Effect of Macroeconomic Policies on Poverty Alleviation in Nigeria: 1990-2017

Usman Gana

Department of Economics, University of Abuja.

Abstract

This study was carried out to empirically examine the effect of macroeconomic policies on poverty level in Nigeria from 1990-2017. The persistent and high level of poverty in Nigeria despite the adoption and implementation of various macroeconomic policies is the motivation behind this study. Three variables are used in this study which are Poverty level (POV), Unemployment Rate (UMP), Government expenditure (GEX), interest rate (INR) and money supply (MS). The variables were subjected to unit root test and they were all stationary at first difference I(1). Using the Johansen test, the variables were found to be cointegrated at 1% level of significance. The method of data analysis used was the ordinary least squares technique. The ordinary least squares result obtained showed that money supply and government expenditure had a negative impact on poverty level in Nigeria, with the relationship being statistically significant. The result is consistent with so many researches done in this regard. Government capital expenditure and money supply have a negative impact on unemployment rate in Nigeria and the impact is significant. From the conclusion, the recommendations made include; Since government capital expenditure has a negative impact on poverty level, emphasis should be laid on increasing government capital expenditure especially those meant for development programs and projects. This will reduce poverty level in the country.

1. Introduction

History shows that high rates of economic growth sustained over a period of time are necessary for poverty reduction, while the distribution of the benefits of growth determines the impact on poverty. The macroeconomic policy framework often sets the parameters for social policies by defining the policy and fiscal space for government action. For two and a half decades starting from the end of the Second World War, Governments of the industrialized countries, through active reflationary macroeconomic management, achieved rapid reconstruction and prosperity underpinned by full employment and low inflation. Governments in developing countries also played a very active role in promoting economic growth and structural change after independence from colonial powers was gained. Developing countries as a group experienced impressive economic growth and structural change within their economies. Industry was the fastest-growing sector, resulting in a rapid rise in industry's share of gross domestic product (GDP) in "virtually all the developing economies" (World Bank, 2004). However, there were variations among developing countries; growth and structural change in most low-income countries in Africa and Asia, where the majority of the world's poor live, were slow.

Nigeria is the most populous country in Africa with a population of 140 million

based on 2006 census and having a nominal GDP of $207 billion in 2006 (World Economic Outlook, 2006). Its Per capita income is $1401 in 2014 and as a result of this it was classified as the largest economy in Africa (Talkudar, 2012). Despite having the largest economy in Africa and 26th in the world unemployment 1rate have been rising in Nigeria (Oduro and Aryee, 2015). The Nigerian economy has remained largely underdeveloped despite the huge human and natural resources. Poverty level is high, unemployment and inflation rates are also high with many socio-economic challenges. The economy has continued to witness economic recovery which is immediately followed by economic recession and depression (Balami, 2006)

According to Gbosi (2004) the situation in Nigeria is disturbing; the various macroeconomic policies by government have been unable to achieve sustained price stability, reduction in unemployment and sustained growth. The fluctuations in the economy have confirmed the need to manage the economy effectively. The essence of macroeconomic management underlines the rationale of the government as a vital economic agent. However, it appears that government intervention has not been able to cure the ills in the economy. For several decades, economic performance has not been impressive. The continued economic crisis, with the associated problems of high inflationary pressure, high exchange rate, debt overhang, adverse balance of payment and high inflation rates is difficult to explain (Balami, 2006). Consequently, the full potentials of labour-surplus economy have not been fully exploited.

The severities of poverty became more pronounced in the 1980s and 1990s, thus necessitating the formulations of specific programs aimed at poverty reduction. The persistent high level of poverty in Nigeria is traced down to policy error which is largely caused by the failure government to modify and fine tune the received macro-economic doctrine to suite the Nigerian context and complexity (Agenor, 2002). According to Agenor (2002) Macroeconomic policies have

been rigorously adopted by the Nigerian government such as exchange rate devaluation, trade policy, monetary and fiscal policy but these policies have not yielded desirable results. In the opinion of Agenor (2002) the IMF conditions for the grant of the 1986 loan to Nigeria and the devaluation of the naira is the major cause of Nigeria economic woes creating inflation, unemployment and poverty. This study examines the effect of macroeconomic policies on poverty level in Nigeria. The study period covers the period of 1980 – 2015 based on the availability of relevant data especially data on poverty rate.

2. Literature Review and Theoretical Framework

Empirical Review

An appraisal of literatures on unemployment, inflation and poverty rate reveals that several scholars and researchers worldwide have attempted to examine the subject matter with scope ranging from country-specific studies to panel of countries. Some of these empirical literatures are reviewed in this section.

Khan and Senhadji, (2011) examine the issue of the existence of threshold effects in the relationship between inflation, unemployment and poverty, using SVAR econometric techniques that provide procedures for estimation and inference for 140 developed and developing countries covering 1995-2013. They estimate a threshold level of inflation above which inflation and unemployment significantly increases poverty rate at 1–3 percent for developed countries and 11–12 percent for developing countries. The positive and significant relationship between inflation, unemployment and poverty, for inflation rates above the threshold level, is quite robust with respect to the estimation method, perturbations in the location of the threshold level, the exclusion of high-inflation observations, data frequency, and alternative specifications.

Powers (2012) adopted a consumption based approach to measure poverty in the West Africa using a random effect model.

Analyzing panel data using eight West African countries from 2000 through 2012, she found a robust and relatively large positive relationship between inflation and the consumption poverty rate. Powers argues that inflation affects the poor directly through a decline in their real wages owing to the short-run rigidity of nominal wages.

Romer and Romer (2013) studied the impact unemployment, poverty and inequality on Gross Domestic Product in developing countries including West African Countries using Population Average estimation technique. They found that regression of the change in poverty on the unanticipated change in GDP produced a small and insignificant coefficient. However, the relationship between the change in unemployment rate and the anticipated change in GDP was significant. The point estimate implies that an anticipated increase in unemployment of one percentage point is associated with a decline in GDP of 0.2 percentage points. According to Romer, unanticipated inflation reduces the real value of nominal assets and liabilities. It therefore causes real capital losses for nominal creditors and real capital gains for nominal debtors. If the poor are net nominal debtors, these effects benefit them.

Ahmed and Mortaza, (2011) postulated that moderate and stable inflation rates promote the development process of a country, and hence economic growth and reduction in poverty. Moderate inflation supplements return to savers, enhances investment, and therefore, accelerates economic growth of the country. They explore the present relationship between inflation, poverty and economic growth in the context of Bangladesh. Using annual data set on real GDP, Poverty rate and CPI for the period of 1980 to 2009, an assessment of empirical evidence has been acquired through the co-integration and error correction models. They also explore what the threshold level of inflation should be for the economy. It is established that there exists a statistically significant long-run negative relationship between inflation, poverty rate and economic growth for the country as indicated by a statistically significant long-run negative relationship between CPI, Poverty rate and real GDP. The estimated threshold model suggests 6-percent as the threshold level (i.e., structural break point) of inflation above which inflation adversely affects economic growth and increase poverty incidence.

Quartey, (2013) put forward that the aim of the policy of price stability is to provide a stable environment for real sector activities to flourish but the outcome of the policy on real sector activities in Ghana has not been subjected to any empirical investigation. He studied Stagflation and macroeconomic performance in Ghana Using time series data. The study finds that economic performance is higher under low inflation era than when inflation is high. The results are robust and show that the revenue maximizing rate of growth for Ghana is 9.14 per cent using quarterly data over the period 1990-2011 with least square multiple regression analysis. It is also deduced from the study that the single digit inflation target set by the Central Bank Ghana is not growth maximizing.

Fielding, (2013) uses monthly time-series data on the prices of 96 individual products in the 37 states of Nigeria to analyze the factors that drive inflation volatility and poverty incidence with VAR. Among the significant determinants of volatility are average inflation rates, transport and communication infrastructure, consumer access to credit markets and urbanization. Analysis of the data reveals that there is substantial heterogeneity across products in relative importance of these non-monetary factors that drive inflation volatility and poverty incidence. Accordingly, better transport and communication infrastructure, as captured by road length, literacy and linguistic homogeneity, are associated with lower inflation volatility and poverty rate in a state. However, more extensive access to credit facilities is associated with higher inflation volatility, as is urbanization. Since most changes in inflation are unanticipated, these results apply equally to conditional and unconditional poverty incidence.

Muhammad, et al., (2011) examines the role played by unemployment on the making of the Nigerian Gross Domestic Product (GDP) for a period of nine years (2000 - 2008). Using the regression analysis, findings showed that unemployment has an enormous effect (over 65 percent) on the making of the Nigerian GDP and there exist an inverse relationship between the model (unemployment) and the GDP - increase in the model leads to decrease on the GDP and vice versa.

Ibrahim and Umar, (2008) assess the determinants of poverty as well the poverty coping strategies among farming households in Nasarawa State, Nigeria. The study employed simple random sampling to select 150 farming households and used Costs of Calorie method and Discriminant Analysis to determine the incidence of poverty as well as its determinants respectively. The incidence of poverty among the sampled households was found to be high and the major determinants of poverty include household size, number of income sources of the household head, number of household members employed outside agriculture and the number of literate adult males and females in the household. The major poverty coping strategies include skipping of meals, reduction in the quantity of meals served and engaging in wage labour. The study recommends that the farming households should be effectively involved in the formulation of strategies for imparting knowledge on family planning to the farming households.

Bakare (2010) examines the determinants of the urban unemployment in Nigeria. The variables for include level of unemployment and demand for labour, supply of labour, population, inflation, capacity utilization, gross capital formation and nominal wage rate. Using time series secondary data and parsimonious error correction mechanism, the study found that the rising nominal wages and the accelerated growth of population which affected the supply side through a high and rapid increase in labour force relative to the absorptive capacity of the economy appear to be the main determinant of high unemployment in Nigeria.

Bello and Abdul, (2010) examine poverty situation in Nigeria by employing the data of economic growth and millennium development goals (MDGs) expenditure. The methodology employed was panel data analysis consisting of pooled model, fixed-effects, random-effects and weighted least square. The results revealed that, a unit increase in per capita GDP led to 0.6 percent increase in poverty. Similarly, a unit increase in MDG expenditure resulted in 11.56 units increase in relative poverty in the pooled model. The study concluded that economic growth and MDG spending has not substantially reduced poverty over the sample period.

Although previous arguments and evidence tends to support the view that inflation affects poverty positively, there are counter arguments to this. The UN Report on the World Social Situation 2010, *Rethinking Poverty,* raises a number of interesting questions: If inflation reduces real wages, then employment should rise, creating more income-earning opportunities for workers. Therefore, the employment effect of inflation (creating more jobs because of lower labor costs) can outweigh the real-wage effect (lower income) on poverty. This is likely to be the case, as the inflation (real wage) elasticity of poverty is found to be significantly less than the output (employment) elasticity of poverty (UN Report, 2010). Furthermore, most of the poor are net debtors and inflation reduces the real value of their debt. So this way inflation may have a negative correlation with poverty. Thus, the effect of inflation on poverty is not straightforward. Poverty may be positively correlated with inflation or the reverse can also be the case.

Theoretical Framework
The Human capital theory of poverty serves as the Theoretical Framework for this study. The human capital theory can be adequately use to explain the effect of government initatives and policies on poverty. The human capital theory of poverty laid

emphasis in the promotion of the crucial aspect of human capital based on the promotion of human capital efficiency through aggregate investment in public education. The role of the government in the economy therefore takes the centre of the stage. It is contended that government intervention against poverty is needed in a wide variety of economic issues, from tackling poverty to promoting human capital accumulation through investment in public education, which can both encourage economic growth via the famous multipliers and tackle poverty through the development of abilities it entails. This is in stark contrast with the classical and neoclassical view that the presence of the government in all spheres of the economy should be limited.

From the set of macroeconomic variables, the human capita theory stress that, aggregate public investment investment in terms of government capital spending, with its positive effect in employment, emerges as the key element in generating the type of growth that permits poverty relief. While growth is likely to reduce absolute poverty, because it will tend to raise the incomes of all members of society, the beneficial effects on relative poverty of the expansion of economic activity will only apply so long as the rise in average income that economic growth permits is accompanied by a reduction in the variance of the income distribution or it is accompanied by an increase in dispersion that does not offset the increase in the average level of income (Granville and Mallick, 2006). As Dickens and Ellwood (2001) indicate, the growth in wages that usually accompanies growth in GDP can cause surges in relative poverty if wage dispersion rises along with it, even if the average wage increases. The effect on absolute poverty is ambiguous provided that the average wage also increases. This hypothesis corresponds to the theory that poverty rates can actually persist and even grow despite economic growth if the deprived are left off the "growth wagon" (Dickens and Ellwood, 2001).

The paramount importance assigned to unemployment as a primary source of poverty under the liberal view is based on the logic that if individuals do not receive labour income, they are more likely to be poor. This sensitivity of poverty to unemployment can actually be amplified if poor individuals tend to experience discontinuous, short employment spells throughout the lifetime; if poor people who enroll in a job fail to retain it, no matter their pay, they will likely return to poverty when exiting employment given that the amount of accumulated savings is likely to be insufficient for maintaining the standard of living above the poverty line (Aassve et al, 2005). In some pension and social security systems they are also likely to face poverty in retirement due to gaps in entitlements (Pemberton et al 2013).

Hence, the steadiness of employment is a central feature in preventing poverty persistence, not least because it also enables individuals to envisage better career prospects that allow higher expected future income, thereby facilitating borrowing (leading to longer term consumption-saving decisions) and investment in one's own skills and knowledge (human capital) as well as social capital (Ulimwengu, 2008). In terms of Sen (1983, 1999), it influences ability to transform assets into entitlements. It underlines the importance of distinguishing between transitory (short term) and persistent (lifelong) poverty.

3. Methodology

Research Design

This study make use of analytical research design. The tool of analysis is the Ordinary Least Squares (OLS) method. OLS estimator is efficient and possesses the BLUE (Best Linear Unbiased Estimator) property among other class of estimator. It should be noted that the BLUE properties is subjected to the fulfillment of the classical assumptions of the ordinary least squares (See Davidson and Mackinnon 1998, Greene 2005, Hansen 2006 and Christ 1996).

Model Specification

A model based on Human Capital theory of poverty is adapted from the work of Pemberton et al (2013) and restricted to

incorporate the effect of unemployment and inflation on poverty incidence in Nigeria.

Conventionally,

POV = f(GEXP, MS, INT, INF) ……..3.1

Where,

POV is poverty rate (percentage of total population living below 2 USD a day)
GEXP is government capital expenditure
MS is money supply
INT is interest rate
INF is Inflation rate
Equation 3.1 is expanded to and is given as;

$POV_t = \alpha_0 + \alpha_1 GEXP_t + \alpha_2 MS_t + \alpha_3 INT_t + \alpha_4 INF_t + \mu_t$ …………………………3.2

α_0- α_4 are parameters to be estimated
μ_t is the error term
Note: $\mu_t \sim IID(0, \sigma_\mu^2)$,

4. Analysis and Interpretation of Results

Stationarity Result
The five variables (POV, GEXP, MS, INT, and INF) underwent unit root test using the Augmented Dickey-Fuller (ADF) test. As is the case most times, some of variables were found to be non-stationary at levels Government Capital Expenditure (GEXP). POV, MS and INF were stationary at first difference but INT was stationary at second difference I(2).

Table 4.1: Unit Root Stationarity Result

Time Series	ADF Statistics	Critical Value	Stationary Status
POV	-11.03404	-3.64634 (1%) -2.95402 (5%) -2.61582 (10%)	I(1)
GEXP	-4.183871	-2.63690 (1%) -1.95133 (5%) -1.61075 (10%)	I(0)
MS	-9.394201	-4.262735 1%) -3.55297 (5%) -3.20964(10%)	I(1)
INF	-4.783871	-2.63690 (1%) -1.95133 (5%) -1.61075 (10%)	I(1)
INT	-5.394201	-4.262735 1%) -3.55297 (5%) -3.20964(10%)	I(2)

The critical values for rejection of hypothesis of unit root were from MacKinnon (1991) as reported in eviews 9.0

Cointegration Test	$\Delta\mu_t$=-0.611991μ_{t-1} ………………..4.1
Augmented Engle-Granger Cointegration Result	t (-4.079389)

The value in parenthesis is the ADF statistic

Level of Significance	Critical Values
1%	-2.6347
5%	-1.9510
10%	-1.6109

Source: Author's Computation using E-views 9.0

Due to the non-stationarity of time series, the cointegration test was done using the

Augumented Engel Granger test stated in chapter three. This became necessary to

avoid a spurious regression result. Using the Augumented Engel Granger test with critical value from MacKinnon (1991), the variables were cointegrated at 1per cent level of significance since the AEG statistics is greater than the absolute critical value.

Table 4.2 Regression Result, Dependent Variable: POV

Independent Variables	Coefficient	Standard Error	t-Statistic	P-Value
Constant Intercept	16.15268	5.854008	2.759251	0.0096
GEXP	-0.183631	0.034939	-5.255791	0.0000
MS	-1.136012	0.927849	-4.112985	0.0013
INF	0.182131	0.182339	4.229791	0.0000
INT	1.236070	0.387849	3.186985	0.0033
R^2	0.772757	F Statistic	35.13937	Pr(0.0000)
Adjusted R^2	0.750766	D-W Statistic	2.304322	

Source: Author's Computation Using E-views 9.0

A unit increase in GEXP on the average holding other variables constant will lead to 0.183631 unit decrease in POV. This shows that inflation rate has a positive impact on Poverty level. This result fulfils apriori expectation.

In the same vein, a unit increase in MS on the average holding other variables constant will lead to 1.136012 unit decrease in POV. This shows that unemployment rate has a positive impact on poverty level in Nigeria. This result fulfilled apriori expectation. Also, a unit increase in interest rate (INT) and inflation rate (INF) on the average leads to 0.182131 and 1.236070 unit increase in Poverty level in Nigeria

5. Conclusion and Recommendations

This study is carried out to empirically evaluate the effect of macroeconomic policies on poverty level in Nigeria from 1980-2015. Three variables are used in these studies which are Poverty level (POV), Government Capital Expenditure (GEXP), Money Supply (MS), Interest Rate (INT) and Inflation Rate (INF). The variables were subjected to unit root test, as is the case most times, some of variables were found to be non-stationary at levels except Government Capital Expenditure (GEXP) which was stationary at level I(0). POV, MS and INF were stationary at first difference but INT was stationary at second difference I(2).

Since the Variables Were not all stationary at level but at the same order of I(1) the residual based cointegration test was used to test for cointegration among the variables using the augmented Engel-Granger test and

the variables were found to be cointegrated at 1% level of significance. Error correction mechanism (ECM) was used to determine the short-run relationship between the variables and the ECM parameter was negative and statistically significant which shows that there exist short-run relationship between the variables.

The OLS result obtained showed that inflation and interest rate had a positive impact on poverty level in Nigeria, with the relationship being statistically significant. The result is consistent with so many researches done in this regard. Government capital expenditure and money supply have a negative impact on poverty level in Nigeria and the impact is significant.

The *R-Squared* shows that the model has a good fit with about 77 percent of the change in POV was explained by changes in the independent variables. The evidences from various econometrics analyses from this study revealed that, macroeconomic policies such as money supply, government capital expenditure, interest rate and inflation rate have a statistically significant impact on poverty level in Nigeria from 1980-2015. The implication of this is that an increase in money supply and government expenditure have a negative effect on poverty level but an increase in Interest rate and inflation rate will lead to higher poverty level in Nigeria since interest rate and inflation has a positive and significant impact on poverty level. The finding of this study shows that poverty is eminent in Nigeria and requires a pragmatic approach to minimize it. Increasing the

employment rate is not only the way out of this trap but making sure that the most vulnerable group of the economy is taken care of which would then enhance economic growth and development. It is very axiomatic to state that in contemporary times most developed countries of the world have been able to achieve remarkable feat especially in the areas of high rate of employment opportunities, social security and high standard of living. This is not only because they are able to have citizens gainfully employed by their governments. But as a result of imbibing in their citizens the culture and habit of making use of available resources in their areas to get themselves duly employed and not bound to the shackles of poverty.

However, following the summary from this study, it is suggested that further studies on this subject matter need to be taken into consideration, the use of simultaneous equation framework which is capable of explaining better the interdependent relationships and possibility of reverse causation among poverty, inflation and unemployment in Nigeria can be adopted for further research.

From the conclusion, the following recommendations are made;

i.   Since government capital expenditure has a negative impact on poverty level, emphasis should be laid on increasing government capital expenditure especially those meant for development programs and projects. This will reduce poverty level in the country.

ii. Having established a positive and significant relationship between inflation and poverty, the government should strive to increase supply by increasing domestic production which will bring down price level and increase welfare. A strict macroeconomic policy such as contractionary fiscal and monetary policy should be pursued to curb inflation and reduce poverty level in Nigeria.

iii. Since money supply has a negative impact on poverty government should adopted expansionary fiscal and monetary policy to increase money supply into the economy so as to reduce poverty rate.

iv. Finally having established a positive relationship between interest rate and poverty, interest rate charged on loans should be reduced to encourage investment leading to a reduction in poverty level.

References

Aassve, A. Burgess, S. Dickson, M. and Propper, C. (2005). Modelling Poverty by not Modelling Poverty: An Application of a Simultaneous Hazards Approach to the UK. Publisher Centre for Market and Public Organisation 05/134, Department of Economics, University of Bristol, UK.

Agenor, P. R. (2002). "Macroeconomic Adjustment and the Poor: Analytical Issues and Cross-Country Evidence", World Bank Working Paper No.: 2788, World Bank: Washington, DC.

Ahmed S. and G. Mortaza (2011). "Inflation and Economic Growth in Bangladesh: 1981-2005. Research Department, Bank of Bangladesh.http://siteresources.worldbank.org/PSGLP/Resources/wp0604.pdf

Aluko, I.R. (2005). Reducing Unemployment through the Informal Sector: A Case Study of Nigeria. European Journal of Economics, Finance and Administrative Sciences ISSN 1450-2275 Issue 11.

Balami, J.E. (2006). "Unemployment statistics and what they mean". Monthly Labour Bulletin, Washington DC; US Department of Labour.

Beck, T. (2013). Bank financing for SMEs, lessons from the literature, National Institute Economic Review, 225, R23-R38.

Becker, G. S. (1964). Human Capital: A Theoretical and Empirical Analysis University of Chicago Press.

Berthod, N. and Grundler, K. (2013). The Determinants of Stagflation in a Panel of Countries. Journal for social science, Volume 12 (112-141)

Blinder, A. and Alan, S. (1979). Economic Policy and the Great Stagflation Academic Press: New York.

Brooman, M. (1973). the cost and benefit of going from low inflation to price stability. NBEK working paper 5649.

Bruno, I. Michael, P. and Jeffrey D. Sachs (1985). Economics of Worldwide Stagflation Harvard University Press: Cambridge, MA.

Cardoso, M. (2012). Poverty Comparisons: A Guide to Concepts and Methods. The World Bank, Washington D.C.

Central Bank of Nigeria (2017). Annual Report and Financial Statement for the Year Ended 31st December. Abuja: Central Bank of Nigeria.

Cuthbertson, A. M. (2002). Vector Auto Regresive and Block Endogeneity test, "Econometrical, Vol. 37, Pp. 424-435.

Dickens, R. and Ellwood, D. T. (2001). Whither poverty in Great Britain and the United States? The determinants of changing poverty and whether work will work, NBER Working Paper 8253.

Easterly, W and S Fischer (2001). Inflation and the poor, Journal of Money, Credit and Banking, 33, 160-78.

Fielding, P. (2013). Price Stability and the Growth Maximizing Rate of Inflation for Ghana, Modern Economy, No. 1, 180-194.

Frieldman, M. (1963). The Relative Stability of Monetary Velocity and Investment Multiplier in the US, Impacts of Monetary Policy Commission on Money and Credit, Englewood cliffs and New Jersey: Prentice-Hill. Nathan Pelesai Audu 150.

Gans, H. (1973). "The Positive Functions of Poverty", American Journal of Sociology, 78, No. 2.

Gbosi, A.N. (2004). Contemporary Macroeconomic Problems and Stabilization Policies in Nigeria, Antovic Ventures, Port Harcourt.

Glahe, A.N. (1977). Banks, Financial Crisis and the Nigerian Economy Today, Corporate Impression Publishers, Owerri.

Gokal, V. S. (1977). "Relationship Between Inflation and Economic Growth" Reserve Bank of Fiji Working Paper 2004/04.

Granville, B., Mallick, S. (2006). Integrating poverty reduction in IMF-World Bank models, Working Papers id: 502, Social Sciences.

Gordon D. (2013). The concept and measurement of poverty in eds C Pantazis, D Gordon and R Levitas, "Poverty and social exclusion in Britain", Policy Press.

Gregorio, J. (1996). Inflation, Growth, and Central Banks: Theory and Evidence, World Bank Policy Research Working Paper 1575, Policy Research Department, Macroeconomics and Growth Division.

Gujarati, D. (2009). Basic Econometrics, (3nd edition) Wileys Education Ltd Texas U.S.A.

Handley, O.W. Powers, E. T. and Lema I. (2009). Inflation, Unemployment, and Poverty Revisited. Economic Review, Federal Reserve Bank of Kansas City. Qtr III.

Hickey, S. and Bracking, S. (2005). Exploring the politics of chronic poverty, from representation to a politics of justice. World Development, 33, 851-865.

Hicks, R. (1977). The role of wages in the inflation process. American Economic Review, 1. 78(2), 276-283.

Hills, J. and Stewart, K. (2005). A more equal society? New labour, poverty, inequality and exclusion (First ed.), Bristol, United Kingdom: The Policy Press.

International Labour Organization (2009). African Development Indicators 2009, the World Bank, Washington, D. C.

Jinghan, M. L. (2006). Macroeconomic Theory 2Nd edition, Vilfranda Pubisher. India.

Johnson, C. K. and Mason, P. L. (2012). Theories of poverty, traditional explanations and new directions in ed Jefferson, P."The Oxford Handbook of

the Economics of Poverty", Oxford University Press.

Johnson, G. (1975). The supper neutrality of money in the US: An interpretation of the Evidence Econometric, Econometrica 54(1), 1 - 21.

Jonung, R. (2009). The role of wages in the inflation process American Economic Review, 1. 78(2), 276-283.

Khan, M. S. and A. S. Senhadji (2011). Threshold Effects in the Relationship between Inflation and Growth, IMF Staff Papers, Vol. 48, No. 1.

Kyzyma, I. (2013). Changes in the patterns of poverty in Germany, 1992-2009, CEPS-Insead Working Paper No 2013-06.

Li, M. (2006). Inflation and economic growth: threshold effects and transmission mechanisms. Department of Economics, University of Alberta.http://economics.ca/2006/papers/0176.pdf.

Loury, G. (1977). A dynamic theory of racial income differences", in P. Wallace, & A. LaMond (eds.): "Women, minorities, and employment discrimination" Lexington, MA: Heath.

Lupu, D. V. (2012). The Correlation between Inflation and economic Growth in Romania. Lucrări Ştiinţifice - Vol. 53, Seria Zootehnie.

Lydall, H., (1968). The Structure of Earnings, Oxford University Press, Oxford.

Machin, S. (2009). Education and inequality in eds. W Salverda, B Nolan and T M Smeeding, "The Oxford Handbook of Economic Inequality", Oxford University Press.

Mallik, G. and A. Chowdhury (2001). Inflation and Economic Growth: Evidence from South Asian Countries" Asian Pacific Development Journal Vol. 8. No.1. pp 123-135.

Morazes, J. and Pintak, I. (2007). Theories of Global Poverty Comparing Developed World and Developing World Frameworks", Journal of Human Behavior in the Social Environment, Volume 16, Issue 1-2.

Mundell, R. (1965). Growth, Stability and Inflationary Finance, Journal of Political Economy, 73, pp. 97-109.

Nolan, B. and Marx, I. (2009). Economic inequality, poverty and social exclusion", in eds. W Salverda, B Nolan and T M Smeeding, The Oxford Handbook of Economic Inequality, Oxford University Press.

Oduro, A.D. and Aryee, I. (2015). "Investigating Chronic Poverty in West Africa" CPRC Working Paper No 28.

Osterling, K. (2007). Social Capital and neighbourhood poverty: toward an ecologically-grounded model of neighbourhood effects, Journal of Social Behaviour in the Social Environment, Volume 16, Issue 1-2.

Pemberton, S., Sutton, E., Fahmy, E. (2013). A review of the qualitative evidence relating to the experience of poverty and exclusion, PSE-UK Working Paper Methods Series No. 22.

Phillips, A.W. (1958). The Relationship between Unemployment and Rate of Change in Money Wage Rates in the United Kingdom. Economica 25, November.

Quartey, Y. A. (2013). Inflation and Growth: An Estimate of the Threshold Level of Inflation in Ghana, State Bank of Ghana – Research Bulletin, Vol.1, No. 1-2, pp. 35-44.

Sargsyan, G. R. (2013). Inflation and output in Armenia: The Threshold Effect Revisited, Central Bank of Armenia. http://www.aiprg.net/UserFiles/File/jan-2005/grigorsargsyan.pdf.

Schumpeter, J. (1934). Innovation and Growth in Industrial Countries, Economic Policy 15. American Journal for Development, 12-24

Sen, A. (1983). Poor, relatively speaking, Oxford Economic Papers, 35, 153-169.

Sergii, P. (2011). Inflation and Economic Growth: The Non-Linear Relationship, Evidence from CIS Countries. http://kse.org.ua/uploads/file/Pypko.pdf.

Sweezy, F.G. (1940), Unemployment, Growth and Taxation in Industrial Countries, Economic Policy 15.

Talukdar, S.A. (2012). Poverty, Inflation and Economic Growth: Empirical Evidence from Pakistan. World Applied Sciences Journal. Dubai, UAE. pp. 1058-1063.

Townsend, F. G. (1992), Unemployment, Growth and Taxation in Industrial Countries, Economic Policy 15.

Ulimwengu, J. (2008). Persistent poverty and Welfare Programs in the United States, IFPRI Discussion Paper 00818.

UNCTAD (2006). The Least Developed Countries Report 2006. Escaping the Poverty Trap. United Nations, Geneva.

Western, J. S. and Dwan, K. (2005). The importance of visibility for social inequality research, Australian Journal of Social Issues, 40(1), 125-141.

World Bank (2014). Poverty indices in sub-Saharan Africa 2013/2014, the World Bank, Washington, D. C.