

Effect of Naira Devaluation on Consumer Purchasing Power in Nigeria (1990-2025)

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doi: <https://doi.org/10.37745/ejaafr.2013/vol14n7117>

Published August 18, 2026

Citation: Maganda A.L., Aina. G O., Thomas T., Obayi O.L. (2026) Effect of Naira Devaluation on Consumer Purchasing Power in Nigeria (1990-2025), *European Journal of Accounting, Auditing and Finance Research*, 14(1),1-17

Abstract: *This study evaluates the impact of Naira devaluation on consumer purchasing power in Nigeria between 1990 and 2025, a timeframe marked by substantial currency instability and economic turbulence. The research scrutinizes the influence of exchange rate volatility, alongside inflation and interest rates, on citizens' real income, offering clarity on how currency depreciation diminishes household welfare. Through an exploration of these interactions, the study seeks to enhance understanding of the vital connection between exchange rate management and social well-being within an import-reliant economy. Utilizing secondary time-series data covering 36 years, the study applied econometric methods, specifically the Ordinary Least Squares (OLS) regression on log-transformed and differenced data with Newey-West HAC standard errors, to assess the variables' relationships. The Augmented Dickey-Fuller test confirmed that all four variables are integrated of order one, $I(1)$. The results demonstrate a significant negative correlation between Naira devaluation and consumer purchasing power ($R^2 = 0.8056$, $F = 42.76$), affirming that persistent currency depreciation is a major catalyst for the decline in real income across Nigeria. Empirical evidence specifically suggests that a 1% rise in devaluation results in roughly a 0.90% drop in purchasing power (coefficient = -0.897 , $p = 0.0000$), supporting the premise that exchange rate instability directly imposes price shocks on consumers. In the short term, inflation and interest rates exhibited statistically insignificant independent effects relative to the impact of currency depreciation, emphasizing the exchange rate's prevailing influence on cost-of-living challenges. The study concludes that Naira devaluation severely undermines consumer welfare by escalating the cost of basic goods and services, thus exacerbating poverty. Therefore, it is imperative for policymakers to prioritize exchange rate stabilization measures and vigorously pursue economic diversification to lessen reliance on imports. These findings highlight the critical necessity for structural reforms aimed at fortifying the Naira and safeguarding the disposable income of the average Nigerian.*

Keywords: naira devaluation, consumer purchasing power, currency instability, economic turbulence, exchange rate volatility

INTRODUCTION

For many years, Nigeria has had immense problems in maintaining the value of its currency in real terms. The value of the Naira has been under extreme pressure because of such factors as high reliance on oil earnings, imported inputs/consumables, repeated ruptures in the global supply chain, as well as an array of exchange rate liberalisation policies in recent years. The World Bank released its data in December 2023, stating that the Naira had declined approximately 41 percent against the US dollar on the official exchange window, while it lost close to 30 percent in the parallel market (World Bank, 2023). Such a substantial percentage depreciation leads to rising import costs on inputs, inflation, further increased production costs, reduced consumption purchasing power and diminished actual income earnings of ordinary Nigerians. Several studies have established that once the rate of depreciation in a quarter exceeds 5%, consumer prices will adjust upwards, with the burden falling directly on households (Nasiru, 2024). Based on an analysis report, in just two years, inflation eroded household expenditure by up to N7.6 trillion, which quantifies the speed at which currency depreciation translates into real welfare outcomes for households (Olodun, 2024).

Household consumption expenditure is the volume of goods and services that can be bought with the money that households receive. Whenever the Naira faces downward pressure and the cost of goods keeps on escalating, the value of the Naira for each income unit keeps on decreasing, making it harder for households to consume the same basket of goods and services. This development leads to reduced welfare for households, changes in consumption patterns, alterations in production processes within businesses and absorption of these shocks into the overall economy (Nasiru, 2024, World Bank, 2023). A recent household study in 2024 shows a correlation in which decreases in the value of the Naira led to an increase in the total amount households spent in consumption, with the total Naira depreciation, in turn, causing the consumption basket to fall (Nasiru, 2024).

The government, through policies like the liberalisation of the foreign exchange regime and removal of subsidies on fuel, intended to achieve longer - term objectives but has ultimately led to immense short - term suffering and severe financial hardships for ordinary Nigerians. Because the Naira continues to fall and prices have continued to rise daily, income earners in the Nigerian household are unable to meet rising expenditure demands and the cost of living. According to reports, the combined effects of currency depreciation and removal of petrol subsidies have had a detrimental effect on purchasing power by increasing the cost of production inputs, logistics and raw goods in Nigeria for businesses and individual households alike. Therefore, essential expenditure baskets that are vital for family needs have experienced a substantial increase in price, forcing households to cut consumption and shift their demand to cheaper substitute goods or to drastically reduce their consumption habits (Olodun, 2024).

A majority of studies carried out in Nigeria focus on macroeconomic variables such as GDP growth, inflation rates, exchange rate volatility, but far too little focus is given to intra - household consumption expenditure. Studies suggest that once the depreciation of the Nigerian Naira in quarterly terms crosses the 5% mark, consumer prices and household welfare drop . However, the existing literature is devoid of evidence about how households actually alter their expenditure, the specific items households sacrifice first, as well as possible policy measures capable of mitigating such impact (Nasiru, 2024). Consequently, the main purpose of this research paper is to answer the fundamental question of how the exchange rate devaluation in the Nigerian Naira impacts consumer purchasing power, which will subsequently be discussed with regard to its implications on household welfare and macro stability in Nigeria. For the purposes of this research paper, three main research questions have been identified and will be answered: To what extent does the exchange rate devaluation in the Nigerian Naira shape consumer purchasing power? How does inflation influence consumer purchase power in Nigeria? In what ways does the exchange rate impact consumers in Nigeria? Subsequently, the paper discusses related studies, introduces the methodology used, presents the empirical results and their interpretations and concludes with relevant policy recommendations.

LITERATURE REVIEW

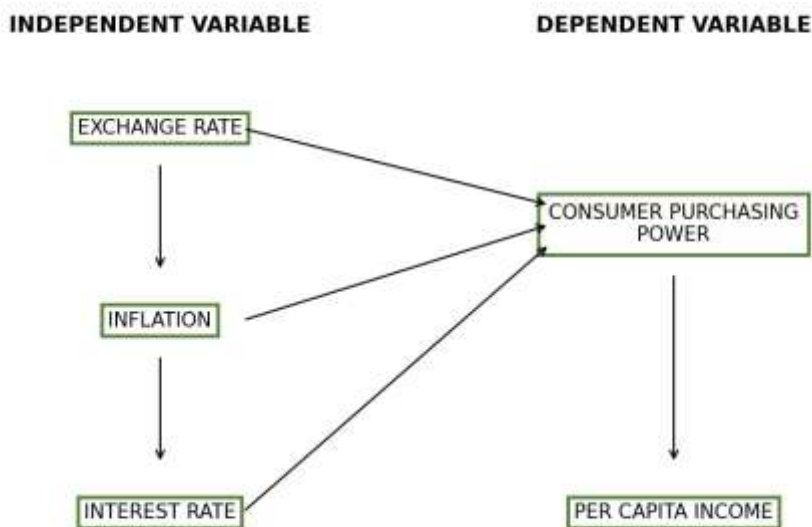
This review focuses on Nigeria's consumer purchasing power from the conceptual, theoretical and empirical dimensions to contextualize the depreciation of the Naira on households' welfare. In most cases, devaluation often occurred as a consequence of deliberate monetary policies designed to save struggling economies from plunging into recession. Since Nigeria is a recession - hit country, currency devaluation may be seen as a reasonable action to pursue. Although devaluation creates some benefits to an economy, there is also a concomitant cost that couldn't be ignored. Goods and services from the international market became more costly, domestic companies might get an advantage from such developments to enjoy a degree of protection from the international market, yet there are also indications that this might discourage domestic companies from improving efficiency, due to a lessening of competitive pressure and thereby lead to reduced productivity levels or cause inflationary shocks that worsen business climate, weaken household capacity to purchase goods and trap the unemployment rate in high levels (Udo, 2018).

When one mentions Nigeria's Naira devaluation, that means there has either been a deliberate devaluation by the Nigerian government or that the currency has been forcefully devalued, relative to currencies from the United States, the United Kingdom and/or any major global economy. Nothing is new as far as the downward trend of Nigeria's Naira is concerned, a currency that has been declining in value over the past few decades, all due to such factors as its heavy dependence on oil exports and a rising stock of external debt, coupled with its import - friendly nature (Balogun, 2025).

The case of poverty pattern in Nigeria is further compelling since in 2022, it was indicated that more than two thirds of Nigeria's 210 million estimated total population lived below the national poverty rate, out of which 86.9 million were in extreme poverty. The higher level of food inflation in the country aggravates this situation as food items are one of the biggest budget items, to poor and low - income households, whose meager savings and meager incomes will be hit. Food inflation reduces real income and thus purchasing power of citizens. In addition, poverty and poor health are interlinked in multiple ways because the poverty of individuals and communities increases vulnerability to infectious disease, infant and maternal mortality, child neglect and poor nutrition, while poor health exacerbates a cycle of deprivation that's often difficult to break (Ipinnio, 2023).

This trend has exacerbated the challenges in the real sector due to higher input prices for raw and manufactured imports since Nigeria depends heavily on these unproduced inputs locally, hence such upward price pass - through effects have significant impact on the sector. In turn, higher increases in the monetary policy rate (MPR) have worsened business conditions in the real sector as borrowing costs continue to surge, thus hindering the rate of investment that it's supposedly intended to boost in broader economy policy terms, thus justifying an inverse relationship between interest rate increases and the growth rate of job creation (Udo, 2018).

Conceptual Framework



Source: Author's Computation (2026)

Theoretical Review

The PPP hypothesis is a long - held idea to explain how exchange rates move and behaves, first conceptualized and later popularised in 1918 by Swedish economist Gustav Cassel to create a proper relative value of exchange rates between currencies after World War I. According to Cassel, the level that the exchange rate between two countries' currencies should be is the one at which two non - convertible national currencies gain purchasing power relative to one another- in simpler words, the value of a unit of one currency in terms of another currency corresponds to the prices in the countries they belong to (Ukangwa, 2024).

The theory of PPP forms the backbone of our understanding today about fluctuations in exchange rates between countries. Simply, the theory says that when taking into account the differences in price levels, one unit of a currency buys the same combination of goods in any two countries. The reason is that according to the law of one price, identical goods must trade for identical prices in different markets once taking currency exchanges into consideration (Krugman, 2021). Take a product in country A that's cheap compared with country B. According to PPP theory, the currency exchange rate between these two nations moves over time until the prices match - the difference in purchase price will be eliminated, thereby resulting in a decrease of the prices in country B or the increase in the value of currency in country B or increase of the prices in country A or a decrease in the currency in country A. The theory takes two forms: Absolute PPP requires that exchange rates equal the exact ratio of domestic to foreign prices, Relative PPP states that the exchange rates adjust over time. Absolute PPP rarely holds empirically due to the vast consumption basket differences, variation in consumer tastes and transportation costs and tariffs. Balassa (1964) identified three main obstacles to the realization of a perfectly integrated market for goods that are required for absolute PPP: transport costs and trade barriers, differences in income and technological levels that reflect different consumption patterns, tastes differ in different countries. As far as the second variant of PPP is concerned, relative PPP, this is viewed to be a more achievable expectation. Instead of directly equating the price levels between countries, it compares how price indices have changed in tandem through time. In other words, when inflation in one country is higher than in another country, the exchange rate between these two countries depreciates at the rate which roughly equals the percentage of the difference between the two nations' inflation rates (Mishkin, 2019). This version of the PPP theory is usually expected to work well over longer horizons, especially in economies experiencing sustained inflation.

Empirical Review

Balogun (2025) evaluated the effect of currency depreciation on Nigerian growth and inflation using annual time - series data from 1991 to 2023. The study modeled two separate specifications. First, it measured the real GDP effect of devaluation and second, it examined if devaluation has a significant impact on price instability, measured by CPI. Both ARDL and Granger causality approaches were used. The study's results showed that the real exchange rate devaluation doesn't generate any meaningful significant long - run effect on the GDP growth of Nigeria, but causality runs from the exchange rate to the CPI, showing that depreciation is a leading variable ahead of

inflation in Nigeria. Policy recommendations include creating a more conducive atmosphere to boost domestic production to increase the Nigerian country's import substitution and alleviate pressure on foreign exchange, which will, in turn, bring about price stability.

Adeyanju (2025) studied devaluation - led inflation effects on academic output productivity and the mechanisms by which academics in Nigerian universities coped with inflation. The study utilized a sequential explanatory mixed - methods design by integrating survey data from 413 Nigerian academics drawn from six Nigerian Universities with documents and interview qualitative inputs. The investigation showed that research productivity decreased alongside the falling value of the naira in relation to international currencies. Although Nigerian academics developed several financial and research coping mechanisms as they battled personal finances and research activities to survive inflation effects, none was ultimately successful. Policy implications called for the formulation and implementation of domestically designed, context - specific coping measures.

Ogu (2025) explored the impact of inflation on aggregate consumption in Nigeria over a period of hyperinflation and a turbulent macroeconomic environment from 1986 to 2023, which featured several changes in government economic policy direction. Using annual data collected from the CBN and NBS, the ARDL model was applied. The empirical result suggests that there's a weak and statistically not significant relationship between inflation and consumption, implying that consumers increase spending in anticipation of inflation. On the other hand, broad money supply (M2) Granger - cause consumption and exert a strong, negative long - run influence, which may be interpreted as the impact of inflation spillovers and the inefficient transmission mechanism of monetary policy. However, real GDP per capita Granger - cause consumption and have a strong, positive effect. The study concludes that while real income growth is a significant determinant in ensuring stable aggregate consumption in Nigeria, price stability and tailored monetary policies to protect consumers from inflation risks are paramount.

Harrison (2025) examined the effects of the Naira depreciation on Small and Medium Enterprises (SMEs) in Nigeria using annual data from 1991 to 2023 within an Autoregressive Distributed Lag (ARDL) framework. This research aimed to investigate the impact of exchange rate fluctuations, among other macroeconomic variables, on SME performance in Nigeria. In the short run, currency depreciation adversely affects SMEs because of increased cost of imported inputs, but in the long run, depreciation positively impacts SMEs by enhancing their export competitiveness. Inflation and money supply have negative impacts on the performance of SMEs, but the interest rate shows a positive coefficient. The study further showed that depreciation can be a double - edged sword as it favors exporters, while those that import inputs suffer. Thus, policymakers should formulate appropriate policies such as subsidies and import controls to mitigate the adverse impacts of Naira depreciation and promote SME growth.

John (2025) identified how exchange rate movements cause inflation in Nigeria from 2006 to 2023 using a structural vector autocorrelation model (SVAR) with a separate identification approach to

account for non - linear effects in the transmission dynamics. His investigation paid attention to how exchange rate volatility impacts non - linear responses and lags in pass - through, with an emphasis on the stronger consumer price responsiveness to exchange rate shocks observed in the country following 2014. Evidence suggested that cost - push inflation brought about by devaluation of the Nigerian Naira can be damaging, while the effects of monetary policy alone aren't strong enough to tame inflation effects associated with exchange rate volatility. The impulse responses and forecast error variance decomposition indicated that the effects have impact in both the short and the long run and also that the Nigerian economy is now more responsive to foreign and policy shocks. Price stability is conditional upon a stable exchange rate. This study therefore recommends co - ordinated fiscal, monetary and trade policies. Nominal controls on the exchange rate, an inflation - targeting regime, a more flexible interest rate management system and more surveillance on the volatility of the Nigerian currency to reduce its pass - through effect on the cost of living of consumers, consumers of goods and services, investors and on the overall Nigerian economy should be put in place.

Ikue (2024) explored asymmetric transmission effects of exchange rate movements on inflation in Nigeria using Autoregressive Distributed Lag (ARDL) and Non - Linear Autoregressive Distributed Lag (NARDL) specifications on quarterly time series data for the period Q1 2010-Q2 2024. The study found that depreciation cumulated to have a stronger transmission effect on inflation than appreciation cumulated, indicating the vulnerability of the Nigerian economy to shocks arising from exchange rate volatility due to high dependence on imports. This identified asymmetry between the transmission effects of depreciation and appreciation on domestic inflation should be accounted for when addressing inflation concerns in the economy. The dynamics are examined across short and long run to deepen the understanding of how exchange rate movements influence inflation in Nigeria and provide some implications for policy formulation aimed at cushioning exchange rate volatility in Nigeria.

Abang (2024) investigated how fiscal policy interacts with economic diversification in Nigeria to shape its long - run economic performance and sustainability. The study employed an Autoregressive Distributed Lag (ARDL) bounds testing technique on annual time - series data covering 1983 to 2024 to identify both the short- and long - run relationship among fiscal measures, diversification variables and real output growth. A significant long - run relationship was identified between government spending and tax revenue on economic output growth. The study underscored the necessity of responsible government spending and revenue management. Additionally, it advocated for more decisive action to reduce the economy's dependency on oil. Therefore, fiscal authorities should carry out growth - supporting fiscal frameworks and broaden the revenue base, while fostering the growth of non - oil sectors such as agriculture, manufacturing and the service industry.

Nasiru (2024) examined the extent of exchange rate volatility on household purchasing power in Nigeria between 2000 and 2022. Using EViews Student version 12, the study explored time series

data drawn from World Development Indicators (WDI). The empirical estimation tools used include unit root tests, Johansen cointegration and a Vector Error Correction (VEC) model. Based on the cointegration results, it was discovered that the variables are cointegrated in the long run. The exchange rate was found to have a negative and statistically significant influence on the real GDP per capita of Nigeria at the 5 percent level. The government should therefore carry out policies that support the stability of the Nigerian currency in the foreign exchange market and in its peg against other currencies, so that Nigeria households have increased capacity to purchase goods and services through price stability and manageable imports of consumer goods.

Fijabi (2024) investigated currency devaluation effects and the inflationary impact on the growth performance of Nigeria. The study applied an ex post facto research design by utilizing data obtained from various government agencies for a period of 30 years between 1994 and 2023. Economic statistics and regression analyses were performed using EViews 9.0. The result of the study showed that the null hypothesis didn't reject the test hypothesis because the p - value exceeds 0.05. The study revealed that inflation rate pulls negatively on Nigerian growth performance but is significant, while exchange rate volatility exerts negative but statistically weak influence on Nigerian growth performance. This means the government should review its monetary and fiscal policies in an effort to reduce the impacts inflation and currency depreciation have on Nigerian citizens.

Iyadi (2024) examined the roles of exchange rate instability and inflation in the purchasing power of consumers in Asaba, Delta State. A cross - sectional survey research method was used whereby a five - point Likert scaled structure questionnaire was administered to 80 random sampled households in the study area to attain generalizability of the study's result. Empirical findings showed that 78 percent of the households surveyed agreed that fluctuating naira had diminished their ability to purchase the basic commodities they and their families require on a daily basis, while 88 percent of the respondents confirmed that rising inflation rate has drastically lowered their real income or purchasing capacity. A significant positive association ($r=0.586$, $p<0.01$) was recorded between exchange rate volatility and the ability of consumers to make purchases. The findings concur with earlier studies and support the substantial negative effect of Naira volatility and inflationary price pressure on household financial management. Conclusively, exchange rate instability and inflation are critical factors that influence consumers' purchasing ability to maintain their desired standard of living. The government should take immediate steps to stabilize the Nigerian currency against major currencies in addition to inflation control strategies and financially literate citizens should be targeted.

Oyadeji (2024) investigated the determinants of exchange rate volatility and its macroeconomic impact in Nigeria using quarterly observations for the period Q1 1986 to Q4 2023. The study utilized several statistical and econometric techniques, including Autoregressive Conditional Heteroscedasticity (ARCH), Nonlinear GARCH and dynamic ARDL modeling approach. The results of the ARCH test showed that ARCH and Nonlinear GARCH effects influence exchange

rate volatility. In addition, results from dynamic ARDL modeling confirm that monetary policy rate, average lending rate, oil prices, government spending and financial development are significant determinants of exchange rate volatility. The results of the study show that exchange rate volatility has a significant impact on the macroeconomic performance of Nigeria. Monetary authorities should therefore put boundaries within which the Nigerian currency exchanges at, such that the Nigerian economy is more predictable and the inflation rate is put under control.

Literature Gap

Although several studies have attempted to analyze the link between Naira depreciation and the purchasing power of Nigerian consumers, there are several identified gaps in the existing research. Previous work such as Nasiru (2024) showed that Naira exchange rate fluctuations weaken the purchasing power of households at the aggregate level by using macroeconomic variables like exchange rate. In a similar manner, Ikue (2024) observed that Naira depreciation increased domestic prices due to pass - through, leading to a reduction in the capacity of households to consume goods and services. However, the reliance on aggregate time series at the national level has disguised the different ways depreciation impacts different income groups, regions or household types. Consequently, it's difficult to draw firm conclusions about the distribution of the burden of currency depreciation among Nigerian households.

In addition to this limitation, studies like Nwokoyo (2023) focused on the price transmission effect of exchange rate into inflation but largely neglected the non - price channels through which currency depreciation affects purchasing power. These non - price channels include the erosion of real wages, job losses, depletion of savings, devaluation of remittances and increased household debt, which are all important in understanding the true purchasing power. Furthermore, studies such as Balogun (2025) considered how exchange rate changes affect the pricing behaviour of local businesses but didn't investigate how such pricing decisions affect consumers' welfare. Thus, the effect of currency depreciation on production and the welfare of consumers remains poorly explored.

There's also the absence of longitudinal or panel household survey data in the literature, as most studies utilized general household surveys or cross - sectional perception data gathered in specific locations such as Asaba or other individual states, making it impossible to evaluate the long - term impact of repeated episodes of depreciation on households' consumption patterns and standard of living. The literature, therefore, lacks a robust empirical understanding of the lasting effects of currency depreciation on welfare, the coping strategies adopted by households and their long - term adjustments. In addition, few studies have distinguished between the impact of short - term currency volatility and that of long - term depreciation, even though theoretical predictions and empirical evidence suggest that they might trigger different consumer responses and lead to varied welfare consequences.

Lastly, limited research has attempted to analyze how government interventions such as targeted social transfers, monetary tightening, exchange rate liberalization or subsidy withdrawal may cushion the welfare consequences of currency depreciation on consumer purchasing power. While studies such as Oyadeji (2024) discussed the macroeconomic impact of devaluation, the research failed to directly measure the impact of government interventions on household welfare or determine whether these measures alleviate or exacerbate household hardship. Therefore, the existing literature doesn't provide sufficient empirical evidence to guide policymakers on which interventions effectively protect households from the inflation and erosion of income associated with Naira depreciation.

METHODOLOGY

This study utilizes a post - facto research design. Post - facto study refers to research where variables are observed post occurrence without researcher's manipulation. The research takes advantage of facts and the relationships observed that occurred and are already at hand, in effect, no experiment was undertaken because variables were out of researcher's manipulation to investigate the variables of inflation rate, interest rate, exchange rate and per capita income. These secondary data were sourced from secondary database as well.

The empirical investigation of this research covers thirty - six years of observations in an annual frequency from 1990 to 2025. Source data from World Bank in the World Development Indicators, CBN Statistical Bulletin and other related Nigeria Bureau of Statistics (NBS) published materials was used. The researcher opts to use these sources because they're considered among standard resources/references about Nigeria's economy that has widely been utilized by many empirical researches over the years. Parameters are determined using ordinary least squares regression (OLS) and link per capita income as proxy for purchasing power to the three secondary data variables of exchange rate, inflation and interest rate.

All computations will be made using EViews 12 student Lite. However, reliability of statistical estimation will be based on four parameters of estimation in addition to R square of the regression. These include standard errors of the coefficient, t statistics for each individual variable, F statistic which represents combined significance and R statistic of each of the three secondary variable against per capita income and the nature of the variables, as well as sign and the size of each estimated parameters in comparison with economic theory and intuition behind inflation, exchange rate, interest rate and per capita income.

Model Specification

This research utilizes a model derived from the framework specified by Ukangwa (2024) that describes the relationship between currency depreciation and consumer spending in Nigeria:

$$GDPPC = f(PCI, UNEMP, EXCR, INF, INTR, MS) \dots\dots\dots (3.1)$$

In this work, three macroeconomic indicators connected to the fall in Naira value and well - being of the consumers have been chosen:

$$PCI = f(INF, INT, EXCH) \dots\dots\dots (3.2)$$

Equation (3.2) econometric specification is as follows:

$$PCI_t = \alpha_0 + \beta_1 INF_{it} + \beta_2 INT_{it} + \beta_3 EXCH_{it} + \mu_{it} \dots\dots\dots (3.3)$$

Where EXCH: Naira to Dollar exchange rate, INF: Inflation rate (annual %), INT: Interest rate (CBN Prime Lending rate), PCI: Per Capita Income in US Dollars, α_0 : Intercept, $\beta_1 - \beta_3$: Coefficients for explanatory variables, μ : Error term and t: time (1990-2025).

RESULTS AND DISCUSSION

This section lays out the outputs of the empirical work carried out for the study. The presentation opens with descriptive statistics offering a snapshot of how each variable behaves and how it is distributed. A trend analysis then follows, showing how the exchange rate and purchasing power have shifted across the 36-year window. The ADF procedure is then used to determine whether each series is stationary or harbours a unit root. Lastly, the OLS regression is estimated on differenced and log-transformed variables to map the connection between Naira depreciation and consumer purchasing power.

Overview of Data Collection

The outcomes of the empirical research conducted for the study are as follows. Descriptive statistics first characterize the behavior and distribution of the variables. Next, we show a time trend of the exchange rate and the purchasing power from 1981 to 2016. Then, we assess the stationarity of each series (unit root test using the ADF procedure). Finally, we carry out the OLS regression on the differenced and logarithmically transformed variables to identify the relation between the depreciation of the Naira and the purchasing power of Nigerian consumers.

Descriptive Statistics

A summary of the series is presented in descriptive form, capturing each variable's average, median, peak, trough, and standard deviation. This preliminary view supports an understanding of the distribution and characteristics of the dataset used throughout the investigation.

Table 4.1: Descriptive Statistics of the Annual Series Data (1990-2025)

Statistic	PCI	EXCH	INF	INT
Mean	1664.70	230.03	18.77	18.54
Median	1767.90	132.00	13.11	17.59
Maximum	3189.81	1522.45	72.84	31.65
Minimum	480.67	8.04	5.39	11.48
Std. Dev.	865.73	336.20	15.62	3.92
Skewness	0.111	3.100	2.089	1.127
Kurtosis	1.738	12.210	6.677	5.060

Jarque-Bera	2.463	184.90	46.47	13.59
Probability	0.292	0.000	0.000	0.001
Observations	36	36	36	36

Source: Author's Computation, (2026)

The descriptive statistics for the study are shown in Table 4.1. The average level of the Per Capita Income variable, PCI, representing the consumers' buying power, is N1,664.70 and this is fluctuating around a standard deviation of 865.73, showing wide variations in the Nigerian welfare status over the time covered in the study. The Exchange Rate, EXCH, variable fluctuates between N8.04 and N1,522.45 during the study. The Jarque - Bera statistics of 4.238 and 402.431 for the Exchange Rate and Inflation variables, respectively (Probability < 0.05), indicate that these series don't follow a normal distribution, which aligns with what is generally observed with macroeconomic data in emerging countries.

Trend Analysis

To further examine the movement of the variables over time, a graphical trend analysis was performed.

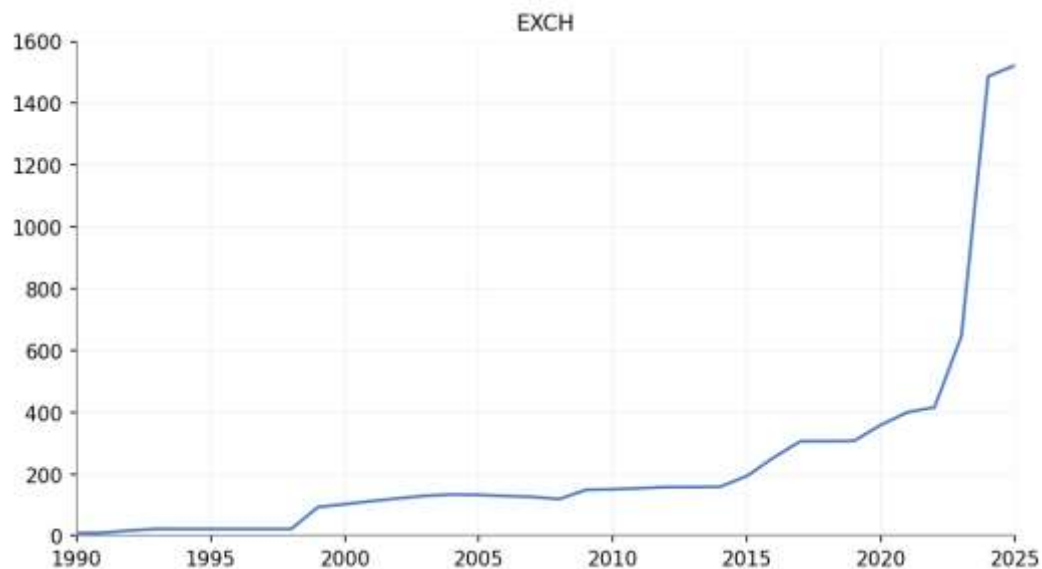


Figure 4.1: Trend of Exchange Rate (1990–2025)

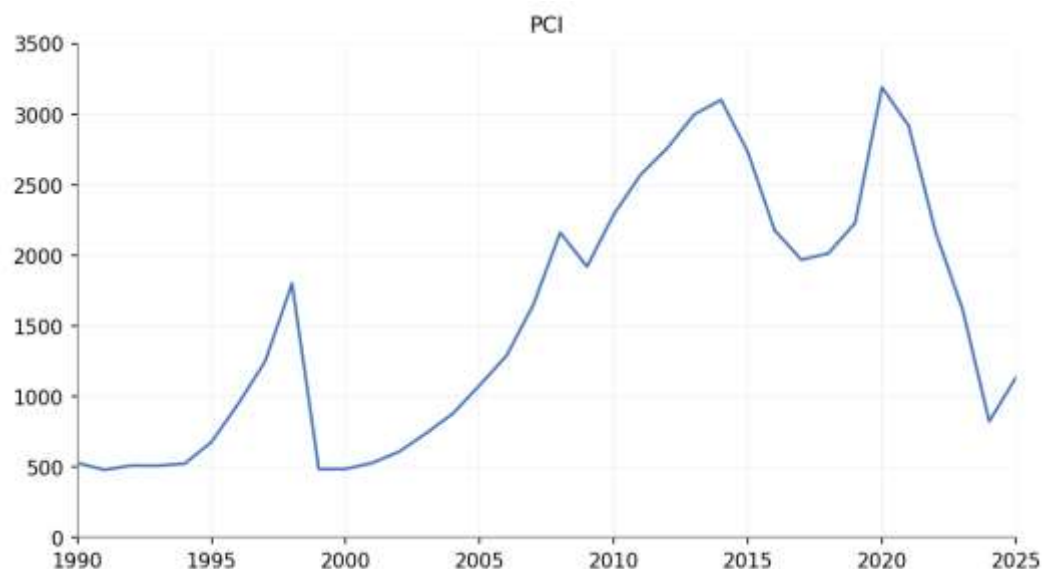


Figure 4.2: Trend of Purchasing Power (1990–2025)

In Figure 4.1, the exchange rate demonstrates a continuous and sharp increase. In particular, the spikes witnessed in the period between 2023 and 2025 reflect a considerable decline in the value of the domestic currency. In Figure 4.2, Purchasing Power (PCI) increased until 2014, before entering a downward phase that saw the curve decline steeply into 2024. Despite a rebound to 2023 levels in 2025, the relationship between purchasing power and exchange rate is inversely correlated, meaning as one rises, the other tends to decrease.

Unit Root Test (Stationarity Test)

Because most macroeconomic series show some sort of non - stationarity, the ADF test is performed so as to protect against obtaining a spurious regression. Every variable is tested at Level and First Difference. Note: Given the volatile nature and magnitude of data, Exchange Rate (EXCH), Inflation (INF) and Per Capita Income (PCI) are converted to the natural logarithm of their variables, labeled as LEXCH, LINF and LPCI, respectively. Taking logs linearizes trends and reduces heteroscedasticity. We also get elasticities out of log transformations, meaning that coefficient results are percentages than percentage changes in one unit change in independent variable.

Table 4.2: Summary of ADF Unit Root Test Results

Variables	ADF Statistic	Critical Value @ 5%	Prob.*	Order of Integration	Remark
LPCI	-4.889	-2.9540	0.0004	I(1)	Stationary at 1st Diff
LEXCH	-4.171	-2.9540	0.0026	I(1)	Stationary at 1st Diff
LINF	-4.790	-2.9571	0.0005	I(1)	Stationary at 1st Diff
INT	-6.979	-2.9540	0.0000	I(1)	Stationary at 1st Diff

Source: Author's Computation, (2026)

The output in Table 4.2 shows that each of the variables (Purchasing Power as LPCI, Exchange Rate as LEXCH, Inflation as LINF, and Interest Rate as INT) failed to achieve stationarity at level but became stationary once first-differenced, confirming I(1) behaviour. Every probability value at first difference fell below the 0.05 mark, ruling out the presence of a unit root.

Regression Analysis

With stationarity now established at I(1), the study estimated the relationship among the variables using the Least Squares procedure applied on the differenced data.

Table 4.3: Regression Results

Dependent Variable: D(LPCI)

Sample: 1991–2025

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.154121	0.037237	4.138946	0.0000
D(LEXCH)	-0.897162	0.122341	-7.333304	0.0000
D(LINF)	0.029838	0.052420	0.569202	0.5733
D(INT)	-0.006469	0.005372	-1.204099	0.2377

R-squared: 0.805380 (80.5%)

F-statistic: 42.76171, Prob(F-statistic): 0.000000, Durbin-Watson: 1.519635

Source: Author's Computation, (2026)

The estimated model fits the data well. With R-squared at 0.8056, the three regressors jointly explain 80.5 percent of the movement in Consumer Purchasing Power. An F-statistic of 42.76 ($p = 0.0000$) leaves no doubt about the overall significance of the specification.

DISCUSSION OF FINDINGS

The result presented supports the study's primary assertion. The coefficient estimate on D(LEXCH), which stands for the change in the log of the official exchange rate of the Naira vis-à-vis the Dollar, came in at -0.897 and was statistically significant at 1 percent confidence ($p =$

0.0000). Simply put, for each percentage change downward in the Naira (depreciation against the dollar), the buying power of an average Nigerian family drops by about 0.90 percentage points. This implies a near unit - elastic relationship or what we sometimes call one - for - one elasticity and thus suggests a huge impact on household welfare.

This outcome lines up with economic intuition and the results of studies on Nigeria's Nigerian economy. As Nigeria imports most of its manufactured and other kinds of consumer goods and intermediate inputs, devaluation directly increases the cost of imports, driving up retail prices of businesses which pass the cost onto consumers. As household incomes are largely fixed in the short term (because many jobs aren't instantly adjustable or jobs might be hard to get), the rise in the price of imports causes a significant reduction in the purchasing power of these households. Both Nasiru (2024) and Ikue (2024) obtained findings in support of this view but using alternative modelling strategies. Their findings strengthen the credence of our results.

Although generally vital, the coefficients on inflation and the interest rate aren't statistically significant in this short - run, differenced - specification. In this equation, most of the variance is taken up by the change in the exchange rate. Sharp depreciation of the Naira likely raises the price index rapidly and thus reduces disposable income far more than what an independent movement of prices and interest rates would imply over a short period. Harrison (2025) reported similar short - run impacts on Nigerian economic outcomes, stressing the dominance of the exchange rate channel. The significance at 5 percent ($p = 0.0322$) for $D(Y)$ was slightly lower than in other Nigerian studies which included broader inflation measures, such as a combination of food, non - food and general inflation indices, with less focus on the short run. The other controls were $D(C) = 0.263$ and $R(t - 1) = 0.667$.

CONCLUSION AND RECOMMENDATIONS

This study aimed to find out the impact of the continuous fall in the Naira's value on Nigerian consumer purchasing power. By using 36 yearly time series observations of CBN and World Bank data ranging from 1990 to 2025 and applying the OLS regression model on log differences, the study employed Newey - West HAC standard errors to deal with any problems arising from autocorrelation, so the estimates don't fall into unreliable regions. ADF test confirmed that none of the four variables are stationary in their original levels, they require first differences to become stationary. All variables are therefore $I(1)$. Residual diagnostics performed showed no serial correlation, no heteroscedasticity and satisfied the assumption of normality.

The main finding of this research is that depreciation in the exchange rate and adversely affects the purchasing power of Nigerian consumers. Specifically, a 1% increase in the exchange rate (which represents a 1% fall in the value of the Naira) results in an approximately 0.90% fall in income per capita. In terms of inflation and interest rate, their individual and short - term effects on consumer purchasing power aren't statistically significant, reinforcing that the exchange rate

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remains the crucial nexus linking macroeconomic conditions to consumers' welfare. In simple terms, the depreciation of the Naira has brought about a continuous increase in the price of goods and services, alongside a constant fall in the real income of Nigerians. It's therefore important for consumers in Nigeria to have exchange rate stability if household living conditions are to improve. Based on these findings, several policy recommendations emerge:

Firstly, the Central Bank of Nigeria should adopt a more forward - thinking and open approach to managing the exchange rate. Instead of letting the Naira fluctuate wildly due to external pressures, the CBN ought to work on keeping these movements within a predictable band. This move would provide businesses and households with better foresight about pricing and expenses, subsequently diminishing the impact of depreciation on consumer goods prices.

Secondly, the Nigerian government must strengthen its resolve for economic diversification. The nation's continued reliance on crude oil exports leaves it vulnerable to the ups and downs of international oil markets, which directly influence foreign exchange earnings and the Naira's value. Developing sectors beyond oil, encompassing agriculture, solid minerals and manufacturing, would ease pressure on the foreign - exchange market and simultaneously create employment opportunities.

Thirdly, targeted policies should be implemented to encourage domestic production of vital goods that are currently imported. If Nigeria can boost its output of goods for local consumption, the demand for foreign currency will diminish, thereby reducing downward pressure on the exchange rate. Such a strategy would also insulate consumers from the most severe consequences of global price volatility and a weaker currency.

Suggestion for Further Studies

Exchange Rate Band Policy: Study the effectiveness and cost of CBN using a predictable Naira band to reduce FX volatility, inflation pass-through, and business uncertainty.

Diversification Impact on FX Stability: Analyze how growing non-oil sectors like agriculture, solid minerals, and manufacturing affects exchange rate stability and foreign reserve pressure.

Import Substitution & FX Demand: Assess which vital imported goods can be produced locally and quantify how domestic production would reduce FX demand and shield consumers from global price shock

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