

Effects of Inflation, Income, Interest Rate and Government Expenditure on Household Consumption Expenditure in Nigeria

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Abstract

The research investigates the influence of inflation, income, interest rate and government expenditure on Nigerian households' consumption spending over the span of 1986 and 2024. This study has four objectives which are to: determine the impact of inflation on household consumption; examine how income influences household consumption; understand the effect of interest rate on households' spending; and to identify the extent of which the Nigerian government spending influences household consumption. The research uses time series data. A variety of statistical techniques including Error correction model are implemented in the analyses. The findings show that an increase in income reduces household consumption in the short term whereas increased inflation has positive correlation with nominal household consumption spending. Furthermore, household consumption do not change remarkably with variation in interest rate whereas an increased government spending has a positive effect on the level of household's consumption. It is deduced that prices fluctuation and the level of government expenditure in the Nigeria state have influence on the consumers' expenditure decisions. Policy implications and recommendations of this research paper is that government should regulate prices in Nigeria state; control budget expenditure and improve government social programs.

Keywords: Inflation, government expenditure, income, household consumption expenditure, Nigeria

Introduction

Inflation is now a major subject of discourse in Nigeria as the phenomenon permeates into all strata of life of the nation due to continuous rise in prices. There have been consistent increases in price, a menace that is among the most pressing problems of the African and Nigeria economies. Nigeria has had varying economic cycles, including periods of changing levels of inflation and levels of consumption expenditure. In an economy, consumption expenditure is done by the government sector as well as the household sector, i.e. Government consumption expenditure and household consumption expenditure respectively (Chigbu & Ajudua, 2015).

As consumption expenditure plays an integral part of both the macro and micro economics, since the aggregate consumption expenditure equals aggregate saving, hence the aggregate consumption expenditure is a function of the propensity to save. The reason is that a larger fraction of aggregate output is for the consumption purpose. In Nigeria, after the post-independence period, the history of inflation started; it worsens during the 1980s as Nigeria went through turbulent period of economic volatility where the level of inflation was high.

When the rate of inflation stood at 7% in 1982 and in 1992 when the rate stood at 44%, the nation has had significant rise in prices, (World Bank 2022). Inflation, from 1983 to 1995 averaged 32.49%, a reflection of economic turbulent period in the Nigerian economy (Nwamuo, 2022). Nigeria reached its highest level of inflation in 1995 as indicated in Central Bank of

Nigeria Bulletin (CBN, 2023) of 72.84%, the cause for this was that Nigeria as a country is heavily dependent on the crude oil and an increase in money supply resulted in the depreciation of her currency (Dikeogu, 2023). This situation created a significant effect on the consumption expenditure in Nigeria as the people faced unprecedented challenges in purchasing power as from the data, total consumption expenditures rose from ₦11.02 billion in 1982 to ₦9.06 in 1984 then rose to ₦9.42 billion in 1989, as indicated in the CBN (2023).

The Federal Government did attempt to tackle the inflationary pressures with the creation of a commodity board and by implementing a programme of import substitution and exchange rate policies (Toriola et al., 2022). However, this led to a high rate of inflation, reaching 29.3% in 1996 on account of continued structural impediments and policy incoherence (Nwamuo, 2022). Similarly, consumption expenditure was low, at ₦14.6bn in 1996, because economic reforms were to create a mix of household outcomes: many households faced increased cost of living and a widened gap between high income earners and lower income earners (Akobi et al, 2021).

At the end of 1999 household consumption was ₦12.87 billion and government consumption expenditure was ₦312 billion (CBN, 2023). With the return of civilian rule in 1999, price was adjusted downwards in a bid to reduce inflation and to encourage household consumption spending, using a policy of fiscal stimulus. The National Economic Empowerment and Development Strategy (NEEDS) with its accompanying state counterpart (SEEDS), the monetary authority's bank capitalization, various empowerment programs, social welfare programs (Sure-P, cheap credit) and a host of economic plans by the federal government, helped spur total consumption spending from ₦31.6bn to just above ₦31.6bn in 2005 (CBN, 2023) The inflation rate was 17.86% in 2005 and generally fluctuated in the range of 10% and 18% throughout the period. Inflation had dropped sharply by the end of the decade to the range of 10% and 13% with total consumption spending reaching ₦41.2bn in 2010 (CBN, 2023).

The succeeding years from 2010 to 2019 experienced relatively stable inflation figures, attributed to a more refined economic management and policies targeted towards a diversification of the economy. Nevertheless, as pointed out by Adedeji and Adegboye (2022), Nigeria's economy suffered tremendously from the collapse of global oil price between 2014 and 2016, which led to a recession in 2016. Inflation consequently spiked significantly in 2016 above 18%, on the back of currency devaluation and supply chain disruptions (Adedeji & Adegboye, 2022). Consumption expenditure during this time was heavily battered, nosediving from ₦47.3bn in 2015 to ₦44.3bn in 2016, and ₦43.7bn in 2017 (CBN, 2023). The economic slump resulted in dwindling income, thus exacerbating unemployment and limiting the capacity of households to consume.

Problem Statement

High inflation rate primarily represented by consumer price index (CPI), defined as the percentage rate of change at which average prices for all items purchased by consumers rise over time (Aluthge, Jibir & Abdu, 2021), is the main threat of consumption expenditure of household in Nigeria. As a measure of the real values of wage and salaries, consumer price index is related to the final consumption expenditure by the fact that the final consumption expenditure of household will increase or decrease with either an increase or decrease in consumer price index (figure 1 & 2).

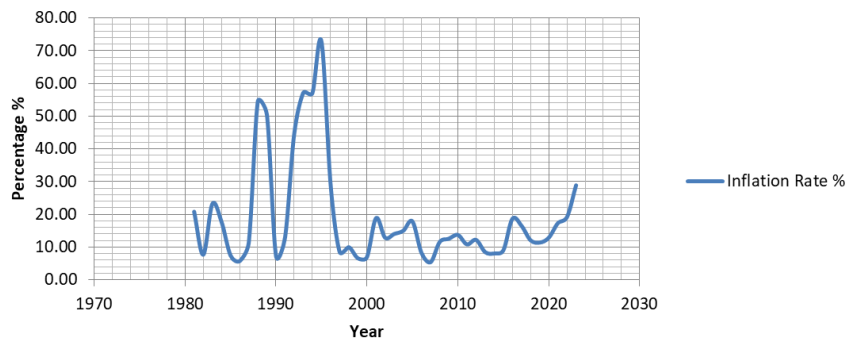


Figure 1: Trend of Inflation Rate in Nigeria, 1981-2024 (Source: CBN, 2024)

It can be seen in fig 1, that inflation in Nigeria hits a high point in 1995 of 72.8% and subsequently dropped to 5.4%, an all-time low in 2007. While the period of concern is between 1986 where household consumption expenditure is ₦82.24 bn and 2007 with a consumption expenditure of ₦22.82 trillions, evidence from Fig. 1 shows that Nigeria inflation recorded an average of 12.8 percent during the year 2000- 2022 with increase of 31.43 percent in 2024.

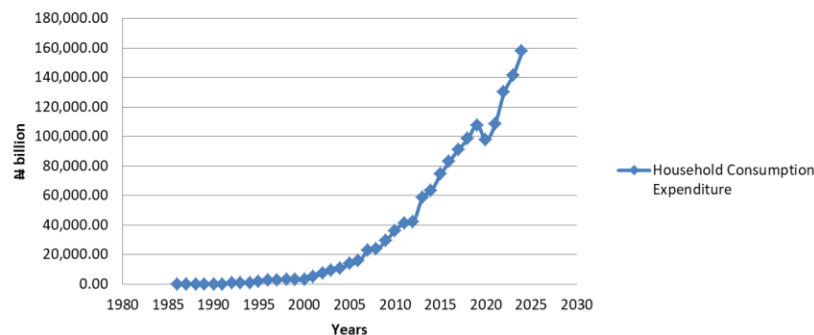


Figure 2: Trend of Household Consumption Expenditure in Nigeria, 1981-2024 (Source: CBN, 2024)

From Fig 2, there is a greater progress in Nigeria's household consumption expenditure from ₦82bn in 1986 to ₦2.836tn in 1999 and eventually to ₦157.88tn for the year ended 2024 (CBN, 2024). The challenge that prompted this study is the uncertain relation between inflation and consumption expenditure based on existing data in Nigeria. Therefore, with high certainty, household consumption expenditure has been negatively or positively influenced by the degree of inflation in Nigeria up to the year 2024. It needs to be demonstrated empirical so this justifies the current study.

Additionally, researchers that focused on the relationships between inflation, income, interest rate, government expenditure and household consumption expenditure in Nigeria come up with various results with regard to variables chosen. For instance, changes in income were used by Akekere and Yousuo (2022) as the main variable that determine private consumption expenditure in Nigeria. Also, government expenditure has been established as one of the drivers of inflation in Nigeria by Akobi, Umeora and Atueyi (2021) in their study. Moreover, while most studies by, among other researchers, Chigbu and Ajudua (2015), Dikeogu (2023), Oyerinde (2019), Nwamuo (2022) have identified government expenditure as a means of gauging the effect on inflation, the problem of non-exhaustiveness of variables on inflation that can influence household consumption expenditure persist.

This limited use of variables could affect policy recommendations as household consumption expenditure has been observed to be on a progressive increment along with inflation thereby depreciating its worth despite the rise. Household consumption expenditure can thus also be explained by other factors that have been left out such as savings, unemployment rate and interest rate as variables of inflation. This constitutes another motivation for the present research.

Furthermore, Manasseh et al. (2018) also concluded that policies undertaken by the government are an off-shoot of research works that can provide and reveal possible economic variables combinations that could be harnessed for the betterment of the economy as a whole. This view leads to the focus of addressing the inconsistent policy issues on ways to combat inflation and curb its negative impact on both household consumption expenditures and government consumption expenditures in the present study. This research provides answers to the critical questions: What is the relationship between inflation and household consumption expenditure; to what extent has income affected household consumption expenditure; what is the relationship between interest rate, government expenditure and household consumption expenditure in Nigeria?

Conceptual Review

In any economy, the existence of inflation cannot be ruled out. According to Mgbomene and Metieh (2025), inflation refers to persistent rise in price levels and it causes low productivity within a population. Since money is the accepted means of exchange for any and all services or commodities, inflation influences how much one person has of any other thing they intend to purchase (Ashakah, Mgbomene, Metieh & Opara, 2025). This in turn has to do with the economic purchasing power of any monetary unit, “because an increase in, or abundance of currency or coins circulating in a country leads to increase in prices of commodities; this will automatically cause a unit of money to decrease in worth (Mishkin, 2022). Inflation’s significance can be considered from a macro or from a micro standpoint within developed countries; as well as under developed, as well as growing economic markets (Mgbomene, Awogbemi, Dim, et al. 2025). An economy’s high level of inflation creates challenges for all those involved; nevertheless, the economy’s greatest victims are the individuals unable to manage at the least average standard of living (Asekunowo, 2021).

Consumer expenditure (also called household expenditure), as defined by World Bank (2025) is the total value of goods and services acquired (or purchased) by household, which includes purchases for immediate consumption and for durable use in current period in order to satisfy their needs and wants directly, irrespective of the method of purchase. Except for non-monetary exchange that do not involve money transfer, households may also spend money on non-consumer expenditures which cannot lead to goods and services for immediate use by the households that made such transfers, but are mostly forced/ compulsory payment of taxes to the government.

The understanding of consumption function/behavior and factors driving such behavior decision making has been among the focal topic in macroeconomics; this, due to the believe that consumption expenditure constitutes the largest and/or component of total expenditure in an economy and that it is key in formulating monetary policy. According to Dernburg (1985), consumption is the action of using goods or services to the satisfaction of some of the countless needs and wants of mankind; implying welfare as an important part of consumption.

Key components of inflation that affects household consumption expenditures include interest rate, income and government expenditures. Metieh and Mgbomene (2025) argue that at low interest rate, people are willing to obtain money on loan to make investment or purchasing. It means that with lower interest rate, a large sum of the money is obtained by consumer for purchasing or expanding business because cost of borrowing is very cheap which cause ripple effect in consumer spending which eventually causes inflation, so the consumers will spent on their investment and buying other commodities for their household which subsequently cause an increase in their consumption spending, at higher interest rate consumer is forced to cut down expenditure as they are left with low real income to make further spending.

In addition, the increases in income also encourage consumers to increase their consumption as they desire to fulfill the need (Akpan & Atan, 2020). Additionally, government expenditure leads to increase in monetary aggregate, which implies an expansionary policy with increases availability of money in the economy to make the consumption (Mgbomene & Metieh, 2025). This triple relationship between interest rate, income and government expenditure shows that channels through which inflation is affecting household consumption. However, when the overall economic policy leading to constant inflation, thus leading to increase in the general price levels and thereby declining the real disposable income of consumers hence the consumption levels of goods and services decline (Mgbomene & Metieh, 2025).

Theoretical Review

This research is anchored on the absolute income hypothesis. Keynes (1936) in the general theory, postulated that real consumption is a stable function of real income and that the marginal propensity to consume is positive and less than unity. From this position, the first determinant of consumption that has been advanced is income.

$$C_t = a + bY_d \quad [1]$$

But,

$$Y_d = Y - T \quad [2]$$

Hence Equation [1] gives rise to

$$C_t = a + b(Y - T) \quad [3]$$

Where C_t is current consumption at time t , 'a' is autonomous consumption, $(Y - T)$ is the current disposable income, and 'b' is the marginal propensity to consume (MPC) and it takes the range $0 < b < 1$.

Keynes stated that marginal propensity to consume rise with rise in income, but this rise takes place at a diminishing rate. Again, the marginal propensity to consume (MPC) is lower than the average propensity to consume (APC), and APC tends to fall as income rises. Keynes further contended that household's current consumption depends essentially on the current disposable income that is to say the gross national income reduced by all taxes and social charges. Consequently, any change in income will result in a change in consumption expenditure. It cannot increase hundred per cent as change in income so as to explain a percentage increase in consumption Keynes's used the MPC concept to indicate the proportion of a new increase in income which would be devoted to additional expenditure.

The critique has been leveled against the Keynesian preposition that current disposable income is the principal determinant of household consumption expenditure, as having several theoretical

and long-run empirical limitations (Zeldes, 2019). Ekong and Effiong (2020) concluded that the Keynesian theory gives a static explanation of the household consumption behaviour. This theory explains consumption by linking consumption spending to current disposable income, thus does not take into consideration the trade-off between the consumption today and consumption tomorrow and saved the rest. More so, the absolute-income hypothesis not just implies a mere correlation between consumption and income but asserts that a rise or decline in income induces an equivalent rise or decline in consumption and savings (Mian, Rao & Sufi, 2023).

The theory fails to consider other variables that influence the decision to consume autonomously apart from current income. In spite of its limitations, the absolute income hypothesis forms the bedrock of this study because it postulates that consumption (C) is dependent entirely on income (I) such that increase in consumption (C) corresponds to increase in income (I). The general function is therefore given as in Equation [4] below:

$$C = f(I) \quad [4]$$

However, the equation [1] above could be augmented to include the inflation effect since it is believed that inflation influences disposable income of households which is also a determining factor of consumption expenditure. Therefore;

$$C = f(I, INF) \quad [5]$$

Where, C is the consumption expenditure; f is the functional form of the model; I is income and INF is the inflation rate. Thus, in line with the theoretical framework of this study, a functional form of the model is presented in equation [5]. This will allow for the inclusion of the control variables apart from the dependent and independent variables.

Empirical Review

Research from Chigbu and Ajudua (2015) reveals that income, interest rate, price level, and exchange rate have a substantial influence on aggregate consumption expenditure in Nigeria. Likewise, Manasseh et al. (2018) suggest that private consumption expenditure is driven by inflation, interest rate, income, savings, and indirect taxes. Following suit, Ekong and Effiong (2020) found a positive relationship between income and inflation and household consumption, whilst interest rate and savings had a negative impact. The results obtained by Adedeji and Adegboye (2022) for private consumption spending in Nigeria were in line with the Keynesian theory of consumption.

Likewise, Tokoya et al. (2022) and Ayeni, Obi, Adeyemi and Okorie (2024) affirmed the significant positive impact of income on household consumption in Nigeria. On inflation impacts, Osuji (2020), Effah and Adusei (2020) and Ewane and Abonongi (2022) identified a significant positive impact of inflation on household and private consumption spending. Other authors like D'Acunto et al. (2019) and Duca, Kenny and Reuter (2024) confirmed a higher level of inflation expectation has a positive impact on people's decision to consume on durable goods especially big ticket items. While others such as Olusola et al. (2022), Abba and Abdullahi (2024) and Tokoya et al. (2022) had a contrary conclusion as they suggest a negative effect of inflation on household consumption. However, Peter and Hofmann (2024) posited that increase in income and its uncertainties strengthens households precautionary saving behavior due to the accumulation of savings to cushion future economic risks.

Concerning consumption power and welfare, Halim et al. (2022) found that the level of inflation is a detriment to people's power to consume while consumption loan alleviates it. In relation to people's living standard and welfare, Ogbebor, Oguntodu, and Oyinloye (2020) reported that the standard of living of people in Nigeria declined significantly with the inflation rate. With regards to the impacts of government expenditure on inflation, Oyerinde (2019) identified a high and significant relationship between government consumption and inflation in Nigeria.

In contrast, Dikeogu (2023) concludes that government investment expenditure reduces inflation, while recurrent expenditure has no significant effect. Similarly, Ebisine and Oki (2023) identified that sectoral government spending does not impact inflation significantly; though they advise government expenditure must be well managed so as not to have crowding out effects. Some scholars argue that government spending has varying effects on private sector activities, which can either be crowding in or crowding out effects Dada (2023), Olawunmi and Tajudeen (2024), others hold the view that government expenditure and private sector activities are substitutive Awe et al. (2023). However, Enwefah and Maku (2024) conclude that the private sector consumption expenditure in Nigeria does not determine government spending in a significant way.

In addition, the impact of interest rate and monetary policy on household consumption expenditure was positive in various studies conducted by Christensen (2022), Kozlov (2023), Onwe et al. (2023), Salami et al. (2023), Ikwuagwu et al. (2024). Similar result was obtained by Kim and Song (2022), Ribon (2023), Duarte and Pereira (2024), stating that monetary policy leads to varying impact on consumption across household group and categories of expenditure. Conversely, Amali and Shitile (2020) documented that credit easing has less impact on household consumption in Nigeria. With respect to the relationship between income and consumption expenditure, it was observed that increases in income led to significant rise in household consumption expenditure, following studies by Tokoya et al. (2022), Lingaraj and Kalandi (2022), Akekere and Yousuo (2022), Tapsin and Hepsang (2024). The role of external shocks like COVID-19 on household expenditure was significant as demonstrated by Baker et al. (2020). Furthermore, several studies have analyzed savings and consumption, showing savings lead to improvements in household welfare, help to smooth consumption and promote economic growth, albeit that inflation and interest rate may reduce incentives for saving (Elom-Obed et al., 2018, Anthony-Orji and Ogbuabor, 2021, Steinert et al., 2021, Ribaj and Mexhuani, 2021; Belo et al., 2023).

In view of the literature, certain gaps are noticeable. Some studies focused on classic theory of consumption without including the variables; inflation, government expenditure, unemployment rate, interest rate and savings into the consumption model framework in a modified model. Secondly, previous research analyzed different household consumption determinant independently rather than concurrently in the same model. Additionally, some Nigeria's research utilized the data that ends by year 2021 or 2022. As a result of the gaps discovered, this current research expanded its investigation to year 2024 and incorporated the absolute income hypothesis in its analysis, along with newly introduced variables to analyze inflation on household consumption.

Methodology

The research design adopted is quantitative, thus, our design is ex-post facto research design. The annual time series data were obtained for the selected variables ranging from 1986 to 2024.

The data were compiled from Central Bank of Nigeria Statistical bulletin and economic review (various issues), Annual Abstracts of Statistics (various issues) by National Bureau of Statistics (NBS) and The World bank Development Indicators (WDI).

The empirical analysis involves use of econometric procedures for estimation of relationship between inflation and household consumption expenditure. In particular, Error Correction Model (ECM) is employed. Due to the time series data, pre-estimation of diagnostic tests were performed including descriptive statistic, unit root test and cointegration test, prior to estimating the Error Correction Model (ECM) which was done using relevant econometric software.

Model Specification

This study uses the Error Correction Model (Sargan, 1964, Engle & Granger, 1987) to examine impact of inflation rate on household consumption expenditure in Nigeria for the period of 1986 – 2023. In order to capture the effect of inflation rate on consumption expenditure, this study also consider model developed by Osuji (2020) which has been found to be similar with household consumption expenditure on inflation rate in Nigeria. In particular, the model in Osuji (2020) represents the growth rate of household consumption expenditure as a function of inflation rate (measured using consumer price index), interest rate and growth rate of GDP (economic growth rate).

$$HCE = f(INF, INT, GDPG) \quad [6]$$

Source: Osuji (2020)

Considering the specification of Osuji (2020), inflation is treated as the major explanatory variable without adequate attention paid to the influence of income factor that is as a result of inflation. The assertion made by Ewane and Abonongi (2022) that household consumption expenditure depends on amount of money at disposal by house hold is thus relevant here. The quantity of money at disposal could be eroded by the prevailing inflation hence absolute income hypothesis intervenes. The current model utilized in this study is an adaptation of the previous models that derive from the absolute income hypothesis which views consumption as a function of income and inflation:

$$C = f(I, INF) \quad [7]$$

Inclusion of other variables (determinants) expands the functional model specification as follows:

$$C = f(INC, INF, INT, GXP) \quad [8]$$

Where:

C = Household consumption expenditure

INC = Income

INF = Inflation rate

INT = Interest rate

GXP = Government expenditure

By further modifying the previous models, the functional model in [5] is restated to include the time variant as well as the error correction term as below:

$$\Delta C_t = \alpha_0 + \sum_{i=1}^{\rho} \alpha_1 \Delta INF_{t-i} + \sum_{i=1}^{\rho} \alpha_2 \Delta INC_{t-i} + \sum_{j=1}^{\rho} \alpha_3 \Delta INT_{t-j} + \sum_{j=1}^{\rho} \alpha_4 \Delta GEXP_{t-j} + \gamma ECM_{t-1} + \varepsilon_t \quad [9]$$

Where:

Δ = First difference operator (captures short-run changes)

ECM_{t-1} = Error Correction Term lagged one period

γ = Speed of adjustment parameter

ε_t = White noise error term

ρ = Optimal lag length

The differenced variables (ΔINF , ΔINC , ΔINT , $\Delta GEXP$) capture the short-run effects on household consumption expenditure. The coefficient γ of the error correction term measures the speed of adjustment toward long-run equilibrium. For stability, γ is expected to be negative and statistically significant, indicating that deviations from long-run equilibrium are corrected over time.

On the *a-priori*, the study expects that in the model, $\alpha_1 < 0$, $\alpha_2 > 0$, $\alpha_3 > 0$, $\alpha_4 > 0$.

That is to say that inflation rate is expected to have negative effect on household consumption expenditure ($\alpha_1 < 0$), income is expected to have positive effect on household consumption expenditure ($\alpha_2 > 0$), interest rate is expected to have positive effect on household consumption expenditure ($\alpha_3 > 0$), and government expenditure is expected to have positive effect on household consumption expenditure ($\alpha_4 > 0$).

Results and Discussion

Table 1: Unit Root Test

Variable	ADF. test @Levels	stat.	@First Difference	5% value	critical	Remark
Consumption	-0.6502		-7.5407*	-2.9434		Stationary at First Difference, I(1)
Income	-1.2732		-3.9342*	-2.9434		Stationary at First Difference, I(1)
Inflation Rate	-2.8954		-5.5026*	-2.9434		Stationary at First Difference, I(1)
Interest Rate	-2.4009		-6.1159*	-2.9434		Stationary at First Difference, I(1)
Govt. Expenditure	-1.6095		-8.4397	-2.9434		Stationary at First Difference, I(1)

The 5% critical value for the ADF test statistic is -2.945842. The asterisk (*) sign is used to indicate stationarity at the 5% significance level.

To confirm the validity of time series data for this analysis, a unit root test was carried out on the chosen time series data to ascertain whether or not they are stationary or not stationary in levels. Augmented Dickey Fuller unit root test used in the following.

From the above table above, all tested variables were found to be stationary in first difference thus indicating that they are all integrated of order one I(1). Upon concluding with the orders of integration of selected variables, the study proceeds with testing for long-run properties by employing Johansen test.

Table 2: Johansen Cointegration

Trace Statistic						Max-Eigen Statistic		
Hypothesized of CE (S)	No	Eigen-Value	Trace statistics	5% Value	critical Prob.	Max-Eigen statistics	5% crit. value	Prob.
None *		0.7493	157.582	95.7537	0.0000	51.1921	40.0776	0.0019
At most 1 *		0.6455	106.388	69.8189	0.0000	38.3731	33.8767	0.0136
At most 2 *		0.6291	68.015	47.8561	0.0002	36.6931	27.5843	0.0026
At most 3 *		0.3935	31.3219	29.7971	0.0331	18.4999	21.1316	0.1123
At most 4		0.2218	12.8221	15.4947	0.1215	9.2775	14.2646	0.2638

Source: Eviews 13 Output.

It can be observed from the restricted rank test conducted using Table 2 that there exist three (3) cointegrating equation when analyzed using the Max-eigen statistic test, suggesting a long run equilibrium relation among the variables included in the model. Moreover, the Trace statistic suggests the existence of four (4) cointegrating equations, thus also confirming the existence of a long run relation among the variables. These test result confirm the existence of a long run cointegrating relation among the inflation variables and the household consumption expenditures in Nigeria. Therefore, it can be concluded that inflation rate and its other related variables are interrelated to causes changes in consumption expenditure by Nigeria household in the long run.

Table 3: Summary of the Error Correction Model Estimates

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-18.69748	2.806441	-6.66235	0.0164
INC	-3.072434	0.37140	-8.27259	0.0450
INF	1.032506	0.28230	3.65752	0.0316
INT	0.856346	0.51167	1.67362	0.6037
GXP	3.775287	0.48294	7.81724	0.0021
ECM(-1)	-0.292965	0.089430	-3.27591	0.0000
R-squared	0.911214		F-statistic	21.07286
Adjusted R-squared	0.900853		Prob(F-statistic)	0.000000
Durbin-Watson stat	1.942133			

Source: Eviews 13 Output.

Table 3 summarize ECM estimates The coefficient for the constant term (C) is -18.697 which is significant at the 5 percent level (p -value = 0.0164). In the absence of changes in the independent variables, household consumption expenditure would have declined by approximately 18.70 units, according to the coefficient of C. Income (INC) have a coefficient of -3.072 and it is statistically significant (p -value = 0.0450). It means that in the short run, any rise in income may lead to a reduction in the consumption expenditure by household.

The positive coefficient for inflation (INF) is 1.033 and significant at the 5 percent level (p -value = 0.0316). A one-unit increase in inflation leads to an approximate increase of 1.03 units in household consumption expenditure in the short run. Interest rate (INT) have a positive coefficient of 0.856 and it is not statistically significant (p -value=0.6037). However, even though the sign indicate that a rise in interest rate would result in a higher consumption, the significant

probability value of 0.6037 indicate that there is no significant effect from the interest rate in the short run to the consumption expenditure. Government expenditure (GXP) have a positive coefficient of 3.775 and it is very significant (p -value = 0.0021) that shows that one unit increase in government expenditure causes an approximate increase of 3.78 units to household consumption expenditure.

In terms of the Error Correction Term (ECM(-1)), it have a coefficient of -0.293 and it is highly significant (p -value = 0.0000) which also conform to a priori expectation of negative sign. Hence the model shows that a long run equilibrium relation exists among the variables. A negative coefficient indicates that the system adjust moderately toward equilibrium by about 29.3% of the deviation from the last period to the current period following short run shocks.

Table 4: Diagnostic Tests

S/N	Test	p -value	Decision
1.	Durbin Watson Statistic	1.9421	No Autocorrelation
2.	Breusch-Pagan-Godfrey Heteroscedasticity Test	0.3131	No Heteroscedasticity
3.	R-squared and	0.9112 (91.12%)	High explanatory coefficient

Source: Eviews 13 Output.

Table 4 presents the post-estimation diagnostic tests conducted to assess the reliability, stability, and overall adequacy of the Error Correction Model (ECM) estimated for household consumption expenditure in Nigeria. The Durbin Watson Statistic is 1.9421 (Which is close to 2). This indicates no presence of the first order autocorrelation and thus the hypothesis of presence of autocorrelation is rejected.

The Breusch Pagan Godfrey Test- of Heteroskedasticity has a p -value of 0.3131 which is higher than the critical value 0.05, hence the null hypothesis of presence of heteroskedasticity is rejected. This shows that there is constant variance across the observed. With $R^2 = 0.9112$, the study concludes that 91.12% of variations in household consumption expenditures are caused by changes in explanatory variables which have been introduced into the model.

Table 5: Summary of Hypothesis Test Results

Hypothesis	Variable	t-statistic (p -value)	Decision (5%)
H ₀₁	Inflation (INF)	3.66	Reject H ₀ , i.e. there is positive & significant relationship
H ₀₂	Income (INC)	-8.27	Reject H ₀ , i.e. there is negative & significant relationship
H ₀₃	Interest Rate (INT)	1.67	Accept H ₀ , i.e. there is positive but insignificant relationship
H ₀₄	Government Expenditure (GXP)	7.82	Reject H ₀ , i.e. there is positive & significant relationship

Source: Extracted from Eviews output

Discussion of Findings

From the empirical results, the first null hypothesis was rejected since inflation exerts a positive and statistically significant influence on household consumption expenditure. Although expected to reduce household real purchasing power, the outcome demonstrated that Nigerian households are likely to increase their present consumption as price levels rise, so as to avoid incurring greater price costs later on, and such behavioural response is termed anticipation. The findings of this research corroborated Osuji (2020), Effah and Adusei (2020), Ewane and Abonongi (2022), Adedeji and Adegboye (2022), D'Acunto et al. (2019) in showing a positive link between inflation and household consumption expenditure but contrary to the study by Abba and Abdullahi (2024) that found inflation to have negative impact on household consumption. The possible reasons behind these varying outcomes could be attributed to changes in economic, policy environment and how far Nigerian households respond to persistent inflation trends.

Additionally, from the second hypothesis, income negatively influenced household consumption expenditure, which contravenes the Absolute Income Hypothesis. Contrary to conventional economic hypothesis, household real income rose in this period possibly encouraging households to increase their level of savings, invest in assets or pay down on their debt obligation rather than a prompt increase in consumption levels. This contrasts with the study of Chigbu and Ajudua (2015), Ekong and Effiong (2020), Akekere and Yousuo (2022), Ayeni et al. (2024), Ikwuagwu et al. (2024), and Tapsin and Hepsang (2024) where income and consumption expenditures were seen to have positive relationship. However, the results are in consonance with precautionary savings theory posited by Elom-Obed et al. (2018), Peter and Hofmann (2024) that increase in real income should lead households to save for precaution against the vagaries of economic life. Thus it appears that rise in real income is not a sure guarantee to a higher consumer spending especially if confidence in the economy is low.

Furthermore, the third hypothesis showed that interest rate displayed a positive but statistically insignificant impact on household consumption expenditures. This shows that monetary policy transmitted via the interest rate variable could have minimal effect on household consumption, because a majority of household operates outside the informal economy with access to credits, leading to lower responsiveness to changes in monetary policy rate. This finding was in tandem with the result obtained by Amali and Shitile (2020) that shows a low impact of monetary policy on private household consumption in Nigeria. This finding differs from Christensen (2022), Kozlov (2023), Onwe et al. (2023), Salami et al. (2023), Kim and Song (2022) and Duarte and Pereira (2024), which revealed that both interest rates and money supply affect the consumption expenditures of the household in various regions. These variations might have resulted from varying fiscal policy response across the period under consideration and structural heterogeneity of Nigeria economy, which limits the transmission of monetary policy tools to the household consumption patterns.

The findings from the fourth hypothesis confirmed that government expenditure has a positive and significant relationship with household consumption expenditures, implying that government expenditure helps to boost household consumption expenditure in the economy. This further implies that expansionary fiscal policy will tend to enhance purchasing power of households, through higher disposables income or job opportunities or even the provision of public goods. This finding is consistent with the studies of Awe et al. (2023), and Dada (2023), which showed that increase in productive government spending stimulates private consumption expenditures. Conversely, this finding is inconsistent with Enwefah and Maku (2024), which showed that government spending does not significantly impact on the determinants of private consumption

expenditures in Nigerian Economy. This difference may emanate from the composition of public expenditure, and that certain component of public spending might encourage and promote consumption rather than others.

Conclusion

This research concludes that price variables and government fiscal policy are of great importance in determining Nigerian households' consumption behavior. Income is significantly and negatively related to the consumption expenditures; indicating that any increments in household incomes may not lead to an increase in household consumption, but rather to savings, investment choices or household economic conditions such as household expectations, financial constraints, and economic uncertainty. Moreover, it concludes that changes in the interest rate do not have a strong impact on consumption choices in Nigerian households.

Recommendations

Based on the findings, the study recommends the following;

- i. That the government and monetary authorities should take policy action to keep prices at reasonable low inflation levels. The Monetary authorities should continue with sound monetary policies like efficient money management and interest rate management.
- ii. The management of the monetary policies, such as improved interest rate, the implementation of inflation-targeting policy will continue to address too high inflation and prevent this distortion to consumption, long-term.
- iii. Also, policies targeted at improving households' income and their spending capacities should be introduced; such policies are creation of jobs, increased real income, and support to the small and medium scale business sectors to help assure more increases in income become additional consumption.
- iv. Policymakers need to shore up the financial sector in Nigeria and boost financial inclusion. This would create more access to credit facilities, facilitate banking and further enhance active involvement of household into formal financial institution, which will eventually lead to higher potency for interest rate shocks to the borrowing and consumptive behavior of the household.
- v. Public expenditures should thus focus on projects and policies which raise households' disposable incomes, enhance their consumption decisions, encourage infrastructure development and job creation, and ensure sustainable economic growth.

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