THE PRICE OF INEQUALITY IN NIGERIA

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Abstract

Tackling inequality has been a major concern of the international development community as strategy to ending extreme poverty. Addressing inequality is of concern because inequality is the cause and consequence of the failure of the market system as well as the political system, and contributes to the instability of our economic and political systems, which in turn contributes to increased inequality. The focus of this paper is, why is inequality growing in Nigeria to the extent it is, and what are the consequences? The submission is that Nigeria is paying a high price for its level of inequality – unstable economic system, less efficient economic system, less growth and non-inclusive growth, a less cohesive society, and a democracy that has been put in peril. Using standard measures of inequality, the paper demonstrates that inequality in its various dimensions has risen over the past two decades in Nigeria. These include income inequality and gender inequality. The price Nigeria has paid for rising inequality comprise non-inclusive growth, non-poverty reducing growth, output and human development loss due to gender inequity, civil conflict and political instability, and non-maturing democracy. To reverse this price, inequality-reducing development policies would need to be effectively implemented.

Key words: Inequality, growth, gender, political instability

"We live in a world of extraordinary inequalities in opportunities both within and across countries" – Paul D. Wolfowitz, Forward to World Development Report, 2006.

INTRODUCTION

The goal of the international development community is to end extreme poverty by 2030 and boost shared prosperity of the bottom 40% of the population in every country. However, as World Bank (2016) observed, we face a powerful threat to progress around the world, which as was observed a decade earlier by Paul Wolfowitz, is inequality. Inequality matters for achieving the goal of equity, but also for other reasons. Vicious circle of inequality makes addressing it imperative. Inequality is the cause and consequence of the failure of the market system as well as the political system, and contributes to the instability of our economic and political systems, which in turn contributes to increased inequality.

Some have argued that some level of inequality is desirable to sustain appropriate incentive structure in the economy, or simply because inequality in income reflects different talents and effort among individuals. It is expected that benefits of economic progress would with time trickle-down to the low income groups. Empirical evidence on many economies shows that this expectation is rarely met. This has motivated introduction of additional concept for evaluating progress, namely "shared prosperity". Shared prosperity is measured as the growth in the average income or consumption of the bottom 40%. The larger the rise in income of bottom 40%, the more quickly prosperity is shared with most disadvantaged sections of the society.

The focus of this paper is, why is inequality growing in Nigeria to the extent it is, and what are the consequences? The submission is that we are paying a high price for our inequality – unstable economic system, less efficient economic system, less growth and non-inclusive growth, a less cohesive society, and a democracy that has been put in peril.

Section 2 demonstrates the rising trend in inequality in Nigeria in its various dimensions – personal income, functional income, household income inequality, regional inequality and gender inequality. Section 3 demonstrates the price of inequality as reflected in inequality and growth, inequality and poverty, inequality and exclusion, political instability, inequality and human capital development. Section 4 concludes the paper, and suggests the way forward.

DIMENSIONS OF INEQUALITY IN NIGERIA

In this section, we demonstrate that both money-metric and non-money-metric measures of inequality have been rising in Nigeria in the past three decades or so.

In the history of development of analysis of inequality, earliest focus was on functional income distribution, that is, factor income distribution between labour and capital. This was the basis of Marx's analysis of creation and distribution of surplus value. Marx maintained that although much labour power went into creation of surplus value, its distribution was disproportionately between labour and capital, with labour taking dismally low share.

Ekhuerare (1990) undertook functional income distribution analysis. The paper showed that wage income was on average 27.0% of total factor income in the period 1970 – 1988. Table1 shows that the pattern of factor income inequality has remained largely unchanged. Wage income averaged 22% in the 1980s, and rose to 29% in 2010 – 2015.

Since the 1950s, a class of inequality measures have been developed. Among the popular ones are the Gini coefficient and Theil index. Wolfoson polarisation index was developed to gauge middle income disappearance, and the Palma ratio to gauge the extent of shared prosperity by comparing income/consumption shares of the top 10% and bottom 40% of the income distribution. The statistical formulas for these indices are presented in Appendix 1.

Aigbokhan (2000) estimated Gini coefficient on consumption expenditure in Nigeria to be 0.41 and 0.49 in 1992 and 1996 respectively. Wolfoson index was estimated to be 0.65 and 0.53 in the respective years.Table2 reports estimated income inequality in 2004 – 2015.

National Bureau of Statistics (NBS 2012) reported estimates of Gini coefficient for 2004 and 2010, based on National Living Standard Survey (NLSS). As observed in Table2, the index rose from 0.43 in 2004 to 0.45 in 2010 at the national level. The pattern of rising inequality was replicated in urban and rural areas, and across geopolitical zones.

Specifically for this paper, four money-metric inequality measures were estimated. These are Gini coefficient, Theil index, Wolfoson index and Palma ratio. The relative strengths of each of these indices which recommend them for application are discussed in Aigbokhan (2000, 2013), Cowell (1977) and Palma (2006).

Data used for the analysis was NBS General Households Survey Panel data wave 2 (2012/2013) and wave 3 (2015/2016). The survey covered 5,000 households across the country in the respective years; that is, the same households were surveyed over the years of the survey. The survey is considered to be sufficiently representative as it covers urban and rural areas and the thirty-six states plus Federal Capital Territory. Coverage of GHS Panel is much lower than NLSS coverage, which may partly account for differences in magnitude of estimated inequality indices.

As observed in Table 2, each of the four inequality indices recorded an increase between 2012/2013 and 2015/2016. Gini index rose from 0.362 to 0.387 at the national level, and the same pattern is replicated in rural and urban areas as well as across geopolitical zones. Appendix Table1 shows that same pattern obtains across the states.

Theil index broadly displays the same pattern, and Wolfoson index recorded increase across the country, as is the case with Palma ratio. Theil index rose from 0.253 to 0.26, Palma ratio from 1.518 to 1.728, and Wolfoson index from 0.305 to0.341 between 2012/2013 and 2015/2016 at the national level.

Table 3 reports another dimension of income inequality, namely decile shares of total income. As shown in the table, the share of bottom four deciles systematically declined between 2004 and 2015. For example, bottom 10% received 2.56% in 2004, 2.51% in 2013 and 2.03% in 2015. Bottom 40% received an average of 4.5% in 2004, 4.25% in 2013 and 3.75% in 2015. Over the same period, top 10% received 26.59%, 27.82% and 28.56%. Thus, the gain by the top 10% was at the expense of the bottom 40%. This demonstrates lack of shared prosperity as defined above.

Table 1: Factor Income Inequality

Year	Wage Income Share (%)	Capital Income Share (%)
2010	28.20	71.84
2011	28.95	71.11
2012	31.99	68.01
2013	29.44	70.56
2014	29.29	70.71
2015	27.80	72.20

Source: calculated from National Bureau of Statistics,

National Account of Nigeria, 2013 and 2015, Abuja

Table 2: Nigeria Inequality Measures 2004 – 2015

	Gini		Wave 2 (2012/2013)				Wave 3 (2015/2016)			
	2004	2010	Gini	Theil	Palma	Wolfoson	Gini	Theil	Palma	Wolfoson
National	0.4296	0.447	0.36188	0.25300	1.51804	0.30544	0.38702	0.265995	1.72760	0.34064
Urban	0.4154	0.4329	0.34604	0.24842	1.40532	0.28340	0.36772	0.23599	1.55846	0.30904
Rural	0.4239	0.4334	0.34907	0.21614	1.42641	0.29103	0.37787	0.24625	1.64568	0.33172
S/South	0.3849	0.434	0.32998	0.18150	1.28377	0.28079	0.36926	0.22681	1.55563	0.35601
S/East	0.376	0.444	0.32416	0.18556	1.26597	0.26126	0.40612	0.29624	1.92862	0.35928
S/West	0.4088	0.4077	0.37673	0.39182	1.68479	0.26883	0.36968	0.24694	1.60193	0.30451
N/Central	0.4459	0.422	0.37634	0.26475	1.62340	0.33610	0.35599	0.20994	1.44030	0.31910
N/East	0.4114	0.4468	0.36902	0.23452	1.58829	0.32398	0.41417	0.28882	1.98485	0.38947
N/West	0.4028	0.4056	0.36367	0.23638	1.55316	0.30940	0.35178	0.20709	1.42233	0.30641

Source: Computed from National Bureau of Statistics (NBS) General Household Survey Panel Data Wave 2 (2012/2013) & Wave 3 (2015/2016). Figures for 2004 & 2010 are from NBS Press Briefing on Nigeria Poverty Profile 2010 Report, Abuja.

Palma index – income share of top 10% divided by the share of the bottom 40%

Table 3: Decile Consumption Share (%)

Decile	2004	2013 (a)	2013 (b)			2015		
			Rural	Urban	National	Rural	Urban	National
01 (bottom 10%)	2.56	2.71	2.73	2.36	2.51	2.10	2.19	2.03
02	4.1	3.93	4.33	4.26	4.07	3.79	3.88	3.68
03	5.25	4.79	5.43	5.43	5.27	5.03	5.27	4.83
04	6.36	5.70	6.61	6.61	6.35	6.13	6.41	6.03
05	7.53	6.69	7.70	7.79	7.53	7.40	7.58	7.30
06	8.85	7.65	8.96	9.05	8.77	8.74	8.84	8.69
07	10.43	9.10	10.32	10.55	10.28	10.25	10.15	10.25
08	11.52	11.14	12.21	12.34	12.29	12.57	12.33	12.50
09	15.81	14.56	14.99	15.22	15.37	16.02	15.82	16.15
10 (top 10%)	26.59	33.72	26.74	26.41	27.82	27.97	27.54	28.56

Source: World Bank (2016) for 2004 & 2013(a) estimates. Author's estimates from NBS General Household Survey Panel Data Wave 2 & 3 for 2013(b) and 2015 estimates.

The foregoing demonstrates that money-metric measures of inequality have been rising in Nigeria over the period covered. Rising Wolfoson or polarization index reflects disappearing or shrinking middle class. Max Weber described the middle class as a beneficial or stabilising influence on society, because it has neither the possibly explosive revolution tendencies of the lower class, nor the absolutist tendencies of an entrenched upper class.

Gender equity has received increased attention in the literature in the past three decades. Gender equality matters in its own right, and as a pre-requisite for the health and development of families and societies, and a driver of economic growth. OECD (2015) noted that there is no chance of making poverty history without significant and rapid improvements to the lives of women and girls. Indicators commonly used to gauge extent of equality are:

1. Ratios of girls to boys in school enrolment in primary, secondary and tertiary levels
2. Share of women in non-agricultural wage employment
3. Women entrepreneurs and enterprises owned by women, and
4. Proportion of seats held by women in national assemblies

Table 4 shows Nigeria's profile on some of these indicators. There is gender inequality in student enrolment against female. Primary education net enrolment rate is 59.8% for female and 63% for male.

Adult literacy rate is 46 to 57percent for female compared to 63 to 75percent for male. Youth literacy rate is 67 to 75percent for female compared to 77 to 85percent for male.

Access to credit is 9.8% among female and 11.6% for male. Land ownership is 7.2% among female compared to 38.1% among male. Involvement in decision making at community level is 4.1% among female compared to 23.8% among male. In 2007, women accounted for only 21% of non-agricultural wage employment.

Table 5 shows that women are disproportionately under-represented in the national assembly. In Senate, women account for less than 10%, being 2.8% in 1999 and only rising to 7.3% in 2015. In the House of Representatives, the ratio is even less, rising from 1.9% in 1999to 7.5% in 2007 and collapsed to 3.9% in 2015. The ratio is further lower in State House of Assembly where it rose from 2.4% in 1999 to 6.9% in 2011 and 7.7% in 2015, Ministerial appointment at federal and state levels are male dominated. Female federal cabinet ministers were 13.6, 11.4, 22.8, 20.5 and13.6percent in 1999, 2003, 2007, 2011 and 2015 respectively. Table6 shows state level gender inequality in educational attainment, labour force participation rate and share of parliamentary seats. They all weigh against female. In educational attainment, it is 45% for female and 55% for male. In labour force participation, it was 64.5% and 70.3% respectively, and for parliamentary participation, it was 5.8% and 94.2% respectively.

Table 4: Selected indicators of Gender Inequality in Nigeria, 2006

Indicators of Inequality	Male	Female
Adult Literacy rate (English Language)	62.6	46.4
Adult Literacy rate (Any Language)	74.6	56.8
Youth Literacy (English Language)	77.4	66.7
Youth Literacy (Any Language)	85.0	75.3
Primary Education Net Enrolment	63.0	59.8
Secondary Education Net Enrolment	45.4	45.9
Land Ownership	38.1	7.2
Access to Credit Facility	11.6	9.8
Decision making at Community Level	23.8	4.1

Source: NBS Annual abstract of Statistics, 2008, Abuja pp. 55and 57

Table 5: Women in Political Offices, 1999 – 2015

S/N	Post	No of seats available	1999	2003	2007	2011	2015
1	President	1	0	0	0	0	0
2	Vice-President	1	0	0	0	0	0
3	Senate	109	3	4	9	7	8
4	House of Representatives	360	7	21	27	25	14
5	Governor	36	0	0	0	0	0

6	Deputy Governor	36	1	n.a	3	3	4
7	State House of Assembly	990	24	40	57	68	76
8	Cabinet Ministers	44	6	5	10	9	6
9	Local Govt. Chairpersons	774	13	15	27	11	n.a
10	Local Govt. Councillors	8810	69	267	235	164	n.a

Source: National Human Development Report for Nigeria 2016, United Nations Development Programme (UNDP), Abuja, 2016, p.23

THE PRICE OF INEQUALITY

a. Inequality and Non-inclusive Growth

In the 1960s and 1970s, there was the view that there is trade-off between inequality and growth. That inequality is good for growth and that giving income to the top income group will benefit everyone, particularly the low income groups, because it would lead to more growth, the benefits of which would trickle down. Despite failure of the trickle-down hypothesis, the view still prevailed in the 2000s (Dollar and Kraay, 2002). Early explanations for inequality include marginal productivity theory, which suggests that those with higher productivity earn higher income that reflects their higher contributions to the society. The argument also is that competitive markets, through demand and supply, determine the value of each individual's contributions, as such, the higher the skill the higher the reward.

However, rent-seeking hypothesis suggests that rent-seeking is a cause of inequality. The argument is that by getting income not as a reward to creating wealth by grabbing larger share of the wealth that would otherwise have been created without their efforts, rent-seekers generate inequalities. The top extract from the public what can only be called large "gifts".

Countries rich in natural resources are infamous for rent-seeking activities. It is far easier to get rich in these countries by gaining access to resources at favourable terms than by producing wealth.

The Nigerian space is characterised by these features, non-trickle-down growth and rent-seeking, both of which generated non-inclusive growth. Nigerian economy recorded impressive real growth rate since 2004. Average growth of 6.53% in 2005 – 2010 and 6.68% in 2011 – 2014 was recorded. In 2015 and 2016, it declined to 2.8% and minus 1.56% respectively. In the first two quarters of 2017, it marginally rose to minus 0.91% and 0.55% respectively.

The growth rate recorded did not, however, translate to equally impressive employment-creation rate. Unemployment rate which was estimated to be 2.9% in 2005, 5.8% in 2008 rose to 11.8% in 2009, 21% in 2011, 23.9% in 2012, and 29.0% in 2015. In 2016, 14.2%

unemployment rate was recorded. This may not be surprising as it has been established that employment elasticity in Nigeria is low, estimated to be 0.11(Ajakaiye et al 2015). Also as is demonstrated in section 3.2, the spell of impressive growth rate was not associated with improved poverty reduction rate. Furthermore, the share of income going to the bottom 40% of the population declined from 4.6% in 2004 to 4.55% in 2013 and to 4.14% in 2015. On the other hand, the share going to top 10% rose from 26.59% in 2004 to 27.82% in 2013 and 28.56% in 2015. While income share going to the bottom 40% declined by 10.5%, that going to the top 10% increased by 7.41% in such circumstance. This is also reflected in the rising Palma index, from 1.518 in 2013 to 1.728 in 2015 at the national level, from 1.426 to 1.559 in urban areas, and from 1.401 to 1.646 in rural areas respectively. The pattern is the same in the four of the six geographical zones.

The prevalence of rent-seeking in the country is perhaps best documented by NBS (2017). In its Corruption in Nigeria survey report for 2015/2016, the following results were highlighted:

- Almost a third (32.3%) of Nigerian adults pays bribes when in contact with public officials.

- Nigerians consider bribery the third most important problem facing the country.

- Public officials in Nigeria show little hesitation in asking for a bribe; 85.3% of bribery episodes are initiated directly or indirectly by the public officials, and almost 70% of bribes are paid before a service is rendered.

- Law enforcement and the judiciary are areas of particular concern. Bribery prevalence among the police is 46.4%, prosecutors 33%, judges and magistrates 31.5%.

- Recruitment of public officials in Nigeria is itself subject to abuse of the system (NBS/UNODC, 2017:5-8)

b. Inequality and Poverty Reduction

Poverty reduction has been a policy focus of governments in developing countries since the 1990s. The nexus between inequality and poverty reduction has attracted much attention since the 2000s. Numerous empirical studies have led to the conclusion that high levels of inequality make it more difficult to reduce poverty (World Bank 2006). A negative association between the average annual rate of change in poverty and the average annual rate of growth in mean incomes has become one of the stylised facts of development economics. What happens to inequality in the cause economic growth is a critical factor. If inequality falls during a growth spell, poverty generally falls more than it would have if growth had been distribution-neutral. The

effectiveness of future economic growth in reducing absolute income poverty declines with initial income inequality. Thus, growth elasticity of poverty matters.

World Bank (2016b) notes that relative to poverty reduction in the rest of sub-Sahara Africa and other lower middle-income countries, poverty reduction in Nigeria has been less responsive to growth (World Bank 2016b:6). The low responsiveness was attributed to three factors:

i.   High population growth accompanied the high economic growth rates

ii.   Growth did not translate into more jobs or more opportunities for everyone, and

iii. Inequality has been expanding quickly and has adversely affected poverty reduction.

To investigate the inequality-poverty nexus, Aigbokhan (2008) estimated growth elasticity of poverty, using simple model.

$$\Delta \ln P_{it} = \alpha(1 - G_{it} - T) \Delta I_n Y_{it} + U_t$$

Which suggests that the proportionate rate of change in poverty incidence between surveys is directly proportional to the distribution-corrected growth rate. P is poverty incidence, Gi, t-T is Gini co-efficient at the beginning of the spell (initial year), T is the number of years between the surveys, Y_{it} is survey mean at date t, α is the parameter to be estimated, and U_t is error term.

The model was estimated for both ordinary growth rate and distribution-corrected growth rate. The results: $\alpha = 0.64$ (t=4.0) for non-distribution-corrected), and $\alpha = -0.79$ (t=9.97) for distribution-corrected, show that the latter is superior, supporting the view that it is the distribution-corrected growth that matters in poverty reduction. The latter result indicates that the elasticity of poverty to growth declines as the extent of initial inequality rises. In other words, rising inequality impedes poverty reduction, which corroborates the observation of the World Bank (2016b) in (iii) above that inequality has adversely affected poverty reduction in Nigeria.

c. Gender Inequality, Output and Human Development Loss

It has been advocated that gender equality focus should go beyond social development on education and health. Women's contribution to the economy need to be recognised, hence, women's economic empowerment should attract attention, OECD (2015).

Inequalities in access to assets, participation in the workforce, and entrepreneurship opportunities push women into the informal sector. Survey results show that share of women in non-agricultural employment in sub-Sahara Africa is about 66% of all female employment, Clark (2016). There is a high economic loss when women are not integrated more fully into the national economy. It is estimated that total annual economic losses due to gender gaps

between 2010 and 2014 could exceed $90billion in sub-Sahara Africa, peaking at about $105billion in 2014, UNDP (2016a). These results confirm that Africa is missing its full growth potential because a sizeable portion of its growth reserve is not fully utilized. Table 6 shows some indicators of gender inequality in Nigeria indicating that with respect to empowerment and labour force participation, females are disadvantaged relative to males. With the level of gender inequality in Nigeria observed above, it can be inferred that its growth has been less than optimal.

Table 6: State Level Gender Inequality Index

STATE	Empowerment				Labour Market		Aggregate Across Dimension Within Each Gender Group using Geometrics Means	
	Educational Attachment (%)		Share of Parliamentary seat (%)		Labour Force Participation rate (% of total)			
	Female	Male	Female	Male	Female	Male	G_F	G_M
Nigeria	45.0	55.0	5.8	94.2	64.5	70.3	0.131	0.797
Abia	53.0	47.0	17.1	82.9	80.3	80.6	0.204	0.795
Adamawa	40.5	59.5	2.8	97.2	42.1	39.9	0.090	0.672
Akwa Ibom	50.7	49.3	5.1	94.9	71.5	72.3	0.129	0.791
Anambra	52.2	47.8	18.2	81.8	72.6	75.3	0.212	0.778
Bauchi	30.8	69.2	0.1	100.0	50.2	49.5	0.055	0.744
Bayelsa	44.0	56.0	3.1	96.9	71.2	70.7	0.134	0.805
Benue	41.6	58.4	9.5	90.5	85.1	80.7	0.148	0.837
Borno	40.0	60.0	2.4	97.6	57.8	58.9	0.106	0.767
Cross River	46.1	53.9	5.6	94.4	72.1	68.0	0.139	0.786
Delta	49.3	50.7	7.1	92.9	69.8	69.7	0.166	0.782
Ebonyi	48.2	51.8	9.1	90.9	80.5	74.2	0.222	0.798
Edo	48.4	51.6	2.8	97.2	69.4	67.4	0.164	0.781
Ekiti	49.1	50.9	8.6	91.4	73.5	71.5	0.195	0.787
Enugu	55.8	44.2	14.3	85.7	71.3	70.9	0.214	0.759
Gombe	34.9	65.1	3.0	97.0	43.5	44.4	0.093	0.707
Imo	53.8	46.2	8.1	91.9	71.1	68.1	0.227	0.763
Jigawa	20.8	79.2	0.1	100.0	36.4	81.3	0.040	0.898
Kaduna	41.1	58.9	5.8	94.3	59.4	78.2	0.131	0.836
Kano	34.9	65.1	0.1	100.0	51.4	75.5	0.050	0.843
Kastina	29.9	70.1	0.1	100.0	57.8	83.3	0.091	0.887

Kebbi	27.3	72.7	2.9	97.1	63.3	83.4	0.168	0.888
Kogi	43.6	56.4	2.7	97.3	70.3	68.0	0.207	0.796
Kwara	44.8	55.2	21.2	78.8	79.8	69.6	0.172	0.771
Lagos	50.7	49.3	13.4	86.6	70.5	75.9	0.062	0.791
Nasarawa	39.7	60.3	0.1	100.0	51.0	69.7	0.109	0.815
Niger	38.8	61.2	10.0	90.0	33.5	53.5	0.109	0.735
Ogun	49.0	51.0	5.3	94.7	77.3	74.0	0.155	0.801
Ondo	49.3	50.7	5.3	94.7	76.4	69.3	0.236	0.783
Osun	48.2	51.8	5.3	94.7	70.0	70.6	0.165	0.791
Oyo	48.9	51.1	6.1	93.9	78.1	76.3	0.205	0.808
Plateau	43.6	56.4	0.1	100.0	44.3	41.2	0.063	0.676
Rivers	50.8	49.2	6.3	93.8	77.4	77.9	0.166	0.809
Sokoto	26.7	73.3	0.1	100.0	35.4	88.0	0.045	0.910
Taraba	35.3	64.7	6.1	93.9	52.1	52.9	0.132	0.745
Yobe	27.4	72.6	3.1	97.0	61.6	61.1	0.111	0.800
Zamfara	24.7	75.3	0.1	100.0	82.4	88.8	0.058	0.917
FCT	52.6	47.4	0.1	100.0	48.7	45.1	0.071	0.677

Table 6...

Source: National Human Development Review for Nigeria 2016, UNDP 2016 p.7

Gender inequalities have also contributed to loss of human development. Human Development Index (HDI) is a summary measure of human development within a country and is based on three basic dimensions, namely, a long and healthy life; access to knowledge; and a decent standard of living. It is a geometric mean of normalised indices measuring the achievements in each dimension.

To capture the impact of gender inequalities to human development, inequality-adjusted HDI has been developed (IHDI), in which adjustment is made for inequality in the distribution of the dimensions of education, health and income. It is computed as a geometric mean and is calculated across the population for each dimension and accounts for inequalities in HDI dimensions by discounting each dimension's average value according to its level of inequality. Thus, IHDI=HDI where there is no inequality across people, but is less than the HDI as inequality rises, UNDP (2016a:5).

Analysis is taken a step further with the introduction of gender inequality index (GII), which is defined as the percentage of potential human development lost due to prevalence of gender inequalities. The GII thus shows the loss in potential human development due to inequality between male and female achievements in a number of dimensions. The value ranges between zero (fairly equality in all measured dimensions) and one (when one gender

fares as poorly as possible in the dimensions). For example, GII of 0.482 indicates that 48.2% loss in potential human development due to gender inequalities. As is observed in Table 7, inequality-adjusted human development index is consistently lower than HDI, reflecting a loss of potential human development across states in Nigeria, with very few states recording losses below the national averages.

Table 7: State Level Human Development and Inequality-adjusted Human Development indices

STATE	HDI Value	IHDI	Loss
Abia	0.4923	0.4238	0.1391
Adamawa	0.3653	0.3090	0.1541
Akwa Ibom	0.5698	0.4816	0.1548
Anambra	0.4281	0.3362	0.2147
Bauchi	0.2636	0.2176	0.1745
Bayelsa	0.6121	0.5577	0.0889
Benue	0.4038	0.3265	0.1914
Borno	0.2135	0.1744	0.1831
Cross River	0.4726	0.3990	0.1557
Delta	0.6090	0.5132	0.1573
Ebonyi	0.3433	0.3000	0.1261
Edo	0.5087	0.4309	0.1529
Ekiti	0.4333	0.3725	0.1403
Enugu	0.4366	0.3622	0.1704
Gombe	0.2368	0.2095	0.1153
Imo	0.5200	0.4346	0.1642
Jigawa	0.1968	0.1613	0.1804
Kaduna	0.4432	0.3473	0.2164
Kano	0.3812	0.3018	0.2083
Kastina	0.2364	0.1718	0.2314
Kebbi	0.2184	0.1876	0.1410
Kogi	0.5057	0.3326	0.1802
Kwara	0.4316	0.3835	0.1114
Lagos	0.6716	0.5245	0.2190
Nasarawa	0.3983	0.3573	0.1029
Niger	0.3256	0.2701	0.1705
Ogun	0.5393	0.4587	0.1495
Ondo	0.4768	0.4033	0.1542

Osun	0.4938	0.4189	0.1517	
Oyo	0.4765	0.3864	0.1891	Table 7....
Plateau	0.3995	0.3141	0.2138	
Rivers	0.3881	0.3158	0.1863	
Sokoto	0.1942	0.1561	0.1962	
Taraba	0.3315	0.2900	0.1252	
Yobe	0.1247	0.1063	0.1476	
Zamfara	0.2623	0.2217	0.1548	
FCT	0.5112	0.4577	0.1047	
National	0.2712	0.2591	0.0446	

Source: NHDR for Nigeria 2016, UNDP, Abuja p.6

Inequality and Civil Conflict, Exclusion and Political Instability

The relationship between inequality and political instability has similarly attracted attention of researchers. Inequality has been found to engender political instability, Alesina and Rodik (1994), Alesina and Perotti (1996). Inequality at its most extreme leads to social exclusion, Miguel Insulza (2014).

Huber and Mayoral (2014) in their study found a strong positive association between the level of inequality within groups and the group's propensity to engage in civil conflict. Similarly, Ostby et al (2009) found a positive and significant relation between within-region inequalities and conflict onset in a study of twenty-two sub-Sahara African countries.

Flatten (2012) found that high economic inequality is associated with less democratisation, and Barro (1999), in a study on determinants of democracy, found negative, albeit weak, statistical relationship between income inequality and democratisation, and a positive statistical relationship between low economic inequality and democratic consolidation.

Although not an issue empirically examined in this paper, anecdotal evidence exist to suggest that the prevailing income and economic inequalities in Nigeria have been a factor in the spate of civil unrest, militancy and political unrest in the country. For example, Langer and Ukiwo (2011) examined the role of horizontal inequalities (that is, inequalities between culturally defined and politically salient group) in militancy in Niger Delta region of Nigeria, in a survey which elicited the views of combatants and civilians on the cause of militancy in the region. The study found that militancy in the region appears to be driven by perceptions of horizontal inequalities between the people of oil producing areas in Niger Delta and other major ethnic groups in Nigeria (Langer and Ukiwo, 2011: 232). Similarly, it has been noted that inequalities in access to the control of natural resources and political power is a major cause of conflict and

political instability in Nigeria (Afegbua 2010, cited in Adeyeri, 2014). And to Ewetan and Uche (2014), a major factor that contributes to insecurity in Nigeria is the growing awareness of inequalities, and disparities in life chances that lead to violent reactions by a large number of people (Ewetan and Uche 2014:49). The perception of marginalisation held by a growing number of groups in the country has its roots in perceived economic and political inequalities.

In sum, a consequence of this inequality is Nigeria poor performance on selected economy and social indicators as shown in table 8.

Table 8: Selected Economic and social Indicators, Nigeria (2005 – 2016)

Year	Growth rate	Poverty rate	Unemployment (%)** Old	New	GINI*	
2005	6.51	58.2	2.90		1985	0.43
2006	6.03	58.5	5.80		1992	0.41
2007	6.5	59.3	4.90		1996	0.49
2008	6.41	62.4	5.80		2004	0.488
2009	7.00	65.2	11.8		2010	0.447
2010	6.7	69.0	22.0	5.0	2013	0.38
2011	6.9		24.0	6.0	2015	0.39
2012	7.2		27.0	11.0		
2013	6.4		25.0	10.0		
2014	6.3		24.0	6.0		
2015	2.8		29.0	10.0		
2016	-1.56			14.2		

Source: African Development Bank, Statistical Data Portal and Ministry of Budget and National Planning. Strategic Implementation Plan for the 2016 of Budget of change (April) pp.24

CONCLUSION

The paper has demonstrated that inequality, in its various dimensions, has been rising in Nigeria since the 1990s. Factor income inequality has remained high at an average of 73% and 27% respectively of total domestic factor income accruing to capital and labour. On the average, wage income was 29.3% of capital income in 2010 – 2016.

Household income inequality, measured by Gini coefficient, has remained high and rising. In the 1990s and 2000s, it was as high as 0.49 (49%). In 2013and 2015, estimates based on household panel data generated through modified methodology from the living standard survey indicate household expenditure inequality of 37.8% and 38.7% respectively. Theil index, Palma ratio and Wolfoson (polarization index) index all indicate rising trend between the two

surveys. Also, income/expenditure shares by deciles indicate declining share of bottom 40% and rising share to 10%. Thus, the benefits of growth, rather than trickling down, accrued more to the top decile, providing little evidence of shared prosperity.

Gender inequality in terms of opportunities and outcomes has also been high and widening. Gender disparity in terms of educational enrolment and attainment is skewed against female. Access to resources for establishment of enterprises and entrepreneur is more restricted for women. Access to political elected and appointed positions is also restricted for women.

The country has, therefore, paid and is still paying a price for prevailing inequalities. This includes high recorded economic growth that is non-inclusive, lack of progress in poverty reduction, less than optimum growth and development occasioned by less than optimum development and utilization of human capital, civil conflicts and militancy and political instability and slow consolidation of democracy. All these impact negatively on growth of the economy.

THE WAY FORWARD

The importance of inequality reduction in ending poverty and boosting shared prosperity, particularly in the context of weak growth cannot be overemphasised. Nigeria economy was in recession for four quarters until first quarter of 2017. It only recorded 0.55percent growth in second quarter after negative growth of minus 2.8 in 2015, minus 1.56percent in 2016 and minus 0.91percent in first quarter 2017. This suggests that prospect for strong growth in the immediate future is dim. Weak growth may be recorded in the next two to four years. In fact, growth rate of 4.8 and 4.5percent has been projected for 2018 and 2019 respectively. While growth is necessary for inequality reduction, weak growth may not be sufficiently broad-based as to have marked impact on inequality. Deliberate public policy is, therefore, required.

Tackling inequality requires human capital accumulation. This calls for good quality human capital. The role of quality education is important in this aspect. Increased expenditure on education to expand access and quality of teaching and learning, and skill acquisition to narrow the gap between skilled and unskilled labour is imperative. This also includes deliberate policy to narrow the gap between male and female human capital development. This would reduce loss of human capital development and sub-optimum labour performance.

Tax policy to bridge the gap between top and bottom deciles of the population to reduce overall income inequality, and to reduce wage gap between skilled and unskilled to reduce wage inequality should be enforced. Wage income is traditionally more equally distributed than self -employment and capital income. Increased wage inequality, therefore, exacerbates overall income inequality. Greater progressivity and enforcement of tax law should be cardinal

principles in taxation policy. Enforced estate and property tax system is also required. Inequality in asset ownership is a further manifestation of income inequality. Enforcement of estate and property tax has been particularly weak in Nigeria.

On the expenditure side of fiscal policy, targeted income transfers to low income households, particularly bottom four deciles would aid reduction in income gap between top 10% and bottom 40% deciles. Loopholes and leakages would have to be vigorously blocked to reduce incidence of unintended beneficiaries.

Human capital remains the main resource low income households have. Policy that would enhance utilisation of labour factor would improve income generation and employment opportunities for the group. Employment promotion fiscal incentives should also be implemented, in which rate and tenure of such incentives are related to level of new employment created.

A large proportion of low income households reside in rural areas. Expansion of non-farm income opportunities in rural areas would aid reduction in rural income inequality and thus overall national income inequality.

Women empowerment and increased access and opportunities for women would aid reduction in gender disparities and loss of human capital development potentials. Deliberate policies to create ease of access to credit are required; for example, to create more female entrepreneurs and enterprises has strong potential for reducing inequalities.

As rent-seeking is a strong factor in generating inequalities in Nigeria, policy to reduce rent-seeking is imperative. Anti-grafting legislation need to be more vigorously enforced. Also, provision of public services should be expanded and access to them made easier. This would reduce the propensity to engage in rent-seeking activities, either on the demand side or supply side.

Growth is ultimately required for reduction in inequalities, growth that enhances shared prosperity, a growth agenda based on public investment; given non-trickling down growth of the past decades is imperative. Strong commitment to such growth agenda is a necessary condition in this regard.

SCOPE FOR FURTHER RESEARCH

This paper demonstrates that income share of the bottom 40% declined while that of the 10% rose during the period of study. A fruitful area of further research is to disaggregate the share of the top 5% and top 1%. Evidence in the literature suggests that the top 1% may account for the bulk of the share of 10%. It would interesting to verify this in the case of Nigeria.

A second area of further research is to ascertain the statistical extent of the relationship between inequality and democratisation and democratic consolidation, as initiated by Barro (1999).

Notes:

* Gini estimates for 2013 and 2015 were calculated from NBS General Household Panel Survey data Wave 2 & Wave 3 respectively, with sample size of 5000 households.

** In 2014 methodology for measurement of unemployment rate was modified; this led to drastic change in estimated unemployment rate since 2010. Old in the table refers to old methodology and new refers to new methodology.

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APPENDICES

Appendix 1: Inequality Measures

1. Gini Coeff.

   i. $\quad G = 1 + \frac{1}{n} + \frac{2}{n^2 \bar{y}}(y_1 + 2y_2 + 3y_3 + \ldots + ny_n)$

y_i – mean income

n – population sample size

y_j – income of jth household (j=1,n)

OR

   ii. $\quad G = \frac{1}{2}\left(\frac{\Delta M}{\bar{y}}\right)$

ΔM – absolute mean difference

$\bar{y}$ - mean income

2. Theil index

   i. $\quad T = \frac{1}{n}\sum_{i=1}^{N}\frac{Y_i}{\bar{y}}\log\frac{Y_i}{\bar{y}}$

3. Palma ratio, $P_m = y_{10}/y_{40}$

y_{40} – income share of the bottom 40%

y_{10} – income share of the top 10%

4. Consumption (expenditure or income) shares by deciles

Appendix 2: Inequality Measures in Nigeria 2012/2013 – 2015/2015

STATE	2012/2013				2015/2016			
	Gini	Theil	Palma	Wolfoson	Gini	Theil	Palma	Wolfoson
Abia	0.36468	0.21992	1.64563	0.33365	0.35383	0.20649	1.56275	0.36854
Adamawa	0.38024	0.30330	1.78548	0.27653	0.44901	0.42092	2.45688	0.30807
Akwa Ibom	0.39287	0.26404	1.88757	0.38159	0.45632	0.35225	2.55941	0.47107
Anambra	0.26970	0.11835	0.93125	0.23314	0.30417	0.14818	1.11842	0.28044
Bauchi	0.27922	0.13480	1.00179	0.23994	0.35229	0.23517	1.50589	0.25696
Bayelsa	0.32567	0.18316	1.40552	0.29678	0.35614	0.20418	1.52019	0.32168
Benue	0.28549	0.13011	1.01216	0.25880	0.36523	0.21843	1.52317	0.35510
Borno	0.32780	0.18999	1.30496	0.25976	0.41209	0.28556	2.09190	0.43543
Cross River	0.42609	0.31020	2.16836	0.37716	0.45324	0.36086	2.60132	0.42119
Delta	0.33609	0.18594	1.37053	0.26898	0.34268	0.19108	1.34297	0.30913
Ebonyi	0.39562	0.40019	1.92271	0.23270	0.33524	0.20028	1.44750	0.26903
Edo	0.27432	0.12329	0.91126	0.25307	0.33037	0.18793	1.30432	0.28136
Ekiti	0.35842	0.20523	1.58749	0.32668	0.35048	0.20287	1.46003	0.28185
Enugu	0.47135	0.47429	2.68017	0.39612	0.43310	0.31155	2.20928	0.48991
Gombe	0.24270	0.09774	0.83061	0.19833	0.39544	0.30253	1.95654	0.28552
Imo	0.34972	0.21947	1.41026	0.30962	0.31113	0.16345	1.19097	0.25899
Jigawa	0.30316	0.14778	1.11207	0.24923	0.33904	0.18738	1.33461	0.33094
Kaduna	0.55832	1.09782	3.95901	0.32130	0.35768	0.21294	1.57396	0.29850
Kano	0.32899	0.20999	1.36146	0.25018	0.35179	0.20573	1.45699	0.29081
Kastina	0.31710	0.18021	1.27418	0.23096	0.40531	0.28730	2.02585	0.34618
Kebbi	0.35712	0.23954	1.52153	0.28323	0.44414	0.37928	2.45879	0.36049
Kogi	0.25745	0.10898	0.90784	0.18279	0.29061	0.14285	1.07687	0.22745
Kwara	0.28409	0.13239	1.06533	0.21156	0.30100	0.15038	1.03772	0.25970
Lagos	0.25973	0.11086	0.93413	0.21329	0.35093	0.20688	1.48770	.30639
Nasarawa	0.32973	0.17909	1.41892	0.32895	0.39320	0.26037	1.81625	0.39616
Niger	0.30660	0.15757	1.14850	0.28999	0.36041	0.21117	1.46809	0.35506
Ogun	0.35099	0.19806	1.52225	0.33497	0.27709	0.12115	0.97849	0.24342
Ondo	0.33615	0.19754	1.42241	0.26240	0.34965	0.20818	1.49339	0.27887
Osun	0.35745	0.23453	1.49375	0.28405	0.33118	0.17795	1.27837	0.28946
Oyo	0.43812	0.36354	2.43993	0.38279	0.37364	0.23505	1.61081	0.35484
Plateau	0.28200	0.13354	1.02714	0.23183	0.40320	0.32224	1.96877	0.29183
Rivers	0.35264	0.22442	1.49308	0.30240	0.34454	0.19383	1.35851	0.34009
Sokoto	0.31344	0.17282	1.17781	0.24756	0.38644	0.33452	1.92229	0.27130
Taraba	0.26475	0.11700	0.95937	0.22634	0.34357	0.20189	1.53317	0.29489
Yobe	0.32131	0.16675	1.27365	0.26469	0.37910	0.25080	1.74750	0.30663
Zamfara	0.21052	0.07235	0.65284	0.18164	0.22815	0.08189	0.82313	0.18756
FCT	0.32623	0.17366	1.44373	0.37286	0.33191	0.18899	1.50841	0.32744

Source: Author's Calculation