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HEADLINE INFLATION AND CONSUMERS' CONFIDENCE IN NIGERIA

Felix Aberu
Department Of Economics, College Of Social And Management Sciences,
Tai Solarin University Of Education, Ijagun, Ijebu Ode, Nigeria
Email: felixaberu@gmail.com

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*Correspondence:
Name: Felix Aberu
E-mail:
felixaberu@gmail.com

ABSTRACT

Introduction: The Nigerian economy experienced a significant growth turning point in early 2000 after returning to democratic rule in 1999. Nonetheless, the country's strong economic growth has done little to address the issues such as poverty, inequality, unemployment, the exchange rate, inflation, and interest rate spread. As a result, consumer confidence falls, resulting in lower spending.

Methods: The ARDL model was used to highlight the importance of consumer confidence (household spending) and inflation in Nigeria using data from the cbn survey of consumer expectations from 1996 to 2022.

Results: The findings show that a unit increase in headline inflation corresponds to a 0.01 increase in consumer confidence, implying that consumers lose 99.99 percent of their confidence at every point of increase in headline inflation, indicating that headline inflation is a core determinant of consumption in Nigeria.

Conclusion and suggestion: In light of the study's findings, the federal government should consider raising the nation's minimum wage, among other policy options, in order to increase household consumption expenditures. Furthermore, Nigerian government policies should address disparities in consumption among the citizenries.

INTRODUCTION

Consumer confidence expresses consumers' optimism or pessimism about the economy and their personal financial situation. As a result, consumer confidence influenced consumption. Consumption has an advantage in the economy because it accounts for roughly two-thirds of GDP in most economies (Nigerian National Bureau of Statistics, 2010). This assertion is based on extensive research in micro and macroeconomics devoted to the field of consumption (Fasarati, M., 2004; Alimi, 2013). In the view of Lury (2011), In both developed and developing countries, household consumption decisions are influenced by factors such as income, demography, inflation,

employment, interest rate, consumer debt levels, social and cultural norms, and the socioeconomic characteristics of the households. Thus, consumption is defined as individual and family expenditure on goods and services purchased with income and used to satisfy wants (Frank & Bernanke, 2007).

As a result, it is critical to examine household consumption expenditures on various goods and services, as this provides greater insight into consumers' confidence in the country. An increase in consumption in the economy, for example, may indicate an increase in income, a low inflation rate, or a change in demographic variables within households. Similarly, a drop in consumption may indicate a drop in income, an increase in inflation, or an increase in commodity prices.

The aggregate spending of households and individual consumers over time on a variety of goods and services is not unrelated to the basis for the production of goods and services in the economy. As a result, consumer spending by households is an important indicator of their economic confidence (Martha A. S, 2008).

Consumption reflects a high level of consumer confidence, which influences investment opportunities in the private sector. An increase in consumer confidence is likely to increase investment, resulting in more jobs and increased government revenue (Daniel, Miller, Schor & Julliet, 2011).

The inflationary tendency of essential domestic commodities erodes the market value of Nigerian households' disposable income, resulting in socioeconomic hardship and widening inequality. Based on the foregoing, it is reasonable to attribute empirical credibility to inflation and consumer confidence in Nigeria in order to produce findings that can support policy reformulation and research directions on the subject.

Inflation is defined as a sustained rise in the general price level of goods and services in a country over an extended period of time (Umaru & Zubairu, 2012). They claim that inflation is inextricably linked to money, as encapsulated by the oft-quoted adage "inflation is too much money chasing too few goods." Neoclassical economists and their followers held that inflation is fundamentally a monetary phenomenon. Inflation, according to Friedman, "is always and everywhere a monetary phenomenon that can be produced only by a faster increase in the quality of money than output." However, economists disagree that the money supply is the sole cause of inflation. As a result, economists define inflation as a continuous rise in prices.

However, it is critical to recognize that a sustained rise in prices can be of varying magnitudes. As a result, different names for inflation have been given depending on the rate of price rise, such as creeping walking, running, and hyperinflation. This is due to the fact that there are several different measures of inflation in use, but the most commonly quoted are the (CPI) and the retail prices index (RPI). Each examines the prices of hundreds of items we frequently purchase, such as bread, movie tickets, and bear prints, and tracks

how these prices have changed over time. Inflation has three components: headline inflation, which is measured by the CPI for all items, core inflation, which is measured by the CPI for all items minus food, and food inflation, which is measured by the CPI for food. The focus of this study is headline inflation because it measured all items' CPI, so the study adopts all items consumed.

CHALLENGES AND EFFECTS OF INFLATIONARY MANAGEMENT IN NIGERIA

Depending on individual countries around the world, the challenges posed by high inflation and its macroeconomic effects on growth are a function of key economic factors such as effects on productive decision-making by individual investment and gradual eroding of economic and social welfare, which eventually results in lower output growth. High inflation has clearly proven to be detrimental to the achievement of sustainable growth and development, particularly in Sub-Saharan African developing countries. Inflationary challenges can be influenced by a wide range of scenarios. Changes in consumption patterns may be on the horizon in any situation in which an increased set of prices chases a similar bundle of goods and services over an extended period of time while real consumer income remains relatively constant. This, however, has a significant impact on not only consumption capacity and social welfare, but also on the long-run sustainable rate of economic growth through decreased savings and investment, increases poverty indices, and reduces the economy's international competitive drive. Any increased and unpredictable inflation rate causes a short-term contract arrangement between workers and employers, which may result in uneconomical renegotiations in the future. Another difficult aspect of sustained increases in the inflation rate is the depreciation of the local currency, which has a relatively negative impact on exportable commodities and has exacerbated the growing balance of payment deficit. Furthermore, one important reason for containing current inflation is to avoid reaching a point where the effects mentioned may be difficult to manage. If not controlled, the overall effect will hasten the process of entering a recession.

Furthermore, sustained increases in inflation rates have a negative impact on the real interest rate, particularly when the nominal rate of interest is fixed. As a result, returns on financial assets may be negative, discouraging stakeholders and other prospective investors. As a result, demand for a productive financial asset with high future savings potential will eventually fall. Prospective investors will rationally shift their investment decisions to other domains of productivity whose returns provide an edge against the inflationary trend as they become fully aware of the effects and challenges of sustained inflation rates through a decrease in the value of dividends. As a result, the financial sector's demand for loanable funds has increased. (Commercial bank for example) will

undoubtedly slow, affecting the pace of economic activity, consumer income growth, and aggregate national income.

LITERATURE REVIEW

Consumer confidence is the level of optimism or pessimism that consumers have about the economy and their own financial situation. When consumers are optimistic about the economy, they are more willing to spend money on goods and services, which can promote economic growth. Consumer confidence, on the other hand, can influence inflation. When people are optimistic about the economy, they are more likely to incur debt or spend more money, which can increase demand for goods and services. If the supply of goods and services cannot keep up with the increased demand, prices may rise and inflation may occur.

Customers who lack confidence in the economy, on the other hand, may limit their spending, resulting in a drop in demand for goods and services. Deflation can occur when the supply of goods and services exceeds the demand. As a result, consumer confidence is an important variable that can affect both the volume of economic activity and the inflation rate. When consumer confidence is high, the economy may grow faster, but excessive demand may lead to inflation. Poor consumer confidence, on the other hand, may lead to a drop in demand and even deflationary forces.

People make decisions based on their expectations of future events, including inflation, according to the Rational Expectations Theory. If consumers expect future price increases, they may be more likely to buy goods and services now, contributing to higher inflation. In contrast, if consumers expect prices to remain stable or fall, they may be more likely to postpone purchases, contributing to lower inflation. Consumer confidence can help shape these expectations. If consumers are optimistic about the economy's future, they are more likely to expect inflation to remain low, which can help keep inflation under control. Consumers who are pessimistic, on the other hand, are more likely to expect higher inflation, which can contribute to inflationary pressures. It is important to note that these frameworks are not mutually exclusive and that other factors such as government policies and international economic conditions can influence the relationship between inflation and consumer confidence.

Alem and Soderbo (2010) Household consumption in urban Ethiopia: the impact of food price inflation and idiosyncratic shocks was investigated. The study used panel data to investigate how urban Ethiopian households dealt with the 2008 food price shock and idiosyncratic shocks. It also intends to investigate how changes in food and general consumption are related to household-level variables. Additionally, self-reported data on the effects of food price inflation on food consumption were examined. Their findings

show that households with low asset levels have been disproportionately impacted by food price inflation.

Oduh (2012) used panel data analysis from 2009 to 2011, fixed effect panel regression was estimated with EGLS, accounting for cross-section weight, to examine the impact of consumers' confidence and expectation on consumption in Nigeria. The findings indicate a strong positive relationship between consumer confidence and household planned spending. Oduh and Patterson (2012), Panel data analysis was used to examine the impact of consumer confidence and expectation on consumption in Nigeria. Consumer confidence, current income, income expectation, the expected change in food and durable prices, and the exchange rate were found to be the determinants of consumption expenditure in Nigeria.

Kolawale and Auwudu (2014) investigated the factors that influence household education and health spending. In order to explain the probability of spending on schooling (probit) in both rural and urban households, they used maximum likelihood estimates of the equations. The study's findings indicate that household income, as measured by real total expenditure for rural and urban households, is responsible for increasing the likelihood of household spending on education.

Fabiosa, J.F. and Jensen, H. (2002) who explained that macroeconomic shocks influenced the level of household welfare through low private consumption expenditure, and inflation may also affect the measure of welfare if low-income families' income responds slowly to price increases. Notably, the depreciation of the Nigerian currency has a significant impact on household consumption expenditure.

Ikwuagwu, Ariwa, and Onyele (2017), examined the determinants of aggregate consumption expenditure in Nigeria from 1981 to 2015. The ARDL approach was used in the study, and the results revealed that gross domestic product (a proxy for income) has a positive and significant effect on aggregate consumption expenditure in both the short and long run.

Thomas Habanabakize (2021), the study's analysis of household consumption expenditures' resilience to changes in the price of gasoline, disposable income, and exchange rate volatility of the South African economy revealed a positive relationship. This suggests that as household consumption rises, so does the amount of energy (fuel) needed to produce what households need.

RESEARCH METHODS

Rational Expectations Theory: According to Rational Expectations Theory, people make decisions based on their expectations of future events, including inflation. If consumers expect that prices will rise in the future, they may be more likely to purchase

goods and services now, which can contribute to higher inflation. Conversely, if consumers expect prices to remain stable or decrease, they may be more likely to delay purchases, which can contribute to lower inflation. Consumer confidence can play a role in shaping these expectations. If consumers are optimistic about the future of the economy, they may be more likely to expect inflation to remain low, which can help keep inflation in check. Conversely, if consumers are pessimistic, they may be more likely to expect higher inflation, which can contribute to inflationary pressures.

Model Specification

In the specified model, Consumers' confidence (CsCe) was proxy for household consumption which is the dependent variable, while Inflation (Inf) and Per capita income (Percap) are the explanatory variables. However, Per capita income (Percap) is an extraneous variable in the model.
In a functional form, the model is specified thus:

$$CsCe = B_O + B_2 + Inf_t + Percap_t + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots. (1)$$

Similarly, to investigate the long run and short run impact of consumers' confidence and inflation in Nigeria within the framework of ARDL approach by Pesaran, Shin & Smith, (2001) demands the specification of the model using the ARDL bound test to cointegration. Thus, the equation is specified as;

$$\Delta CsCe_t + B_o + \sum_{i=1}^{N1} \delta\text{i}\, \Delta CsCe_{t-k} + \sum_{j=o}^{N2} \delta_2\, \Delta Inf_{t-k} + \sum_{i=1}^{N3} \delta_3\, \Delta Percap_{t-k} + U_t \dots\dots. (2)$$

Equation (2) presents ARDL modeling which comprises short-run and long-run parameters of the regressors. However, δ_{t-1} is the lagged error correction coefficient calculated $\delta_{t-1} = CsCe_{t-1} - \varphi\Delta Inf_{t-k} - \theta\, Percap_{t-k}$ is expected to be negative and statistically significant for long run equilibrium to exist.

A Priori Expectations

Item	Inf	Percap
CsCe	+/-	+/-

Source: Author's Compilation, (2023)

These expectations are based on economic theory that an increase in inflation reduces consumers' confidence while low inflation increases consumers' confidence. On the other hand, increase in per capita income increase consumers' confidence while low per capital income reduces consumers' confidence. Hence, the relationship among these variables is expected to be inverse.

Measurement of Data

The consumer price index was a proxy as inflation rate. This is because direct interaction of the CPI is inflation rate; Per capita income is measured as the ratio of gross domestic product by the population for the study period, and Consumers' confidence (CsCe) was measured by household consumption expenditure. All the data for this study were sourced from Central Bank of Nigeria Statistical Bulletin.

RESULT AND ANALYSIS

Table 1. Unit Root Test (Augmented Dickey Fuller Test)

Variables	Levels	Critical Values		P-value	First differences	Critical Values		P-value	Order	Level of sig.
PERCA	-0.241031	1% 5% 10%	-3.724070 -2.986225 -2.632604	0.9206	-6.635586	1% 5% 10%	-3.737853 -2.991878 -2.635542	0.0000	I(1)	1%
INF	-5.792108	1% 5% 10%	-3.724070 -2.986225 -2.632604	0.0001	-4.304678	1% 5% 10%	-3.831511 -3.029970 -2.655194	0.0037	I(0)	1%
LOG CsCe	-1.829781	1% 5% 10%	-3.752946 -2.998064 -2.638752	0.3575	-5.084425	1% 5% 10%	-4.394309 -3.612199 -3.243079	0.0022	I(1)	1%

Source**:** Authors Compilation (2023)

Note: The results of the unit root test are incorporated into the analysis based on the order of integration. Thus, I (0) series is included into the analyzed model without been differenced while I (1) series are differenced. Probability is computed assuming asymptotic normality.

**P<0.01 and **P<0.05 respectively*.

The above augmented Dickey Fuller test shows that the variables are stationary at first difference except for inflation rate which is stationary at levels.

Table 2. Johansen cointegration result

Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.655720	36.53795	29.79707	0.0072
At most 1	0.213401	10.94677	15.49471	0.2148
At most 2 *	0.194328	5.185875	3.841466	0.0228

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.655720	25.59119	21.13162	0.0110
At most 1	0.213401	5.760891	14.26460	0.6441
At most 2 *	0.194328	5.185875	3.841466	0.0228

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source**:** Authors Compilation, 2023

Table 3. Empirical results of the ARDL

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOG_CSCE(-1)	0.702950	0.163785	4.291902	0.0004
INF	0.017343	0.007705	2.250792	0.0358
PERCAP	0.000627	0.000243	2.574973	0.0181
PERCAP(-1)	-0.000387	0.000184	-2.101072	0.0485
C	1.794719	0.947491	1.894181	0.0728
R-squared	0.991993	Mean dependent var		10.03952
Adj R-squared	0.990391	S.D. dependent var		1.299554
S.E. of regression	0.127387	Akaike info criterion		-1.106313
Sum squared resid	0.324551	Schwarz criterion		-0.862538
Log likelihood	18.82891	Hannan-Quinn criter.		-1.038700
F-statistic	619.4357	Durbin-Watson stat		2.542264
Prob(F-statistic)	0.000000			

Source: Authors Compilation, 2023

The results presented in Table 3, show that the lagged dependent variable is positive and statistically significant at 5% level. This indicates that previous level of consumers' confidence contributes positively in explaining the current level of consumers' confidence in Nigeria. Thus, a percent increase in previous consumers' confidence would result in 0.70 percent increase in consumers' confidence. Hence, variation in consumers' confidence is fuelled by previous level of household consumption. However, the coefficient of inflation is positive and statistically significance at 5% level indicating that in Nigeria, a unit increase in headline inflation would only translate to a 0.01 increase in consumers' confidence, this implies a 99.99 percent confident lost by consumers' at every point of increase in the level of headline inflation. The coefficient of per capita income is positive and statistically significant at 5 percent level, implying that a unit increase in per capita income will only translate to a 0.06 percent increase in consumers' confidence in headline inflation, during the study periods. Furthermore, this result shows that headline inflation has a significant impact on consumer purchasing intentions in Nigeria. As a result, consumption spending changed due to the impacts of

headline inflation, thus, lowering consumers' confidence even further. The findings are consistent with the results of Alem and Soderbo (2010) on the impact of food price inflation in Ethiopia; though food price inflation is a component of headline inflation. They discovered that food price inflation determines household consumption in Ethiopia. Hence, by disaggregating inflation into headline inflation components, this study broadens the literature frontier.

CONCLUSION AND RECOMMENDATIONS

The study investigated the relationship between Nigerian inflation and consumer confidence. The CBN's data on consumer confidence and inflation from 1996 to 2022 were used to meet the study's objective. Furthermore, ARDL was evaluated to account for changes in consumer demand patterns. The findings provide compelling evidence for a link between consumer confidence and inflation. The regression also revealed a clear link between per capita income and consumer confidence. Hence, expected Nigeria depreciation reduces planned spending due to its effect on the general price level and the fact that Nigeria is an import-dependent country.

Because household purchasing intentions are heavily influenced by consumer confidence, aggregate demand policy which aimed at increasing private consumption will be ineffective if the economy contains structures that depress consumer confidence. As a result, we recommend that Nigeria's expenditure-changing policies may fail to achieve the desired goals if domestic output cannot meet domestic demand; consequently, currency depreciation will dampen consumption by raising domestic prices through import prices.

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