MEASURING AND TRACKING ECONOMIC TRANSFORMATION

The African Transformation Index (ATI)

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Why?

- African economies have remained mainly producers and exporters of primary commodities while countries in other developing regions have made progress in the production and exports of manufactures and high value services.

- ACET aims to promote economic transformation in Africa.
Economic transformation

Growth

with

Diversification
Export competitiveness
Productivity
Technology
Human well-being
African Transformation Index

Indicators

1. Economic diversification

- *Production Sector Diversification*: Share of manufacturing value added in GDP (D1)
- *Exports Commodity Diversification*: One minus the share of top 5 exports (D21)
- *Exports Sector Diversification*: Share of manufacturing and services exports in total exports (D22)
2. Export competitiveness

Country’s share of world non-extractives exports divided by country’s share of world non-extractives GDP. (Equivalent to the exports-to-GDP ratio of the country divided by the world’s exports-to-GDP ratio—both ratios excluding extractives)
African Transformation Index
Indicators

3. Productivity

• Manufacturing: MVA per manufacturing worker (constant 2000 US$) (P1)

• Agriculture: Cereal yield (kg per hectare) (P2)
4. Technology

- **Production**: Share of Medium and High Technology products in manufacturing value-added (MVA) (The Lall approach is used for the technology decomposition of MVA) (T1)

- **Exports**: Share of Medium and High Technology products in exports (The Lall approach to technology decomposition of commodity exports is used) (T2)
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Indicators (cont’d)

5. Human economic well-being (income, employment, health)

- *Level of GDP per capita (US$ PPP 2005) (H1)*
- *Ratio of formal sector employment to the labor force (H2)*
Normalization of sub-indicators

\[ NCS = \left[ \frac{RCS - \text{Min} (RCS)}{\text{Max} (RCS) - \text{Min} (RCS)} \right] \times 100 \]  \hspace{1cm} (2)

**Where:**

- **NCS** = Normalized Country Score (on sub-indicator)
- **RCS** = Raw Country Score (on sub-indicator)
- **Min (RCS)** = Minimum RCS among the group of countries (on sub-indicator)
- **Max (RCS)** = Maximum RCS among the group of countries (on sub-indicator)

**Normalization implies we evaluate performance over time by change in Ranks**

NCS = 0 when RCS = Min (RCS)

NCS = 100 when RCS = Max (RCS)
African Transformation Index

Specification of main indicators from sub-indicators

- **(D)** Economic Diversification = \((d1)\cdot D1 + (d2)\cdot D21 + (d3)\cdot D2\); \(d1+d2+d3 = 1\)

- **(E)** Export Competitiveness = \( (e)\cdot E \); \( e = 1 \)

- **(P)** Productivity = \((p1)\cdot P1 + (p2)\cdot P2 \); \(p1 + p2 = 1\)

- **(T)** Technology = \((t1)\cdot T1 + (t2)\cdot T2 \); \(t1 + t2 = 1\)

- **(H)** Human economic well-being = \((h1)\cdot H1 + (h2)\cdot H2\); \(h1 + h2 = 1\)

- **Countries can be compared on each main indicator. Normalization implies we evaluate performance over time by change in Ranks**
African Transformation Index (ATI)

Constructed from the 5 main economic transformation indicators.

\[ \text{ATI} = (d)D + (e)E + (p)P + (t)T + (h)H \]

where \( d + e + p + t + h = 1 \)

Ranks African countries on economic transformation at a given year (2000 = \( \text{Avg} \) (1999-2001), and 2010 = \( \text{Avg} \) (2009-2011))
How do countries compare on each indicator of transformation, and on the composite index of the indicators?

Over time, how does a country’s performance on each indicator and on the composite indicator change?

Normalization implies we evaluate performance over time by change in Ranks.
The African Transformation Index
Example---Economic Diversification (D)

African Transformation Index
Year= 2010
Diversification

AFRICAN CENTER FOR ECONOMIC TRANSFORMATION
The ATI difference

Focused on outcomes

ACET's advisory work provides follow-up

Growth + DEPTH are essential in thinking about economic transformation

Poor performance on the desired outcomes to prompt policymakers to ask questions and begin to look for answers appropriate to their context

General notions about “good” policies and “best practice” institutional reforms are useful, but country context matters
For more on ATI—Stay Tuned to The African Transformation Report (Feb, 2014)

Informed by country case studies (Botswana, Burkina Faso, Cameroon, Ghana, Ethiopia, Kenya, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, South Africa, Tanzania, Uganda, and Zambia)
African Transformation Report
Launch—Feb. 2014
www.acetforafrica.org