AN ANALYSIS OF THE DISTORTION BETWEEN ECONOMIC GROWTH AND POVERTY RATE IN NIGERIA

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Abstract

Positive growth rate, from the neoclassical perspective, is synonymous to increase in economic prosperity, resulting to a long –run negative effect on poverty incidence. However, the Nigerian economy presents a distortion of this relationship and expectation. The economic expansions that characterized the economy, reflected in the sustained positive growth rate in real Gross Domestic Product (GDP) has not impacted negatively on the country's poverty population. Explaining this distortion, this paper demonstrates that the presence of growing inequality in income distribution exists as a stand-between variable, weakening the effectiveness of economic growth in spreading the gains of prosperity. Thus, economic growth and poverty incidence in the country change in the same direction; instead of economic growth exerting a depressing effect on poverty rate, the rate of inequality in income distribution depresses the real GDP growth rate, hence counters the desired impact that it should have had on the poverty incidence. The above results were preceded and revealed by Multiple Regression analysis and Wald Test Coefficient Restriction of poverty incidence as a function of economic growth rate and Gini coefficient. In this paper, eliminating or substantial reduction in the rate of inequality in income distribution, through the imposition of property and expenditure taxes to the setting up of National Welfare Scheme targeted at the poor, are suggested as ways through which economic growth in the short-run can result to reduction in poverty level.

INTRODUCTION

Positive growth rate, from the neoclassical perspective, is synonymous to increase in economic prosperity, resulting to a long – run negative effect on poverty incidence .Goldman Sachs, in 2005 released a report about the performance and future growth of 15 selected economies in the world based on potential wealth and natural resources endowments. Four economies made up the first tier, namely Brazil, Russia, India and China (BRIC). Beyond BRIC is the Next – Eleven ('N-11') countries: Bangladesh, Egypt, Indonesia, Iran, Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey and Vietnam (GoldmanSachs, 2005). Nigeria is not arbitrarily listed in the 'N – 11', group, rather, the inclusion is a justification of the fact that Nigeria's economic growth performance is sufficient to halt the percentage rise in absolute poverty in the country, being among the eleven strongest emerging economies by 2050 (GoldmanSachs, 2005).

However, the Nigerian economy presents a distortion of this relationship and expectation. The economic expansions that characterized the economy, reflected in the sustained positive growth rate in real Gross Domestic Product (GDP) has not impacted negatively on the country's poverty population. Explaining this distortion, this paper demonstrates that the presence of growing inequality in income distribution exists as a stand-between variable, weakening the effectiveness of economic growth in spreading the

gains of prosperity. Thus, economic growth and poverty incidence in the country change in the same direction; instead of economic growth exerting a depressing effect on poverty rate, the rate of inequality in income distribution depresses the real GDP growth rate, hence counters the desired impact that it should have had on the poverty incidence. Although, on theoretical grounds, inequality in the short-run serves as incentive in generating positive economic growth rate and then vanished in the long-run so as to allow economic growth to reduce poverty. However, the Nigerian case is different, inequality still exists even in the long-run and that stifles poverty reduction

THE CONCEPTS ECONOMIC GROWTH AND POVERTY
Economic Growth

Advancing the first concept of economic growth, the Classical School of Economics (Jhingan, 2007) define economic growth as the same with economic development. The classical definition assumed the nonexistence of inequality such that once there is increase in per capita income, the welfare level of the general populace improves. This definition is however flawed by Modern Development Theorists on the ground that inequality in income distribution is taken into consideration. They argued that the classical definition has at best, defined the necessary condition for economic development. In other words, economic development must be preceded by economic growth.

It is well recognized that economic growth is a sordid process. According to Haq (1976), economic growth lies in making the labourer produce more than he is allowed to consume for his immediate needs, and to invest and reinvest the surplus thus obtained. From a general perspective, economic growth simply

means more output that is in Gross Domestic Product (GDP) and consequently per capita income. Expanding this view, Jhingan (2007) asserts that growth may well not involve only output derived from greater amount of inputs but also greater efficiency, that is, an increase in output per unit of input. Judging from the above definitions of economic growth, it is the view of this paper that, economic growth is basically associated with increase in aggregate output – Gross Domestic Product (GDP).

Poverty

Poverty, a social problem and a prime target of development policies (Haralambos and Holborn, 1980 and Abimiku 2006), refers to a lack of the basic means of survival (MacPherson and Silburn, 1998). The poor are those who, even in normal circumstances, are unable to feed and clothe themselves properly and risk death as a consequence. Sachs (2005); Piachaud (1987); and Nweze and Ojowu (2002) further classify poverty into three different categories namely absolute poverty, relative poverty and subjective poverty. The poor under the concept of absolute poverty are categorized or determined through a yardstick known as poverty line. Poverty lines are cut-off points separating the poor from the non-poor (they can be monetary or non-monetary) (Thomas and Canagaraja, 2002; Coudoul, et al, 2004). The poverty line is based on the level of income or consumption of individuals, households or groups in a given society. Poverty line varies in time and place, and each country uses lines which are appropriate to its level of development, societal norms and values. The World Bank has long used a statistical standard – income of $ 1.25 and $2 per day per person, measured at 2005 purchasing power parity to determine the number of absolute

poor around the world (Sachs, 2005). Those living below this bench mark (poverty line) are said to be in absolute poverty. Those under this category are subdivided into the poor and the extreme poor giving rise to upper poverty line and lower poverty line respectively. It follows that those with income below the upper poverty line are regarded as the poor; while the extremely poor are those below the lower poverty line (Abimiku, 2006).

Townsend (1993) views poverty from a relative perspective as applying those whose resources do not allow them to fulfil the elaborate social demands and customs which have been placed upon citizens of that society. If people lack or are denied resource to obtain access to diets, amenities, standards, services and activities which are common or customary in society or to meet the obligation expected of them or impose upon them in their social roles and relationships and so fulfil membership of society, they may be said to be in poverty.

Subjective poverty, according to Goedhart et al. (1977); Van Praag et al (1980); Van Praag et al. (1982); Danziger (1984); and Pradhan and Ravallion (2002); starts by asking households how they evaluate their own situation. Therefore poverty under this approach is best interpreted as a 'lack of happiness', beyond the sphere of income poverty. Of all these concepts, absolute poverty is more pronounced and a common feature of developing countries, including Nigeria, hence, the analysis in this paper focuses on absolute poverty.

MODELING THE DISTORTION

Development Theorists have established a case under ideal situation that increase in prosperity, wealth or economic growth has a

depressing effect on the incidence of poverty in a given society or country. Aaron (1967), Plotnick and Skidmore (1975), and Adams (2002) have also found that the effect of economic growth on changes in poverty has either diminished or remained unchanged over time. For instance, the 1980s economic expansion in the United States had no affect on poverty. Using a formal error-correction model, it was discovered that increases in economic growth are significantly related to reductions in the poverty rate for all families. However, growth in the United States was found to have a more pronounced effect on poverty during the expansionary periods of the 1960s, 1970s, 1980s, and 1990s.

Poverty reduction depends on the rate of economic growth as well as on changes in income distribution. The distinction arises in the context of the discussion of the concept of pro poor growth. The idea behind this concept is that a change in poverty can be decomposed into two components: the effect of growth when the distribution of income does not change and the effect of income distribution when total income does not change. Using the notation suggested by Peterson (2007), the percentage change in poverty that follows an increase in the GDP can be expressed as follows:

$$\lambda = \lambda_g + \lambda_1 \text{ --- [1]}$$

Where:

λ = the proportional change in poverty,

λ_g = the pure growth effect and

λ_1 = the inequality effect.

The component, λ_g is always negative, because keeping the distribution unchanged, the incidence of poverty will always decrease

with an increase in the GDP. The reason is that for any reference threshold or poverty line, the share of the population under this threshold will diminish if incomes are augmented uniformly for all the people, while the distribution remains unchanged. On the other hand, the sign of λ_1 is negative when the economic growth is accompanied by a decrease in the rate of inequality, or positive, which means that inequality increases with the economic growth. The essence of this precise model and analysis is to justify the fact that poverty reduction should be preceded by increase in the availability of economic growth.

An Overview of the Growth Performance of the Nigerian Economy

Growth in the Nigerian economy until the early 1970s was driven by the agricultural sector. Following the 1973/74 oil price shocks, the oil sector emerged as the leading source of growth. The contribution of agriculture to Gross Domestic Product (GDP) declined from 47.6% in 1970 to 30.8% in 1980, while that of petroleum rose from 7.1% to 22.0% during the same period. By 2001, the share of agriculture was 34.4% and that of oil and gas was 36.3% (National Bureau of Statistics, 2005 and Central Bank of Nigeria, 2008).

Table 1: Sectoral Analysis of Real Growth Rates, 1982 – 2007

Year	Total GDP	Oil GDP	Non-Oil GDP	Agricul-ture	Manu-facturing	Tele-Com.	Edu. Serv.	Other Buss. Services
1982	8.2	-10.5	1.6	2.3	12.9	-1.9	2.3	0.5
1983	12.3	-9.0	-6.1	-2.9	-29.4	-35.4	2.3	13.6
1984	13.9	12.5	-7.5	-4.5	-11.2	46.5	2.2	7.7
1985	1.8	7.9	10.5	24.0	19.8	20.5	2.2	16.2
1986	52.2	-1.9	4.9	11.3	-3.9	-0.7	2.1	8.0
1987	32.2	-2.5	0.5	-4.0	5.1	1.0	2.1	1.2
1988	55.9	2.6	9.8	10.8	12.8	1.0	2.0	1.0
1989	23.4	12.0	5.6	5.0	1.6	2.0	2.0	1.5
1990	16.7	26.4	6.3	4.4	7.6	2.0	2.0	2.0
1991	70.6	-8.9	4.0	4.5	9.3	2.0	1.0	1.5
1992	0.43	2.5	2.1	3.0	-4.8	3.5	2.9	3.0
1993	31.6	0.2	1.8	2.9	-4.1	3.5	2.9	4.0
1994	114.8	-2.6	1.7	3.0	-0.9	1.0	1.4	3.5
1995	39.8	2.4	2.1	3.4	-5.5	5.0	-0.1	3.7
1996	4.99	7.2	3.0	3.8	1.0	5.0	2.9	3.6
1997	-3.3	1.5	3.5	4.3	0.3	6.0	1.7	3.5
1998	17.9	2.2	3.3	3.9	-3.9	5.0	1.7	5.0
1999	43.5	-7.81	4.2	5.3	3.4	5.2	1.7	19.9
2000	3.1	10.99	3.0	3.0	3.4	6.1	1.6	8.0
2001	46.3	5.2	4.3	3.9	14.48	29.9	1.6	10.0
2002	22.8	-5.61	7.96	4.2	10.09	13.3	7.9	15.1
2003	34.5	23.70	4.44	6.64	5.66	85.1	7.0	13.1
2004	10.58	3.37	7.50	6.50	10.00	85.0	na	19.8
2005	27.4	0.50	8.59	7.06	9.61	85.4	na	26.5
2006	11.3	-4.67	8.93	7.14	9.51	31.88	na	7.67
2007	17.6	Na	na	Na	na	na	na	Na
2008	1.7	na	Na	Na	na	Na	na	na
2009	6.96	na	Na	Na	na	Na	na	na
2010	8.72	na	Na	Na	na	Na	na	na

Sources:

- NBS (2006) Nigerian Statistical Fact Sheets on Economic and Social Development; Abuja (November)

- Central Intelligence Agency – CIA (2009).
- Index Mundi (2011). Nigeria GDP- Real Growth Rate. Retrieved from indexmundi.com>
- Nigeria: 2009 Fact Book; and CBN (2010) Statistical Bulletin, Special Edition na = not available

As shown in table 1, whereas real GDP growth rate between 1993 and 1999 averaged 2.9%, it doubled to 6.1% between 2000 and 2006. Noteworthy is that in 2003/2005 growth rate exceeded the prescribed 6.5% under the Millennium Development Goals (MDGs). Also noteworthy is that the growth was driven by the non-oil sector. As shown in the table 1, except for 2000 and 2003, during the period, oil GDP growth was lower than aggregate GDP growth. Non-oil GDP growth, on the other hand, was much higher than aggregate GDP growth. This is particularly noticeable for 2002, 2004 and 2006.

Left Behind: The Poor in the Period of Economic Expansion

The poor are expected to participate in growth as both agents and beneficiaries. In terms of the benefits the poor are left behind-excluded. The impressive growth performance of the economy observed wholesome in the preceding section, as a measure of economic expansion is quite at variance with the expected 'trickle-down effect'. (CIA, 2009; NBS, 2006). The poor are left behind in terms of the spread of the overall growth-gains. Even though there

was positive real growth, between 1985 and 1996, (with the exception of 1987 and 1991) poverty and inequality worsened in Nigeria. If the relatively more impressive growth during 1986 -1992 could not yield an improvement in poverty, it is not surprising that the lower growth recorded in 1993 -1996 could not yield a better poverty profile.

Strengthening the fact that the poor in Nigeria have not benefited as expected from the economy's growth, the United Nations Development Programme, UNDP (2001) and (2007) remarked based on Human Development Index (HDI) that Nigeria is no doubt one of the poorest countries in the world today, ranking Nigeria 158 out 177 countries, placing it in the category of low income countries. With respect to social indicators, International Monetary Fund (2008) and UNDP (2007) further reported that one in five children die before the age of 5 (high infant mortality rate); the results of inadequate health services (for example only 28 Physicians per 100,000 people as at 2004; 12 million children are not in school; adult illiteracy rate of 30.9%, approximately 6% of the population are now Human Immunodeficiency Virus (HIV) positive; low life expectancy at birth of 46½ years; of the estimated 162 million people, 71.1 million are without electricity; while 52% of the total population are devoid of access to improved water source (UNDP, 2007). These and other worse indicators placed Nigeria 80th out of the 108 poorest countries in the world in terms of the provision of education and services such as potable water, public-health measures, and sanitation, given that the country's Human Poverty Index (HPI) is 37.3 (UNDP, 2007).

Base on the Living Standard Survey (LSS) of 2003/2004, (NBS, 2006; UNDP, 2007) and CIA, 2008) estimated that approximately 70.8 per cent of the country's total population is living

in absolute poverty that is below the threshold of $1.25 per person per day and a decline by 10% to 60.09% in the year 2010.

Inequality in Income Distribution: The Distorting Variable

The discrepancy between the growth and the poverty incidence in the country is attributed to rising inequality in income distribution that characterised the economic system. Inequality in income distribution is one of the major factors responsible for growing poverty incidence in Nigeria in spite of it's the better revenue profile. A measure of inequality within a country is calculated by the Gini Index (GI) or Gini Coefficient (GC). A Gini index of zero represents perfect equality while an index of 100 points denotes perfect inequality. Nigeria is among the 20 countries in the world with the widest gap between the rich and the poor. (UNDP, 2009). The Gini index measures the extent to which the distribution of income (or in some cases consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. Nigeria has one of the highest Gini Index in the world. The national GI in 2005 was 49 points (NBS, 2006). This compares poorly with other countries such as India, Jamaica, Mauritania and Rwanda with Gini Indexes of 37.8, 37.9, 37.3 and 28.9 respectively (Onyeukwu, 2007).

The Nigeria's GI of 49 points implies that greater proportion of the national income is eluding the poor. The poverty gap in Nigeria is widening, and a greater proportion of the nation's wealth is being concentrated in the hands of the wealthiest 20 per cent in the country. In Nigeria it is thought that the highest income-earning status is enjoyed by just 10 per cent of the population, who have 31.4 per cent share of the total national income. The poorest 10 per cent receive

just 1.3 per cent. Nearly 50 per cent of the total national income is owned by 20 per cent of the highest income earning group. An estimated 20 per cent of the poorest portion of the population own 4 per cent of the total National Income (UNDP, 2001). The widening gap of inequality further marginalizes the poor and serves as source of conflict, civil strife, and political instability.

Analysis of the National Gini Index indicates that 80% of nation's wealth is controlled by 20% of the country's population. This brings to fore the vicious circles of wealth and poverty. It follows therefore that, 80% of the total population competes for only 20% of the National Income. The implication is that, the wealthiest 20% have better access to health and education services; adequate infrastructural facilities and other basic amenities. Following this, they (the wealthy) ensure that their children (and possibly children's children) partake of the same opportunity, by sending them to better schools, and consequently build for them a strong financial power base. This process is repeated down the line of future generation. On the other hand, the 80% poorest, are confronted with just the opposite, lack of basic needs let alone capital to invest in their children. They are constraint by inadequacies to social and economic opportunities.

The above analysis obviously presents two vicious circles: wealth and poverty. These circles exhibit constant characteristics and thus become parallel to each other and unless these circles intersect through deliberate intervention by government with the instrument of public finance, the rich will always be rich because they have been rich; and the poor will always remain poor because they have been poor (UNDP, 2001 and Subramanian and Sala-i-Martin, 2002).

Empirical Analysis of the Growth, Inequality and Poverty Model: The Nigerian Context and Experience

The above theoretical model is employed here in analyzing the relationship between poverty incidence, economic growth and Gini Coefficient as a stand-in for the rate of inequality in income distribution. Presented below is the estimated functional relationship from data of selected years between 1980 and 2010.

Poverty = -85.77892 + 2.338536GROWTH + 2.764805GINI ------- [2]

S.E.E   (49.17953)   (1.080320)   (1.015312)

t*   (-1.744200)   (2.559246)   (2.303268)

R^2 = 0.77, Durbin-Watson Stat = 1.52

From equation [2], the positive values of the coefficients [of the predictors] are in consonance with the assertion of the model and at variance with the expected relationship of the variables in questions: Economic Growth, Gini Index and Poverty Rate. In particular, the positive coefficient of growth implies that as economic growth increases, poverty too increases. This is because the coefficient of Gini index is also positive; indicating that increase in poverty is associated with increase in inequality. The low probability values of F-Statistic and Chi-square resulting from Wald Test of Coefficient significant and high coefficient of Multiple Determination (R^2) justify the strength and stability of the model, hence the reliability of the parameters.

Conclusion

Pro-poor growth that is, economic growth that mostly benefits the poor and the extent to which the poor participate in growth as both agents and beneficiaries, has not reflected in the Nigerian case; the poor participate more as agents in the growth process than benefiting from the outcome of the process – being excluded from the gains. High and rising levels of income inequality lower the poverty reduction impact of a given rate of growth and can reduce the political stability and social cohesion needed for sustainable growth.

The growing rate of inequality in income distribution as measured by Gini Coefficient is the prime reason economic growth is not absolutely pro-poor in the country. On the basis of this, the challenge is not that Nigeria is lacking in economic growth, but that inequality in income distribution builds a gulf between the poor and the rate of economic growth in the country, growing at unacceptable proportion.

Recommendations

While most developing countries are concerned with output expansion as a necessary condition to achieving economic development, Nigeria is less concerned with that than addressing the gap between the rich and the poor. This is predicated on the fact that when economic growth is achieved and inequality in income distribution looms persistently, the growth effort becomes less fruitful. On this wise, the following fiscal policy measures are recommended to take in hand the distorting variable – inequality.

Impositions of Property and Expenditure Taxes to the Setting up of National Welfare Scheme

Just as practice in most developed economies, Nigeria should incorporate and impose property and expenditure taxes in it tax system. Property tax requires that individuals pay a certain percentage of the value of their earthly possessions. On the other hand, expenditure tax is incurred at spending. In implementing expenditure tax, spending on essential services such as health and education should be exempted.

The proceeds from these taxes should serve as the sole source of a National Welfare Scheme targeted at the poor in the country. The scheme should operate under the following eligibility criteria or conditions:

i) It should only be for the poor adults especially women that are 18 years and above

ii) Only nationals of Nigeria who are the unemployed should be considered; since poverty is an increasing function of unemployment as it is the case with the Nigerian economy.

iii) To avoid laziness and the consequence of the Dependency Theory of Poverty, the provision [for a set of individuals] should last for a specific period of time after which beneficiaries should be weaned and attention given to the next category of the target group. This is on the assumption that the cumulative benefit should result to the individuals improvising a means of spinning the existing income for self-sustenance. Having tested the bitter pills of poverty, it is expected that they will at all cost avoid being victims again and so judiciously utilize the welfare provision.

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APPENDIX

Table of the Analysed Data and Variables

Year	Gini Index (%)	Growth Rate (%)	Poverty (%)
1980	38.7	-4.5	27.5
1985	45	1.8	46.3
1992	46.5	28.4	42.7
1996	48.8	3.7	65.6
2004	41.3	27.7	54.00
2010	42.9	8.4	60.9

Dependent Variable: POVERTY

Method: Least Squares

Date: 03/25/12   Time: 23:58

Sample: 1 6

Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-85.77892	49.17953	-1.744200	0.1795
GROWTH	2.338536	1.015312	2.303268	0.1047
GINI	2.764805	1.080320	2.559246	0.0833

R-squared	0.765193	Mean dependent var	49.50000
Adjusted R-squared	0.608655	S.D. dependent var	13.78332
S.E. of regression	8.622517	Akaike info criterion	7.453484
Sum squared resid	223.0434	Schwarz criterion	7.349364
Log likelihood	-19.36045	F-statistic	4.888218
Durbin-Watson stat	1.525835	Prob(F-statistic)	0.113780