Structural transformation and the post-2015 development agenda for LDCs

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Overview - 3 issues

1. Structural transformation and the post-2015 development agenda – why is it important?

2. Measuring structural transformation – where does it happen?

3. Means of implementation / supporting economic transformation – how to support it?
Talk based on 3 projects

- DEGRP – DFID/ESRC growth Research Programme
- SET – Supporting Economic Transformation
1) Structural transformation and the post-2015 agenda
General issues

• Many LDCs have experienced economic growth without structural transformation, with risks for sustained growth and quality jobs in the future.

• Impossible to make sustained development progress without changes in (factor) productivity.

• Increases in narratives on structural transformation in Africa/LDCs (UNCTAD, AfDB, UNECA, ACET, etc) and outside

• MDG experience – attention has focused mostly on delivery of aid to social sectors, rather than working on the enablers of development
Sustainable development transformation (ERD 2014/15 preparatory work)
There is a rebalancing of the agenda towards economic, social and environmental aspects.

The enhanced economic content of the OWG post-2015 document from August 2014 reflects an improved focus, exemplified by:

- Goal 8. *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*
- Goal 9. *Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation*

“This may reflect the emphasis of many countries on the primacy of economic transformation” (Bhattacharya, 2014)

UN SG synthesis report (4 December 2014):

- “necessities of economic transformation” in first sentence
- Prosperity dimension: to grow a strong, inclusive and transformative economy
2) Measuring aspects of innovation, productivity change and economic transformation
Where does productivity change happen?

- **Across sectors**: moving labour from agriculture to manufacturing and services helps productivity change (DEGRP evidence from Mcmillan and Rodrik, 2011; Mcmillan 2014; Gollin et al, 2014)

- **Productivity change within sectors and within firms**:  
  - productivity differentials across firms in a sector (Bloom and Van Reenen; Hsieh and Klenow)  
  - within firms across production lines (DEGRP evidence: Woodruff, Serneels)

- **Other**: innovation under the radar screen (DEGRP evidence from Fu), export diversification (eg IMF)
Labour moved from low productivity agriculture to higher productivity sectors, Africa 2000-2010

Correlation Between Sectoral Productivity and Change in Employment Shares in Africa

$\beta = 24.7129; \text{t-stat} = 0.91$

*Note: Size of circle represents employment share at beginning of period
**Note: $\beta$ denotes coeff. of independent variable in regression equation:
$\ln(p/P) = \alpha + \beta \Delta \text{Emp. Share}$

Source: Authors' calculations.

Mcmillan (2014)
Structural change accounts for half of Africa’s productivity growth after 2000, rest is within sector productivity change.

Decomposition of productivity growth by country group

1990-99

2000-10

Mcmillan (2014)
Productivity varies within factories; Bangladeshi garments: (most productive vs least productive line differs by $2/3^{rd}$)

Across factories:
$75^{th} / 25^{th}$: 1.95 ; $90^{th}/10^{th}$ = 2.79

Within factory (across lines)
$75^{th} / 25^{th}$ = 1.22; $90^{th}/10^{th}$ = 1.64

Samples: Across: 5 factories with most homogenous data

Woodruff (2014) in DEGRP meeting
IPOA index for structural transformation

LDC structurally transforms itself with:

- Higher **agricultural productivity** by achieving a higher cereal yield;
- Higher share of **manufacturing** VA;
- Increases **GDP per capita**
- Increases **GFCF**
- Increases in the share of **ICT** in services exports;
- Greater product **diversification**;
- Greater number of **export markets**;
- Decreasing infant **mortality** rate;
- Better **telecommunications** infrastructure;
- More developed **financial markets**.

**Source:** in *LDC IV Monitor (led by Dr Bhattacharya)*
IPOA index for structural transformation, LDCs compared to MIC average (2005-2008)

Source: Basnett, Keane and te Velde (2014)
3) Means of implementation / supporting economic transformation (SET)
Supporting economic transformation (recent policy insights)

- **Te Velde (2003, 2013a, 2013b, 2014)**
  - facilitating intersectoral allocations of labour (e.g. SEZs, DFIs, IPAs),
  - improving competition within sectors, and
  - firm level training for improved capabilities
- **Page (2012)** - tilting towards exports, supporting agglomerations, building firm capabilities.
- **Hausmann (2013, 2014)** - complexity / pragmatic view of SEZs, development banks and IPAs
- **Sutton (various)** - role for IPAs in fixing broken wheels.
- **Lin (2011)** - 6 steps for growth identification and facilitation
- **Rodrik (2013)** - unconditional manufacturing convergence so facilitate labour flows into manufacturing
- **Hsiao and Klenow (2009)** - reallocation of resources across firms in sector
- **Bloom and Van Reenen (2012)** - quality of management is key for firm productivity suggesting management training is important
- **Woodruff (2014)** - productivity differs across product lines; supervisor training increases performance
Assessing 3 policy tools

1. Industrial policy / SEZs as part of a strategic vision for transformation (Kingombe and Te Velde, forthcoming)

2. Supporting effective SBRs (te Velde, ed, 2013 for DEGRP; Treebhoohun, ERD forthcoming)

3. Incentivising Development Finance Institutions (Jouanjean and te Velde, 2013) – a more transformative way of using aid
Towards more employment creation and structural transformation
The evidence on SEZs

Success and failures: Policy and context matter
- Take global conditions into account
- Place SEZs in growth strategies
- Use best-practice implementation

Structural transformation

Employment creation
- Singapore
- Malaysia
- Costa Rica
- Dominican Republic
- Mauritius

Kenya
- Madagascar
- Ghana
- Lesotho

Tanzania
- Nigeria
- Malawi
- Senegal
Characteristics behind effective SBRs

- Institutional (Trust: Transparency, Reciprocity, Credibility)
- Capacity (in public and private sector)
- Embeddedness, but competition not collusion

→ Better measured SBRs raise economic growth and firm productivity
Effective SBRs helped engineer structural transformation in Mauritius.
Using DFI for employment and productivity impacts

• Focus often on direct jobs - but it should also include jobs indirectly via transformation / productivity change
  – Monitoring direct jobs (some methodological differences, but easy to explain)
  – Estimating indirect jobs (input-output models)
  – (gu)estimating second-order growth effects (this works through transformation)

• Different methods exist for estimating job effects (counting, input-output models, econometric, etc)

• ODI micro-level study of Bugoye hydropower plant: PIDG supports electricity generation and jobs indirectly via productivity effects
### Broad assessment of DFI impact (ODI)

<table>
<thead>
<tr>
<th>Sector of DFI investment</th>
<th>Direct job effects</th>
<th>Indirect job effects (static and dynamic)</th>
<th>Induced and second order growth effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing such as garments</td>
<td>Very important (but depends on type of manufacturing)</td>
<td>Potentially important</td>
<td>Less important</td>
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<tr>
<td>Tourism</td>
<td>Medium important</td>
<td>Very important</td>
<td>Less important</td>
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<tr>
<td>Infrastructure</td>
<td>Less important</td>
<td>Mostly temporary</td>
<td>Very important</td>
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<tr>
<td>Agriculture</td>
<td>Very important</td>
<td>Less important</td>
<td>Less important</td>
</tr>
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DFIs promote labour productivity
Jouanjean and te Velde (2013)

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<thead>
<tr>
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<th>Effects on labour intensity</th>
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<tr>
<td></td>
<td>Effect of the treatment (minus constructed counterfactual) after one year</td>
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<tr>
<td></td>
<td>Effect of the treatment (minus constructed counterfactual) after two years</td>
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<td>Effect of the treatment (minus constructed counterfactual) after three years</td>
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<td>Treated</td>
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<td>-0.033</td>
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<td>(0.221)</td>
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<td>(2)</td>
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<td>-0.072*</td>
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<td>(0.062)</td>
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<td>(3)</td>
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<td>-0.132**</td>
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<td>(0.013)</td>
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<td>Constant</td>
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<td>(0.490)</td>
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<td>(0.232)</td>
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<td>-0.053</td>
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<td>(0.290)</td>
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<td>Observations</td>
<td>244</td>
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<td>210</td>
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<td>171</td>
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DFI has 13% effect on labour productivity:
Conclusions
• Keep up the attention to economic transformation issues in post-2015 AND follow up

• Need to understand and measure economic transformation (collect available information sources and expand)

• Putting SET into practice. This requires country / sector / firm specific attention. Empirical work, political economy, learning, iterative approach etc. Also encouraging global governance / policy coherence / finance.