Out of poverty

Lorenzo Rocco

Department of Economics, Padova

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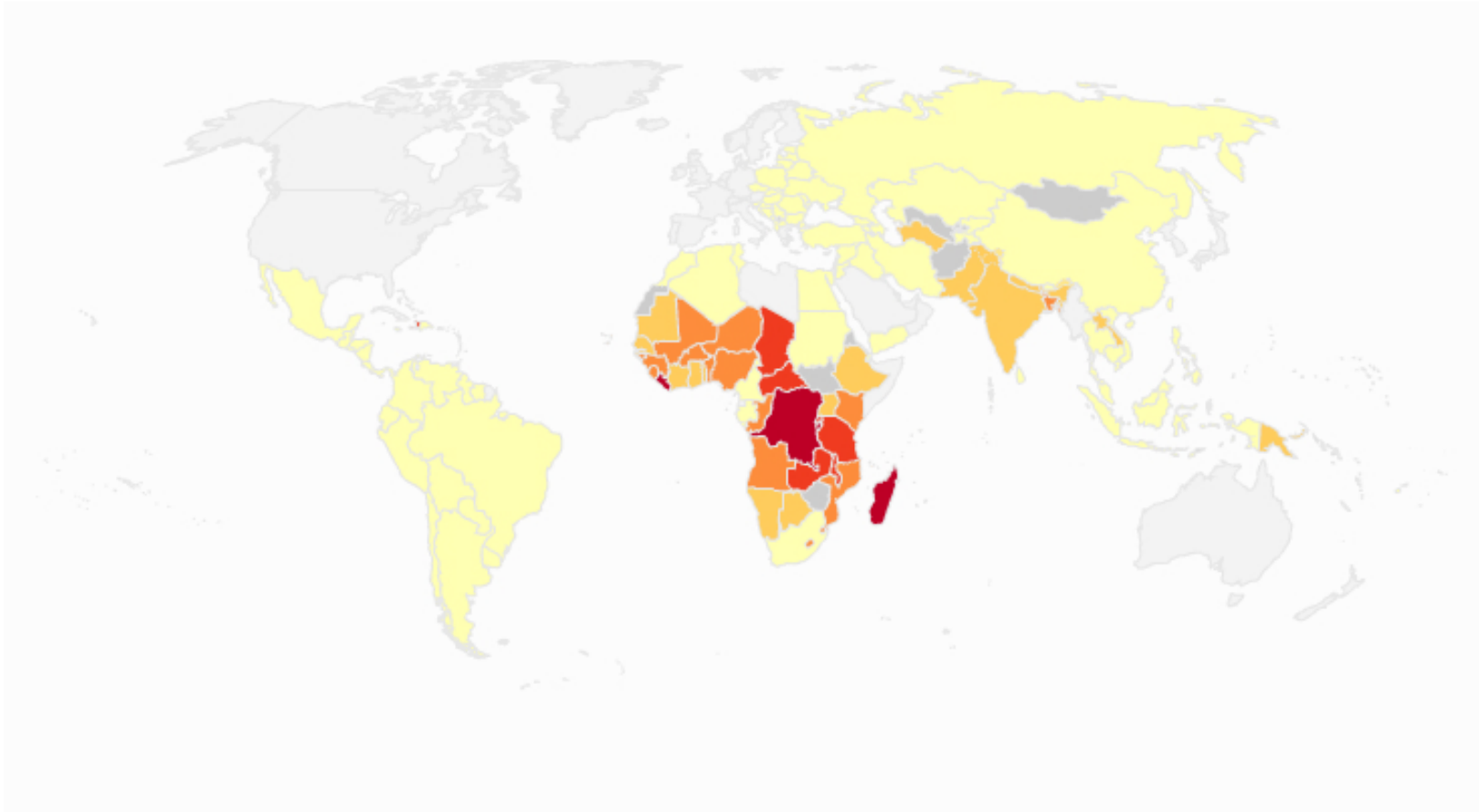
Measures of Poverty

- Poverty is the most visible feature of developing countries
- headcount ratios: number of poors out of the population
- poverty cutoffs: absolute or relative
  - absolute: eg. poverty lines (e.g. \$1 or \$2 per day (in 1985 USD PPP), \$1.25 per day (in 2005 USD PPP), \$1.9 per day (in 2011 USD PPP), determined by averaging out the poverty lines in local currency of the 15 poorest countries) - the minimal requirements necessary to afford minimal standards of food, clothing, health care and shelter
  - relative: eg. less than 60% of the median equivalized household disposable income
- all poverty measures refer to how thick is the left tail of national income distribution

A map of poverty ($1.25 per day)



Comments:
Indicator: Poverty headcount ratio at $1.25 a day (PPP) (% of population)
Year: 2012

no data | 0 - 20.0 | 20.0 - 40.0 | 40.0 - 60.0 | 60.0 - 80.0 | 80.0 - 100

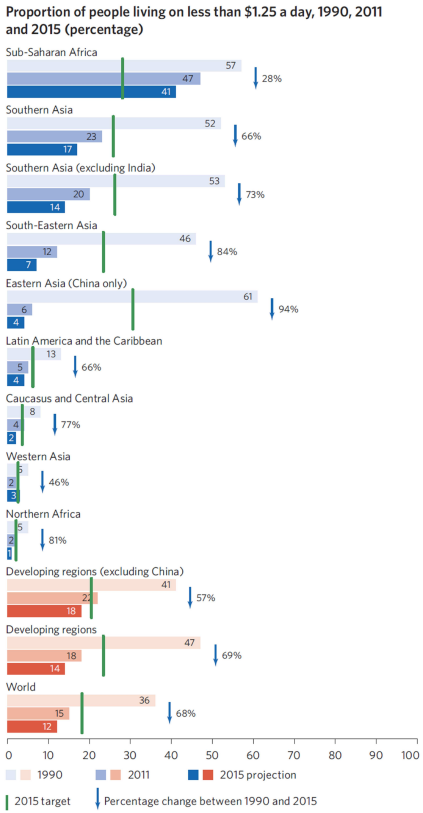
Within country

(Dercon, WBRO 1999)

- Poverty is still predominantly a rural phenomenon.
- The most recent estimates suggest that about 76 percent of the poor in the world live in rural areas, compared to a population share in rural areas of 58 percent (Ravallion and others 2007).
- Sub-Saharan Africa is no exception: rural poverty is about a quarter higher than urban poverty (65 percent of the population is poor; 70 percent of the poor living in rural areas).
- Is this changing? the urban share of poverty has been increasing (from about 19 to 24 percent) as the urban population has grown faster than the rural population, largely due to in-migration

Poverty overtime

- Poverty decreased everywhere at least since 1995.
- The Millennium Development Goal of halving 1990 poverty by 2015 was achieved in 2010. In 2011:



Poverty in Africa

Most think that poverty reduction is due the economic boom of the Asian giants and that Africa lags behind.

- the United Nations Development Program contends that "the goal of cutting in half the proportion of people in the developing world living on less than $1 a day by 2015 remains within reach. However, this achievement will be due largely to extraordinary economic success in most of Asia. In contrast, previous estimates suggest that little progress was made in reducing extreme poverty in sub-Saharan Africa." (Millennium Development Goals Report 2008)
- the World Bank concurs: "In 1990, 28.3 percent of the people in low and middle-income countries lived on less than $1 a day. By 1999 the share had fallen to 21.6 percent, driven mainly by strong growth in China and India (...) In Sub-Saharan, where the GDP per capita fell by 5 percent, the extreme poverty rate rose from 47.4 percent in 1990 to 49 percent in 1999. The numbers are believed to be still rising" (World Bank 2004)
- The U.N. Millennium Campaign Deputy Director for Africa says: "Poverty continues to intensify due to the exclusion of groups of people on the basis of class, caste, gender, disability, age, race, religion and other status," (UN Millennium Campaign 2009)

Poverty in Africa

- More recently: "...progress on poverty reduction has been uneven. Some regions, such as Eastern Asia and South- Eastern Asia, have met the target of halving the extreme poverty rate, whereas other regions, such as sub-Saharan Africa and Southern Asia, still lag behind. According to World Bank projections, sub-Saharan Africa will be unlikely to meet the target by 2015." (UNDP MDG report 2014)
- By 2011, all developing regions except sub-Saharan Africa had met the target of halving the proportion of people who live in extreme poverty (Oceania has insufficient data). The world's most populous countries, China and India, played a central role in the global reduction of poverty. In contrast, sub-Saharan Africa's poverty rate did not fall below its 1990 level until after 2002. Even though the decline of poverty has accelerated in the past decade, the region continues to lag behind. More than 40 per cent of the population in sub-Saharan Africa still lives in extreme poverty in 2015." (UNDP MDP report 2015 - the final report! with data of 2011...)

Poverty in Africa

Conversely, Sala-i-Martin and Pinkovskiy (2010, 2014) show that

1. poverty in Africa has fallen since 1995
2. this is the result of economic growth
3. common belief is that economic growth in Africa is due to rising international prices of raw materials and commodities, that benefits few without affecting most people. Instead inequality has decreased
4. poverty has evenly fallen across the continent

Outline of the argument

- Why debating? HUGE problem of *lack* of reliable data on income at the micro-level in African countries
- key assumption: in all countries income is distributed according to a log-normal distribution. Given this assumption, all the specificities of a given country are entirely captured by its distribution parameter.
- data on GDP per-capita and Gini index are obtained for each country and year from several sources
- from these data the parameters of the log-normal distribution are recovered $\Rightarrow$therefore the entire distribution is known
- any poverty measure can by computed

Preliminaries - Log-Normal

Income Y is distributed log-normally iff

$$lnY \sim N(\mu, \sigma^2)$$

Let $X \sim N(\mu, \sigma^2)$. Then

$$Y = e^X$$

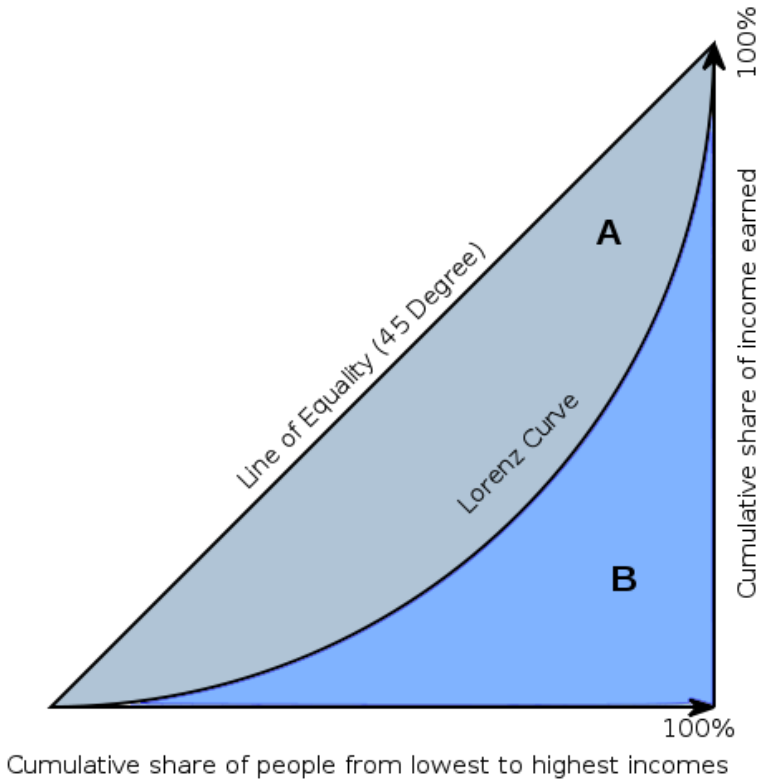
We denote by μ and σ^2 the usual parameters of the underlying normal distribution (which capture the mean and the variance of X). Therefore μ is the mean of $X = lnY$ and σ^2 is the variance of $X = lnY$.
We have the following results:

$$E(Y) = e^{\mu+\sigma^2/2}$$

$$V(Y) = (e^{\sigma^2} - 1)e^{2\mu+\sigma^2}$$

Inequality indices - Gini

- Gini index is a classical measure of inequality. It is closely related to the Lorenz curve $L(x)$.
- The Lorenz curve is a function that links at at each share of the population (sorted by its income) the corresponding share of income.



The Gini index is defined as

$$G = \frac{A}{A+B} = \frac{1/2 - \int L(x)dx}{1/2} = 1 - 2\int L(x)dx$$

Note: The more convex is the Lorenz curve, the higher inequality. Area A is the "difference" between the condition of full equality and the actual distribution of income into the country.

Gini and the log-normal

If income is log-normally distributed, there is a close relation between Gini Index and the parameters of the distribution

$$G = 2\Phi(\sigma/\sqrt{2}) - 1$$

Knowing Gini one can then derive

$$\sigma = \sqrt{2}\Phi^{-1}\left(\frac{G+1}{2}\right)$$

Income shares and the log-normal

Given a lognormal distribution, distribution parameters can be recovered also from income shares, i.e. the proportion of income belonging to the poorest 20 percent, 40, 60, 80 of the population. Income shares depend on the distribution parameters. To estimate the distribution parameters the authors proceed by minimizing the sum of squares:

$$min_{\mu,\sigma} \sum_i [s_i(\mu, \sigma) - \bar{s}_i]^2$$

Generalized entropy indices

1) Theil index

$$T(x) = \frac{1}{N} \sum_{i=1}^{N} \left(\frac{x_i}{\bar{x}} \cdot ln \frac{x_i}{\bar{x}} \right)$$

2) Mean logarithmic deviation

$$MLD(x) = T\left(\frac{1}{x}\right) = \frac{1}{N} \sum_{i=1}^{N} \left(ln \frac{\bar{x}_i}{x_i} \right)$$

These two indices vary between 0 and $+\infty$ where 0 if for complete equality. The Theil index gives more weight to changes in income in the upper tail of the distribution and the MLD gives more weight to changes in income at the lower tail of the distribution.

Generalized entropy indices

Both have the characteristics of being decomposable in within group and between group inequality. For instance the Theil index can be decomposed as:

$$T(x) = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{x_i}{\bar{x}} \cdot ln\frac{x_i}{\bar{x}}\right) =$$

$$\sum_{i=1}^{N}\left(\frac{x_i}{N\bar{x}} \cdot ln\frac{x_i N}{\bar{x} N}\right) = \sum_{i=1}^{N}\left(\frac{x_i}{X} \cdot ln\frac{x_i N}{X}\right) = \sum_{j}\frac{X_j}{X}T_j + \sum_{j}\frac{X_j}{X}ln\frac{X_j/X}{N_j/N}$$

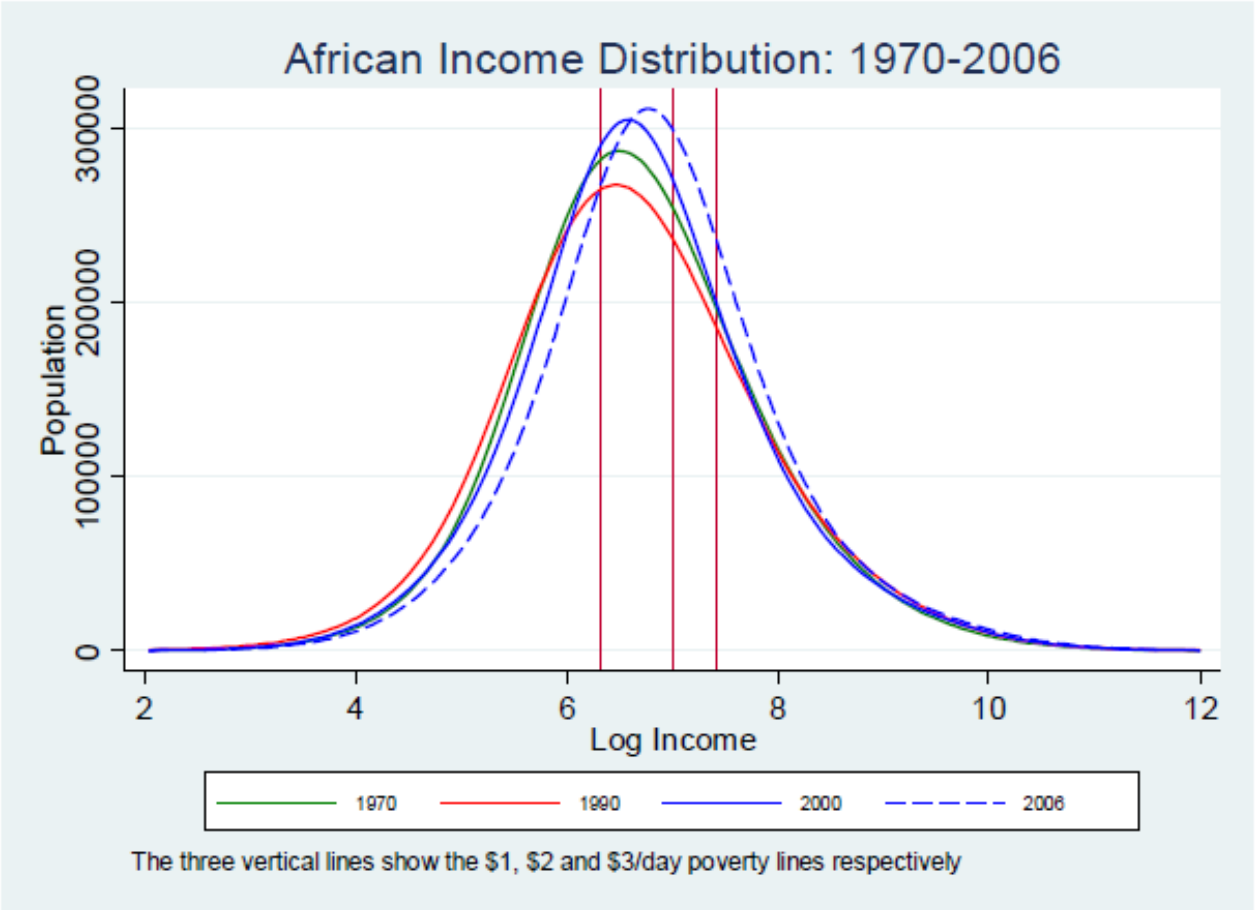
The first term is a weighted average of Theil indices at the group (j) level and the second term a Theil index computed between groups.

Data

1. mean income from national accounts purchasing-power-parity (PPP)-adjusted GDP data from the World Bank (2012).
2. inequality data from Chen and Ravallion (2010), and supplemented with similar data from the WIDER-DS dataset. Both datasets provide Gini coefficients and quintile shares for countries and years in which income or consumption surveys were conducted.
3. for countries with 2 or more surveys (hereafter, the group A countries), missing data are filled via interpolation of the survey series in the Gini coefficient and via assuming the Gini is constant after the last survey and before the first survey.
4. for countries with exactly one survey (group B countries) or with no surveys (group C countries), inequality is imputed based on surveys in other countries.

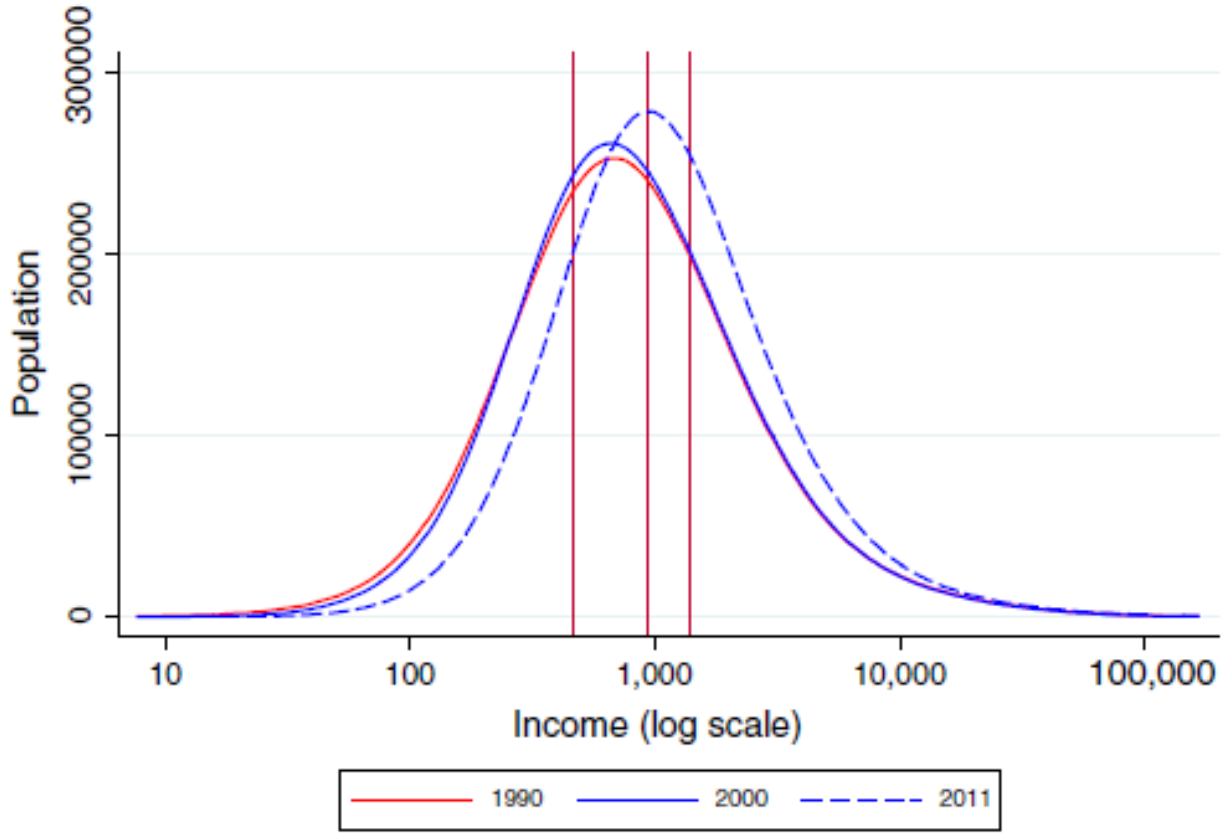
Results

Data on Gini allows to determine σ. Data on GDP per capita and σ yield μ. This allows to fully characterize the entire distribution at several point in time. Aggregation of country data yields the African distribution.



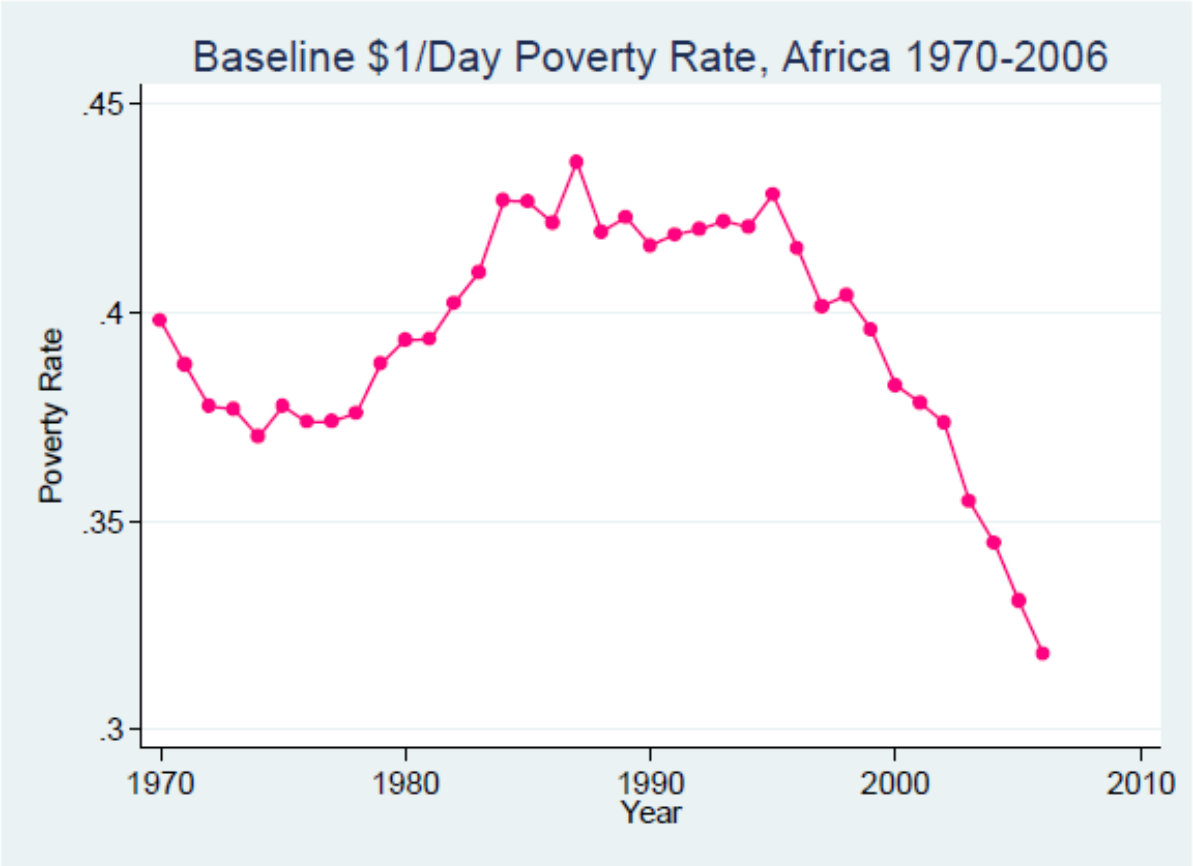
Update from JOG paper 2014

Fig. 2 African income distribution in year 2011



The three vertical lines show the $1, $2 and $3/day poverty lines respectively

Results



Note: in 1990 poverty rates are larger than in the updated version because they refer to all Africa and not only Group A countries.

Update from JOG paper 2014

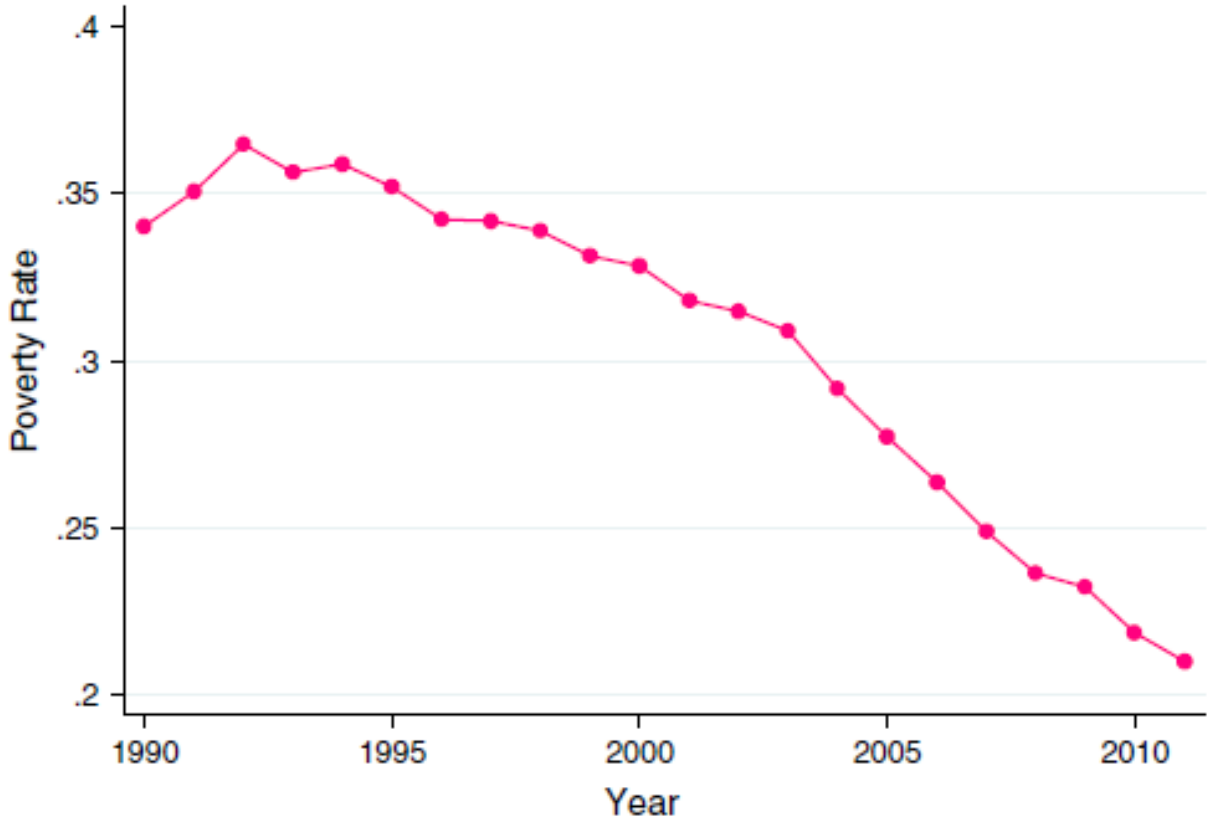


Fig. 4 Baseline $1/day poverty rate, Africa Group A countries 1990–2011

Results (updated)

Economic growth is the driver of poverty reduction

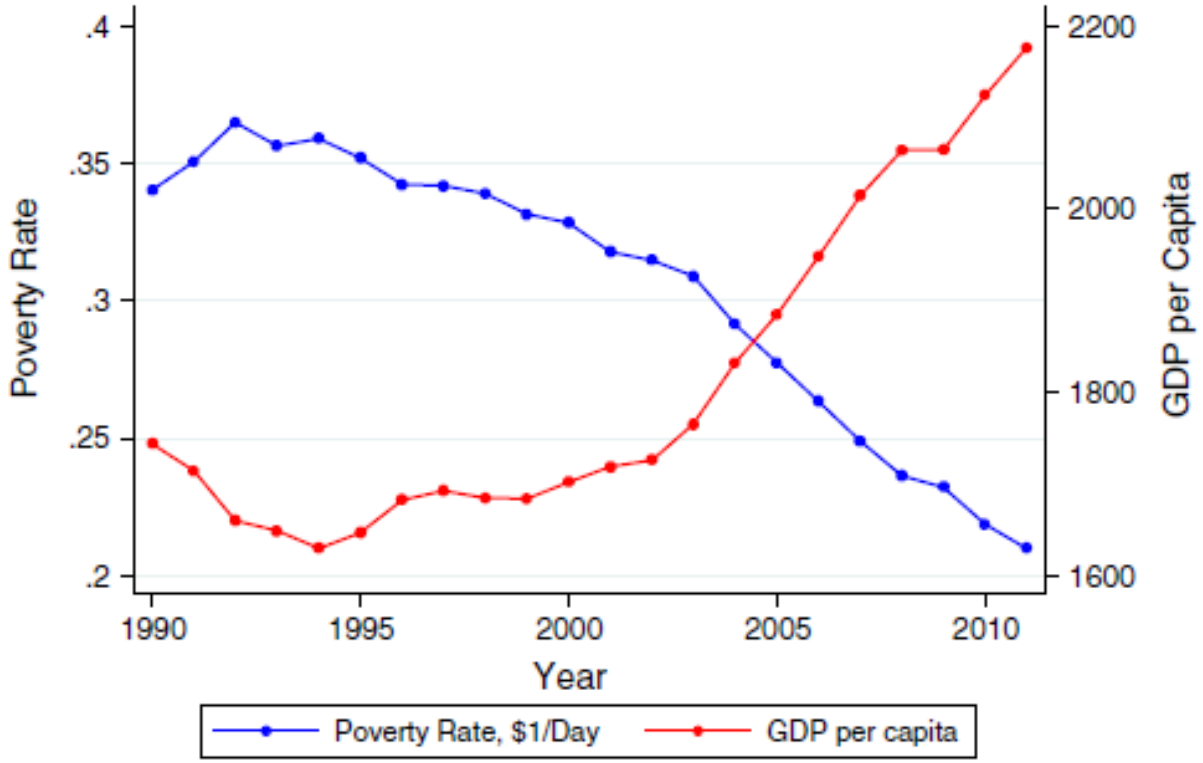


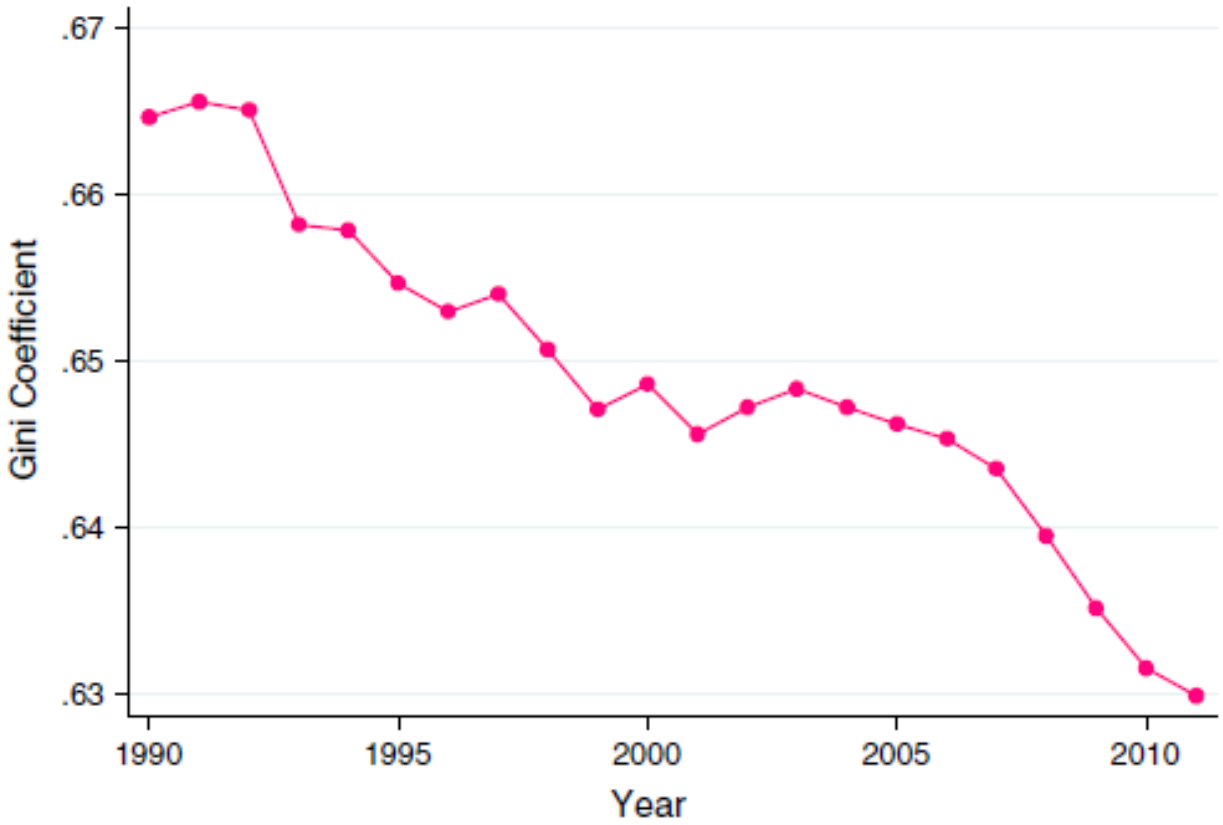
Fig. 5 $1/day poverty and growth in Sub-Saharan Africa (Group A), 1990–2011

Results (updated)

- While progress in Africa has by no means been as extraordinary as that of East Asia, there has been a significant reduction in poverty and a substantial movement towards achieving the MDGs.
- The poverty rate in 1990 was 34%. Hence, the MDG is for the poverty rate to be 17% by 2015. The rate in 2011 was 21%:
  - still four percentage points to go; but also 4 years left.
- If poverty continues to fall at the rates it fell between 2000 and 2011, we project that the \$1/day poverty rate will be 16.7% in 2015: right on target!

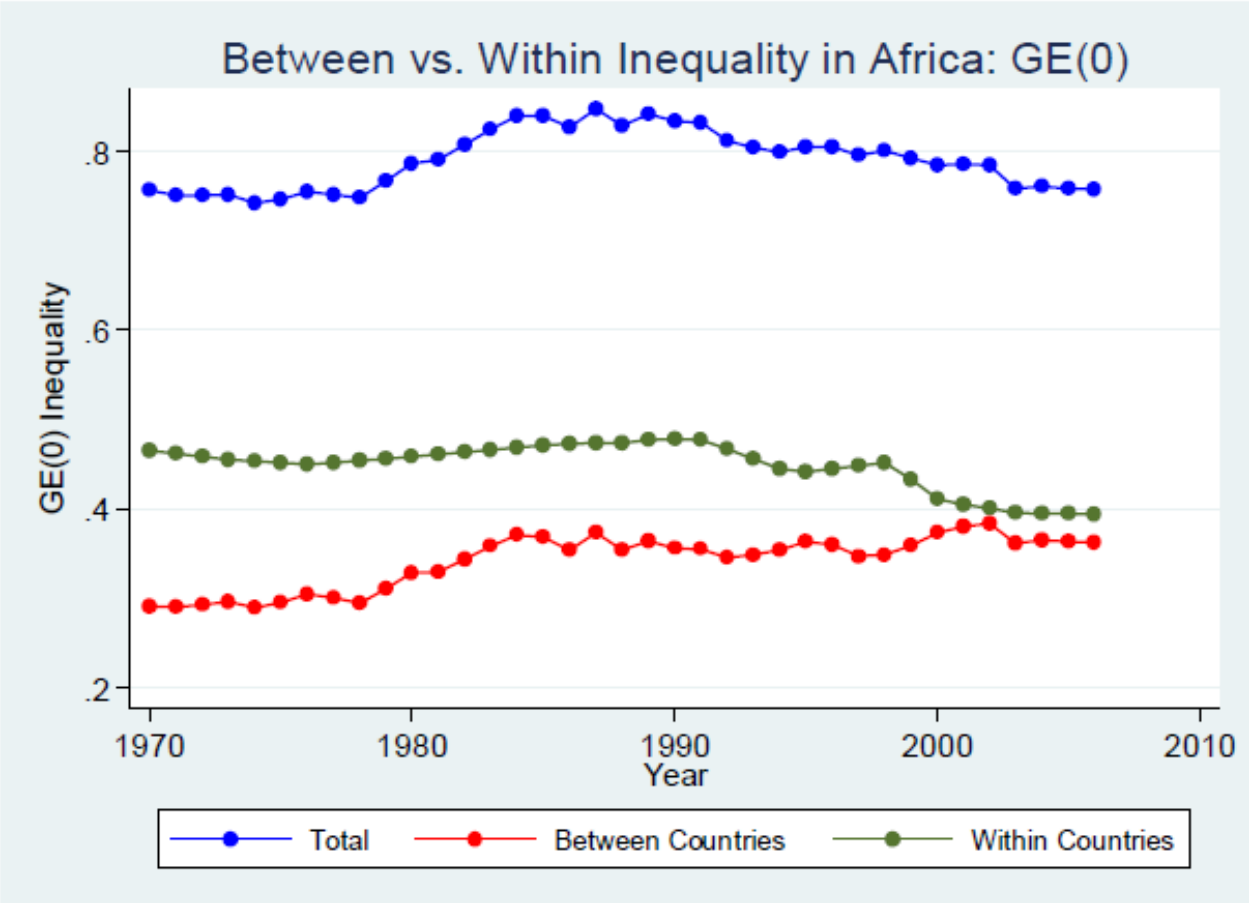
Results (updated)

This section analyzes the evolution of inequality. Many analysts claim that, because Africa's economy is largely based on natural resources, the growth rate of the last decade has benefited mainly the political and economic elites that own those resources. If this were true, we should observe an explosion in all measures of income inequality. In fact we observe the opposite.

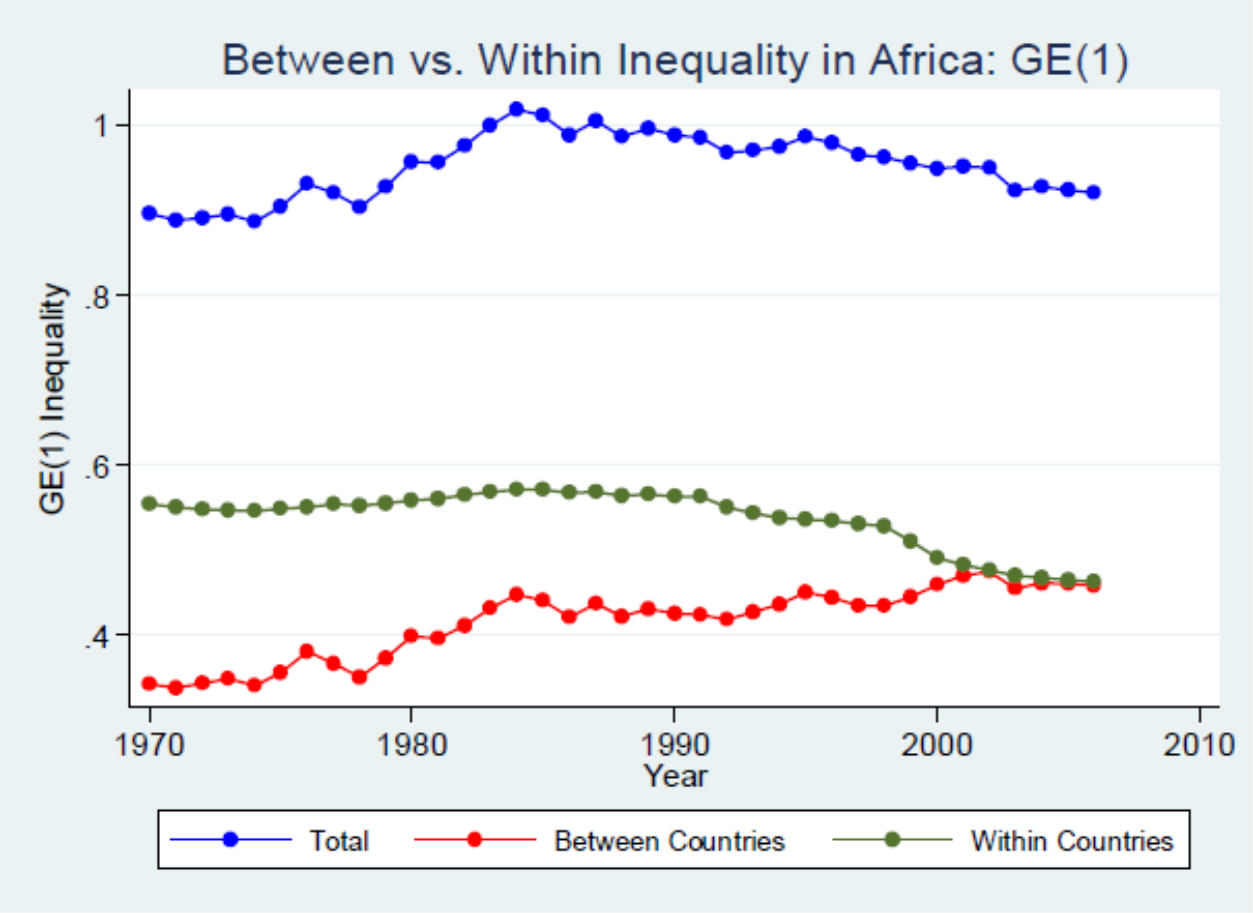


Results

Using the Theil and the MLD indices we can decompose inequality within countries and inequality between countries. We note that the former is decreasing and the latter is only slightly increasing. This suggests that inequality fell in most countries.



Results


Between vs. Within Inequality in Africa: GE(1)
GE(1) Inequality
1
.8
.6
.4
1970
1980
1990
2000
2010
Year
Total
Between Countries
Within Countries

Results - Regional Analysis (updated)

Collier (2006) argues that coastal countries will perform better than landlocked countries in general, due to better trade opportunities.

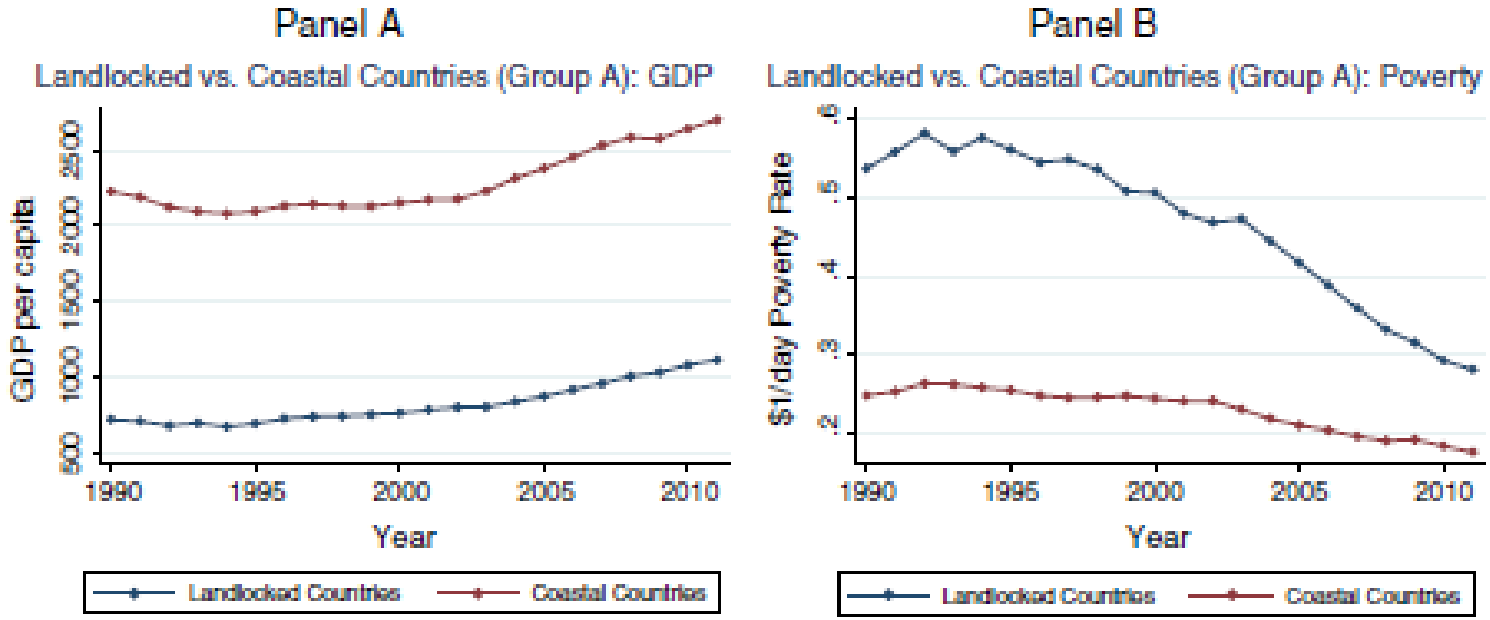


Fig. 14 African growth and poverty breakdown: landlocked versus coastal countries (Group A countries)

Results (updated)

Mineral-rich countries should have been better-positioned than mineral-poor countries to take advantage of the increase in natural resource prices in the 2000s.

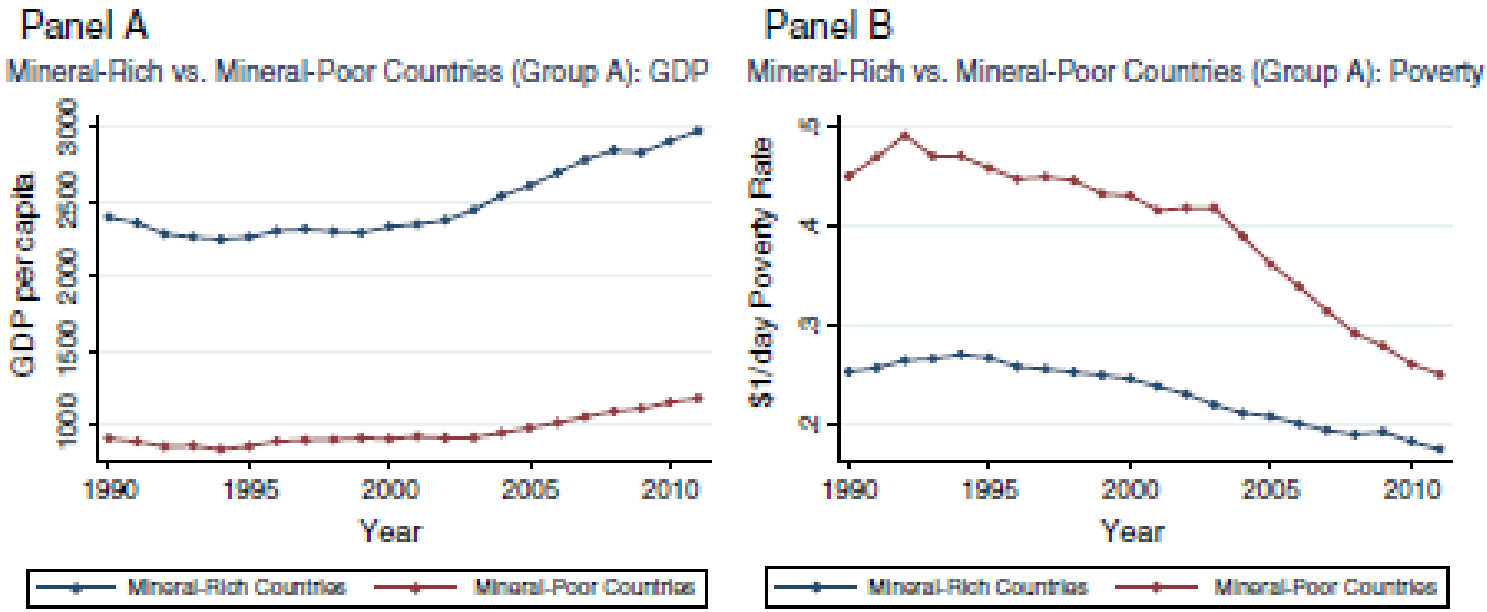


Fig. 15 African growth and poverty breakdown: mineral-rich versus mineral-poor countries (Group A countries)

Results (updated)

Bloom and Sachs (1998) point to adverse geography as a cause of slow development: in particular, countries that have unfavorable agriculture should be poorer than countries with more favorable conditions.

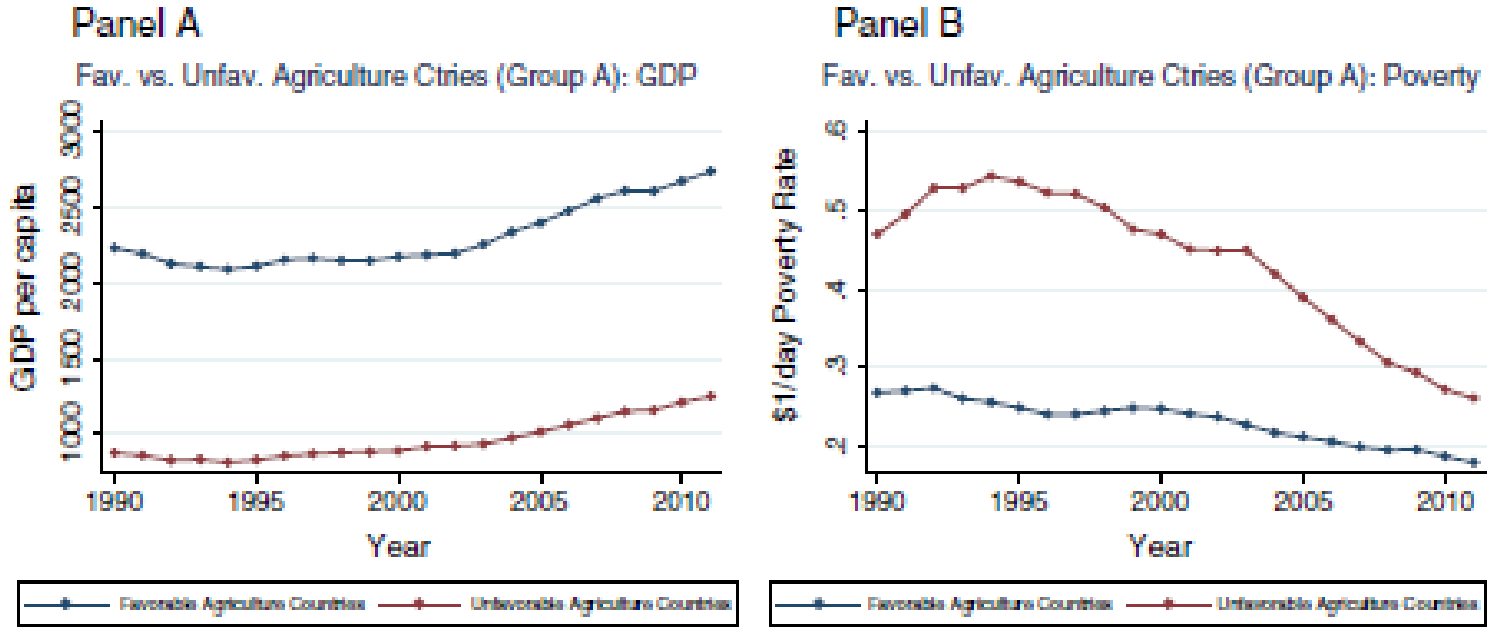


Fig. 17 African growth and poverty breakdown: favorable versus unfavorable agriculture countries (Group A countries)

Results (updated)

A country is labeled to be at war if it was at war in 1997 and it is labeled to be at peace if it is at peace in 1997 according to the Correlates of War dataset (Sarkees 2000).

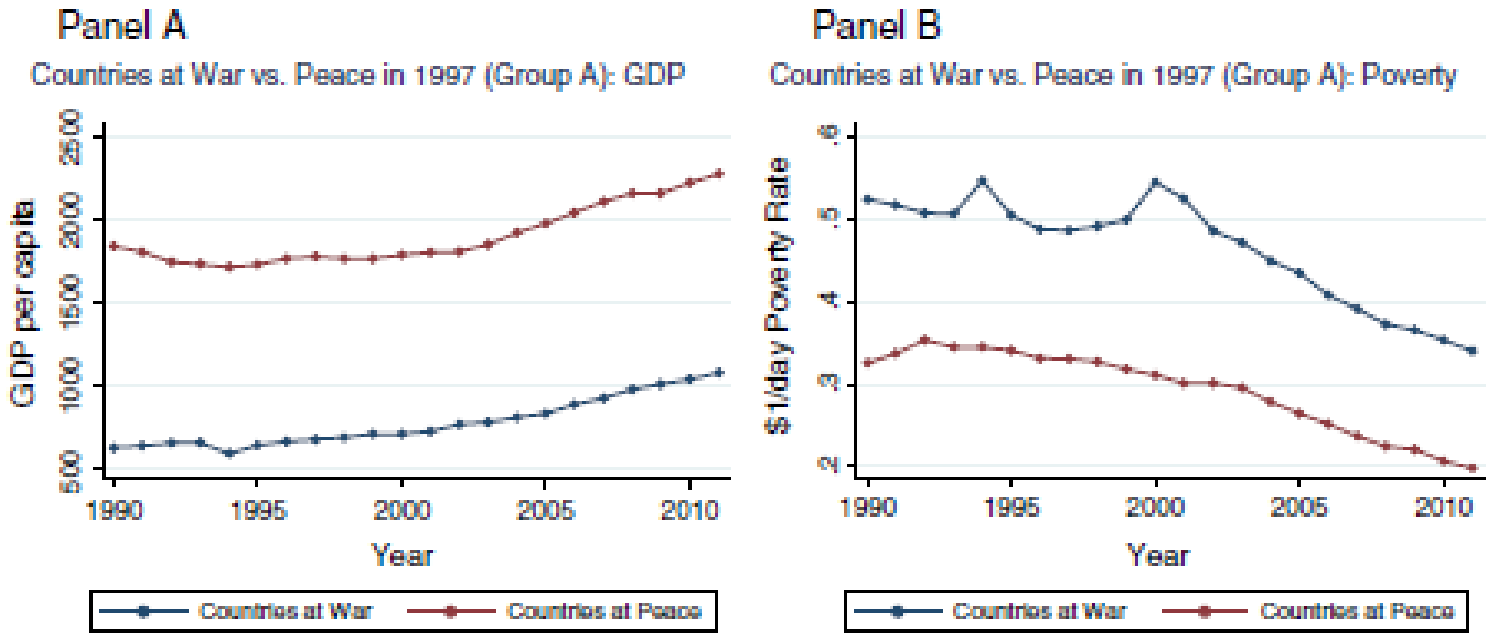


Fig. 18 African growth and poverty breakdown: countries at war in 1997 versus countries at peace in 1997 (Group A countries)

Results (updated)

Nunn (2008), for example, argues that the African slave trade had "particularly detrimental consequences, including social and ethnic fragmentation, political instability and a weakening of states, and the corruption of judicial institutions,"

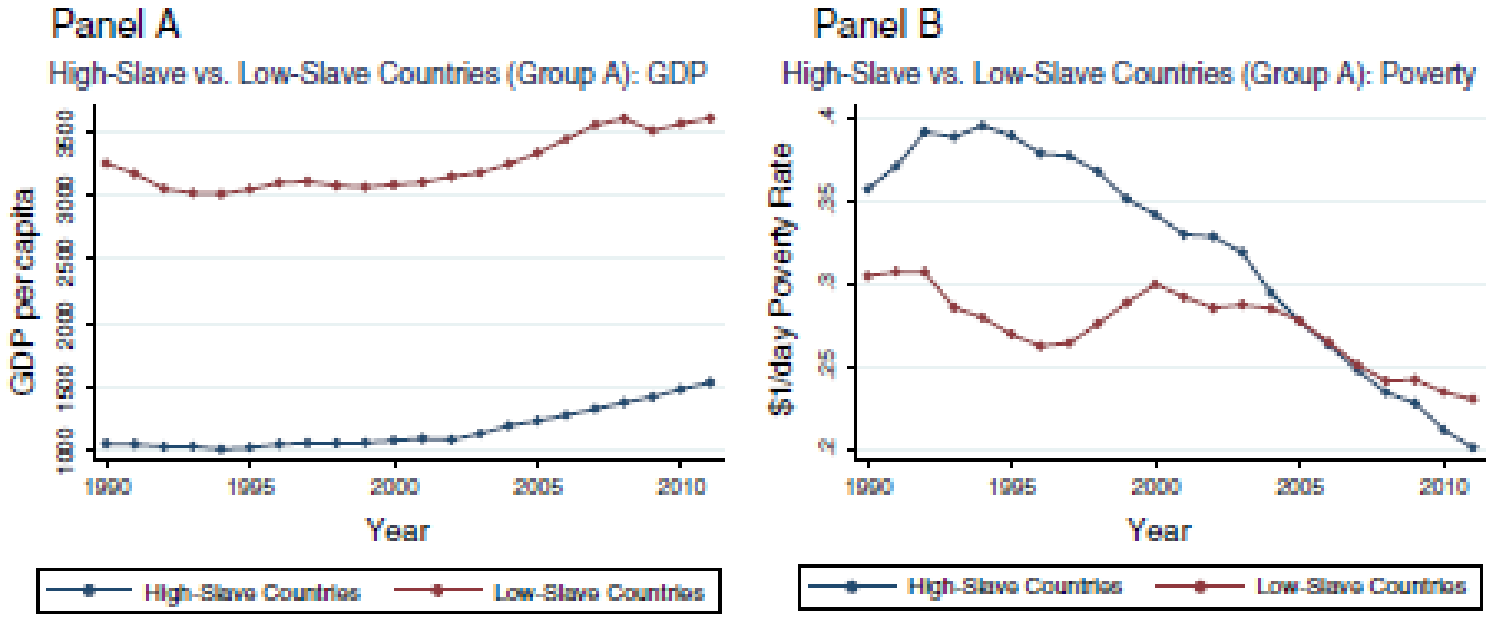


Fig. 19 African growth and poverty breakdown: countries with above median versus below median slave exports per capita during the African slave trade (Group A countries)

LIGHTS, CAMERA,... INCOME!

Pinkovskiy and Sala-i-Martin (2014) "Lights, Camera,... Income!: Estimating Poverty Using National Accounts, Survey Means, And Lights", NBER WP 19831

1. Debate between those who say that poverty is declining also in Africa and those who say that it is constant or even raising (Chen and Ravallion, 2001, 2004, 2010)
2. Different conclusions are due to different methodologies (parametric vs non-parametric methods - i.e. income distribution assumed to be known or not) and, mainly, different ways of measuring mean income:
    1. national accounts (i.e. GDP per capita)
    2. microdata surveys (i.e. survey average income or consumption)
3. Both are proxies of the true mean income, BUT they are not the true mean income.
4. This paper asks which is the better proxy?

LIGHTS, CAMERA,... INCOME!

1. IDEA: exploit a third, independently collected data on economic activity: *satellite-recorded nighttime lights*
2. Three proxies:

$$y^{lights} = \beta^{ligths} y^* + \varepsilon^{lights}$$

$$y^{GDP} = \beta^{GDP} y^* + \varepsilon^{GDP}$$

$$y^{survey} = \beta^{survey} y^* + \varepsilon^{survey}$$

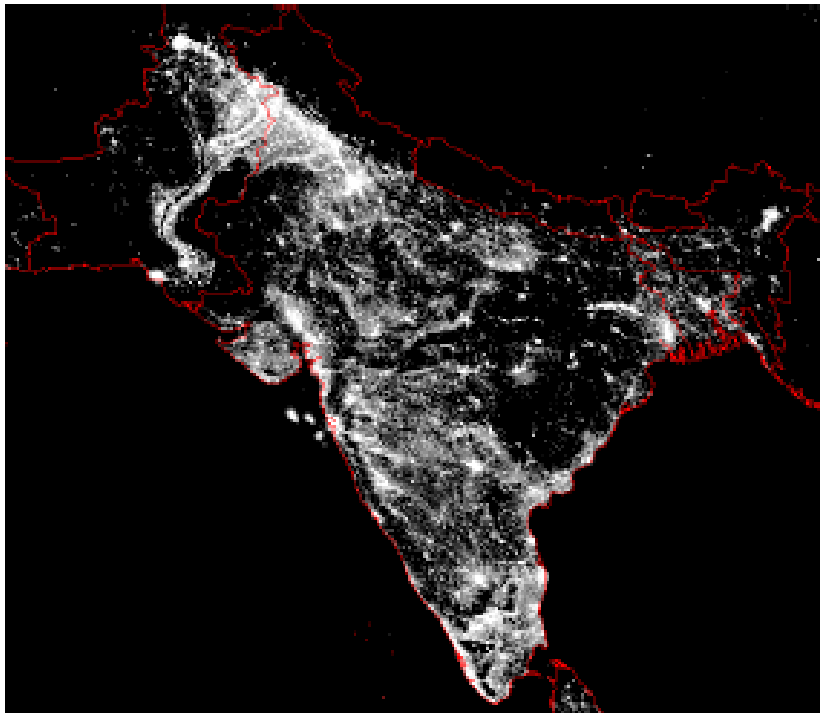
3. Hypothesis:

$$corr\left(y^*, \varepsilon\right) = 0$$

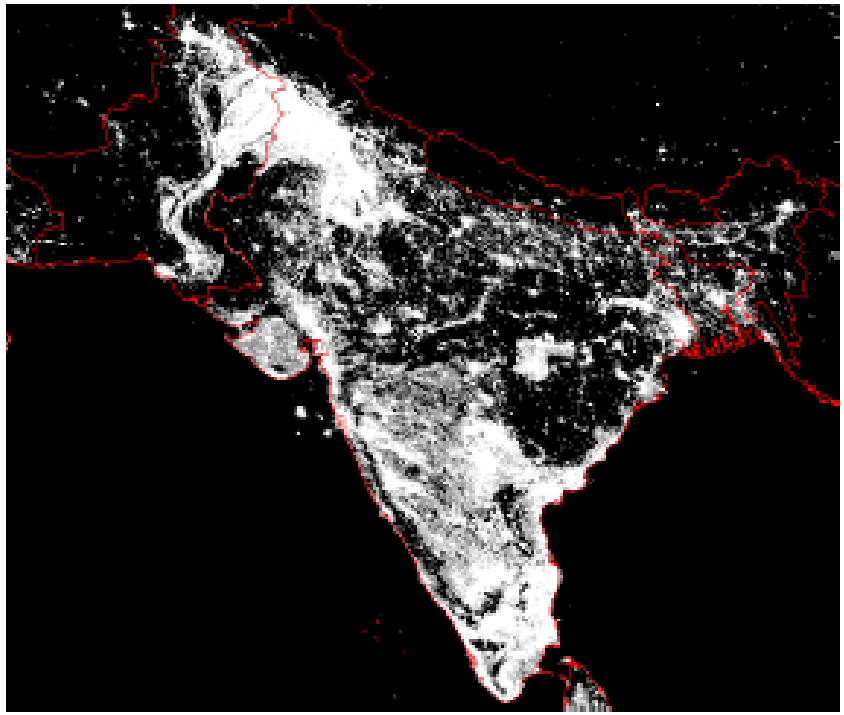
$$corr(\varepsilon^{GDP}, \varepsilon^{lights}) = 0$$

$$corr(\varepsilon^{survey}, \varepsilon^{lights}) = 0$$

LIGHTS, CAMERA,... INCOME!



India, 1994



India, 2010

We are interested in the ratio $\frac{corr(y^{GDP},y^*)}{corr(y^{survey},y^*)}$ to know which proxy fits better with the unknown y^*.
Note that:

$$corr(y^{GDP}, y^*) = \beta^{GDP} \frac{\sigma(y^*)}{\sigma(y^{GDP})}$$

$$corr(y^{survey}, y^*) = \beta^{survey} \frac{\sigma(y^*)}{\sigma(y^{survey})}$$

and so:

$$\frac{corr(y^{GDP}, y^*)}{corr(y^{survey}, y^*)} = \frac{\beta^{GDP}}{\beta^{survey}} \frac{\sigma^{survey}}{\sigma^{GDP}}$$

Moreover, under the hypothesis made above, simple algebra yields:

$$corr(y^{GDP}, y^{lights}) = \frac{\beta^{GDP}\beta^{lights}\sigma(y^*)^2}{\sigma(y^{GDP})\sigma(y^{lights})}$$

$$corr(y^{survey}, y^{lights}) = \frac{\beta^{survey}\beta^{lights}\sigma(y^*)^2}{\sigma(y^{survey})\sigma(y^{lights})}$$

so that

$$\frac{corr(y^{GDP}, y^{lights})}{corr(y^{survey}, y^{lights})} = \frac{\beta^{GDP}}{\beta^{survey}}\frac{\sigma(y^{survey})}{\sigma(y^{GDP})}$$

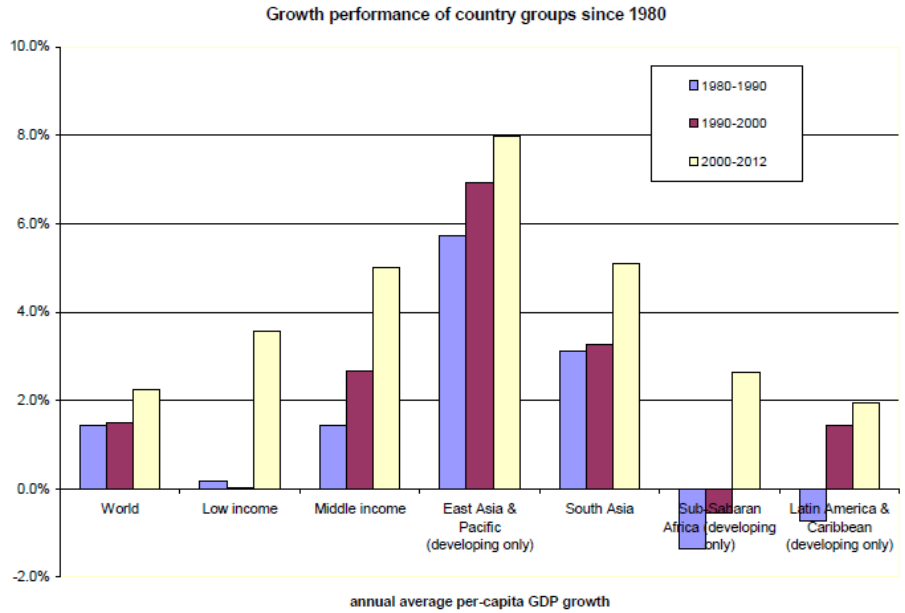
LIGHTS, CAMERA,... INCOME!

1. It follows that to "discover" $\frac{corr(y^{GDP}, y^*)}{corr(y^{survey}, y^*)}$ it suffices to compute $\frac{corr(y^{GDP}, y^{lights})}{corr(y^{survey}, y^{lights})}$ which includes only known objects.
2. Results indicate that y^{GDP} is much more correlated with y^* than y^{survey} and so it is a better proxy to use for poverty computations (as we did!).
3. In fact, by exploiting the satellite-recorded nighttime lights it is possible to estimate true mean income and obtain more accurate poverty estimates

LIGHTS, CAMERA,... INCOME!

Regional Poverty Estimates								
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
		Dev. World	East Asia	South Asia	Lat. Am.	SSA	MENA	Fmr USSR
Survey Weight = 1 (CR 2010)	Poverty 1992	.421	.512	.545	.129	.585	.074	.084
	Poverty 2010	.205	.093	.321	.058	.474	.048	.071
	Ratio 2010/1992	.487	.182	.588	.455	.811	.651	.841
GDP Weight = 1 (PSiM 2009)	Poverty 1992	.094	.081	.072	.026	.346	.003	.030
	Poverty 2010	.037	.002	.008	.017	.217	.003	.009
	Ratio 2010/1992	.400	.031	.119	.673	.628	1.037	.327
Baseline	Poverty 1992	.118	.115	.105	.033	.374	.005	.031
	Poverty 2010	.045	.004	.016	.020	.244	.005	.015
	Ratio 2010/1992	.381	.040	.149	.625	.650	.962	.478
	Ratio 2010/1992 UB	(.409)	(.054)	(.201)	(.690)	(.681)	(1.060)	(.691)

Rodrik (2014) - An African miracle growth?



- In recent years in Sub-Saharan Africa we have observed some prolonged economic growth (3% per year), better fundamentals (democracy, less civil wars, policy reforms), investments from abroad (China).
- Growth has been favored by a rise in commodity prices led by Chinese development.
- Is this the beginning of an African growth miracle?

Rodrik (2014) - background

1. There is evidence against unconditional convergence in economic growth: poorer countries do not catch up with the richer - starting low is not enough to boost growth rates.
2. Though, unconditional convergence is observed in manufacturing sectors across countries.
3. Therefore, convergence in the economy as a whole could be supported if a large manufacturing sector exists.
4. Most stories of success (Western Europe, Asia) were stories of declining agriculture and expanding manufacturing, with large gains in labor productivity.

Rodrik (2014) - evidence

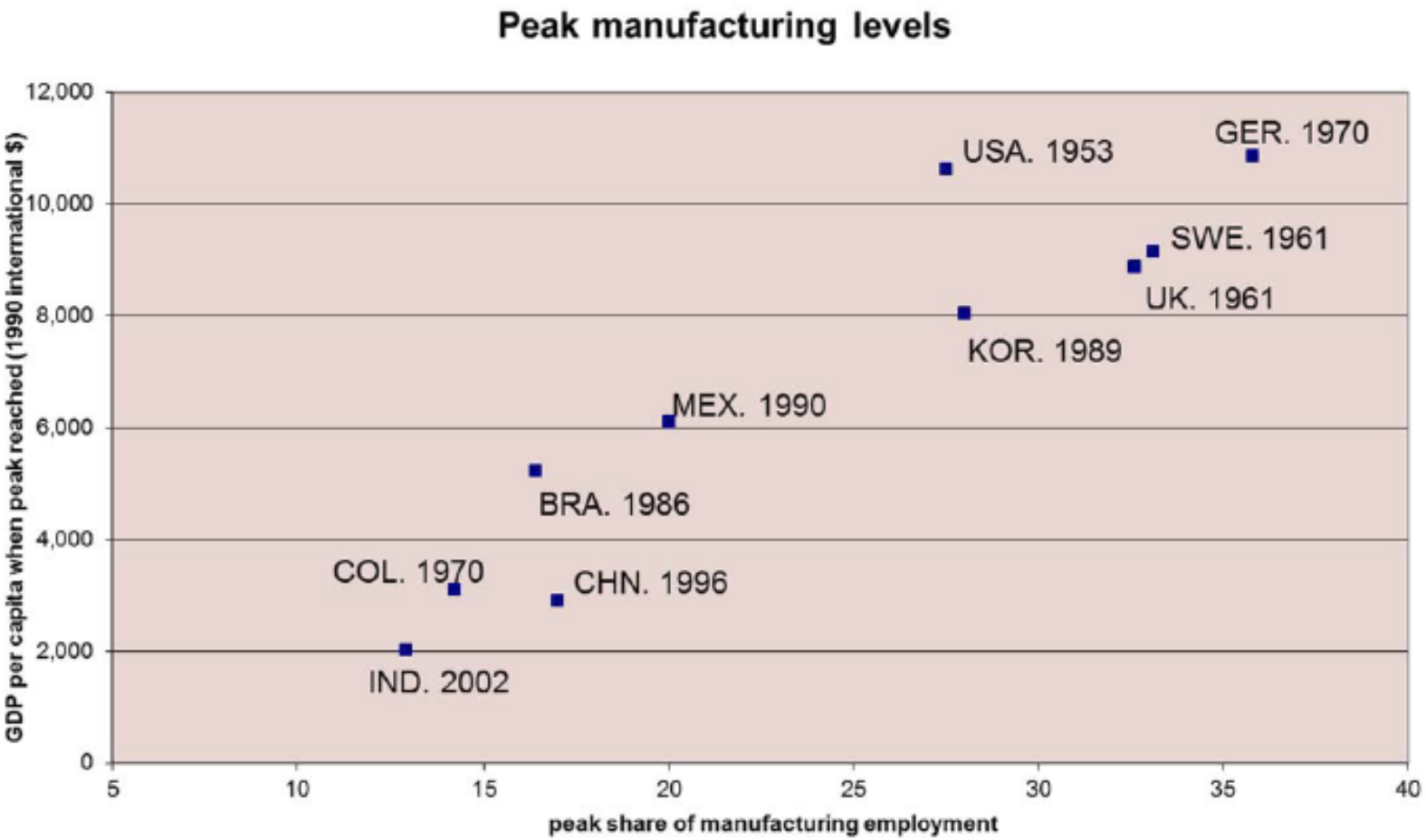
1. In Africa, much labor moved out of rural areas and the share of agriculture in employment and value added has dropped significantly since the 1960s.
2. Labor moved to urban services *rather* than manufactures. In fact, industrialization has lost ground since the mid-1970s.
3. Manufacturing industries' share of employment stands well below 8 percent, and their share in GDP is around 10 percent, down from almost 15 percent in 1975
4. Most countries of Africa are too poor to be experiencing de-industrialization, but that is precisely what seems to be taking place.
5. In Africa services have relatively low productivity as well as informal industrial sector, which is prevalent in many cases.

Rodrik (2014)

Table 2. GDP, employment, and relative productivity levels across countries and sectors, 1960 -2010

	Value added				Employment				Relative productivity levels			
	1960	1975	1990	2010	1960	1975	1990	2010	1960	1975	1990	2010
Agriculture	**37.6**	**29.2**	**24.9**	**22.4**	**72.7**	**66.0**	**61.6**	**49.8**	**0.5**	**0.4**	**0.4**	**0.4**
Industry	**24.3**	**30.0**	**32.6**	**27.8**	**9.3**	**13.1**	**14.3**	**13.4**	**4.4**	**3.7**	**3.5**	**2.6**
Mining	8.1	6.2	11.2	8.9	1.7	1.5	1.5	0.9	15.7	22.4	23.3	19.5
Manufacturing	9.2	14.7	14.0	10.1	4.7	7.8	8.9	8.3	2.5	2.8	2.4	1.6
Other industry	7.1	9.2	7.3	8.9	3.0	3.8	3.9	4.2	8.5	5.8	5.3	2.9
Services	**38.1**	**40.7**	**42.6**	**49.8**	**18.0**	**20.9**	**24.1**	**36.8**	**2.7**	**2.5**	**2.4**	**1.6**
Market services	24.5	25.5	28.1	34.0	8.8	10.3	12.9	23.5	4.5	3.4	3.0	1.8
Distribution services	*21.5*	*20.8*	*22.7*	*25.4*	*8.2*	*9.5*	*11.4*	*20.1*	*4.6*	*3.2*	*2.7*	*1.5*
Fin. and bus. ser.	*3.0*	*4.7*	*5.4*	*8.6*	*0.6*	*0.8*	*1.5*	*3.4*	*6.1*	*8.9*	*10.4*	*8.1*
Non-market services	13.6	15.2	14.4	15.8	9.2	10.6	11.2	13.3	1.8	1.7	1.8	1.3
Government services	*10.5*	*11.7*	*11.5*	*12.2*	*4.2*	*5.0*	*6.4*	*8.7*	*2.8*	*2.5*	*2.5*	*1.7*
Other services	*3.1*	*3.5*	*2.9*	*3.5*	*5.4*	*6.1*	*5.3*	*5.4*	*0.9*	*0.9*	*1.0*	*1.0*
Total economy	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**1.0**	**1.0**	**1.0**	**1.0**

Rodrik (2014)


Peak manufacturing levels
GDP per capita when peak reached (1990 international $)
12,000
10,000
8,000
6,000
4,000
2,000
0
5
10
15
20
25
30
35
40
peak share of manufacturing employment
USA. 1953
GER. 1970
SWE. 1961
UK. 1961
KOR. 1989
MEX. 1990
BRA. 1986
COL. 1970
CHN. 1996
IND. 2002

Rodrik (2014) - conclusions

Four possible strategies to sustain growth in the long run:

- favor manufacturing expansion (but poor business climate - costs of power, poor transport, corruption, regulations, security, contract enforcement, and policy uncertainty)
- favor expansion of a modern and diversified agriculture (but, again, poor business climate)
- improve productivity in services (but high-productivity services require high human capital which takes time to be accumulated)
- focus on natural resources (but then growth could be uneven, strategy very capital intensive, risks - the resource curse)

In the future, difficult to see in Africa the same kind of development observed elsewhere. Perhaps Africa will find a way to grow based on agriculture and services, perhaps at a lower rates.

Agricultural growth.

Most of the poor live of agriculture in rural areas. For this reason many people believe that poverty alleviation and economic development need to pass throughout progress and growth in agriculture, especially so in Sub-Saharan Africa.
We follow Dercon (2009) and suggest that this conclusion is not necessarily true.
Consider the following "equation-less" model:

1. two-sector economy, industry and agriculture
2. two goods: shirts and food
3. crucial assumption: people will first need to have enough food before they will buy shirts
4. two groups: the poor (who own only their labor and who can afford to buy only food) and the rich (who own assets and can buy both food and shits)
5. labor market is perfectly integrated.

Agricultural growth - closed economy

Suppose the economy is closed so that shirts and food cannot be imported/exported
Consider two alternative policy interventions:
1) policy which increases productivity in the industrial sector (neutral technological progress that affects only TFP):

- shirts production goes up for the same amount of work and prices go down
- however the poor cannot benefit of the lower prices because they have just enough income to buy food. Only the rich can increase their consumption of shirts
- there is also no migration from agriculture to industry, because otherwise there would be not enough production of food besides an increasing demand $\Rightarrow$ food prices would go up and poor could not afford it any longer
- summing up, the policy would benefit only the rich.

Agricultural growth - closed economy

2) policy which increases productivity in agriculture

- more food will be produced with the same labor, the price of food decreases
- some poor might decide to start buying shirts $\Rightarrow$ shirt prices go up
- incentive to firms to expand $\Rightarrow$ wages increase to attract more labor $\Rightarrow$ wages increase also in the rural area to hold the equilibrium on the labor market
- higher wages and lower food prices will reduce poverty (benefit the poor)

Note: the two policies produce very different results because of the assumption that one cannot substitute food with shirts

Agricultural growth - open economy

only world prices matter for both shirts and food

1) productivity increase in industry
   - now food can be imported and paid with shirts. Some workers can move out of agriculture as the food production loss is compensated by imports
   - wages increase both in industry and agriculture
   - poverty reduces

2) productivity increase in agriculture
   - more food can be produced with the same labor. Prices are fixed at the international level, rural wages increase
   - new demand of shirts satisfied either via domestic or international production. Also industrial wages increase
   - poverty reduces

Agricultural growth

- In a closed economy, growth in agriculture may well be essential for poverty reduction, while industrial progress has no impact.
- In an open economy, poverty reduction can then be achieved by any source of increased domestic competitiveness relative to the rest of the world.
- in any scenario, the defining feature of poverty alleviation appears to be linked to the gradual absorption of labor by the non-agricultural sector.

Agricultural growth - Relevance for Africa

The relevance of agricultural development for Africa depends on the characteristics of the countries

- Resource-rich countries (Nigeria, Angola, Congo). Agriculture is unlikely to be an essential source of growth. Nevertheless, such an economy needs to find ways of diversifying and building up its productive capacity, and agriculture could play a role in this. In this context, efforts for intensification or diversification can have a much more pro-poor bias.
- Well-located (coastal) economies (Ivory Coast, Kenya, Ghana, South Africa), who are best placed to take advantage of world economic opportunities. Managing their comparative advantage, via labor markets, skills, regulation, and investment climate, is most essential. The role of agriculture is similar to that in an open economy: "industrial" progress is most likely the best route and a vehicle to take advantage of trade opportunities. The role of agriculture is then more subsidiary:
- Landlocked, resource-poor countries. (Ethiopia or Burkina Faso). Their risk of total marginalization relative to the world economy is highest. These economies are in practice closed economies, irrespective of active trade liberalization. Agricultural growth is then essential for both growth and poverty reduction.

Is agricultural growth achievable?

- Triggering the process of growth in rural areas is not easy.
- Some poor people will remain locked in rural poverty, whatever the growth strategy suitable for their countries.
- Especially for countries that are absolutely dependent on rural development efforts for poverty reduction, the need to unlock rural potential is crucial.
- Three instances conspire to keep some poor people in a poverty trap.
    - access to capital (credit market failure); risk (insurance market failure); and spatial externalities.

Market failures

- Credit markets failure. Since imperfect information, collaterals are asked to secure loans. The poor have nothing to collateralize $\Rightarrow$the poor are excluded from business opportunities $\Rightarrow$poverty trap (that one can escape from only by means of windfall gains)
- In a context of high risk, as it is a traditional agricultural economy, lack of insurance markets hits particularly the poor: strategies of risk management and risk coping are very costly and can generate poverty traps
- Spatial externalities: regions which stay behind suffer from the success of the others. Not only lagging regions do not get the required investment, but any capital present may well move out to capture the higher returns elsewhere.