

ALLEVIATING POVERTY IN NIGERIA: KEYNESIAN VS MONETARY THEORY OF POVERTY

Olukayode Emmanuel Maku*

Department of Economics, Faculty of Social Sciences, Olabisi Onabanjo University, Nigeria
E-mail: kaymarks73@yahoo.co.uk

Afeez Taiwo Tella

Department of Economics, Faculty of Social Sciences, University of Ibadan, Nigeria
E-mail: taiwotella03@gmail.com

Akinola Christopher Fagbohun

Department of Economics, Faculty of Social Sciences, Lead City University, Nigeria
E-mail: akinfagbohun@yahoo.co.uk

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Abstract: This study comparatively investigates the impacts of fiscal and monetary policies on poverty in Nigeria from 1986 to 2018. Using the Ordinary Least Square and Standardized or Beta Coefficient approach, we found that the Nigerian political system plays a vital role on a large number of its citizens living in extreme poverty. Other factors identified as the likely causes of poverty are insurgencies, terrorism, and low productivity among others. Also, monetary policy is more important in alleviating poverty than the fiscal policy which favored the monetary school arguments. Specifically, monetary measures like exchange rate and interest rate are more significant in alleviating poverty far more than inflation rate while fiscal measures proxy with government recurrent expenditure plays a more vital role in alleviating poverty in Nigeria than others like government capital expenditure and government recurrent expenditure. The study recommended that in the case of monetary measures, there is a need for Government through the Central Bank of Nigeria, to shift their attention towards key monetary policy measures like interest rate and exchange rate compare to other monetary measures.

Keywords: Fiscal policy, monetary policy, poverty, and poverty alleviation

JEL Codes: E12, E52, H50, I30, O23

* Corresponding author: Olukayode Emmanuel Maku. *E-mail: kaymarks73@yahoo.co.uk*

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1. Introduction

Poverty has been generally seen by different Scholars as one of the most difficult challenges facing most of the developing economies around the world, where on average, the majority of the population is considered poor. Poverty is very much disastrous to the extent that it does not only affect the present of a nation but also jeopardizes the future of every society in which they live. In Nigeria, poverty incidence started rising in the late 1970s and early 1980s when the economy experienced difficulties as a result of oil shock, deteriorating terms of trade, debt overhang, and macroeconomic instability. Tella and Alimi (2016) noted that the Nigerian achievement toward halving the number of people living with less than \$1.90/day and \$3.10/day is not impressive compared to other developing countries in the Asian, Latin America, Middle East regions, etc. For example, the poverty headcount of people living with less than \$1.90/day to the total population has increased from 45.27% in 1985 to 57.06% and 63.5% in 1992 and 1996 respectively and later reduced to 53.46% in 2003 and also rises to 53.47% in 2009 (World Development Indicator, 2016; Maku and Alimi, 2018). The same database reported that for those living with less than \$3.10/day, poverty level rises from 70.64% in 1985 to 76.15% and 81.04% in 1992 and 1996 correspondingly and later reduces to 78.51% in 2003 and 76.46% in 2009 (World Development Indicator, 2016; Maku and Alimi, 2018). Due to the high negative effect of poverty on every sector and the world economy at large, reducing it has been of grave concern to many countries including Nigeria in the past few decades to date.

It is very important to understand that the measures of eradicating poverty are numerous and varied depending on the targets and what was diagnosed as the cause. Successive Nigerian governments have designed and implemented numerous policies to tackle poverty because of the short and long term effect on the economy at large. However, having confirmed that lots of policies have established and executed in the past all in the name of alleviating poverty, but still persist to date, does it mean that the policies are not significant?

Scholars argued that government policies, be it fiscal or monetary, play an important role in poverty reduction. Therefore, which of the two policies is more effective to deal with poverty in Nigeria? This study thus investigates the comparative impact of fiscal measures and monetary measures on poverty alleviation in Nigeria from 1986 to 2018. This time frame goes a long way because of the post SAP targets of the monetary policy framework since 1986 that focus on the stimulation of output and employment which has been stated by different scholars as part of the factors that affect poverty in Nigeria. The effect of the year 2002 CBN medium-term monetary policy framework employed to control the problem of inconsistency in different monetary policies executed. Likewise, the effectiveness of fiscal policies deregulation period of 1986 to 2006 was affirmed.

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This is necessary to examine the most significant policies to prioritize in the process of eradicating poverty in Nigeria.

Another part of this paper is divided into four. The second section provides the literature review and the methodology was presented in section three. We discussed our results and findings in the fourth section and the first section provides conclusion and policy options.

2. Literature Review

This section detail different related studies that have been carried out in the past. To begin with, Rami'reza, Diaz and Bedoya (2017) found a causal and decreasing impact of property tax revenues on the poverty headcount ratio and gap. They also discovered that this impact has substantial spillovers across municipalities.

The findings on fiscal and monetary policies on poverty alleviation in developing or emerging countries such as Rizwan and Kemal (2006) concluded that a decrease in remittances increases poverty in Pakistan; and a decrease in the remittances and trade liberalization bring about an increase in the income distribution disparity, which consequently increases poverty. Mehmood and Sadiq (2010) inferred that there is a negative relationship between government expenditure and poverty. They went further that there is a short run and a long-run relationship between poverty and government expenditure. Degol and Weeks (2011) found that fiscal policy would concentrate on scaling-up public investment, revenue mobilization, and preventing over-heating while monetary policies would revive the financial sector, prevent inflationary pressures and stimulate private sector investment. Exchange rate policies should focus on achieving slow depreciation and maintaining international competitiveness.

For studies carried out in Nigeria, Obi (2007) observed that targeting of government expenditure seems to be the most potent tool for effective poverty reduction. The study stress further that tariff adjustment tends to aggravate income disparity or poverty amongst households. Benneth (2007) concluded that government revenue also positively redistributes income but government expenditures are the major and vital tool of income redistribute and reduction in poverty.

Essien and Salawu (2012) contended that fiscal policy alone is not effective in the alleviation of poverty and output channel is effective in reducing the incidence of poverty in Nigeria both in the short and long run. They concluded that to viably decrease the rate of poverty in Nigeria, fiscal policy variables, which have effects on social and economic infrastructures, could be utilized just as policy measures that will positively affect the output or improve the performance of the economy could be employed. Farayibi and Owuru (2012) found that government capital and recurrent expenditures have not significantly reduced the level of poverty in

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Nigeria because of a weak linkage, which has not enabled fiscal policy to reflect its true opportunity cost. They, therefore, concluded that the level of government capital expenditures in Nigeria has a weak impact on the level of poverty in the country over the timeframe covered. Okulegu (2013) affirmed that public spending has a huge effect on Poverty reduction in Nigeria.

Adesoye, Alimi and Adelowokan (2016) while examining the effects of fiscal policy and private spending on sustainable development found that tax revenue influences real income per capita negatively but enhances the human development index positively. Also, per capita income was positively driven by government expenditure and private investment. Furthermore, government expenditure and private investment have a negative impact on the human development index. The study further noted that fiscal policy and private investment had more of a long-term impact on sustainable development than a short-term impact. Owuru and Farayibi (2016) found that the level of government capital expenditures in Nigeria does not lessen the poverty level in the country over the timeframe chosen while the value of the level of government recurrent expenditure shows a significant impact on poverty reduction. The budget deficit was found to increase the poverty rate in the economy. In the case of monetary-poverty nexus, Goshit and Longduut (2016) revealed that indirect monetary policy instruments alone were horribly lacking measure/policy to reduce poverty in Nigeria.

The third perspective that captured the three which is fiscal, monetary and poverty like that of Ajulor (2013) revealed that there have been imperatives in policy implementation in Nigeria such as unrealistic goal setting, corruption, lack of consideration of the socio-political environment and lack of participation of target beneficiary in policy decisions. Aminu and Onimisi (2014) found that the policies and programs have neglected to accomplish the desired result due to the high level of corruption, Top-bottom approach in tackling poverty, inadequate co-ordination of various programs, the politicization of poverty alleviation schemes as well as inconsistency in policies and programs. Adamu and Inuwa (2016) concluded that to reduce poverty and improve the quality of life in Nigeria will require sustained economic growth.

3. Theoretical Framework and Methodology

This study employed the Keynesian and monetary theory because of the main aim of the study which is to comparatively investigate the impact of fiscal measures and monetary measures on poverty alleviation in Nigeria. The Keynesian theory was employed because it focuses on macroeconomic forces and emphasized the role of government in providing economic stabilization and public goods. Keynesian economics suggests that adjusting state spending and tax rate are the best ways to stimulate aggregate demand the total demand for final goods and

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services in the economy at a given time and price level. Thus in Keynesian theory, fiscal policy is a distinct demand-side instrument. The government can affect aggregated demand directly through its expenditure and indirectly by taxation. Hence the model specified as thus:

$$POV_t = f(GVE_t, TAX_t) \quad (1)$$

Where: POV = Poverty index; GVE = Government Expenditure; TAX = Government Revenue; and t = time.

In addition, the monetarist economics see government spending as having a significant supply-side effect but no demand-side function unless it triggers changes in monetary measures. They, however, inferred that monetary policy will have a direct effect on poverty while fiscal policy will have a circuitous effect on poverty. Therefore, the model was re-specified as thus:

$$POV_t = f(MPM_t) \quad (2)$$

Monetary Policies is defined as MPM , while other variables remain as defined. Likewise, Scholars were of the supposition that there are lots of potential determinants of poverty (Jordan 1996; Ravallion, 1998; Ajakaiye and Adeyeye, 2001; Laderchi *et al.*, 2003; Schiller, 2008; Aderonmu, 2010; and Agbiokoro, 2010). Some of the highlighted factors are level of dependency, health care, per-capita income, education, inequality, terms of trade, democracy index, adequate housing, unemployment rate, food energy requirements, clothing and shelter. However, this study captured some of the variables into the model based on the availability of data and level of importance on the part of the researcher. Consequently, the model of poverty based on its potential determinant is specified as thus:

$$POV_t = f(ADR_t, LEB_t, PCg_t) \quad (3)$$

Where: ADR = Age Dependency Ratio; LEB = Life Expectancy at Birth; and PCg = GNI per-capita growth. However, merging of the three equations, the model was specified as thus:

$$POV_t = f(GVE_t, TAX_t, MPM_t, ADR_t, LEB_t, PCg_t) \quad (4)$$

Poverty index is defined as the headcount of the population in multidimensional poverty measured in percentage (%). In the case of fiscal policy measures, the study divided the government expenditure into two namely: government recurrent expenditure (GRE) and government capital expenditure (GCE) while government revenue proxy with tax being the main source of government revenue (GCR) in Nigeria. Also, the monetary policies measures incorporated into the model are interest rate (INT), inflation rate (INF) and exchange rate (EXR). Other variables captured in the study's model are age dependency ratio (ADR), life expectancy at

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birth (LEB) and GNI per-capita growth (PCg) as potential determinants of poverty as stated by various scholars. Therefore, equation (4) is re-specified as thus:

$$POV_t = f(GCE_t, GRE_t, GCR_t, INT_t, INF_t, EXR_t, ADR_t, LEB_t, PCg_t) \tag{5}$$

Mathematically, the model is written as:

$$POV_t = \beta_0 + \beta_1 GCE_t + \beta_2 GRE_t + \beta_3 GCR_t + \beta_4 INT_t + \beta_5 INF_t + \beta_6 EXR_t + \beta_7 ADR_t + \beta_8 LEB_t + \beta_9 PCg_t + \mu_t \tag{6}$$

The variables remained as defined, while β_0, β_{1-9} are parameters and μ is the error term. The theoretical signs of the parameters are $\beta_1 < 0, \beta_2 < 0, \beta_6 < 0, \beta_8 < 0, \beta_9 < 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0,$ and $\beta_7 > 0$. Table 1 presents the measurements and source of data for the variables.

Table 1 The measurement and source of data

S/N	Variables	Variables Definition	Measures	Data Source
1.	POV	Headcount of the population in multidimensional poverty and Human poverty index	%	HDR (various issues)
2.	GCE	Percentage change in Federal Government capital expenditure	%	CBN
3.	GRE	Percentage change in Federal Government recurrent expenditure	%	CBN
4.	GCR	Percentage change in Total Federally Collected Revenue	%	CBN
5.	INT	Interest rate spread (lending rate minus deposit rate)	%	WDI
6.	INF	Consumer Prices Index	%	WDI
7.	EXR	Percentage change in the official exchange rate of the Naira (₦/US\$1.00)	%	WDI
8.	ADR	Age Dependency Ratio (% of working-age in population)	%	WDI
9.	LEB	Percentage change in Total Life expectancy at birth	%	WDI
10.	PCg	GDP per-capita growth	%	WDI

Note: %: Percentage, **HDR:** Human Development Report, **CBN:** Central Bank of Nigeria, and **WDI:** World Development Indicator.

Source: Authors' Compilation

4. Results

4.1. Descriptive Analysis

The outcome of the descriptive analysis is presented in Table 2. The mean of the variables specified in the model are poverty index, government capital expenditure, government recurrent expenditure, total federally collected revenue, interest rate, inflation rate, exchange rate, age dependency ratio, life expectancy at birth and GDP per-capita growth respectively are 44.24%, 22.76%, 27.61%, 28.89%, 6.71%, 19.88%, 27.64%, 88.96%, 0.46% and 1.97%.

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The table also shows the rate at which each variable dataset is symmetry using a skewness test. The poverty index, government capital expenditure, and life expectancy at birth are fairly skewed; total federally collected revenue, interest rate and age dependency ratio are moderately skewed while government recurrent expenditure, inflation rate exchange rate and GDP per capita growth are highly skewed. In addition, Poverty Index; Government recurrent expenditure; government revenue; Inflation Rate; Exchange rate; Age Dependency Ratio; Life Expectancy at Birth; and GDP per-capita were positively skewed while Government capital expenditure and Interest Rate were negatively skewed. However, the negative skewness simply implies that the left-hand tail will typically be longer than the right-hand tail while the positive skewness simply implies that the right-hand tail will typically be longer than the left-hand tail.

Moreover, Kurtosis, which is majorly about the tail of the distribution. The decision rule according to McNeese (2016) is that close to 0 kurtosis is a normal distribution (mesokurtic distributions), less than zero kurtosis is light tails distribution (platykurtic distribution) while greater than zero kurtosis has heavier tails (leptokurtic distribution). Therefore, all the variables have heavier tails. However, poverty index, government capital expenditure, total federally collected revenue, age dependency ratio and life expectancy at birth kurtosis were less than 3, which shows that the distributions are flat and relatively normal while total federally collected revenue, interest rate, inflation rate, exchange rate and GDP per-capita growth kurtosis were greater than 3, which shows that the distributions are not flat neither relatively normal (McNeese, 2016).

Table 2 Descriptive statistics

	POV	GCE	GRE	GCR	INT	INF	EXR	ADR	LEB	PCg
Mean	44.23656	22.7509	27.6119	28.89083	6.707364	19.8802	27.64088	88.96233	0.461894	1.967612
Median	44.545	26.67852	16.64416	12.56884	7.183333	11.8975	7.786042	88.29896	0.439099	1.970411
Maximum	67.2	83.20938	157.8098	127.8171	11.06417	72.8355	321.9049	92.74294	1.149475	30.35658
Minimum	30.1	-51.9202	-34.1938	-38.4156	0.316667	5.382224	-5.77236	86.59807	-0.12729	-13.0645
Std. Dev.	9.856523	35.6882	40.57534	45.51809	2.669542	18.65772	61.91376	2.07448	0.471506	6.966192
Skewness	0.396384	-0.19351	2.048386	0.579043	-0.83614	1.567795	3.676109	0.65986	0.071871	1.690083
Kurtosis	2.307514	2.220448	7.161555	2.223373	3.441716	4.043656	17.31682	1.982047	1.315262	10.44167
Jarque-Bera	1.477356	1.009988	45.46945	2.592415	3.988831	14.56152	345.3686	3.703852	3.812007	89.07188
Probability	0.477745	0.603509	0	0.273567	0.136093	0.000689	0	0.156935	0.148673	0
Sum	1415.57	728.0288	883.5807	924.5066	214.6356	636.1663	884.5083	2846.795	14.78059	62.96359
Sum Sq. Dev.	3011.682	39483.07	51037.1	64228.78	220.9202	10791.43	118832.7	133.4075	6.891849	1504.363
Observations	33	33	33	33	33	33	33	33	33	33

Source: Author's computation

4.2. Correlation Analysis

Table 3 present the correlation matrix which is the outcome of the correlation analysis result as a preliminary analytical technique to test for the presence of multicollinearity in the model. The outcome of the result shows that all the coefficients are relatively low which confirmed that there is no mutual association

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among the variables in the model and consequently implies that there is no multicollinearity problem in the model.

Table 3 Correlation Matrix

	POV	GCE	GRE	GCR	INT	INF	EXR	ADR	LEB
POV	1								
GCE	-0.15163	1							
GRE	-0.37158	0.124264	1						
GCR	-0.13028	0.174818	0.428751	1					
INT	0.331384	-0.24257	-0.07837	-0.08773	1				
INF	-0.02718	0.396856	0.158473	0.266313	-0.00216	1			
EXR	-0.37912	0.17702	0.640689	0.375934	-0.22195	-0.07857	1		
ADR	-0.10526	0.26139	0.164786	0.158484	-0.60815	0.370183	0.184959	1	
LEB	0.308861	-0.36118	-0.28484	-0.32064	0.337622	-0.48195	-0.31093	-0.7747	1
PCg	0.271162	0.088459	-0.1842	0.039359	0.115829	-0.09738	-0.35544	-0.3599	0.394792

Source: Authors' computation

4.3. Unit Root Test

The outcome of the unit root test is presented in table 4. The study employed ADF (unit root test) and KPSS (stationarity test). The results of the ADF and KPSS tests show that all variables are stationary at level. Therefore, the result of the two tests concurs with each other that the variables under investigation are integrated of order zero i.e. $I(0)$. Since all the variables are stationary at levels, this validates the use of ordinary least square estimation techniques in terms of multiple regression analysis. Estimating the multiple regression analysis is necessary in order to get the required information (standard error) for the standardized beta test in the course of the analysis.

Table 4 Unit root / Stationarity Test result

VARIABLES	AUGMENTED DICKEY-FULLER (ADF) TEST		KWIATKOWSKI, PHILLIPS, SCHMIDT AND SHIN (KPSS) TEST		ORDER OF INTEGRATION
	Level	1 st Diff	Level	1 st Diff	
POV	Level	-3.933303***	Level	0.442237**	I(0)
	1 st Diff	-9.416988***	1 st Diff	0.361484**	
GCE	Level	-5.583910***	Level	0.573325***	I(0)
	1 st Diff	-7.769801***	1 st Diff	0.198033**	
GRE	Level	-7.081887***	Level	0.463767***	I(0)
	1 st Diff	-4.224008***	1 st Diff	0.293164	
GCR	Level	-5.625894***	Level	0.477472***	I(0)
	1 st Diff	-6.969718***	1 st Diff	0.483871***	
INT	Level	-2.893935*	Level	0.429430**	I(0)
	1 st Diff	-5.958690***	1 st Diff	0.500000***	
INF	Level	-3.259866**	Level	0.343141**	I(0)
	1 st Diff	-3.643795**	1 st Diff	0.316948**	
EXR	Level	-5.329276***	Level	0.275461**	I(0)
	1 st Diff	-9.023364***	1 st Diff	0.383989***	

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ADR	Level	-5.329276***	Level	0.495207***	I(0)
	1 st Diff	-6.670575***	1 st Diff	0.255136**	
LEB	Level	-3.479294**	Level	0.528139***	I(0)
	1 st Diff	-3.334528**	1 st Diff	0.142127**	
PCg	Level	-4.354777***	Level	0.267965***	I(0)
	1 st Diff	-6.216231***	1 st Diff	0.500000***	

Source: Author's computation using E-views 9, Note: ***, **and* denotes the unit root test and stationarity at 1%, 5% and 10% levels respectively.

4.4. Trend Analysis

Figure 1 demonstrates the result of the trend analysis using bar charts to depict the poverty rate in Nigeria from 1986 to 2018. On average, the poverty rate in the last decade (2008 to 2018) of the scope is relatively higher compared to the earlier decades. It was also identified that poverty always reduced towards the end of every government term like 1999, 2003, 2011 and 2015 except in 2007. This could be a result of the program put in place by the government or various politicians seeking the masses votes into political offices. Also identified was that immediately after the change of government (that is, the following year 2000, 2004, 2008, and 2012) except in the year 2016, poverty shot up again which implies that the political office holder has achieved their aim and no longer interested in the populace condition. Going by this, it will not be unjust to conclude that the change of political governance or the Nigerian political system at large plays a very vital role over poverty.

Continuous increase in the poverty rate from 1986 to 1991 could be attached to International Monetary Fund (IMF), emphasize on privatization and reduction in government expenditure within that same year range. The reason behind such enforcement was however unjust as the expectation was that as GDP per-capita falls, there is a reduction in demand for social goods and more of private goods such as food, shelter and clothing. Also, over-dependence on crude oil product makes the effect of falling output and prices of the product more tremendous and consequently lead to a high poverty rate. Another likely reason is the nature of programs established with specific targets that are not influential as at the time such policies were established. Most of the policies target rural areas, which include DFRR of 1986, NDE (1986), BLP (1987) and PBN (1989). In addition, most of the poverty alleviation programs established between 1986 to 1989 failed because most of them were not well structured to eradicate poverty in conjunction with political influence due to a change of government and led to a lack of continuity. The Community Bank of 1990 specifically focuses on rural and urban areas simultaneously unlike the previous that focus on rural areas only (Oladeji and Abiola, 1998; and Effoduh, 2015). In conclusion, poverty alleviation programs that focus on rural areas of the Country in the late 1980's are not influential.

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The lowest poverty rate recorded in Nigeria was in 1992 which could be a result of the thrust of the 1992 budget that was basically meant to consolidate the gains of the economic restructuring program aimed at promoting greater efficiency, productivity and increased employment. This led to the increase in government's total expenditure by ₦40,192 million or 59.5 percent from ₦67,529.7 million in 1991 to ₦107,723.3 million in 1992. The expenditure exceeded the budget provision by ₦55,687.3 million or 107.1 percent. Overall, the Governments fiscal operation resulted in a deficit of ₦44,158.5 million, an increase of ₦8,402.6 million or 23.5 percent over 1991 and against the projected surplus of ₦2,100.0 million in fiscal 1992 (CBN, 1992). It could be a result of the late 1980s effect of an increase in oil price. Also, is the National Housing Fund which is the product of the 1992 Housing Policy of the Federal Government of Nigeria with the main objectives of which were: To ensure that the provision of housing units are based on realistic standards which the house owners can afford; To give priority to housing programs designed to benefit the low-income group to encourage every household to own its own house through the provision of more credit or fund.

Sharp increase in poverty rate from 1993 to 1994 could be attached to post electoral crisis and other political unrest after the 1993 election. This led to freezing of new foreign aids to Nigeria. The nation experiences a reversal in poverty rate from 1994 to 1997 as the poverty rate stated falling. This could be a result of the change of government in November 1993 accompanied by military forces. The poverty rate in the year 2000 was on decreasing trend till 2004, which could be associated with the positive effect of the millennium development goals established in the year 2000. The 2007 to 2008 increase in poverty rate could be owned by the surge in international oil prices coupled with world economic crises. Also, it could be in line with Nissanke and Thorbecke (2006) argument that the downside of economic openness is most vividly epitomized at times of periodical global financial and economic crises. They stressed further that the repeated economic and financial crises have been overwhelmed by the developing economy like Nigeria and make the poor to be more vulnerable (Nissanke and Thorbecke, 2006, 2010; and Effoduh, 2015).

Low poverty in 2011 could be attached to the abundant supply of natural resources, well developed financial, legal communications, transport sectors and stock exchange which is the second-largest in Africa (Effoduh, 2015). The highest level of poverty rate recorded in Nigeria was in the year 2012 which could be post-election effect as earlier mentioned or as a result of insurgencies and terrorism in the country accompany with the then government and New Year gift through the removal of fuel subsidy that led to very exorbitant increase in the price of fuel pump from ₦65 to ₦141 which was later reduced to ₦97 (after labor strike) before the end January 2012 (17th January). This implies that the fuel pump price in 2012

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was increased to ₦97 from ₦65 while the key monetary measures like MPR, CRR and liquidity ratio (12.0, 12.0 and 30% respectively) remain the same. The little adjustment on the part of MDG that led to the sustainable development goal still speaks in favor of the policy at the very first few years of its establishment in 2015 that led to the same poverty index of 50.9 the following year.

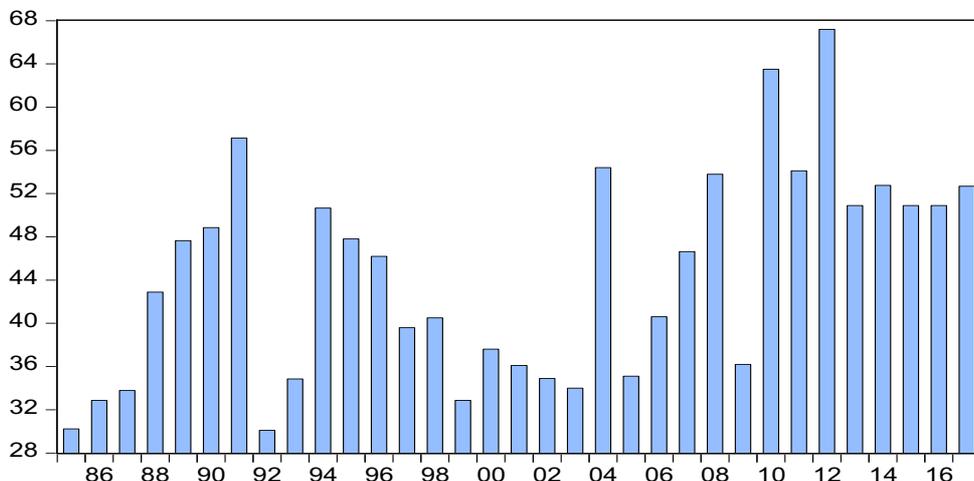


Figure 1 Trend Analysis of Poverty Rate in Nigeria (1986 – 2018)

Source: Author’s computation

4.5. Evaluate the Comparative Effect of Fiscal Policies Measures and Monetary Policies Measures on Poverty Alleviation

The result of the standardized beta test is presented in table 5. It shows the order of importance of all the independent variables to the dependent variable (poverty index) in Nigeria. The Formulae for the Standardised Beta Test is as thus:

$$\text{Coefficient of Unstandardised Beta for the I.V} \times \frac{\text{Standard Deviation of the I.V.in Quesetion}}{\text{Standard Deviation of the poverty index}}$$

Where, I.V means independent variable

The standard deviation for each variable has been calculated and presented in table 1 while the unstandardized beta which is also the standard error has been calculated through the use of ordinary least square (Appendix 1) because all the variables are an order of integration zero, I(0). Therefore, the standard deviation for each independent variable, the standard deviation for the poverty index as the dependent variable, each independent variable unstandardized beta coefficient, standardized beta coefficients and the independent variables ranking order are summarized in table 5.

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The result of the standardized beta test can be interpreted as follows: a standard deviation incremental change government capital expenditure (GCE), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.193%; a standard deviation incremental change in government recurrent expenditure (GRE), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.219%; a standard deviation incremental change in total federally collected revenue (GCR), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.193%; a standard deviation incremental change in interest rate (INT), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.224%; a standard deviation incremental change in inflation rate (INF), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.215%; a standard deviation incremental change in exchange rate (EXR), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.251%; a standard deviation incremental change in age dependency ratio (ADR), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.324%; a standard deviation incremental change in life expectancy at birth (LEB), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.301%; and a standard deviation incremental change in GDP per-capita (PCg), holding all other variables constant will bring about increase in the standard deviation of poverty index (POV) by 0.199%.

Lastly, the results show that age dependency ratio is the most important independent variables in the model to poverty index followed by life expectancy at birth, exchange rate, interest rate, government recurrent expenditure, inflation rate, GDP per capita, government capital expenditure and last in the order of ranking is federally collected revenue. More so, going by the specified objective, monetary policy is more significant to tackle poverty in Nigeria far more than fiscal measures. This conclusion favors the monetary school arguments that any policy that has no effect on monetary phenomenon will not affect poverty. Specifically, monetary measures like exchange rate and interest rate are more significant in alleviating poverty far more than inflation rate while fiscal measures proxy with government recurrent expenditure plays a more vital role in alleviating poverty in Nigeria than others like government capital expenditure and government recurrent expenditure.

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Table 5 Standardized beta Test Results and the ranking orders

Variables	Standard Deviation	PI (Standard Deviation)	Unstandardized beta	Standardized beta	Ranks
GCE	35.6882	9.856523	0.053294	0.192965	8
GRE	40.57534	9.856523	0.053288	0.219365	5
GCR	45.51809	9.856523	0.04171	0.19262	9
INT	2.669542	9.856523	0.825493	0.223577	4
INF	18.65772	9.856523	0.113291	0.214452	6
EXR	61.91376	9.856523	0.039992	0.25121	3
ADR	2.07448	9.856523	1.538801	0.323868	1
LEB	0.471506	9.856523	6.300919	0.301417	2
PCg	6.966192	9.856523	0.280902	0.19853	7

Source: Author's computation

4.6. Discussion of Findings

The study has done well by providing answers to all the questions raised. To start with, the result of the study shows that the poverty rate in the last decade (2008 to 2018) of the scope is relatively higher compare to the earlier decades. Also, poverty always reduced towards the end of every government term which could be a result of the program put in place by government or various politicians seeking the masses votes into political offices. In addition, immediately after the change of government shot up again. Therefore, change of political governance or the Nigerian political system at large plays a very vital role in the rate of poverty. It is in-line with Nissanke and Thorbecke (2006) and Nissanke and Thorbecke (2010) as the two studies concluded that quantity and quality of human capital, institutional framework and the quality of governance affect poverty. Other factors identified as the likely causes of poverty are insurgencies, terrorism, and low productivity among others. This aligns the findings of Adamu and Inuwa (2016). Furthermore, the use of standardized beta tests affirmed that monetary policy is very important in alleviating poverty than the fiscal policy which favored the monetary school arguments. This concurs with the monetary theory arguments that monetary policy measures will have a direct effect on poverty. Specifically, monetary measures like the exchange rate and interest rate are more significant in alleviating poverty far more than the inflation rate. This favor Nissanke and Thorbecke (2006) and Nissanke and Thorbecke (2010) as the study concluded that there are different vital links through which globalization in form of trade through exchange rate translates to the alleviation of poverty. On the part of the exchange rate, this concurs with Nissanke and Thorbecke (2006) going by the fact that globalization means greater economic integration manifested through increased openness via numerous transmission mechanisms such as trade and investment liberalization; movements of capital and labor among others since without finance, trade is not complete. The study stressed further that the exchange rate may affect

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poverty ultimately, depending on how the growth pattern affects income distribution, as inequality acts as the filter between growth and poverty reduction. However, Nissanke and Thorbecke (2006) were of the opinion that the risks and costs brought about by globalization can be significant for fragile developing economies and the world's poor.

In the case of fiscal policy, fiscal measures proxy with government recurrent expenditure plays a more vital role in alleviating poverty in Nigeria than others like government capital expenditure and government revenue. This partially favors the Keynesian arguments. It is partial in the sense that it does not agree totally with the argument because the theory suggested that adjusting state spending and tax rate are the best ways to stimulate aggregate demand which will consequently reduce poverty. It also goes in-line with Farayibi and Owuru (2012). The result of the study concurs with that of government spending, specifically through government recurrent expenditure but disagrees with that of tax. This could be a result of bad attitude towards payments of tax among the taxpayers in terms of tax avoidance, tax evasions among others. A high poverty rate could be attached to global inequality attributable to policy reform measures such as frequent application of deflation policy under stabilization-cum-adjustment (Nissanke and Thorbecke, 2006).

5. Conclusion and Further Directions of Research

Going by the analyses carried out, lots of results have been gathered which led to the study's conclusion. The poverty rate in the last decade (2008 to 2018) of the scope is relatively higher compared to the earlier decades. Also, poverty always reduced towards the end of every government term which could be a result of the program put in place by government or various politicians seeking the masses votes into political offices. In addition, immediately after the change of government shot up again. Therefore, change of political governance or the Nigerian political system at large plays a very vital role in the rate of poverty. Other factors identified as the likely causes of poverty are insurgencies, terrorism, and low productivity among others.

The result of the standardized beta test shows that monetary policy is very important in alleviating poverty than a fiscal policy, which favored the monetary school arguments. Specifically, monetary measures like exchange rate and interest rate are more significant in alleviating poverty far more than inflation rate while fiscal measures proxy with government recurrent expenditure plays a more vital role in alleviating poverty in Nigeria than others like government capital expenditure and government recurrent expenditure. This concurs with Farayibi and Owuru (2012). Going by the aforementioned conclusion, the study suggested that to alleviate poverty in Nigeria, the government should focus on government

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recurrent expenditure. This implies that if the government intends to alleviate poverty, its spending on recurrent expenditure should be prioritizing not revenue. Also, in the case of monetary measures, there is a need for Government through the apex bank, Central Bank of Nigeria, to prioritize or shift their attention towards key monetary policy measures like interest rate and exchange rate compared to other monetary measures. Since the exchange rate and interest rate affect poverty, the Central Bank should channel more of their efforts on exchange rate movement and domestic interest to alleviate poverty. Going by the fact that globalization means greater economic integration manifested through increased openness via numerous transmission mechanisms such as trade and investment liberalization; movements of capital and labor among others since without finance, trade is not complete. In addition, the selection of poverty alleviation programs beneficiaries should not be based on political, tribal or religious bias, so that every eligible Nigerian stands a potential beneficiary from the program. This buttress Nissanke and Thorbecke (2010) views that institutions act as a filter to intensify the positive or negative effect of any of the policy measures. Anti-corruption Agencies like independent corrupt practice and other related offenses (ICPC) and the Economic and Financial Crimes Commission (EFCC) should be involved by adopting as the monitoring agency for all government policies or programs. Future studies have the option of shifting focus to the prevalence of poverty rate in the various states of the country not just to validate the findings of this study but also to identify the policy that best proffers solutions to poverty issues in each state.

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Author Contributions

Tella and Maku were responsible for the idea of this study as well as the design and development of the data analysis. Tella and Fagbohun reviewed the empirical literature. The three authors were equally responsible for the data collection, analysis and discussion of results.

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