Thoughts on designing an external shock vulnerability index for LLDCs

Matthias Bruckner
Committee for Development Policy Secretariat
Department of Economic and Social Affairs
United Nations
Outline

1. Designing an ESVI - basic considerations
2. Experience with the economic vulnerability index
Purpose of an ESVI

• The purpose of an external shock vulnerability index (ESVI) is to provide early warning to LLDCs.
  • GA/RES/66/214
  • ‘Forward-looking’ vulnerability index

• Other purposes of vulnerability indices
  – Measurement of vulnerability
  – Identification of countries (e.g., LDC indices)
  – Development of policies to reduce vulnerabilities
Defining vulnerability

- **What is vulnerability?**
  - Various definitions exist
  - **Definition used by CDP:**
    - **Risk of being harmed by exogenous shocks**
      - Being harmed: negative development impact
    - Vulnerability is function of:
      - Magnitude and frequency of shocks
      - Exposure to shocks
      - Resilience (Capacity to react to and cope with shocks)
Vulnerability and early warning

- **Exposure** and **resilience** are critical for understanding vulnerability.
- **Reducing exposure** to shocks and **building resilience** are important for overcoming vulnerabilities.
  - Highly policy relevant
  - **Exposure and resilience** not only influenced by countries affected, but also by global governance
- **Reducing shocks** is also important
  - Many shocks cannot be eliminated
  - This holds in particular at the national level
Vulnerability and early warning

- High exposure and low resilience give permanent warning to LLDCs
  - Warning before shocks occur
- Increasing exposure and lower resilience warn about rising vulnerability

An ESVI only for early warning could concentrate on shock indicators, but would miss many key vulnerabilities
Coverage of issues

• **What issues** should the ESVI cover?
  • Shocks specific to LLDCs
    • Transit shocks
  • Trade shocks in general *(focus of APoA)*
  • Environmental, social, political shocks?

• **Vulnerabilities are interrelated**
  – Example: Increasing food imports
    • Increase vulnerability to foreign supply and price shocks on world markets
    • Decrease vulnerability to domestic weather and climate shocks
Other basic questions

- Which **countries** should the ESVI cover?
  - Only **LLDCs** or also other (developing) countries?

- Should the ESVI be **identical across countries**?
  - Facilitates **comparisons and learning**
  - Could exclude issues/data that are important in some countries
Designing an ESVI

- General criteria for all components
  - Methodological soundness
  - Timeliness
  - Data availability and reliability
  - Data comparability

- Other general issues
  - Conversion of indicators into indices
    - Outlier, ‘skewed’ distributions, ...
  - Aggregation method
    - Simple average, weighted average, geometric average, ...

An ESVI needs testing before implementation
Designing and using an ESVI

- Usefulness of an ESVI depends only partially on its individual components
- Composition of an ESVI matters as well

- It is important to link an ESVI to policy
  - National level policy processes (development planning, sectoral policies)
  - Regional policies (transit and others)
  - International policy
Economic vulnerability index

- The **EVI** is one of three criteria used by the CDP for identifying LDCs
  - Other criteria are **national income** and **human asset index**
- **EVI** in place since **1999**
  - Builds on earlier criteria on economic diversification
  - Indicators within EVI have evolved over time
Indicators of the LDC criteria

LDCs are low-income countries suffering from the most severe structural impediments to sustainable development.

- GNI per capita
- Human Asset Index (HAI)
  - Percentage of population undernourished
  - Under five mortality rate
  - Gross secondary enrolment ratio
  - Adult literacy rate
- Economic Vulnerability Index (EVI)
  - Population
  - Remoteness
  - Merchandise export concentration
  - Share of agriculture, forestry and fisheries in GDP
  - Share of population in low elevated costal zones
  - Victims of natural disasters
  - Instability of agriculture production
  - Instability of exports of goods and services
Economic vulnerability index

- EVI measures only **structural vulnerability**
  - Excludes vulnerability due to current or recent political choices
  - Linked to purpose of LDC category to provide targeted support
- EVI covers mainly **trade shocks** and **environmental shocks** (natural hazards, and climate change)
Economic vulnerability index

- EVI measures **shocks and exposure**
  - General resilience covered by other criteria
  - Some exposure indicators also cover resilience
  - Resilience to specific shocks often policy dependent
  - Shocks are measured at the socio-economic level

- Export instability rather than cause of instability (external demand drop, commodity price change, ...)

- Victims of natural disaster rather than weather or geophysical event statistics
Thank You

Contact: Matthias Bruckner
Committee for Development Policy Secretariat
Department of Economic and Social Affairs
United Nations

email: brucknerm@un.org