



INVESTIGATING THE IMPLICATION OF UNEMPLOYMENT FOR POVERTY REDUCTION IN NIGERIA

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STRUCTURE

- Introduction
- Literature review
- Poverty and unemployment profile in Nigeria
- Methodology and empirical investigation
- Policy implication and way forward

Background

1. Unemployment and poverty the two major challenges facing the present world economy but prevalence in developing countries.
2. Developing countries now associated with high level of social, economic, political, and psychological consequences.
3. Unemployment is a major cause of poverty (World Poverty Commission in Saunders (2002)).

4. Poverty is of different types and classification but the basic reason has always been lack of adequate income, hence the role of unemployment behind poverty
5. Proportions of world unemployment on the increase with North African having the highest unemployment rate of 12.2 percent followed by sub-Saharan Africa 10 percent



6. About 2.7 billion working poor surviving on less than US \$2 and 1.4 billion living on US \$1.25 a day per person (WorldBank, 2009; Echebiri, 2005; Chigunta, 2002).
7. This rose to 3.5% in 1998 and skyrocket to 11.7% in 1999. The rise in the trend continued and as at 2011, unemployment rate was 23.9% (NBS, 2009; 2011in Agu and Evoh 2011).

The problem

1. Nigeria is rich in both natural and human resources.
2. Unemployment on the rise since 1998 recording 23.9% in 2011.
3. Sharp rise in poverty since 1980 with 69 percent (109.03million) in 2010.
4. 67% of household income spent on food from 1991 to 1997 obeying the Engel's law, implying high levels of poverty in Nigeria.
5. Past policies on the fight against poverty and unemployment seem fruitless.
6. Contradictory empirical result from the few studies carried out. Most past studies were analytical (Park, 2002 (positive direct relationship); DeFina, 2001 (weak correlation maybe as a result of measurement confirmed by Son and Kakwani, (2006) using Brazilian data).
7. Inconsistencies can the methods of analysis given that there is the possibility of a feedback relationship between the two variables as well as the impact of lag in line with the cultural theory of poverty. Also country data and the availability of data can lead to conflicting results.
8. Imperative to carry out a recent study in Nigeria filling the lacuna as
 - The impact of recent policies on poverty reduction needs to be investigated.
 - Linking poverty to unemployment neglected by most past policies (the Millennium Development Goals relating to poverty reduction do not explicitly take cognize of employment as a means for achieving them).

- A dynamic framework neglected by past studies

Objective

1. To analyse the link between unemployment and poverty in Nigeria



Expected impact

1. Large numbers of developing countries Nigeria inclusive are currently engaged in formulating poverty reduction strategies; yet policies for using employment as a route out of poverty are not often considered.
2. Understanding of the role of unemployment reduction in the reduction of poverty will help effective policy formulation.

LITERATURE REVIEW: contained in the main article

PROFILE OF POVERTY AND UNEMPLOYMENT IN NIGERIA

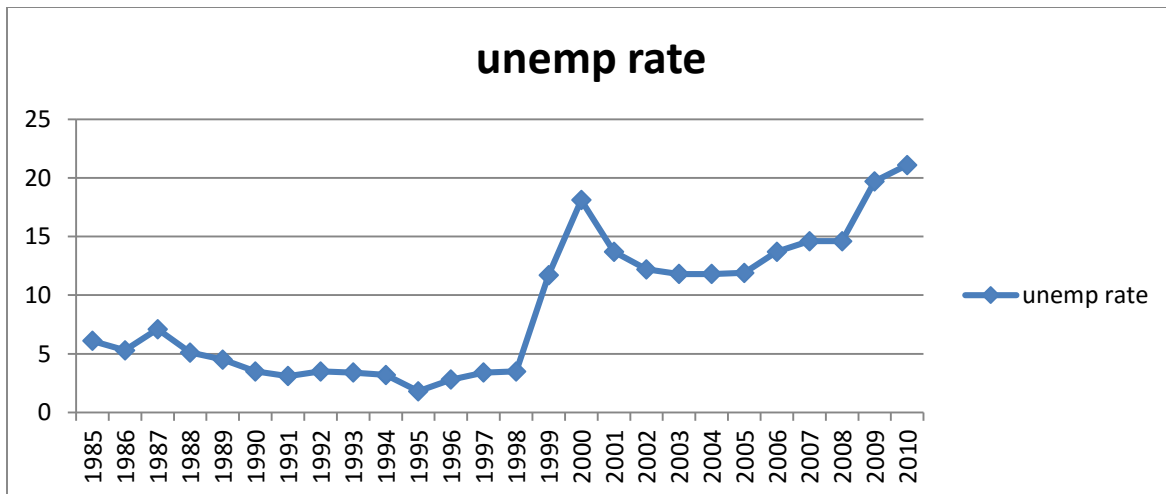


Figure 1: National Unemployment Rates (1985-2010)

Source: Author's Compilation based on data from the National Bureau of Statistics

Agu & Evoh (2011). *International Labour Organization; Employment Policy Department, Employment Working Paper No. 107*



Table 3.1 Trends in Poverty Level (1980-2010) (%)

YEAR	POVERTY LEVEL/RATE	ESTIMATED TOTAL POPULATION	POPULATION IN POVERTY
1980	27.2	65 M	17.7M
1985	46.3	75M	34.7M
1992	42.7	91.5M	39.3M
1996	65.6	102.3M	67.1M
2004	54.4	126.3M	68.70M
2007	64.4	142M	91.5M
2010	69	158.01M	109.03M

Source: 1 FOS Poverty Profile for Nigeria: 1980-1996 in Draft National Policy on Poverty Eradication (2000), in Nwaobi, (2004)

2 UNDP HUMAN DEVELOPMENT REPORT, various years

3 National Bureau of Statistics, Poverty profile in Nigeria, various editions

Table 3.2 Incidence of Poverty in Nigeria (1985-2004) (%)

	NATIONAL			URBAN			RURAL		
	1985	1992	2004	1985	1992	2004	1985	1992	2004
Extreme poor(N998)	10.1	13.9	27.8	1.5	4.3	Na	8.6	9.6	Na
No of poor(million)	12.1	13.9	29.3	7.4	10.9	15.7	14.8	15.8	27.1
Poverty incidence	7.9	8.5	Na	0.9	6.1	Na	4.2	8.0	Na
Poverty depth									
All Poor (N394)	34.7	39.2	67.1	11.7	12.0	29.6	27.0	27.2	37.5
No of poor(million)	46.3	42.7	65.6	37.8	37.2	43.2	51.4	66	63.3
Poverty incidence	15.7	14.7	Na	9.1	12.0	Na	18.9	16.1	Na
Poverty depth									

Sources: 1 Evolution of Poverty and Welfare in Nigeria (1985-92) in Canagarajah, et. al (1997)

2 National Bureau of Statistics, 2006

TABLE 3. 3: Poverty Incidence by Zone and Residential Area for the year 2004 and 2008

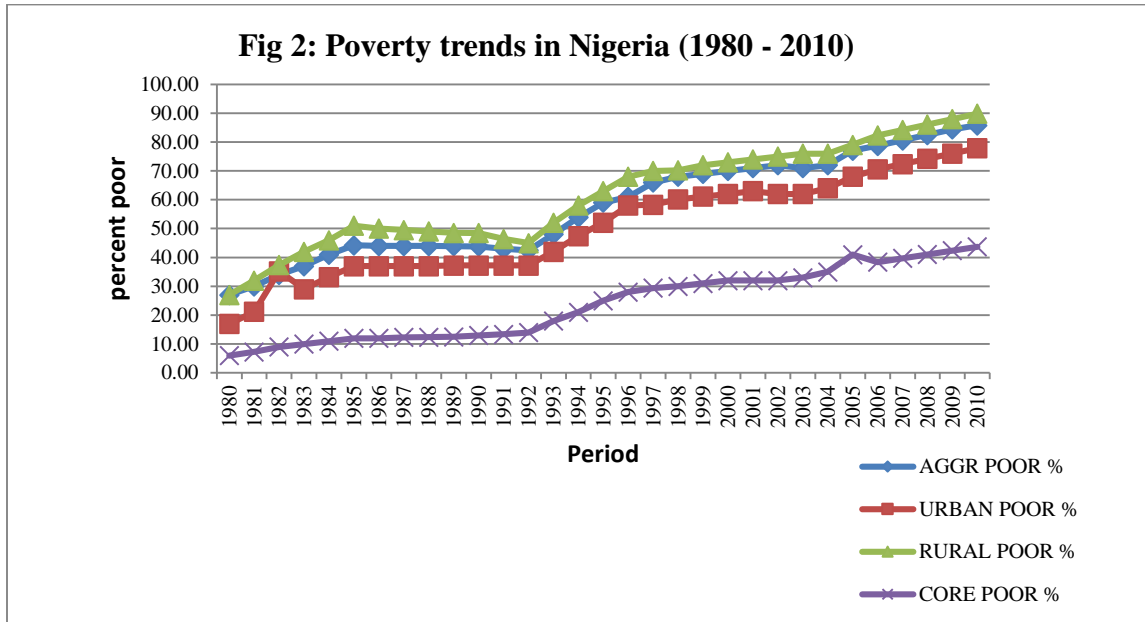
Residential area	Incidence	Contribution to national poverty rate	Percentage of pop
Urban	43.2	35.0	35
Rural	63.3	65.0	65.2
Zone			
South-South	35.1	9.7	14.98
South East	26.7	5.9	12.08
South West	43.0	15.5	19.55
North Central	67.0	17.1	14.37

North East	71.2	17.2	13.36
North West	71.2	33.6	25.65

Source: NBS (2006)



Trend Analysis of poverty and Unemployment



Source: Computed by the author (Data from NBS Abstract Statistics various years), UNDP (Various years)

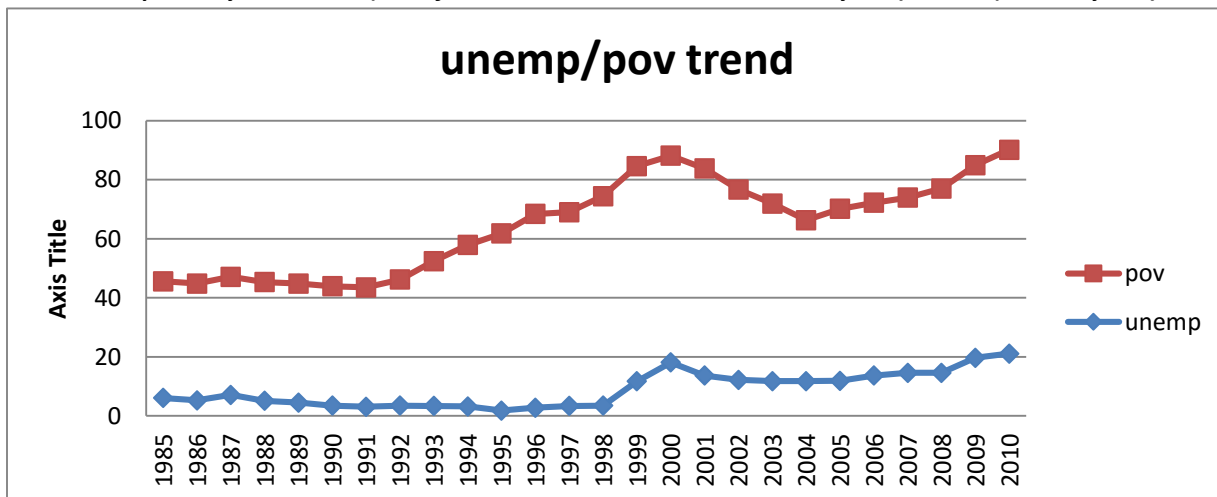


Figure 3: National Unemployment and Poverty trend, 1985-2010

Source: Computed by the author (Data from NBS Abstract Statistics various years), UNDP (various years), Agu and Evoh (2011). International Labour Organization; Employment Policy Department, Employment Working Paper No. 107



EMPIRICAL LINK BETWEEN UNEMPLOYMENT AND POVERTY IN NIGERIA

1. Methodology

- i. ARDL model was adopted because poverty entails the spillover of the past regime into the current set especially for chronic poverty while last year's unemployment can increase the unemployment of the current year given that in Nigeria vacancies declared and filled are always less than the registered unemployed.
- ii. the ARDL ensures the parsimonious nature of the model
- iii. Variables required for this estimations are, poverty head count (national), index of agricultural production, index of manufacture production, unemployment rate (national), index of schooling (education), capacity utilization and inflation rate.

2. Model Specification

- i. Following the identified variables from this study, the mathematically functional representation of the estimation is specified as:

$$POV = f(UNEMPR, AGP, MAP, CAU, INF) \text{-----} (1)$$

$$UNEMPR = f(POV, AGP, MAP, CAU, EDU, INF) \text{-----} (2)$$

- ii. Assuming a linear relationship between our dependent variable and the independent variables and using the theoretical expected signs, the statistical equation of the above function becomes

$$POV_t = \varphi_0 + \varphi_1(UNEMPR) + \varphi_2(AGP) + \varphi_3(MAP) + \varphi_4(CAU) + \varphi_6(INF) + \varepsilon_t \text{-----} (3)$$

$$UNEMPR_t = \beta_0 + \beta_1(POV) + \beta_2(AGP) + \beta_3(MAP) + \beta_4(CAU) + \beta_5(EDU) + \beta_6(INF) + v_t \text{--} (4)$$

Where

POV = national poverty head count

UNEMPR = national unemployment ratio

AGP = index of agricultural production

- MAP = index of manufacture production
- CAU = capacity utilization
- EDU = schooling ratio (national)
- INF = inflation rate
- ε_t & v_t = stochastic error terms

iii. Transformation into an Autoregressive Distributed Lag (ARDL) approach in the following manner.

$$\Delta POV_t = \varphi_0 + \varphi_1 POV_{t-k} + \delta \sum_{j=1}^m \Delta X + \phi_1 UNEMPR_{t-k} + \mu_t \text{-----} (5)$$

$$\Delta UNEMPR_t = \alpha_0 + \alpha_1 UNEMPR_{t-k} + \delta \sum_{j=1}^m \Delta X + \lambda_1 POV_{t-k} + v_t \text{-----} (6)$$

Where:

X_t represents all the explanatory variables defined in equation 3 and 4 above.

$i, t, t-k, t-1$ = Unknown lags to be determined by various criteria

3. Estimation Procedure

- i. Unit root test by the Augmented –Dickey fuller (ADF)
- ii. Co-integrating regression
- iii. Absence of Co-integrating long run analysis carried out.
- iv. Lastly, diagnostic tests of the stochastic properties of the models were carried out.
- v. The estimation techniques employed in the analysis are OLS as the basic technique and the Instrumental Variables (IV)/2SLS estimations for possible endogeneity problem.

4. **Data:** secondary sources, particularly from Central Bank of Nigeria (CBN) Statistical Bulletin, (various issues) and National Bureau of Statistics (various years). All series are annual and span the period from 1980 to 2010. Stata 8 and E-views 5 econometric packages were used.

5. Empirical results

- i. **Correlation Result-** there is no perfect multi-collinearity among the variables.

Correlation matrix

	POV	UNEMPR	AGP	MAP	EDU	INF	CAU
POV	1.000000	0.614633	0.843666	0.326716	0.093078	-0.221802	-0.271947

UNEMPR	0.614633	1.000000	0.730973	0.189689	-0.374925	-0.400696	0.261732
AGP	0.843666	0.730973	1.000000	0.583713	-0.306203	-0.171539	-0.040114
MAP	0.326716	0.189689	0.583713	1.000000	-0.410093	0.148658	-0.117288
EDU	0.093078	-0.374925	-0.306203	-0.410093	1.000000	-0.221464	-0.007091
INF	-0.221802	-0.400696	-0.171539	0.148658	-0.221464	1.000000	-0.308362
CAU	-0.271947	0.261732	-0.040114	-0.117288	-0.007091	-0.308362	1.000000



ii. **Tests for Unit Root.** – All variables integrated of order one, I(1).

Unit Root Test of Variables

Variable	Dpov	Dunempr	Dagp	Dmap	Dcau	Dedu	Dinf
I ~ (d)	1	1	1	1	1	1	1
Lag length	1	1	1	1	1	1	1
t – adf	-3.08474*	-4.3674**	-3.67369*	-6.07081**	-3.13999*	-5.13992**	-4.53651**
Critical @ 5% & 1% values	-2.96777 -3.67932	-2.96777 -3.67932	-2.96777 -3.67932	-2.96777 -3.67932	-2.96777 -3.67932	-2.96777 -3.67932	-2.96777 -3.67932

iii. **Co-integration Test:** No co-integration found.

Co-integration Test

. dfuller u

Dickey-Fuller test for unit root Number of obs = 30

Test Statistic	Interpolated Dickey-Fuller		
	1% Critical Value	5% Critical Value	10% Critical Value
Z(t)	-3.716	-2.986	-2.624

Mackinnon approximate p-value for Z(t) = 0.6132

6. Presentation and Interpretation of the Estimated Results

Presented below is the result showing both the dynamic and feedback impacts of unemployment and poverty in Nigeria.



Table 4.4: Two – Stage Least – squares Regression

Two-stage least-squares regression

Equation	Obs	Parms	RMSE	"R-sq"	F-Stat	P
pov	31	7	2.923008	0.9615	82.13	0.0000
unempr	31	8	2.362408	0.8355	13.97	0.0000

	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
pov					
pov_1	.2890678	.0704592	4.10	0.000	.1471558 .4309799
unempr	-.7746227	.2085345	-3.71	0.001	-1.194633 -.3546127
unempr_1	-.7696552	.2010832	-3.83	0.000	-1.174658 -.3646528
agp	.1997604	.0215325	9.28	0.000	.1563918 .243129
map	-.2987647	.0523077	-5.71	0.000	-.4041178 -.1934116
cau	-.012469	.063078	-0.20	0.844	-.1395146 .1145766
inf	-.0161755	.031957	-0.51	0.615	-.0805402 .0481892
_cons	34.39218	5.479229	6.28	0.000	23.35644 45.42791
unempr					
pov	-.489489	.1604563	-3.05	0.004	-.8126647 -.1663134
unempr_1	-.1643529	.2069638	-0.79	0.431	-.5811995 .2524937
pov_1	.1361305	.0710089	1.92	0.062	-.0068887 .2791497
agp	.1202242	.030427	3.95	0.000	.058941 .1815074
map	-.1632399	.0558222	-2.92	0.005	-.2756715 -.0508082
cau	.0610786	.052275	1.17	0.249	-.0442087 .166366
edu	.0001627	.0026845	0.06	0.952	-.0052441 .0055695
inf	-.0118436	.0262414	-0.45	0.654	-.0646964 .0410092
_cons	14.14047	6.767919	2.09	0.042	.5091842 27.77176

Endogenous variables:

Exogenous variables: cau map agp unempr edu pov inf pov_1 unempr_1

POLICY IMPLICATIONS OF THE FINDINGS AND CONCLUSIONS

Policy implications

- i. Significant feedback impact of current poverty and unemployment although negative shows the hidden nature of the unemployment problem as a result high underemployment not recorded in the data and high working poor.
- ii. Lag of poverty impacting on unemployment indicates poverty is dynamic in nature
- iii. The agricultural sector showing the most impactful of all the variables shows that the sector has a very important role to play in the reduction and unemployment.
- iv. The negative relationship between manufacturing index and poverty on one hand and unemployment on the other hand shows the impact of the recent policy measures on the sector.

- v. The positive relationship between capacity utilization and unemployment portrays the weak use of our capacity.



Recommendation

- i. There is need to revitalize the agricultural sector.
- ii. Long term policy formulation for effective poverty reduction.
- iii. Provision of infrastructural facilities to promote small scale enterprises and encourage the low income group thereby providing employment, absorb more of the labour force and bringing them out from poverty.
- iv. Encouraging the private sectors to create more jobs thereby increasing the capacity utilization of both human and physical capital.
- v. Provision of, human capital development
- vi. Institutionalization of good governance that upholds accountability and transparency in the use of scarce national resources.
- vii. Creating room for entrepreneurial activities by providing good working environment and capital for those that have skills and are being hindered by capital.

THANK YOU FOR LISTENING