GOVERNMENT SIZE AND ECONOMICS GROWTH IN NIGERIA (1970-2018)

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BEING A PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, FACULTY OF SOCIAL SCIENCES, UNIVERSITY OF BENIN, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) DEGREE IN ECONOMICS

JULY, 2021.

CERTIFICATION

This is to certify that this project titled "**GOVERNMENT SIZE AND ECONOMICS GROWTH IN NIGERIA (1970-2018)"** was carried out by Grace **Constance OGUNBOR** with matriculation number **SSC1608098**. It has been read and recommended for acceptance in partial fulfilment of the requirement for the award of Bachelor of Science (B.Sc.) Degree in Economics.

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DEDICATION

This project is solely dedicated to Almighty God for the grace of determination, consistency, wisdom and courage he bestowed upon me throughout my years of academic pursuits in the great University of Benin and my parent **Mr Peter** and **Mrs Esther Ogunbor.**

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ABSTRACT

This study examined the impact of government size on economic growth in Nigeria for the period of 1981-2019. The main objective of this research work is to examine the impact of government size on economic growth in Nigeria. The study used Error Correction Mechanism (ECM) to examine the relationship between government size and economic growth in Nigeria. The study found that the level of total government expenditure is positively and significantly related to the Real GDP and exchange rate is negatively related to the Real GDP and gross fixed capital form

ation is negatively related to the Real GDP and inflation is also negatively related to the Real GDP. The study therefore recommends that conscious efforts should be taken by the government to increase budgetary allocation to productive sectors of the economy for public spending which a key factor that contributes greatly to economic growth and development. It is essential for financing infrastructure, including roads, electricity, and water. Also, excessive increase in government expenditure has to be checked. Government needs to make sure that increment in government expenditure does not hurt the economy, particularly the welfare of people within the country.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

For some number of years, the government of Nigeria has huge sum of money for spending on economic and social facilities. This is of major concern because government expenditure is directly expected to impact on the welfare of people.

However, government expenditure has evolved over time since Nigeria gained independence till date as a result of the government's different operations and relationships with its Ministries, Departments, and Agencies (Niloy, 2003). The government spends on the economy in areas such as: transportation, electricity, telecommunications, education and health etc

The structure and size of government of a country will determine the form of growth in output of the economy (Constantine, 2017). The structure of Nigerian government expenditure can be broadly categorized into recurrent and capital expenditure. The recurrent expenditure of government such as wages, salaries, interest on loans, maintenance and so on whereas expenses on capital projects like roads, airports, education, electricity generation and so on are referred to as capital expenditure. Also, the analysis of the outcomes for the growth effects of government size by individual sectors of the economy gives rise to information that is particularly useful for developing nations which are constrained by resources and where the

allocation of limited public resources between the sectors is an issue of paramount importance.

The relationship between government size and economic growth has been a topic of internet for sometimes non. Wagner (1883/1958) came up with Wagner's law, which places importance on economic growth as a driver of government size. However, recent decades have seen the escalation of debate as increased government size and low economic growth rate have become a prominent features of today's economies. The thrust of the discussion is on whether it is government expenditure that drives economic growth or is economic growth that drivers government expenditure. To date four views exist. The first view is the government size-led economic growth, or the supply leading responses, also known as Keynesian view. This view places importance on the size of the government and argue that it is the government size that causes economic growth, and not the other way round (see Ebaidalla, 2013, Ghali, 1998, Loizide and Vamvoukas, 2005). On the other divide is the view of the growth -led government size, alternatively known as the demand -following response or Wagner's law, as it is also popularly known. According to this view, government is inefficient in providing services, hence, it cannot drive economic growth. Instead, it is economic growth that propels government size increases as the government responds to the demand placed on it by the growing economy (see Boh, 1996; islam, 2001; Samudram, Nair and Vaithiingam, 2009; Thabane and Lebina, 2016). Wagner(1883/1958) termed this as Wagner's law.it is

debatable which one of the two is the most widely favoured view. The middle ground is the third view known as the bidi-rectional causality view or the feedback response ,which places importance on both government size and economic growth as they are deemed to mutually cause each other in a feedback response fashion(see Abu - Bader and Abu-Auran, 2003, Abu- Eideh ,2015,Singh and Sahni, 1984, Wu, Tang and Lin, 2010). Then, there is the fourth and unpopular strand ,known as the neutrality view or the independent view .This view places importance neither on the government size nor on economic growth as the two are seen to be independent of each other and therefore do not cause each other(see Afxenton and Serletis ,1996, Ansari, Gordon and Akuamoah, 1997, Taban,2010.)

1.2 Statement of the Problem

The problem of this study is the rapid increasing size of the Nigerian government and how it has drastically affected the growth of the economy. Developing economies most especially a country like Nigeria have been faced with an increasing size of government operations, and its impact on Nigerian economic growth has become an emerging major public debate. However, the observed growth in public spending appears to apply to most countries regardless of their level of economic development. The aim of Nigerian government is to attain better allocative and distributional equality through greater disbursement of public and quasi-public goods. Government intervention could be seen as an important part of public expenditure aimed at achieving optimal outcomes with respect to supply of these

public goods. However, given the degree of openness of Nigeria as a less developed country, the role and size of government becomes paramount to adjustment and stabilization programmes.

Increasing government size of the Nigerian government which is measured by the increase in the level of public spending has to some extent posed some negative problems on the economy at large. It has increased the level of inflationary pressures on the economy and inflation debases a nation's currency, causing widespread economic distortion. Increased Government spending has also displaced private-sector activity in Nigeria via crowding out effect hence making funds which are supposed to promote privatization (which is one great engineers of economic growth) channeled into unproductive sectors.

1.3 Objectives of the Study

The overall objective of the study is aimed at examining the implications of Nigerian's growing government size on economic growth and the specific objectives are:

1. To examine the trend in government size.
2. To examine the trend of economic growth.
3. To estimate the relationship between government size and economic growth
4. Make recommendations on appropriate policies.

1.4 Research Hypothesis

Null hypothesis:

H_0: The impact of government size on economic growth is not significantly different from zero.

1.5 Scope and Methodology

This study seeks to analyse the effect of Government size on Economic growth in Nigeria between the period 1970-2018. This sample time period was used for this study in order to derived the benefit of using a large sample size because larger sample size allow researchers to better determine the average value of their data and avoid errors from testing a small series secondary data sourced from central bank of Nigeria statistical bulletin ,the world development indicator(WDI).This method of Analysis adopted by this study is Error Correction Mechanism (ECM) in order to the measure the causal relationship between dependent and independent variables of this study. ECM approach was adopted for this study because stationarity was found to be of the same order i.e. of the same order which is specifically the I(0).

1.6 Significance of the Study

This study has uniquely contributed to the body of research in addition other than what other researchers of this same subject has provided. The contributions of this study is in the following ways:

This study will help in the discovery of factors that will extend the frontiers of government spending to all the basic sectors of the economy other than just some sectors of the economy like the oil sector, educational sector, industrial sector, etc

This research will serve as a good guide for fiscal authorities and authorized players in the external sector as it will portray at a glance, the state of government investment in Nigeria.

This study would also cover the gap of workable policy recommendations that would help policy makers make policies that would practically affect the economy that would ensure that funds disbursed to several sectors are used judiciously for their use in order assure sustainable growth and development.

1.7 Limitations of the Study

Time was a major constraint in the course of this study and this is because attention had to be given to other course work as required by the programme.

CHAPTER TWO

LITERATURE REVIEW

2.1 Government Expenditure: Conceptual Issues

Government expenditure is the expenses which government incurs for the maintenance of government and the society. According to Cambridge dictionary, government spending or expenditure is the amount a government spends a particular period.

Government spending or expenditure include all government consumption, Investment, and transfer payment.

Government expenditure refers to money spend by the public sector on the acquisition of goods and provision of service such as education, health care, social protection and defense and so on.

2.1.1 Source of Government Expenditure

Government expenditure is finance primarily through two source:

1. Tax collected by government

Direct taxes

Indirect taxes

Direct Tax: Is a kind of tax were the incidence of a tax rests upon the person who bears it impact (Oriakhi, 2019)

Indirect Tax: A tax levied on goods and services rather than on income or profit and also, the incidence of tax is passed on to others. (Oriakhi, 2019)

ii. Government Borrowing:

Borrowing money from its own citizen

Borrowing money from foreigners

2.1.2 Types of Government Expenditure

Government expenditure is often divided into three: current expenditure, capital, or fixed and transfer expenditure.

i) CURRENT EXPENDITURE: This is also known as recurring expenditure. They are expenditure on goods and services, expenditure for current use to directly satisfy individuals or collective needs of members of the community

ii) CAPITAL EXPENDITURE: Capital expenditure is the money an organization or cooperative entity spends to buy, maintain, or improve it fixed assets such as buildings, vehicles, equipment or land.

iii) TRANSFER PAYMENT: Transfer payment is a one way payment to a person who has a given or exchanged no money, goods, or services for it. These payment can be made at federal, state, and local levels. Although no service are performed for them, government transfer payments and considered to be a component of personal, and therefore subject to income tax.

2.1.3 Reason for the Growth of Public Expenditure

Specifically, some of the reason adduced for the growth of public expenditure overtime, include:

Population Increase: The size, rapidity of increase, and the age structure have been mentioned as possible explanation for the continuing pressure for public spending .

Rising Price: Price has a secular tendency to go up. though there are periods where prices are fallen, The overall trend has been for them to rise. Thus, the government spends in the provision of goods and services.

Debt Servicing: Modern government has shown a tendency to run into debt and lead to subsequent increase in public expenditure.

2.2 Determinant of Government Expenditure

The determinant of the government expenditure is important factors that are relevant for the managing fiscal imbalance in developing the countries Nigeria. This becomes more pungent when development of unemployment, insecurity, of life and properties are blooming.

These developmental challenges persist in Nigeria despite the huge government expenditure that is budgeted annually to solve them. Based on this, diverse fiscal policies measures have been adopted by Nigeria government with the aim of managing public expenditure.

Many study have proposed the factor that determine government expenditure as demographic factor such as population growth and urbanization(Shelton, 2007)and macroeconomic variable such as inflation, trade openness, foreign acid, dependency ratio and so on.

In the aspect of population growth being a determinant of government expenditure, this has to do with changes in the population rate. according to Musgrave and Musgrave(1989) generate change in age distribution and this trend is reflected in expenditure for education, as well as care for aged. population growth is a dominant contributory factor to the growth of expenditure as government policies are geared towards narrowing as much as possible the gap between social and economic service with population growth.

i) **INFLATION**: Inflation which is a sharp and persistent rise in the general price of goods and service characterized by prevalent increase in the price generally and just a temporary fluctuation (patience and Augustine, 2008).inflation is one of the most crucial macro-economic problem facing most countries of the world especially the underdeveloped and developing countries. The extent or degree to which inflation affects the size of public expenditure in less develop countries such as Nigeria was investigated by Ezirim and Ofurum (2003). The result indicated that inflation was a noticeable factor found to be significant. Inflation is the most important factor of interest that account for change in government expenditure in developing countries.

ii) **TRADE OPENNESS:** Which is the sum of import and export normalized by GDP. This assertion is adduced from the fact that as a country becomes increasingly open to bilateral and multibilateral trade, there is likelihood of

greater exposure to external risk, thus informing the need to increase government expenditure to serve as source of social insurance to the citizenry.

In the aspect of foreign trade, empirical study result indicates that the flow of foreign aid does influence government expenditure pattern. There is a positive and statistically significant relationship between the share of government expenditure in gross domestic product (GDP) and the share of net disbursement.

Furthermore, as the ratio of dependency increases, there may be increased burden on the productive part of the population to maintain the upbringing and pensions of the economically dependent. This result in the direct impacts of financial expenditure on things like social security, as well as many indirect consequences.

2.3 Theories and Model of Government Expenditure

2.3.1 Wagner's Theories

Wagner's law is named after the German political economist Adolph Wagner (1835-1917), who propounded a "law of increasing state activity" after empirical analysis on Western Europe at the end of the 19th century. He argued that government growth is a function of increased industrialization and economic development. Wagner stated that during the industrialization process, as the real income per capita of a nation increases, the share of government expenditures in total expenditures increases. Wagners (1893) designed three local bases for the increased in total expenditure. Firstly, during industrialization process, public sector activity will replace private sector activity. State function like administrative and protective

functions will increase. secondly, government needed to provide cultural and welfare service like education, public health, old age pension or retirement insurance, food subsidy, natural disaster aid, environmental protection programs and other welfare functions. Thirdly, increased industrialization will bring out technological change and large firms that tend to monopolize. Government will have to offset these effects by providing social and merit goods through budgetary means.

2.3.2 Peacock and Wiseman Theory of Public Expenditure

In 1961, peacock and Wiseman elicited salient shaft of light about the nature of increase in public expenditure based on their study of public expenditure in England. Peacock and Wiseman (1967) suggested that the growth in public expenditure does not occur in the same way that Wagner theorized.

Peacock and Wiseman choose the political proposition of instead of the organic state where it is deemed that government like to spend money, people do not like increasing taxation and the population voting for ever-increasing social service.

According to Peacock and Wiseman, this disturbance will cause displacement effect, shifting public revenue and public expenditure to new levels. Peacock and Wiseman viewed the period of displacement as reducing barriers that protect local autonomy and increasing the concentration power over public expenditure to the central government. During the process of the public expenditure centralization, the role of state activities tends to grow larger and larger. This can be referred to the concentration process of increasing public sector activities

2.3.3 The Classical Versus the Keynesian Approach of Public Expenditure

The classical economists believe that the government intervention brings more harm than good to an economy and that the private sector should carry out most of the activity.

In this welfare of nation, Adam smith (1776) advocated much on the "laissez –faire" economy where the profit motive was to be the main cause of economic developments. According to the classical dichotomy, an increase the total amount of money leads to a proportionate increase in all the money prices, with no change In the allocation of resource or the level of real GDP, which is known as money neutrality. Following the 1929-1930 great depression, the classical economist, that opposed government intervention, argued that strong trade union prevented wage flexibility which resulted in high unemployment. The Keynesians, on the other hand, favoured government intervention to correct market failures. In 1936, John Maynard Keyne's (1883-1946) general theory of employment, interest and money", criticized the classical economist to put too much emphasis on the long run. According to Keynes," we are all dead in the long run.

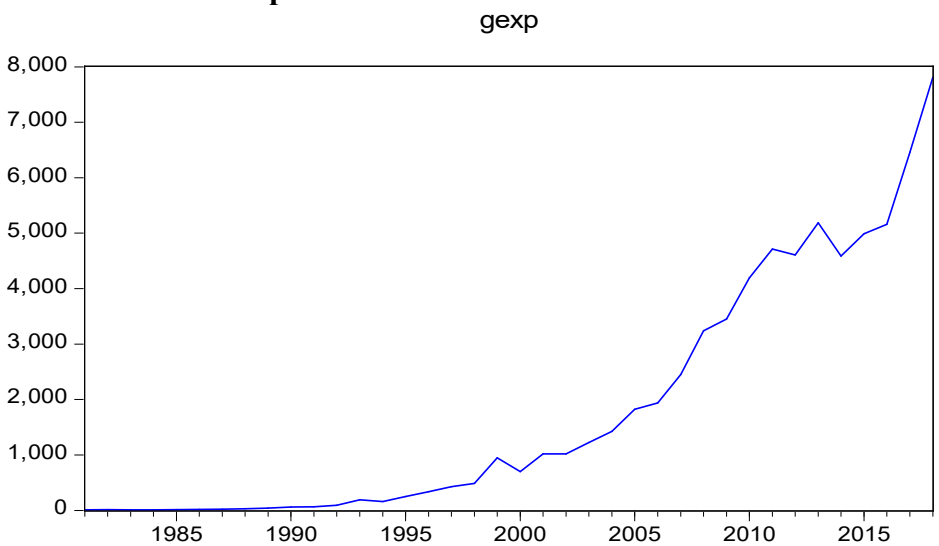
Keynes believe depression needed government intervention as a short term cure. increasing saving will not help but spending. The government will increase public spending giving individual, purchasing power and producers will produce more, creating more employment. This is the multipliers effect that shows causality from public expenditure to national income.

2.3.4 Bowen's Model of Public Expenditure

Unit price an interesting point by Howard R. Bowen (1943) is that social goods are not equally available to all voters. According to him since social goods are consumed by all individuals in a community, each of them needs to contribute for the social goods. But as Bowen rightly says, we must in the case of public goods add different individuals curves vertically. This is so because the capacity to enjoy the social goods is different for different individuals. Since each of them has different valuation of social goods, we expect them to contribute different amount. Hereby, the government will produce an amount of the social goods to be equal to the marginal cost of supplying that goods to be equal to the marginal utilities received by the community.

2.4 Trend in Government Expenditure in Nigeria

Figure 1: Government expenditure



Author's Computation: EVIEWS-9

The curve above shows the cumulative increase in government expenditure from year 1980 up to 2020.

As seen in the curve, government expenditure from year 1980 to 1983 was at its minimum at 0 naira in that period; it peaked in year 2020 at about 7,800 naira in that year.

The curve is relatively flat from year 1980 up until the year 1993 where - as seen in the trend line, there was an upward movement of the curve to roughly 100 naira. The trend line continued it's upward trajectory and kinked at 1000 naira in the year 1999, and afterwards grew geometrically from that period to about 5000 naira in 2009, then a slight fall in 2010 to 4,800 naira; it did increase to 5,200 naira in 2012, but fell slightly to 4,900 naira in 2014. From about 5,000 naira in 2015, it grew astronomical to an all time high of 7,800 naira in 2020.

In conclusion, it is seen in the trend that government expenditure has been on the increase generally from the year 1980 to 2020 though dropped at some points.

2.5 Economic Growth: Conceptual Issues

Economic growth is an increase in the capacity of an economy to produce goods and service, compared from one period of time to another.

Economic growth can be defined as the increase in the inflation –adjusted market value of the goods and service produced by an economy over time.

Economic growth is an increase in the production of economic goods and services, compared from one period of time to another. It can be measured in nominal or real (adjusted for inflation) term GDP.

According to Schumpeter, growth is a gradual and steady change in the long-run which comes about by a gradual increase in the rate of saving and population.

2.5.1 Types of Economic Growth

Economic growth is measured in two ways:

Real economic growth

Nominal economic growth

Real economic growth: is when the rate of change of over all productivity is rising. Nominal economic growth: contrary to the real economic growth, the nominal economic growth is when the GDP of a state is rising merely because there is an increase in the price of commodities or if the pay rate are rising.

2.5.2 Causes of Economic Growth

Economic growth is caused by two main factors:

An increase in aggregate demand (AD)

An increase in aggregate supply (productive capacity)

Demand AD =c+1+G+X-M

Higher real wages, tax cuts, devaluation, government spending and lower interest rate.

Supply side

Increased investment, higher labour. Productivity, discover raw materials, increase in labour force and improved technologically.

2.5.3 Factors Affecting Economic Growth

The following five factors of economic growth are fundamental components in an economy. Improving or increasing their quantity can lead to growth in the economy.

Capital Accumulation natural resource, population, technology, organisation and so on.

i) **CAPITAL ACCUMULATION:** Capital means the stock of physical reproducible factors of production. When the capital stock increases, with the passage of time, this is called capital accumulation.(Jhingan,2011).

ii) **NATURAL RESOURCES:** The discovery of more natural resources like oil, or mineral deposits may boost economic growth as this shift the country's production possibility curve. Other resources include land, water and natural gas and so on. Realistically, it difficult to increase the number of natural resources in a country. Countries must take care to balance the supply and demand for scarce natural resources to avoid depleting them. Improved land management may improve the quality of land and contribute to economic growth (Agarwal, 2020).

iii) **POPULATION:** Agarwal (2020) A growing population means there is an increase in the availability of employees, which means a higher workforce.

One downside of having large population is that it could lead to high unemployment .

iv) **TECHNOLOGY:** Another influential factor is the improvement of technology. The technology could increase productivity with the same level of labour, thus accelerating growth and development .This increment means factories can be more productive at lower cost. Technology is most likely to lead to sustained long-run growth (Agarwal, 2020).

v) **OGRANISATION:** Jhingan (2011) Organisation is an important part of the growth process.it relates to the optimum use of factors of production in economic activities. Organisation is complement to capital and labour and help in increasing their productivities.

2.5.4 Measurement of Economic Growth

Economic growth is not exactly measured in term of increased production of goods and services. What matters is the quality and the value of the goods and services. Quality does not really matter in the measurement of economic growth. Hence, economic growth is measured in real productivity. Economic growth can be measured using Gross Domestic Product (GDP) is take into account the country's entire economic output. It include all goods and service that business in the country produce for sale.

2.5.5 Ways of Spurring Economic Growth

If a country is not blessed with the factor of production, it must find other ways to spur growth. Growth can be increase in the following ways:

Expansive Fiscal Policy: Expansive fiscal policy is use by government to stimulate growth. It either spends more or cut taxes, or both.

Tax Revenue: Tax revenue can also spur economic growth

Monetary Policy: This is use by central bank of Nigeria, it can increase the money supply by lowering interest rate.

2.6 Determinants of Economic Growth

Determinants of economic growth are inter-related factors that directly influence the rate of economic growth i.e increase in real GDP of an economy. There are six major determinants of growth. Four of these are typically grouped under supply factors which include natural resources, human resources, capital goods and technology. The other two are demand and efficiency factor

i) SUPPLY FACTORS

These factors effects the value of goods and services supplied in an economy.

ii) NATURAL RESOURCES

Materials or substance occurring in nature which can be exploited for economic gain. They influence the economic growth of a country to an enormous extent. Natural resources involve resources that are produced by nature also on the

land or beneath the land. The resources on land include plants, water resources and landscape.

Natural resources include anything that exists in nature and which can be exploitable for economic value. The rate of economic growth increases on increase in quantity and quality of natural resources. Examples of natural resources which can have major consequence on rate of economic growth include fossil, fuels, valuable metals, oceans, and wild life.

iii) HUMAN RESOURCES

Human resource include both skilled and unskilled workforce. Increase in the quality and quantity of the workforce increases the rate of economic growth. Here, increase in quality refers to improvement of skills the workers possess. When more people work, more goods and services are produced and when more skilled workers do a job, they produce high value goods and service. Refers to one of the most important determinant of economic growth of a country. The quality and quantity of available human resource can directly affect the growth of an economy.

The quality of human resource is dependent on its skills, creative abilities, training and education. If the human resource of a country is well skilled and trained then the output would be of high quality.

On the other hand, a shortage of skilled labour hampers the growth of an economy, whereas surplus of labour is of lesser significance to economic growth.

Therefore the human resources of a country should be adequate in number with required skills and abilities, so that economic growth can be achieved.

iv) CAPITAL GOODS

Capital goods are tangible assets that one business produces that are in turn used by a second business, to produce consumer goods or services. Capital goods include tangible assets, such as buildings, machinery, equipment, vehicles, and tools that an organization uses to produce goods or services.

Capital goods require big investments initially but they increase production and growth rate in future period.

v) TECHNOLOGY

The level of technology is also an important determinant of economic growth. The rapid rate of growth can be achieved through high level of technology. But if the level of technology becomes constant the process of growth stops .Thus, it is the technological progress which keeps the economy moving.

Technology includes methods and procedures used to produce various goods and service. New technology may be invented or current technology may be improved gradually by investing in research. Better techniques once devised, allow faster production and increase rate of economic growth.

vi) DEMAND FACTOR

The increase supply of goods and services caused by the supply factor must be sustained by increased demand for goods and service in the economy, when

demand exceeds supply. It will lead to inflation which means plenty money pursuing few goods. Inflation is a growth retardant in other words, demand must equal supply.

vii) EFFICIENCY FACTORS:

Efficiency is when all goods and factors of production in an economy are distributed or allocated to their most valuable uses and waste in eliminated or minimized. Achieving high output to impute ratio is the result of efficiency. Efficiency includes both productive and allocative efficiency. High efficiency increase growth rate when it is occupied or coupled with full empowerment. To achieve maximum growth rate, an economy must use its available resources in the least costly way to produce the optimum mix of goods and services and it must use its resources to the maximum extent possible.

2.7 Theories and Policy of Economic Growth

The evolution of economic growth theories can be drawn back from Adam Smith's book, wealth of Nation in this book, he emphasized a view that the growth of an economy depends on division of labour. After each, the view presented by Smith was further succeeded by classical economists, such as Ricardo Malthus, and Mill. The theory developed by these economist is known as classical theory of economic growth.

Further, in late 19th and 20th centuries, Carl Mark presented a theory called theory of historical growth and Schumpeter developed a growth theory of

technological innovations. Finally, in the late 1930s, R.E. Harod and e. Domar presented more relevant theory and other scholar like Solow, Kaldor, Von Neumann.

2.7.1 Von Neumann Growth Model

John Von Neumann, German mathematician presented a model of General Economic equilibrium at the Princeton University in 1932. Von Neumann Model is a multi sector mathematical balanced growth model of an expanding economy. It associate growth of production and consumption with economic process in a dynamic framework.

ASSUMPTION: The model is based on the following assumptions. Every commodity is either an output or an input in the production process.

All outputs are used as raw materials for further production. There is perfect competition in the system.

There is no independent source of demand for commodities it is a closed economy.

Given these assumptions, the Neumann model economic the possibility of balanced growth at a constant rate or in an expanding economy, the model tries to find out whether there is a maximal value of a maximum uniform rate of expansion of the economy, and the characteristics of this highest attainable growth rate.

2.7.2 Kaldor Model

The Kaldor model is an attempt to make the saving-income ratio a variable in the growth process. It is based on the 'classical saving function' which implies that saving equals the ratio of profit to national income i.e, s = $^{p}/_{y}$

ASSUMPTION: Kaldor builds his mode on the following assumptions

There is a state of full employment so that total output or income (y) is given.

The investment-Output ratio (Y_n) is an independent variable element of impact competition or monopoly power cost national output consist of wages and profit only.

2.7.3 Meade's Neo-Classical Model of Economic Growth the Meade's Model

Prof. J.E. Meade has customised a neo-classical model of economic growth which is designed to show the way in which the simplest form of economic system would behave during a process of equilibrium growth.

Assumption: Meade constructs the model on the following assumption Constant scale of return

Machine are the only form of capital in the economy.

There is full use of land and labour

There is the assumption of depreciation of evaporation.

2.7.4 Solow Model Of Growth

Prof. R.M. Solow builds his mode of economic growth as an alternative to the Harrod Domar line of thought without its crucial assumption of fixed proportions in production. Solow postulate a continuous production function linking output to the inputs of capital and labour which are substitute.

ASSUMPTION:

1. Solow builds his model around the following assumption.. one composite commodity is produced
2. Output is regarded as net output after making allowance for the depreciation of capital.
3. There are constant return to scale.
4. Saving ratio is constant
5. Process and wages are flexible.

THE MODEL

Given these assumption, the Solow model shows in this model that with variable technical coefficient there would be a tendency for capital-labour ratio to adjust itself through time in the direction of equilibrium ratio. If the initial ratio of capital to labour is more, capital and output would grow more slowly than labour force and vise versa. Solow's analysis is convergent to equilibrium path (steady state) to start with my capital-labour rate.

2.7.5 Harrod– Domar theory

Harrod – Domar theory is considered as the extension of Keyne's Shari-term analysis of full employment and income theory. The Harrrod- Domar growth model provides a long term theory of output. The economist started paying their attention towards economic stability after the Great Depression of 1930s and economic ruin caused by World War II. Harod – Domar provided a model that focuses on the requirement necessary for steady economic growth. According to them, capital accumulation constitute a major factor for the growth of an economy.

ASSUMPTION

Constant capital –output ratio

Constant saving –income ratio

There is an initial full employment equilibrium level of income

There is the absence of government interference

There are no changes in interest rate

There is only one type of product.

2.8 Economic Growth Parlance in Nigeria

Prior to the independence of a country now called Nigeria, the British ruled the country for almost 100 years in order to exploit abundant natural resources needed to sustain it empire. The colonial authorities provided basic infrastructure and service required to boost the exportation of raw materials to Britain.

Since the independence of Nigeria in 1960, the average growth rate of its per capita GDP has been 107 percent per year.

The stability of the country's economic growth is an indication that the country is very close to its long-an steady stile balanced growth path. This evidently shows in the absence of trends in its capital-output ratio and its real interest rate. The average real GDP capita was about list 1222 between 1950 and 1959. The amount rose to about US $1477 under the regime of the country's first president. The crop per capita reached a peak of about US $ 1804 on average between 1976 and 1977 during the military period of Olusegun Obasanjo. After the Obasanjo's military regime, the declining trend of average real GDP per capita was observed. Nigeria was in close competition with South Africa and has a population of nearly 200 million people. Worldwide, it is the 30th largest economy. By GDP volume.

However, Nigeria economy is highly dependent on oil and is thereafter very vulnerable to fluctuate in crude oil prices and production. Nigeria, is highly vulnerable to the global economic disruption caused by covid-19, particular due to the decline in oil prices and spike in risk aversion in global capital markets. Nationally, 40 percent of Nigerians < 83 million people > are vulnerable with covid – 19, many of these vulnerable people could fall into poverty. The magnitude of this impact depend on the spread of the outbreak, while the economic impact hinges on oil prices.

The Macro economic situation, is more challenging now than in 2015-2016, when oil price fell sharply and Nigerian experienced its first recession in 25 years. In the current situation, Nigeria has fewer buffers and policy instruments to cushion adverse effects. The excess crude account is depleted, external reserve are highly reliant on short term flows, and policy uncertainty affects investor confidence. Before the 2016 recession, Nigeria's economy was growing fast at 6.3%. by contrast, before Covid – 19 struck, the country was growing at 22% and inflation was in single digits in 2014, compared to about 12% in 2019.

Furthermore, the outbreak of widespread violent protest that same month could have weighed on activity to some extent. On the needs of the worst downturn in recent history. This year owning to the pandemic and oil price shock, the economy is seen emerging back to growth in 2021 as demand at home and abroad recover.

2.9 Government Size and Economic Growth: Theory and Empirical Evidence

Government size theory traditionally received a scanty attention till recently. This was partly due to the general acceptance of the belief that the invisible hand would regulate the market system. However, with the advent of welfare economics, the role of the state has expanded especially in the areas of infrastructural provision and the theory of government size or government expenditure is attracting increasing attention. This tendency has been reinforced by the widening interest of economists in the problem of distributive justice, planning, regional disparities and others. Many

workers have stressed in their stream of literature that public expenditure, it growth and structure have had a very close relationship with one influencing the other. One of the studies that have explored the principal causes of growth in the public sector is the work of the German economist Adolph Wagner (1883).

Wagner formulated what is now popularly known as the law of increasing expansion of public spending and particularly states activities. He was one of the earliest economic theorist whose attempt emphasized on economic growth as the fundamental determinant of public sector growth. Based on the historical data on German economy, he postulated that there are inherent tendencies for the growth of public expenditure to increase out intensively and extensively overtime that there exists a financial relationship between the growth and the structure of public expenditure. This law has variously been supported by different economist from different geopolitical regimes, and who among other things have ushered in varieties of hypothesis and counter hypothesis for explanation of the impact of government size on an economy in general.

The scholars that contribute to this are peacock and wise man, musgrave, diamond, and batrial and so on. Musgrave (1973) used cross sectional study to review the reason for public expenditure. They are: the growth in per capita income, product M1x and technological change or technical changes, they explained that efficient product M1x between the private and social good changes as per capita income rises and this change involve a rising share of social goods. Fatoriji (1984)

conducted a research on the validity of Wagner's on law developing nation, he compares the raise of growth of public expenditure and national income. The income of his study validate the presence of Wagners law.

Bayo (1984) conducted a survey on increasing of the period of 1961 to 1977 he also bested the presence of the displacement effect. He concluded that, there is evidence that shows that the Wagner's law is readily applicable to the trend of public expenditure growth and structure in Nigeria, the displacement effects is met, at least not in the peacock Wiseman's fashion. The 1969 -1970 civil war did not affect the tax expenditure tend significantly, but the displacement can be early explained in terms of the increased tax threshold which occurred in Nigeria, in the advent of the oil boom, unless in oil boom is considered as a social upheaval (which is not) the displacement effect does not apply to the trend of public sector growth in Nigeria.

Essien (1995) equally tested the applicability of Wagner's law in Nigeria. He discovered that growth is public expenditure would not likely to cause income growth. However, using empirical verification to existing theories, Ekpo (1995) investigated the impact of government size on economic growth in Nigeria's economy over the period of 1960-1992. A division type model was employed and total expenditure to explore the impacts on economic growth. The expectations were not realized due to a mixture of government expenditure that was not conclusive to growth.

Furthermore, Abdullahi et al (2010) equally used a time series over the last four decades, they employed a disaggregated analysis to capture the effect of government expenditure on growth and social outcome. He found out that total capital expenditure (TCAP), total recurrent expenditure (TREC) and education have negative effect on output growth which according to the author might not be in correlated due to the mismanagement and diversion of public funds by government officials and political appointee on their study expenditure also found to be insignificance in explaining economic growth and also related to misappropriation of public found according to the author. On the contrary, rising government expenditure on transportation, communication and health result to an increase in national output. Therefore, the author theorized that higher government expenditure on transport and communication creates an enabling environment for business to thrive.

Nwuden and Usman (2010) investigated the effect of government expenditure on economic growth in Nigeria using a disaggregated approach. In contrast to previous case studies testing Wagner's hypothesis for Nigeria, Ighodaro and Oriakhi (2010) used disaggregated government expenditure data covering 1961-2007. Results show that a longman relationship exist between the dependent and the independent variables except in the case where only GDP is used as the independent variables, a result that suggest that Wagner's hypothesis does not hold in the estimation.

Loto (2011) investigated the impact of government size and economic growth in Nigeria for the period of 1980-2008 and applied Johnson Co Integration technique and correlation model. The result showed that in the short run, expenditure on agriculture and education were negatively related to economic growth. However, expenditure on health, national security, transportation, and communication were positively related to economic growth, though the impact were not statically significant.

Several studies have been conducted on the impact of government size on the impact of government size on the economic growth, among which are as follows; Deverajan (1993), Lind (1994), ram (1986), Ashaner (1999), Hasson and Henrkson (1994), Maku (2009). They all found a poschre relationship between government expenditure and economic growth.

On the other hand, Feidestein and Herica (1980), Lindaner and Valedric (1992), Ogiogo (2005), Slemrod (1995), foster and Henkaso (1998), Abduliahi et al (2010), all display a negative relationship between government expenditure and economic growth.

CHAPTER THREE

METHODOLOGY AND MODEL SPECIFICATION

3.1 Introduction

The focus of this chapter is on data collection methods and the procedures for minimizing and controlling the response errors as well as the procedures, modalities and sequential steps that is adopted to ensure that the results of the study are reliable, accurate and valid. The steps include: model specification, method of data analysis and source of data.

3.2 Theoretical framework

This study is built on the Harrod-Domar Growth (H-O Model).Harrod (1939) and Domar (1946) independently developed this growth model. The model became significantly influential in development economics literature during the third quarter of the twentieth century and was a primal component within the framework of economic planning. The central development problem was simply to stimulate resources devoted to investment (Bhagwatti, 1984).

The model is of the view that economic growth is achieved when more investment leads to more growth. The model was originally designed for use in developed economies but has increasingly become attractive for planning in the developing countries arising from fixed-capital coefficient property. The production function is given as:

$$Y = \sigma k \quad \ldots\ldots (1)$$

Where Y is output, K is capital stock, ϭ is the capital coefficient and 1/ ϭ is the capital output ratio (i.e. K/Y). the production function implies that labour is surplus that is, capital is the only scarce factor of production.

However, it follows that any addition to capital stock in the form of new investment will ring about corresponding augmenting of the national output flow, this relationship is known as capital-output ratio. If we define our capital-output ratio to be k and take further that the national net saving ratio, s is a fixed proportion of national output and that the total new investment is a function of the level of total savings. Thus, economic growth model can be constructed, net savings (S) in some proportion, s of national income (Y) such that we then have:

$S=sY$……. (2)

Net investment can be defined as the change in the stock of capital, K and represented by ΔK:

$I= \Delta K$……... (3)

But given the fact the total capital stock, K bear a positive relationship to national income, Y as depicted by the capital-output ratio, k. it follows that:

$K=k$ or

$\Delta K=k$

$Y=\Delta K$ or

$\Delta K=k\Delta Y$……. (3)

Because net national savings, S must be equal to net investment, I we can write this equality as:

$$S=I \quad \ldots\ldots (4)$$

But from equation (4) we know that S=sY, and from equation (2) and (3);

$$I=\Delta K=k\Delta Y$$

The identity of savings equals investment in equation (4) could be written as:

$$S=sY=k\Delta Y=\Delta K=I \quad \ldots\ldots (5)$$

Or simply as:

$$sY=k\Delta Y \quad \ldots\ldots (6)$$

Dividing both sides of equation (6) first by Y and then by K, we get:

$$\Delta Y/Y=s/k \quad \ldots\ldots (7)$$

Where ΔY/Y depicts the rate of growth of GDP (i.e. output or income)

Equation (7) states that the rate of growth of GDP is determined jointly by the net national saving ratio, s (i.e. s=S/Y), and the national capital-output ratio, k (i.e. k=K/Y).

3.3 Model Specification

The functional form of the model is therefore specified as:

$$GDP = f(TEXP, EXR, GFCF, INFL) \quad \ldots\ldots (8)$$

The econometric form of the model above is specified as:

$$\Delta GDP_t = \beta_0 + \beta_1 \Delta TEXP_t + \beta_2 \Delta EXR + \beta_3 \Delta GFCF_t + \beta_4 \Delta INFL_t + \varepsilon ECM_{t-i} + Ut \quad \ldots\ldots (9)$$

Where;

GDP = Gross domestic product at constant prices.

GFCF= Gross Fixed Capital Formation

TEXP= Total Expenditure

EXR = Exchange Rate

INFL = Inflation Rate

U_t = Stochastic error term

β_0 = Intercept

β_1 to β_4 = Coefficients of the associated variables

Apriori expectation:

$\beta_0>0$, $\beta_1>0$, $\beta_2>0$, $\beta_3<0$, $\beta_4<0$

3.4 Data Source and Requirement

The data required for this study are secondary time series data on Government Expenditure (on health, education, transportation and communication) and Gross Domestic Product (GDP) ranging from 1981-2019. The data is extracted from Central Bank of Nigeria (CBN) statistical bulletin, 2018 Edition.

3.5 Estimation Technique

Given that the existence of Co-integration is established amongst the series, then an Error Correction Mechanism (ECM) first adopted by Sargan (1964) and later popularized by Engel and Granger (1969) is carried out to correct for any dis-equilibrium in the short run. In this model, the dynamics of both short-run (changes)

and long-run (levels) adjustment processes are modeled simultaneously, thereby providing information about both the short-run and long-run relationship.

3.6 Diagnostics Tests

The following are basic tests that were carried out in the course of the study:

I. Unit Root Tests

In statistics, a unit root test tests whether a time series variable is non-stationary and possesses a unit root. The null hypothesis is generally defined as the presence of a unit root and the alternative hypothesis is either stationarity, trend stationarity or explosive root depending on the test used.

II. Co-integration Test

A cointegration test is used to establish if there is a correlation between several time series in the long term. The concept was first introduced by Nobel laureates Robert Engle and Clive Granger in 1987 after British economist Paul Newbold and Granger published the spurious regression concept.

Cointegration tests identify scenarios where two or more non-stationary time series are integrated together in a way that they cannot deviate from equilibrium in the long term. The tests are used to identify the degree of sensitivity of two variables to the same average price over a specified period of time.

III. Durbin Watson Tests

The Durbin Watson (DW) statistic is a test for autocorrelation in the residuals from a statistical regression analysis. The Durbin-Watson statistic will always have a value between 0 and 4. A value of 2.0 means that there is no autocorrelation detected in the sample. Values from 0 to less than 2 indicate positive autocorrelation and values from from 2 to 4 indicate negative autocorrelation.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATIONS OF RESULTS

4.0 Introduction

The focus of this chapter is on data analysis and interpretation of results. Specifically, it includes: descriptive statistics, test for stationarity, test for co-integration, model estimations, discussion and findings, diagnostic test, policy implications.

4.1 Preliminary Results

4.1.1 Descriptive Statistics

The table 4.1 below depicts the (mean, mode, minimum and maximum value, standard deviation, kurtosis, etc. of the variables GDP, TEXP, EXR, GFCF, INFL used in this study.

Table 4.1: Summary statistics for the variables

	GDP	TEXP	EXR	GFCF	INFL
Mean	34467.22	2040.908	94.14349	35.94341	19.16744
Median	23688.28	947.6900	101.6973	34.04928	12.56000
Maximum	69023.93	9714.843	306.9211	89.38613	72.84000
Minimum	13779.26	9.636500	0.617700	14.16873	5.390000
Std. Dev.	19850.83	2544.412	92.82186	19.39048	17.05417
Skewness	0.646712	1.252951	0.810181	1.027011	1.783625
Kurtosis	1.826851	3.716125	2.854579	3.717984	4.999689
Jarque-Bera	4.954992	11.03762	4.300921	7.693580	27.17656
Probability	0.083953	0.004011	0.116431	0.021348	0.000001
Observations	39	39	39	39	39

Source: Author's Computation

From the table, the mean values of EXR, GFCF, INF, GDP, TEXP are given as follows: 94.14, 35.94, 19.17, 34467.22, 2040.91 respectively and their median values are given respectively as follows: 101.70, 34.05, 12.56, 23688.28, 947.69 and their standard deviation values are also shown in table as: 92.82,19.39, 17.05, 19850.83, 2544.41. The table above also shows that mean , standard deviation, median values falls between the minimum and maximum values.

4.1.2. Test For Stationarity

By Stationarity we mean that the statistical properties of a a time series (or rather the process generating it) do not change over time. Using Augmented Dickey Fuller Approach, the unit root tests is given below as:

Table 4.2: Unit root test

Variables	ADF Statistics (level)	MacKinnon Critical Values at 5%	ADF Statistics (1st Difference)	MacKinnon Critical Values at 5%	Order of Integration
GDP	-1.75	-2.94	-2.96	-2.94	I(1)**
TEXP	5.27	-2.94	-3.55	-1.95	I(1)**
EXR	-1.40	-2.94	-2.94	-1.95	I(1)**
GFCF	-2.64	-3.53	-5.13	-3.53	I(1)**
INFL	-2.92	-2.94	-5.67	-2.94	I(1)**

Source: Author's Computation

From the table 4.2 above, it can be seen that the variables of this study were all stationary at order of one i.e. at first difference at 5% significant level.

4.2 Test for Co-Integration

Co-integration is an econometric test that allows you to estimate the long-run parameters or equilibrium in systems with unit root variables (Rao, 2007).Two sets of variables are co-integrated if a linear combination of those variables has a lower order of integration. For example, co-integration exists if a set of I (1) variables can be modeled with linear combinations that are I(0). The order of integration here I (1) tells you that a single set of differences can transform the non-stationary variables to stationarity. The test results are given below as:

Table 4.3: Co-integration Test

Johansen Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.604452	92.89013	69.81889	0.0003
At most 1 *	0.566392	58.57326	47.85613	0.0036
At most 2	0.433736	27.65549	29.79707	0.0866
At most 3	0.141952	6.613764	15.49471	0.6229
At most 4	0.025329	0.949261	3.841466	0.3299

Source: Author's Computation

In the table above 4.3 above, it can be seen that the trace test indicates 2 co-integrating equations at 0.05 significant level. This indicates there exists a co-integrating relationship among the variables captured by this study.

4.3 Model Estimates

4.3.1 Error correction model Estimates

The table below shows the ECM regression results regressing GDP on the independent variables TEXP, EXR, GFCF, INFL. The table also shows the significant or non-significant level of impact these independent variables on GDP.

Table 4.4a: Error Correction model

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
D(TEXP)	0.257453	0.625968	0.411287	0.0042
D(EXR)	-34.47158	11.52768	-2.990331	0.0060
D(GFCF)	-88.14412	47.18286	-1.868138	0.0531
D(INFL)	-25.45152	13.31522	-1.911461	0.0570
ECM(-1)	-0.293089	0.091127	-3.216273	0.0035
R-squared	0.997717	Mean dependent var		36114.69
Adjusted R-squared	0.996926	S.D. dependent var		19786.55
S.E. of regression	1097.027	Akaike info criterion		17.06873
Sum squared resid	31290201	Schwarz criterion		17.50860
Log likelihood	-297.2371	Hannan-Quinn criter.		17.22225
F-statistic	1262.228	Durbin-Watson stat		1.932055
Prob(F-statistic)	0.000000			

Source: Author's Computation

Discussion and Findings

The parsimonious error correction model is shown in table 4.4b (ECM). It shows that each year, approximately 29% of the difference between the real and long run (equilibrium) value of Real GDP is reversed or removed. To put it another way, it means that about 29% of the previous year's disequilibrium is corrected in the current year. It's worth noting that the ECM's coefficient has a negative sign, as predicted, and is meaningful at 5% with a probability value of 0.0035. As a result, we can now confidently assert that the variables under study are still co-integrated.

From the above table 4.4a, it can be seen that the level of total government expenditure is positively related to the dependent variable GDP in the short run. This implies that one unit increase in total government expenditure in Nigeria will result in 25.74 unit increase in current level of GDP. The results above show that total government expenditure is a statistically significant factor affecting current GDP level in Nigeria at 5% level of significance.

From the above table 4.4a, it can be seen that the level of exchange rate is negatively related to the dependent variable GDP in the short run. This implies that one unit increase in exchange rate in Nigeria will result in 34.47 unit decrease in current level of GDP. The results above show that exchange rate is a statistically significant factor affecting current GDP level in Nigeria at 5% level of significance.

From the above table 4.4a, it can be seen that the level of gross fixed capital formation is negatively related to the dependent variable GDP in the short run. This implies that one unit increase in gross fixed capital formation in Nigeria will result in 88.14 unit decrease in current level of GDP. The results above show that gross fixed capital formation is a statistically significant factor affecting current GDP level in Nigeria at 5% level of significance.

From the above table 4.4a, it can be seen that the level of inflation rate is negatively related to the dependent variable GDP in the short run. This implies that one unit increase in inflation rate in Nigeria will result in 25.45 unit decrease in

current level of GDP. The results above show that inflation rate is a statistically significant factor affecting current GDP level in Nigeria at 5% level of significance. The coefficient of determination (R^2) showed that, about 99.7% of the systematic variations in the explained variable are accounted for by the joint influence of all the explanatory variables employed in the study, while the remaining 0.3% is due to other factors captured by the error term. This further confirms that the model is correctly specified.

The F-statistics indicate a rejection of the null hypothesis of joint insignificance (at 5% significance level). In other words, we are about 95% confident that the explanatory variables are simultaneously significant when addressing the various factors that influence economic growth in Nigeria.

The Durbin Watson statistic which is approximately equals 2 indicating that autocorrelation is absent in the estimated model, this makes the estimated model reliable and fit for policy perspective.

4.3.2 Long-Run Model Results

Table 4.4b: Long run model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-34459.71	3361.903	-10.25006	0.0000
TEXP(-1)	7.430644	0.821487	9.045356	0.0000
EXR(-1)	-22.69045	23.15650	-0.979874	0.3343
GFCF(-1)	-278.4382	56.07594	-4.965377	0.0000
INFL(-1)	-54.64298	41.60535	-1.313364	0.1981
R-squared	0.962928	Mean dependent var		34972.72
Adjusted R-squared	0.958434	S.D. dependent var		19861.27
S.E. of regression	4049.246	Akaike info criterion		19.57253
Sum squared resid	5.41E+08	Schwarz criterion		19.78800
Log likelihood	-366.8780	Hannan-Quinn criter.		19.64919
Durbin-Watson stat	1.567930			

Source: Author's Computation

From the above table 4.4b, it can be seen that the level of total government expenditure is positively related to the dependent variable GDP in the long run. This implies that one unit increase in total government expenditure in Nigeria will result in 7.43 unit increase in current level of GDP. The results above show that total government expenditure is a statistically significant factor affecting current GDP level in Nigeria at 5% level of significance.

From the above table 4.4b, it can be seen that the level of exchange rate is negatively related to the dependent variable GDP in the long run. This implies that one unit increase in exchange rate in Nigeria will result in 22.70 unit decrease in current level of GDP. The results above show that exchange rate is a statistically insignificant factor affecting current GDP level in Nigeria at 5% level of significance.

From the above table 4.4b, it can be seen that the level of gross fixed capital formation is negatively related to the dependent variable GDP in the long run. This implies that one unit increase in gross fixed capital formation in Nigeria will result in 278.40 unit decrease in current level of GDP. The results above show that gross fixed capital formation is a statistically significant factor affecting current GDP level in Nigeria at 5% level of significance.

From the above table 4.4b, it can be seen that the level of inflation rate is negatively related to the dependent variable GDP in the long run. This implies that one unit increase in inflation rate in Nigeria will result in 54.64 unit decrease in

current level of GDP. The results above show that inflation rate is a statistically insignificant factor affecting current GDP level in Nigeria at 5% level of significance. The coefficient of determination (R^2) showed that, about 96% of the systematic variations in the explained variable are accounted for by the joint influence of all the explanatory variables employed in the study, while the remaining 4% is due to other factors captured by the error term. This further confirms that the model is correctly specified.

The F-statistics indicate a rejection of the null hypothesis of joint insignificance (at 5% significance level). In other words, we are about 95% confident that the explanatory variables are simultaneously significant when addressing the various factors that influence economic growth in Nigeria.

The Durbin Watson statistic which is approximately equals 2 indicating that autocorrelation is absent in the estimated model, this makes the estimated model reliable and fit for policy perspective.

4.4 Diagnostic Tests

Table 4.5: Test on the Error Term

TEST	TYPE	Prob at 5 Percent Sig. Level.	CONCLUSION
Normality	Histogram Normality test	0.4786	Normally distributed
Serial correlation	Breusch-Godfrey Serial Correlation LM Test	0.9602	No serial correlation
Heteroskedasticity	Breusch-Pagan Test	0.1343	Homoskedastic (equal spread)

Source: Author's compilation

The table 4.5 above indicates that the distribution is normally distributed and that the model is there is absence of serial correlation and heteroscedasticity in the model.

4.5 Policy implications

Total expenditure was found to have a positive impact on economic growth in Nigeria and this conforms to apriori expectation. This can due to the fact that increasing total government expenditure can lead to a larger increase in economic output because spending by the government is an additional to the national income and this economically implies economic growth. From another perspective, fiscal multiplier is often seen as a way that spending can boost growth in the economy. This multiplier states that an increase in the government spending leads to an increase in some measures of economic wide output such as GDP so by multiplier

effect, increased government expenditure would cause a multiplicative increase in economic growth.

Gross fixed capital formation which was found to have a negative impact on Gross Domestic Product and this does not conform to theory and this can be due to some reasons. Based on theory, increasing gross fixed capital formation is supposed to bring about decreasing GDP but the case is reverse from this study. This can be due to the fact that fixed capital accumulated over time are sometimes kept idle and so they are underutilized hence leading to a drop in economic output/growth in Nigerian economy at large.

Exchange Rate was also found to have a negative effect on economic growth and this conforms to theory. Increase in exchange rate implies appreciation of the naira against dollar and this dampens the economy's growth. Furthermore, it should be noted that strong exchange rate can depress economic growth because: exports more expensive, therefore less demand for exports and imports cheaper, therefore more demand for imported goods (and therefore less demand for domestically produced goods).

Finally, inflation was also found to have a negative effect on economic theory and this conforms to theory. High inflation puts pressure on a government to increase the value of the state pension and unemployment benefits and other welfare payments as the cost of living climbs higher and this can increase government spending through borrowing thereby leading to high national debts like the case of

Nigeria and would definitely dampen economic progress because funds meant for investment in productive sectors of the economy would turn out to be used for debt management and this would definitely make the economy worse off. Also, Inflation expectations can lead to a rise in unit labour costs and lower profits for businesses and this can even drive away small scale producers in Nigeria from the industry thereby leading to a drop in economic output which is highly detrimental to economic growth.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Summary of Findings

The study examined the impact of government size on economic growth in Nigeria. The study tests for unit root using Augmented Dickey-Fuller (ADF) to check if the variables are stationary or non-stationary. Also to check that long run relationship exists, the study used the Johansen Co-integration test. This show the existence of long-run relationship among the variables employed in the study. The work finds out that the model passed the diagnostic test such as Normality, serial correlation, heteroskedasticity, stability tests . The Durbin-Watson test was carried out to check for autocorrelation. Our findings support the existence of a long-run and short-run relationship between economic growth and public expenditures in Nigeria over the period of the study. The variables were also found to have an overall significant effect on Real GDP from F-statistic obtained in the model. The study found that the level of total government expenditure is positively related to the Real GDP and exchange rate is negatively related to the Real GDP and gross fixed capital formation is negatively related to the Real GDP and inflation is also negatively related to the Real GDP.

5.1 Conclusion

The conclusion to be drawn from this study is that the benefit of government size through the instrumentality of total government expenditure on the growth of a

nation like Nigeria cannot be over emphasized because the study reveals that total Government expenditure has a positive and significant impact on the Nigerian economy. Ideally, public spending is meant to enhance per capital income and in turn reduce poverty. This goal can only be achieved if national policies and programs are anchored on expenditure management and improvement in the quality of life of the population. This study has mostly achieved its aim and objectives. It has provided empirical evidence in support of the fact that government spending can affect economic growth to a significant extent.

5.2 Recommendations

On this basis of the emanating findings, this study proffered the following recommendations:

1. The findings revealed that Government expenditure positively and significantly improves the economy and so conscious efforts should be carried out by the government to increase budgetary allocation to productive sectors of the economy for public spending is a key factor that contributes greatly to economic growth and development. It is essential for financing infrastructure, including roads, electricity, and water. It provides the health and education services necessary for modern economies more efficiently and effectively than the market could provide.
2. Excessive increase in government expenditure has to be checked. Government needs to make sure that increment in government expenditure

does not hurt the economy, particularly the welfare of people within the country. If increment in government expenditure will lead to a higher taxes costs or higher borrowing which result in higher interest payable, government expenditure might not achieve its purpose of accelerating economic growth. According to Medium-Term Expenditure Framework and Fiscal Strategy (MTEF/FSP) report, there has been a rise in the cost of Nigeria's debt profile due to excessive government spending ie high level of deficit budgeting and this has breached a new milestone with the country's debt service as a percentage of revenue rising to 99% in the first quarter of 2020. This report was recently released by the Federal Ministry of Finance, Budget, and National Planning. A cursory review of the data obtained from the MTEF/FSP report shows that in Q1 2020, Nigeria incurred a total sum of N943.12 billion in debt service while the federal government retained revenue was put at N950.56 billion. This implies Nigeria's debt service to revenue is estimated to be 99% during the period.

3. The study revealed that exchange rate has a negative impacts on the Nigerian economy and so the Government can adopt fixed exchange rate because fixed exchange provides greater stability regarding import/export prices and provides protection against the possibility of currency devaluation. This stability helps a government to keep inflation rates low.

4. Seeing that Inflation has a negative impact on the Nigerian economy, the Government can adopt one popular method of controlling inflation which is through a contractionary monetary policy. The goal of a contractionary policy is to reduce the money supply within an economy by decreasing bond prices and increasing interest rates. This can be achieved by imposing higher interest rates which would reduce demand in the economy, leading to lower levels of economic output and then lower inflation.

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APPENDIX I

1.0 UNIT ROOT Tests

1.1 AT LEVEL

GDP

Null Hypothesis: GDP has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		1.752917	0.9996
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP)
Method: Least Squares
Date: 05/30/21 Time: 07:48
Sample (adjusted): 1982 2019
Included observations: 38 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	0.024093	0.013744	1.752917	0.0881
C	576.0456	530.8974	1.085041	0.2851

R-squared	0.078641	Mean dependent var	1385.266
Adjusted R-squared	0.053048	S.D. dependent var	1660.845
S.E. of regression	1616.192	Akaike info criterion	17.66473
Sum squared resid	94034800	Schwarz criterion	17.75092
Log likelihood	-333.6299	Hannan-Quinn criter.	17.69539
F-statistic	3.072719	Durbin-Watson stat	0.857056
Prob(F-statistic)	0.088129		

TEXP

Null Hypothesis: TEXP has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		5.272298	1.0000
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(TEXP)
Method: Least Squares
Date: 05/30/21 Time: 07:49
Sample (adjusted): 1982 2019
Included observations: 38 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TEXP(-1)	0.131584	0.024958	5.272298	0.0000
C	13.37478	71.75200	0.186403	0.8532

R-squared	0.435711	Mean dependent var	255.3534
Adjusted R-squared	0.420037	S.D. dependent var	446.4398
S.E. of regression	339.9877	Akaike info criterion	14.54689
Sum squared resid	4161299.	Schwarz criterion	14.63308
Log likelihood	-274.3909	Hannan-Quinn criter.	14.57756
F-statistic	27.79712	Durbin-Watson stat	1.703024
Prob(F-statistic)	0.000007		

EXR
Null Hypothesis: EXR has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		1.400008	0.9987
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EXR)

Method: Least Squares
Date: 05/30/21 Time: 07:49
Sample (adjusted): 1982 2019
Included observations: 38 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EXR(-1)	0.046121	0.032944	1.400008	0.1701
C	3.976840	4.065997	0.978072	0.3346

R-squared	0.051634	Mean dependent var	8.060616
Adjusted R-squared	0.025290	S.D. dependent var	17.68642
S.E. of regression	17.46134	Akaike info criterion	8.609051
Sum squared resid	10976.34	Schwarz criterion	8.695240
Log likelihood	-161.5720	Hannan-Quinn criter.	8.639716
F-statistic	1.960022	Durbin-Watson stat	1.498925
Prob(F-statistic)	0.170070		

GFCF

Null Hypothesis: GFCF has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.640872	0.2656
Test critical values:	1% level	-4.219126	
	5% level	-3.533083	
	10% level	-3.198312	

*MacKinnon (1996) one-sided p-values.

INFL

Null Hypothesis: INFL has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

	t-Statistic	Prob.*

Augmented Dickey-Fuller test statistic		-2.920576	0.0523
Test critical values:	1% level	-3.615588	
	5% level	-2.941145	
	10% level	-2.609066	

*MacKinnon (1996) one-sided p-values.

1.2 AT FIRST DIFFERENCE

GDP

Null Hypothesis: D(GDP) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.964249	0.0478
Test critical values:	1% level	-3.621023	
	5% level	-2.943427	
	10% level	-2.610263	

*MacKinnon (1996) one-sided p-values.

TEXP

Null Hypothesis: D(TEXP) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 4 (Automatic - based on SIC, maxlag=9)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.020257	0.0015
Test critical values:	1% level	-4.262735	
	5% level	-3.552973	
	10% level	-3.209642	

*MacKinnon (1996) one-sided p-values.

EXR

Null Hypothesis: D(EXR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.257626	0.0018
Test critical values:	1% level	-3.621023	
	5% level	-2.943427	
	10% level	-2.610263	

*MacKinnon (1996) one-sided p-values.

GFCF

Null Hypothesis: D(GFCF) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.133715	0.0009
Test critical values:	1% level	-4.226815	
	5% level	-3.536601	
	10% level	-3.200320	

*MacKinnon (1996) one-sided p-values.

INFL

Null Hypothesis: D(INFL) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.675221	0.0000
Test critical values:	1% level	-3.621023	

5% level	-2.943427
10% level	-2.610263

*MacKinnon (1996) one-sided p-values.

2.0 CO-INTERGRATION Test

Date: 05/30/21 Time: 08:01
Sample (adjusted): 1983 2019
Included observations: 37 after adjustments
Trend assumption: Linear deterministic trend
Series: GDP TEXP EXR GFCF INFL
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.604452	92.89013	69.81889	0.0003
At most 1 *	0.566392	58.57326	47.85613	0.0036
At most 2	0.433736	27.65549	29.79707	0.0866
At most 3	0.141952	6.613764	15.49471	0.6229
At most 4	0.025329	0.949261	3.841466	0.3299

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.604452	34.31687	33.87687	0.0443
At most 1 *	0.566392	30.91777	27.58434	0.0180
At most 2	0.433736	21.04173	21.13162	0.0515
At most 3	0.141952	5.664502	14.26460	0.6566
At most 4	0.025329	0.949261	3.841466	0.3299

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

GDP	TEXP	EXR	GFCF	INFL
-0.000157	0.000992	0.008911	-0.090806	-0.016619
-0.000104	0.000726	0.018756	0.047404	0.065605
-9.32E-05	0.000784	-0.021811	-0.094629	0.021918
-0.000213	0.001042	0.007855	-0.013271	-0.028579
-0.000207	0.002752	-0.025768	-0.009582	-0.009591

Unrestricted Adjustment Coefficients (alpha):

D(GDP)	507.6989	27.96144	124.3442	227.5013	-143.1416
D(TEXP)	174.7072	104.0358	-155.7554	-47.03737	12.52547
D(EXR)	-0.428320	-7.009976	-1.130900	-5.005049	0.167105
D(GFCF)	1.949527	0.442540	1.889023	-0.314032	0.349084
D(INFL)	0.684719	-6.856807	-4.511553	2.425362	1.102535

1 Cointegrating Equation(s): Log likelihood -982.2049

Normalized cointegrating coefficients (standard error in parentheses)

GDP	TEXP	EXR	GFCF	INFL
1.000000	-6.308897	-56.69540	577.7590	105.7379
	(1.23011)	(37.4832)	(117.855)	(72.4488)

Adjustment coefficients (standard error in parentheses)

D(GDP)	-0.079795
	(0.03370)
D(TEXP)	-0.027459
	(0.00981)
D(EXR)	6.73E-05
	(0.00047)
D(GFCF)	-0.000306
	(0.00012)
D(INFL)	-0.000108
	(0.00043)

2 Cointegrating Equation(s): Log likelihood -966.7460

Normalized cointegrating coefficients (standard error in parentheses)

GDP	TEXP	EXR	GFCF	INFL
1.000000	0.000000	1097.675	10219.47	6978.843
		(473.858)	(2154.64)	(1331.06)
0.000000	1.000000	182.9750	1528.272	1089.430
		(72.9021)	(331.488)	(204.780)

Adjustment coefficients (standard error in parentheses)

D(GDP)	-0.082701	0.523718
	(0.04039)	(0.26342)
D(TEXP)	-0.038271	0.248760
	(0.01120)	(0.07304)
D(EXR)	0.000796	-0.005514
	(0.00051)	(0.00331)
D(GFCF)	-0.000352	0.002254
	(0.00014)	(0.00091)
D(INFL)	0.000605	-0.004299
	(0.00045)	(0.00295)

3 Cointegrating Equation(s): Log likelihood -956.2252

Normalized cointegrating coefficients (standard error in parentheses)

GDP	TEXP	EXR	GFCF	INFL
1.000000	0.000000	0.000000	4287.051	3810.655
			(902.889)	(712.073)
0.000000	1.000000	0.000000	539.3780	561.3151
			(130.313)	(102.773)
0.000000	0.000000	1.000000	5.404529	2.886270
			(0.75907)	(0.59865)

Adjustment coefficients (standard error in parentheses)

D(GDP)	-0.094295	0.621226	2.336409	
	(0.04481)	(0.31073)	(6.41905)	
D(TEXP)	-0.023748	0.126620	6.905290	
	(0.01097)	(0.07608)	(1.57169)	
D(EXR)	0.000901	-0.006400	-0.110632	
	(0.00057)	(0.00392)	(0.08099)	
D(GFCF)	-0.000529	0.003736	-0.015529	
	(0.00014)	(0.00095)	(0.01967)	
D(INFL)	0.001026	-0.007837	-0.024106	
	(0.00047)	(0.00328)	(0.06785)	

4 Cointegrating Equation(s): Log likelihood -953.3929

Normalized cointegrating coefficients (standard error in parentheses)

GDP	TEXP	EXR	GFCF	INFL
1.000000	0.000000	0.000000	0.000000	1258.831
				(492.041)
0.000000	1.000000	0.000000	0.000000	240.2557
				(68.1426)
0.000000	0.000000	1.000000	0.000000	-0.330722
				(0.85278)
0.000000	0.000000	0.000000	1.000000	0.595240
				(0.18091)

Adjustment coefficients (standard error in parentheses)

D(GDP)	-0.142792	0.858211	4.123321	-59.56263
	(0.06259)	(0.37458)	(6.50661)	(29.2867)
D(TEXP)	-0.013721	0.077622	6.535834	4.430382
	(0.01541)	(0.09223)	(1.60213)	(7.21129)
D(EXR)	0.001968	-0.011614	-0.149945	-0.119968
	(0.00076)	(0.00453)	(0.07872)	(0.35433)
D(GFCF)	-0.000462	0.003409	-0.017996	-0.330640
	(0.00019)	(0.00117)	(0.02025)	(0.09116)
D(INFL)	0.000509	-0.005310	-0.005056	0.007519
	(0.00066)	(0.00396)	(0.06876)	(0.30948)

3.0 ECM MODEL

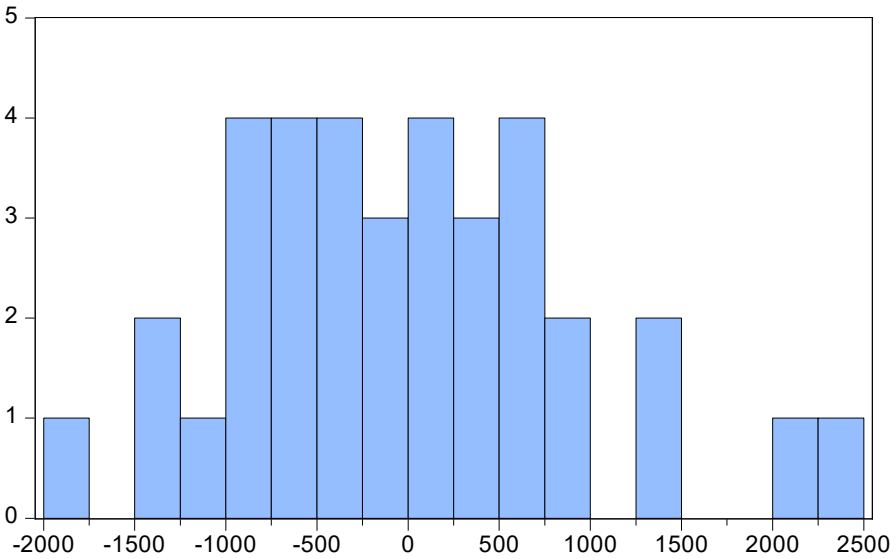
Dependent Variable: GDP
Method: ARDL
Date: 05/30/21 Time: 08:25
Sample (adjusted): 1984 2019
Included observations: 36 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
D(TEXP)	0.257453	0.625968	0.411287	0.6842
D(EXR)	-34.47158	11.52768	-2.990331	0.0060
D(GFCF)	-88.14412	47.18286	-1.868138	0.0531
D(INFL)	-25.45152	13.31522	-1.911461	0.0570
ECM(-1)	-0.293089	0.091127	-3.216273	0.0035

R-squared	0.997717	Mean dependent var	36114.69
Adjusted R-squared	0.996926	S.D. dependent var	19786.55
S.E. of regression	1097.027	Akaike info criterion	17.06873
Sum squared resid	31290201	Schwarz criterion	17.50860
Log likelihood	-297.2371	Hannan-Quinn criter.	17.22225
F-statistic	1262.228	Durbin-Watson stat	1.932055
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.

DIAGNOSTICS



Series: Residuals
Sample 1984 2019
Observations 36

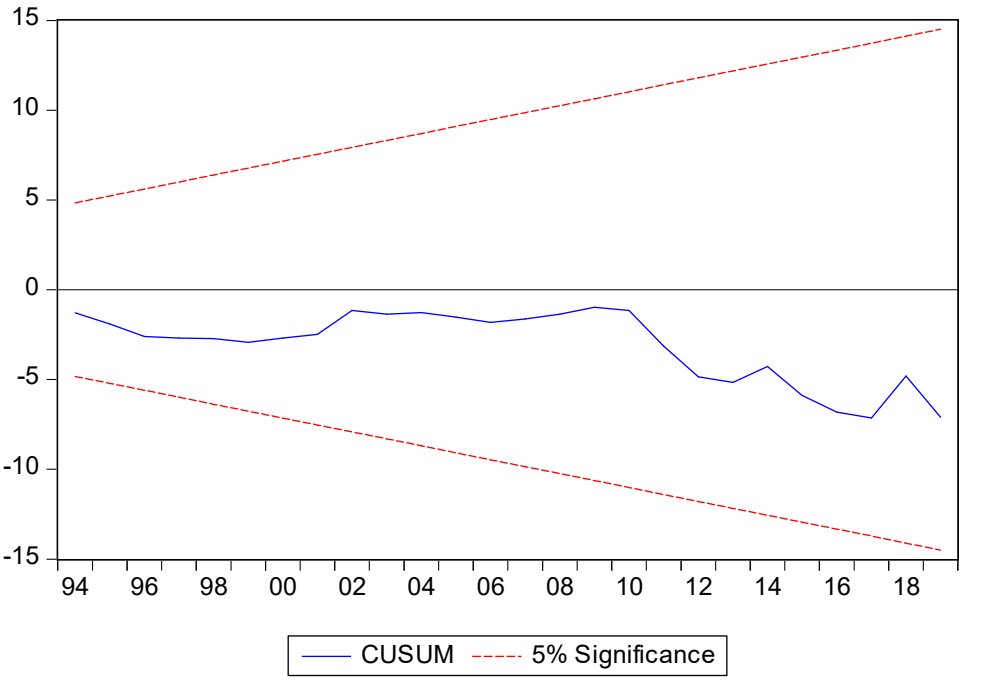
Mean	-4.72e-12
Median	-71.29644
Maximum	2317.210
Minimum	-1789.456
Std. Dev.	945.5188
Skewness	0.488401
Kurtosis	3.168419
Jarque-Bera	1.473760
Probability	0.478605

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.027156	Prob. F(2,24)	0.9732
Obs*R-squared	0.081285	Prob. Chi-Square(2)	0.9602

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.769891	Prob. F(9,26)	0.1231
Obs*R-squared	13.67656	Prob. Chi-Square(9)	0.1343
Scaled explained SS	7.734491	Prob. Chi-Square(9)	0.5611



APPENDIX II

DATA

year	GDP	TEXP	EXR	GFCF	INFL
1981	15258	11.4137	0.6177	89.38612615	20.81
1982	14985.08	11.9232	0.6735	85.94140115	7.7
1983	13849.73	9.6365	0.7245	75.75651206	23.21
1984	13779.26	9.9276	0.7665	58.95628791	17.82
1985	14953.91	13.0411	0.8938	46.39544698	7.44
1986	15237.99	16.2237	1.7545	54.94827038	5.72
1987	15263.93	22.0187	4.0164	50.04988787	11.29
1988	16215.37	27.7495	4.5371	43.75477314	54.51
1989	17294.68	41.0283	7.3647	52.48744487	50.47
1990	19305.63	60.2682	8.0383	53.12219353	7.36
1991	19199.06	66.5844	9.9095	48.40018216	13.01
1992	19620.19	92.7974	17.2984	43.77439439	44.59
1993	19927.99	191.2289	22.0654	44.47636408	57.17
1994	19979.12	160.8932	21.9961	42.06783621	57.03
1995	20353.2	248.7681	21.8953	37.20593267	72.84
1996	21177.92	337.2176	21.8844	36.58167005	29.27
1997	21789.1	428.2152	21.8861	38.42226127	8.53
1998	22332.87	487.1134	21.8861	40.55340148	10
1999	22449.41	947.69	92.3381	38.278001	6.62
2000	23688.28	701.0509	101.6973	34.04928497	6.93
2001	25267.54	1017.997	111.2313	30.03794342	18.87
2002	28957.71	1018.178	120.5782	26.76865607	12.88
2003	31709.45	1225.988	129.2224	28.37089582	14.03
2004	35020.55	1426.2	132.888	26.06325442	15
2005	37474.95	1822.1	131.2743	24.96612489	17.86
2006	39995.5	1938.003	128.6517	26.1664999	8.23
2007	42922.41	2450.897	125.8081	20.18003679	5.39
2008	46012.52	3240.82	118.5667	18.85976721	11.58
2009	49856.1	3452.991	148.8801	21.11545461	12.56
2010	54612.26	4194.577	150.2975	16.81501324	13.72
2011	57511.04	4712.062	153.8625	15.67631067	10.84
2012	59929.89	4605.391	157.5001	14.21112008	12.22

2013	63218.72	5185.318	157.3117	14.16872621	8.48
2014	67152.79	4587.385	158.5526	15.08353336	8.06
2015	69023.93	4988.864	192.4403	14.82717543	9.01
2016	67931.24	5858.558	253.4921	14.72495522	15.68
2017	65177.22	6456.698	305.7901	14.71561664	16.52
2018	67888.9	7813.741	306.0837	19.01838355	12.09
2019	67898.09	9714.843	306.9211	25.41589099	12.19

Source: I. World Development indicators (2019).

II. CBN Statistical bulletin (2019).