Growth and poverty reduction in Africa in the last two decades

And how does Rwanda fare?

Andy McKay
University of Sussex

IPAR's Annual Research Conference 2011
Outline

- *The Economist*
- Recent SSA growth experience
- Recent poverty reduction arguments
- The AERC collaborative project
- Evidence on change in monetary poverty in Africa
- Change in non-monetary poverty
- Tentative explanations
- And how does Rwanda fare?
"Over the past decade the simple unweighted average of countries’ growth rates was virtually identical in Africa and Asia."

"The Economist finds that over the ten years to 2010, six of the world’s ten fastest-growing economies were in sub-Saharan Africa."

Great: so what about poverty reduction?
World’s ten fastest-growing economies*
Annual average GDP growth, %

<table>
<thead>
<tr>
<th></th>
<th>2001-2010†</th>
<th>2011-2015‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>10.5</td>
<td>9.5</td>
</tr>
<tr>
<td>Myanmar</td>
<td>10.3</td>
<td></td>
</tr>
<tr>
<td>Nigeria</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td>8.4</td>
<td>8.1</td>
</tr>
<tr>
<td>Mozambique</td>
<td>7.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>Chad</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>Mozambique</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>Cambodia</td>
<td>7.7</td>
<td></td>
</tr>
<tr>
<td>Rwanda</td>
<td>7.6</td>
<td></td>
</tr>
</tbody>
</table>

GDP growth, unweighted annual average, %

- **Asian countries**
  - China: 9.5
  - India: 8.2

- **African countries**
  - Ethiopia: 8.1
  - Mozambique: 7.7
  - Tanzania: 7.2
  - Vietnam: 7.2
  - Congo: 7.0
  - Ghana: 7.0
  - Zambia: 6.9
  - Nigeria: 6.8

*Excluding countries with less than 10m population and Iraq and Afghanistan
†2010 estimate
‡Forecast

Sources: The Economist; IMF
Africa’s hopeful economies
The sun shines bright
Recent SSA growth experience

Substantial recovery in growth in Africa since mid 1990s (GDP increase c. 30%)
Recent growth experience (2)

- Focus on biggest 24 SSA countries: 91% of population
- WDI data, mostly local currency GDP
- Mixed experience
  - Some richer countries fared badly and some poorer ones quite well
GDP in constant USD values
GDP in constant USD values
Recent growth experience (3)

6 cases GDP p.c. lower in 2010 than 1990, but only two disastrous cases

Per capita GDP since 1990: declining countries

- Cameroon
- Congo DR
- Cote d'Ivoire
- Madagascar
- Niger
- Zimbabwe
Recent growth experience (4)

10 cases where GDP p.c. in 2010 is \( \geq 50\% \) bigger than 1990
Recent growth experience (5)

Why growth recoveries in many cases?

- Commodities of course
- But many other factors
  - Growth in other sectors: trade, telecom, manufacturing
  - End of many conflicts
  - Greater macroeconomic stability
  - Foreign investment and other private inflows
  - Some microeconomic reforms (business environment)
  - Urbanisation
  - Fertility transitions etc.
Recent arguments on poverty in Africa

Sala-i-Martin and Pinhovskiy (2010) use national accounts data (GDP from PWT) to argue that “Poverty is falling in Africa ... much faster than you think” (NBER Working Paper)

- Fast growth and falling inequality
  - But questions on reliability of underlying method
Baseline $1/Day Poverty Rate, Africa 1970-2006
Recent arguments on poverty

(2)

- Young uses DHS data to show impressive progress in Africa
  - And argues for gross inconsistency of DHS data and PWT

- But what does comparable standard household survey data tell us?
The AERC Growth-Poverty Nexus Project

- Collaborative AERC project from 2008-11
- Framework papers on specific themes: growth-poverty links, agriculture, labour markets, informality, social protection, spatial patterns, globalisation
- 13 country studies on 11 countries:
  - Benin, Burkina Faso, Cameroon (2), Chad, Ethiopia, Ghana, Guinea, Kenya, Malawi, Nigeria (2), Senegal
AERC project (2)

- Final workshop May 2011, finalised papers summer 2011
- Country studies generally focused on one theme
- Required focus on consistent poverty data sets and measures
- National poverty lines, not dollar a day
Evidence on change in monetary poverty

Seek to synthesise some results from AERC project

- Monetary data for 10 countries: poverty falls in all, not always monotonic
  - Big falls in Ghana and Senegal
- Where we have severity, that falls (esp. Guinea)
- Where we can disaggregate U-R, rural poverty falls, urban poverty often rises
- Where we have inequality, it falls in most cases
Severity of poverty in selected countries

<table>
<thead>
<tr>
<th>Year</th>
<th>Burkina Faso</th>
<th>Cameroon</th>
<th>Ghana</th>
<th>Guinea</th>
<th>Senegal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014/95</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002/03</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Inequality in selected countries (Gini coefficient, except Ghana: GE1 measure)
Change in monetary poverty (2)

- Can broaden story to look at poverty trends in 9 more of top 24
  - Comparable Data on 18/24; 71% of SSA population

- Monetary poverty falls in most cases, except Côte d’Ivoire, and Zambia over 1990s
  - Large magnitudes also in Mozambique and Uganda over these periods, but small elsewhere
Changes in non-monetary poverty

Focusing first on AERC project countries

– where examined, non-income poverty usually falling: Benin, Cameroon, Chad, Ghana, Guinea, Nigeria

– Education improves a lot almost everywhere

– DHS data shows improvements in some indicators
  • Infant mortality
  • Not always malnutrition
Infant mortality: selected years
Changes in non-monetary poverty (2)

Extending to other countries of top 24

- Mortality rises in Côte d’Ivoire and Zimbabwe, falls elsewhere, often by large magnitudes (e.g. Madagascar, Rwanda, Tanzania)

- Malnutrition modestly falls in recent years most places, but not Zimbabwe
Summary of poverty evidence

In summary in relation to monetary poverty:

- Substantial reductions in Ghana, Uganda, Senegal, Mozambique?
- Reasonable falls in Burkina Faso, Cameroon, Ethiopia, Guinea, Malawi, Mali, Nigeria
- Modest falls: Rwanda, S. Africa, Tanzania
- Little change: Madagascar
- But increases in Côte d’Ivoire, Kenya, Zambia
Summary of poverty evidence (2)

- Monetary poverty does seem to be falling, but usually not at rates suggested by SiM&P
  - And it is not falling a lot everywhere
- DHS story is positive but not unambiguously so
- Evidence of significant progress, but not to extent of SiM&P – and this is much better data
Explanations for poverty reduction (AERC project)

Different country studies took different focus and have different explanations

- Labour: Cameroon1, Ethiopia
- Agriculture: Burkina Faso, Malawi
- Spatial: Cameroon2, Ghana
- Institutions: Kenya
- Public spending: Chad
- Resources: Guinea
- Migration: Senegal
- Non-income outcomes: Nigeria1
- General: Benin, Nigeria2
Beneficial impact of innovative agricultural policies where studied (input subsidies, new seeds), but not reaching the poorest (Burkina, Malawi)

Evidence of widening spatial inequality in some cases (Cameroon, Ghana)

But timescale?

Significant poverty reduction among formal sector wage earners (Cameroon, Ethiopia)
Explanations (3)

- Institutions help explain differential district performance (Kenya)
- Migration can be important (Senegal)
- Public spending often not very effective instrument of poverty reduction in resource rich economies (Chad, Nigeria)
The omitted countries

- **Monetary poverty:** Angola, Chad, DR Congo, Niger, Sudan, Zimbabwe
- **Non-monetary poverty:** Angola, DR Congo, Sudan

- Expected to be less positive stories in most cases (20.1% of population in former case, 15.0% in latter)
  - Qualifies SiM&P story more
Explanations: the role of growth

- Associations between good growth performance and poverty reduction (and their opposites)
  - More effective where inequality fell e.g. Senegal
- In lower growth cases falling inequality has contributed to poverty reduction
  - But rising inequality limited poverty reduction in Rwanda, S. Africa, Uganda
- Non-income outcomes less strongly associated with growth
Other factors are likely to matter for non-monetary outcomes:

- Effectiveness of public spending and service delivery
- External aid (similar issues)

Non-monetary improvements likely to be good for future growth and monetary poverty reduction
Poverty changes

- Growth has been important, especially in relation to monetary poverty
- So has been the ending of conflict or its continuing presence
- Inequality has not systematically increased
- Non-monetary outcomes often differ from monetary ones
- Omitted countries likely less positive
So how does Rwanda fare?

- Rwanda among countries that have raised its GDP by 50% between 1995 and 2010
- Rwanda relatively poor in East Africa, but quite good growth performance
- Monetary poverty fell modestly between 200/01 and 2005/06 despite growth
  - Increase in inequality
  - Increase in food prices cf. non-food
  - Disappointing agric performance
GDP in constant prices, 1995=100

Local currency units

- Ethiopia
- Kenya
- Rwanda
- Tanzania
- Uganda
So how does Rwanda fare? (2)

But more impressive performance in non-monetary indicators

- Big expansion of education, even if quality may still be an issue
- Impressive reductions in infant and child mortality: better progress than some neighbouring countries
- Also reasonable progress in malnutrition
Figure 4. Trend in childhood mortality rates, RDHS 2005, RIDHS 2007-08, and RDHS 2010
## Rwanda health outcomes

<table>
<thead>
<tr>
<th>Year</th>
<th>Infant Mortality</th>
<th>Stunting</th>
<th>Stunting</th>
<th>Underweight</th>
<th>Underweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>85</td>
<td>48</td>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>107</td>
<td>43</td>
<td></td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>86</td>
<td>45</td>
<td>51</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>2007/08</td>
<td>62</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>50</td>
<td></td>
<td>44</td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>
Rwanda mortality compared to elsewhere in East Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethiopia</td>
<td>97</td>
<td>77</td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td></td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>Rwanda</td>
<td>107</td>
<td>86</td>
<td>50</td>
</tr>
<tr>
<td>Tanzania</td>
<td>99</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Uganda</td>
<td>89</td>
<td>75</td>
<td></td>
</tr>
</tbody>
</table>
So how does Rwanda fare? (3)

- Impressive and rapid reductions in fertility
- Improved health care practices
So how does Rwanda fare? (3)

- Impressive and rapid reductions in fertility
- Improved health care practices
Figure 2. Total fertility rates, RDHS 2005, RIDHS 2007-08, and RDHS 2010

- RDHS 2005: 6.1
- RIDHS 2007-08: 5.6
- RDHS 2010: 4.6
Figure 5. Antenatal care by skilled provider, protected against neonatal tetanus, delivery assisted by skilled provider, and delivery in a health facility, RDHS 2005, RIDHS 2007-08, and RDHS 2010.
Figure 3. Contraceptive prevalence among women currently in union age 15-49, RDHS 2005, RIDHS 2007-08, and RDHS 2010.
In summary

- Impressive growth recovery in SSA
- Progress on poverty reduction (monetary and non-monetary) across most countries
- But some faster than others: what can we learn from successes?
- In Rwanda impressive progress in education and health, esp. last 5 years
- Awaiting results on monetary poverty ...
In summary (2)

- There is substantial opportunity for Rwandans to work on these questions
  - Good quality data and accessible
- Opportunities for greater Rwandan participation in AERC and similar networks
- At times helpful to have regional and continent wide perspective