Trade and Financial Flows in Africa’s Growth: Some implications for the environment

SESSION

ECONOMIC AND TRADE COOPERATION BETWEEN ASIA AND AFRICA

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The Context: An ecologist perspective

Planetary processes entering global risk zone:
1. Land use change
2. Loss of biodiversity
3. Climate change, loss of biosphere integrity
4. Overload of nitrogen

⇒ Sub-Saharan Africa (SSA) is participating mostly in 1. & 2.

...but population < $1.25/day:

Planetary Boundaries

Trade/FDI and Africa’s growth path

Alternatives
○ ‘Eco-modernist manifesto’ (industrialize first)
○ SDGs (do as we tell not as we did it !)
Can (will) Africa replicate China (and Asia)?

....via comparative-advantage-based industrialization built around evolving physical and human endowments

Source: Lin and Wang (2014)
SSA needs more than growth:

⇒ DEPTH indicator: diversification of export + export competitiveness + productivity + technology growth + human well-being

ACET (2014) pillars 4 pathways:

1. Labor intensive Mfg (... but early employment peak?)

2. Agro-processing

3. Tourism

4. Oil, gas, minerals
Challenge 1: Prospects for labor-intensive industrialization appear bleak
(The Economist (October 2014), Rodrik (2015))

Off peak
Share of employment in industry at peak industrialisation*, %

« From stuff to fluff »
Can Africa reach middle class status by the development of industry?

Sources: Amrit Amirapu & Arvind Subramanian; World Bank

* Highest share of people employed in industry
Growth has picked up but dependency on resources persists so economies are not diversifying... and the elasticity of poverty reduction to growth is low.

Share of Primary exports vs. GDP growth

1990-95 average

2006-13 average

« Countries get rich by producing the goods consumed by the rich »

...Controlling for standard determinants of growth, more diversified countries have higher subsequent growth.
Population Growth and Poverty

Population \( \$2.5 < y_p < \$10 \) (BAU 2000-10) (2011 PPP data)

Headcount ratio: \( y_p < \$1.25 \) (2006 PPP data)

Source: Ferreira (2014)

Source: Based on estimates from Edwards and Sumner (2015)
Challenge 2: Poverty and the Environment

Resource dependancy and ANNI in SSA

**Adjusted net national income** is Gross National Income minus consumption of fixed capital and natural resources depletion.

**Primary product export** refers to agriculture raw materials, food, fuel, ore and metal commodities to total merchandise exports.

The sample includes 39 SSA countries from **1996-2000**, 40 SSA countries from **2001-2005** and 38 SSA countries from **2005-2013**.

27/38 countries have >70% of exports in primary products ⇒

Source: World Bank indicators
China in Africa: Trade and FDI

Sub-Saharan Africa: Exports by partner

<table>
<thead>
<tr>
<th>Year</th>
<th>Sub-Saharan Africa</th>
<th>Advanced (non-euro) and others</th>
<th>India</th>
<th>China</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>2.0</td>
<td>6.5</td>
<td>11.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>3.4</td>
<td>5.5</td>
<td>8.8</td>
<td>2.2</td>
<td>6.6</td>
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Investment in infrastructure
China’s share: 4.5% (2007) to 13.5% (2012)

Sectoral decomposition of Chinese flows OFDI in Africa (by the end of 2011)

- Mining: 31%
- Manufacturing: 15%
- Building industry: 16%
- Finance: 20%
- Others: 3%
- Leasing and business services: 5%
- Scientific research, technology service and geological prospecting: 4%
- Wholesale and retail: 1%
- Real estate: 1%
- Agricultural, forestry, animal husbandry and fishing: 4%

Source: Office of the State Council (2013)
China’s Aid to Africa

• China accounts for more than 10% of total ODA flows in 1/3 of African countries

⇒ Results from satellite data

• Aid is not more politically motivated than aid provided by Western donors (Dreher and Fuchs (2012))

• Current political leaders’ region of birth get larger financial flows (not so for WB lending). Result in line with principle of non-interference (Dreher et al. (2015)).

Source: Adam et al. (2015)
China-financed projects in hard-infrastructure addressed bottlenecks.
In Western Kenya, there are still unconnected households even though there are electricity lines nearby.

**High quality walls** are those made of brick, cement or stone

**Low quality walls** are defined as those made of mud, reeds, wood or iron.

Quality walls play an important role in the electrification rate as it improves electricity access.

**Distance and connection to the power grid in Kenya**

Source: Lee and *al* (2014)
Will Africa avoid the «environmental trap»?
(1) Conflicts occurrence becomes more important in Africa when climate resilience is lower.

(2) Africa was subject to active conflicts (interstate wars, civil war, internationalized civil war) during 1960-2008.

(3) Violence over access to livelihood resources in SSA has increased between 1990–2009.

---Number of conflicts related to food, water and subsistence

---and number of conflicts related to environmental depletion.

Source: Straus (2012) and data from Social Conflicts in Africa.
How will Africa’s growth interact with the environment?

Among SDGs, 3 are referring to ENVIRONMENT (while only 1 under MDGs)

<table>
<thead>
<tr>
<th>MDG</th>
<th>SDG</th>
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<tbody>
<tr>
<td><strong>Goal 7: Ensure environmental sustainability</strong></td>
<td><strong>Goal 13:</strong> Take urgent action to combat climate change and its impact.</td>
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<td></td>
<td><strong>Goal 14:</strong> Conserve and sustainably use the oceans, seas and marine resources for sustainable development.</td>
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<td></td>
<td><strong>Goal 15:</strong> Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt biodiversity.</td>
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Among SDG indicators 11 suggested are environmental indicators.
Regional Forest depletion and GDP growth
(Decadal growth rates—deforestation in red)

Land conversion in forested countries emitted **5.4 gigatons** a year from 2008 to 2012 (larger than the emissions from the entire European Union in 2011).

⇒ Engelman (2015): for less than $2 billion a year, via reforestation, global CO2 emissions could be cut **by more than the amount emitted by the United Kingdom each year** ....

Source: Deforestation from Food and Agriculture Organization, Global Forest Resources Assessment and GDP per capita (constant 2005 US$) from World Bank.
Conclusion

Can “safeguard vs. infrastructure” dilemma posed by the objective to grow fast (7% annual GDP growth for LDCs) be avoided?

➔ Follow the « eco-modernism » manifesto?
http://static1.squarespace.com/static/5515d9f9e4b04d5c3198b7bb/t/552d37bbe4b07a7dd69fcdbb/1429026747046/An+Ecomodernist+Manifesto.pdf

« About 80% of New England is today forested compared with about 50% at the end of 19th century.”

...but also follow the 12 precepts of the natural resource charter

➔ http://www.naturalresourcecharter.org/precepts
References


References


References

