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DETERMINANTS OF PRIVATE CONSUMPTION IN NIGERIA

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ABSTRACT

This study intend to examine some factors that determine consumption in Nigeria from 1974 to 2021. The main objective of the study is to investigate the determinants of private consumption as the dependent variable while using households income(proxy for compensation to employees),inflation rate ,interest rate and government consumption as selected independent variables. The study employ Granger causality test for significant check on the causal relation , dynamic ordinary least square(DOLS) and the autoregressive distributive lagged(ARDL) techniques for estimation of long-run relation of these variables, where also ARDL dual advantage is significant benefit to estimate the short run effect of the relationships between the variables makes the study more robust . The DOLS and ARDL cointegration results show the presence of long run relation between households income and private consumption . The short run (ECM) has shown that households income and government consumption influence private consumption and their respective effect is insignificant. The Granger causality result also show causality from households income to private consumption. This study recommends that appropriate policies should be formulated on how best to stimulate the various aspects of private consumption to curb any form of reduction in private consumption in Nigeria.

1. INTRODUCTION

Consumption can be seen as the act of using goods and services with the aim of satisfying innumerable needs of man(Dernburg,1985), (Ezeji and Ajudua,2015).Consumption can be disaggregated among economic entities such as the government , firms and households . Private consumption expenditure also referred to as final households consumption expenditure, is the market value of all products in the form of durable goods and the services which are purchased by the households, including imputed rent for owner occupied dwellings and payments of fees to government to obtain permits and licenses but excludes the purchase of dwellings (Osuji,2020). Private consumption cannot be overemphasized as key component which account for the largest proportion of the aggregate output and the real economic growth of a country (Sugiarto and Wibowo,2020)(Jaramillo and Challioux,2015). In other words, it can be logically concluded that decline in consumption would result to decline in investment and real GDP of a developing country. Predicting consumption behavior is believe to be necessary through the concept of income since income unlike any other economic factor is significant to determine the overall performance of an economy (Dernburg and McDougall, 1976). The theories of consumption such as the Absolute income hypothesis(AIH), Permanent income hypothesis(PIH), Life cycle hypothesis (LCH) and Relative income hypothesis(RIH) reveal that various forms of income available to households are limited to an extent by which it can sustain private consumption especially in developing countries.

While income plays a key role to determine private consumption other factors as well augument private consumption according to some existing studies . For instance, Government influence on private consumption is linked to minimum wage compensation paid to employees in order to create and sustain a subsistence standard of living for the low-skilled and high-skilled workers welfare improvement (Abachi and Iorember,2017**)**. Again , macroeconomic price such as inflation in one way measures the cost of goods and services that re affordable by households in order to adjust to a particular standard of living and can trigger high cost of consumption with an increase in demand for money (Ikwuagwu, Ariwa, and Onyele,2017). The transit income from deposit interest is extra income that could as well boost consumption though an increase in deposit rate reduces private consumption (Ekong and Effiong,2020), (Ikwuagwu, Ariwa, and Onyele,2017) . When wealth is created in a country, it goes a long way to determine how

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much share of the wealth of the wealth is available to each citizen to meet consumption demand as per capita income from the macroeconomic point of view.

In the case of Nigeria, the trend of National Minimum Wage Act of 1981 made it mandatory for employers to pay the sum of ₦125 as the lowest amount to employees. In 2000, the Act was amended and the minimum wage was increased to ₦5,500, and by 2011,it was adjusted to ₦18,000.In 2019 it was adjusted to ₦30,000. These changes indicate that the nominal minimum wage increased by 430 percent in 2000, by 227 percent in 2011 and by 40 percent in 2019 (Alege,Oye and Omobola Adu,2021).During the era of oil boom, between the mid-1970s and early 1980s, it is on record that oil-GDP revenue generated was N139.billion in 1981, N187.83billion in 1985, N494.64billion in 1990, N3.100trillion in 1995, N706275 in 2000, ,N23121 trillion in 2005,N55467 trillion in 2010, N95177trillion in 2015 and N176075 in 2021(CBN,2005;2010,2021). Private household consumption was N13.60 in 1981, N89.36 in 1985, N170.00 in 1990, 1627.21 in 1995, N2857.51 in 2000, N13848.7 in 2005, N36452.4 in 2010, N74410 in 2015, N108468.14 in 2021(CBN,2005;2010,2021). The trend of per capita income shows an estimate of N18531.1 in 1981, N2247.2 in 1985, N5195.1 in 1990, N28656.1 in 1995, N57489.9 in 2000, N164579.6 in 2005, N339306.0 in 2010, N517282 in 2015 and N825091 in 2021(WDI,2022), The estimated compensation to employees as proxy for household income shows N0.21 trillion in 1981, N0.33billion in 1985, N2.0billion in 1995, N1.7trillion, N8.4trillion, N1.8trillion, N2.08 trillion and N3.5trillion in 2021(CBN,2005,2010,2021). Inflaton trend in 1981 was estimated at 20.8, in 1985 it stood at 7.4 percent, in 1990 it stood at 7.4 percent. In 1995, inflation tremendously stood at 72.5 percent, inflation rate drastically decreased to 6.9 percent in 2000, the figure was 17,9 percent in 2005, and 13.7 percent, 9.0 percent and 17.0 percent respectively in year 2010,2015 and 2021(CBN,2005,2010,2021). Government consumption was estimated to be N2.4billion in 1981, N3,64 billion in 1985, in 1995, N6.32billion in 1990, N36billion in 1995, ₦149billion in 2000, ₦105billion in 2005, ₦4.83billion in 2010, N5.648brillion and N900.3billion (CBN,2005,2010,2022)which fluctuated around positively significant and indirectly influence households consumption(Adelakun,2011). The shock of oil glut in another development led to decrease in revenue which in turn affected the level of households consumption expenditure. Following the introduction of Structural Adjustment Program(SAP) in 1986 as fiscal policy with economic reformation agenda, the monetary authority of Nigeria has not being able to stabilize interest rate due to wide gap between lending rate and savings rate which is responsible for the fluctuation in savings rate up till the present democratic dispensation. Likewise, several administrative regimes which have succeeded in increasing welfare packages for the citizens have not recorded sustainable and significant multiplier effect with respect to increased spending towards improved standard of living of the citizens in Nigeria.

Looking at the interrelationship between private consumption and some of the factors that augment private consumption differently from existing literature such as Keho(2019). Aigheyisi and Osemwengie (2020), using households income which is core specific determinants that has been explored in other studies, it becomes necessary in this study to carry out a long run robust analysis on the wellbeing and standard of living of citizens in order to know the extent of the relationship between government consumption and private consumption ,the extent of per capita income influence on private consumption , extent of the relationship between households income and private consumption , the extent of inflation influence on private consumption and the extent of the relationship between deposit interest rate and private consumption and the extent of the influence of inflation on private consumption in Nigeria.

The broad objective of this study is to investigate the determinants of private consumption in Nigeria. The specific objectives are to:
i.examine the relationship between government consumption and private consumption in Nigeria
ii. examine the relationship between private consumption expenditure and household income in Nigeria
iii. examine the relationship between interest rate and private consumption in Nigeria
iv. examine the relationship between inflation rate and private consumption in Nigeria

2. LITERATURE REVIEW

Theoretical Review

Income is a major factor that could influence consumption expenditure and also aggregate demand which is liable to determine economic growth of an economy(Branson,1989) The study hinge on theoretical basis of the permanent income hypothesis formulated by Milton Friedman(1957) which relates consumption trends with the movement of

current households income over time . A major assumption of the theory as noted by Keho(2019) is that certain expectation of changes in permanent income with optimism rather than changes in temporary income will smoothen out the expected life time consumption path which forms the basis of the permanent income theory. Renowned economists such as Keynes (1936), Duesenberry (1949) and Ando and Modigliani (1963) have made thorough analysis on the factors that are able to influence consumption in the nature of quantitative factors such as income , interest rate, capital gain and liquid assets and qualitative factors such as wealth and prestige of the individuals (Bonsu and Muzindutsi,2017) ,(Gerstberger and Yaneva, 2013) ,(Slesnick, 2000) which may not be underestimated or unpredictable.

Empirical Literature Review

Manasseh, Abada,, Ogbuabor, Onwumere, Urama, and Okoro (2018)carried out an investigation on the causal relationship between consumer spending (proxy for private consumption expenditure), interest and inflation in Nigeria from the period 1981 to 2011. The study extended its investigation into the causal relationship. The study adopt the modified consumer spending model together with the granger causality Wald test, so as to ascertain the predictive power of consumer spending on future interest and inflation rates in the economy. Findings of the study suggest that all explanatory variables are responsible for 93.38 percent change in consumer spending, indicating interest and inflation rates and other control variables such as per capita income , indirect tax and savings as important determinants of private consumption expenditure in Nigeria. The granger causality test also reveal that future interest and inflation do not granger cause private consumption expenditure. The recommendation from the findings of the study is the need for expansionary fiscal and monetary policies to influence the level of aggregate demand in the economy.

Oseni(2015) examined the effects of fiscal policy shocks on private consumption in Nigeria. .The study adopted the structural VAR approach by Blanchard and Perotti (2002) approach. The key findings holds that private consumption react negatively to positive government consumption . The effect becomes significant in the period following the shock. Also, positive tax shocks have a negative effect on private consumption in the period of a shock and the effect becomes statistically insignificant afterwards.. The study recommends change in government expenditure as a measure to support private consumption in the long-run while that of taxes can only be used to support private consumption for a short period.

Arapova(2018) carried out a study on the potential factors influencing consumer potential in regions of three countries in Asia as panel data study from 1991 to 2015. The study applied the methodology base on combination of qualitative analysis of macroeconomic prudential reforms aimed at stimulating household consumption expenditure and contemporary social and demographic trends with applied regression to two models. The findings from the study confirmed statistical significance of the same set of influencing variables :gross national income , population , government total expenditure and lending interest rate where gross national income inreses household final consumption in all the countries but to different extent. One percent growth in population was found to increase household consumption.

Bonsu and Muzindutsi(2017) carried out an analysis on the macroeconomic determinants of household consumption expenditure in Ghana, using multivariate cointegration approach. The sample period consists of annual time series from 1961 to 2013. The vector autoregressive model and Johansen cointegration approach were used to capture the short-and long-run relationships between selected macroeconomic variables and the household consumption in Ghana. The cointegration analysis revealed a significant long-run relationship between real household consumption and selected macroeconomic variables with a marginal propensity to consume of 0.7971. Granger causality result showed no causal link while impulse response analysis and variance decomposition showed that, in the short run, shows household consumption is only affected by changes in price levels, while it has a significant effect on the real exchange rate and real economic growth.

Adedeji and Adegboye(2013) examined the determinants of private consumption spending in Nigeria using time-series data spanning between 1981 and 2010. The study considered relative contribution of income and other factors that affect savings to the dynamics of private consumption spending in Nigeria .Using an error correction mechanism (ECM) after testing for the stationarity of the data, the study revealed that except for real interest rate in current year

which was not statistically significant in all experimental runs, all other explanatory variables were statistically significant. Precisely, the old-age dependency ratio, inflation rate, gross domestic product (GDP) per capita and disposable income have significantly positive effect on private consumption spending, while real GDP growth, foreign direct investment, public spending and change in real effective exchange rate had negative impact. This implies that public consumption was crowding out private consumption even back up to one year period and private consumption spending was an increasing function of income as hypothesized by Keynes. The recommendation from the study was that policy measures of the Nigerian government that could increase public consumption reduce the real value of disposable income and promote real effective exchange rate depreciation without increase in nominal value of disposable income should be taken with caution.

Osuji (2020)empirically examined the effect of inflation on household final consumption expenditure in Nigeria.The period of the study was from1981 to 2018 using ordinary least square econometric method. The findings of the study reveal the presence of positive significant long run relationship between inflation and household consumption expenditure in Nigeria. The study therefore recommended a deliberate policy action of the government to ensure low and stable prices as measure to curb the adverse effect of inflation on private consumption jn Nigeria.

Ezeji and Ajudua (2015) examined the determinants of aggregate consumption expenditure in Nigerian. The model used in the study was derived from the Keynesian consumption function where consumption is explained by variations income, C= f(Y). It was also specified to embrace the postulates of consumption expenditure that are not based on current income alone, but on other explanatory variables. gross consumption expenditure was the dependent variable while income, interest rate, inflation rate and exchange rate were the explanatory variables .Unit root test using the Augmented Dickey Fuller test was conducted to test for stationary among variables employed. The Johansen Co-integration test was also employed to test for long run equilibrium relationship among the variables. The study showed positive relationship between consumption expenditure and income and proved that the Nigeria consumption function conforms to Keynesian consumption model and also incorporates the idea of other well known theories as, interest rate; price level and exchange rate were significant variables explaining consumption behaviour in Nigeria. Policies to combat inflation, employment creation to increase purchasing power in the hands of more Nigerians and a check on the continuous depreciation of the naira were suggested recommendations.

Odionye and Ukeje(2019) carried out an investigation on the long run determinants of aggregate private consumption spending in the quarterly periods of 1981 to 2016. The Auto Regressive Distributed Lag Error-correction model (ARDL-ECM) was employed to take care of the dynamics. In line with theories, variables included in the model were disposable income, credit facility, financial assets, government exchange rate and inflation rate. The empirical results showed that in the short run, disposable income, financial assets, interest rate and govern influence private consumption spending while disposable income, financial assets, credit facilities and government expenditures are determinants of private consumption spending in Nigeria. The result equally showed that disposable income has more impact on private consumption in the long run than it has in the short run.

Yusuf, Owuru, Akanbi and Misibau(2017) examines the impacts of interest rate on private consumption behavior in Nigeria between the period of 1981 and 2014 using autoregressive distributed lag (ARDL) co integrations framework. The data were sourced from the World Bank development indicators; interest rate was augmented with other macroeconomic variables like per capita income, money supply, and banking sector credit to the private sector as regresses in determining the behavior of private consumption in Nigeria. The results confirm the existence of relationship between private consumption and its determinants, except real interest rate and the dummy for the impact of interest rate deregulation. The study therefore recommends increase in government capital expenditures that will create an enabling environment for the private sector to thrive so that the welfare of the citizenry could be enhanced.
Akekere and Yousuo(2012) carried out an investigation on the impact of change in gross domestic product (income) on private consumption expenditure in Nigeria, from 1981 to 2010. Using the classical (OLS) simple regression analysis, researchers' objectives were; to examine the impact of gross domestic product on consumption expenditure and to determine the order of integration of consumption expenditure and gross domestic product, results agree with researchers' theoretical expectation of the existence of a positive significant impact of Gross Domestic Product (income) on Private Consumption Expenditure with a slope of 0.6708253. The unit root test (order of stationary) also shows a non existence of unit root at their level. The p-value and the coefficient of determination (R2 = .9838), implies

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that gross domestic product explains 98.4% of private consumption expenditure. Hence, there is a significant relationship between gross domestic product and private consumption expenditure. Researchers' therefore recommended a policy in concluding remarks.

Keho (2019) investigates the determinants of private consumption expenditure in Cote d'Ivoire using time series data from 1970 to 2016. The Autoregressive Distributed Lags bounds testing approach to cointegration is employed to depict the presence of a long run relationship between private consumption and its determinants and an error correction model is estimated to derive short run dynamics. The results show the presence of a long run relationship among the selected variables. In the long run, current income, wealth and government consumption expenditure play a positive role in determining private consumption, with the effect of current income being higher. Furthermore, consumption expenditure is negatively affected by inflation rate and real interest rate on deposits. In the short run, only income and wealth appear to have positive effects on private consumption while the effects of government consumption, inflation and interest rate were found to be insignificant. The study provide a recommendation to the government to improve the level of private consumption

However, neglecting time series characteristics can result to a number of problems, including autocorrelation, heteroscedasticity, and non-stationarity, which may violate the assumptions of common econometric models and invalidate the findings. Hence this study will adopt the dynamic ordinary least square (DOLS) alongside the conventional ARDL for serial cointegration test of the longrun relationship between the variables which most of the empirical literature reviewed above have not employed in other to carry out a robust examination of the long run relation between private consumption depending on the behavior of interest rate,government consumption , inflation and fixed salary earners as households income. in order to fill the gap in the study for Nigeria.

3.METHODOLOGY

3.1 Research design and discription of variable

The study adopts the ex-post facto research design. This is because the data to be used are time series in nature . The data used for this study are secondary in nature and covered the period starting from 1974 to 2021.They include Private consumption, per capita income , Inflation rate , government consumption(Govc) and interest rate . The data were sourced from the Central Bank of Nigeria(CBN) and the World Development Indicator (WDI) for Nigeria.

3.2 Model Specification

$PC_t=\partial +\partial HSI_t+ \partial GOVC_t + \partial INTR_t + \partial INFL_t +$ - - - 3.2.1

Re-written in linear-log form of an econometric model as :

$LNPCt=\partial 0 +\partial LNHSI_t +\partial LNGOVC_t + \partial INFL_t +\partial INTR_t +\epsilon_t$ - - - 3.2.2

However , the ARDL structural form of equation(3.2.2) is stated as follows:

$\Delta LNPC_t=\partial 0+\partial t + \partial_{PCI}\Delta LNHSIt\text{-}t +\partial_{GOVC}\Delta LNGOVCt\text{-}1+\partial_{INFL}\Delta INFLt\text{-}1+\partial_{INTR}\Delta INTRt\text{-}1+\partial_{HSI}\Delta LNHSIt\text{-}1+\sum_{i=0}^{m} \partial iLNPCt - i + \sum_{j=0}^{n} \partial sLNHSIt\, \partial LNGOVCt - j + \sum_{k=0}^{p} \partial kINFLt\text{-}k +\sum_{m=0}^{n} \partial m\, INTR + t - m + \sum_{s=0}^{r} \partial sHSIt - s+\epsilon\, t2$ - - - 3.2.3

Where:

$LNPC_t$=Log of Private consumption

$LNHSI_t$=Log of households income (proxy for compensation for employee)

LNGOVC=Log of Government consumption expenditure

$INFL_t$=Inflation rate (proxy by consumer price index)

INTR= Interest rate on borrowing

ϵ_t=Error term

4. EMPRICAL RESULT AND DISCUSSION

4.1 Augmented Dickey Fuller (Unit root)Test

The augmented Dickey Fuller test is the unit root test for stationary or non-stationary of the series under ARIMA time series analysis . It is also used to examine the error term in time series whether there is correlation or non correlation among them in lagged period of time(Gujarati and Porter, 2009). In other words , the nature of the unit root test for the series is characterized by three null hypothesis which are noted by Dickey and Fuller as random walk, random walk with drift and random walk with drift around a deterministic trend . These three forms of estimation of the

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series ,Y, on the basis of 'augmenting' the combined forms of the Dickey Fuller null hypothesis result to the augmented Dickey Fuller equation(Gujarati and Porter, 2009) which stated as : $\Delta Y_t=\beta_1+\beta_{2t}+\delta Y_{t-1}+\sum^{m}_{i=1}\alpha_t \Delta Y_{t-1}+\epsilon_t$ - - - 1.1

Where, ΔY_t = first difference of Y_t, that is $\Delta Y_t= Y_{t-} - Y_{t-1}$

δ =coefficient of Y_{t-1}

Null hypothesis = H_o ; δ =0

Alternate hypothesis=$\delta < 0$

Table (1) Summary of ADF Unit Root Result

Variables	At Level		First Difference		Remark
	ADF Unit Statistic	Probability level	ADF Unit Statistic	Order of Integration	
LNPC	0.8997	0.7795	-5.8800	0.0000	I(1)
LNHSI	-1.5557	0.5486	-6.0281	0.0000	I(1)
LNGOVC	0.0932	0.9618	-5.4927	0.0000	I(1)
INFL	-1.4437	0.1374	-7.9054	0.0000	I(1)
INTR	-0.4575	0.5113	-2.7985	0.0062	I(1)
Critical value 1%=-3.5811 5%=-2.9266 10%=-2.6014			Critical value 1%=-3.5847 5%=-2.9281 10%=-2.6022		

Source: Author's computation using Eviews

4.2 ARDL F-Bound Test

4.2.1 Cointegration Test

From econometrics point of view ,this study is set to establish the presence of equilibrium relationship between private consumption and its selected determinants which are households income, government consumption , interest rate and inflation using the Auto-Regressive Distributed Lag(ARDL) method of estimation, which is a more efficient and less restrictive approach for cointegration as suggested by Pesaran and Shin(1999),(Akpan and Atan,2020).

Decision criteria for F-Bound to Cointegration Test

(i)F-Statistic greater than the Upper Bound I(1) statistic implies the presence of cointegration between the dependent and the independent variables. Hence, the null hypothesis is rejected.

(ii) F- Statistic lesser than the Upper Bound I(0) statistic implies no presence of cointegration between the dependent and the independent variables. Hence, the null is not rejected.

(iii)F-Statistic greater than the lower bound but lesser than the upper bound implies an inconclusive cointegration statistic.

Table (2) Summary of ARDL Cointegration Result

F-Statistic Critical value	Lower Bound I(0)	Upper Bound I(1)	Significance Level
8.7852	3.29	4.37	1%
8.7852	2.88	3.87	2.5%
8.7852	2.56	3.49	5%
8.7852	2.2	3.09	10%

Source: Author's computation using Eviews

From the table above, the F-statistic(8.7852) is greater than the upper bound critical values(3.49 and 3.09) at 5 percent and 10 percent. This indicates the long-run relationship among the variables in the model.

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4.2.2 ARDL –Long run Test

The ARDL long-run cointegration regression result shows the coefficients of the variables in the estimated models which are expected to conform to economic theory (apriori expectations).

Table (3) Summary of ARDL Long run Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LNPC(-1)	0.753792	0.077389	9.740280	0.0000
LNHSI	0.058016	0.061903	0.937208	0.3564
LNHSI(-1)	-0.004598	0.067339	-0.068275	0.9460
LNHSI(-2)	0.125139	0.058021	2.156789	0.0394
LNGOVC	-0.166410	0.088117	-1.888506	0.0690
LNGOVC(-1)	0.228457	0.089587	2.550099	0.0163
INFL	0.003197	0.002551	1.253292	0.2201
INTR	0.012379	0.013190	0.938517	0.3557
C	1.269079	0.502790	2.524076	0.0173

Source: Author's computation using Eviews

The table result above show government consumption expenditure and households income lagged value at period one and period two respectively are positive and statistically significant to influence private consumption. The implication is that change in income of households or alternatively if the government increases its expenditure these may only result to increase in private consumption in the long run period of time.

4.2.3 ARDL -Short run (ECM) Test

The error correction model(ECM)show the speed of adjustment back to long-run equilibrium after short-run shocks in the model were there is cointegration between the dependent variable and the independents.

Table (4) Summary of ARDL Short Run (ECM) Result
ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNHSI)	0.058016	0.044980	1.289811	0.2073
D(LNHSI(-1))	-0.125139	0.047199	-2.651312	0.0129
D(LNGOVC)	-0.166410	0.067693	-2.458310	0.0202
CointEq(-1)*	-0.246208	0.031319	-7.861286	0.0000

Source: Author's computation using Eviews

Household income show positive relationship with private consumption but not statistically significant with probability value of 0.2073 which is above 5 percent . The implication of this reis that the multiplier effect of an increase in income may not increase the marginal propensity to consume by households where other factors such as inflation may affect consumption behavior negatively. The lag of the first difference of household income have shown negative relationship with private consumption and is statistically significant with probability value of 0.0129 which is less than 5percent. Government consumption have shown negative relationship with private consumption and is statistically insignificant with probability value of 0.0202 which is less than 5percent.. The short-run result further shows the Error Correction Model (ECM) value is negative according to a priori expectation . The negative sign of the error correction model coefficient(-0.246208) implies that 24 percent of the disequilibrium in the previous period's deviation from the long-run equilibrium path is adjusted in the current period long-run equilibrium.

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4.3 Dynamic Ordinary Least Square(DOLS) Test

Table 5 Summary of DOLS Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNHSI	1.079939	0.397492	2.716880	0.0137
LNGOVC	-0.027942	0.332553	-0.084023	0.9339
INFL	0.025057	0.019043	1.315761	0.2039
INTR	-0.082943	0.069139	-1.199653	0.2450
C	6.180568	1.261932	4.897704	0.0001
R-squared	0.991365			
Adjusted R-squared	0.984094			

Source: Author's computation using Eviews

4.4 Granger (pairwise) Causality Test

Table (6) Summary of Granger Causality Result

The Granger causality test is to show how a series influence another series to make economic impact.

Decision criteria

i. Reject null hypothesis if probability is less than 0.05 percent

ii. Do not reject null hypothesis if probability is greater than 0.05 percent

Pairwise Granger Causality Tests
Date: 12/16/23 Time: 20:50
Sample: 1981 2021
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LNHSI does not Granger Cause LNPC	38	6.62787	0.0038
LNPC does not Granger Cause LNHSI		3.00880	0.0630
LNGOVC does not Granger Cause LNPC	39	1.38161	0.2649
LNPC does not Granger Cause LNGOVC		2.16763	0.1300
INFL does not Granger Cause LNPC	39	0.04712	0.9540
LNPC does not Granger Cause INFL		1.98458	0.1530
INTR does not Granger Cause LNPC	39	1.12069	0.3378
LNPC does not Granger Cause INTR		2.65245	0.0850
LNGOVC does not Granger Cause LNHSI	38	0.15373	0.8581
LNHSI does not Granger Cause LNGOVC		3.26975	0.0506
INFL does not Granger Cause LNHSI	38	2.66095	0.0848
LNHSI does not Granger Cause INFL		2.09284	0.1394
INTR does not Granger Cause LNHSI	38	13.1116	6.E-05
LNHSI does not Granger Cause INTR		2.04204	0.1458
INFL does not Granger Cause LNGOVC	39	0.20406	0.8164
LNGOVC does not Granger Cause INFL		2.12387	0.1352
INTR does not Granger Cause LNGOVC	39	1.89327	0.1661
LNGOVC does not Granger Cause INTR		2.85753	0.0713
INTR does not Granger Cause INFL	39	6.06519	0.0056
INFL does not Granger Cause INTR		2.61196	0.0881

Source: Author's computation using Eviews

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The emphasis on the key determinants of private consumption using pairwise granger causality result above show unidirectional causal link which run from households income to private consumption probability value at 0.0038 which is less than 0.05 percent while non-causality exist from private consumption to households income with probability value 0.0630 which is above 0.05 percent. The implication of the unidirectional causality movement is that the attempt by employers to improve the standard of living of households employees by an increase over time as compensation in the form remuneration package result to increase private consumption while there is non reverse from private consumption to households income. There is no causality link which run from Government consumption to private consumption and from private consumption to government consumption with respective probability value of 0.2649 and 0.1300 which are above 0.05 percent. The implication is that government consumption over time has not truly reflected in improvement of wellbeing of both the beneficiaries of the government transfers and the employees working in some government parastatals and likewise, neither do change in private consumption result to change in government consumption. There is no causality link which run from inflation to private consumption and from private consumption to inflation with their respective probability value of 0.9540 and 0.1530 which are above 0.05 percent. The implication is that change in inflation by an increase over time contribute increase in private consumption cost which may reduce the standard of living base on the expected income level and also the causality link implies private consumption do not result to increase in inflation. There is no causality link which run from interest rate to private consumption and from private consumption to interest rate with their respective probability value at 0.3878 and 0.0850 which are above 0.05 percent. The implication is that the fluctuation in deposit interest rate expected by savings account holders do not add up significant extra earnings to portray the concept of permanent income hypothesis and also private consumption do not influence the monetary authority to regulate interest rate on deposit in favour account holders who are also private consumers.

4.5 Post Estimation(Diagnostic) Test

Table 7

Type of Test	F-Statistic value	Probability
Ramsey Reset Test	1.2661	0.2695
Heteroscedasticity (Breusch Pagan--G) Test	2.3566	0.0513
Serial correlation(B-G) Test	0.353973	0.7045
Normality Test	42.1734	0.00000

From table 7 **,** the Ramsey-RESET. The Null hypothesis for the equation is that the model has no significant omitted variables with probability of 0.05 percent .The probability value for the t-statistic and the F-statistic are 0.2695 respectively which is above 5 percent. Therefore the model is restricted from possible specification errors. The heteroskedasticity result using the Breusch–Godfrey Pagan test has shown the Probability Chi-square value to be 0.0513 which is above 0.05 level of significance . This implies the absence of heteroskedasticity of the error term. The above result for serial correlation test shows that the the regression residuals lack correlation presence with probability value which is shown to be 0.7045 and is greater than the 0.5percent significance for the null hypothesis of no serial correlation.

5. SUMMARY, CONCLUSION AND RECOMMENDATION

The study investigated the determinants of private consumption in Nigeria from 1974 to 2021 inclusive. Findings from the above table shows the existence of positive and statistically significant long run effect of change in households income on private consumption in Nigeria as precisely confirmed by dynamic ordinary least square(DOLS) and the autoregressive distributive lag (ARDL) results.. However, the short run ARDL-ECM confirm an adjustment to equilibrium for lagged value of households income and government consumption from previous years income while other explanatory variables are inconsistent in the period of the study.

Both the short run and the long run period of private consumption, interest rate and inflation no have significant effect on private consumption. Both the long run and the short run period of the study implies significant positive effect of households income on private consumption.

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