Incomes, Inequality and Poverty in Kenya: A Long-term Perspective

by

Arne Bigsten, Damiano Kulundu Manda, Germano Mwabu, and Anthony Wambugu,

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Introduction: *what the paper does*

- Paper analyses incomes, poverty and inequality in Kenya over a 100-year period, from ~ 1914-2012.

❑ Period is long enough to permit identification of persistent and key determinants of *welfare* and potential sources of *structural* change.

- Primary focus is on analysis of the recent period for which comprehensive household datasets are available, but we also review evidence on long term changes in social welfare, and its probable determinants.

- In contrast with previous studies that rely on a single dataset, and one welfare measurement method, we use multiple datasets (surveys, admin records…); and different methods, esp to compute P_lines*:* utility consistent (UNU-WIDER toolkit); usual FEI & CBN; non-money metrics (thanks to *market failure* argument)

Introduction: *plan of presentation*

- The next part of the paper (Section 2) discusses determinants and evidence of long term changes in inequality and poverty in Kenya
- Section 3 looks at problems of measuring income, and section 4 presents evidence on changes in income, employment and economic structure over the period analyzed.
- Section 5 provides evidence on changes in inequality and poverty.
- Section 6 concludes by highlighting policy challenges of tackling inequality and poverty both over the short- and long-run.

2. Evolution of Kenyan incomes, inequality and poverty during the 20^{th} century

- Dramatic changes in the structure of the Kenyan economy were experienced during the 20^{th} century.

- With almost the whole labor force in Agriculture at the start of century (~1900) – a century later (2012) a half of the labor force is in the formal or informal non-agricultural activities.

- There was a drastic shift in structure of output – with share of agriculture in GDP falling from about 75% in early 1900s to 25% in 2000s.

- This structural transformation has driven the changes in *incomes*, income *distribution* and *poverty.*

The period up to the First World War, ~1900-14

- Kenyan inland was less integrated with the rest of the world but long distance trading activities existed along the coastal region.
- Enough land to ensure comparable standard of living across geographic regions with little if any regional differences that is so conspicuous today.

❑ Land *abundance* was then, the equalizing factor. (Land *scarcity* today is the dividing factor).

- Completion of the railway in 1901 opened the Kenyan inland to trade, and to settlement by all groups (natives, colonialists, migrants).

Period ~1900-14…

- Considerable expansion of the *f*ormal *wage* employment had occurred by 1914.
- A *class* of African traders and businessmen emerged.
- Expansion of cash crop production on *African farms* increased cultivated areas.
- Increasing differentiation in agricultural activities started increasing income *inequality* (its origins were higher productivity and rigid *class* structures).

The inter-war period, 1914-45

- Commercialization of agriculture continued to accelerate during the Second World War.

- Organized labor movement (trade unionism) gained importance and was to be a major factor in wage trends later.

- Inequality among African famers increased, determined by *access to land* (as is the case today).
- Rural-urban differences in living standards emerged (driven by restrictions on cash crop production on African farms).

The post war period, 1945-63

- Wage employment was extensive but was of temporary nature (due restrictions on urban residence)

- Rural-urban migration was common with African wage employment, increasing rapidly in 1950s.

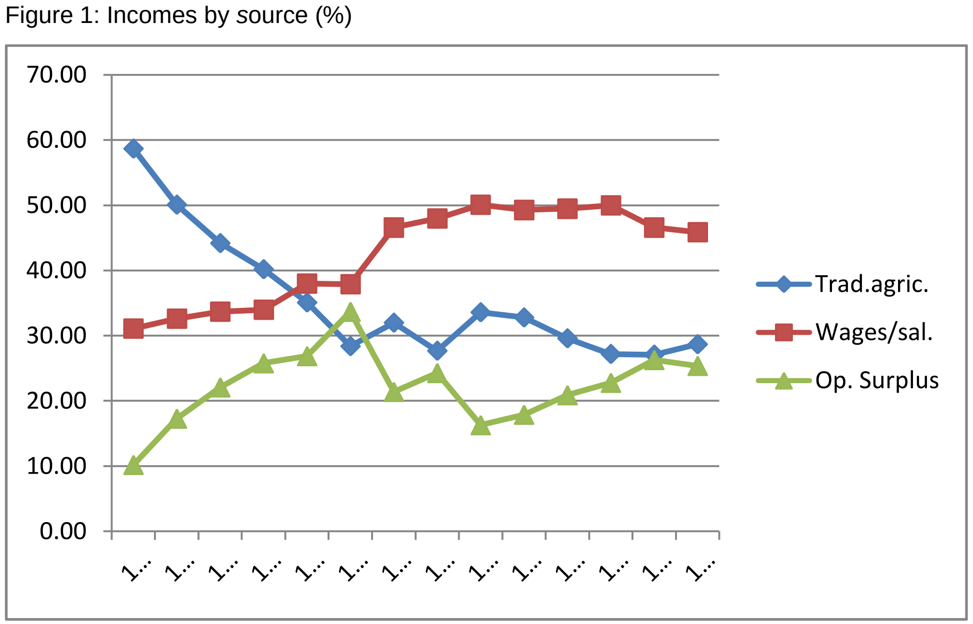
- A decline in non-agriculture employment in the run up to independence in 1963 due to increase in real wages, resulting from government effort to increase minimum wages.

- Gap between agricultural and non-agricultural wages increased.

The first post-Independence period, 1963-76

- Period witnessed a change in interracial distribution of both power and incomes.
- Greater demand for qualified manpower in public sector leading to increase public sector real wage by **48%** while those in private sector increased by only **6%**.
- Period also associated with increase in minimum wages.
- Clear **hard core group of poor** consisting of smallholders with little or low potential land, inadequate access to off-farm income, and landless workers and pastoralists.

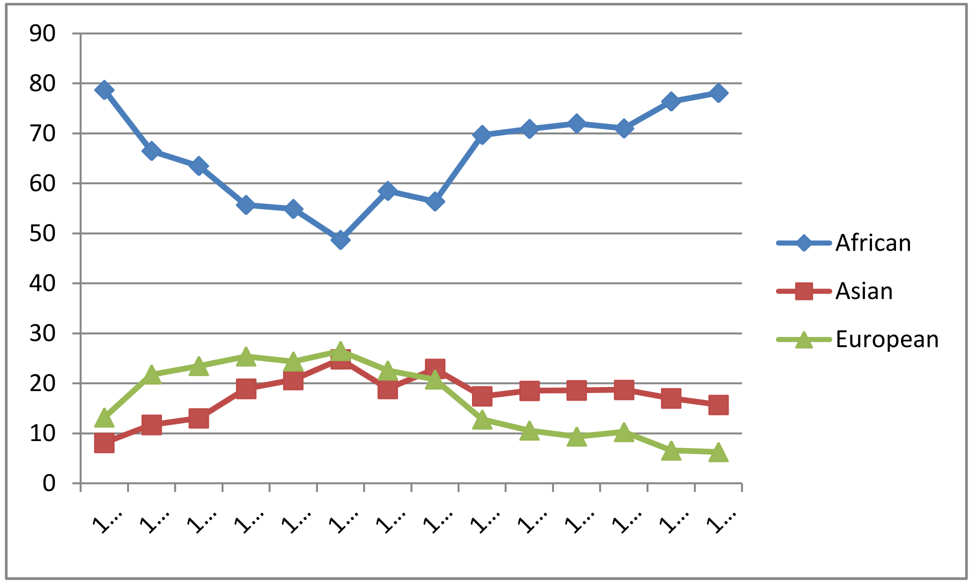
Figure 1: Evolution of income by source, 1914-76 (trends in sectoral income shares)



Source: Based on Bigsten (1986) data.

Figure 2: Evolution of income by race, 1914-76

Figure 2: Percentage distribution of income by race



Source: Based on Bigsten (1986) data.

3. Economic inequality and poverty, 1914-1976

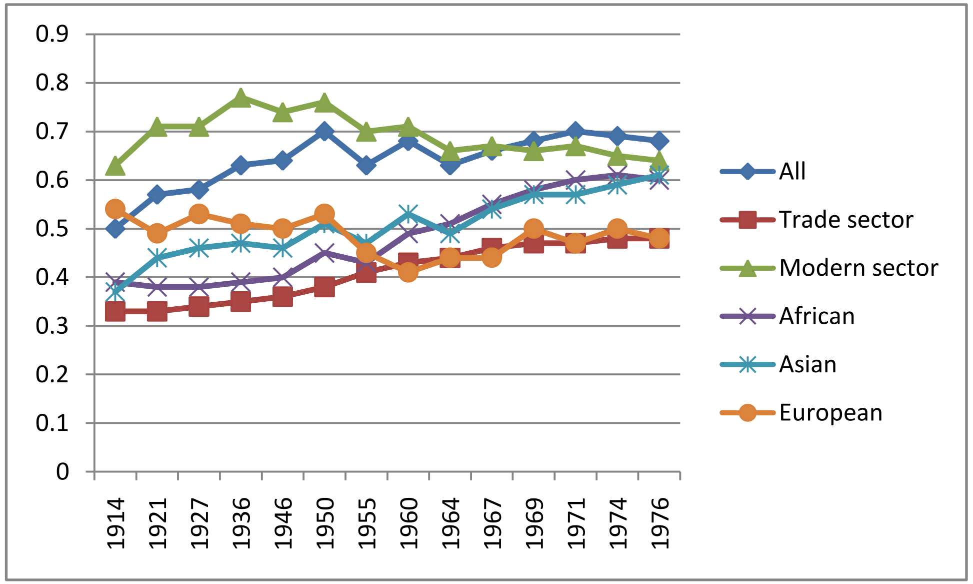
- Inequality increased until 1950, then fluctuated and finally declined slightly during the 1970s.
- The decline in the first half of the 1950s was due to smallholder incomes increasing at a higher rate but the second half inequality increased due to a fall in income for smallholders.
- Inequality increased between 1964 and 1971 and fell between 1971 and 1976.
- Overall inequality increased until 1950 and then stagnated at a high level.

Economic inequality and poverty…

- Sectoral inequality in incomes is a good proxy for inequality in the overall distribution of income among workers and individuals.
- If rural incomes increase faster than urban incomes Gini coefficient falls.
- Income poverty as measured by Sen's Poverty Index are high up to 1950 (a pre FGT poverty measure).
- It declined after that for a short period before rising again during the first decade of Independence.

Figure 3: Evolution of Inequality, 1914-76

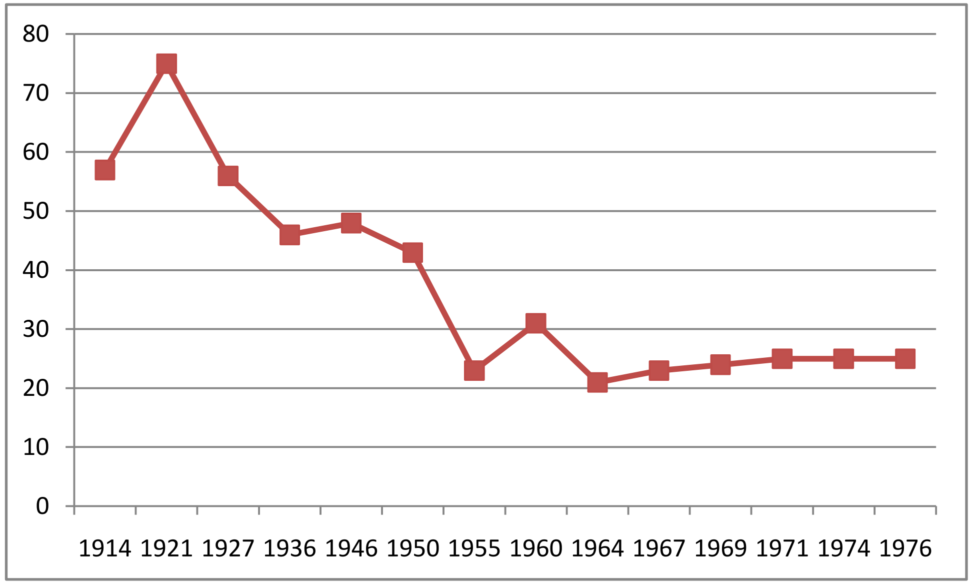
Figure 3: Gini coefficients, 1914-76



Source: Based on Bigsten (1986) data.

Figure 4: Evolution of poverty, 1914-76 (the only long-run, poverty profile constructed for Kenya with data from one source)

Figure 4: Income poverty in Kenya (Sen's Index), 1914-76



Source: Based on Bigsten (1986) data.

4. Factor incomes, 1964-2000 (more recent period)

- K/L (capital-labor ratio) is important for the pattern of specialization, and the distribution of factor outcomes.

- Factor prices (including wages) for the whole period were driven by changes in factor endowments (skill accumulation).
- Returns to capital declined from 1964 to mid 1970s and fluctuated slightly there after.
- Real wages increased by 25% from the mid 1960s until beginning of 1970s, followed by a decline until 1995, when it started to increase rapidly.

- **Real returns on land** have increased since independence.

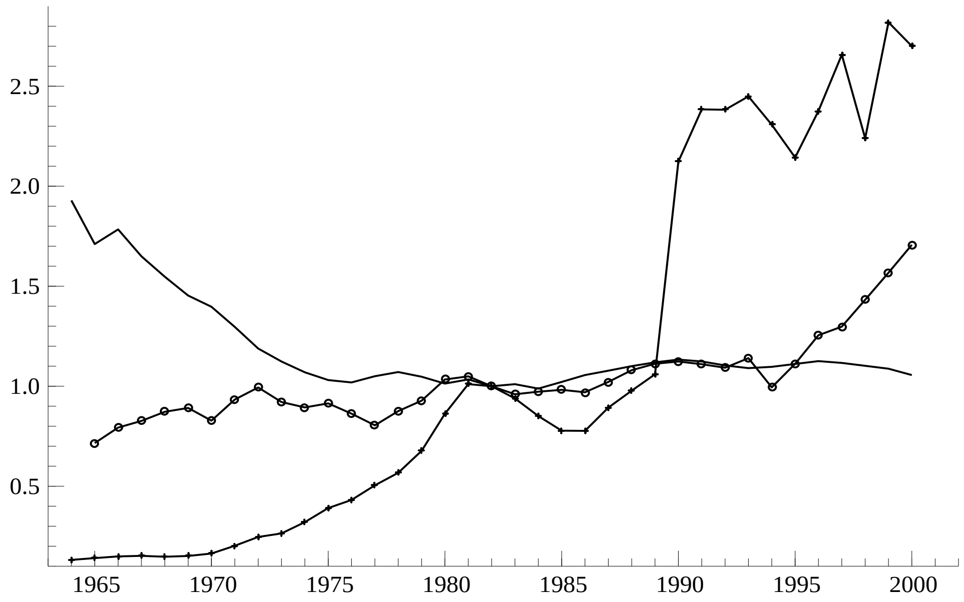
Figure 5: Relative factor endowments, 1964-2000

Figure 5: Relative factor endowments in Kenya, 1964-2000

Note: K/L = _____; T/L =_ _ _ _; K/T = ..…….. The variables have been mean- and variance- adjusted to increase the readability of the graph

Figure 6: Returns to factor inputs, 1964-2000

Figure 6: Indexes of real returns to factors in Kenya, 1964-2000



Note: Real return to capital =———; real return to labour = ○—○—○; real return to land =+—+—+. The GDP deflator was used to calculate the real values of earnings and land prices. The base year is 1982 = 1. The series for land prices is the moving average of the actual series.

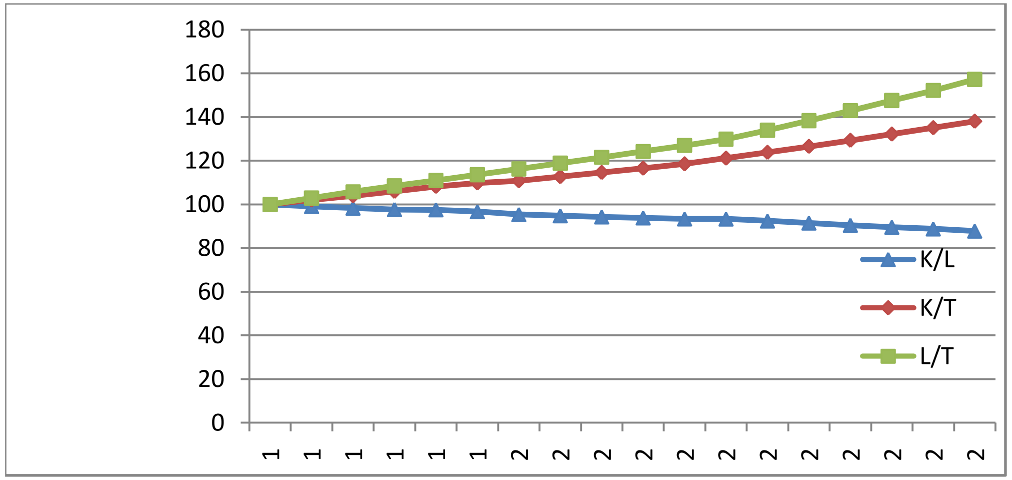
Source: Bigsten and Durevall (2008). Figure reproduced with permission of Journal of Development Studies.

5. Evolution of GDP, factor proportions and employment, 1994-2012 (more recent period)

- Per capita income growth was weak and fluctuating between 1994 and 2002; growth stabilized but with a drop in 2008 due to civil conflict.
- K/L (capital-labor ratio) continued to shrink making it harder for the formal sector to absorb new entrants into the labor force.
- There is no noticeable long term trend in the distribution of income between capital and labor over this period.
- Unemployment rate is relatively low because majority of the population must work to survive; the main labor market problem is that of the working poor.

Figure 7: Factor proportions, 1994-2011(more recent period)

Figure 7: Factor proportions, 1994-2011



Note: K = capital; L = labour; T = land.

Source: Authors' calculations based on KNBS data.

Table 3: Labor income shares, 1976-2012 (relatively more recent period)

Table 3: Labour income share in GDP, 1976-2012

		Remuneration/total factor income	
		2000	45.9
1976	39.8	2001	46.9
1980	40.9	2002	48.3
1985	42.1	2003	41.6
1990	42.1	2004	37.2
1992	41.0	2005	41.5
1993	39.6	2006	42.4
1994	43.1	2007	42.1
1995	45.5	2008	38.6
1996	43.5	2009	39.6
1997	42.1	2010	42.3
1998	43.5	2011	40.0
1999	45.1	2012	39.6

Source: Republic of Kenya Economic Survey (ES) (annual until 2013).

6. Evolution of Poverty and Inequality, 1980s -2000s (more recent period)

- Poverty declined between 1997 and 2005/06.
- The estimated poverty using the new toolkit, 47%, was not different from the 46% obtained by official government estimates using official consumption bundle.

- Relative prices do not seem to be of first order importance for estimates of poverty change during the period.
- Income inequality increased from 0.428 in 1994 to 0.516 in 2005.
- There is noticeable difference in inequality within regions.
- Overall inequality is higher in urban areas over the period, and the urban-rural gap in inequality is rising.

Table 7: Gini coeff, 1994-2005 (more recent period)

Table 7: Regional welfare inequality (Ginicoefficient) in Kenya, 1994-2005

Region/Area	1994	2005
Nairobi	0.526	0.581
Central rural	0.330	0.350
Central urban	0.350	0.390
Coast rural	0.417	0.355
Coast urban	0.339	0.390
Eastern rural	0.428	0.387
Eastern urban	0.396	0.422
North eastern rural	0.420	0.371
North eastern urban	0.411	0.368
Nyanza rural	0.385	0.359
Nyanza urban	0.380	0.374
Rift Valley rural	0.394	0.407
Rift Valley urban	0.343	0.431
Western rural	0.398	0.350
Western urban	No data	0.382
National	0.428	0.516
Total rural	0.395	0.385
Total urban	0.426	0.497

Source: Authors' computations from household survey data (Republic of Kenya 1996, 2007).

Nonmonetary poverty measures

- Empirical studies show that using money poverty metrics alone may be deceptive and need to be complemented with nonmonetary measures.
- Other metrics of poverty include insufficient health, malnutrition, illiteracy, deficiency in social relations, insecurity, low self esteem and powerlessness.

- Health status in Kenya has been improving since 1989 (with all forms of mortality declining) – fast changing metrics of health.

- However trends in life expectancy (slow moving) s irregular (HIV/AIDS?).

- Access to medical services improved as proxied by vaccination coverage.

Nonmonetary poverty measures…

- Nutritional status of children under five improved somewhat since the early 1990s with a decline in stunting and underweight.
- Literacy rates have been improving over time for instance from 78.1% and has improved to about 86% in 2010.

- Enrolments in primary and secondary school have also improved over time.

- Overall, social indicators show a moderate positive trend and this is consistent with increases in incomes and reduced poverty rates after 1997.

Table 11: Non-monetary poverty

Table 11: Percentage of children under five years classified as malnourished, 1993-2008

Year and welfare indicators	1993	1998	2003	2008
Height-for-age stunting	32.7	35.3	30.3	29.6
Weight-for-height stunting	5.9	6.0	5.6	5.8
Weight-for-age underweight	22.3	21.2	19.9	20.3
Children stunted (% overall)	31.2	30.9	30.1	29.8
Children underweight (% overall)	23.3	21.5	20.1	19.5

Source:Republic of Kenya (1989, 1993, 1998b, 2003a, 2008a).

Policy Challenges

- We have seen that over the last century (1900-2012) Kenya experienced low growth, limited transformation of the economy, and high inequality and poverty.
- What can be done to change this situation over the coming decades? (i.e., what can be done to accelerate growth, reduce poverty, improve equity and transform the economy into high-productivity manufacturing enterprises?)

❑ *The aim of the current Kenyan economic policy is to reduce poverty & inequality*.

Policy Challenges

- For the policy to succeed, it needs to achieve the following objectives:

(i). *Increase* growth and make the growth process inclusive.

(ii). Improve the quality of economic and political *governance* (to reduce corruption & increase efficiency).

(iii). Reduce *regional inequality*, as this has been shown to be positively correlated with overall inequality.

(iv). Implement mechanisms for *transforming* the economy from a dual, low-income economy, to a high-productivity economy.

Policy Challenges…

(v). Invest in agriculture, manufacturing, and services, to create good jobs in all sectors and to initiate 'structural' change.

- *METRICS* for structural change: changes in – *factor proportions*; *income shares*; pop age *structure*. *CAUSES*: changes in technical know how; social norms and institutions, social sharing mechanisms…

vi). Design and implement business policies that support all investors.

(vii). Halt the *spread* of informal activities, by improving business and residential infrastructure (increasing K/L) in informal sectors), and supporting innovations in the sectors.

Policy challenges…

(viii). Implement *long-term* investments in human capital formation – to address the twin problem of nonmonetary *poverty* and *inequality* in human development indicators, such as health and education outcomes.

- (These outcomes cannot be redistributed, and take a long time to manifest themselves in society). No no *markets* for these outcomes.

(ix). Implement *short-term* consumption-smoothing systems (publicly funded), to insure vulnerable groups against poverty in times of adverse shocks, e.g., bad weather, severe illness, loss of employment…

Thank you