

An Assessment of Income Distribution in Nigeria

Emmanuel NATHAN

*Niger Delta University, Department of Economics,
Wilberforce Island, Bayelsa State, Nigeria,*

&

Warlice Joel UCHE

*Niger Delta University, Directorate of Consultancy, Entrepreneurship, Research and Development
(DOCERAD), Wilberforce Island, Bayelsa State, Nigeria*

Abstract

This study looked at Nigeria's income distribution. The analysis employed annual time series data on the chosen variables (RGDPR, GINIC, POVR, UNEM) from 1990 to 2017. The Error Correction Model (ECM) estimate approach, the Cointegration rank test, and the Philip Peron (PP) test were used to examine the data. Poor income distribution (GINI) was found to have a favourable influence on Nigeria's real gross domestic product growth (RGDPGR). Between 1990 and 2017, the poverty rate in Nigeria had a negative, albeit minor, impact on the country's economic growth rate. The study also showed that during the study period, the unemployment rate had a negative impact on Nigeria's economic growth rate. According to the study's findings, the "positive link between income inequality (poor income distribution) and Nigeria real GDP growth" seen in the error correction estimation is incompatible with economic theory. The effort made by the government and some very high-income individuals who committed their funds to economic development initiatives between 1990 and 2017 may be responsible for the outcome. During the research period, poverty and unemployment constituted significant obstacles and hurt Nigeria's GDP growth. The research advised that the government work to close Nigeria's significant income gap and pay public office holders (politicians) on par with other state officials. The government should allocate more funds to initiatives aimed at reducing poverty, such as those that promote entrepreneurship, skill development, and social safety nets. In order to address the issue of the country's persistently high unemployment rate, the government should provide the infrastructure needed for industrial development.

Date of Submission: 06-032023

Date of Acceptance: 19-03-2023

I. Introduction

Fair distribution of economic gains among factors, especially labour, has hitherto maintained a central position in world economic discuss. Every government, in its quest for development should place much emphasis on not just achieving sustainable economic growth but also on how its total national gross domestic product (GDP) is distributed amongst its population. Income distribution can be seen as a pattern of earnings of the citizens (labour force) of a country.

A country can experience inclusive economic growth when there is fair income distribution among the labour force, leading to reduction of absolute poverty. The findings of Sami seem not applicable to Nigeria because, despite continued economic growth that was achieved over the years, income distribution had maintained an upward trend of inequality. Nigeria is placed 30th in terms of income inequality, with a GINI index ratio of 0.50 to 0.70. (Adegoke, 2013). The most difficult economic issue facing Nigeria is income inequality and poverty, which are not just on the rise (Awe and Rufus, 2012). According to Ogbeide and Agu (2015), concerns with inequality and widespread poverty pose a threat to Nigeria. Given that a small number of people control the majority of the nation's wealth, this assertion may have a high likelihood of being accurate. One of the primary issues with Nigeria's economic and political landscape may be the disproportionate acquisition and control of economic resources by a tiny population.

In Nigeria, only few individuals that maneuver their ways into political positions through dubious and opaque means are beneficiaries of the wealth of the nation. While a large percentage of the population see their wages lose purchasing power, laying the ground for the journey to poverty. The political class through the instrumentality of democracy has robbed the citizenry of their collective wealth, accrued for themselves wealth and income that defy the marginal productivity theory. The chasm between the haves and have not widens with the passing of each day as the government have failed in distributing wealth and income, or putting modalities in

place to aid the low income earners to move to high levels of income (Nwagwu, 2014). Several examples buttress the preceding claim of income inequality, pervasive in the country. Graduates in Nigeria earn monthly income as low as N 18,000, and N30,000 as minimum wage, while those in the political class earn as high as N23 million and above (Nwude,2013). The divergence in the distribution of Nigeria national income is capable of threatening the progress of the country. Increasing income disparity may slow down the country's desire for rapid economic growth and development.

According to Bernstein (2012), income inequality has implications for the next generation's ability to realize their ambitions because it is not only significantly connected with living standards and household resources. The World Economic Forum identified economic disparity as one of the greatest threats to human progress, affecting domestic social order and endangering international security (Fuentes-Nieva, & Galasso, 2014). The seriousness of income distribution in Nigeria may be observed in the income restructuring strategies put forth by succeeding governments, the persistent demands for greater wages made by employees and labour unions, and the lobbying for salary disparities made by NGOs. In addition to being essential to a country's prosperity (Awe and Rufus, 2012), income distribution has the capacity to end domestic strife. Most Nigerians may immediately ask the following questions given the steady increase in the annual national income;

- How equitable is the distribution of the growing national income?
- What proportion of the national population wields the lion share of the growing national income? And,
- Does inequality cause economic growth or economic downturn?

II. Literature Review

2.1 Theoretical Framework

This study reviewed the Kuznet theory of income inequality and the Pro-Poor growth theory. However, this study adopts the Kuznet theory of income inequality, as the divergence in the distribution of national income is capable of threatening the development of the country and may slow down the country's yearning for rapid economic growth and development.

2.1.1 Kuznet Theory of Income Inequality

Kuznet (1955) propounded the inverted-U hypothesis in a bid to explain the relationship between income inequality and economic growth and development. The theory argued that as a country begin its path to economic development (moving from a poor country in relation to others to a rich country), forces of demand and supply first bring about an increase in the divergence of income distribution and latter decrease in income differentials. The insight to Kuznet argument is simple to decipher. In the early stages of countries development process, investment opportunities tend to be abundant. Individuals having money will take advantage of the many investment opportunities in pursuant of their self interest. Individuals residing in the rural areas, aware of better paying jobs brought about by increase in industrialization will migrate to such areas thereby adding to the existing labour supply. This brings about decrease in wages paid to labour. However, as the country advances in its development process, per capita income rises as a result of rapid economic growth and income inequality decreases (Todaro and Smith, 2012). Kuznet argued that advances in technology, competition, and balanced growth that will be witnessed in the latter phase of a countries development path will bring about reduction in income inequality and an end to class conflict.

The Kuznet hypothesis is instrumental in explaining the role of economic development in bringing about income inequality and emphasizing industrialization as solution to the problem of income inequality, as well as giving insight to the cause of rural - urban inequality gap. However, the hypothesis that places emphasis on industrialization as solution to tackling income inequality is not without criticism. The inverted U hypothesis has been criticized on the basis that, the U shape that portrays Kuznets' argument is the result of historical differences that exist between the countries used in the analysis and not as a result of progression in the development path (Todaro and Smith, 2012). They argued that a good number of countries employed as middle income countries in the course of arriving at this conclusion were of the Latin America region where income inequality, historically, has always been at a high level. This paper does not support the position of Todaro and Smith, 2012, but rather agree with Kuznet hypothesis in principle. Our reason for taking this position is that results of most studies carried out in other regions of the world are in line with the Kuznet theory.

2.1.2 Pro-Poor Growth

The phrase "pro-poor growth" has become widely used in conversations on development policy over the last few years. Despite the term's widespread use, there doesn't seem to be as much agreement on what pro-poor growth actually entails, let alone what its causes are. According to some scholars, growth that is "pro-poor" results in poverty decreasing more than it would have if all incomes had increased at the same rate (Baulch and McCulloch, 2000). This definition focuses on the distributional changes that occur as a result of growth; generally speaking, for growth to be considered "pro-poor" by this definition, the poor should experience a

higher rate of income growth than the non-poor. The issue with this definition is that, even while rising inequality during an overall economic expansion may result in significant absolute gains for the poor, this growth is not considered to be pro-poor. Similar to this, a recession will be seen as being more favourable to the poor even though they are actually worse off if poor individuals lose proportionately less than others.

A more comprehensive and logical perspective is that growth benefits the poor when the important measure of poverty decreases (Ravallion and Chen, 2003). Because it focuses on what happens to poverty, this definition avoids the issue with the first one. The degree to which a chosen measure of poverty changes will then determine how pro-poor growth is. Naturally, some of this will depend on distribution, but only some of it—the average living standards will also be a factor.

2.2 Empirical Analysis

In their study titled “Assessment of income distribution and monthly budgetary allocation among urban households in Uyo, Akwa-Ibom state, Nigeria,” Frank, Agom, and Obot (2017) specifically looked at the pattern of income distribution on monthly budgetary allocation of households under specific socio-economic characteristics. Based on characteristics often connected with low, medium, and high-density communities, the study region was divided into cells. In the Uyo metropolitan, 30 respondents from each of the high, medium, and low income areas were chosen. The analysis used a sample of 179 respondents in total. The analysis employed descriptive statistics (mean and percentages). The most often budgeted items were: food, lodging, transportation, clothing, school fees, and other household items including power and water bills. The household budget was appraised based on occupation, household size, educational attainment, and economic status. 68% of the study's households were found to be low income households, according to the pattern of household income distribution. A gini coefficient of 0.3785 was found, indicating that the research area's income distribution is skewed. Except for the high income earners, household budgeted expenditures as measured by various socio-economic factors showed that all other categories spent more than half their income on food. In order to reduce economic inequality, the report proposed, among other things, that high-quality education, employment for the unemployed, and favourable tax policies for the wealthy be pursued.

By employing the cointegration technique to conduct an empirical analysis of the link between the determinants and income distribution, Awe and Olawumi (2012) explored a number of factors that affect how income is distributed in Nigeria. The study's empirical results showed that Nigeria has a very high Gini Coefficient, which denotes a significant degree of income inequality. Additionally, during the studied period, the real determinants of income distribution in the Nigerian economy were the employment rate, inflation rate, gross domestic product, and social spending (1977-2005). The study also discovered that the Gini coefficient of income distribution in the Nigerian economy had a direct relationship with employment rate, inflation rate, and government education spending, but that it had an inverse relationship with both the growth rate of output and government health spending. The findings also demonstrated that income distribution and its factors in Nigeria had a long-term link. They suggested that Nigeria's government create and put into effect more sensible employment policies. Through appropriate policy measures, including those that promote a more fair distribution of income and related money-earning opportunities, the government should assure adequate oversight of its spending on health and education.

Osevwe (2010) conducted research on the income distribution in Nigeria. The Nigeria Living Standard Survey (NLSS) 2004 of the National Bureau of Statistics served as the foundation for the analysis, which included a survey of 19158 homes across Nigeria. The analysis's findings suggest that the country's inequality profile can be explained in part by parameters including the household head's age, gender, and educational attainment. It was discovered that inequality exists in both rural and urban settings, however it is more pronounced in the former. In some geopolitical zones, inequality is also highly high. The analysis found that, according to the Lorenz curve, 17.95 percent of households controlled 46.7% of total spending, or about a quarter of all homes owned nearly half of the nation's wealth.

Agwu and Oteh (2014) undertook a study in Abia State in a bid to examine divergence in income distribution and access to adequate and nutritional food. They employed multiple regression method, food security index, and the GINI coefficient to analyze the data obtained from questionnaire administered to 180 respondents selected through the use of multistage sampling technique. The findings of the study showed a divergence in the distribution of income, with the GINI coefficient estimated to be 0.67. About 68.87 percent of the respondents suffer from food insecurity. Monthly income, educational level, and age of the household head were singled out as chief determinants of access to adequate food. The authors recommended that the state government should as a matter of urgency embrace policies that will bring about equitable distribution of income in the state. The study is a good one. However, it is our opinion that the authors should have specified the type of policy that the state government needed to urgently embrace.

Adams (2004) examined the growth elasticity of poverty using a fresh data set made up of 126 periods from 60 developing nations. According to the study, economic growth does in fact lessen poverty (as determined by the worldwide benchmark of \$1/person/day). How economic growth is defined greatly affects how much poverty is actually reduced. There is a strong, statistically significant correlation between economic growth and poverty when evaluated by changes in survey mean income (consumption); yet, when measured by changes in GDP per capita, the correlation between economic growth and poverty reduction is significantly lower. Economic growth lowers poverty in this study regardless of how it is measured since it has minimal effect on income disparity.

The study “Is inflation harmful for income inequality” by Galli and Hoeven (2001) examines theoretical and empirical data to investigate the impact of monetary policy and inflation on income disparity in industrialized nations. The data gathered from the US and a sample of 15 OECD nations were regressed using the ordinary least square method. Their research showed that restrictive monetary policy often reduces income disparity in nations with high inflation.

Odedokun and Jeffery (2001) conducted an empirical investigation on the drivers of income inequality and its effects on economic growth: evidence from African countries in a slightly different approach. They made an effort to show how the factors interacted in a much more thorough way. Then gathered data for the study from 35 countries throughout the course of the last four decades, and they used the OLS method to evaluate the data. According to the findings of their analysis, factors affecting income distribution include the degree of economic development, the level of regional factors, the size of the government budget and the amount allotted for subsidies and transfers, the stage of the economy, the proportion of the labour force employed in agriculture, and the endowment of human and natural resources. They get to the conclusion that a rise in output will lessen economic income inequality. All of the examined literature that used the OLS technique was completed two years prior to the current investigation. As a result, this study aims to close that gap by examining Nigeria's income distribution using recent data, whereas the majority of the literatures we surveyed focused on cross-national studies and certain state-specific issues. Additionally, the use of GDP growth rate as a gauge of economic expansion rather than just GDP or per capita GDP as some of the studies we studied did.

III. Methodology

The Error Correction Model (ECM) estimate technique was used in the paper. The fundamental premises of the Classical Linear Regression Model (CLRM) condition (heteroskedasticity and serial correlation tests) were confirmed because the ECM is a linear regression model. The advantages of estimating an ECM include the ability to capture and discriminate between the model's long-run and short-run dynamics, as well as the ability to interact between the two. This suggests that the term “error-correction” refers to the fact that a system's short-run dynamics are affected by an error a departure from a long-run equilibrium—that occurred during the previous era. As a result, ECMs directly calculate how quickly a dependent variable reaches equilibrium following a change in other variables.

3.1 Model Specification

Income distribution measures how a country's gross national income is shared amongst its population. A country with high level of inequality would be seen as that with rising poverty rates despite rising gross national income. Thus, to test for the economic implication of income distribution in Nigeria, the model in this study is specified using Nigeria's Real Gross Domestic Product Growth Rate (RGDPGR) as dependent variable and Nigeria's Gini-Coefficient (GINIC), poverty rate in Nigeria (POV), unemployment rate in Nigeria (UNEM) as explanatory variables. Given the above, the model is specified firstly in functional form, and transformed to its linear econometric form as follows;

$$RGDPGR = f(GINIC, POV, UNEM) \tag{1}$$

Equation 1 can be transformed as:

$$RGDPGR_t = a_0 + a_1GINIC_t + a_2POV_t + a_3UNEM_t + e_t \tag{2}$$

General equation for error correction model (ECM) is

Where:

Y_t = dependent variable at time t

B = coefficient of the independent variables

X_t = dependent variables at time t

RGDPGR = Real Gross Domestic Product Growth Rate

GINIC = Nigeria's Gini-Coefficient

POV = Poverty Rate in Nigeria

UNEM = Unemployment Rate in Nigeria

$a_0, a_1, a_2,$ and a_3 = Parameters to be estimated.

E_t = Stochastic term or error term

The behavioural assumptions, the apriori or the presumptive signs are stated as follow: $a_1 < 0$, $a_2 < 0$, $a_3 < 0$

IV. RESULT AND DISCUSSIONS

4.1 Descriptive Statistics

The descriptive statistics analysis is used to describe the movement of the variables over the period of the study as to reveal the characteristics of the data as shown in the table 4.1

Table 1 Descriptive Statistics

VARIABLES	RGDPGR	GINIC	POV	UNEM
Mean	2.448778	0.466137	46.09630	12.14259
Median	1.524000	0.472500	46.70000	13.10000
Maximum	30.35700	0.739100	57.10000	23.92000
Minimum	4.086000	0.033400	34.10000	1.900000
Std. Dev.	6.348021	0.229151	8.483762	7.126537
Skewness	3.262231	0.000002	0.000000	0.000008
Kurtosis	15.11700	1.855442	1.618616	1.597228
Jarque-Bera	213.0641	2.244942	2.231964	2.379159
Probability	0.000000	0.325475	0.327593	0.304349
Sum	66.11700	12.58570	1244.600	327.8500
Sum.Sq.Dev.	1047.732	1.365270	1871.330	1320.476

Source: Eview Output

The results of the analysis of descriptive statistics demonstrated that the GINI values in the data set are centered around the mean value, as shown by the correspondingly low standard deviation values (far from the mean values). The high standard deviation values, which are significantly higher than their respective mean values, show that the values of the remaining variables in the data set are further from their respective means.

As indicated in table 1, the data set's skewness and kurtosis were also investigated. The distribution of the data set's symmetry could be used to define skewness. On the other hand, kurtosis describes when a distribution peaks. Positive skewness coefficients are present in RGDPGR. The distribution is right-handedly skewed and fully symmetrical because of the positive skewness coefficients. In other words, the variable's tail extended to the right while the clustering occurred to the left. While the remaining variables' 0 skewness coefficients show that they did not stray from a normal distribution, That is, all of the variables are distributed normally, with the exception of RGDPGR. Except for RGDPGR, which has a Kurtosis coefficient of 15.117, which denotes a peak, the Kurtosis coefficients are all flat in comparison to the normal distribution. All of the variable's probability values are not statistically significant at the level of 5%, supporting the idea that these variables have a normal distribution.

4.2. Test for Stationarity

The majority of time series variables are not stationary, according to the literature. When utilised in regression, non-stationary time series data yield erroneous results. When there is a high R-squared or modified R-squared between a dependent variable and an independent variable or collection of independent variables but no true linear relationship between the two. In order to ascertain whether the variables in the study have unit roots or not, we started the data analysis by looking at the properties of the time series data utilised for model estimate. In other words, the unit root test is carried out to ascertain the stationary nature of the variables under consideration. In order to prevent false regression results, the Phillips-Perron unit root test was carried out, as indicated in table 2.

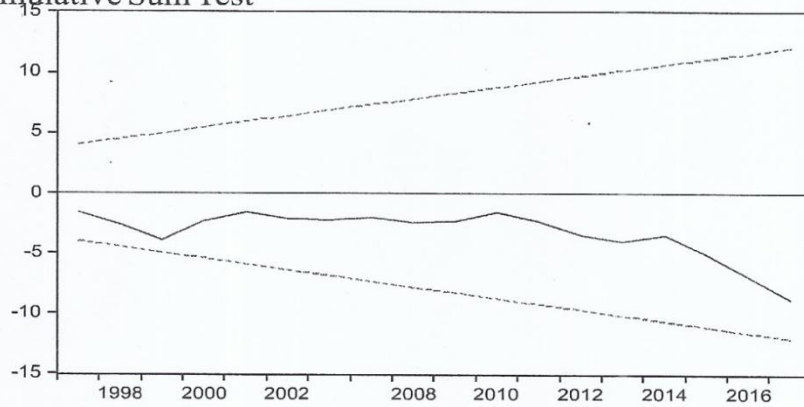
Table 2: Phillip-Perron Unit Root Test

Variable	Level	Prob	First Diff	Prob	Lag(s)	Model	Order of integration
GINI	-2.217431	0.467	8.910845***	0.000	1	Trend & Intercept	1(1)
RGDPGR	-4.395372**	0.0088			1	Trend & Intercept	1(1)
POV	-1.339604	0.8536	-4.641894***	0.0062	1	Trend & Intercept	1(1)
UNEM	-2.859471	0.1902	-6.489898	0.0001	1	Trend & Intercept	1(1)
ECM(-1)	-12.50259	0.0000			1	Trend & Intercept	1(0)

Source: Eview Output

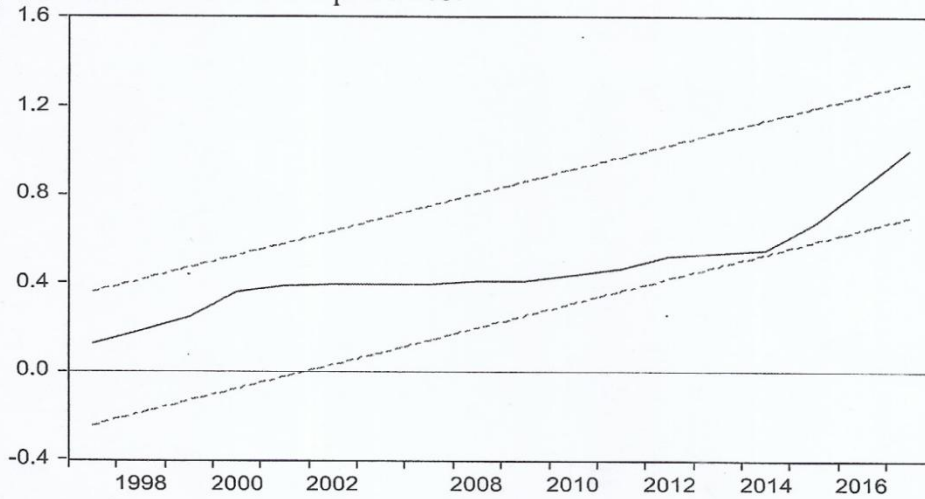
Note: (**) *** denotes statistically significant at 1%, 5% and 10% level respectively. The Phillip-Perron unit root test results obtained (see table 2) showed that RGDP was stationary at level and it is devoid of unit root while GINI, UNEM and POV, where not stationary at level, as such the null hypothesis of the presence of unit root was rejected for the variables at their level forms. The variables were therefore, tested again at their first difference and the test statistics became greater than the 5 per cent critical value in absolute terms after the first difference. The results show that the variables are stationary and are fit for analysis at first difference.

Fig. 1 Cumulative Sum Test



Source: Eview Output

Fig. 2 Cumulative Sum of Square Test



Source: Eview Output

Figures 1 and 2's Cumulative Sum (CUSUM) and Cumulative Sum of Square (CUSUM of square) tests demonstrate that the model's parameters have remained largely constant during the study period. This serves as proof because the total does not cross any of the two key lines. The diagnostic test results revealed that the error correction model is accurately provided with the relevant variables.

4.3 Residual Diagnostic Test

Table 3: Heteroskedasticity Test: Breusch-Pagan-Godfrey

Table 3: Heteroskedasticity Test: Breusch -Pagan-Godfrey				
F-statistic	0.741673	Prob.F (4,18)		0.5759
Obs*R-squared	3.254397	Prob. Chi-Square (4)		0.5162
Scaled explained SS	1.451475	Prob. Chi-Square (4)		0.8352
Test Equation:				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.519673	8.315486	-1.024555	0.3191
D(GINI)	0.186042	7.522871	0.008180	0.9936

D(POV)	0.186042	0.128742	1.445078	0.1656
D(UNEM)	0.167212	0.187179	0.893327	0.3835
ECM(-1)	-0.041463	0.101583	-0.408164	0.6880

R-squared: 0.141496; Adjusted R-squared -0.049283; F-statistic: 0.741673; Durbin-Watson stat: 1.920234; Prob(F-statistic): 0.575931

Source: Eview Output

With Prob. F(4, 18) [0.5759] and Prob. Chi-Square (1)[0,5162], the heteroskedasticity (Breusch-Pagan-Godfrey) test demonstrated that the residuals are homoskedastic at the first, second, and third orders of the estimated model. Additionally, at a 5% level of significance, neither the individual component test of the F-test nor the Chi-Square test reject the null hypothesis that cross-term heteroskedasticity does not exist. Table 3 presents the findings.

Table 4: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.383648	Prob. F (2,16)	0.2791	
Obs*R-squared	3.391421	Prob. Chi-Square (2)	0.1835	
Test Equation:				
Dependent Variable: RESID				
Presample and interior missing value lagged residual set to zero				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.905180	4847243	0.186741	0.8542
D(GINI)	-1.508487	4.377861	-0.344572	0.7349
D(POV)	-0.012558	0.074985	-0.167472	0.8691
D(UNEM)	0.035848	0.108162	0.331428	0.7446
ECM(-1)	-0.016680	0.059545	-0.280118	0.7830
RESID(-1)	0.247038	0.259082	0.953512	0.3545
RESID(-2)	-0.415053	0.293346	-1.414894	0.1763
R-squared: 0.147453; Adjusted R-squared: 0.172252; F-statistic: 0.461216; Durbin-Watson stat: 1.882311; Prob(F-statistic): 0.826767				

Source: Eview Output

The first, second, and third order serial corrections of the model with Prob. F(1, 16)[0.2791] and Prob. Chi-Square (2)[0.1835] were all rejected by the Breusch-Godfrey Serial Correlation LM Test statistic. We used the Johansen Co-integration Rank test to determine the number of co-integrating equations and to confirm whether the variables are co-integrated or not in order to determine whether there is a long-term relationship between the variables integrated at the same order (i.e. 1(1) in their linear combination. Table 4 displays the test results. Hypothesized

Table 4. Unrestricted Cointegration Rank Test

Hypothesized		Trace	0.05	Prob.**
No. of CE(s)	Eigenvalue	Statistic	Critical Value	
None*	0.736338	70.20262	63.87610	0.0134
At most 1	0.613665	39.54160	42.91525	0.1045
At most 2	0.465057	17.66742	25.87211	0.3667
At most 3	0.132859	3.278734	12.51798	0.8419

Source: Eview Output, 2019

There are 1 co-integrating equations at the 5% level, according to the Unrestricted Cointegration Rank Test (Trace) result in table 4. This might alternatively be interpreted as the Max-eigen value test finding two cointegrating equations to be significant at the 0.05 level. The cointegration result thus demonstrated the existence of a long-term relationship between the variables chosen for the investigation. As a result, the statistical and economic foundations for the class of equilibrium correction models, which have been empirically successful, are strengthened. In these models, prior levels of disequilibrium have an impact on current changes in the variables. Therefore, the presence of cointegration will enhance long-term economic time series forecasting.

Table 5 Estimated Regression Result

Dependent Variable: D(RGDPGR)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.458864	4.808051	-0.511406	0.6153
D(GINI)	16.27330	4.349758	3.741196	0.0015
D(POV)	-0.014443	0.074439	-0.194025	0.8483
D(UNEM)	-0.286276	0.108228	-2.645120	0.0165
ECM(-1)	-0.395333	0.161717	-2.444605	0.0222

R-squared: 0.621328; Adjusted R-squared: 0.537179; F-statistic: 7.383635; Durbin-Watson stat: 1.566988;
Prob(F-statistic): 0.001055

Source: Eview Output 2019

Table 5's findings indicate that the estimated GINI coefficient value is 16.27330, which is positive and has an at-statistic value of 3.741196 that is greater than 2.048, i.e., (t -calculated > t -tabulated), and a probability value of 0.0015 that is less than 0.05 (5% significant level), making the result statistically significant. The data suggested that between 1990 and 2017, Nigeria's real gross domestic product growth rate (RGDPGR) was positively impacted by income inequality (GINI). According to the estimates, Nigeria's economic growth rate will shift by 16.27330 units for every percentage point increase in wealth inequality. The outcome is incompatible with economic theory. The authors discovered that income inequality is harmful to economic growth in Rural and Urban Nigeria. Even the average person on the street and those living in rural areas can clearly see the enormous disparity in income in Nigeria. Under typical economic circumstances, the impact should be detrimental. This outcome could be attributed to the efforts made by the government and a few unfair high-income earners in Nigeria between 1990 and 2017 to invest their money in programmes for economic development.

The findings in Table 5 further indicate that the estimated poverty co-efficient is -0.014443, the t -statistic value is 0.194023 (less than 2.048), and the probability value is 0.8483 (higher than 0.05, at the 5% significant level).

The data suggested that between 1990 and 2017, Nigeria's real gross domestic growth rate (RGDPGR) was negatively but not considerably impacted by poverty (POV). The statistics also suggested that a 1% increase in the poverty rate would result in a 0.194023 fall in Nigeria's real GDP growth rate. The outcome is consistent with economic theory.

Table 5's results also revealed that the unemployment rate (UNEMP) is 0.286276, the t -statistic is -2.645120, which is greater than 2.048 in absolute terms, meaning that the t -calculated over the t -tabulated, and the probability value is 0.0015, which is less than 0.05 (5% significant level), respectively. The data suggested that from 1990 to 2017, Nigeria's real gross domestic growth rate (RGDPGR) was negatively impacted by unemployment (UNEMP). The data also suggested that a 1% increase in unemployment would result in a 0.286278 fall in Nigeria's real GDP growth rate (RGDPGR). To put it another way, a 1% decrease in unemployment might result in a 0.28627% boost in Nigeria's real GDP growth rate. The outcome matches a priori expectations.

The Error Correction Model calculation yielded an adjusted R of 0.537179. This shows that the three variables we included in our model—income inequality, poverty, and unemployment—account for 53.71 percent of variations in real gross domestic growth rate (RGDPGR), while the remaining 46.29 percent of changes are due to other unrelated variables that also account for variations in economic growth (RGDPGR) and are captured by the error term. The implication is that there are no specification flaws in the model. By being significant at the 5% level of significance, the F-ratio statistics value of 7.383635, R-squared value of 62.21, and probability value of 0.0010 support the model's goodness of fit. The absence of serial correlation in the model was implied by the Durbin Watson (DW) statistics of 1.566988.

V. Analysis and Suggestions

According to the study's findings, economic theory does not support the positive correlation between income inequality (poor income distribution) and Nigeria's real GDP growth figure. The effort made by the government and some very high-income individuals who invested their money in economic development programmes between 1990 and 2017 may be responsible for the outcome. During the research period, poverty and unemployment constituted significant obstacles and hurt Nigeria's GDP growth. Therefore, we urge the government to work to reduce Nigeria's persistently huge income inequality. Holders of public office ought to receive compensation on par with other national civil officials. The government should allocate more funds to initiatives aimed at reducing poverty, such as those that promote entrepreneurship, skill development, and social safety nets. To address the issue of the nation's high unemployment rate, the government should provide the necessary infrastructure for industrial development.

References

- [1]. Adams Jr. H. R. (2004). Economic Growth, Inequality and Poverty: Estimating the Growth Elasticity of Poverty. *The World Bank*, Washington, DC, USA.
- [2]. Adegoke, B. A. (2013). Modelling, the Relationship between mathematical reasoning ability and mathematics attainment. *Journal of Education Practice*.4(17):54-61
- [3]. Agwu, N. M., & Oteh, O. U. (2014). Analysis of income inequalities and food security among farmers in abia state, south eastern Nigeria. *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*14(3):7-14
- [4]. Awe, A. A. and Olawumi, O. R. (2012). Determinant of income distribution in the Nigerian economy: 1997-2005. *International Business and Management Journal*, 15(J): 126-137.
- [5]. Awe, A. A. & Rufus, O. (2012). Determinants of income distribution in the Nigeria economy: 1977-2005.5(3):54-65
- [6]. Baulch, Robert and Neil McCulloch (2000). Tracking pro-poor growth.' ID21 insights No. 31. Sussex: Institute of Development Studies.
- [7]. Bernstein, J. (2012). Inequality and Growth, On the Economy blog, available at <http://jaredbernsteinblog.com/inequality-and-growth>
- [8]. Frank, N. N., Agom, D. & Obot, O. J. (2017). An assessment of income distribution and monthly budgetary allocation among urban households in Uyo, Akwa-Ibom state, -Nigeria Application Tropical Agriculture 22(2) 1-9.
- [9]. Fuentes-Nieva, R. & Galasso, V.N (2014). Working For the Few: Political Capture and Economic Inequality.MPRA Paper 54984, University Library of Munich, Germany
- [10]. Galii, R. & Hoeven, R. (2001). Is inflation bad for income inequality: The importance of the initial rate of inflation. Employment Paper 2001/29.
- [11]. Jose, D. & Teilings, G. (2002).Determinants of Income Distribution. New Evidence from Cross Country Data, Korea University.
- [12]. Kuznet, S. (1955). Economic Growth and Income Inequality. *American Economic Review*, 45, 1-28.
- [13]. Nwagwu, E. J. (2014). Unemployment and poverty in Nigeria: A link to national insecurity. *Global Journal of Politics and Law Research* 2(1): 19-35.
- [14]. Nwude, C. E. (2013). Is CAPM a good predictor of stock return in the Nigerian food and beverage stocks? *Journal of Economics of Sustainable Development* 4(17): 176-188
- [15]. Odedokun, M. O. & Jeffery, I. (2001). Determinants of income inequality audits effects on economic growth: Evidence from African Countries. *Journal of Economics Literature*, 39(4).
- [16]. Ogbuide, E. N. S. & Agu, D. (2015) Poverty and income inequality in Nigeria: any causality? *Asian Economic? Asian Economic and Financial Review* 5(3): 439-452.
- [17]. Osevw L. O. (2012).A distributional analysis if income in Nigeria. An M.sc thesis Submitted to the Department Of Economics, Faculty Of Arts, University Of Nigeria Nsukka.
- [18]. Oyekale, A. S. (2005). Sources of income inequality and poverty in rural and urban Nigeria. *Journal of Development Economics* 51, 267-290.
- [19]. Ravallion, M. & Chen, S. (2001). "Measuring Pro-poor Growth," Policy Research Working Paper Series 2666, *The World Bank*.
- [20]. Sami, B. (2006). Growth with Equity is Better for the Poor: <http://ssrn.com/abstract=4984615/05/08>.
- [21]. Todaro, M. P& Smith, S. C. (2012). *Economic Development*, Tenth edition. United States of America: Pearson Education limited, Edinburgh gate Harlow EssexCM202JE.

Emmanuel NATHAN, et. al. "An Assessment of Income Distribution in Nigeria". *International Journal of Humanities and Social Science Invention (IJHSSI)*, vol. 12, no. 3, 2023, pp. 26-34. Journal DOI- 10.35629/7722