

Analysis of the Relationship between Inflation and Household Consumption  
in Cross River State, Nigeria

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**Abstract**

This study examined the relationship between inflation and household consumption in Cross River State, Nigeria. Two research objectives guided the study. The objectives examined the influence of prices of goods and income on household consumption. Time series data spanning from 1999-2018 was used for the study. Data collected were analyzed using ordinary least squares (OLS) multiple regression analysis. Findings from the analysis revealed that price level is negatively related to household consumption expenditure while income positively affected household consumption expenditure during the period under consideration. It was also discovered that price and income significantly impact household consumption expenditure. Based on this study's findings, policymakers should encourage stable spending patterns among households by managing inflation expectations and encouraging stability in price levels. The Government of Cross River State should take cognitive steps to curtail the rise in food inflation like announcing Minimum Support Price (MSP) provided for farmers of various food crops. This would help in the stabilization of food prices and commodity items. As a matter of urgent need, the Government should also revamp its public welfare and financial support policy by implementing an expansionary tax policy to motivate industries in the State to produce more and by increasing salary limits of public sector employees. Thus, this paper contends that an increase in workers' income will lead to a concomitant increase in their purchasing power.

**Keywords:** Household Consumption, Price, Inflation, Relationship

**Introduction**

Household consumption is generally considered to be the final purpose of economic activity, and the level of consumption per person is often viewed as a central measure of an economy's productive success. Thus, consumption is among the key determinants of the well-being of citizens at the global level. Household consumption expenditure is argued to be the most important part of aggregate demand (Ezeji & Ajudua, 2015). In most countries, it (what?) represents a large proportion, which in general is in the region of 60% of gross domestic product (GDP), and therefore is an essential variable for economic analysis of aggregate demand. Household consumption expenditure also known as private consumption is the market value of all goods and services, including durable goods (such as cars, washing machines and home computers), purchased by households, and also payments and fees to governments to obtain permits and licenses. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings (Gerstberger and Yaneva, 2013).

The pattern of household consumption expenditure changes over time as a result of changes in household income, taste and preferences, tax, subsidies and general prices (inflation) among others. The relationship between household consumption and inflation has long been established in the existing literature. For example, it is argued that purchases of large consumer durables and residential housing, readily substituted across time and often financed with debt, should be particularly sensitive to an increase in expected inflation (World Bank, 2015). Periods of inflation influence consumers to save rather than consume because of pessimism and uncertainty in the economy. Inflation influences consumer spending behaviour by influencing both liquid and illiquid assets since in a period of inflation, there is motivation to hold real assets and not assets fixed to nominal values or not indexed to inflation. Households' income distribution (employers, employees, debtors and creditors) is changed by inflation. Inflation may also erode the real value of nominal assets and reduces the real value of wealth held in those assets by the households (Ofwona, 2013). Shiller (2007) argues that creditor households often reduce their consumption because for these households higher expected inflation causes a decline in expected real wealth. According to him, people dislike inflation because they believe it will erode their standard of living, thus, in the process of evaluating inflation policy, it is important to gain a better understanding of the relationship between inflation expectations and consumption patterns as these evolve under various economic conditions.

### **Literature Review**

Keynes (1936) defined consumption as the part of income that was not saved, thereby distinguishing between purchases that satisfy wants directly and investments that became assets in the absence of a satisfactory means of measuring the goods consumed, thus a monetary measure of consumption has been widely accepted and used as a basis for predicting the economic trend.

Friedman (1992) opined that consumption represents the total quantity of goods and services bought and consumed by consumers during a period, that is, it is the expression of total consumer demand. He further said that the concept of consumption is important to the theory of income and employment. In economics, the word consumption simply means the use up of goods and services which may include the purchase of durable goods such as furniture or vehicles, as well as works of art that may increase in value over some time. In modern industrial economics, consumption as previously defined accounts for 70% to 80% of total national expenditure. Schorfheide (2010) defined consumption expenditure as the amount that households spend on purchasing goods and services for consumption. He equally submitted that consumption expenditure is by far the most significant of all basic types of expenditure that cause the product to occur and thus income to be earned. He also gave the view that in any economy in which people have free choice, the total volume of personal consumption expenditure is determined primarily by the amount of disposable income ( $y_d$ ) that people receive.

### **The Concept of Inflation**

Inflation has been conceptualized differently by several scholars. According to Agba (2006), the word "inflation" is one of the most frequently used terms in economic discussion, yet the concept is variously misconstrued and abused, especially in less developed economies. This is because the usage of the term is commonsensical. Ordinary businessmen and women are known to have rationalized their price increases, on the excuse of the existence of inflation in the economy. Politicians on their soap boxes, equally make vague reference to inflation by simply discrediting opponents whose regime is characterized by a situation of "too much money chasing few goods." Agba (2006) defined inflation as a situation of a continuous upward movement in a representative index of prices in the economy. He stressed that price increases should be observed for a broad spectrum of

commodities rather than only a few items. These commodities should in addition be representative of economic transactions undertaken by an average family.

Inflation is defined as a generalized increase in the level of price sustained over a long period in an economy, that is, a persistent rise in the price levels of commodities and services, leading to a fall in the currency's purchasing power (Lipsey & Chrystal, 2008). Hamilton (2001) described inflation as an economic situation when the increase in money supply is "faster" than the new production of goods and services in the same economy. Several factors are responsible for inflation in Nigeria. The inflation which results from excess aggregate demand is called the demand falllation, the cost cost-pustulation results from upward movement in the cost of production while structure inflation arises from some constraints such as inefficient production, marketing and distribution systems in the productive sectors of the economy (Fatukasi, 2012). Other forms of inflation in developing countries could be imported, open and seasonal inflation. In the view of Agba (2006), "in defining inflation, two key words must be borne in mind: First, is aggregate or general, which implies that the price rise that constitutes inflation must cover the entire basket of goods in the economy as distinct from an isolated rise in the price of single commodity or group of commodities.

The implication here is that changes in an individual price could cause the other price to rise. An example is petroleum product prices in Nigeria. This again does not signal inflation unless the price adjustment in the basket is such that the aggregate price level is induced to rise. Secondly, the rise in the aggregate level of prices must be continuous for inflation to be said to have occurred. The aggregate price level must show a tendency for a sustained and continuous rise over different periods. This must be separated from a situation of a one-off rise in the price level" (Agba, 2006). Agba (2006) broadly grouped inflation into 5 types according to its magnitude.

First, Creeping Inflation: This type of inflation refers to a slow and persistent rise in the general price of goods and services over a while. It is also known as mild inflation or moderate inflation. Creeping inflation is seen as moderate inflation because it is always in the single digits. Second, Chronic Inflation: Persistence in creeping inflation often leads to what is called chronic inflation. It is a situation where a country experiences high inflation for several years or decades due to uncontrolled expansion or an increase in the money supply in the economy. It may lead to hyperinflation if it continues to grow for a longer time without any decline.

Third, Walking Inflation: This is a situation where the general rise in the price of goods and services is more than 3.0 per cent for some time. It is called walking inflation because it is greater than 3.0 percent but less than per cent in a year. Walking inflation could lead to running inflation if its signal is not properly monitored. Additionally, if walking inflation is not checked at the appropriate time, it can finally result in galloping inflation. Fourth, Running Inflation: This is double-digit inflation and is considered to be between 10 to 20 per cent per annum. It refers to a situation where there is a rapid increase in the rate of the general price of goods and services above 10 per cent in a year. The range for measuring this type of inflation has not been fixed, but when prices rise by more than 10.0 per cent per annum, it is considered to be running inflation. Lastly, Galloping Inflation: This is a situation where the inflation of a country increases speedily and seems to be persisting or unstoppable. Another name for galloping inflation is termed hyperinflation, and this often occurs in a county during an economic crisis, war and socio-political disturbance. If the general price of goods and services rises by double or triple-digit per annum it is said to be galloping inflation. Galloping inflation occurs when prices of goods and services rise by more than 20% but less than 1000% per annum. India and some Latin American countries such as Argentina, and Brazil experienced galloping inflation in the 1970s and 1980s.

**Theoretical Framework: Absolute Income Hypothesis (AIH)**

This was developed by John Maynard Keynes in 1936. The Absolute Income Hypothesis (AIH) emanated from Keynes' "fundamental psychological law" of consumption. Before Keynes, consumption had been viewed as a passive residual, the amount of income remaining after saving. In this view, the decision of any economic agent to save was determined by the payment for the utility lost from consuming, by implication consumption was dependent on the interest rate - a key factor of saving behaviour (Bunting, 2001). Keynes observed that "there are not many people who will alter their way of living because the rate of interest has fallen from 5 to 4 percent" (Keynes, 1936: 94). Thus, the modern consumption theory begins with his ideal of "fundamental psychological law" of consumption. According to Keynes, "The fundamental psychological law, upon which we are entitled to depend with great confidence both a priori from our knowledge of human nature and the detailed facts of experience, is that men are disposed of, as a rule, and on the average, to increase their consumption as their income increases, but not by as much as the increase in their income" (1936:96). Keynes postulates that as rule households increase their utility by consuming more of the produced goods and services as their income increases. They increase their well-being by this major component of the aggregate demand. Therefore, the possible determinants of the aggregate consumption function have been analyzed intensively in the economic literature.

According to Keynes, an economic agent by instinct tends as a rule and on average, to increase his consumption as his income rises, but not by as much as the increase in his income. On the relationship between income and consumption, he came out with the finding that income is the sole determinant of consumption (Tsenkwo, 2011). Keynes gave no basis for his theory in terms of utility maximization nor indeed gave any consideration of why a consumer would behave in the way he assumed. In place of rational-choice theory, Keynes relied on his "knowledge of human nature." More so, he did not give any support to his postulate using numerical data, rather he claimed to glean support from "detailed facts of experience." While Keynes placed consumption theory at the centre of the macroeconomic stage, he left it for future generations of economists to work out the micro-foundations for his theory. Keynes also inspired pioneers in the emerging field of econometrics to swarm over the newly invented national income and product statistics looking for verification or refutation of his model (Parker, 2010).

Based on the Keynesian consumption function, the Absolute Income Hypothesis posits that aggregate consumption is a stable, but not necessarily linear, function of disposable income, that is;

$$C_t = \alpha + \beta Y_t \tag{2.1}$$

Where  $C_t$  and  $Y_t$  denote the (real values of) total personal consumption expenditure and total disposable income, respectively at time  $t$ ;  $\beta$ , the marginal propensity to consume (MPC) is expected to be constant and positive but less than unity, so that higher income leads to higher consumption. The autonomous component of consumption;  $\alpha$ , is assumed to be small but positive. By capturing the conjectures of the fundamental law, the absolute income hypothesis has these important features:

(a) Consumption expenditure increases or decreases with an increase or decrease in income but non-proportionally. This non-proportional consumption function implies that in the short run average propensity to consume (APC) is greater than the MPC;  $APC > MPC$ , where  $APC = \frac{C}{Y}$  and  $MPC = \frac{\Delta C}{\Delta Y}$ ; this is because in the short run autonomous consumption does not change with income but over the long period horizon, as wealth and income increase, consumption also rises; the marginal propensity to consume out of the long run income is closer to the average propensity to consume.

(b) As income rises, the proportion of it consumed falls:  $\frac{\delta APC}{\delta Y} < 0$ , so the income elasticity of consumption is defined as  $\frac{MPC}{APC}$  would be less than unity.

(c) Consumption function is stable both in the short run and long run.

**Relative Income Hypothesis (RIH)**

One of the earliest attempts to reconcile these conflicting pieces of evidence about the consumption-income relationship was the relative-income hypothesis, described by James Duesenberry (1949). Although this theory has vanished with hardly a trace from contemporary macroeconomics, it carried considerable influence in the 1950s and 1960s (Parker, 2010). The relative income hypothesis states that the satisfaction an individual derives from a given consumption level depends on its relative magnitude in society (e.g., relative to the average consumption) rather than its absolute level. It is based on a postulate that has long been acknowledged by psychologists and sociologists, namely that individuals care about status (Kockesen, 2010). Duesenberry argued that the relative income hypothesis could account for both the cross-sectional and time series evidence. He claimed that an individual’s utility index depended on the ratio of his or her consumption to a weighted average of the consumption of others. From this, he drew two conclusions: (1) aggregate saving rate is independent of aggregate income, which is consistent with the time series evidence; and (2) the propensity to save of an individual is an increasing function of his or her percentile position in the income distribution, which is consistent with the cross-sectional evidence. Despite its intuitive and empirical success, the relative income hypothesis was quickly replaced by the life-cycle/permanent-income hypothesis of Franco Modigliani and Richard Brumberg (1954) and Milton Friedman (1957), as the economists’ workhorse to understand consumption behaviour. These closely related theories implied that consumption is an increasing function of the expected lifetime resources of an individual and could account for both the cross-sectional and time series.

**Permanent Income Hypothesis (PIH)**

In response to this empirical puzzle, Milton Friedman (1957) proposed his permanent income hypothesis (PIH) which maintains that households spend a fixed fraction of their permanent income on consumption. Unlike AIH, the PIH was inspired by micro-foundations and representative agents and highlighted the importance of not just the present but also the future. The core of Friedman’s PIH was that individuals want to maximize their lifetime well-being (utility) subject to the constraint that all their lifetime resources must be spent. Friedman’s theory focused on distinguishing between consumption and current expenditure on the one hand, and income and current receipts on the other hand. This is because an individual economic agent is thought to plan his expenditures on both incomes received during the current period and income expected during his lifetime. Therefore, consumers plan their expenditures on the grounds of a long-run view of the resources that will accrue to them in their lifetime.

As a result, Friedman postulated that income,  $Y$ , is made up of two components: a permanent component ( $Y_P$ ) and a transitory component ( $Y_T$ ). Friedman argued that some of the factors that give rise to the transitory component of income were specific to particular consumer but that for any considerable group of consumers, the transitory components tend to average out so that the mean of the transitory component is expected to be zero. On the corollary, consumption expenditures comprise permanent ( $C_P$ ) and transitory components ( $C_T$ ). The permanent component relates to the amount that consumers plan to consume to maximize their lifetime utility. Without uncertainty, total consumption would be equal to  $C_P$ .  $C_T$  relates to all “other” factors (Fernandez-Corugedo, 2004). The PIH gives rise to a consumption function of the form:

$$C = P C_p = k(r, w, u, Y_p) \tag{2.5}$$

$$Y = Y_p + Y_T \tag{2.6}$$

$$C = C_p + C_T \tag{2.7}$$

Where  $C$  = Current consumption spending,  $C_p$  = Permanent consumption,  $C_T$  = Transitory consumption,  $Y$  = Current income,  $Y_p$  = Permanent income,  $Y_T$  = Transitory income,  $r$  =



Rate of interest at which the consumer can borrow or lend,  $w$  = Ratio of wealth to income and  $u$  = Consumer's taste preferences. Equation (2.5) defines the relationship between permanent consumption and permanent income, and the marginal propensity to consume out of permanent income,  $k(\cdot)$  is independent of the size of permanent income but it does depend on other variables:  $r$ ,  $w$  and  $u$ . Equations (2.6) and (2.7) provide a means of linking actual measured variables ( $C$ ,  $Y$ ) to their relevant components (Fernandez-Corugedo, 2004). Under permanent income theory, the MPC is constant and equal to the APC, which is consistent with Kuznets' (1946) empirical findings. The MPC is also the same for all households. Friedman reconciled the difference between cross-section regression estimates of consumption and long-run aggregate time series regression estimates by appealing to a statistical "errors-in-variables" argument. The argument is that cross-section estimates use actual household income rather than permanent household income. Since more households are situated in the middle of the income distribution, the observed distribution of actual household income tends to be more spread out than permanent income.

Consequently, regression estimates using actual income tend to find a flatter slope, hence the finding that cross-section consumption function estimates are flatter than time series aggregate per capita consumption function estimates. Friedman's PIH, therefore, offered a simple explanation of the empirical consumption puzzle. At the theoretical level, the innovation was the construct of permanent income that introduced income expectations, thereby adding a sensible forward-looking dimension to consumption theory (Palley, 2008). Friedman's theory had important implications for fiscal policy. First, since all households have the same MPC it undermined the Keynesian demand stimulus argument for progressive taxation. Second, it introduces a distinction between permanent and temporary tax shocks. For policymakers, the source and nature of the shocks are important. For instance, an announcement that tax cuts will be permanent would lead to the different behaviour of household/firm economic agents compared to when such tax changes are thought to only be transitory.

### **Empirical Literature**

The relationship between consumption and inflation has been empirically investigated by scholars in both developed and developing countries. Some of these empirical studies are reviewed in this section. The sections also reviewed other macroeconomic factors that influence consumption besides inflation. Nyamekye and Poku (2017) examine the effect of inflation on consumer spending behaviour in Ghana covering the period 1964 to 2013 using annual data. The analysis of the results was done using the ordinary least squares (OLS) method, the Johansen cointegration test, and the vector error correction model (VECM). The findings of the study based on the Johansen cointegration test showed a long-run relationship between inflation and consumer spending behaviour. The findings of the study showed a significant short-run relationship between inflation and consumer spending using the VECM. The results of the OLS model estimation showed that there is a positive relationship between inflation and consumer spending behaviour.

Bonsu and Muzindutsi (2017) used a multivariate cointegration approach to analyse the macroeconomic determinants of household consumption expenditure in Ghana. 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 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, impulse response analysis and variance decomposition showed that, in the short run, 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.

Burke and Ozdagli (2013) examined the relationship between a household’s inflation expectations and its current spending, taking into account other factors such as the household’s wage growth expectations, the uncertainty surrounding its inflation expectations, macroeconomic conditions, and unobserved heterogeneity at the household level. The study examined spending behaviour for large consumer durables as well as for non-durable goods. Using survey panel data for the period from April 2009 to November 2012, no evidence is found that consumers increase their spending on large home appliances and electronics in response to an increase in their inflation expectations. In most models, the estimated effects are small, negative, and statistically insignificant. However, consumers do appear more likely to purchase a car as their short-run inflation expectations rise. Additionally, in some models, spending on nondurable goods increases with short-run expected inflation. These estimated effects on non-durable spending are modest, not highly robust, and appear to be driven by the behaviour of homeowners who did not have a mortgage. These findings are surprising because theory predicts that the consumption of durable goods should be more sensitive to real interest rates than the consumption of nondurable goods. In addition, consumers in our sample, on average, did not expect their nominal income growth to match inflation, and therefore an increase in expected inflation would create a negative income effect that discourages spending in both the present and the future.

Akekere and Yousuo (2012) investigated the impact of change in GDP on private consumption expenditure in Nigeria over the period 1981-2010, and their findings showed that GDP has a positive and significant impact on private consumption expenditure. This finding suggests that an increase in economic growth would boost household consumption. This conclusion was also confirmed by Ofwona (2013) who found that income is a key determinant of household consumption in Kenya. Alimi (2013) investigated the relationship between consumption expenditure and income according to Keynes’ absolute income hypothesis in Nigeria and concluded that as income increases, the average propensity to consume is reduced. Mallik and Pradhan (2012) studied the relationship between per capita consumption expenditure and personal income in India and found that changes in per capita consumption expenditure led to changes in personal disposable income. Guisan (2004) studied the causal relationship between real consumption and real GDP in Mexico and the United States of America and found that there was no causality in Mexico but there was bilateral causality in the United States. Furthermore, the cointegration results showed that the long-run relationship was uncertain in the case of Mexico. Parker (1999) also found that predictable changes in income do not affect the growth rate of consumption expenditures.

**Methodology**

This study adopts the causal research design, this is because this approach is appropriate for this study because of the nature of the study which shows the following characteristics. It is explanatory as it investigates the nature and extent of the cause-effect relationship between the dependent and independent variables. The study is also non-experimental as it uses observed numerical data (i.e., secondary data) for its investigation (Osuala, 2010).

**Model Specification**

To empirically examine the relationship between inflation and consumption in Cross River State, the study employs a multiple linear regression model which is anchored on Permanent Income Hypothesis (PIH), a consumption theory propounded by Prof. Milton Friedman in 1957. The theory states that permanent consumption is a function of permanent income, interest rate, the ratio of wealth to income, and consumers’ tastes/preferences. Mathematically, the Permanent Income Hypothesis is specified as follows:

$$C_p = k(r, w, u, Y_p) \tag{3.1}$$

Where:

C<sub>p</sub>= Permanent consumption,

$Y_p$ = Permanent income,  
 $r$ = Rate of interest at which the consumer can borrow or lend,  
 $w$ = Ratio of wealth to income,  
 $u$ = Consumer’s taste preferences, and  
 $k$ = Marginal propensity to consume out of permanent income.

Given that the specific objectives and hypotheses of the current study are to find out the effect of price and income on household consumption in Cross River State, Nigeria, equation (3.1) is modified to accommodate the price variable. This is substituted as follows:

$$HCE = f(PRL, INC) \tag{3.2}$$

Where:

HCE is household consumption expenditure,  
 PRL is price level and  
 INC is income level.

Hence, the empirical form of equation (3.2) that will be estimated is specified as follows:

$$CSP_t = \alpha + \beta_1 PRL_t + \beta_2 INC_t + \varepsilon_t \tag{3.3}$$

Where  $\alpha$  is the intercept;  $\beta_1$  and  $\beta_2$  are the slope parameters; ' $\varepsilon$ ' is the error term; and 't' is time (i.e., years).

A priori expectation:  $\beta_1$  is expected to be negative (i.e.,  $\beta_1 < 0$ ) while  $\beta_2$  is expected to be positive (i.e.,  $\beta_2 > 0$ ).

**Result and discussion of findings: Descriptive statistics of major variables used for the study**

**Table 1: Descriptive statistics of major variables used for the study**

variable	Mean	Std. Dev	Min	Max	Skewness	Kurtosis
HCE	15005087	35915994	717786.5	165428704.6	4.268	18.701
PRL	41.777	17.28969	15.1	69.71	0.113	-1.125
INC	96522.3	7545.985	88105.05	124368.8	2.759	10.171

Table 1 revealed that the kurtosis, values of the price level (PRL) are negative this indicates that the distribution of PRL is too flat while the kurtosis values of household consumption expenditure (HCE) and income level(INC) are positive meaning that the distribution of these variables is peaked. The skewed value for all the variables in this study is positive indicating the data are positively skewed or skewed right, meaning that the right tail of the distribution is longer than the left.

**Analysis and Interpretation of Results**

**Table 2: OLS Regression Results: Dependent Variable:  $HCE_t$**

Regressors	Coefficient	Standard Error	t-Statistic	Probability
Intercept	700225.3	9668204.	0.072426	0.9429
$PRL_t$	-23.46706	4.802336	-4.886592	0.0000
$INC_t$	0.870316	0.256840	3.388548	0.0028
$R^2 = 0.85$				D.W=2.16
$\bar{R}^2 = 0.83$				F-stat=31.73009



	Prob=0.000000
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**Source:** Computed using E-Views 9 Software. See the Appendix for the EViews Output.

The estimated regression model provides estimates of the effect of the price level and income on household consumption expenditure in Cross River State. The slope coefficients of the explanatory variables satisfied the a priori expectation as price level negatively related to household consumption expenditure while income had a positive relationship with household consumption expenditure. Thus, a unit change in the price level, on average, reduced household consumption expenditure by 23.46706 units holding the income level constant. On the other hand, a unit change in income level, on average increased household consumption expenditure by 0.870316 units holding the price level constant. The findings of the positive association between inflation and consumer spending of the study are in support of the findings of previous studies such as Support Hausman and Wieland (2014) that reported of significant positive effect of inflation on consumer spending. The findings are however contrary to the findings of researchers such as Burke and Ozdagli (2014), Bachmann et al. (2015), and Ichiue and Nishiguchi (2015). The coefficient of determination ( $R^2$ ) shows that about 85% of the variation in household consumption expenditure (HCE) was explained by the changes in the explanatory variables of the estimated model. This implies that the estimated model has a good fit. The adjusted coefficient of determination ( $R^2$ ) also shows that the estimated model has a good fit (i.e., adjusted  $R^2=83\%$ ).

The high value of the F-statistic (i.e.,  $F=31.73009$ ) with a probability value of 0.000000 indicates that the parameters of the estimated model are jointly or simultaneously statistically significant. This implies that the estimated model is good for forecasting, predicting and policy purposes. The value of the Durbin-Watson (DW) statistic (i.e.,  $DW=2.16$ ), suggests the absence of first-order autocorrelation in the estimated model. This is based on the decision rule which states that a Durbin-Watson (DW) value close to 2 or around the threshold of 2 indicates the absence of autocorrelation. Thus, since the Durbin-Watson value of the estimated model is slightly above 2, which means the absence of autocorrelation, it also implies that the regression results are not spurious.

### **Hypothesis Testing**

From the regression result above, it can be observed that the slope parameters of the estimated model are statistically significant. This is based on the decision rule which states that when the probability value (p) associated with a parameter is less than 0.05 (i.e.,  $p<0.05$ ), the parameter is said to be statistically significant; otherwise, it is statistically insignificant. Hence, it can be deduced that the impact of the price level and income on household consumption expenditure in Cross River State was statistically significant at a 5% level of significance during the period under consideration.

### **Summary and Conclusion**

This study examined the relationship between household consumption and inflation in Cross River State, Nigeria. The study covered the period 1999-2018. The Study utilized time series data which were obtained from reliable secondary sources. The multiple regression analysis was carried out using the ordinary least squares (OLS) method. The findings of the regression analysis revealed that price level was negatively related to household consumption expenditure while income had a positive relationship with household consumption expenditure during the period considered. Findings also suggested that price level and income impacted significantly household consumption expenditure. The adjusted coefficient of determination of the estimated model showed that the estimated model has a good fit. The high values of the F-statistic of the estimated models showed that the parameters of the estimated models are jointly statistically significant. This implies that the estimated model is good for forecasting, predicting and policy purposes. The Durbin-Watson (d) statistic values

of the estimated models suggest the absence of autocorrelation in the estimated models. Hence, the regression results are not spurious.

The relationship between household consumption and inflation has long been identified as an area of both academic and policy interest to academicians and policymakers. This is because the pattern of household consumption expenditure changes over time as a result of changes in household income, taste and preferences, tax, subsidies and general prices (inflation) among others. Periods of inflation influence consumers to save rather than consume because of pessimism and uncertainty in the economy. Given the importance of consumer spending to the aggregate economy, low consumer spending is expected to impact negatively the economy.

Inflation influences consumer spending behaviour by influencing both liquid and illiquid assets since in a period of inflation, there is motivation to hold real assets and not assets fixed to nominal values or not indexed to inflation. Households' income distribution (employers, employees, debtors and creditors) is changed by inflation. Inflation may also erode the real value of nominal assets and reduces the real value of wealth held in those assets by the households. The current study has attempted to examine the relationship between household consumption and inflation in Cross River State, Nigeria. Findings showed that both price and income level impacted significantly household consumption expenditure. Based on these findings, we can safely conclude that price and income levels are important factors that influence household consumption expenditure. Based on the findings from the study, the following recommendations are made:

1. The policymakers can encourage stable spending patterns among households by managing inflation expectations and encouraging stability in price levels.
2. The Government of Cross River State should take some steps to curtail the rise in food inflation like announcing the Minimum Support Price (MSP) provided to the agriculturist of various food crops. This would help in the stabilization of prices of food items.
3. The Government of Cross River State should also revamp its public welfare and financial support offered to the public by implementing an expansionary tax policy to motivate industries in the State to produce more, and also by increasing the salary limits of public sector employees. This policy measure would help in strengthening the income and spending power of households

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