

## **What do we know about pro-poor growth and regional poverty in Nigeria?**

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### **Abstract**

*This study investigates the pro-poorness of income growth in Nigeria. Using nationally representative data for 1996 and 2004, overall income growth in Nigeria was found not to be pro-poor. The richer segments of the population appropriate greater share of benefits from economic growth. Household size was a critical determinant of poverty levels. Sector of employment also impacts on the probability of a household being poor; with those in agriculture being relatively worse off. The need for smaller family size has to be an integral part of policy aimed at poverty reduction in Nigeria. The support of the government in creating value in critical sectors (like agriculture and industry) that employ a large proportion of Nigerians in order to make growth pro-poor is critical. There is also a need for region-specific policies addressing the peculiarities of poverty in the different parts of the country. One size does not fit all. Deliberate effort of the government in redistributing income is also required to ensure pro-poorness of growth in Nigeria.*

**Keywords:** Economic growth, pro-poor growth, poverty, Nigeria

**JEL Classification:** I32, O40

### **1. Introduction**

It is difficult to discuss poverty in Nigeria and its causes without reference to the structural transformations that have occurred in the composition and performance of the components of gross domestic product (GDP) over time. At the inception of the oil mania following the end of the civil war in 1970, agriculture accounted for 47.6 percent of GDP. By 1980, this share had reduced to only 30.8 percent and over the period, the share of petroleum rose from 7.1 percent to 22 percent. By 2001, oil accounted for 36.3 percent while the share of agriculture still stood 34.4 percent. Prior to then, the services sector had witnessed a

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surge in growth, rising to as much as 40 percent of GDP in 1999 before declining back to about 30% in 2001. But the sub-sectors (including telecommunications and financial services) that led the growth in services are not necessarily high employers of labour. There was also huge growth in informal services that provided substantial employment but lacked the capacity for significant value addition. This structural transformation in turn mirrors the changing (often inconsistent, discontinuous, and poorly implemented) policy programmes that have been adopted by different governments over the years. Because Nigeria operates a three-tier system of governance comprising the federal, states and local governments, significant geopolitical economic disparities can be partly traced to governance and institutional differences of component states.

While growth slowed down in the earliest periods, there has been some significant rebound since 2000. Though fluctuating, the per capita growth rate has remained decidedly positive since then, with aggregate growth averaging over 5 percent compared to 2.8 percent estimated population growth rate. Poverty reduction has neither been consistent nor widespread relative to the growth numbers. Importantly too, growth is only pro-poor when the poor get a significantly higher proportion of increases in output than the rich. It is not clear that this has been the case in Nigeria and indeed, the rate of poverty reduction has apparently not mirrored the rate of growth. Even though the two major household surveys used for this work were conducted between 1996 and 2004 and growth was not as significant as it has been between 2004 and 2009, yet the little that occurred did not seem to have helped the poor so much. So it is possible policy programmes have not done enough to redistribute income in a manner that raises the welfare of the poor or at least mitigates the free-fall in welfare for the vulnerable group.

Nigeria has apparently not been fortunate with implementing poverty reduction programmes. At least in policy discussions, poverty reduction has been at the centre of the country's economic policy and development programmes since independence. While it was not explicitly targeted in earlier development plans (1962 to 1975), it featured in more pronounced ways in latter programmes and projects, many of which specifically targeted elimination of poverty. These targeted programmes and projects covered a wide range of sectors including agriculture, health, education, housing and finance. In fact, they became so scattered that the Obasanjo regime (1999-2007) had to set out to rationalize and merge them in 1999. The various institutions that have arisen from the disparate poverty reduction programmes were then consolidated into the National Poverty Eradication Programme (NAPEP). This, headed by no less than the President himself, was charged with the sole mandate of eradicating poverty.

Empirical evidence and views are diverse as to the overall impact of these programmes. Some researchers (see for example Obadan, 1994; Faruquee, 1994; Canagarajah, et al., 1997) believe that these programmes have impacted positively on the lives of the poor, while others such as Osinubi (2003) insist that they have not. Researchers in the latter group believe that overall growth in Nigeria is not necessarily pro-poor and that the poor are not benefiting from growth. Ironically, the Federal Government itself admits Nigeria is set to miss the MDG (FRN, 2005). This is despite the fact that there has been sustained

growth in income and income per capita over the past decade. Even though actual growth does not match MDG-required rates yet, there has been a substantial departure from the 1990s where per capita growth was negative. But beyond relatively improved growth, the question as noted by the likes of Ravallion and Datt (1999), Eastwood and Lipton (2001) and Kakwani and Pernia (2000) is whether achieving this growth rate in itself is capable of meeting the challenges of poverty, hunger, poor health and inequality in Nigeria. It seems there are equally big challenges with the nature, content and direction of growth in the country.

There are also regional and sectoral dimensions to the growth and poverty challenge in Nigeria. The regional distribution of gains from growth has also been anything but equitable. Poverty has worsened in some parts of Nigeria while it improved in others. While some southern states witnessed significant reduction in poverty between 1996 and 2004, the majority of states in the north remained largely unaffected. It seemed that by 2004, some segments of the country got disproportionately better-off than they were in 1996 while others got worse-off. But Nigeria is a federation where not only the policies of the central government, but also those of the state and local governments, influence growth and poverty reduction. Sometimes policies at lower levels of governance are far more important than those at the national level primarily because they are close to the people. The cocoa and palm plantations and the groundnut pyramids have disappeared in favour of oil. But oil employs only about 2 percent of the workforce. The rest are engaged in other economic activities. Regional distribution of employment in the different sectors also differs significantly. As yet, it is not known to what extent these replacement sectors and economic activities have helped the cause of growth, poverty reduction and equitable income distribution? And to what extent they could account for the differences in regional growth and poverty performances. For example, it is not clear that the stagnancy in the labour intensive but largely rudimentary agricultural sector has been accompanied by increasing share of other labour intensive modern sectors.

There is a clear need to evaluate the trajectory of the growth process over time in objective terms using standardized methodologies to assess the degree of pro-poorness of its distribution. It is important to hold up Nigeria's growth trends to formal tests of pro-poorness using standard measures in the literature. That, in part, is what this work intends to do. If growth in itself indeed cannot translate into improved standards of living of the poor and marginalized, what other margins of policy can be explored to reduce poverty and how? There has hardly been much assessment of the pro-poorness of growth in the country and the implications of the findings to underscore policy design. Meanwhile, though growth has rebounded, unemployment is still high (and in fact not even properly estimated because of existing policy programmes with temporary employment leading to individuals living on less than the minimum wage). So it becomes important to properly link growth with poverty reduction programmes, disaggregate sources of growth and poverty and measure the pro-poorness of growth as input into sustainable poverty reduction programmes.

This paper intends to decompose income growth and identify the contribution of different sectors of employment to the incidence of poverty. It intends to investigate the

kind of economic activities that are associated with decreases in poverty at the household and regional levels. More specifically, with an estimated 5 to 10 percent new entrants into the labour market getting a job, and unemployment for the 15 to 29 age group estimated at up to 60 percent, it is important to ask whether witnessed growth in the country has been pro-poor, sufficient, and in the 'right' sectors? To what extent has the nature and sectoral composition of growth been responsible, not only for widespread unemployment but also for differences in regional poverty experiences? Are regional differences in poverty exacerbated by sectoral dynamics or just by demographics? Again, to what extent do these sectoral and regional employment challenges exacerbate regional poverty?

This paper therefore aims to explore pattern and linkages of economic growth and poverty in Nigeria from an analytical standpoint that combines econometric estimates of determination of poverty in the regions. It aims to determine pro-poorness of economic growth in Nigeria from 1996 to 2004 using various methods and assess how sector of employment and household demographics impact on poverty in the different regions.

## **2. Brief Literature Review**

### **2.1 Trickle-Down Versus Pro-Poor Growth Strategies**

The idea that the benefits of economic growth get to the poor indirectly through the spending of the rich as economic growth first benefits the rich and those with initial capacity was part of the inherited economic development thought from the 1950s and 1960s. The trickle-down theory and the consequent 'indirect benefit' approach to economic thought and policy received a big boost with the highly influential Dollar and Kraay (2000) study that finds that income of the poor rises one-to-one with overall growth. But these findings have also been highly contested by researchers including Kakwani and Pernia (2000) that produced counter evidence showing that there could also be 'immiserizing growth' (Bhagwati, 1988). And thus the need for deliberate pro-poor growth and poverty intervention policies that do not leave distribution to market forces as suggested by the trickledown theory. Poverty reduction is then seen as the fundamental objective of and a metric for assessing the effectiveness of development. Poverty reduction interventions employed alongside economic growth become therefore influential tool in combating income poverty (Essama-Nssah and Lambert, 2006).

Pro-poor growth strategies are diverse and depend critically on the structure of the economy in consideration and the distribution of income among the different sectors that employ the relatively poor and the wealthy. In Africa for example, where the bulk of the poor live in the rural areas and incomes are tied to agricultural production, different authors have argued that an increase in the productivity and growth in the sector is likely to have significant impacts on poverty reduction. They support such assertion by references to China and Bangladesh where growth in the primary sectors had greater impact on poverty reduction (Ravallion and Chen, 2004; Ricardo, 2005). Countries like Indonesia, Bangladesh and Vietnam have shown that increasing access to markets directly or indirectly through the

creation of labour intensive projects that create jobs for the poor is a viable pro-poor growth policy (see Ricardo, 2005). Other policies that have been identified as a viable option for pro-poor growth especially for agrarian communities include proper property rights and effective risk management (see Ricardo, 2005).

## **2.2 Some Empirical Studies on Growth and Poverty Reduction**

Following the understanding that poverty reduction can be triggered or managed, a number of studies have proceeded to evaluate both the approaches and instruments for doing this. A huge genre of literature has evolved to either strengthen the theory using further empirical data or show different sizes and composition of alternative methodologies for weighing in on poverty reduction (see for example, Son (2004) for applications to Thailand). Ravallion and Chen (2003) applying the measure of pro-poor growth as the mean growth rate for the poor on dataset from China explored China's growth process in the 1990s. Over the years 1990-1999, they observed that the ordinary growth rate of household income per capita was 6.2% per annum and the growth rate by quintile ranged from 3% (poorest percentile) to 10% (richest percentile) and the rate of pro-poor growth was around 4%. They also observed that this trend was reversed in the mid-1990s for a few years.

The sort of analyses presented in some of these studies ostensibly help structure policy intervention in a manner that will ameliorate (if not correct) discrepancies in benefits from growth. However, such studies have generally not been available for African countries including Nigeria. For example, there have not been studies conducted that tests for the convergence of the various methodologies proposed to test for the pro-poorness of growth in countries. In Nigeria specifically, there is dearth of studies in the area of pro-poor growth especially as it relates to income distribution and sectoral allocation of such growths from a micro-macro analytical perspective. This study is a preliminary step towards helping to fill this huge knowledge gap.

## **3. Poverty, Growth and Economic Policy in Nigeria**

The challenge of poverty in Nigeria was aptly captured by the World Bank in a 1996 publication on Nigeria titled: *Poverty in the midst of plenty: The challenge of growth with inclusion*. Even official reports from government, regularly accused by the civil society of exaggerating growth and underreporting poverty and unemployment, still indicate rising poverty over the last three decades since 1980. The National Bureau of Statistics figures indicate that national poverty incidence reduced from approximately 65.6 percent to about 54.4 percent between 1996 and 2004. However, with increases in absolute population from an estimated 115 million to 140 million between the two periods, this actually amounts to an increase in the population in absolute poverty from 75.4 million to 76.2 million between the two periods. So a fall in relative poverty numbers may not mean a fall in the total population of the poor. There may be arguments about the relative size and composition of

the poor, but there is no argument about poverty as a critical fact in Nigeria. And there is no question it has trended up for many years. Income poverty moved up from 28.1 percent in 1980 to 65.6 percent in 1996 before it returned to 54.4 percent in 2004. Even at that, self-assessed poverty was 75.5 percent in 2004 (FOS, 2004).

Inequality has also been on the increase. Nigeria's overall Gini coefficient rose from 0.387 in 1985 to 0.465 in 1996. By 2004, this has further increased to 0.515 and rose even further to 0.58 in 2007. So here is a society where poverty has increased, but then, inequality has increased even much more over time. This rising Gini coefficient is not only a matter for urban areas, where there is always the tendency for it to be very high. In fact, Nigeria's case is unique relative to many developing countries; its rural inequality coefficient of 0.581 is higher than its urban inequality, with coefficient of 0.528 (Canagarajah et al, 1997; Canagarajah and Thomas, 2001; Aigbokhan, 1999; World Bank, 2003; and Oyekale et al, 2007).

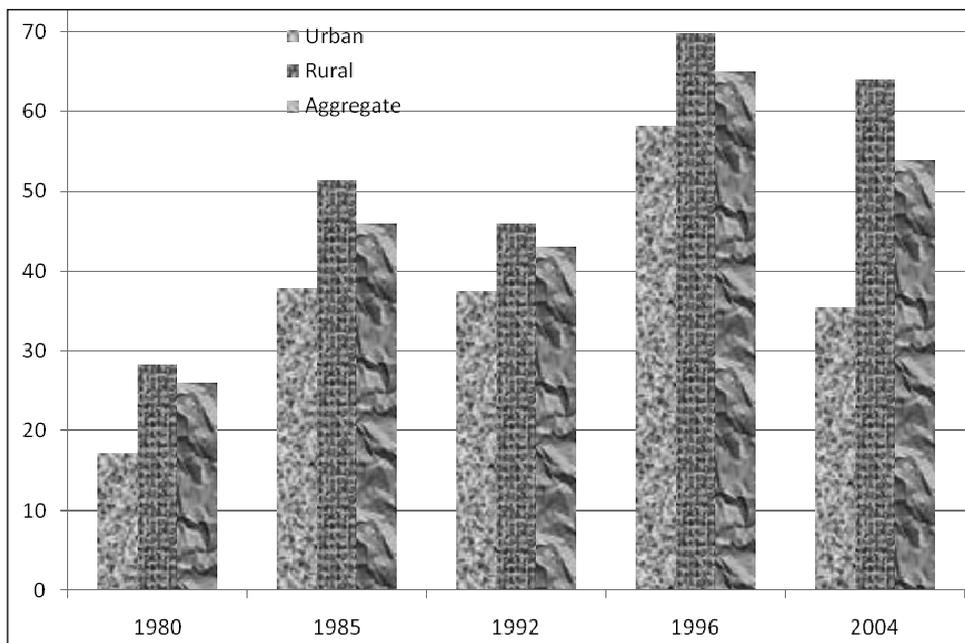
Following independence in 1960, the country aggressively pursued growth by promoting agriculture in the geopolitical regions. Regional agriculture was then the pivot of economic growth as each of the then four regions exploited its comparative advantage, the north in groundnut, the south east in palm produce and the south west in cocoa. The massive growth of the first six years after independence was interrupted by the three year civil war that began in 1967 and ended in 1970. By 1970, oil export began a steady rise and soon became the mainstay of the economy. The splintering of the regions into component states also led to a weakening of the government base and support for the regional agricultural products. Growth in the 1970s was therefore primarily driven by oil exports.

The oil boom of the 1970s had decidedly real effects on growth; there were significant increases in real GDP in both aggregate and per capita terms throughout the decade. As at 1980, per capita income of the country had risen to US\$1215. Then the oil glut of 1979/1980 appeared which led to sharp drop in growth rate post-1979. By year 2000, per capita GDP was only US\$706, a 42 percent fall in PPP terms from its 1980 value. The 2004 National Living Standards Survey (NLSS) indicates that about 20 percent of the population are in the core poor group while another 38 percent are moderately poor.

However, aggregate poverty statistics mask the huge spatial disparities that exist across urban – rural divide and the six geopolitical zones of the country. Figure 1 above shows that poverty is more concentrated in the rural than in the urban areas. Rural poverty is consistently higher than national average. But the greater challenge is the huge regional discrepancies in poverty especially in terms of broad categories of north and south. Poverty is relatively more concentrated in the northern parts of the country. In 1996, only 4 out of 23 states with poverty levels over 60 percent are in the south, while the remaining 19 states representing 83 percent are in the north.

Not only is poverty more pervasive in the northern region, it is also more persistent. Little positive changes occurred in the region between the 1996 and 2004 surveys; in fact, the region fared worse on the aggregate in 2004 compared to its poverty position in 1996. The bulk of poverty reduction that occurred between 1996 and 2004 came from the south. Figure 2 shows poverty incidence in the six geopolitical regions based on the 1996 and

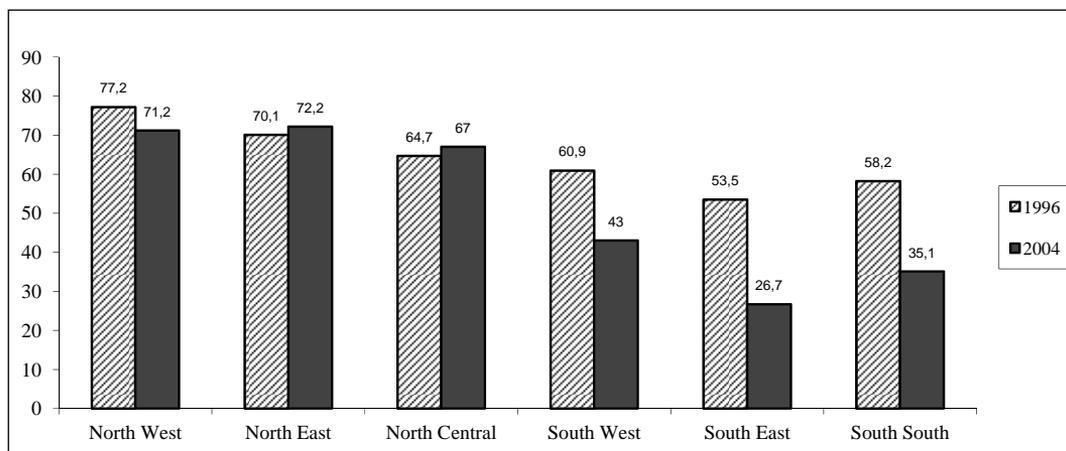
**Figure 1: Trends in Income Poverty, 1980 – 2004**



**Source:** Original data from the NLSS 2004

2004 living standards surveys. The first three sets of columns shows the northern region – north-west, north east and north central respectively while the last three shows the southern region – south west, south east and south south. Poverty incidence fell only by 1 percentage point (from 77.2 to 76.2) in the northwest through the more than one decade between 1994 and 2006. It increased in the north east and north central respectively from 70.1 percent to 72.2 percent and from 64.7 percent to 67 percent. In contrast, the southwest had nearly 18 percentage point reduction in the proportion of the population in poverty (from 60 percent down to 42 percent). The proportion in the southeast in poverty was reduced by nearly 27 percent (from 53 percent to 26 percent) while the proportion in poverty in the south-south dropped by 23 percent (from 58 percent to 35 percent). It is possible this development aggravated regional and spatial inequality making Nigeria one of the most unequal countries in the world. Interestingly, disparities in concentration of poverty among the regions reflect in disparities in economic, social and infrastructural developments. The UNDP (1994), for example, found that life expectancy in Edo and Delta States in the south-south was 18 years higher than in Borno state in the northeast, the latter being among the lowest in the world. Demographic and Health Survey conducted in 2004 showed that child mortality in northwest is more than two and half times the rate in the southeast. Similarly, a recent World Bank study showed that rural poverty in Jigawa state (northwest) is four and half times the rate in Oyo state (southwest).

**Figure 2: Poverty Incidence by Regions in Nigeria**



**Source:** FRN, 2005

The spatial poverty situation in Nigeria is complex and does not lend itself to easy explanations. However, it is on record that colonial patterns of settlement and activities of early missionaries gave the southern geopolitical zones a head-start in the development of education, health and social infrastructure (Ityavyar, 1987). But such explanation does not suffice for the persistence of this situation nearly one hundred years later. It has been suggested by some authors that cultural and other differences between the north and the south largely account for the differences in poverty incidence. While these may be true, it is also important to note the role oil rents could have played over time. Economic volatility arising from weak institutions may have been accentuated by rent from oil. In fact, the abolition of the groundnut pyramids and reliance on the less employment-generating oil sector may have affected the north more than other parts of the country. It is also possible that sectoral distribution of gains from increases in income could have been skewed against the sectors engaging the larger proportion of the workforce in the northern parts of the country. In this case, there are both income and substitution effects from the shift away from core agriculture to oil as a major source of revenue to government. Oil has been a critical contributor to the instability that has characterized Nigeria's political economy. Oil revenue has over time become a source of entrenched rent-seeking that undermined productive effort giving rise to what has been appropriately described as prebendalism, a state of intensive struggle for the control of resources by fractious power blocks (Joseph, 1987). But the political volatility is only an epiphenomenon of the greater volatility that characterizes the international oil market with its frequent booms and bursts. But it might be difficult to make clear statements on these without examining sectoral contributions to poverty, which is integral to this paper.

The universal weakness of a prebendalistic economy is the absence of strong institutional framework to organize productive efforts. Governance institutions are compromised and accountability and transparency are undermined. The cost of doing

business increases and investment and economic growth are sacrificed, increasing poverty. While exact estimates do not exist, there are indications that poverty and inequality in Nigeria owe largely to the historical impacts of rents from oil. While oil accounts for over 90 percent of exports and 80 percent of government revenue, it employs only about 2 percent of the workforce. But oil could equally have accentuated poverty through its impact on institution building. Rents from oil do not trickle down to the poor when they are not invested in productive efforts that will create jobs but rather invested in securing the sources of the rents and increasing access to the privileged few. Under such circumstances, economic growth can be consistent with increasing poverty.

In the Nigerian case, agriculture was largely abandoned and incentives were pitched against the productive sectors. Poor infrastructural development, little attention to research and poor industrial development strategy gave rise to still-born manufacturing sector. Lack of investment in rural infrastructure acted as a disincentive to rural agricultural life and a pull factor to the cities, giving rise to one of the highest urbanization rates in the world. With huge pressure mounting on the largely unplanned and under-developed urban infrastructure, the result was the emergence of sub-urban ghettos. But there are other ways in which oil hurt the poor in Nigeria. Influx of petrodollars led to Dutch disease, exchange rate overvaluation and import dependence. With almost no mechanism for support, the poor bear a disproportionate share of these disincentives. Volatility in growth of the oil sector also meant huge swings in real income of the poor. Besides, quality of government expenditure decides overall impact of oil rents on the poor. These are midwived through existing institutions – and for all the efforts put into building them, these institutions have not been facilitative of poverty reduction in Nigeria.

The government has seemingly never left off fighting poverty in the country. Several programmes aimed at reducing poverty have been initiated and implemented since independence. Even military governments advertised poverty reduction as their major goal and were not left out in the struggle to reduce poverty. This gave rise to a plethora of programmes over time. While the development planning era targeted broad economic growth on the understanding that they would yield poverty reduction, subsequent governments were more direct in line with the shift in global paradigm to explicit poverty reduction targets. Most of these were through defined programmes giving rise to sharp increase in the number of institutions and projects aimed at poverty reduction. The Babangida administration (1985-1993) for example established the Peoples' Bank, community banks, small scale credit schemes, National Directorate of Employment (NDE), the Family Support Programme (FSP), Directorate of Foods, Roads and Rural Infrastructure (DFRRI) among a host of others. The Abacha administration (1993-1998) established the Family Economic Advancement Programme (FEAP) and the Petroleum Trust Fund (PTF). Most of these programmes were housed directly under the Presidency to depict the extent of relevance and support they received from the administration of the day. The poverty reduction strategy process initiated by the World Bank was equally housed under the Presidency. But by the first term of his administration, Obasanjo decided to rationalize institutions tackling poverty and set up the National Poverty Eradication Programme (NAPEP) as the

coordinating body for poverty reduction. The administration also introduced the National Economic Empowerment and Development Strategy (NEEDS) alongside its States and Local Government counterparts (SEEDS and LEEDS) all of which ran as encompassing national reform programmes (Osinubi, 2003; FRN, 2005). Even specialized institutions of government like the Central Bank of Nigeria set up programmes like the Small and Medium scale Investment Equity Insurance Scheme (SMIEIS) in pursuit of poverty reduction.

## **4. Methodology and Analytical Framework**

### **4.1 Study Population and Data**

Nigeria occupies approximately 923,768 square kilometres of land mass and is politically divided into 36 states and the Federal Capital Territory, Abuja. For operational convenience, the country is divided into six geo-political zones – north east, north-west, north central, south east, south west and south south. With a population of over 140 million, over 50 percent of which live in the rural areas and lack basic amenities (FRN, 2005), it is the most populous and second largest economy in sub-Saharan Africa

The 1996 General Household Survey (GHS) and the 2003/04 National Living Standard Survey (NLSS) datasets were used in the study. These are nationally representative datasets covering the 36 states of the Federation including the Federal Capital Territory. Both surveys used the National Integrated Survey of Households (NISH) frame and employed multi-stage sampling with data on living standards. The GHS contained information on about 22,000 households while the NLSS contained information on about 1900 households. To ensure uniformity in assessing ‘pro-poor growth’, income was proxied by real expenditure values (in 2004 prices) based on the consumer price indices (CPIs) available from the National Bureau of Statistics (NBS). Unlike the GHS, the NLSS contains disaggregated expenditure items. To compare with the GHS a similar measure of expenditure was constructed for the NLSS by summing up the various components that comprise a category of expenditure. In part, this is mainly for the segment of the work concerned with assessing pro-poor growth. For the sectoral and regional analyses involving estimation of relationships, the major data were the 2004 NLSS. Most of the quantitative assessments in the work were handled with STATA 11 and SPSS 16. The analytical techniques for evaluating the different measures of pro-poor growth and unemployment and their implications for the Nigerian economy are contained below.

### **4.2 Measuring Pro-Poor Growth**

To determine pro-poor growth of economic growth from 1996 to 2004, we adopt various approaches including Ravallion and Chen’s (2003) approach, Son’s (2004) approach, Kakwani and Pernia’s (2000) approach and Kakwani et al.’s (2004) methodology. We then compare the conclusions from these methodologies to assess the convergence of conclusion on the pro-poor growth in Nigeria over the two sample periods.

Modifying Kakwani (1993), Ricardo (2005) shows that the relationship between poverty, inequality and growth can be simply expressed as:

$$P = p(y, I) \quad (1)$$

where (1) is the level of poverty.  $y$  is the level of income and  $I$  is a measure of inequality. Changes in poverty following the total change representation can be written as

$$dP = \frac{\partial p(y^*, I^*)}{\partial y} dy + \frac{\partial p(y^*, I^*)}{\partial I} dI + \frac{\partial y}{\partial I} \quad (2)$$

Rearranging and simplifying, we obtain

$$\% \Delta P = \zeta_y \cdot g + \zeta_I \cdot \% \Delta I + (\partial y / \partial I) \cdot (1 / p) \quad (3)$$

where:  $\zeta_y$  = elasticity of poverty to income,  $g$  = income growth rate,  $\zeta_I$  = elasticity of poverty to inequality,  $\% \Delta I$  = percentage change in inequality, and  $\partial y / \partial I$  = correlation between inequality and growth.

Equation (3) represents the percentage change in poverty which shows that changes in poverty is a function of changes in inequality, economic growth and the correlation between income disparities and growth rates. This clearly shows that poverty changes when any of its constituent units as found in (3) changes.

The poverty incidence curve analysis of Ravallion and Chen (2003) asserts that a measure of pro-poor growth should satisfy the following axioms:

- (i) The measure should be consistent with the direction of change in poverty, in that a positive (negative) rate of pro-poor growth implies a reduction (increase) in poverty.
- (ii) The measure of poverty implicit in the measure of pro-poor growth should satisfy the standard axioms for poverty measurement

The measure of pro-poor growth proposed is the actual growth rate multiplied by the ratio of the actual change in the Watts index to the change that would have been observed with the same growth rate but no change in inequality.

A modified Watts Index can be written in terms of the quintiles function as:

$$W_t = \int_0^{H_t} \log[z / y_t(p)] dp \quad (4)$$

where  $y_t(p)$  is the income of the  $p$ th quintile at time  $t$ ,  $H_t$  is the headcount measure of poverty at time  $t$ ,  $z$  is the poverty line.

After differentiating (4) with respect to time, we obtain:

$$-\frac{dW_t}{dt} = \int_0^{H_t} \frac{d \log y_t(p)}{dt} dp = \int_0^{H_t} g_t(p) dp \quad (5)$$

Dividing (5) by  $H_t$  gives the measure of pro-poor growth which is measured by the mean growth rate for the poor given by:

$$= \frac{1}{H_t} \int_0^{H_t} g_t(p) dp \quad (6)$$

Son's (2004) methodology distinguished Growth Poverty Curve from the growth incidence curve used by Ravallion and Cheng (2003). Following Son (2004), we define  $L(p)$  as the Lorenz curve which describes the percentage share of income (or expenditure) enjoyed by the bottom  $p$  percent of the population which we may define as:

$$L(p) = \frac{1}{\mu} \int_0^x yf(y)dy \quad (7)$$

where  $p = \int_0^x f(y)dy$  and  $\mu$  is the mean income of the population and  $y$  is a person's income with the probability density  $f(y)$ .

For all poverty indices, Son (2004) showed that growth is unambiguously pro-poor when the Lorenz curve shifts upward i.e.  $\Delta L(p) \geq 0$  for all  $p$ .

Reformulating the Lorenz curve as  $L(p) = \frac{\mu_p P}{\mu}$  and by logarithmic transformation, Son (2004) obtained:

$$\text{Ln}(\mu_p) = \text{Ln}(\mu L(p)) - \text{Ln}(p) \quad (8)$$

Obtaining a growth form through first difference, we arrive at

$$g(p) = \Delta \text{Ln}(\mu L(p)) \quad (9)$$

where:  $g(p) = \Delta \text{Ln}(\mu_p)$  is the referred to as the growth rate of the mean income of the bottom  $p$  percent of the population ranking individuals according to their per capita income.  $g(p)$  which changes according to the changing values of  $0 \leq p \leq 100$  may be called the poverty growth curve.

From (9), if  $g(p) > g$  for all  $p < 100$ , growth is pro-poor and it is not pro-poor, if otherwise. Here,  $g$  is defined as the overall growth rate. If however,  $0 < g(p) < g$  for all  $p < 100$ , then growth reduces poverty but is accompanied with increasing inequality (trickle-down growth) where the poor receive proportionally less benefits than the non-poor. If  $g(p) < 0$  and  $g > 0$  for all  $p < 100$ , it implies that overall growth increases poverty and inequality.

Kakwani and Pernia (2000) method basically aims to decompose total change in poverty into the pure growth effect (i.e. the percentage change in poverty when the distribution of income does not change) -  $O_g$  and the inequality effect (i.e. the change in poverty when inequality changes in the absence of growth) -  $O_i$ .  $O_g$  is a non-positive quantity because positive growth reduces poverty while  $O_i$  could either be positive or negative depending on whether growth increases or reduces inequality respectively. Pro-poor growth can then be measured as:

$$\phi = \eta / \eta_g \quad (10)$$

where  $\phi$  is the pro-poor growth index (PPGI), and  $\eta / \eta_g$  is the ratio of poverty elasticities. Growth is pro-poor when  $\phi > 1$ . It leads to an increase in poverty when  $\phi < 0$  and when  $0 < \phi < 1$  it reduces poverty but redistributes income in favour of the rich.

Kakwani et al.'s (2004) model is built on Kakwani and Pernia's (2000) framework

to address the monotonicity axiom (i.e. the magnitude of poverty reduction should be a monotonically increasing function of the pro-poor growth rate) and to satisfy a necessary and sufficient condition for poverty reduction. They note that ‘while the PPGI captures the distribution of growth benefits among the poor and non-poor, it does not take into account the level of the actual growth rate’ (p. 6). Kakwani et al. (2004) proposed the poverty equivalent growth rate (PEGR) represented as:

$$\gamma^* = (\delta / \eta)\gamma = \phi\gamma \quad (11)$$

where  $\delta / \eta = \phi$  is the same as that in (10) and  $\gamma$  is the current growth rate in income.  $\gamma^*$  is the growth rate that would yield the same level of poverty reduction as the current growth rate  $\gamma$  if there is no change in inequality accompanying the growth process. Growth is pro-poor (pro-rich) when  $\gamma^* > \gamma$  ( $\gamma^* < \gamma$ ). When  $0 < \gamma^* < \gamma$  growth is accompanied by an increasing inequality and poverty is reducing.

### **4.3 Assessing impact of sector of employment and region of origin on poverty incidence**

Using a Probit model we assess the impact of several variables on poverty across the six geo-political zones. The primary data employed here is the 2003/2004 NLSS. In preparing the NLSS, the National Bureau of Statistics classified households as poor or non-poor using standard Foster-Greer-Thorbecke (FGT) method. The nominal poverty line is NGN22, 928.00 (Twenty two thousand, nine hundred and twenty eight Naira) only. If a household is non-poor this dichotomous dependent variable takes the value of 1 and if poor it takes the value of 0. The explanatory variables are therefore the determinants of the probability that a given household is poor or non-poor. The coefficients are interpreted in terms of the signs (i.e. positive or negative) and not necessarily in relative sizes. A positive sign will indicate that a particular explanatory variable increases the probability of being non-poor while a negative sign increases the probability of being poor.

Sectors of employment, sex, location and academic qualifications are the major explanatory variables and each is defined in line with NBS classification from the surveys. The trade and sales sector are used as control for employment, females as benchmark variable for sex, rural area as benchmark variable for location and those with tertiary education as benchmark for academic qualifications. Trade is selected as benchmark group for employment because of the higher growth of the sector relative to the rest of the sectors between 1996 and 2009. Rural areas and females are usually considered disadvantaged in poverty analysis; so we respectively benchmark urban and male to these. Those with tertiary education, on the other hand, are generally considered relatively well-off and studies indicate in terms of assets and income, they are usually better off than those with other academic qualifications. So the group will be used as benchmark for poverty among education groups. For each group, we estimate poverty incidence in the other groups relative to the benchmark groups.

There are presently no recent data based on national surveys reflecting household

demographics, sectoral and/or occupational or education in the country. However, a recent World Bank (2010) survey of 2250 households indicates national average household size to be about 6 persons per household. There are however, regional differences. Average household size for families in the north at over 7 persons is relatively higher than that for families in the south at about 5 persons. Household sizes also differ between urban and rural households, with rural families generally having larger household sizes. To what extent this drives poverty or is itself a function of the varying poverty levels in each region and location is not known, the former being the object of this research. Following the collapse of the clearly demarcated regional agricultural systems, agricultural employment diminished in most of the south. But the north has remained predominantly engaged in agriculture. This could partly be attributed to resource endowment, which in turn also affects willingness to migrate and take up alternative jobs from a people's immediate location (Komolafe, 2002). For example, whereas the entire northern region has large landmass and benefits from irrigation programmes, the south east is much less endowed. This partly accounts for the high migration from the region and less attention to agriculture. Therefore, agriculture-employment-induced poverty might affect the north much more than it would affect the south east.

Impact of education on poverty comes in several forms. Higher level of education is associated with enhanced capacity for mobility which implies better ability to take up opportunities elsewhere when the immediate environment does not present full opportunities. Docquier and Marfuok (2006) analysis of international migration by educational attainment classically demonstrates how this works. In Nigeria, as in many other places, available evidence indicates that the less educated are also less mobile and so have limited opportunities for improving their income beyond their immediate environment. Currently, educational attainment varies widely by regions as well. In fact, national average literacy rates sometimes disguise the wide regional differences. Primary school enrolment in some northern states is as low as 45 percent and as high as 95 percent in some southern states. The religious and cultural attitudes of each people towards western education play significant part in this. People in urban areas also generally have greater access to a wider range of educational services than those in rural areas. So literacy rate in urban areas is generally higher than it is in rural areas.

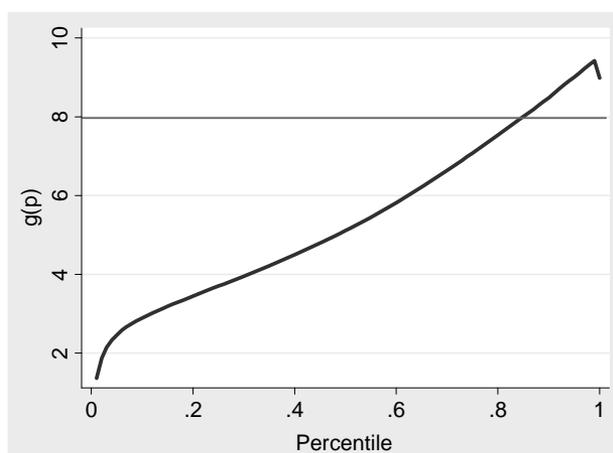
The NLSS and other surveys in the country capture the range of incomes of respondents. It is easy therefore to model the determinants of income among respondents in the surveys. Though modelling directly on income could reveal relative poverty (World Bank, 2005), we however model determinants of poverty in a dichotomous choice framework as we are particularly interested in absolute poverty and the distinction between the poor and the non-poor. In addition, it is not clear that an analysis of the determinants of income may yield results different from that regularly conducted on income determination at the broader macro level and which has already received much attention.

## 5. Findings

### 5.1 Has Growth in Nigeria been Pro-Poor?

In Figure 3, the poverty growth curve based on the framework of Son (2004) is presented. The horizontal line denotes the average overall growth rate (i.e.  $g$ ). It is important to note that the result based on this framework does not rely on the specification of any poverty line. Based on the chart, if the growth rate at the bottom  $p$  percentile is greater than the overall growth rate (i.e.  $g(p) > g$  for all  $p < 100$ ), growth within the period 1996-2004 is pro-poor. However, the poverty growth curve shows that up until the poorest 80 per cent of the population, growth is not pro-poor. This is because  $g(p) < g$  for  $p < 80$ . However, the upward sloping nature of the curve implies that generally, there are improvements as you move up the ladder but such improvements do not imply pro-poor growth for the poorest segments of Nigerians.

**Figure 3: Poverty growth curve (1996-2004)**

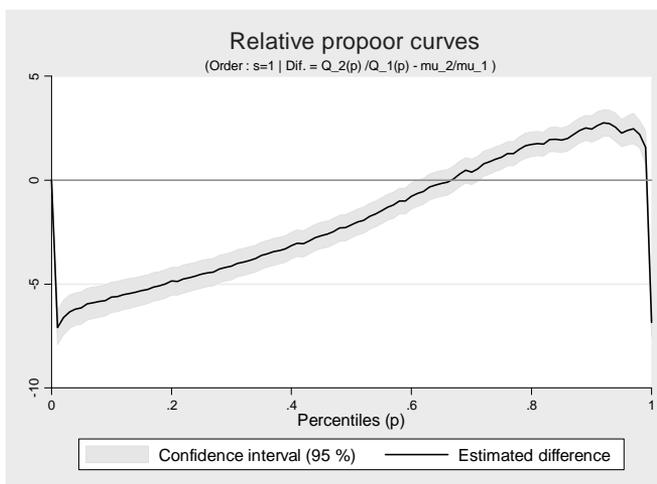


Specifically, Figure 3 shows that  $g(p) > 0$  for all  $p < 100\%$ . This implies that growth reduces poverty (across all percentiles) but is accompanied with increasing inequality (trickle-down growth) where the poor receive proportionally less benefits than the non-poor from the process of growth. These show that even though national poverty statistics indicate a decline of poverty headcount from about 66% (1996) to 54% (2004), and an increment in growth over the same period, the dividends from growth is disproportionately benefiting the rich than the poor. This works through the inequality linkage.

Similar to the poverty growth curves, we present in Figure 4 relative pro-poor curves (see Abdelkrim and Duclos, 2007). The results are similar to the poverty growth curves. At all percentiles below 70 percent, the curve lies below the horizontal line (zero). The curve is only above the horizontal line at the top percentiles. These figures also show that while

growth has been positive between the periods (1996-2004), it is benefiting the rich more than it does to the poor because of the increasing inequality in incomes.

**Figure 4: Relative pro-poor growth curves (Dual approach)**



While the curves presented are informative, they do not provide an ‘index’ to assess overall pro-pooriness of growth in Nigeria. In Table 1, we present results showing selected pro-poor growth indices using the FGT( $\alpha$ ) (Foster et al., 1984) class indices. Specifically, poverty headcount ( $\alpha = 0$ ) was used as the measure of poverty (the Ravallion and Chen, 2003 measure requires only the headcount measure).

**Table 1: Selected pro-poor indices ( $\alpha = 0$ )**

<b>Poverty line =2645; Parameter alpha = 0.00</b>				
Pro-poor Indices	Estimate	Standard error	Lower bound	Upper bound
Growth rate (g)	7.982741	0.346410	7.303790	8.661691
Ravallion & Chen (2003) Index	0.926187	0.016550	0.893750	0.958624
Ravallion and Chen (2003) - g	7.056554	0.342562	-7.727962	-6.385145
Kakwani & Pernia (2000) Index	0.778632	0.010212	0.758618	0.798647
PEGR Index	6.215619	0.283503	5.659963	6.771275
PEGR - g	-1.767122	0.110670	-1.98403	-1.550213

From the tables, the overall growth rate is 7.98% (with standard error of 0.35%). To assess the extent of pro-pooriness, this is compared with the respective indices (except for the Kakwani and Pernia index). The Ravallion & Chen (2003) index of 0.93 implies that growth over the period 1996 – 2004 is not pro-poor. Specifically, this can be understood as a trickle-down growth because ( $0.93 < 7.98$ ). The Kakwani et al. (2004) measure uses

the Poverty Equivalent Growth Rate (PEGR) ( $\gamma^*$ ). If  $\gamma^* > g$  (i.e. the overall growth rate), then we have a pro-poor growth. If  $(0 < \gamma^* < g)$ , we have a trickle down growth; and if  $(\gamma^* < 0)$ , we have an immiserizing growth. As shown in the table, the PEGR is less than the actual growth rate (i.e.  $6.22\% < 7.98\%$ ). This implies a trickle-down growth which is not necessarily pro-poor in the strict sense. This is also consistent with the results of the Son (2004) growth poverty curve and that obtained using the Ravallion and Chen approach. For the Kakwani and Pernia index ( $\phi$ ), we have that  $0 < \phi < 1$  which again confirms a trickle down growth process between the period of 1996 – 2004.

A comparison of all the methods used shows that there is some level of agreement in predicting the nature of growth in Nigeria between 1996 and 2004. Because these methods use different evaluative frameworks, we cannot compare the magnitudes of their indices. However, the overall picture is still illuminating. Even though there was remarkable growth experience over the period in Nigeria, it did not translate into a reduction in inequality. Though the growth process in Nigeria was able to reduce the magnitude of poverty to some extent, this did not translate to improvements in inequality.

In part, this may not have been very difficult to understand.

## 5.2 Determinants of Poverty

### 5.2.1 Factors Affecting Poverty in the Regions

#### *Demographic Factors and Regional Poverty*

We provide an assessment of the determinants of poverty in the regions. The regression results in Table 2 show impact of selected demographic factors on incidence of poverty in the six regions. Explanatory factors include household size, age of the household head, location of the household (urban versus rural) and sex for all regions.

**Table 2: Selected Demographic Factors and Poverty Incidence in Regions**

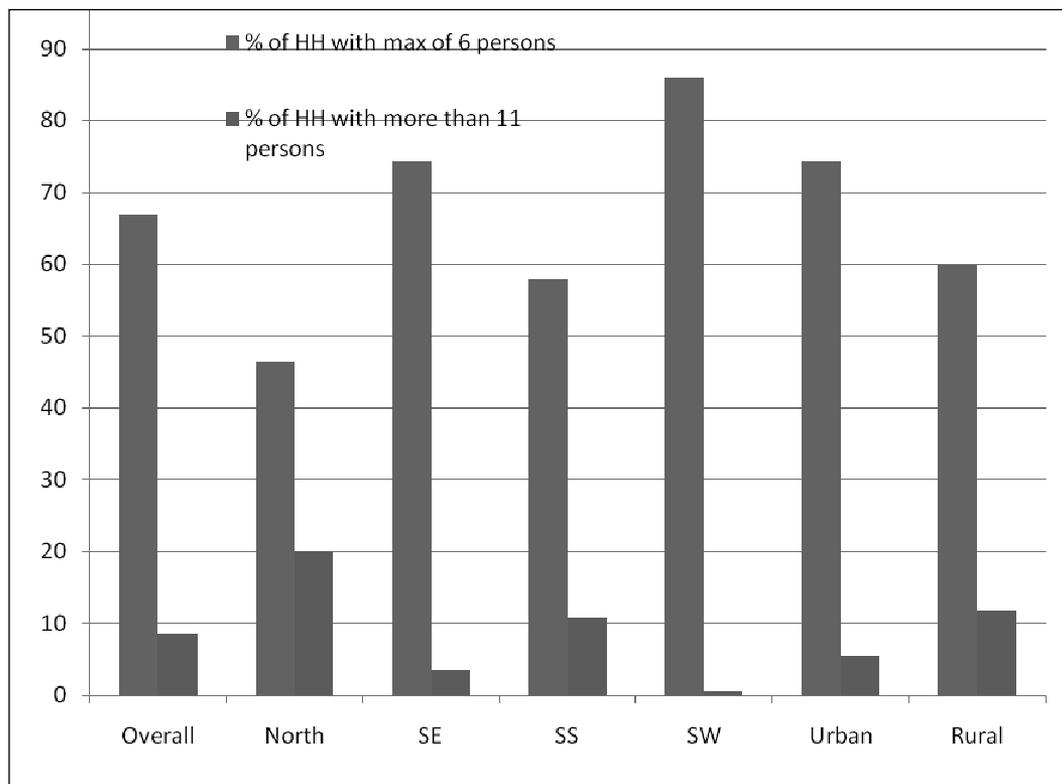
	HH Size		Age Group		Location (Urban vs Rural Areas)		Sex (Male vs Female)	
	Coef	z	Coef.	z	Coef.	z	Coef.	z
South South	-0.253**	-20.72	-0.008	-0.67	0.413	5.41	-0.009	-0.13
South East	-0.229**	-18.03	0.071**	5.72	0.361	3.72	-0.021	-0.3
South West	-0.229**	-17.35	0.033**	3.07	0.168	2.59	0.023	0.32
North Central	-0.139**	-14.89	-0.019*	-1.9	0.195	3.05	0.055	0.66
North East	-0.210**	-20.59	0.010	1.02	0.392	4.44	0.018	0.15
North West	-0.144**	-15.7	0.008	0.79	0.603	6.92	-0.366**	-2.11

\*,\*\* significant at 10% and 1% respectively

**Source:** Authors' estimates

From the estimates, it can be seen that household size is quite critical in defining poverty across all regions. This indicator remained consistently relevant across all estimations. From this result, it is plausible to relate differences in average household sizes in the different regions to differences in poverty incidence in each region. According to World Bank (2010) household survey it is clear that regions with very high household sizes are also the ones with very high incidences of poverty, confirming that household size matters for poverty in Nigeria. Nearly 90 percent of households in the south west have maximum of 6 persons (the national average) while only about 1 percent are made up of 11 persons or more (see Figure 5). By contrast, only 48 percent of households in the north have maximum of 6 persons in the household while as much as 20 percent of households in the region have 11 persons or more. It is not clear what drives differences in fertility across the regions. But some of the factors responsible may not be unconnected with levels of development, cultural practices and literacy levels, indicating circular causation between poverty and these factors (an issue that has been harped upon in the literature).

**Figure 5: Household Size by Regions**



**Source:** WB 2010 (Note: North includes north-west, north east and north central)

Age group of the household head seems to be more critical for poverty in some regions than in others. It is very significant for the south east and south west regions. Older households fair better than younger households in these two regions on the average (possibly on account of accumulation and inheritance). Age is also important for the north central region but negatively so. Older households are poorer. In other regions, it is not very important. Location also matters, and nearly evenly so, for all regions of the country. Urban areas are generally significantly better off than the rural areas in all regions. But the impact of sex in the regions is worth observing. In the south south and south east, female headed households were marginally better off. But for regions like south west, north central and north east, male headed households are marginally better off. In the north-west, the difference is much more significant – female headed households are much better off than male headed households. Again, this goes to the root of cultural practices. The male headed households in the homogenous north-west have more members (with many wives and children) than the female headed households. So whatever income that comes to the household has to be spread among members. These are besides other restrictive practices against women in the region. By contrast, female headed households do not have to carry the burdens of extra ‘husbands’ and numerous children. They are generally slimmer.

### **5.2.2 Impact of Occupation on Poverty across Regions**

The regional equations using the benchmark group (sales and related activities) indicate that sector of employment is critical for poverty. Relative to the benchmark group, students, unemployed and retired persons are very negatively affected across all regions. However, the level of relative wellbeing for this group is worse in regions like the south east, south west and north-west than in other regions of the country. The margin is smaller in the south south and north east and smallest in the north central region. This may not be unconnected with the relative stock and welfare of this group in the two southern regions relative to the rest of the country. In fact, as can be seen from Table 3, more than in any other region, nearly all groups (except clerical and services) fare much worse than traders in the south east. This is partly because more than any other region, the south east has the highest proportion of persons in trade and related services. The south east is a major hub of trade (both wholesale and retail) in the country and many of those employed in it have significantly higher income than the rest of the society. As such, it takes much larger earning power for an employee of any other occupation in the south east to be better off than a trader. Hosting prominent commercial centres like Lagos and Ibadan, the same goes for the south west to a lesser degree.

**Table 3: Relative Poverty among Occupation Groups  
(Benchmark = Sales and Related)**

	South South		South East		South West		North Central		North East		North West	
	Coef.	z	Coef.	z	Coef.	z	Coef.	z	Coef.	z	Coef.	z
Student, Retired, Unemployed	-0.18	-1.28	-0.57	-3.66	-0.23	-2.22	-0.05	-0.43	-0.312	-1.44	-0.71	-3.93
Professional or technical	-0.05	-0.33	-0.35	-1.94	-0.03	-0.24	0.08	0.65	0.22	1.26	0.02	0.1
Administration	0.11	0.16	-0.84	-0.88	-0.12	-0.29	0.60	1.65	0.76	1.11	-0.28	-0.3
Clerical	-0.11	-0.85	0.02	0.09	0.02	0.18	-0.26	-1.95	0.05	0.29	-0.13	-0.84
Services and related	-0.17	-1.26	0.02	0.08	-0.36	-2.77	0.04	0.27	0.11	0.55	-0.31	-1.77
agriculture and forestry	-0.16	-1.69	-0.60	-4.69	0.11	1.22	0.15	1.64	-0.45	-3.45	-0.76	-6.6
Production and transport	0.15	0.85	-0.28	-1.29	-0.09	-0.61	0.05	0.29	-0.39	-1.6	-0.03	-0.18
Manufacturing and Processing	0.05	0.26	-0.04	-0.15	-0.02	-0.12	-0.15	-0.72	0.74	1.47	0.18	0.56
Others	-0.06	-0.38	0.05	0.25	-0.17	-1.51	-0.06	-0.35	-0.14	-0.61	-0.33	-1.55

**Source:** Authors' estimates

Professionals and technicians do not fare the same across regions either. They are worse off in the entire southern region, and especially so in the south east. In the north, they fare better and this is not surprising. The wide array of employment groups in the south, including the booming trade, can comfortably compete with professionals and technicians. But in the north, the relatively fewer professionals would always fare better than the predominantly agricultural employees. Those employed in administration and clerical jobs do not fare much worse than those in trade. There are both positive and negative differences across regions, but these are mostly minor except in the north central. There are also no significant regional differences in the welfare of those employed in administration and clerical jobs relative to those in trade. Relative poverty among employees in the services subsector is much higher in three geopolitical regions (south south, south west, and north-west) and (marginally) lower in the other three.

Worsening relative poverty is deepest and most pervasive among agricultural employees – being most significant and covering the widest range of regions. In fact, poverty among agricultural employees was significantly worse in nearly all regions (except south west and north central). The south east, north east and north-west were the most heavily affected. In effect, the sector of employment most significantly affected by rising poverty is agriculture – and this cuts across two-thirds of all regions in the country. Meanwhile, in nearly all regions, agriculture is the highest employer of labour. It is only in the south west and north central that agricultural employees seem to have managed

to hold favourable income relative to sales employees. It is worth noting that states in the north central region, particularly Benue and Kogi states, have retained their status as the food basket of the nation for a very long time. Taking into account the fact that agriculture employs more than half the labour force in the country, it is not difficult to see why growth has not been pro-poor over the period under consideration. Whatever growth that fails to impact on agriculture would have left out more than half the entire labour force in the country. Where such growth is skewed against agriculture, as available data seem to indicate has been the case, it favours only a small proportion of the working population and the gains from it are very unevenly distributed among the population. Agriculture lost share in GDP significantly between 1970 and 1997 before it marginally gained 2 percent of GDP between 1997 and 2009. All this while, it was not losing share in employment by nearly as much. The implication is that the sector continues to employ nearly the same proportion of persons, but these persons continued to lose income to other sectors. In fact, in absolute terms, factoring in the impact of rising population, total population engaged in agriculture has actually been increasing over time, yet there has been little improvement in either the size of total income that accrues to them or their share of total national income. When this is the experience of more than half the labour force, then neither rising poverty nor skewness in income distribution is difficult to understand.

Relative poverty in the production and transport sector is also much higher than in sales group in four regions – the same number of regions as were affected in agriculture. The difference is that they are not nearly as deep (significant) as the relative poverty in agriculture. The regions where relative income was negative was also nearly the same as those affecting agriculture except that in the place of south south, the south west completes the number. Relative poverty among this group was not as bad in the south south and north central. Manufacturing employees also fared relatively worse (marginally) in three of the six regions – the south east, south west and north central. Again, as in the production and transport group, the impact is not as deep as in agriculture. They seem also less pervasive. This group performed marginally better in the south south, north east and north-west, with the strongest relative welfare performance being in the north east. Again, this might indicate generally lower manufacturing intensity in the concerned regions than in the rest. For example, the proportion of manufacturing employees in the north east is relatively low compared to such regions as the south west and south east. The north east has some concentration of manufacturing, but relative to the overall population and size of the region, manufacturing penetration is still small. In effect, manufacturing employees are relatively very poor in the regions with the bulk of manufacturing concerns with the exception of the north-west.

### **5.2.3 Education and Regional Poverty**

The benchmark group for estimating impact of education across the regions consists of those with tertiary education. Results from the regressions show that relative to this benchmark group, virtually all other groups performed worse. This result remains

consistent across all regions and for all education qualifications as shown in Table 4. The only variations are in the level of significance of the coefficient estimates in different groups in different regions. The results consistently indicate that across all regions, the most significantly backward group consists of those without any education at all. The level of significance of the coefficients for this group remained the highest and most consistent across all regions. Relative poverty (compared to the benchmark group) among the rest of the groups is also high. In very few cases, the coefficients are less significant than the rest as is the case among those with elementary education in the south west and north central and those with primary education in the north east. In effect, the impact of education on relative poverty in the country cuts across regions with only minor variations in coefficient.

**Table 4: Relative Poverty for Academic Qualifications– Benchmark = Tertiary Education**

Level of Education	South South		South East		South West		North Central		North East		North West	
	Coef.	z	Coef.	z	Coef.	z	Coef.	z	Coef.	z	Coef.	z
None	-0.949	-6.68	-0.811	-4.27	-0.559	-4.87	-0.737	-7.2	-0.934	-5.6	-1.202	-6.76
Elementary	-0.576	-1.83	-0.974	-3.54	-0.497	-1.41	-0.475	-1.58	-1.444	-3.14	-1.021	-3.55
Primary	-0.721	-4.53	-0.715	-3.58	-0.545	-3.05	-0.299	-1.89	-0.357	-1.57	-0.455	-1.81
Secondary	-0.674	-5.22	-0.499	-2.76	-0.383	-3.77	-0.543	-5.52	-0.600	-3.58	-0.564	-3.17
Others	-0.319	-1.8	-0.688	-3.02	-0.182	-1.21	-0.254	-1.95	-0.740	-4.27	-0.915	-5.15

**Source:** Authors' estimates

## 6. Conclusion

This paper sets out to evaluate the pro-poorness of growth and factors that affect poverty in Nigeria. Pro-poor growth was analyzed using the 1996 General Household Survey and the 2004 National Living Standards Survey while analysis of determinants of poverty was with the 2004 NLSS only. All three methodologies used to assess the pro-poorness of growth in the country are consistent in indicating that growth has not been pro-poor. The study also found that poverty in the country is affected by both micro and macro variables. At the micro level, major demographic indices of the household like education, family size, sex, location of the household and age of the household head affect poverty significantly. Some of these micro factors like education, household size, and location of the household fall into categories that can be affected by decisions of members of the family, but others like sex of the household head are not easily amenable to policy. Sex is a critical factor only in one region – the north-west and only marginally in the rest of the regions. But there are also macro variables that affect household poverty prominent among which is the sector of employment. The Nigerian economy has evolved and transformed over the last two decades and some sectors have grown while others shrank. It was found that those engaged in trade has been significantly better off than employees in most other

segments of the economy. Agricultural employees have performed poorly alongside those in industry, manufacturing and other services. With the bulk of the labour force being in agriculture, it is then not surprising that overall growth has not been pro-poor.

So what could be done about poverty in Nigeria? It must be appreciated that one of the biggest challenges is a demographic transformation, particularly in the north where family sizes are relatively large. It is important that significant resources be committed to enlightenment of the populace in these areas to the dangers of massive family sizes that stretch resources and make capital deepening and investment in the child extremely difficult. Presently, this is interacting with the poor education factor to create unsustainable situations where children go into adulthood without any care or useful investment made in their lives, thus reducing their overall relevance to the economy. Such enlightenment programmes have to be the combined effort of government, the civil society (including traditional institutions) and development partners in the country.

But in addition, the challenge of rural development has continued to come to the fore. Agriculture, which has been the traditional employer in the rural areas, is not growing fast enough to catch up with the income need of those engaged in it. Agriculture continues to be predominantly rain-fed, with rudimentary technology that cannot even guarantee preservation of harvests up to the point of sales. As such, even when weather conditions are good enough to result in high yields, farmers could still incur significant post-harvest losses. Infrastructure in much of the rural areas is anything but attractive. Frustration with these limitations accounts for the large rural-urban migration that continues even where there is sufficient guarantee that life in the urban areas could be more difficult for households. Interestingly, rural poverty and agricultural poverty challenges are interlinked and can be solved by marginally improving conditions in the agricultural sector and placing some safeguards against price and storage losses for farm outputs.

It is also necessary to pay attention to the regional distribution of factors of production, growth and employment. It has become imperative that policies put in place for dealing with poverty demonstrate understanding and therefore incorporate sectoral and regional diversities of growth, employment and poverty. In addition to the demand-driven measures consistently pursued by successive administration to tackle poverty, some attention needs to be paid to supply-side constraints that affect the poor more stringently than the rich across sectors and regions. Specifically, the role played by oil in sectoral employment and value added needs to be once again evaluated. The Nigerian economy need not be an oil economy that cripples productivity in other sectors as has been the case over the years. Minor improvements in policy attention to the real sector (especially agriculture and manufacturing) can yield huge differences in income for a large proportion of workers. Clearly, there is need for region-specific policies addressing the peculiarities of poverty in the different parts of the country. For example, decades of experiences shows the north would have done better depending on the groundnut pyramids of the 1960s than it has done depending on oil. It is therefore not enough to pursue one-size fits all poverty reduction policies for the entire country. While it is not realistic to advocate a return to the pre-1970 agricultural system, poverty policies have to identify supply-side sectors that can absorb the

teeming young population of the country and reduce poverty among them. Four decades of hand-outs and sharing of oil revenue have proved inadequate in handling the complicated poverty issues in these parts of the country. Clearly, the government cannot continue to ignore the uneven spatial distribution of factors of production as well as other differences in development indices between southern and northern Nigeria if it is to promote speedy growth.

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