The Impact of Government Expenditure on Private Consumption in Nigeria: A Quantitative Research Approach.

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ABSTRACT
The objective of this research is to empirically investigate the determinants of private consumption expenditure in Nigeria. The study covered from 1980 to 2022. The Autoregressive Distributed Lag (ARDL) model was estimated in the study. The results indicated that the first lag of private consumption expenditure is the determinant of current private consumption in Nigeria. The results of the study empirically confirms the relative consumption theory. The findings further revealed that government expenditure, inflation, gross domestic product, exchange rate and gross capital formation as percentage of GDP do no determine private consumption expenditure in Nigeria. The study recommends that Nigeria government should formulate macroeconomic policies viable enough to promote private consumption, as well as economic growth in Nigeria.

Keyword: Private consumption, Government Expenditure, inflation, Exchange rate

1.1 BACKGROUND OF THE STUDY

Nigeria, Africa's largest economy, has experienced significant economic growth over the past decade, but the impact of government expenditure on private consumption remains a topic of debate among economists and policymakers. This study aims to investigate the relationship between government expenditure and private consumption in Nigeria, examining the extent to which government spending influences household consumption patterns.

Consumer spending is a significant driving force in the economic growth of many countries. Private consumption expenditure constitutes the largest component of a total consumption expenditure in Nigeria and it accounts for more than 65% of the Gross Domestic Product (National Bureau of Statistics, 2010). Therefore private consumption expenditure is a major component of aggregate demand. However, consumption is the amount of goods and services that are used up in any given period while consumer expenditure is the amount that is spent on consumer goods in a given period. The overall consumer expenditure in an economy is determined using the consumption function. Ideas on how to assess consumption have been put forth by different schools of thought. Consumption is one part of human life that cannot be eliminated. The consumption situation is sometimes addressed by both the government and private households

Household consumption expenditure refers to household final consumption expenditure. It is the market value of all and services including durable products (such as cars, computers, etc) purchased by households. It excludes the purchase of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments of fees to the government to obtain permits and licenses (Mishra and Fasoranti, 2013). It is important to know the determinants of private consumption due to its implications on savings, investment, employment, human development and economic growth. This is because understanding them would provide valuable information that will lead to economic growth.

Inflation, income, wealth, government consumption family size, and interest rate and government expenditure have been major determinants of private consumption expenditure in Nigeria. Consumption is the most significant economic action taken by humans. The main determinant of household consumption is income which affects their spending habits. Private consumption pattern largely depends on the family size, age of the head of the household, and sex composition in addition to the income per individual.

Private consumption is affected by economic concepts. In effect, therefore, a lot of hypotheses are associated with consumption expenditure as an economic concept. Hence, it is important to note that both the government and household sectors of the economy engage in consumption expenditure. Factors influencing consumption expenditure have influenced economists such as Friedman (1957), Modigliani (1963), Keynes (1936), Duesenberry (1949), etc to study qualitative and quantitative factors such as income, wealth interest rate, capital gain, liquid assets etc that can influence consumption. This is because whatever influences consumption expenditure plays a major role in the process of economic growth in every economy. The problem is that the Nigerian economy suffers from different types of deficiency which brought so many limitations for growth sustainability and poverty reduction. Poor governance and dysfunctional political institutions are several problems faced by Nigeria. There deficiencies lower the rate of households consumption expenditure thereby reducing the efficiency of any development strategy and beard at least partial responsibility for the bad economic performance of Nigeria.

Soaring inflation rates, high interest rates, low income level and government consumption tend to affect private consumption expenditure negatively. Consumption decision and behavior is crucial for both short run and long run analysis because of the role it plays in determining aggregate output. Consumption expenditure has been increasing with GDP in Nigeria.Changes in consumption go hand in hand with economic growth. A change in consumption will have a multiplier effect on the level of national income. As a key macroeconomic aggregate, its significance cannot be over-emphasized. A comprehensive study of its determinants could help an economy achieve economic stability, a high level of employment of factors of production, and high aggregate income.

1.2 Research Question
The following research questions were raised to guide the study
i.   What is the nature of the relationship between government expenditure and private consumption in Nigeria?
ii.   How does government expenditure influence household consumption patterns in Nigeria?
iii.   What are the key drivers of private consumption in Nigeria, and how do they respond to changes in government expenditure?

1.3 Objectives:
The broad objective of the study is to investigate the determinants of private consumption expenditure in Nigeria
i.   To examine the impact of government expenditure on private consumption in Nigeria
ii.   To investigate the relationship between government expenditure and household consumption patterns in Nigeria
iii.   To identify the key drivers of private consumption in Nigeria and their responsiveness to government expenditure

1.4 Significance of the Study:
i.   This study will contribute to the existing body of knowledge on the impact of government expenditure on private consumption in Nigeria.
ii.   The findings will provide valuable insights for policymakers and stakeholders seeking to promote economic growth and development in Nigeria.
iii.   The study will inform fiscal policy decisions and promote effective economic management in Nigeria

1.5 Research Hypotheses
The following research hypothesis were formulated from the above research questions and will be tested at a 0.5 (5%) significant level.
H_{01}: There is no significant impact of government expenditure on private consumption in Nigeria.
H_{02}: there is no significant relationship between government expenditure and household consumption patterns in Nigeria.

II.   Review of Related Literatures
2.1 Conceptual Issues:

2.1.1 Private consumption
Private consumption represents the market value of all goods and services bought by households, including durable items like cars, washing machines, and computers, as well as fees paid to the government for permits and licenses (World Bank, 2015). In generating and spending income, households contribute indirectly to income redistribution through income tax payments and social contributions to the government (Hronova&Hindls, 2013). Globally, household income, consumption, and wealth are considered crucial determinants of citizens' well-being (Slesnick, 2000; Stiglitz, Sen, &Fitoussi, 2009; Gerstberger&Yaneva, 2013). As a result, analyzing consumption behavior is vital in both macroeconomics and microeconomics.

Macroeconomists focus on aggregate consumption for two primary reasons. First, aggregate consumption influences aggregate saving, as saving—defined as the portion of income not spent—flows into the financial system, forming the national capital supply (Ezeji&Ajudua, 2015). Consequently, the behaviors of both aggregate consumption and saving significantly affect an economy's long-term productive capacity (Bonsu&Muzindutdi, 2017). Second, since consumption expenditure comprises a large share of national output, understanding the factors driving aggregate consumption expenditure is key to analyzing macroeconomic fluctuations and the business cycle (Gerstberger&Yaneva, 2013).Private consumption refers to the total amount of money spent by households and individuals on goods and services, excluding government purchases.

2.1.2Concept of Income

Hicks cited in Sefton et al., (2006) defined income as "the maximum amount a men can spend and still be as well of at the end of the week as at the beginning" (p.21). Since then, there have been a succession of attempts to apply this definition. The problem is, as Hicks recognized, is that the correct interpretation of "as well off" is far from clear. Weitzman (1976) and Asheim (1994) (cited in Sefton et al., 2006) proposed that income should be understood as the level of consumption that can be sustained indefinitely from the capitalized value of current income, equating this to being as well off at the end of the week as at the beginning. Eisner (1988, cited in Sefton and Weale, 2006) specifically argues that in a "total income system," changes in asset prices, typically regarded as capital gains, should be considered part of income. Building on the earlier work of Sefton and Weale (2006), Weitzman and Asheim (2001), and Pemberton and Ulph (2001), this discussion will offer a comprehensive account of the implications of the concept of being "as well off." should be understood to mean that the present discounted value of current Future utility should remain constant over the considered interval. Adeniyi and Yusuf (2019) stated that there is a strong linkage between stable income level and increased private consumption, confirming the permanent income hypothesis in the Nigerian context.

Income is defined as the money received by an individual or entity in exchange for labor or products. Its definition can vary depending on the context, such as taxation, financial accounting, or economic analysis. For most individuals, income typically refers to total earnings, which include wages and salaries, returns on investments, pension distributions, and other receipts.

2.2Theoretical Frameworks:
Keynesian Theory: suggests that government expenditure can stimulate private consumption through the multiplier effect.
Classical Theory: argues that government expenditure crowds out private consumption by reducing private sector investment.
Permanent Income Hypothesis: suggests that private consumption is influenced by permanent income, not temporary changes in government expenditure.

2.2.1 Relationship between Income and Private Consumption:
Duesenberry (cited in Pak 2016) developed the relative income hypothesis. The hypothesis states that the average propensity to consume (APC) of a family depend on the families level of income spends more on consumption if it lives in a community in which the income is relatively high. This is likely a result of the pressure on the family to match the consumption patterns of other families in their environment. As a result, consumption is influenced not only by an individual's income but also by the average income of the group they belong to. Individuals frequently establish consumption standards that are aligned with their peak income levels. Therefore, when income declines, the attained consumption standards will not be immediately sacrificed. This is called the "… ratchet effect" phenomenon and is based on two facts

Income gives people the ability to buy nutritious food, to pay for health care and education for their families, to pay for water from tap instead of walking some distance for hours to fetch water from well or stream. The increasing dependence of much consumption on private income means that changes in income have a dominant influence on changes in consumption when income rises steadily consumption rises for most of the population. But for the same reason, when income declines, consumption also falls sharply, with devastating consequences for human well-being. It is reasonable to anticipate that household consumption spending will be closely linked to their disposable income, which equals to the income household receives less taxes they pay. The relationship between consumption and personal disposable income is called consumption function. Consumption depends on real disposable income, wealth, the overall price level, expectation etc. this means that the decision to spend income on consumption goods largely determined by these factors. Some factors positively

influence consumption expenditure, while others have a negative impact. Of all these factors the most important is the level of the real disposable income. If real disposable income increase individual and household are likely to increase their consumption spending. Decreasing real disposable income will depress total consumption. Therefore, there is a positive relationship between real disposable income and consumption (Balli and Balli, 2011)

According to Alan and Angus (2012) the relationship between consumer spending and income is one of the oldest statistical analysis of macroeconomics within all the countries of the world, there are significant members of socio-economic and demographic influences which affect the consumer income and expenditure pattern. The decisions and actions of the respective economic unit in an economy determine the level of expenditure, income, production and distribution of goods and services in an economy. According to Ohale&Onyema (2012) each component of the economy serves a specific function to help sustain the overall economic system.. Due to the complex state of the real world economy, economist found it convenient to create a simplified model of the economy in an attempt to capture various interactions among the various components of the economy. The simplified model used by economist in showing the interactions is the circular flow of income and expenditure Okowa (2009) described the circular flow of income and expenditure as the reciprocal movement of income and expenditure in opposite directions within the system, occurring in a continuous circular process. Every unit of income corresponds to an equal amount of expenditure. Essentially, the goods and services sold in the product market must have been produced, ensuring that income equals expenditure. Since all income available to households can be either spent or saved, household expenditure is determined by their disposable income.

2.2. 3 Relationship Between Government Consumption and Private Consumption

Government consumption is the cost incurred for survival and security rather than to support future productivity. Both private and government consumption expenditure. Private consumption refers to all products and services that household buy to meet their needs and desires. It comprises all products both durable and non-durable, including cars ,washing machine, television e.t.c. owner –occupied homes with imputed rent are included but home used for companies are excluded. Household final consumption spending is the largest

part if GDP and a key factor in economic analyses of aggregate demand, usually accounting for about 60% of GDP (OECD, 2009).

Private consumer spending is seen as a key indicator of economic health and a crucial tool for financial planning (Gulcin&Aycan, 20214). According to John (2003), private consumption expenditure refers to spending on both durable and non-durable goods, maintenance and protection, and the payment for factor services, as well as goods and services. The consumption pattern reflects the qualities, quantities, actions, and tendencies that characterize a community or group's use of resources for survival, comfort, and enjoyment.

As noted by the National Bureau of Statistics (NBS) in 2010, in a less developed economy like Nigeria, food consumption is heavily weighted toward food items, which constitute a larger share of total expenditure. In contrast, the opposite trend is observed in developed economies. As a society advances, the proportion of spending on food decreases while expenditures on non-food items increase. (National Bureau of Statistics, 2010). Household's consumption expenditure, investment, public expenditure and net export are the component of Gross Domestic Product (GDP), Due to its high share in GDP, consumption expenditure is considered in microeconomics policies for fiscal planning. Policy makers try to predict how the consumer will behave in the face of income fluctuations. Specially, the consumption pattern of a consumer requires a decision-making process and for their reason, the consumption functions reveals a behavioral relationship in macroeconomics. Over the years, the Nigerian government has implemented various policies to stabilize the economy and achieve macroeconomics objectives. One of such policies is fiscal policy. This involves utilizing government spending, taxation, and borrowing to influence the patterns of economic activity, as well as the levels and growth of aggregate demand, output, and employment. (Medee&Nembee, 2011). Bello &Lawal (2020) opined that fiscal policies such as tax cuts or increased public spending can directly influence disposable income and thereby consumption. For example, targeted social welfare programs have been shown to boost consumption among lower-income households.Udo &Akpan (2022) are also of the opinion that monetary policies also play a crucial role. For instance policies aimed at stabilizing inflation and maintaining favourable interest rates can create a conducive environment for consumption growth.

Keynesian Theory: Government expenditure can stimulate private consumption through the multiplier

effect, increasing aggregate demand and economic growth. (Keynes, 1936)

Classical Theory: Government expenditure crowds out private consumption by reducing private sector investment, as resources are diverted to government projects. (Smith, 1776)

Permanent Income Hypothesis: Private consumption is influenced by permanent income, not temporary changes in government expenditure. (Friedman, 1957)

Life-Cycle Hypothesis: Private consumption is determined by lifetime income and wealth, with government expenditure affecting consumption through changes in wealth. (Ando & Modigliani, 1963)

2.3 Empirical Review

Dada, Matthew Abiodun (2013) examined the composition effect of government expenditure on private consumption and output growth in Nigeria using the framework of single equation error correction mechanism. The unit root and cointegration tests were conducted on the variables of interest while single equations Error Correction Models were estimated. The result suggests that government expenditures have long-run effect both on private consumption and output. The findings also revealed that government spending on education and health and social security have crowding-in effect on private consumption while other components such as government spending on administration, construction, agriculture, transport and communication have crowding-out effect on private consumption. The short-run behaviour of the model as captured by the ECM in the private consumption equation is that variables did not return to equilibrium after a short-run deviation. The finding also revealed that government spending on education and health, social security, agriculture and administration has positive effect on output while expenditure components such as government spending on construction, transport and communication have negative effect on output. The short-run behaviour of the model as captured by the ECM in the output equation is that variables did not return to equilibrium after a short-run deviation. The study also found that only two of the six components significantly influenced private consumption and output growth. The study therefore concluded that government spending on education and health, social security, agriculture and administration were growth-enhancing while government expenditure on construction, transport and communication were growth-retarding during the period under investigation.

Okafor et.al (2017) focused on the long run relationship between the governmental expenditure in education and health and Human Capital Development in Nigeria. The result of the VAR model show that the tests point out that HDI is significant in the current year (-1) but tends to converge insignificantly in the previous years. On the other hand, the value of the joint significance indicates that the current values of EDU and HTH are most influencing factors that determine the current values of HDI (-1). This is economically evidence that what influence Human Capital Development in Nigeria are the nature, pattern and level of governmental expenditure in education and health because the model reveal their insignificant direct impact on the HDI

Ifarajimi et al (2017) investigated the impact of government expenditure on economic growth from 1981 to 2015 using Dynamic Ordinary Least Squares that incorporates endogenity in its estimation. The unit root test using Augmented Dickey Fuller revealed that all the series were stationary at first difference. The two-step Engle-Granger residual test showed that the residual was stationary at level; thus, there was a long run relationship among the series. The findings obtained from the long run Dynamic OLS showed that government expenditure on administration, government expenditure on economic services and nominal exchange rate were significant and had the expected signs except government expenditure on economic services. The empirical findings further indicated that the ECM was negative and statistically significant at 5%. The speed of adjustment was 71.38%. Lastly, in the short-run analysis, findings revealed that the nominal exchange rate was significant and had the expected sign. This might have been due to the influence of naira depreciation on government expenditure. The study therefore recommends that there is need for restructuring of government expenditure to be in line with macroeconomic objectives and also to reduce expenditure on transfers through economic diversification. Government should also take decisive steps to diversify the economy in order to reduce dependence on oil and to stabilize the value of naira.

Keho, Y. (2019) examined the impact of government spending on household consumption for the Economic Community of West African States (ECOWAS). As a modelling strategy, we use the Common Correlated Effect Mean Group (CCEMG) estimator that accounts for both parameter

heterogeneity and cross-sectional dependence. The study provides various pieces of evidence through whole-panel and country-level analyses. The panel estimates indicate that government consumption has, on average, a negative effect on private consumption, implying that government and private consumption are substitutes. Country-level results reveal, however, considerable heterogeneity in the degree of substitutability across countries. They show crowding out effects in six countries, crowding in effects in one country and no significant effect in five countries. Therefore, government consumption is not a good instrument to stimulate aggregate demand and economic growth in ECOWAS countries.

Chandana, Aluthge; Adamu, Jibir; and Musa, Abdu (2020), investigates the impact of Nigerian government expenditure (disaggregated into capital and recurrent) on economic growth using time series data for the period 1970-2019. The paper employs Autoregressive Distributed Lag (ARDL) model. To ensure robustness of results, the study accounts for structural breaks in the unit root test and the co-integration analysis. The key findings of the study are that capital expenditure has positive and significant impact on economic growth both in the short run and long run while recurrent expenditure does not have significant impact on economic growth both in the short run and long run. The study recommends that government should increase the share of the capital expenditure especially on meaningful projects that have direct bearing on the citizen's welfare. Government should also improve the spending patterns of recurrent expenditure through careful reallocation of resources toward productive activities that would enhance human development in the country

Akpan, &Atan (2020) This study empirically examined the effect of government expenditure on private consumption in Nigeria using the Auto Regressive Distributed Lag(ARDL) approach from 1981 to 2018.To establish the model's short and long relationship, the study employed time-series data of government expenditure components (recurrent and capital) and private consumption. The unit root and cointegration tests were conducted on all the variables, and the results revealed the existence of stationarity and long-run equilibrium relationship, respectively. The empirical results of the long-run model showed recurrent expenditure as having a significant relationship with private consumption in Nigeria, while capital expenditure revealed an insignificant relationship. The results further indicated a positive and significant relationship between private

consumption and Gross Domestic Product in Nigeria both in the short and long run. The results of the short-run analysis revealed a positive but insignificant relationship between private consumption and government expenditure (recurrent and capital expenditure) in Nigeria. This positive relationship between the government's recurrent expenditure and private consumption confirms the government's current position that is aimed at increasing recurrent spending to boost the economy out of the current recession. Therefore, this study recommended, among others, that the Nigerian government should encourage more recurrent spending in order to increase private consumption and reduce the recessionary effect on aggregate demand

Onyebuchi Iwegbu[1], and Risikat O. S. Dauda (2022) examines foreign aid effectiveness in poverty reduction in Africa with focus on the role of regional fiscal policy on education and health. The study employs panel dynamic ordinary least squares (DOLS) estimation technique and covers the period 1980-2017. The results reveal that foreign aid augmented with effective fiscal policy on education significantly improves the income level in all the regions except Central Africa, and consumption in the Western and Central regions. When augmented with effective fiscal policy on health foreign aid enhances households' income in West and Central Africa and consumption in West and Southern regions. Furthermore, foreign aid augmented with effective fiscal policy in education (health) reduces poverty headcount in the West and Central (in all regions except Central) regions of Africa. The study concludes that foreign aid augmented with fiscal policy on education improves income in all regions except Central Africa; and West and East Africa when augmented with health expenditure. To sustain the effectiveness of foreign aid in Africa there is the need to improve governments' allocation to the health and education sectors to deepen households' income

Umukoro(2024) examined the impact of government sectoral expenditures on economic growth and development in Nigeria from 1986 to 2022. GDP was used to measure economic growth, while the United Nations Human Development Index was used to measure economic development. The data was obtained from Central Bank of Nigeria Statistical Bulletin (2022) and United Nations Human Development Report (various issues). The analysis was carried out using autoregressive distributed lag (ARDL) regression technique. The study revealed that government expenditures on education has negative and significant impact on

economic growth in Nigeria, but has positive but insignificant impact on economic development in Nigeria. The result also indicated that government expenditures on health has positive and significant impact on economic growth in Nigeria, but has negative and insignificant impact on economic development in Nigeria. However, government expenditures on agriculture and government expenditures on infrastructure have negative and insignificant impact on economic growth and development in Nigeria over the period investigated. Based on the empirical results, the study concluded that government sectoral expenditures have not significantly contributed to economic growth and development in Nigeria as expected. Therefore, the researcher recommended that the government should adopt a balanced-growth strategy in the development of the education, health, agriculture and infrastructure sectors in Nigeria. The simultaneous development of these sectors is crucial to addressing the immediate challenges of the Nigerian economy. If Nigeria must grow and develop, these four sectors must be given greater attention in the budgetary allocation of the government for the next decade.

YERIMA et.al (2022), assessed the impact of government expenditure on economic growth in Nigeria using time series data of 1986-2020. Structural Vector Auto-regression (SVAR) model and the pair-wise causality test were adopted. The study observed that government expenditure in health and education had an insignificant impact on economic growth. The result also showed that public debt has an insignificant impact on economic growth. The study, therefore, recommends that: Government expenditure in education and health should be increased significantly to at least meet up with regional and global expenditure benchmark; government should minimise the incidence of borrowing especially with about 92% of the revenue generated going for debt servicing for borrowings that are largely non-productive. Borrowing analysis should also be extended to revenue generating capacity as debt to GDP ratio is not all encompassing.

Matthew Abiodun Dada (   ) examined the composition effect of government expenditure on private consumption and output growth in Nigeria using the framework of single equation error correction mechanism. The unit root and cointegration tests were conducted on the variables of interest while single equations Error Correction Models were estimated. The result suggests that government expenditures have long-run effect both on private consumption and output. The findings also revealed that government spending on education and health and social security have crowding-in effect on private consumption while other components such as government spending on administration, construction, agriculture, transport and communication have crowding-out effect on private consumption. The short-run behaviour of the model as captured by the ECM in the private consumption equation is that variables did not return to equilibrium after a short-run deviation. The finding also revealed that government spending on education and health, social security, agriculture and administration has positive effect on output while expenditure components such as government spending on construction, transport and communication have negative effect on output. The short-run behaviour of the model as captured by the ECM in the output equation is that variables did not return to equilibrium after a short-run deviation. The study also found that only two of the six components significantly influenced private consumption and output growth. The study therefore concluded that government spending on education and health, social security, agriculture and administration were growth-enhancing while government expenditure on construction, transport and communication were growth-retarding during the period under investigation.

OlawunmiOmitogun (2018) investigated the crowding out effect of government expenditure on private investment in Nigeria using annual data spanning from 1981-2015. The research is shaped by the high level of competition that investors are exposed to in the economy. Competitiveness is also supported by government plans to reduce investment burden by increasing expenditure in all strategic sectors of the economy. The present paper adds to the existing literature by investigating the effect of disaggregated government expenditure on private investment in Nigeria. The estimation techniques of the study include pre-and post-estimation, including descriptive statistics, correlation matrix, a unit root test and econometric estimation using the Auto Regressive Distributed Lag (ARDL) method. Government capital expenditures are estimated marginally, while recurrent expenditures are estimated in terms of elasticity, as the variables (recurrent expenditures) show a strict long tail to the right. It was observed in general that the effect of government expenditure on private investment depends on the components of the expenditure. Some were found to crowd out private investment while some crowd in private investment. This implies that not all government expenditure is channeled in such a way that it

attracts private investment in the economy. It is therefore recommended that the policymakers should take into consideration the existence of private investors in expenditure plans.

III. Methodology

3.1 Research Design

The study adopts the ex-post facto research design. This is because the data to be used are time series in nature. They covered the period from 1980 to 2022.

3.2 Model Specification

$Y_t = \beta o + \beta_I$

Where, Yt=dependent variable

X= matrix of explanatory variables

P= Lag Length

q= Lead length

β = Long-run effect of a change in X on Y

The result of the correlation matrix shows the degree of relationship between private consumption (PC) and the selected determinants of private consumption which are government consumption (GovC) interest rate (Int, R), Inflation (Infl), Gross Domestic Product (GDP), exchange rate and gross capital formation. Therefore, based on the study by Akpan and Atan (2020), Khan, Chen, Kamal and Ashraf (2015), and Glanco and Abbott (2004), the classical linear regression functional mathematical and econometric form of the model in line with the objective of this study is specified as follows.

MODEL 1

$PCE_t = \sigma + \sigma GovX_t + \sigma Infl_t + \sigma GDP_t + \sigma EXCR_t + \sigma GCF/GDP_t$ (1)

Re-written in linear econometric models as:

$PCE_t = \sigma + \sigma GovX_t + \sigma Infl_t + \sigma GDP_t + \sigma EXCR_t + \sigma GCF/GDP_t + Ut$
            (2)

However, the ARDL structural from of eqn2 is stated as follows

$\Delta PCEt = \sigma + PCE_{t-1} + \sigma GovC_{t-1} + \sigma Infl_{t-1} + \sigma GDP_{t-1} + \sigma EXCR_{t-1} + \sigma GCF/GDP_{t-1} + \Delta PC_{t-1} + \sum \sigma \Delta \ GovX_{t-s} + \sum \sigma \Delta infl_{t-1} + \sum \sigma \Delta \ GDP_{t-1} + \sum \sigma \Delta EXCR_{t-1} + \sum \sigma \Delta \ GCF/GDP_{t-1} - E_{t-1}$ (3)

Where PCEt = Private consumption expenditure

GovC_t = Government consumption

INFLt = Inflation rate

GDPGRt = Gross domestic product growth rate

EXCRt = Exchange rate

GCF/GDP = Gross capital formation/GDP

Et = Error term.

3.3 Nature, Description and Sources of Data

The data used for this study are secondary data. They include private consumption, gross domestic product growth rate, inflation rate, government consumption, exchange rate and gross capital formation. The data were sourced from the Central Bank of Nigeria (CBN) and the World Development Indicator (WDI) for Nigeria.

3.4 Description of Variables

Private Consumption

Private Consumption may refer to all visible and invisible products such as goods and services purchased by households to satisfy their needs and wants. It includes all durable and non-durable goods. It excludes residences for business but includes owner-occupies residences imputed rent (Akpan and Atan, 2020). The measurement of private household consumption (the naira) is an aggregate of the total amount of money expenses which is sub-components of the consumption that forms one of the components of aggregate demand.

Government Consumption

Government Consumption also referred to as government final consumption refers to all current expenditure of the government for the purchases of goods and services, investment, transfer payment and social benefits payments to the citizens. Government consumption can be measured by how much is spent in the given period.

Inflation Rate

Inflation Rate is the rate of increase in prices over a given period of time. Inflation as a macroeconomic aggregate can be used to measure how much more expensive a set of goods and services has become over a certain period, usually a year or the cost of living in a country measured by the consumer price index. The measurement of inflation is the use of consumer price index (CPI) computed as the percentage change in basket price of goods in a current period compared to a base (specific previous) year price.

Gross Domestic Product (GDP)

Gross Domestic Product (GDP) represents the total monetary value of all goods and services produced in a country in a particular period, usually a year GDP is measured by summing up the total value of all goods and services produced in a country within a certain period, usually one year.

Per Capita Income

Per capita income is a measure of the average income earned per person in a particular country. It is a national income statistics that is used to measure the average income per citizens of a country. This captures the standard of living and quality of life of the citizens of a country. Per capital income is measured as the ratio of the gross domestic product to the total population size of a country.

3.5 Method of Estimation

The ARDL Approach (Stock and Watson, 19930; Keho, 2019) was used in data analysis. Since the ADF (unit root) statistics for each series shows the variables under study were integrated of different order.

3.6 Econometric Test

3.6.1 Results of Augmented Dickey Fuller (Unit root test)

Rigorous investigations on the stationary property of the variables require using ADF unit root test. The aim of this test is to establish if the time series have a stationary trend at level of the series or if non-stationary then to show the order of integration through "differencing" (Uwakaeme, 2015). According to Dickey and Fuller (1981), the order of integration of the variables is investigated using the Augmented Dickey-Fuller (ADF) unit root test for the presence of regression (2) for each series and then testing the null hypothesis of a unit root, $H_o=0$, versus the alternative, $H_1=<0$, versus the t-ratio for Dickey-Fuller (1976). However, the t-statistics does not follow the t-distribution under the null, thus artificial values are simulated for each regression specification and sample size-Mackinnon (1996).

IV. PRESENTATION AND RESULT

4.1 Descriptive Statistics

The descriptive statistics provide an overview of the key statistical characteristics of the variables selected for this study. The variable comprise the following: Private Consumption Expenditure (PCEX), Government Expenditure (GOVX), Inflation Rate (INFL), Real GDP Growth Rate (GDPGR), Exchange Rate (EXCR), and Gross Capital Formation as a percentage of GDP (GCF_GDP). The descriptive statistics for each variable are summarized in **Table 4.1**:

Table 4.1: Descriptive Statistics of the Variables

Variable	Mean	Std. Dev.	Min	Max
PCEX	273.36	237.35	-477.63	1059.20
GOVX	347.08	531.31	-1267.91	1724.00
INFL	19.71	18.84	-3.2	73.2
GDPGR	3.01	5.75	-13.13	14.60
EXCR	116.91	102.12	0.62	306.08
GCF_GDP	15.78	5.02	7.60	26.50

Source: Author's computation using Eviews 10

These statistics give a snapshot of the data's central tendency and dispersion, which aids in understanding the nature of the variables before proceeding with further econometric analysis.

4.2 Unit Root Test

To ensure that the time series data used in the study are stationary and to avoid spurious regression results, the Augmented Dickey-Fuller (ADF) unit root test was conducted for all the variables. The results are summarized in **Table 4.2** below:

Table 4.2: Unit Root Test Results (Augmented Dickey-Fuller Test)

Variable	Level ADF Test Statistic	p-value	1st Difference ADF Test Statistic	p-value	Stationarity
PCEX	-0.769280	0.8163	-7.164329	0.0000	I(1)
GOVX	5.675380	1.0000	-5.337581	0.0006	I(1)
INFL	-3.135008	0.0315	-	-	I(0)
GDPGR	-1.922858	0.0529	-5.511600	0.0000	I(1)
EXCR	-0.404429	0.5319	-5.511600	0.0000	I(1)
GCF_GDP	-3.596616	0.0032	-	-	I(0)

Source: Author's computation using Eviews 10

The results in Table 4.2 indicate that the variables are integrated in different order. This justifies the use of the ARDL bounds testing approach to cointegration, as it accommodates variables integrated at different orders.

4.4 Cointegration Test

To examine the long-run equilibrium relationships among the variables, the cointegration test was conducted using the Autoregressive Distributed Lag (ARDL) bounds testing approach. The results are summarized in **Table 4.3** below:

Table 4.3: Cointegration Test Results

Test Statistic	Value

F-statistic	0.505854
Critical Value	1% = 5.15, 5% = 3.79, 10% = 3.17

The calculated F-statistic is lower than the critical value at all significance levels (1%, 5%, and 10%). Thus, the null hypothesis of no levels relationship cannot be rejected, indicating that there is no cointegration among the variables.

4.4 Results of Estimation (ARDL)

The long-run relationships between private consumption and its determinants were estimated using the ARDL model. The results are presented in Table 4.4 below.

Table 4.4 : Results of model estimation

Dependent Variable: Private Consumption(PCEX)

Variable	Coefficient	t- Statistics	Probability
PCEX(-1)	0.949650	4.758100	0.0000
GOVX	0.021489	0.234779	0.8162
GOVE(-1)	-0.104599	-1.002801	0.3252
INFL	-2.380782	-1.122591	0.2719
INFL(-1)	0.261316	0.112401	0.9114
GDPGR	-9.815402	-1.132435	0.2678
GDPGR(-1)	-3.414566	-0.368310	0.7156
EXCR	-2.275157	-1.294809	0.2068
EXCR(-1)	3.632932	1.886872	0.0704
GCF/GDP	-9.109597	-1.205875	0.2387
GCF/GDP(-1)	2.092290	0.264493	0.7935
C	421.9873	1.431423	0.1642

Source: Author's computation using Eviews 10

4.6 Discussion of Findings

The findings of this study align with the theoretical expectations and previous empirical studies. The results in Table 4.4 revealed that the first lag of private consumption expenditure(PCE(-1)) is the only determinant of private consumption amongst the variables considered for the study Nigeria. The coefficient of the first lag of private consumption estimated as 0.949650 with a probability of 0.0001 shows that as the previous year private consumption increases by one unit, the current private consumption increases by 0.949650 unit. This finding in in line with the finding and proposition of Duesenberry, 1949. The proposition holds that not only current income of individual that determine consumption, but also past consumption.

The results of estimation further revealed that government expenditure (GOVX), inflation (INFL), gross domestic product growth rate (GDPGR), exchange rate (EXCR) and gross capital formation as percentage of gross domestic product (GCF/GDP) were not significant determinant of private consumption expenditure in Nigeria. These results are consistent with the studies by Akpan&Atan (2020), Khan et al. (2015), and Glanco& Abbott (2004), which emphasize the significance of macroeconomic stability and public expenditure in influencing private consumption patterns in developing economies.

The hypotheses that government expenditure (GOVX), inflation (INFL), gross domestic product growth rate (GDPGR), exchange rate (EXCR) and gross capital formation as percentage of gross domestic product (GCF/GDP) are not significant determinants of private consumption in Nigeria cannot be rejected based on the probability values of the variables which are greater than 5 percent.The coefficient of determination (R^2) estimated as 0.932247 shows that the independent variables included in the model explained about 93 percent of the total variation in the dependent variable; private consumption

expenditure. This result shows that the model for the study has good fit. The Durbin Watson (DW) statistics estimated as 2.347538 shows that there is no autocorrelation in the estimated model. This shows further that the estimated model can be used for policy formation and macroeconomic decision making

5.1 Summary of findings
This study explored the impact of various macroeconomic variables that determine private consumption expenditure (PCEX) in Nigeria. The analysis focused on the relationships between PCEX and key economic indicators such as Government Expenditure (GOVX), Inflation Rate (INFL), Real GDP Growth Rate (GDPGR), Exchange Rate (EXCR), and Gross Capital Formation as a percentage of GDP (GCF_GDP) over a specified period. The study employed various econometric techniques, including descriptive statistics, unit root tests, cointegration tests, and the Autoregressive Distributed Lag (ARDL) model, to assess long-term relationships among the variables. The results of data analysis revealed that the first lag of private consumption determines private consumption in Nigeria. The dependent variables considered in the study such as government expenditure, inflation, gross domestic growth rate, exchange rate and gross capital formation as percentage of gross domestic product were not found determinants of private consumption in Nigeria.

5.2 Conclusion
The findings of this study contribute to the understanding of the interaction between macroeconomic factors and private consumption expenditure in Nigeria. Despite the theoretical expectations that variables such as government expenditure, inflation, and GDP growth would significantly influence private consumption, the empirical results from this study show otherwise.
One possible explanation for the lack of significant findings could be the complex nature of Nigeria's economy, where other unexamined factors, such as political stability, income distribution, and social factors, might play more dominant roles in shaping consumption behavior. Additionally, the time period and specific characteristics of the Nigerian economy during the study period may have contributed to the observed results.

5.3 Recommendations
Based on the findings of this study, several recommendations can be made:

1. **Broadening the Scope of Analysis**: Future research should consider a wider range of variables, including political, social, and microeconomic factors that may influence private consumption expenditure in Nigeria. This could provide a more comprehensive understanding of the drivers of private consumption in the country.
2. **Policy Implications**: Policymakers should recognize that traditional macroeconomic tools such as government spending, inflation control, and exchange rate management might not directly affect private consumption. Instead, policies aimed at improving income distribution, increasing employment opportunities, and enhancing social welfare programs may have a more immediate impact on boosting private consumption.
3. **Further Research on Structural Factors**: The study suggests that structural factors within the Nigerian economy, such as income inequality, access to credit, and economic diversification, may play crucial roles in shaping consumption patterns. Future studies should investigate these factors to develop targeted policies that could effectively stimulate private consumption.
4. **Longitudinal Studies**: To better understand the dynamic nature of consumption patterns, future research could focus on longitudinal studies that track changes in consumption behavior over time, considering the impact of economic cycles, policy changes, and global economic conditions.
5. **Enhancing Data Quality**: Accurate and comprehensive data is essential for robust economic analysis. Efforts should be made to improve the quality and availability of economic data in Nigeria, particularly in areas related to household consumption, income distribution, and sectorial economic performance.

5.4. Contributions to Knowledge
This study adds to the existing body of knowledge by providing empirical evidence on the relationship between macroeconomic variables and private consumption expenditure in Nigeria. The findings challenge conventional wisdom and highlight the need for a more nuanced understanding of consumption behavior in developing economies. By identifying the absence of significant cointegrationrelationships among the studied variables, this research opens new avenues for exploring the underlying factors that drive consumption in Nigeria.

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