



## ECONOMIC ASSESSMENT OF RISING POVERTY IN NIGERIA: IMPLICATION ON QUALITY OF LIFE

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### ABSTRACT

*This paper has adopted ARDL to assess the implication of mounting poverty on quality of life in Nigeria. HDI was used as a proxy to quality of life while poverty, investment as a percentage of a GDP and interest rate was used as a controlled variable. daunting challenges over the years of nationhood is that of tackling poverty in the midst of abundance resources that nature and divinity has endowed the country with; hence the proliferation of plethora of programs to alleviate nay eradicate this hydra-headed monster without any significant evidence. The result of the bounds test to cointegration indicates that there is long-run equilibrium relationship between poverty and quality of life in Nigeria within the study period. And the result of the long run estimation revealed that poverty has negative and significant relationship with quality of life at 1% level of significant, but investment is found to have negative and insignificant relationship with quality of life at 0% level of significance while interest rate has positive but insignificant relationship with quality of life. However, in the short run the results reveals there exist a significant negative relationship between poverty and quality of life. This means that, a 1% level of significance, this implies that poverty tends to decrease quality of life in the short-run while investment has a positive and significant relationship with quality of life, this implies that investment tend to increase quality of life at 1% level of significance while interest rate has a positive but insignificant relationship with quality of life. Therefore it was highly recommends from the study that efficient government intervention in the area of education, expanding economic capabilities and embracing technology, health care and well-being are very essential.*

**Keywords:** *Economic Assessment, Rising poverty, Quality of life, Nigeria*

### 1.0 Introduction

Good economic assessment demands a clear understanding of the direct and indirect impacts of rising poverty or quality of life. This require a multi- criteria approach of assessment since all the elements of poverty cannot only be monetized. (For example, social and environmental considerations), all measured in the most relevant unit as opposed to monetary values. Most arguments for reducing poverty in Nigeria, especially among children, rest on a moral case for doing so – one that emphasizes the unfairness of child poverty, and how it runs counter to our national creed of equal opportunity for all. But there is also an economic case for reducing child poverty. When children grow up in poverty, they are somewhat more likely than non-poor children to have low earnings as adults, which in turn reflect lower workforce productivity. They are also somewhat more likely to engage in crime (though that's not the case for the vast majority) and to have poor health later in life. Their reduced productive activity generates a direct loss of goods and services to the Nigerian economy. What's more, any crime in which they engage imposes large monetary and other personal costs on their victims, as well as the costs to the taxpayer of administering our huge criminal justice system.

And their poor health generates illness and early mortality which not only require large healthcare expenditures, but also impede productivity and ultimately reduce their quality and quantity of life.

Dauda (2017) notes that poverty in Nigeria differs with the pattern in many other countries given that even with the economic growth recorded, poverty is still on the increase with the North- West and North –East geopolitical zones leading in the poverty indices. This situation is at variance with the experiences of developing countries in Europe, America and Asia where economic growth results in poverty reduction. This lends credence to the long-standing assumption that the relationship between poverty, economic growth and development is not even. Several poverty reduction policies and programs have been adopted to alleviate or eradicate poverty in Nigeria. Some of these were sectoral interventions but their overarching goal was poverty reduction (Oshewolo, 2010).

The challenges of poverty in Nigeria have attracted the attention of successive administrations. However, It remains a paradox-poverty in the midst of plenty and rising in periods of economic growth (Omoyibo, 2013). This may be true to the extent that Nigeria is endowed with human and natural resources and has had an increasing national income; yet, a larger proportion of its population languishes in poverty due to uneven distribution and allocation of income and wealth (Aigbokhan, 1998; Alesina & Perotti, 1996; Lipton, 1980). Poverty has a strong correlation with income even though the use of income to measure poverty has been strongly disputed (Bak & Larsen, 2015). The United Nations Development Program (UNDP) 2018 describes the poor as those who live on less than \$2 per day. The issues of income inequalities, gender imbalance and rural-urban divide where those who produce wealth are deprived from reaping its benefits have attracted the attention of the international community. Women, rural dwellers and other vulnerable groups who produce the bulk of the world's food get incommensurable rewards for their labour (Abimuku, 2006).

These point to a broader range of motivations for human behaviour than just maximising one's own consumption less utility of labour. People also seek autonomy, freedom, status, political influence, fairness, justice, dignity and community, for example, which are often excluded from the economic calculus. These elements can be part of the circumstances that qualify people as poor in broader delineations of poverty. In this context, political, sociological and qualitative analyses can strongly complement insights from quantitative economic analyses. Discussions at the theoretical level can also inform applied research and policy. While most of these manifestations of poverty is rife in Nigeria, there are also compelling evidence to show that the trends are on the rise, estimates have indicated that about 70% of Nigerians live in absolute poverty (about 84 million people). Similarly, Ogwumike and the World Bank 1999-2005 reports clearly shows a rising profile of Nigerian population living below poverty line from 43% in 1994; 66% in 1996 to over 70% in 2004 (Eze, 2009). According to Anger (2010:140) the severity of poverty in Nigeria is equally glaring when other indicators of services and development are considered.

The Human Development Index (HDI) of Nigerians which is an aggregate of the general standard of living of the people in terms of access to education, health care, housing, security, potable water and high life expectancy etc. has not improved, and to some extent has deteriorated significantly. Are we really on the pedestal of sustainable development? Nigeria has the highest numbers of children who are out of school in the world; about 13.2 million of them followed by 5 million in Pakistan Most Nigerians do not have access to potable drinking water, which is a critical human necessity. Life expectancy in Nigeria at less than 50 years is very low even by African standards due to poor access to medical services, such that malaria takes over 200,000 lives annually. (UNICEF, 2018). On the other-hand, Quality of life (QoL) is a term understood differently by workers in many professions for whom it is relevant.

According to Costanza et al, “quality of life is the extent to which objective human needs are fulfilled in relation to personal or group perceptions of subjective wellbeing”. QoL cannot be measured by a single variable and has substantial overlap with concepts such as social functioning, disability, social support and well-being. Although the subjective nature of the quality of life assessment is regarded as problematic, it is still widely used, mainly to keep research costs low. Quality of life of a society can be assessed through human development index which measures the average achievement of in key dimension of human development such as long and healthy life, being knowledgeable and having a decent standard of living (UNDP, 2019). However, for the purpose of this research paper, quality of life has been regarded as the extent to which basic necessities of life are met.

This study used annual time series data from 1986-2018. The choice of the year was influenced by the fact that we want to capture adequate time to be able to make meaningful deduction of what quality of life entails since it’s a relative term.

The major objective of this paper is to highlight the extent to which poverty has affected Nigerians and its implications to their productivity and quality of life with a view to draw recommendations that will enhance significant improvement in the national productivity and by extension quality of life. The question is ‘does poverty inflict quality of life in Nigeria?’

The study’s hypothesis states that poverty has no negative impact on the quality of life in Nigeria. Human Development Index (HDI) is used in this study as proxy for QOL. HDI is as described by (UNDP, 2019) as the summary measure of average achievement in the key dimension of human development which are, a long and healthy life, level of education and a decent standard of living. It was created to emphasize that people and their capabilities should be the ultimate criteria for accessing the development of a country not just economic growth.

The rest of the paper is organized as follows: The next section provides the conceptual empirical and theoretical framework, followed by a discussion of the methodology in Section three. Section four focused on analysis and discussion of results while section five dwelled on conclusion and policy recommendations.

## **2.0 Literature Review**

This section treats the key concepts, empirical and theoretical framework underpinning rising poverty levels.

### **2.1 Conceptual Framework**

An encompassing definition depicts poverty as a state where an individual is not able to cater adequately for his/her basic needs of food, clothing and shelter, is unable to meet social and economic obligations, lacks gainful employment, skills, assets and self-esteem; and has limited access to social and economic infrastructures, such as education, health, potable water, and sanitation; and consequently has limited chance of advancing his/her capabilities. Basically, the poor are those who are unable to obtain an adequate income, find a stable job, own property or maintain healthy living conditions. They also lack an adequate level of education and cannot satisfy their basic health needs. As such the poor are often illiterate, in poor health and have a short life span. They have no or limited access to basic necessities of life such as food and decent shelter. They are unable to meet social and economic obligations. They lack skills and gainful employment and they have few (if any) economic assets and sometimes lack self-esteem. This characteristic is what causes the social conditions of extreme poverty to persist and to be transmitted from one generation to the next (Tokumbo and Oluwatoyim, 2003).

Similarly, a United Nations (1998) statement says: *Poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and clothe a family, not having a school or clinic to go to; not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation.*

Even though the neoliberal school led by the New-Keynesians also adopts a money-centered, individual stance towards poverty, the importance assigned to the functions of the government allows for a greater focus on public goods and inequality. For instance, a more equal income distribution can facilitate the participation of disadvantaged groups of society in the type of activities that are deemed essential under broader notions of poverty. On the other hand, New-Keynesians are in line with neoclassical economists in their belief that overall growth in income is ultimately the most effective element in poverty removal. Publicly provided capital (including education) has an important role to play, with physical and human capital believed to be the foundation for economic prosperity. Unlike the classical approach, unemployment, viewed as a major cause of poverty, is largely seen as involuntary and in need of government intervention to combat it. Excessive inflation, high sovereign debt and asset bubbles are other macroeconomic factors, besides weak aggregate demand, believed to cause poverty.

Notable poverty reduction programs pursued in Nigeria include: -Operation Feed the Nation (Agriculture), Free and Compulsory Primary Education (Education), Green Revolution (Agriculture), Low Cost Housing (Housing), River Basin Development Authorities (Agriculture), National Agricultural Land Development Authority (Agriculture), Agricultural Development Programmes (Agriculture), Agricultural Credit Guarantee Scheme (Agriculture), Strategic Grains, Reserves Program (Agriculture), Rural Electrification Scheme (Rural Development), Rural Banking Programme (Rural development and financial inclusion), Family Economic Advancement Programme (Poverty Alleviation), Better Life for Rural Women (Women Empowerment), Family Support Programme (Poverty Alleviation), National Directorate of Employment (Job Creation), Mass Transit Programme (Transport), Guinea Worm Eradicating Programme (Health), Petroleum Trust Fund (Education, Health, Rural Development), National Poverty Eradication Programme (Poverty Alleviation), National Economic Empowerment and Development Strategy (NEEDS), You Win Nigeria, Subsidy Reinvestment and Empower Programme (SURE-P), N-power, Conditional cash transfer, Presidential Youth Empowerment Scheme (P-YES) Even with this wide array of programs, poverty alleviation has remained unattainable in Nigeria.

## 2.2 Empirical Framework

Dada and fanowopo (2020) studied the role of institutions in the nexus between economic growth and poverty reduction in Nigeria, over the period, 1984 -2018. The study used Auto Regressive Distributed Lag Cointegration technique, which revealed that an increase in corruption-free environment, aggregate institutional quality, and political stability reduces poverty in the short-run. While at the long-run, institutions have a direct relationship with household consumption which also reduces poverty. The result further revealed that capital accumulation is vital in poverty reduction, while primary school enrolment is not sufficient in reducing poverty at the long-run.

Chude, Anah and Chukwunulu (2019) examined the relationship between government expenditure, economic growth and poverty reduction in Nigeria. Using time series data

covering the period, 1980 –2013, it was found from the study that government spending and economic growth has a positive relationship. This is caused by the increase in real private investment, and fixed capital accumulation.

Maku, Babasanya, and Adesoye (2019) investigated the links between unemployment, poverty and economic growth in Nigeria, between the period, 1985 –2015. Having utilized the Error Correction Model (ECM) in establishing the short-run relationship between the variables, it was found that an absence of causality exists between poverty, unemployment, and growth in Nigeria. The short-run parameter estimates also revealed that unemployment, and poverty have an inverse –significant relationship with economic growth.

Ebunoluwa and Yusuf (2018) examined the effects of economic growth on poverty reduction in Nigeria, from the period of 1980 –2016. The study employed the Vector Auto Regression Estimate (VAR), which showed from its analysis that government expenditure is directly related to poverty incidence. Connoting that an increase in government expenditures increases poverty levels in Nigeria. The study however, further revealed a positive relationship between unemployment and poverty.

Edoko and Ezeanolue (2018) studied the impact of economic growth on poverty reduction in Nigeria, spanning from the period, 1980 –2017. The result from the Ordinary Least Square analysis (OLS) showed that life expectancy, per -capita income, and population have a positive relationship with Gross Domestic Product. On the other hand, mortality rate, poverty rate, and corruption contrarily have a negative relationship with GDP.

Omoniyi (2018) specifically explored the relationship between poverty and economic growth, the determinants of economic growth and poverty, spanning from 1980 –2013. Having adopted the Error Correction Model (ECM), the result showed a negative relationship between poverty and economic growth in Nigeria. It revealed that investment was insignificant, while inflation, economic growth, and life expectancy showed significant and a positive relationship with poverty. Contrariwise, poverty, debt, corruption, mortality, and unemployment have an inverse relationship with economic growth.

Orajaka and Okoli (2018) empirically scrutinized the effect of human capital development on poverty reduction in Nigeria over the period, 1991 –2017. The study employed the Ordinary Least Square analysis, which concurrently found that human capital development, government expenditure, skill acquisition, small scale enterprise, health, and education are statistically significant in reducing poverty in Nigeria.

Gangas (2017) explored the relationship between economic growth and poverty in Nigeria, covering the period, 1980 –2013. The study discovered the existence of an inverse relationship between poverty index and economic growth in Nigeria. Also, an inverse relationship between unemployment and GDP was found in the study.

Hassan (2015) investigated the impact of GDP growth rate on poverty reduction in Nigeria, using time series data sourced from the Central Bank of Nigeria statistical bulletin, and the National Bureau of Statistics spanning from 1986 –2012. The Ordinary Least Square (OLS) estimation technique result revealed a direct relationship between unemployment rate and GDP.

The nations pathetic poverty situation amidst rich resources endowment coupled with efforts to alleviate it has been summarized by Ali-Akpajiak and Pyke (2003) as follows all documentation, official or otherwise shows that poverty in Nigeria in all forms is rising at an

increasingly fast pace. Nigeria 's social statistics rank it among the worst in south Saharan Africa even though it possesses the greatest natural resources... Given that Nigeria is the seventh largest exporter of oil in the world, these revelations are... distressing... The poverty profile of Nigeria does indeed present a very somber picture of a rich nation in decline.

Chen & Ravallion (2008), highlight that global estimates are heavily influenced by trends in the largest countries. They find that high growth in populous countries like China and India has contributed much to the fall of absolute poverty worldwide from 1981-2005, even as poverty reduction in other countries has stalled. Wieser (2011) finds that many countries experience limited poverty reduction in spite of high growth rates, and argues that economic growth is not a sufficient condition for reductions in poverty.

The growth elasticity of poverty is one representation of the relationship between economic growth and poverty in a given country. Wieser (2011) defines the growth elasticity of poverty as the percentage change in the poverty headcount index, divided by the total percentage change in per capita GDP within the same time frame. The general World Bank (2011) formula is below, where  $P$  is a poverty measure (often the headcount index), and  $Y$  is an income measure (often per capita GDP):  $\epsilon = \partial P / \partial Y \cdot Y / P$ .

Estimates of the mean growth elasticity of poverty in developing countries range from -2 (Bruno et al., 1998) to -5 (Bhalla, 2002), indicating that a 1% increase in GDP would lead to between 2% and 5% reduction in the proportion of the population that is poor. Adams (2004) analyzes GDP and poverty data of 60 developing countries and finds that the growth elasticity of poverty tends to range from -1 to -5. He adds that the choice of measures can significantly affect the results, noting that if economic growth is measured using changes in survey mean income or consumption; there is a much stronger statistical association between growth and reduced poverty than if growth is measured by changes in GDP per capita.

Wieser (2011) uses data from 1983-2009 for 65 developing countries to test these hypotheses. He finds that higher levels of human capital, openness to trade, government expenditure on health and education, and institutional quality and democracy are all significantly associated with a higher growth elasticity of poverty reduction. His findings are robust to multiple specifications, though the author notes that he does not adjust for population size, and uses a measure of the breadth of poverty, the headcount ratio, rather than a measure of the depth of poverty such as the poverty gap. The author finds that the biggest contributors to the growth elasticity of poverty are human capital and openness to the world economy. For human capital, Wieser reports that secondary education has a greater role in poverty reduction in developing countries than years of schooling or tertiary education, and that the lower the income of a country, the greater the importance of secondary education. Janvry & Sadoulet (2000) support this argument, finding that the effect of income growth on poverty reduction is greater in countries with higher levels of secondary education. The second factor that Wieser (2011) highlights is openness to trade, as he finds that countries with a higher ratio of exports to GDP have a significantly higher growth elasticity of poverty reduction. Roemer & Gugerty (1997) support this argument, finding that countries with sound macroeconomic policies and greater openness to the world economy may experience a greater impact of economic growth on poverty reduction.

As indicated by Adams (2004), the choice of economic growth measures can significantly affect analyses of the relationship between growth and poverty reduction. Though most studies use growth in GDP per capita (e.g., Balakrishnan, Steinberg, & Syed, 2013; Wieser, 2011; Bourguignon, 2003; Kraemer & Gugerty, 1997), others use growth in average incomes from household surveys (e.g., De Janvry & Sadoulet, 2010; Kraay, 2006; Adams, 2004). Some studies also use growth in sectoral value added to GDP to compare the impacts of growth in

different sectors (e.g., De Janvry & Sadoulet, 2010; Loayza & Raddatz, 2010). Adams (2004) finds that economic growth measured by changes in mean income or consumption from household survey data has a stronger statistical association with poverty reduction than growth measured by changes in GDP per capita.

It can be concluded from the study reported in this section that, there are similarities and controversies underlying the causes and the extent poverty in Nigeria. This is not withstanding theirs is vacuum in the dynamics of poverty in Nigeria. The present study will take into account the implication of mountain poverty levels on quality of life in Nigeria.

### 2.3 Theoretical Framework

Neoclassical theories are more wide ranging and recognize reasons for poverty beyond individuals' control. These include lack of social as well as private assets; market failures that exclude the poor from credit markets and cause certain adverse choices to be rational; barriers to education; immigrant status; poor health and advanced age; and barriers to employment for lone-parent families. Looking at the classical and neoclassical approaches together, their main advantages reside in the use of (quantifiable) monetary units to measure poverty and the readiness with which policy prescriptions can be put into practice. They also highlight the influence of incentives on individual behaviour as well as the relationship between productivity and income. (Philip Davis. and Miguel -M. 2015)

### 3.0 Methodology

#### 3.1 Sources of Data

The data needs were identified on the basis of the objective of the study. The data were drawn from NBS National Bureau of Statistics.

#### 3.2 Estimation Procedure and Model Specification

##### 3.2.1 Unit Root Tests/Traditional Unit root test

The Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests are used to test the null hypothesis that each of the variables in the study is non-stationary or has a unit root. The alternative hypothesis is that each variable is stationary and has no unit root. The stationarity of a variable at levels means that the variable is integrated of order zero (I (0)). If a series is stationary at first difference and at second difference, then the variable is integrated of order one (I(1)) and order two (I(2)) respectively (Dickey & Fuller, 1981; Phillips & Perron, 1988).

The general equation is given as;

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum \alpha \Delta Y_{t-i} + \varepsilon_t \quad (3.1)$$

Where  $\varepsilon_t$  is a pure white noise error term and  $Y_t$  the relevant variables under investigation.

##### 3.2.2 Cointegration Technique

The study employs econometric models to achieve the empirical results. Econometric model examines short run and long-run implication of poverty on human development index by applying ARDL Cointegrating test and other associated test. ARDL cointegration test is a technique used to test the long run relationship among the variables who exhibit mixture of both stationary and non-stationary time series data.

### 3.3 Model Specification

Study employed the Auto Regressive Distributed Lag (ARDL) and Error Correction Model ECM to investigate the long run and short run relationship among the variables. The ARDL model is specified as follows:

$$QLT = f(\beta_0 + \beta_1 PV + \beta_2 INV + \beta_3 INR + U) \text{-----}(3.2)$$

Where

Log of QLT= Quality of life

Log of PV = Poverty

Log of INV = Investment as a percentage of GDP.

Log of INTR = Interest Rate

Where

HDI: is human development index used as a proxy to quality of life. The a priori expectation is that PV, INTR is decreasing function of HDI while INV to be an increasing function HDI.

#### 4.0 Empirical Results and Analysis

##### 4.1 Unit Root test

This involves testing for the stationarity of the individual variables using both the augmented dickey Fuller (ADF) test to find the existence of unit root in each of the time series. The results, indicates some variables were stationary at levels while others at first difference. The results of both the ADF and Phillips- Perron (PP) are reported in the tables below

**Table 4.1: Results of ADF and PP Unit Root**

VARIABLES	ADF T-Stat	DF	PP T-Stat	DF
Quality of life (HDI)	-6.6754*	1(1)	-6.7389*	1(0)
POVERTY	-4.3895***	1(1)	-4.2247***	1(1)
INVESTMENT	-3.6175**	1(0)	-3.6867**	1(0)
INTERESTRATE	-4.0830**	1(0)	-4.1286**	1(0)

Source: Author’s Computation Using E-views 9, 2024

ARDL: Auto- regressive distributive lag

Note: \*, \*\* and \*\*\* shows significance level at 1%, 5% and 10% respectively.

From the result gotten in table 4.1, some variables were stationary at level while others at their first difference. This provide justification for the adoption of Auto- Regressive Distributive lag to find the degree of co-integration among the variables under study. This can be seen by comparing the observed values in absolute terms of the ADF and PP test statistics with the critical values of the statistics at 1%, 5% and 10% level of significance respectively. The result in table one provided strong evidence of non-stationarity. Therefore, the Null hypothesis is accepted and it is sufficient to conclude that there is a presence of unit root at levels and first difference. As a result of the above result, all the variables were differenced once and both the ADF and PP test were concluded on them, as shown in the table 1. The coefficients compared



with the critical values of (1%, 5%,10%) reveals that some variables were stationary at level while others at their first difference and on the basis of this, the null- hypothesis of non-stationarity is rejected and is safe to conclude that the variables are stationary. This implies that the variables are integrated at levels and at order one.

## 4.2 Long Run and Short Run Cointegration Results

**Table 4.2.1: ARDL Bound Test Analysis**

Estimated models	HDI = $f(PV, INVST, IR, )$
Optimal Lag	(0, 1,0, 2, 1, 1)
F-statistics	13.38751

Critical Value Bound

Significance	Lower Bound	Upper Bound
10%	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.87
1%	3.29	4.37

**Source:** Author's Computation Using Eviews-9, 2024

**Table 4.2.2: ARDL Cointegrating And Long Run Form**

**Dependent Variable: HDI**

Cointegrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PR)	-0.000663	0.000269	-2.463824	0.0235
D(PR(-1))	0.001061	0.000332	3.192337	0.0048
D(INVST)	-0.000784	0.000869	-0.901413	0.3787
D(INVST(-1))	0.000621	0.000885	0.701913	0.4912
D(INVST(-2))	0.002511	0.000923	2.719374	0.0136
D(IR)	0.000361	0.000686	0.525881	0.6051
CointEq(-1)	-0.557676	0.113572	-4.910311	0.0001

$$\text{Cointeq} = \text{HDI} - (-0.0017*\text{PR} - 0.0037*\text{INVST} + 0.0000*\text{IR} + 0.6900)$$

**Table 4.2.3: Long Run Coefficients**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PR	-0.001735	0.000532	-3.257725	0.0041
INVST	-0.003735	0.000571	-6.544133	0.0000
IR	0.000037	0.001833	0.020006	0.9842
C	0.690009	0.049232	14.015482	0.0000

Author's Computation Using E-views 9, 2024

Dependent Variable: HDI  
 Method: Least Squares

**Table 4.3: ARDL, Short Run Error Correction Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PR	-0.000913	0.000395	-2.308413	0.0286
INVST	-0.002286	0.000491	-4.658290	0.0001
IR	-0.001522	0.001677	-0.907580	0.3718
C	0.627880	0.039982	15.70417	0.0000
R-squared	0.589217	Mean dependent var		0.479156
Adjusted R-squared	0.545205	S.D. dependent var		0.036969
S.E. of regression	0.024931	Akaike info criterion		-4.428906
Sum squared resid	0.017404	Schwarz criterion		-4.245689
Log likelihood	74.86250	Hannan-Quinn criter.		-4.368175
F-statistic	13.38751	Durbin-Watson stat		0.711400
Prob(F-statistic)	0.000013			

Source: Author’s Computation Using E-views 9, 2024

**ARDL Bound Test Analysis:** Pesaran, Shin and Smith, (2001) established that if the f statistics is greater than the lower and upper bound values, there exists a long run relationship among the variables. From the bound test in table 4.3, the value of F-statistics is higher than the lower and upper bound value at 10% level of significance this is consistent with the result obtained by (Wong, 2018). Therefore, there exists a long run relationship among the variables

The short run model presented in table 4 .2.1. The short run coefficient shows the speed of adjustment back to equilibrium in case of distortion. The estimate of lagged error term shows that short run deviations will be corrected by 0.5577% current years towards equilibrium path.

In the short run, there exist a significant negative relationship between poverty and quality of life. This means that, a 1% level of significance, this implies that poverty tends to decrease quality of life in the short-run while investment has a positive and significant relationship with quality of life at lag 2, this implies that investment tend to increase quality of life at 1% level of significance while interest rate has a positive but insignificant relationship with quality of life.

In the long run model presented in table 4.2.2, poverty has negative and significant relationship with quality of life at 1% level of significant, but investment is found to have positive and significant relationship with quality of life at 0% level of significance while interest rate has positive but insignificant relationship with quality of life

### 4.3 Test for Residuals

The diagnostic test otherwise known as residual test which consist of Serial correlation and heteroskedasticity tests are represented in table 4.3 and 4.4 respectively. The results show that the variables are free from serial auto correlation and heteroskedasticity as the F-statistics of both tests are insignificant.

**Table 4.3 Breusch-Godfrey Serial Correlation LM Test:**

F-statistic	8.327275	Prob. F(2,26)	0.3416
Obs*R-squared	12.49446	Prob. Chi-Square(2)	0.5419

Dependent Variable: RESID  
Method: Least Squares

Presample Missing Value lagged Residuals set to zero.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PR	0.000143	0.000323	0.443576	0.6610
INVST	-7.68E-05	0.000398	-0.193006	0.8485
IR	0.000559	0.001366	0.408912	0.6860
C	-0.016083	0.032681	-0.492122	0.6268
RESID(-1)	0.601414	0.197784	3.040764	0.0053
RESID(-2)	0.059291	0.197189	0.300683	0.7660
R-squared	0.390452	Mean dependent var		7.65E-17
Adjusted R-squared	0.273231	S.D. dependent var		0.023694
S.E. of regression	0.020200	Akaike info criterion		-4.798943
Sum squared resid	0.010609	Schwarz criterion		-4.524118
Log likelihood	82.78309	Hannan-Quinn criter.		-4.707847
F-statistic	3.330910	Durbin-Watson stat		1.846021
Prob(F-statistic)	0.018605			

From table 4.3. The basic hypothesis are, there is no serial correlation  $H_0$ , while the alternative hypothesis is that, there is serial correlation in model series  $H_1$ , However from the result of F-statistics of 0.3416 obtained , it implies that the model has no problem of serial correlation since it is not statistically significant. Likewise, the result gotten in table 4.4, implies that, the model has no problem of autocorrelation. Since the F-statistics is not statistically significant.

**Table 4.4: Heteroskedasticity Test:**

F-statistic	0.820022	Prob. F(3,28)	0.4938
Obs*R-squared	2.584437	Prob. Chi-Square(3)	0.4602
Scaled explained SS	1.927988	Prob. Chi-Square(3)	0.5875

Dependent Variable: RESID<sup>2</sup>  
Method: Least Squares

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001408	0.001248	1.128027	0.2689
PR	-9.75E-06	1.23E-05	-0.790144	0.4361
INVST	1.56E-05	1.53E-05	1.021796	0.3156
IR	-4.08E-05	5.24E-05	-0.778615	0.4427
R-squared	0.080764	Mean dependent var		0.000544
Adjusted R-squared	-0.017726	S.D. dependent var		0.000771
S.E. of regression	0.000778	Akaike info criterion		-11.36272

Sum squared resid	1.70E-05	Schwarz criterion	-11.17950
Log likelihood	185.8035	Hannan-Quinn criter.	-11.30199
F-statistic	0.820022	Durbin-Watson stat	1.709795
Prob(F-statistic)	0.493796		

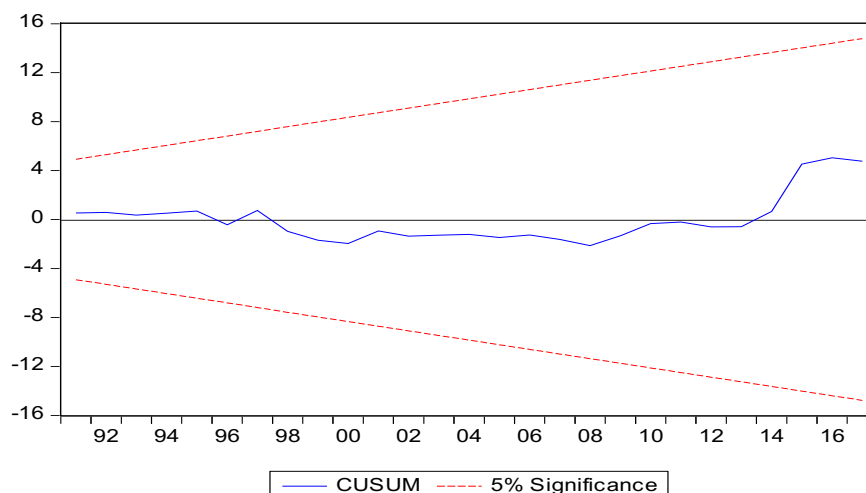
Source: Author’s Computation Using E-views 9, 2024

From table. 4.4. That the probability values of the F\* statistics of 0.4938 implies that there is no hetroskedasticity in the residuals at 5 % level of significance.

#### 4.4 Results of Stability Test

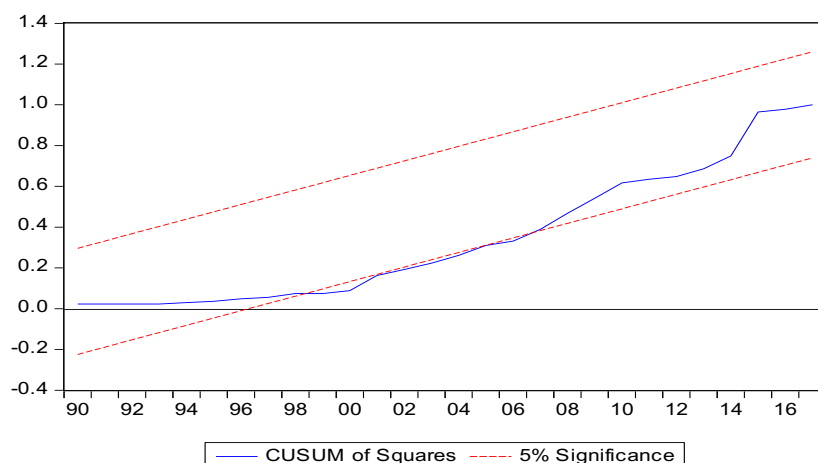
The cumulative sum of recursive residuals (CUSUM) and cumulative sum of square of recursive residuals (CUSUMQ) tests were conducted. The plots of both CUSUM and CUSUMQ are within the boundaries (see Figure 1 & 2). Generally, the estimated parameters are stable in the long-run.

Figure 1: Plot of cumulative sum of recursive residuals (CUSUM)



Source: Author’s Computation Using E-views 9, 2024

Fig 2: Plot of Cumulative sum of square of recursive residuals (CUSUMQ)



Source: Author's Computation Using E-views 9, 2024

The test shows that, the variables passed the cusum test. Thus, the model is stable, there is no chance of having spurious regression, since the blue lines is in between the two red lines. However, in the cusum of squares the blue line approach the red line from below, this may be due to the extrapolation of historical trend of human development index to fill the missing years using retrogressive moving average

## 5.0 Conclusion and Recommendations

This paper has been able to explore that poverty has a negative and significant impact on quality of life during within the study period. The negative implication of poverty on quality of life is in in -line with the a-priori expectation and classical and neoclassical theory of poverty which says poverty leads to low level of total earnings insufficient for maintaining the minimum necessities for the maintenance of merely physical efficiency, including food rent and others, the negative relationship of poverty on quality of life is still in -line with the neoclassical theory of poverty which look at poverty beyond monetary terms to include condition of life so degraded by disease, illiteracy , malnutrition and squalor so as to deny it victims basic human necessities . The result further indicate investment has a negative and significant relationship with quality of life in the long run, this is in line with Keynesian theory of crowding out effect of expanding aggregate demand through expansion of investment which result backward bending supply curve of output. In other word it results diminishing marginal productivity of the initial capital invested. Likewise, interest has a negative but insignificant relationship with quality of life in the long run, this also in-line with Keynesian view interest, investment and output levels, which state the higher the interest the lower the level of investment and output, consequently the lower consumption and quality of life in the long run.

The HDI was created to emphasize that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. The HDI can also be used to question national policy choices, asking how two countries with the same level of GNI per capita can end up with different human development outcomes. These contrasts can stimulate debate about government policy priorities.

Nigeria: As the number of people living in extreme poverty continues to rise, SDG 1 is becoming out of reach. The number of people living in extreme poverty – defined as living on less than \$1.90 a day – continues to rise in Nigeria. The population in extreme poverty is about 85 million people, rising poverty has been exacerbated by the recent deterioration of growth prospects in Nigeria, amid the collapse in commodity prices, political turbulences and

conflicts. However, to avoid perpetuation of poverty and underdevelopment this paper suggests the following.

Nigeria is home to over 10 million out-of-school children, around half of whom are girls - and it is hardly coincidental that the country with the world's highest number of out-of-school children are home to the highest number of people living in extreme poverty. Two-thirds of this population are concentrated in Nigeria's highly populated north-west and north-eastern regions, both of which have been ravaged by the terror group, Boko Haram, resulting in an educational emergency affecting about 2.8 million children.

Increased investment in healthcare is linked to economic growth, and consequently to reducing poverty. Nigeria is battling with a number of crushing health indicators including malaria, tuberculosis and infant and maternal mortality, all of which have a sweeping impact on productivity. In order to end poverty, we must harness the demographic dividends through investment in health, education and livelihoods - especially for our young people.

Ending poverty in Nigeria will entail improving the country's economic productivity and opportunities for its citizens. This will mean investing in human capital potential and creating jobs for women and young people, increasing financial access and opportunities these groups in rural communities, and advancing technological innovation. Nigeria ranks 152 out of 157 countries on the World Bank's Human Capital Index. One of the low-hanging fruits would be to embrace educational reforms that focus on developing new skills through robust and well-funded technical and vocational education and training programs for those millions of Nigerians outside the formal school system, or who possess only a primary education. Government should also be very diligent in leakages and effectiveness of programs that are designed to reduce poverty.

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