:	Ordinary Least Squares method
OFN.	:	Operation Feed the Nation
RGDP.	:	Real Gross Domestic Product
RBDAS.	:	River Basin Development Authorities

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PREFACE

This thesis paper is submitted for the degree of Masters in Economics and Finance at the Istanbul Gelisim University. The research described herein was conducted under the supervision of Dr. Öğr. Üyesi Edmund Ntom UDEMBA in the Department of Economics and Finance. This work is to the best of my knowledge original, except where acknowledgements and references are made to previous work. Neither this, nor any substantially similar dissertation has been or is being submitted for any other degree or other qualification ant any University.



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Agriculture is the principal sector on which the majority of Nigeria's rural poor rely for survival. More than 70% of the lively labor pressure is hired in the agricultural sector. (World Bank 2017). The Federal Government of Nigeria (FGN) has recognized this sector as an improvement precedence in its efforts to halve poverty with the aid of using diversify financial system far from the oil region. The FGN is coming up with techniques to growth in the various harvests from agriculture, its administering and publicizing. Some of these were designed by authorities in 2004 to cut down poverty rate and empower individuals. Given the significance of agriculture in poverty discount, NEEDS units out numerous subjective overall execution objectives that had been to be completed with the aid of using this strategy. These consist of a 6% annual boom in exporting agricultural products and a high discount in meals imports from 14.5% of overall imports to 5%. The “Seven Point Agenda” of the prevailing management identifies “meals safety “as one of the main concerns within the country’s “Medium Term Development Plan and Vision 20: 2020.” The World Bank identified three primary problems in Nigeria in 1990: soil deficiency, water contamination, and deforestation (World Bank 2010).

The logging pace of Nigeria's critical timberland spots among the most remarkable globally. Additionally, land use gauges in the range of 1976 and 1995 demonstrates that undamaged forest covers in Nigeria reduced by 53.5% from 25,951 square kilometers in 1976 to 12,114 square kilometers in 1991 (FORMECU 1998). Presently, over 90% of Nigeria's provincial population depend mainly on wood assets for vocation and monetary survival. The unpredictable change of the forest for agrarian use and fuel wood mining is prevalent. Thus, the decrepit periods endorsed in shifting cultivation are left out partially or totally. The use of peripheral land for horticultural substances is escalating. The forest is likewise being lost to logging. Notwithstanding, the main utilization of the forest’s wood is for fuel. (Matthews 2020).

Agriculture might decidedly affect ecological quality. We can make sense of those effects through "production composition effects". The design of the economy shifts from provincial to metropolitan economies. Particularly, in the main times of creating rustic economy wins. In certain nations, ecological issues might generally cause increment while passing from horticulture to industry. However, ecological corruption begins to fall as long as the underlying changes in an economy shift to information and administrations concentrated enterprises from energy-intensive ventures. Creating data innovations acquaint a country with a more prosperous stage. This proves that data advances are more important merchandise on the world markets. Besides, the innovative work ventures assist with further developing creation strategies to enter each area of an economy. Subsequently, another financial framework whose creation processes are cost-proficient and amicable to nature happens. In such data networks, natural quality works on as long as the economy develops. It is known as the technical effect of agriculture. Those three aspects require that different development techniques are carried out in various nations and numerous monetary motivations. For example, foreign trade prompts an increment in the size of the economy. Agricultural quality is corrupted by expanding exchange volume. As of now, we can discuss scale impacts. On the opposite side, creation structure and innovative impacts have additionally impacted the agricultural component of foreign trade. A few nations can be in a profitable position, with worldwide exchange, by delivering cleaner merchandise while certain nations produce contamination escalated products. While a country's creation synthesis is cleaner, another country's creation might be dirtier. All things considered, a few nations can move through great administration practices, for example, the execution of the innovation moved. Innovation move through unfamiliar direct venture might lessen contamination in emerging nations (Copeland and Taylor 2015). We can make sense of this through the technological effect of agriculture.

Agricultural pollution moves from the countries executing severe agricultural strategies to those which carry out more vulnerable agricultural arrangements. In this manner advanced countries become a merchant of the merchandise having pollution-concentrated creation processes while agricultural nations become exporters of such products (Cole, 2014, Janicke et al 2017, Stern et al 2016). Weighty ventures in China

and India, and unfamiliar began auto businesses in Turkey, the Czech Republic and Mexico are such models on the planet. Agricultural pollution forces significant expenses on the polluters in countries having solid economies. Also, advance countries reduce their agricultural norms and guidelines since non-industrial nations have settle for what is most convenient option and guidelines. Advanced countries probably shouldn't stream away their capitals to the non-industrial nations. All things considered, world countries for the most part rely upon the global local area and a few financial impetuses are impeded because of peaceful accords. That is, the global local area might play an effective part to diminish agricultural issues. Market system shows contrasts in different countries. A few countries take on liberal monetary strategies while change economies win in certain countries. Especially, in advanced market economies, regular asset use productivity is expanded through market specialists. Market costs might mirror the natural resource costs accurately.

The great financial force of a country is a component of satisfactory and effective financial strategies. Financial and money related strategies are the twin strategy instrument utilized by a country to control the degree of government spending, tax collection and public obligation pointed toward impacting monetary exercises in the ideal way. Public spending (e.g., Budget) is one of the most immediate and viable instruments utilized by states to advance rural result development and neediness decrease. (Ukeje 2012). Monetary history shows that the rural unrest is an essential precondition for financial development, particularly in non-industrial nations. Agriculture is the backbone of industrialization on the planet. As indicated by Akintunde (2012), each industrialized nation went through the agrarian time. The adage that agriculture is the center point of the Nigerian economy highlights the significance placed on farming as the motor for development.

Furthermore, the development of agricultural result in each country on the planet (both advanced and developing) requires government help. As of late, agricultural results in different nations have been multiplying, while Nigeria has encountered a critical decrease in agricultural result (Izuchukwu (2011). Following the hindered development in agricultural result in non-industrial nations like Nigeria, low agricultural speculations have been viewed as a significant contributory element to this improvement thusly, government fiscal obligation has forever been viewed as major

soundness, frequently saw as an essential to accomplishing practical result development. Consequently, the expected commitment of agriculture to financial improvement in Nigeria has been damaged by unfortunate subsidizing, combined with misinformed government policies (Asoegwu and Asoegwu, 2017).

In any case, a glance into the central government's investment on agriculture depicts a desolate potential for the area's progress in the country. From 1981 to 2014, the central government use on capital was low. Regardless of these big amounts of money apportioned to the area throughout the long term, there was close to nothing or irrelevant improvement in agricultural production on the grounds that the progressive government just utilized the policies/projects to steal public assets to the absolute disregard of food production by declining to pay ranchers the genuine worth of their harvests and simultaneously offering manure and seeds to them at excessive costs (Ariyo, 2017).

Agriculture is a critical factor for economic development and improvement to most of the countries classified as developing countries. Nigerians as a country is portrayed as a quickly developing economy with a typical development pace of 7% somewhat recently. The agricultural sector has been Nigeria's main economic booster before the rise of raw petroleum in the last part of the 1960s yet from that point forward, the country has depended a lot on oil for income improvement than agriculture, due to the fact that the country's oil region actually provides space for productive exercises. A country's financial plan is typically conservative due to the high cost of crude oil, and even though agriculture isn't yet widely practiced, it contributes to the development of the nation.

In Nigeria, the commitment of this area to the development of the native economy was generally huge before the mid-1970s; notwithstanding, as the oil area arises as the significant export worker of the economy, agricultural development of the economy fell from 60% to 40% in the 1970s then subsequently 30% and under 26% somewhere in the range of 2000 and 2007 (CBN, 2011). Exports like cocoa, cotton, groundnut, elastic and palm oil which at first contributed up to 65% and 75% of the unfamiliar trade profit and which was the primary wellspring of income for the government through export product, out of nowhere declined their commitment to add

up to Real Gross Domestic Product (RGDP) because of agricultural area carelessness, as oil area arose in the economy. The commitment of the area to the all-out Real Gross Domestic Product in Nigeria declined from 48% during the 1970s to 20% and 19% somewhere in the range of 1980 and 1985 (CBN, 1). High income, as evidenced by the availability of crude oil products during the oil blast from 1970 to mid-1980, which was brought on by the Middle East conflict of 1973, was credited with reducing the amount of area execution required to equal RGDP.

Moreover, the swing from a demonstrative agricultural area to the despised oil area in Nigeria brought about economic crises, for example, food security, import reliance, lacking stock of unrefined components to enterprises, unnecessary acquiring, the equilibrium of installment shortfall, high joblessness and expansion rate, and so on. To address this mutilation and give a positive climate to new speculation, produce income for the government, set out business open doors for the country's labor force and too to advance country export, the progressive government left on infrastructural interest in all pieces of the country; the most helped region incorporates metropolitan urban communities. One more part of the area that developed essentially because of the advancement was the help area and consequently making other metropolitan communities more alluring. The turn of events, impact the vivacious youth who comprised the dynamic workforce of the country to leave their famous agricultural exercises in the rustic regions for the urban areas to partake in the economically prosperous urban areas.

This conduct brought about city blockage, pollution, food deficiency, high inflation along with wrong doing in the public arena. Though the development of crude oil in business amounts and its specialist oil blast during the 1970s got a ton of fluctuations in the Nigerian economy remembering an increment for complete GDP, unfamiliar 1985 (CBN, 2011), The decrease in the area execution to add up to RGDP was credited to high income got recorded from the offer of crude oil products during the period of oil blast during 1970 to mid-1980 event by the Middle East conflict of 1973.

The beginning of Nigeria's disregard of major areas of strength for its area date back to the revelation of the oil blast of the 1970s. The agricultural area during the

1960s contributed around 64% of the absolute gross domestic product (GDP) of Nigeria yet progressively declined to 48% during the 1970s during the oil blast. Having realized the decay of agricultural result, the government over the course of the years has set up specific strategy measures and projects to expand the result. Some of which are ancient or deserted and some are rebuilt while others are still set up. Eminent among these policies is Operation Feed the Nation (OFN), program was sent off with the goals of expanding food production, achieving independence in food supply and empowering all areas of the Nigerian populace to develop food, the Green Revolution program (GR) was laid out in 1980 by the regular citizen system pointed toward cleaning away yearning through credit supply to ranchers, energize and strengthen helpful schooling, preparing the nearby individuals to effectively partake in agriculture, utilization of examination on food and fiber to improve overflow in stable food production, handling and dispersion in Nigeria, National Accelerated Food Production (NAFPP), Agricultural Development Projects(ADPS), River Basin Development Authorities (RBDAS), National Seed Service (NSS), National Center For Agricultural Mechanization (NCAM), Agricultural And Rural Management Training Institute (ARMTI) and Agricultural Credit Guarantee Scheme Fund (ACGSF). Others were the Nigerian Agricultural Cooperative and Rural Development Bank (NACRDB) agricultural bank, etc. Over the long run, this consumption has been on agriculture without explicitly meaning a comparing agricultural result. Accordingly, the premium of this exploration work is to examine the effect of fiscal approach on agricultural result in Nigeria.

As per Heyne, Boettke, and Prychitko (2020), taxation and government spending are two primary parts of fiscal strategy. In this manner, changes in the level and creation of taxation and government spending affect the accompanying factors in the economy; Aggregate Demand (AD) and level of economic movement, the example of asset allotment, and the conveyance of pay. It has been contended that an expansion in government spending will achieve a log jam in the exhibition of an economy while different researchers presumed that an expansion in government spending and charges will achieve economic development. The main aim of this study is to find out the the determinants of agricultural output towards positive impact of agriculture on economic growth of Nigeria.

1.2 Statement of Research Problem

In the 1960s, agriculture turned into the spine of the Nigerian economic system and the finest forex earner. Agricultural product income represents the majority of Nigeria's non-oil export. The stocks of this product, both processed and unprocessed, within the general price of non-oil exports are as excessive as 60% (CBN, 2011). The agricultural goods market saw an increase in export revenue between 1960 and 1970, but it started to decline in the early 1980s due to the collapse of the world's top commodity market and the deterioration of trade terms. This, conversely, reduces the global call for Nigeria's agricultural oil which constitutes 90% of forex income in general (Okoh, 2014). The overall performance of agricultural export income within this long period leaves little or not anything perfect no matter the attempt to sell non-oil export in Nigeria.

In spite of the commendable projects of the government authorities, price range distribution to the agriculture area continued negative till the approaching in of past President Olusegun Obasanjo who made extreme struggles to redesign the area. Production fell drastically from forty-two consistent with cent in 1990 to 34.6 consistent with cent in 2010, earlier than growing to 56.5 percent and additionally falling to 52.4 percent in 2010 and the actual consistent with capita earnings is likewise decline even as the influence of agriculture to the whole GDP has additionally dropped from 40.33 consistent with cent in 1986 to 35.18 consistent with cent. Substantial meals import now controls, and unfortunately, the economic system can't even preserve the consequent import bills. Consequently, this took the simplest smooth manner out.

Moreover oil, the fundamental power of the Nigerian economic system is its wealthy agricultural sources base, its human useful resource base and its large marketplace. Nevertheless, those agricultural sources have now no longer been correctly organized to spread the economic system's sales base and decrease reliance on oil and imports. The economic system stays at risk of outside shocks emanating from fluctuations with inside the global fees of crude oil and the growing fees of imports. The ensuing outside and inner imbalances are appeared within the negative stability of bills position, unemployment and coffee capability utilization in certainly

all sectors in addition to the deteriorating buying strength of the population (Bukar, Aliyu, Bakshi, 2017). This mindset of the banks in phrases of creating credit score to be had to the farmers and the negative execution of agricultural regulations with the aid of using the authorities has brought about the underdevelopment of the rural area. Based at the above-diagnosed problems, this has a look at tries to take an essential inspect the effect of presidency spending tell of its economic coverage on its agricultural development.

For these reasons, if the Nigerian economic system is to return to a path of sustainable growth and external viability, there may be a desire to examine the determinants of agricultural output and the effects of Nigeria's financial boom.

1.3 Research Questions

The research questions postulated for this study include the following:

- i. What is the inflation impact of agriculture on Nigeria Economic?
- ii. What is the exchange rate deregulation impact of Nigeria on agricultural output?
- iii. What is the interest rate impact of agricultural output in Nigeria?
- iv. What is the relationship between selected variables and agricultural output impact in Nigeria?

1.4 Objectives of the Study

The broad objective of this study is to assess impact of agriculture in economic growth of Nigeria, the specific objectives include:

- i. To target the inflation impact of agriculture output?
- ii. To observe exchange rate deregulation impact on Nigeria agricultural output?
- iii. To determine interest rate impact on agricultural output in Nigeria?
- iv. To examine the casual relationship between selected variables on agriculture output in Nigeria?

1.5 Research Hypotheses

For the purpose of this study, the following research hypotheses will be tested:

H₀₁. Inflation does not have any significant on Nigeria economic growth

H₀₂. Exchange rate does not have any significant impact on agriculture on Nigeria economic growth.

H₀₃. Interest rate does not have any significant impact on agriculture on Nigeria economic growth.

H₀₄: the selected variables does not have causal relationship with agriculture output on Nigeria.

1.6 Significance of the Study

Looking at existing literature, Bawa and Muhammed (2014) proclaimed that “Nigeria with all its oil wealth has performed poorly with GDP per capital today higher than at independence 1960”, where they acknowledge the deprived functioning of the Nigeria economy but they snubbed to deliver experimental proof to support their discoveries. Katisrcioglu (2017) researched the important correlation between agricultural yields and economic improvement in North Cyprus by utilizing Johansen co-integration test and the Granger causality test. Agriculture as a factor for reducing poverty and increasing food security has been a recent agenda backed by the United Nations and other developed economies Thus, Nigeria as a developing economy cannot be lagging in such programs.

It opens a thorough fare for government or policymakers in their efforts at evolving policies and programs for the betterment of the Nigerian agricultural sector. This research will enlighten the citizens on what to expect from the government and things to put in place to boost their agricultural output. This study will be useful to students and other researchers as it will form part of existing literature on issues of the agricultural sector in Nigeria. Most studies done by Nigerian researchers in the sector of agricultural haven’t been enough in relations of emphasizing credit accessibility about fiscal policy and the action of the government as it distresses the rural farmers

and farming establishments, which in turn disturb the general agricultural production. This study is special, it highlights the effect of the government actions on agricultural development in Nigeria, and hence, this topic will immensely contribute to current knowledge.

Awokuse (2018) directed the causality test between export and economic growth in Japan from 1960-1991. Babatunde, (2014) studied the long-run relationship between the export and import sector in Nigeria, from 1960 to 2014, with little or no attention to the link between oil export earnings and agricultural output in Nigeria. This study will provide new insight and updated information which will strengthen the empirical understanding of the subject matter. Therefore, this study will enlighten the policymakers and the government to know the need for diversification of Nigeria's economy. Methodologically, this study will analyze the impact of oil export earnings on agricultural output in Nigeria, this will ensure the findings of this study are based on concrete evidence for relevant inferences to be made. This study will also be relevant and be of help to students, who may want to further their studies in related areas.

1.7 Scope and Limitation of the Study

The scope of this study embraces the past and present situations of the relationships between the determinants of agricultural output towards positive impact of agriculture on the economic growth of Nigeria during the period 1981-2020. The study will also make use of data collected mainly from secondary sources, that is, World Bank database and international monetary fund. One of the limitations of this project work was the lack of inadequacy of materials which made it difficult for a robust work. Finally, the time and financial constraints to cover the study should be taken into consideration as limiting factors.

1.8 Organization of the Study

Chapter one contained the background to the study, statement of research problems, research questions, the objective of the study, the significance of the study, and the scope of the study. Chapter two contains the literature review; it details the conceptual review, definition of terms, theoretical review and empirical review. This will provide a conceptual background and a theoretical understanding of how the sector should perform. Next after is chapter three which focuses on the research methodology to be employed in the study. Chapter three covers the research methodology, study population, study sample, method of data collection, and method of data analysis. Chapter four covers the analysis which includes the collection of data, data analysis and the interpretation of the result using various statistical techniques. Lastly is that covers the summary, conclusion, and recommendation of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Conceptual Literature

2.1.1 Agricultural Output

Agricultural output is measured as the ratio of agricultural outputs to agricultural inputs (Alexander, 2018). Why individual products are usually measured by weight, their varying densities make measuring overall agricultural output difficult. Therefore, the output is usually measured as the market value of final output, which exclude intermediate product such as com feed used in the meat industry. This output value may be compared to many different types of input such as labor and land (yield). These are called partial measures of productivity. (Alexander, 2018). The oil excess of the mid 1980s went down significantly. To evaluate what is happening, the government proposed an incorporated programs pointed toward broadening agricultural productivity (CBN, 2014). Olaokun (2019), made sense of that agriculture is a wellspring of food and natural substances for the modern area, it sets out greater work open doors, diminishes neediness and further develops pay circulation, it speeds up industrialization and facilitates the tension on the equilibrium of installment. As per Fei-Ran (2018), the immature country can expect to deviate from the state of unproductivity to one of self-supported advancement in the event that the agricultural area is grown so that, the excess workforce will be benefited by the new organization.

Omowale (2019) likewise in his study agriculture for the purpose of reducing the rate at which we rely on some stuff imported to the country, reducing food cost increments, obtaining foreign exchange, recollecting many new doorways to the labor market and increasing ranchers' pay. Helleiner (2016) affirms that, irrespective of the turn of events and primary modification is achieved, agriculture will stay prevailing in the economy for several generations ahead. (Okpanachi, 2014). Also, agriculture provides the actual capital expected for new generational improvement in most countries in the Western part of Africa. Besides, agricultural export gives the fundamental foreign trade expected for the acquisition of important natural substances, provided machines, resources income for the country (Ogbole, 2016). Egbuna (2013).

Over years, agriculture has guaranteed food security and provided grounds for importing important food stuffs like rice, beans, millet, etc. This is clearly a positive ground to prove that the agricultural sector needs massive attention to maintain and improve in its productivity.

CBN yearly report (2012), thought that the previous discussed expansion in food production was a consequence of increased activities of the organizations to further develop productivity in the obtainment and dispersion of fundamental farm inputs. Agriculture's contribution to GDP in Nigeria is very important regardless of the decrease in productivity of the area. From 2010-2014 we documented 40% contribution of agriculture to GDP as against 41.8% in 2016 (CBN, 2016). The World Bank Development Report (2017), agriculture has been underrated, disregarded and given less attention irrespective of its contribution towards the Gross Income of the country for almost 20 years. Through its development report, the World Bank stated and gave more emphasis on the country and its administration giving more attention and interest in the sector in developing the country. It advised that the area should be seen and considered as an important sector of the development plan of the country if the goal of eliminating poverty and neediness in 2015 can be achieved.

2.1.2 Agriculture's Role in Economic Growth

Agriculture has played and keeps on assuming a critical part in worldwide economic turn of events. Pre-modern markets were portrayed by a huge portion of the reasonably dynamic population indulged in the sector of agriculture described by minimum work productivity. Lewis (2015), contended that the area gives a wellspring of work that can be diverted into different region to power the extension of result in the particular areas. The depart of work from US agriculture to more non-agricultural purposes after World War II, has been distinguished as a significant supporter of the great pace of economic development in USA till the mid of 1970s (Denison, 2015). (Johnson, 2017) has additionally been reported. Notwithstanding, as work is removed from agriculture result will drop except if the assets remained can be used in a more effective with the main goal of generally increasing productivity. High yield development in agriculture has been a fundamental factor to consider accomplishing more extensive economic improvement in numerous nations (Rostow, 2019). Johnson

(2011) gauges that the typical development rate in labor efficiency before the war during the 1980s was 4.3% per year, contrasted with 2.6% in different areas.

Outlining basic significance of accomplishing the gains in the produce from agriculture, numerous examiners have focused on what creates a specialized differences in agriculture and licenses the proceeded leave of labor from the area. Binswanger and Ruttan (2015) fostered the idea of „induced specialized change“ in which a rising cost of work which drives advancement in the economy. The developing interest for basic needs made by an extending non-agricultural population creates tensions to increase productivity from the sectors which as a result and this invigorates the turn of events and reception of land-saving innovations, (for example, compost and other yield-improving agrochemicals). These two types of specialized change grant agriculture to satisfy the growing need for the two variables and result in the remaining sectors. The significance of land versus work saving advancements in expanding productivity has relied upon asset gifts specifically nations. Notwithstanding, the "industrialization" of agriculture - expanded dependence on the utilization of significant amounts of bought inputs - has been a significant part of the improvement of the area and a significant piece of the most common way of expanding productivity. Mechanical change keeps on assuming a critical part in the improvement of the agricultural area and its capacity to give expanding amounts of food and agricultural unrefined substances to fulfill the requirements of a growing world population (Ruttan, 2012).

The size of the portion of the progressions happening in agriculture can be outlined by reference to the United States. In 1900, 41% of the all-out labor force was utilized in the area. A massive declination of 16% in the year 1945 and 4% during 1970 (Dimitri et al., 2005). During a similar period, around 22 million draft livestock (bulls, ponies and donkeys) were for the most part supplanted by 5 million farm haulers - opening up a significant measure of land committed to developing food the animals to produce different yields.

Comparative significant underlying the variations in the sector of agriculture and development in the field's production was recorded in Europe (Campbell, 1991) and different locales. In an investigation made in relation to the main aim of this study

resulted in excess of 90 nations, this gauge likewise contrasts well with the study and the normal pace of development.

2.1.3 The Current Economic Role of Agriculture

The agricultural area in OECD nations is having a tendency to contract, comparative with the rest of the country, both as far as its commitment to gross GDP and work. Declining yield costs achieved in a speedy pace of and slow interest in the demand for food implies that agriculture's contribution to GDP will in general decay as time goes on (Dimitri et al., 2015). Indeed, even in locales that are named overwhelmingly country in OECD nations the portion of agriculture in territorial GDP and work has would in general downfall, albeit, in certain nations (Poland, Portugal, Turkey and Korea), agricultural business actually represents over 25% of complete work in such districts (OECD, 2010b).

In numerous districts in OECD nations, high concentration in the improvement specialty products and "neighborhood food varieties". It has generated a scope of variables which involves the craving to protect nearby cultivating frameworks, increment neighborhood esteem included the food and agricultural area, enhance cultivating exercises, lessen the conveyance of food products, foster elective production frameworks (e.g., natural), and increment the accessibility of new produce. In USA for instance, the quantity of farmers that convey food straightforwardly to neighborhood buyers has been growing quickly. There are as of now north of 6 000 such business sectors, contrasted with not exactly a portion of that number in 2000. The improvement of nearby food varieties can be invigorated by endeavors to foster the travel industry and new conveyance frameworks to buyers, for instance, the improvement of agreements among farmers and shoppers conveying new. Such improvements are assisting with expanding the economic action and work related with agriculture in certain areas and to counterbalance the propensity for the mainstream decrease in the area's commitment to pay and business. In brief, regardless of a decrease commitment to GDP and work in numerous OECD nations, agriculture actually assumes a significant part in the economy. This position is necessary as a result of the economic growth in the surrounding regions, primarily as a result of the

sector's role in keeping food prices low, which enables consumers to spend more of their discretionary income on other goods and services. The economic effect of agriculture is bigger than it could show up right away, and thus, the ramifications of green development policies that influence the area could likewise be more critical. Agriculture likewise assumes a significant role in the utilization and management of natural resources.

2.1.4 Oil Export Earnings

This is the revenue a country generated from the export sales of its petroleum product (Dappa, 2010). The oil and gas sector accounts for about 35% of gross domestic product, and petroleum export revenue represents over 95% of total export revenue. It is a naturally occurring, yellow-back liquid found in geographic formations beneath the earth's surface, which is commonly refined into various types of fuels (Akiner et al, 2014). Petroleum products are materials derived from crude oil (petroleum). As it is processed in oil refineries. Unlike petrol chemicals, which are a collection of well-defined usually pure chemical compounds, petroleum products are complex mixtures. The majority of petroleum is converted to petroleum products which include several classes of use.

(Walter Irion, 2015).

2.1.5 The Concept of Taxation

Taxation has always been a national issue for the country in general and tax payers in particular since the country's early lengthy stretches of development. After a while, it sparked a lot of controversy and significant political fights. A few economic theories have been offered to operate a successful framework, as shown by their relevance. According to Atawodi and Ojeka (2012), taxation is the cycle by which the sovereign, through its regulatory body, raises incomes used to pay for government expenses, a way for the government to increase its income under the authority of the law. Specifically used to advance government aid, public safety, and the legal collection of the government's share of worker and hierarchical pay.

Iwuji (2011) characterizes tax as a legal obligation forced by the government and demanded from an individual's or, alternately, an element's, pay, property, or

exchange for financing administration. A tax can either be of one of three fundamental designs: relative, backward, or moderate. When a taxpayer receives a payment that is a substantial portion of his salary, tax is supposed to be in proportion. Finally, an ever-evolving tax imposes a higher rate on higher-paid employees while charging lower-paid individuals a higher rate under a backward tax. Nigeria runs a three-sided tax organization framework where tax evaluation and assortment are by and large helped out through the income assortment organizations. As per Adams (2011), taxation is the most critical stock of deals for present-day governments, by and large representing 90 cents per penny or more in their profit. According to Aguolu (2014), taxation is evident as a required toll paid by the experts through the organizations at the subject's capital, admission, and profit. These tolls are made on confidential income along with pay rates, business undertaking profit, interests, profits, decreases, and eminences. It is additionally required for the organization's income from oil, capital gains, and capital exchange. Okon (2017) states that profit tax might be showed up as a gadget of monetary inclusion used by the specialists wherever in the worldwide to guide without a doubt or adversely exact sorts of financial games to harvest inclined toward targets. The main financial longings of developing global areas are to develop at the expense of money-related increment and, thus, per capita profit, which ends up in a superior standard of living. An inventive tax charge might be employed to procure the impartial dissemination of sources. Government can also raise or lower tax rates, raise or lower the cost of capital subsidies (given instead of depreciation) to encourage or discourage positive ventures (such as those in the agricultural or manufacturing sectors), or it can also provide tax breaks to organize groups. Therefore, if employed as a creative tension in financial planning and advancement, personal tax may be used as a specialist of social extrusion.

2.1.6 Economic Growth

Is the increase in the market price of the goods and services created by a financial system, when adjusted for inflation, consistent over time? It is simply measured because the according to cent fee of growth in actual gross home product, or actual GDP, generally in according to capita phrases (IMF, 2012). Increase in a US's effective potential as measured through evaluating gross country wide product (GNP) in 12 months with the

GNP of the preceding years. The main drivers of economic growth are thought to be an increase in the capital stock, technological advancements, and developments in the fine arts and literacy levels.

2.1.7 Oil Revenue

As per Yakubu (2009), sales from a country's home-grown sources (e.g oil) has effects on financial increment and improvement. This becomes approved as Nigeria's oil deals represented a greater level of the whole deals which increased from seventy-five percent in 1975 to eighty-seven percent in 2011. This become likewise glaring as Nigeria created an extra \$390 billion in processing plants which have didn't convey fragile oil based goods. The commitments of the oil endeavor to the increment and improvement of the Nigerian monetary framework might be estimated in expressions of the undertaking's effects on macroeconomic factors. These commitments likewise can be tried in expressions of its level of deals period and component massively ventured forward each the forex stores and specialists' deals. It became also resolved that the specialist's level of crude oil deals combined with assorted joint endeavor concurrences with the worldwide oil producing bunches is somewhat 70% of deals amassed from crude oil exchanges. He moreover believed that the oil venture can make commitments strikingly to the increment and improvement of the Nigerian monetary framework by means of abroad direct speculation (FDI). With over 65% of Nigeria's government-created deals originating from oil over the previous ten years, this project and the temperamental endeavor, according to an IMF assessment in 2003, saw Nigeria's deals and costs see a comparable example to lubricate rates, Nigeria's monetary inclusion remains firmly stirred.

Revenue and consumption moreover talented a sharp development eventually of the lengths of unreasonable oil expenses along with 1979-82, 1991 through to 2009 and extra thus, while oil charges died down after the blasts, Nigeria's deals declined too. Overall, from 2003 to 2011, oil deals represented 80% of all Federal-assembled deals every year. Odularu stated that oil and fuel line exports represented extra pay and roughly 83% of specialist's deals within the year 2002. More so, within a year, Nigeria's per capita profit had risen to roughly one-quarter of its mid-Seventies level, far below the level of freedom, while the monetary framework additionally

safeguarded for a significant increase in the "relaxed region," which is expected by a couple to be as much as 75% of the total monetary framework. In the year 2000, the upward push in global oil prices forced further specialized transactions of more than \$sixteen billion, substantially double the amount discovered in 1999. With 2.5 million BDP in 2011, the country is one of the producers and exporters in numerous African countries.

2.1.8 Fiscal Policy and Agriculture in Nigeria

The authorities have established different guidelines to procure its objectives of developing agricultural improvement through stamping FICO rating to be had by means of a business receipt funding plan, close by ware sheets (Later known as country wide item sheets), an export supporting and rediscount office (2017), Individuals' monetary organization, the Agricultural Credit Guarantee Scheme Fund (ACGSF) and the rest. These guidelines have brought advancement in the life of farmers and business people (Olaitan, 2016). Likewise, various methods were verbalized and applied in a bid to upgrade agricultural improvement. These projects have blended assorted charge and no expense motivating forces in attempts to rebuild the country region, development execution and lift fabricating. (Iyoha and Oriakhi, 2012).

2.1.9 Operation Feed

The Nation (1976-1979) and the Green Revolution Program (1979-1979) had been furthermore delivered sooner or later of this stage. The Operation Feed the Nation (OFN) crusade, which become delivered through every Federal and country naval force governments in 1976, had the objectives of assembling the USA nearer to independence and confidence in dinners by means of duplicated feasts fabricating, empowering occupants who until recently confided in looking for dinners to create their own. The OFN program become later included into the Green Revolution Program delivered through the regular citizen specialists of the second one republic. As indicated by Manyong (2003), monetary guidelines that had been of importance to agriculture sooner or later of the length sooner than SAP (Structural Adjustment Policy) focused explicitly on the ones intended to guide FICO rating to the rustic region on concessionary phrases.

The Central Bank of Nigeria specified negligible potential outcomes of business and specialist organization monetary establishment credits that need to visit the country region, the starting of a Rural Banking Scheme in 1977 beneath which specific business banks had been expected to open unmistakable quantities of branches in stand-out components of the USA and with something like forty as per penny of the whole store in those provincial banks loaned to debt holders inside the ones rustic regions. (ACGSF) became delivered in 1977 to decrease the peril brought into the world through business banks in stretching out FICO rating to ranchers underneath this plan, the Central Bank of Nigeria guaranteed as much as roughly 75 as per penny of the expense of the major and side interest on credits conceded to farmers through any business monetary organization however much a couple of specified most company bodies, as a depend of inclusion, the naira become permitted to realize on this length. In the length, 3 exchange charge structures had been followed. The fixed-charge machine become followed from 1960 to 1972, the controlled drifting machine become followed from 1973 to 1978, while the fixed machine (I.e fixed to a forex bushel) become followed from 1979 to 1985 (Iwayemi, 2015).

The agricultural inclusion for Nigeria become delivered in 1988, the rustic inclusion report contained the SAP pack since it related with the provincial region. The standard inclusion objective become to procure self-keeping up with expansion in the agricultural sub-areas as a whole and the finish of primary change for the socio-money related improvement of the agricultural regions. In particular, an inclusion expected to get independence inside the essential dinner wares, development assembling of agricultural uncooked materials, development assembling and handling of export plants and enhance the USA's export base. The reason for the ACSS is to expand the country region of the Nigerian monetary framework through bestowing FICO rating focuses to ranchers at a solitary digit side interest expense. This is to permit ranchers to make the most the undiscovered possibilities of the field to decrease the cost of agricultural assembling and development yield on a supportable premise. These endeavors are anticipated to cause a fall in expenses of agricultural produce, specifically dinners things, in this way primary to a rebate inside the inflation charge, delivering an excess for export, expanding the business base and developing forex pay for the USA.

2.1.10 Nature of Fiscal Policy in Nigeria and Importance of Agriculture

In Less Developed Countries like Nigeria markets and economic establishments are surprisingly misleading, frequently outside structured and spatially disintegrated. Nigeria lacks clearness (complete revelation of the fine of mortgage collection). Nigeria is working a twin financial machine a small and frequently externally managed or prompted economic organization, providing to the economic wishes of the center and upper-magnificence nearby and overseas agencies in each the rural and commercial subdivisions obliging the wishes of the rich commercial elites whilst disregarding the prerequisite of the fairly negative and the rural financial system. Fiscal coverage in evolved international locations completely simplifies a complicated method, it does factor out crucial factors that growing international locations together with Nigeria lack, the life of surprisingly organized, economically interdependent and effectively functioning because of authorities spending.

The movement of financial resources inside and outside of savings banks, microfinance institutions, commercial banks, and other broadly governed community and private economic intermediaries is minimally regulated. In specific facets of the financial system and across the US, hobby fees have been trending toward stability and relative universality. Therefore, financial negotiators are able to allocate and organize excess non-public savings to the financial system's underdeveloped sectors successfully (Todaro, 2013). The rural financial system, which is an important and delicate area, may either move slowly or switch to conventional making plans and sources via direct nation control if developing countries like Nigeria are unable to complete the task of expanding banking institutions, saving establishments, reorganizing agricultural and commercial credit scores, and sound crucial banking (Jinghan 2015). Despite the strategic significance of oil, Nigeria's economy still heavily depends on agriculture.

As per Planet (2016), the significance of the agricultural area incorporates, giving sufficient and reasonable food to expanding populaces, providing unrefined components to developing and enhancing domestic modern areas, delivering work for the developing modern area, growing ' the size of a successful, giving business and vocations, and lightening neediness, for a huge level of the rustic populace. Lastly,

agriculture procures and saves foreign trade and gathers domestic reserve funds for speculation and capital arrangement, on the grounds that the more revenue the government get the more they save through personal tax, making ready for a flourishing financial area that can back additional modern improvement without depending superfluously on foreign obligation. On the off chance that agriculture is this significant the economic elements that will assist with speeding up development in the area should be thought of, for example, admittance to back, which is the issue of less evolved nations. The fiscal strategy of the Nigerian economy will assist with moving this reason as its policies impact the monetary area of the country.

Changes in the loan fee will influence a rancher's choice to get credit and in this manner on the homestead production and stock choices. On the off chance that government directs a revenue for tax which will expand the financing cost, the agricultural area will be impacted in two ways, initial, an exorbitant loan cost will build the expense of getting for production credits which thus raises the expense of production and consequently in the end lessens agricultural turn of events, simultaneously the higher loan cost will rise, the capacity cost of item holds and course farmers to diminish inventories, subsequently expanding the interest which contends that the exaggerated cash makes the decrease in the agricultural exports due their general cost in different nations, as it prompts discouraged costs and lower farm benefits, causing an undervaluation of homestead assets and oversupply of result. Schuh's view was that while numerous factors influence agriculture, the swapping scale assumes a part in all parts of agriculture.

2.1.11 Agriculture Resources

Nigeria was a prevalently agrarian economy with agriculture representing huge portions of the GDP and complete exports, as well as utilizing the main part of the workforce. Since its origin and during the 1960s. All things considered, from the second the oil blast started, there has been a consistent decrease in the piece of the pie of the sectors yields in the country to a great extent disregarded for the oil and gas industry. Agriculture is the foundation of the rustic economy, for example, Nigeria which is portrayed as a motor that adds to the development of the economy however

the area is as yet related to low agricultural results regardless of the country's prolific body of land somewhat because of the over-reliance of government on oil which described Nigeria as a mono-social economy. Presently, Nigeria has 75% of its property reasonable for agriculture, yet at the same just 40% stayed developed.

Albeit the agricultural policies laid out throughout the long term by the government of the country have not been fruitful. Agriculture area proceeds to impact GDP and economic development vigorously. Lately, agribusiness seems, by all accounts, to be the new boondocks to work on the economy as it has turned into the country's new technique for economic development and improvement. From the abovementioned, it is perfectly clear that past native investigations definitely stand out enough to be noticed to the connection between GDP versus oil revenue and agriculture, subsequently giving further defense to this review.

2.1.12 Nigeria's Rural Development: from Agrarian to Oil Boom

The advancement of rustic improvement in the country should be visible both according to the viewpoints of agrarian-focused economic movement (pioneer pre-1970) and oil-drove development (the 1970s to date). In the principal occurrence, pioneer Nigeria's economic exercises were generally worker based with major territorially based export wares like cocoa, oil palm and others in all the four cardinals in Africa. Such territorial specialization introduced amazing open doors that were tackled by the pioneer State to improve the endurance of the focal government (through direct taxation and constrained development) as well as work with the export of essential food sources and unrefined components.

The rise of such territorial and provincial based agricultural exercises significantly affected nearby work preparation. Instead of add to developing the country regions, such an arrangement of shady economic relations (to a great extent accomplished through the unrivaled military, fiscal and political capacities of the concentrated pioneer state) cultivated serious collection of provincial assets and ensuing exchange of its abundance to the metropolitan British elites as well as the nations of the colonizing power. There were no proportionate interests in country foundations aside from direct frameworks that were pointed toward advancing the British frontier interest.

The pioneer agricultural improvement policies and methodologies stayed applicable in present autonomy Nigeria up on the mid 1970s. Olorunfemi and Adesina (2018) contended that agriculture expected the middle phase of Nigeria's economy in the ten years 1990-2000 when it was broadly figured and used as the significant pay worker for both individuals and the government. For this situation, the rustic regions actually filled in as significant places for asset extraction for foreign trade profit, public pay and metropolitan turn of events. There were definitely no cognizant endeavors at changing the rustic regions past interest in agriculture-based foundations. While the State couldn't utilize agricultural improvement in changing the provincial jobs, agriculture itself was significant and normal work truth that supported the rustic populace in business, food, and pay as well as filled in as an extension in cultivating social relations.

These socioeconomic and business realities have been primarily incorporated and replicated across ages and areas. Nonetheless, the versatility of certain parts of worker social relations frequently darkens the way that item production had become assimilated in the pattern of family reproduction of Nigerian makers, implying that very significant changes had without a doubt happened in examples of separation and surplus extraction (likewise referred to Bernstein, 1979). The rise of petrol oil production during the 1970s essentially modified the construction of the Nigerian economy and subsequently prompted another political and economic direction as the public abundance was extended with new open doors for lease looking for ways of behaving, 'oil blast' before long changed the design of state-society relations with the development of profoundly concentrated state managerial construction (e.g., Lagos and later Abuja) as well as new focuses of urbanization (Port Harcourt, Warri, Lagos, Kaduna, Ibadan, and so on).

2.2. Agriculture and Economic Growth in Nigeria

Rhaji (2008) used the ordinary least square method in determining the impact of agricultural production on the Nigerian economy. He found out that, the lack of adequate, accessible, and affordable credit is among the major factors responsible for the systematic decline in the contribution to the Nigerian economy. This relationship is in light of the economic improvement experience of created nations. As frequently

pushed by improvement writing, agriculture excess is significant for the primary change going with economic development (Mody, 1981). This depends on the view that the agricultural area ought to move to the non-agricultural area, the 'overflow' of 'undetected' assets produced by agriculture (Kuznes, 1961). On this premise, it is recommended (certainly or unequivocally) that developing nations should remove assets from agriculture for fruitful modern turn of events (Ohkawa&Rosovsky 1996; Mellor, 1973; Johnson & Kilby, 1975). The proper sign of the period of improvement would accordingly be the portion of agriculture in the National Product. Kuznets (1966) expressed that during the beginning stage of modern economic development, the portion of agriculture in the public product is around half.

The agricultural sector has been important in the Nigerian economy in the past decade and is still a major sector despite the oil boom of the 1970s. It provides employment opportunities for the teeming population, eradicates poverty and contributes to the growth of the economy. However, agriculture has a stronghold in an economy for without it, a country will always depend on foreign countries to feed its population. The potential contribution of agriculture to economic development has been an ongoing subject of much controversy among development economists.

Several authors argue that growth in the agricultural segment could be a facilitator for natural production development via its effects on rural incomes and transformation into an industrialization economy. Johnson and Mellor (1961) hypothesize that agriculture adds to the economic development and improvement of developing nations through five intersectional linkages. The sectors are linked via:

1. Supply surplus labor to the firm in the industrial sector.
2. Supply of food for domestic
3. Provision of the market for domestic output
4. Supply of domestic savings and industrial investment
5. Supply of foreign change for agricultural export earnings to finance import of intermediate and capital goods.

Notwithstanding these five market-based linkages, Timmer (1995) additionally stressed the significance of roundabout non-market linkages that works on the nature of the production factors (work and capital). He saw that agriculture in a roundabout

way adds to economic development through its arrangement of better caloric supplements, food accessibility, value solidness and neediness decrease. He contended that the job of agriculture has been misjudged due to information limits that block unequivocal quantitative investigation of the roundabout impacts of agriculture's commitment and work proficiency and complete productivity.

In Nigeria, agricultural export has played an important role in economic development by providing the needed foreign exchange earnings for other capital development projects. Timmer (1995) observed that Nigeria's agricultural export has enlarged to include cocoa, beans and palm kernel. Statistics indicate that in 1960, agricultural export commodities contributed over 75 per cent of the total annual merchandise exports. In the 1950s, Nigeria was ranked very high in the production and exportation of major crops in the world. Agriculture contributes significantly to national food consumption requirements; it helps to maintain a healthy and peaceful population and is also a source of food and nutrition for households. It has remained the major source of income for the economy. About 90 per cent of the rural population is involved in activities related to the crop sub-sector which provides the bulk of agricultural income. Agriculture in Nigeria is the most predominant area and a significant wellspring of business for most of the populace. It represents around 70% of business and in spite of this, Binswanger, Townsend and Tshibaka (1999) say it has not had the option to accomplish the significant goals of agricultural turn of events, which the World Bank (1997) recognized to incorporate:

- i. Increased food production and agricultural revenue
- ii. Security of home food, water, and energy, and restoration and
- iii. Preservation of the natural resources are all priorities. They went on to say that automation and restricted usage of bought inputs are to blame for agriculture's inability to achieve these goals.
- iv. Undercapitalization or a credit crunch are related to this restriction. Since increasing agricultural production in an economy depends on the availability of sufficient financing,

(Aku, 1995), According to Lewis (1954), the agricultural sector does not have strong linkages to other sectors and lacks adequate innovative structure, necessary for fostering productivity and export growth.

Matsuyanna (1992) utilized the similar benefit contention to invalidate the case that agricultural productivity is a motor of economic development. Further mirroring this negative perspective on agriculture in the improvement cycle, policymakers in many developing nations proposed and took on advancement methodologies that were hostile to agriculture in nature since they perceived the job of the assembling area as the favored wellspring of economic turn of events (Okonkwo, 1989; Schiff St Valdez, 1988).

According to Ahmed (1984), the cause of the obligation issue is related to both the economy's structure and the government's economic policies. He said that the economy of emerging nations is characterized by a high reliance on agricultural and mineral products. The manufacturing industry is largely in its infancy and is mainly dependent on foreign supplies. He said that they are reliant on the industrialized nations for the financing and provision of additional inputs required to support agricultural and economic growth.

2.3 Empirical Literature

Ogbonna and Appah (2012) also completed an empirical analysis of the effects of petroleum income on the Nigerian economy from 2000 to 2009, and they discovered a significant and positive relationship between oil revenue and per capita income in Nigeria, demonstrating how the money generated from research contributes to public development. Oppositely, "Nigeria with all its oil abundance has performed inadequately, with GDP, per capita today not higher than at autonomy in 1960" where they recognized the horrible showing of Nigeria's economy yet they wouldn't give any observational proof to help their discoveries.

Bakare, (2015) concentrated on the connections between economical agriculture and rustic regions advancement in Nigeria. A vector autoregression scientific strategy (VAR) was used for the experimental review. The concentration likewise recognized that the food supply gives adequate supplements at cheaper

admittance to the typical resident of the country, and analyzed the critical effect of petrol reliance on Nigeria's agricultural exchange commitment for the period somewhere in the range of 1970 and 2003, by utilizing the co-reconciliation procedure and mistake amendment displaying (ECM) in the review.

Uma et al. (2015), the experimental outcomes showed that government consumption on agriculture, government training use addressed as human resources improvement, record of agricultural production and foreign direct venture on agriculture decidedly affect current joblessness with just foreign direct speculation on agriculture genuinely critical. Then again, the effect of government consumption on the instructive area was demonstrated to be negative, however measurably irrelevant.

Momodu (2019). Since the disclosure of oil in Nigeria in 1956, the production and reliance on oil have consistently expanded and significantly affect its economy. With the new decrease in oil cost and ensuing fall in economic development, this exploration paper expects to show how restricting oil reliance has been for the development cycle, which is estimated by gross domestic product (GDP). The extent of the paper will address the nature and degree of Nigeria's oil reliance concerning its absence of broadening in the oil area to the non-oil area, especially the assembling area. Using observational techniques like Exploratory Data Analysis (EDA) and a scope of subjective and quantitative information, the connection among oil and GDP development is examined to show the effect oil has had on the Nigerian economy starting around 1969. The discoveries of this exploration show there is a positive connection between oil reliance and GDP development which is impacted by an absence of broadening and the vacillations in world oil cost. The unpredictability of the economic development can be credited to the changes in oil cost, in the meantime, the absence of supported development is a result of the absence of broadening. Consequently, it tends to be presumed that there is a need to present policies which advance expansion from the oil area into the non-oil area, particularly the assembling area, to encounter supported economic development. This examination paper relies on the significance of infrastructural advancement and the enhancement the country from its reliance on the oil area to the non-oil area, particularly the assembling area, to encounter supported economic development. Since the disclosure of oil in Nigeria the economy has missed the mark on fundamental push required for industrialization.

Akinboye (2018) expounded on the job of measurements in the improvement of the agriculture area from 1980-2017. He endeavors to acquire understanding into the degree of the changes of the area, especially, its commitment to empowering food security, utilizing an exact methodology, he thought that starting around 1964 the area which assumes to be the principal driver of economic development plays not played out this part enough concerning foreign trade profit and better linkages with different areas of the economy, went further to recommend that to review this conundrum and to bring back the greatness of the area, there is need for satisfactory preparation regarding human and material assets, and these can't be separated from sufficient solid and reliable measurements.

Onwe and Philip (2014) examined the impact of money related and fiscal approach on the primary factors of the agricultural area between the periods 1971-1991 utilizing Ordinary Least Square (OLS). The review showed that there is a positive connection between fiscal strategy and agricultural productivity. (Ehinomen and Charles, 2012) reasoned that both the money related and fiscal arrangement activities over the long haul while financial approach act emphatically in the short sudden spike in demand for the agricultural area subsequent to researching economic factors utilizing vector autoregressive between 1971-1997.

Adedoyin (2019) this study analyzes the effect of fiscal approach on agricultural result in Nigeria utilizing the latest authority information. The measurements for fiscal approach are government capital consumption and custom obligations on compost. The review utilized yearly time series information acquired from the CBN yearly factual announcement, NCS, and FIRS which were viewed as fixed in the request for $I(1)$ and $I(0)$. The request for unit root test prompted the utilization of the ARDL assessment technique utilized in the experimental examination of this exploration work. The review tracked down proof of both short and long-run connections between the factors (VAO, GEX, IDMF, and ACGSF) utilizing both the Johansen co-reconciliation and the ARDL Bounds test. Despite the fact that government use (GEX) to the agricultural area was viewed as genuinely irrelevant it suggests that government ought to increment agriculture capital use to guarantee that its commitment is critical. Thusly, custom obligations on compost (IDMF) were viewed as adversely marked and signs showed an adverse consequence on agricultural result. This requests that the

policymakers ought to be reasonable in the utilization of fiscal strategy instruments in accomplishing their ideal goal.

Olasusi (2019). The review broke down the connection between government consumption parts and agricultural productivity in Nigeria by assessing the impacts and their causal association over the period 1981-2017. Causality tests likewise demonstrated the way that consumptions on training, wellbeing and foundation can assist with working on agricultural productivity in Nigeria. The review suggested successful strategy execution through a total redesign of the different government organizations and organizations liable for execution, revenue assortment and checking of government project as it connects with agricultural improvement as well as empowering compelling labor advancement in the agricultural area to support productivity.

Ayodeji (2011) Fiscal strategy means to support interest and result in the economy either straightforwardly, through more prominent government uses or by implication through tax decreases that animate confidential utilization and speculation spending. The concentrate at last suggested that there ought to be consistency in strategy making by the government to impact the degree of total interest in the economy to accomplish economic targets of costs solidness of building materials, full work of work and economic development. It was likewise suggested that taxes, for example, VAT, custom and exercise obligations, street rolls, petroleum obligations, compensation tax, lease tax, premium tax, and benefit tax ought to be diminished so the discretionary cashflow of people would be expanded and stable to further develop interest in development work.

Fotros (2016) has concentrated on the impact of money related and fiscal policies on the primary factors of the agricultural area with strategy which decidedly affects agricultural production. Government fiscal and money related strategy decidedly affected agricultural venture. He additionally analyzed the major economic factors and its financial combination. He reasoned that the transient impact of financial arrangement on the agricultural area is more than fiscal strategy, in the drawn-out impacts of money related approach and fiscal strategy acts.

Ogwuma (2011) completed a few examinations on open use in the agricultural area utilizing econometric investigation. In light of his report, agricultural supporting in Nigeria shows a positive connection between financing cost and loanable assets fair and square of agricultural result. Utilizing time series information, endeavored to confirm how much central government consumption on agriculture in the thirty years 1979 to 2007. Huge factual proof got from the examination showed that government spending doesn't follow an ordinary example and that the commitment of the agricultural area to the GDP is in direct relationship with government subsidizing to the area.

Ariyo (2019) completed an assessment concentrate on the allure of Nigeria's fiscal profile somewhere in the range of 1998 and 2018. The discoveries of this research recommend that the designs of government consumption are innately unreasonable to the country's assets profile. The significant reason ascribed to this was the extraordinary expansion in government use supported through obligation raised from both inner and outside sources. This has subsequently prompted relentless and unsustainable yearly shortages. The outcome additionally proposed that the underlying change program (SAP) carried out in 1986 has so far not been of much help with resolving the issue.

Osuala and Jones (2014) examined the impact of government monetary distribution on agricultural result in Nigeria between the times of 1995 to 2009, the result of the review shows that there is a fundamentally sure connection between monetary designations to the agricultural area with the all-out agricultural production in Nigeria. Basically, greater government spending on the area will acquire an improvement to agricultural result Nigeria. An exact review was completed by the (IFPRI) (2008) on public spending on agriculture involving Nigeria as a contextual investigation. The outcome reveals that public consumption on agriculture is low with under 2% of its complete Federal use designated to the agricultural area between the periods 2001 to 2005. This percent was not exactly the expected 10% recommended by African pioneers to be distributed to the area and the ongoing strategy then, at that point, pursues expansion yet the area was as yet dismissed regardless of its true capacity and economic significance. Audu (2015) in his concentrate on the effect of fiscal strategy on the development of the agricultural area in Nigeria utilizing the Error

Correction Model (ECM) between the times of 1981-2013, the outcome shows that the long-run harmony relationship exists among the factors for example agricultural result, esteem added tax, and custom activity obligations on exported agricultural produce. The concentrate additionally proposed that export obligation albeit measurably huge show an adverse consequence on agricultural result in Nigeria.

2.4 Gaps in Literature

From the above literature reviewed, there have been several valuable and quality studies on the impact of oil export earnings on agricultural output in Nigeria. From the numerous literatures reviewed, we observed the following; first most studies on oil export earning either focused on the impact of oil export earning on trade or growth, other studies were done outside the shore of Nigeria. This study will be conducted on the impact of oil export earning on agricultural output viewing its impact on agricultural sector performance in Nigeria's economy. Also, this study will examine the impact of oil export earnings on agricultural output in Nigeria. Another limitation of the previous study is the variables used. The use of some variables like interest rate, and exchange rate to have a reliable result is also part of the gap the researcher wants to fill. These among others the gaps this work seeks to fill as a way of contributing to knowledge.

CHAPTER THREE

METHODOLOGY

3.1 Types and Sources of Data

Data used in this study are sourced from the World Bank database and international monetary fund on various issues. The main type of data used in this study is secondary; sourced from the World Bank database and international monetary fund of various issues from 1981 to 2020.

3.2 Method of Estimation

The Vector Auto-regression was used to analyze this study while ordinary least square OLS estimated technique was used since Vector Auto-regression does not have probability value. The study of this method is based on the fact that the technique is relevant to the objective of this study and has so desirable properties for this analysis. Based on the assumption of the classical linear regression model, the Vector Auto-regression method possesses some optimum properties. This is the property known as the residual diagnostic test. Because of these statistical properties of Vector Auto-regression, it has become one of the most powerful and popular methods of regression analysis. Vector Auto-regression was used in the analysis since the unit Root is assumed stationary at first difference. The time series data collection will be processed using the E-view 10 computer software.

3.3 Model Specification

A model is a mathematical expression of economic theory in a mathematical form for estimation. The specifications of the model permit us to define the variable's concern as well as to ascertain the relationship in the contribution of agriculture output on economic growth in Nigeria. This model will be adapted to our study specifying the following function.

$$AOUT= F (EXR, INF, and INT)..... (1)$$

Statistical form of the model

$$AOUT = \beta_0 + \beta_1 EXR + \beta_2 INF + \beta_3 INT \dots \dots \dots (2)$$

Econometric form of model

$$AOUT = \beta_0 + \beta_1 EXR + \beta_2 INF + \beta_3 INT + U \dots \dots \dots (3)$$

β_0 = intercept

$\beta_1, \beta_2, \beta_3$ Coefficients of the independent variables

U_t = error term which capture the error of omitted explanatory variable and the possible error in the measurement and collection of data.

Where,

AOUT = agricultural Output

EXR = exchange rate

INF = inflation

INT = interest rate

U_t = error term at time

The log and econometric form of the model is given as:

$$AOUT = \beta_0 + \beta_1 \ln EXR + \beta_2 INF + \beta_3 INT + U \dots \dots \dots (4)$$

Thus $\beta_1, \beta_2 > 0, \beta_3 < 0$

Therefore; agricultural Output will be the dependent variable while exchange rate, inflation, and interest rate will be the independent variable.

3.3.1 Evaluation Criteria

An important method of data analysis was used to show the relationship between the various variable in the model. The computation procedure is simple and very easy compared to other econometric techniques as the requirements are not excessive, hence it is closer to reality and widely used. The interpretation of β_0 and the regression coefficient (β_1, β_3) will be computed by various tests such as Vector Auto-regression technique, Granger causality test together with the Augmented

Dickey Fuller (ADF) test and the Unit Root Test, to determine the stationary values for all variables.

3.3.2. Research Hypothesis

H₀₁. Inflation does not have any significant on Nigeria economic growth

H₀₂. Exchange rate does not have any significant impact on agriculture on Nigeria economic growth.

H₀₃. Interest rate does not have any significant impact on agriculture on Nigeria economic growth.

H₀₄: the selected variables does not have causal relationship with agriculture output on Nigeria.

3.4. Method of Analysis

3.4.1 Unit Root Test

Stationary of variables in initial differences should be evaluated before to doing VAR analysis since it is a basic requirement for examining the connection between variables. The ADF unit root test is utilized to do this. The following are the hypotheses in unit root tests:

H₀: The time series is not stationary or a unit root exists.

H₁: Time series is stationary or no unit root exists.

If a variable's test statistics are smaller than the crucial value in absolute terms, the null hypothesis cannot be rejected. As a result, the first difference between variables should be checked. The null hypothesis can be rejected if a variable's test statistics are greater than the critical value in absolute terms, showing that the variable is stationary.

Using the Schwarz information criterion (SIC), the amount of delays for the unit root test is determined.

3.4.2 Vector Autoregression (VAR)

The VAR model implies that all variables are endogenous and analyses a simultaneity connection among the variables, so that the outcome clearly shows the direction of causation and erogeneity. Thus, an unconstrained Vector Autoregressive

(VAR) model is used to explore the influence of agricultural output on the growth of the Nigerian economy. The VAR model may be estimated after confirming that all variables are stationary in the first difference, $I(1)$. However, lags for the VAR model must also be defined. Akaike's Information Criterion (AIC) and the Likelihood-Ratio Test are used to determine the amount of lags.

A VAR is therefore a linear modelling approach in which each variable is explained by its own lag values, as well as the present and previous values of the other variables. In this scenario, all variables are displayed as dependent, modelling every explanatory variables in the system as a result of all endogenous variable delayed values.

3.4.3 Granger Causality Test

Based on VAR estimates, the Granger causality test is used to examine causality and its direction among variables. This test merely determines whether the past values of one variable explain or imply a change in the present values of the other variable. In this sense, one is able to predict the present values of another variable based on a change in the past values of another variable. Theoretically, it is possible to claim that X Granger causes Y if changes in the X variable are observed before changes in the Y variable. In other words, if previous values of X improved the prediction or forecasting of Y, then X was said to cause Y. The hypotheses of Granger causality test are the following:

H_0 : Y_t does not cause X_t

H_1 : Y_t causes X_t where X_t and Y_t are random time series.

3.5 Diagnostic Test

In order to assess the residual characteristics in accordance with the serial correlation and heteroskedasticity criteria, as well as the stability of the estimated model, residual diagnostic tests must be performed after the vector auto-regression study.

3.5.1 Serial correlation test

Regression estimation necessitates that the model be free of serial correlation, or that the residuals be uncorrelated. The serial correlation LM test developed by Breusch and Godfrey in 1978 is used to determine whether serial correlation exists in the model.

The null hypothesis cannot be rejected using this test's general rule if the F-statistic of the B-G test is higher than 0.05.

This implies that the sequence of p-delays in the series has no serial relationship. If the F-value is less than or equal to 0.05, indicating serial correlation, the null hypothesis is rejected.

3.5.2 Heteroskedasticity Test

To determine whether the residual variance is constant, the heteroscedasticity test is applied. To determine whether error terms from earlier periods have an effect on subsequent periods, a heteroscedasticity test was performed using the ARCH technique (Kirchgassner and Wolters 2007).

The following are the test's presumptions:

H0 denotes the absence of heteroskedasticity.

H1: Heteroskedasticity

When the critical p-value for the Chi-square is exceeded. The null hypothesis is incorrect. Heteroscedasticity is absent. If not, homoscedasticity happens.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF RESULTS

4.1 Introduction

This chapter's purpose is to demonstrate the data analysis performed for this study. To facilitate that, the chapter is divided into five parts. The introduction is in the first section, followed by the descriptive statistics in the second, the unit root test in the third, the vector auto-regression in part four, and the Granger causality test in part five.

4.2. Descriptive statistics

To analyze dependent and independent variables using descriptive statistics, a diagnostic test is performed first. Agricultural Output (AOUT) is the study's dependent variable, while the independent variables are the Exchange Rate (EXR), Inflation (INF), and Interest Rate (INT).

Table 1: Descriptive Statistics

	AOUT	INF	INT	LEXR
MEAN	22.86948	18.99895	0.434224	3.536865
MEDIAN	22.07050	12.71577	4.326392	4.666806
MAXIMUM	36.96508	72.83550	18.18000	5.882795
MINIMUM	12.24041	5.388008	-65.85715	-0.481739
STD. DEV	4.647603	16.86848	14.44028	1.995947
SKEWNESS	0.442825	1.823489	-2.680369	-0.795428
KURTOSIS	4.624443	5.159022	12.58348	2.347041
JARQUE-BERA	5.705318	29.93637	200.9676	4.928626

PROBABILTY	0.057691	0.000000	0.000000	0.085067
SUM	914.7793	759.9580	17.36898	141.4746
SUM SQ. DEV.	842.4082	11097.27	8132.346	155.3683
OBSERVATION	40	40	40	40

Source: Authors compilation from E-views 12

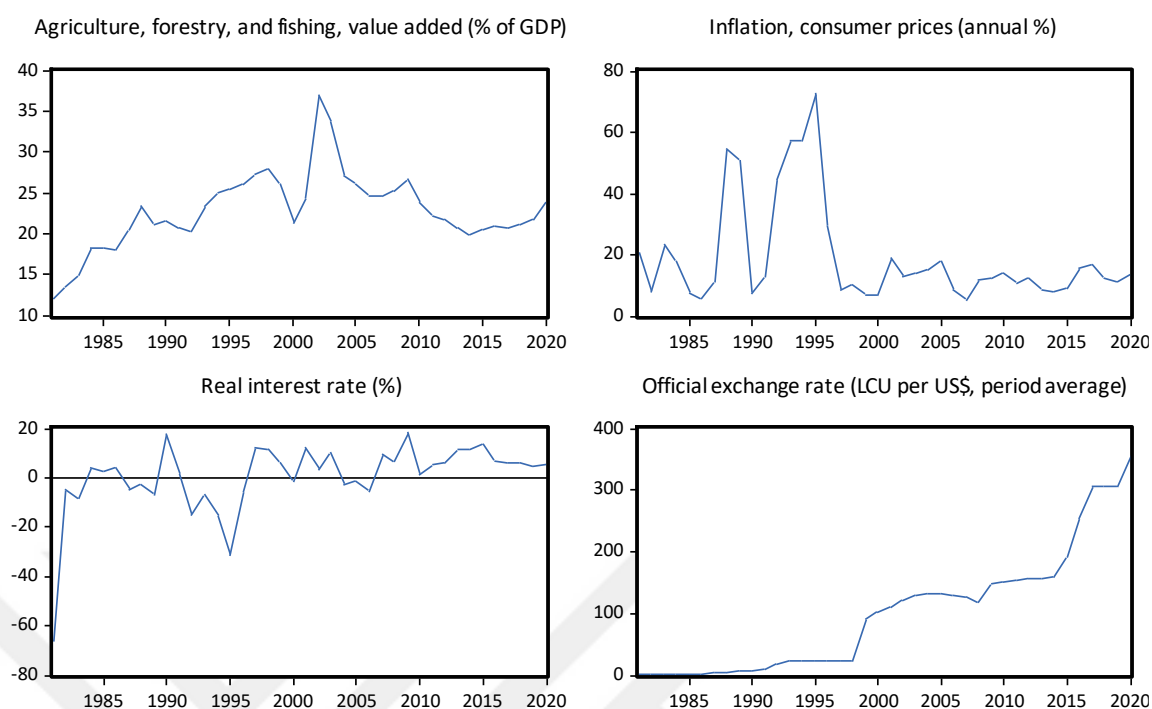
Mean, median, skewness, and kurtosis are the most frequently used metrics. The means and medians of normally distributed data should be equal, and in this study, the means and medians of AOUT and LEXR are nearly equal. INF and INT, on the other hand, are not normally distributed, as evidenced by their different means and medians. In this study, the agricultural output standard deviation (AOUT) of 4.648 will be used to represent the volatility of AOUT. Skewedness is the point in the distribution that, for a normally distributed distribution, should be between -2 and +2. The distribution has zero skewness. Since every variable falls within the range, they are all normally distributed.

The peak of a distribution, known as the kurtosis, should fall between -3 and +3 if the data is normally distributed. A distribution's kurtosis value indicates how susceptible it is to outliers. A normal distribution has a kurtosis of 3. The variables' kurtosis is greater than 3, which suggests that outliers are less likely to occur in the data. That is, it is not distributed equally. The Jarque-Bera (JB) statistical test is used to determine whether the series is normally distributed. It calculates the variation between a series' skewness and kurtosis and those of a normal distribution. The null hypothesis (HO) is that residuals are normally distributed, therefore reject HO if $p < 0.05$. For AOUT and LEXR the hypothesis is accepted while for INT and INF their hypothesis is rejected

4.3. Trends of all the variable before stationary

The microeconomic trends from 1981 to 2020 were described using the example of Nigeria. Agricultural Output (AOUT), Exchange Rate (EXR), Inflation (INF), and Interest Rate (INT) all show movement in the statistics.

Graph 1: Trend of the variables in time series



Source: Authors compilation from E-views 10

4.4. Unit Root Test

The augmented-Dickey Fuller test was used to administer this test. This test is conducted to ascertain whether each variable is stationary or not. The test is designed in a way that the null hypothesis is rejected when the variable is not stationary. Also, when the ADF statistics test's absolute value exceeds the crucial value at 5%, it implies that the variable is stationary.

Table 2: Augmented Dickey Fuller Unit root test result

Variables	ADF statistic	Critical level at 5%	Order of integration	Probability	Decision
AOUT	-6.814963	-2.943427	I(1)	0.0000***	Stationary
LEXR	-5.304640	-2.941145	1(1)	0.0001***	Stationary
INF	-5.752686	-2.941145	1(1)	0.0000***	Stationary
INT	-9.968538	-2.941145	1(1)	0.0000***	Stationary

Notes: 1%, 5%, and 10% level of significance is denoted by asterisk ***, **, and * respectively.

Source: Authors compilation from E-views 10

From the table above, Agricultural Output (AOUT), Exchange rate (EXR), Inflation (INF), and Interest Rate (INT) were all stationary at first difference as shown by the comparison of the ADF statistic and the critical value at 5% level of significance. Since all the variables are stationary at most in the first difference, it implies the absence of unit root in the time series data. We can therefore proceed to test for Vector Auto-regression test.

4.5. Vector Auto-regression Analysis

Prior to executing this test, the lags in the model were determined using the VAR Lag order selection criterion approach. The VAR lag order selection criterion findings reveal that the number of lags chosen is one (Table 2).

Table 3: Defining the number of lags for VAR Model

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-476.8803	NA	602635.2	24.66053	24.83115	24.72175
1	-372.5617	181.8889*	6538.988*	20.13137*	20.98448*	20.43746*

Source: Author's Computations with Eviews 12

Table 4: Roots Characteristic Polynomial

ROOT	MODULUS
0.939970	0.939970
0.633808 -0.067766i	0.637420
0.633808 +0.067766i	0.637420
0.112201	0.112201

Source: Authors compilation from E-views 12

This test shows that no root lies outside the unit circle, since the value is not up to 1, so VAR satisfies the stability condition.

Table 5: VAR Residual Serial Correlation LM Tests

NULL HYPOTHESIS: NO SERIAL CORRELATION AT LAG h						
Lag	LRE*stat	df	Prob.	Rao F-stat	df	Prob
1	13.28647	16	0.6517	0.825243	(16, 83.1)	0.6539

Source: Author's Computations with Eviews 12

The results of an autocorrelation analysis using the Residual Serial Correlation LM Tests are shown in Table 5. The test shows that the model does not exhibit autocorrelation because, up until the one lag, the probability is higher than the threshold of 5%.

Table 6: VAR Residual Heteroskedasticity Tests (Levels and Squares)

JOINT TEST		
Chi-sq	df	Prob.
73.99454	80	0.6679

Source: Author's Computations with Eviews 12

The Heteroskedasticity test using VAR residual Heteroskedasticity are showed in the table 6. This test also shows that there is no Heteroskedasticity meaning that the probability is greater than 0.05 significance, then over VAR model is trustworthy.

Table 7: Vector Auto-regression Estimates

		coefficient	Std. Error	T. statistic	p.value
AOUT(-1)	AOUT	0.675472	0.11853	5.69890	0.0000***
	INF	-0.161990	0.61545	-0.26321	0.2955
	INT	-0.129750	0.38440	-0.33754	0.6750
	LEXR	0.007014	0.01171	0.60127	0.4969
INF(-1)	AOUT	0.033082	0.03150	1.05023	0.7928
	INF	0.654564	0.16356	4.00197	0.0001***
	INT	-0.201138	0.10216	-1.96891	0.5329
	LEXR	-0.001586	0.00311	-0.50971	0.5613
INT(-1)	AOUT	0.016747	0.03984	0.42021	0.7362
	INF	0.129647	0.20694	0.62649	0.0510*

	INT	0.068835	0.12925	0.93256	0.5952
	LEXR	0.006034	0.00394	1.53256	0.1914
LEXR(-1)	AOUT	0.193513	0.28410	0.68115	0.5487
	INF	-0.859073	1.47518	-0.58235	0.6111
	INT	1.209731	0.92137	1.31297	0.1277
	LEXR	0.922916	0.02807	32.8115	0.0000***

Notes: 1%, 5%, and 10% level of significance is denoted by asterisk ***, **, and * respectively. The decision is to reject or accept the hypothesis at 5%.

Source: Author's Computations with Eviews 12

According to the results, the null hypothesis—which contends there is no co-integration—should be disproved at the 5% level of significance.

The coefficient of the regression equation presented on table 4.5 was 0.8%, all things being equal, it represents the value of Agricultural Output (AOUT) depends only its growth rate at 1% significance, if exchange rate, interest rate and inflation were individually zero.

The regression coefficient of Exchange Rate (EXR) was 1%. It showed that a unit increase in Agricultural Output (AOUT) will bring about 0.2 unit increase in Agricultural Output (AOUT), in Nigeria. It was positive showing a direct relationship between Exchange Rate (EXR) and Agricultural Output (AOUT), in Nigeria. This implies that increase in Exchange Rate (EXR) led to increase in Agricultural Output (AOUT).

The regression coefficient of Inflation (INF) was 0.03%. It showed that a unit increase in Agricultural Output (AOUT) will bring about 0.03 unit increase in Agricultural Output (AOUT), in Nigeria. It was positive showing a direct relationship between Inflation (INF) and Agricultural Output (AOUT), in Nigeria. This implies that increase in Inflation (INF) led to increase in Agricultural Output (AOUT).

The regression coefficient of Interest Rate (INT) was 0.02%. It showed that a unit increase in Agricultural Output (AOUT) will bring about 0.02% unit increase in Agricultural Output (AOUT), in Nigeria. It was positive showing a direct correlation between Interest Rate Interest and Agricultural Output in Nigeria. This implies that increase in Interest Rate (INT) led to increase in Agricultural Output (AOUT).

4.6. Granger Causality Test

This is use to examine the causality between two variables; in this case our aim is to test for a causal relationship between Exchange Rate, Inflation Rate, Interest Rate, and Agricultural Output.

Table 8: Granger Causality Test

NULL HYPOTHESIS	Causality	F.stat	Prob.
INF does not granger cause AOUT AOUT does not granger cause INF	NO	0.63099 0.20785	0.4322 0.6512
INT does not granger cause AOUT AOUT does not granger cause INT	NO	0.00197 0.06777	0.9648 0.7961
LEXR does not granger cause AOUT AOUT does not granger cause LEXR	NO	0.30251 0.50546	0.5857 0.4817
INT does not granger cause INF INF does not granger cause INT	YES	0.07375 4.55437	0.7875 0.0397
LEXR does not granger cause INF INF does not granger cause LEXR	NO	0.41260 1.74868	0.5247 0.1944
LEXR does not granger cause INT INT does not granger cause LEXR	YES	1.42606 4.96310	0.2402 0.0322

Source: Author's computation, 2022

Granger Causality Test is used to establish which variable in the model causes another. When using f-statistics, the null hypothesis that there is no causal relationship between the variables is either rejected or accepted, when it's significant we reject H_0 and accept when it's insignificant.

This shows that it is the change in inflation that Granger does not cause the agricultural output and not the other way round, INF does not Granger induce AOUT, hence the null hypothesis is being accept.

The result also shows that interest rate does not Granger cause Agricultural output to change and not the other way round since we are accept the null hypothesis that AOUT does not Granger cause INT. It shows that change in Exchange rate does not granger cause the agricultural output and not the other way round since we are accept the null hypothesis that AOUT does not Granger cause LEXR.

It shows that change in Interest rate granger cause the Inflation rate and not the other way round since we are rejecting the null hypothesis that INF does not Granger cause INT. The result also shows that it is Exchange rate that Granger causes inflation to change and not the opposite. The result shows the primary reason for the change is that currency rate in inflation rate and not the opposite.

Also, the result shows that it is interest rate that Granger causes exchange rate to change and not the opposite. The findings also depict that exchange rate is the primary cause for the change in oil export rate and not the other way round.

There exits, however, a unidirectional relationship between interest rate and inflation and also exchange rate and interest rate.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study examined the determinants of agriculture output towards positive impact on economic growth of Nigeria and the descriptive statistics For AOUT and LEXR the hypothesis is accepted while for INT and INF their hypothesis is rejected. Agricultural Output (AOUT), Exchange rate (EXR), Inflation (INF), and Interest Rate (INT) were all stationary at first difference. Four research question were used for the study and related literature was reviewed. As a method of estimation, the Ordinary Least Squares method (OLS) was employed to estimate Vector auto-regression (VAR). The study of this method is based on the fact that the technique is relevant to the objective of this study and has desirable property for this analysis. Moreover, it was revealed that Exchange rate (EXR), had no positive impact on Agricultural Output (AOUT) in Nigeria. This implied that increase in Exchange rate (EXR) led to decrease in Agricultural Output. Furthermore, the result also revealed that Inflation (INF) had no impact and relationship on Agricultural Output (AOUT) in Nigeria. This implied that a rise in Inflation (INF) led to decrease in Agricultural Output (AOUT). Lastly, Interest Rate (INT) is non-statistically significant.

Granger causality test conclude that there is no causal relationship between Exchange rate (EXR), Inflation (INF), and Interest Rate (INT) and Agricultural Output (AOUT). There exists, however, a unidirectional relationship between interest rate and inflation and also exchange rate and interest rate.

5.2 Conclusion

It was discovered that increasing, effective exchange rates, interest rates, inflation rates, and oil exports, will positively affect Nigeria's economic growth. In light of this, increasing agricultural production in Nigeria is largely regarded as the foundation of the country's socioeconomic development because it promotes job growth and is a significant source of foreign exchange. To ensure a favorable trade balance in agricultural commerce for Nigerians, the domestic agro-processing sector should also be supported. By doing this, the nation would become less dependent on

imported food and its level of exports, economic growth, and agricultural production would all rise. Therefore, the study came to the conclusion that there is no long run relationship between variables at a selected time period at 0.05 level of significance.

5.3 Recommendations

The study offers the following recommendations based on its findings:

The Nigerian government should create the right balance of policies to encourage companies in the oil industry to perform better and contribute more to society.

Government policies should encourage the inflow of foreign private investment so that it can continue to encourage the production or development of the agricultural sector in Nigeria.

Government should support farmers' usage of contemporary mechanical farm equipment and lower the cost of fertilizer and agrochemicals.

More research institutions should be established to enhance seedling production, irrigated farming should be encouraged, and storage facilities for seasonal goods should be made available as a way to increase the agricultural output of the nation.

5.4 Suggestion for Further Studies

Even though, the study's findings are instructive since they shed further light on how monetary policy affects the expansion of agricultural output. To examine the combined impact of both monetary and fiscal policy on agricultural output, more monetary policy variables, such as treasury bills, the monetary policy rate, and the cash reserve ratio, could be included in the study. Expanding the study into these areas would undoubtedly improve the policy implications and the validity of the study results. Additionally, it will broaden the boundaries of knowledge beyond where this study ends.

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APPENDIX

Table 1: Data for the Study

Series Code	Agriculture, forestry, and fishing, value added (% of GDP)	Inflation, consumer prices (annual %)	Official exchange rate (LCU per US\$, period average)	Real interest rate (%)
1981	12.24040925	20.81282291	0.617708175	-65.8571487
1982	13.50269014	7.697747247	0.673461262	-4.586180209
1983	14.99073289	23.21233155	0.724409851	-8.022386439
1984	18.30836066	17.82053329	0.766527449	4.342492625
1985	18.22763997	7.435344828	0.893774083	2.343230572
1986	18.02042516	5.717151454	1.754523004	4.310292249
1987	20.55210632	11.29032258	4.016037344	-4.76964481
1988	23.37164885	54.51122478	4.536966667	-2.962676482
1989	21.27559734	50.46668812	7.364735	-6.612412439
1990	21.55626328	7.364400306	8.038285	17.46624444
1991	20.88528311	13.0069731	9.909491667	0.990847346
1992	20.32115887	44.58884272	17.298425	-14.98716799
1993	23.49113048	57.16525283	22.0654	-7.052474658
1994	25.17384878	57.03170891	21.996	-15.92023297
1995	25.48650645	72.8355023	21.89525833	-31.4525655
1996	26.1991592	29.26829268	21.884425	-5.260784138
1997	27.41665114	8.529874214	21.88605	12.12661189
1998	27.90837138	9.996378124	21.886	11.48466906
1999	26.02848571	6.618373395	92.3381	6.047248346
2000	21.3572413	6.933292156	101.6973333	-1.140888642

2001	24.47535466	18.87364621	111.23125	12.1387025
2002	36.96508267	12.8765792	120.5781583	3.023542275
2003	33.82706055	14.03178361	129.22235	9.935713387
2004	27.2304536	14.99803382	132.888025	-2.60484706
2005	26.08928283	17.86349337	131.2743333	- 1.593680481
2006	24.73499126	8.22522152	128.6516667	- 5.627968049
2007	24.66257721	5.388007969	125.8081083	9.187171228
2008	25.27975078	11.58107517	118.5666667	6.684908635
2009	26.74885451	12.55496039	148.88	18.18000167
2010	23.89370409	13.72020184	150.2975	1.067736064
2011	22.23471099	10.84002754	153.8625	5.685579859
2012	21.85995862	12.21778174	157.5	6.224808614
2013	20.75862283	8.475827285	157.3116667	11.20162222
2014	19.99025477	8.062485824	158.5526417	11.35621303
2015	20.63189348	9.009387183	192.4403333	13.59615325
2016	20.98310971	15.67534055	253.492	6.686233617
2017	20.84657143	16.52353998	305.7901092	5.790566873
2018	21.20377372	12.09473155	306.0836882	6.055977154
2019	21.90629593	11.39679497	306.9209515	4.522188497
2020	24.14330587	13.24602343	358.8107973	5.371280212

Source: Authors compilation from E-views 12

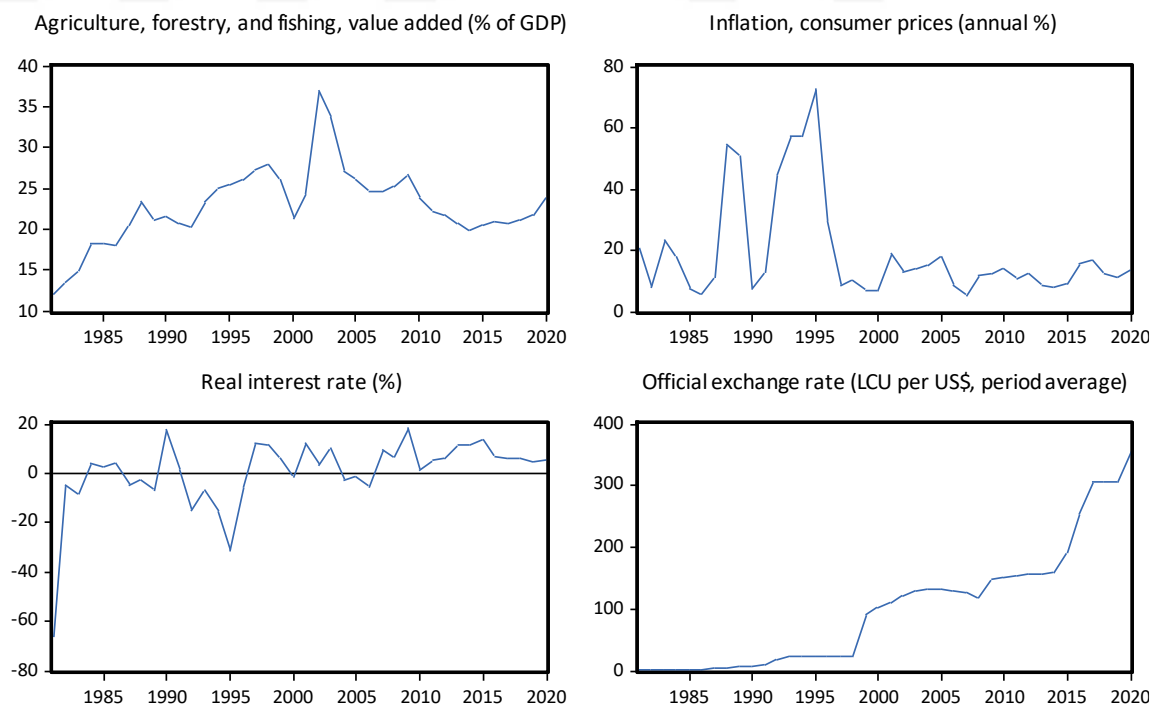
Table 2: Descriptive Statistics

	AOUT	INF	INT	LEXR
MEAN	22.86948	18.99895	0.434224	3.536865
MEDIAN	22.07050	12.71577	4.326392	4.666806
MAXIMUM	36.96508	72.83550	18.18000	5.882795

MINIMUM	12.24041	5.388008	-65.85715	-0.481739
STD. DEV	4.647603	16.86848	14.44028	1.995947
SKEWNESS	0.442825	1.823489	-2.680369	-0.795428
KURTOSIS	4.624443	5.159022	12.58348	2.347041
JARQUE-BERA	5.705318	29.93637	200.9676	4.928626
PROBABILTY	0.057691	0.000000	0.000000	0.085067
SUM	914.7793	759.9580	17.36898	141.4746
SUM SQ. DEV.	842.4082	11097.27	8132.346	155.3683
OBSERVATION	40	40	40	40

Source: Authors compilation from E-views 12

Graph 1: Trend of the variables in time series



Source: Authors compilation from E-views 12

Table 3: Augmented Dickey Fuller Unit root test result

Variables	ADF statistic	Critical level at 5%	Order of integration	Probability	Decision
AOUT	-6.814963	-2.943427	I(1)	0.0000***	Stationary
LEXR	-5.304640	-2.941145	1(1)	0.0001***	Stationary
INF	-5.752686	-2.941145	1(1)	0.0000***	Stationary
INT	-9.968538	-2.941145	1(1)	0.0000***	Stationary

Source: Authors compilation from E-views 12

Table 4: Vector Auto-regression Estimates

		coefficient	Std. Error	T. statistic	p.value
AOUT(-1)	AOUT	0.675472	0.11853	5.69890	0.0000***
	INF	-0.161990	0.61545	-0.26321	0.2955
	INT	-0.129750	0.38440	-0.33754	0.6750
	LEXR	0.007014	0.01171	0.60127	0.4969
INF(-1)	AOUT	0.033082	0.03150	1.05023	0.7928
	INF	0.654564	0.16356	4.00197	0.0001***
	INT	-0.201138	0.10216	-1.96891	0.5329
	LEXR	-0.001586	0.00311	-0.50971	0.5613
INT(-1)	AOUT	0.016747	0.03984	0.42021	0.7362
	INF	0.129647	0.20694	0.62649	0.0510*
	INT	0.068835	0.12925	0.93256	0.5952
	LEXR	0.006034	0.00394	1.53256	0.1914
LEXR(-1)	AOUT	0.193513	0.28410	0.68115	0.5487

	INF	-0.859073	1.47518	-0.58235	0.6111
	INT	1.209731	0.92137	1.31297	0.1277
	LEXR	0.922916	0.02807	32.8115	0.0000***

Source: Authors compilation from E-views 12

Table 5: Granger Causality Test

NULL HYPOTHESIS	Causality	F.stat	Prob.
INF does not granger cause AOUT	NO	0.63099	0.4322
AOUT does not granger cause INF		0.20785	0.6512
INT does not granger cause AOUT	NO	0.00197	0.9648
AOUT does not granger cause INT		0.06777	0.7961
LEXR does not granger cause AOUT	NO	0.30251	0.5857
AOUT does not granger cause LEXR		0.50546	0.4817
INT does not granger cause INF	YES	0.07375	0.7875
INF does not granger cause INT		4.55437	0.0397
LEXR does not granger cause INF	NO	0.41260	0.5247
INF does not granger cause LEXR		1.74868	0.1944
LEXR does not granger cause INT	YES	1.42606	0.2402
INT does not granger cause LEXR		4.96310	0.0322

Source: Authors compilation from E-views 12