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Topic

TRADE POLICY AND AFRICAN PARTICIPATION IN GLOBAL VALUE CHAINS : DOES TRADE FACILITATION MATTER?

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Background and Problem 1/8

- Over the past two decades, trade policy aimed at reducing tariff/non-tariff barriers and increasing integration, as well as the revolution in ICT, have affected production (Del Prete et al., 2018),

- As a result, trade, especially in intermediate goods, and foreign direct investment have increased considerably,

- These developments are closely linked to the emergence of Global Value Chains (GVCs),

Background and Problem 2/8

- GVCs is a concept that encompasses all the activities required to bring a good to the final consumer, from product design to distribution (Cattaneo et al., 2010)

- Moreover, through the phenomenon of upgrading, GVCs can contribute to:

  - ✓ the industrialization,
  - ✓ economic transformation and
  - ✓ sustainable development of countries (UNCTAD, 2013; African Development Bank (AfDB) et al., 2017).

Background and Problem 3/8

- The current literature on GVC suggests uneven development of economic activities in the world:

  - with increasing integration of Northern countries and
  - increasing marginalization of those in Sub-Saharan Africa and other parts of the South (Ahmad and Primi, 2017).

- Unlike Asia, particularly China, Sub-Saharan Africa (SSA) has so far not been able to intercept major changes in business models, nor has it been able to massively enter production networks.

Background and Problem 4/8

- The participation of SSA countries in global value chains is still limited and mainly in low value-added phases.

- Statistics at the global level, show that:
  - between 1991 and 2012, Africa adds value to only **14%** of its exports, compared to
  - **27%** for emerging Asia;
  - 31% for developed countries (IMF, 2015; Dollar et al., 2017).

- Regionally, intra-African value-added trade is low (**9%),**
  - compared to **45%** in Asia
  - **18%** in Latin America (Slany, 2017).

Background and Problem 5/8

- Further, within GVC, goods may be traded across borders multiple times as intermediates and then as final products, further amplifying trade costs (Moïsé, and Sorescu, 2015)

- Trade facilitation (TF) is an important component of trade costs (Arvis et al., 2016),

- In its broader sense, **TF** refers to all measures that reduce trade costs other than lowering tariffs (Shepherd, 2016). These costs are related to hard and soft infrastructure

Background and Problem 6/8

- In early theories of international trade, goods were considered to be produced in one place and then exported;

- Over time, the new GVC theories assume that the production of goods and services takes place along a global supply chain (Baldwin and Venables, 2013);

- Classical theory highlights the role of trade costs, in international trade (Ricardian model, Heckscher-Ohlin-Samuelson model):

Background and Problem 7/8

- Empirically, most studies on trade facilitation only address his effects on:

  - trade in final goods (Martínez-Zarzoso and Márquez-Ramos, 2008; Wilson et al., 2003; Moïsé and Sorescu, 2013; Melo and Wagner, 2018)
  - without considering trade in intermediate or value-added goods.

- Moreover, in sub-Saharan Africa, most of studies on GVCs focuses on:
  - on firm- and industry-level case studies in selected countries (Ponte and Ewert, 2009; Riisgaard, 2009; Riisgaard and Hammer, 2011),
  - on different sectoral policies that can support deep and rewarding participation in GVCs:

    ✓ including trade in natural resources (Ferreira and Braun, 2016),

    ✓ trade in industrial goods or trade in services (Anyanwu and Kponnou, 2017; Efogo, 2020).

Background and Problem 8/8

- The study contributes to existing literature in a number of ways.

✓ First, we use a broader set of TF to identify which indicator influences SSA participation in GVCs and thus to identify which policies to implement;

✓ Investigating TF indicators that contribute to SSA participation in sectoral value chains provides a useful tool for policy makers to prioritize on which sectors to focus on;

✓We use the instrumental variable Two-Stage Least Squares (2STLS) approach which provide consistent estimates as it solves endogeneity problem that is common in panel data (Efogo, 2020; Kpognon et al., 2020).

Objective

- The objective of this study is to analyze the contribution of trade facilitation indicators to SSA participation in GVC during the period 2004-2017.

Methodology (1/3)

- Equation on GVC (Kowalski et al., 2015; Slany, 2017)

$$\mathbf{FVA}_{it} = \beta_0 + \beta_1 \mathbf{FVA}_{it-1} + \beta_2 \mathbf{X}_{it} + \beta_3 \mathbf{TFI}_{it} + \eta_t + \mu_i + \varepsilon_{it}$$

FVA_{it}: represents the foreign value added in country i in period t.

It measures the share of foreign value added (backward integration) in the exports of sub-Saharan African countries;

X_{it}: represents the vector of control variables (GDP, FDI, etc..)

TFI_{it}: represents the vector of trade facilitation indicators

Methodology (2/3)

Estimation technique

- ❑ To estimate our equation, we use:
  - ✓ **Ordinary Squares (Pooled OLS) estimator**
- ❑ To take into account the potential endogeneity between variables
  - ✓ **The Instrumental Variable-Two-Stage Least Squares (IV-2SLS)**

This method is used to correct for endogeneity problems which have multiple sources:

- ✓ Reverse causality,
- ✓ Variable measurement errors,
- ✓ Omitted variables,
- ✓ Dynamic effects.

The lags of variables are used as internal instruments

Methodology (3/3)

- Quality of the model :

In the case of the IV-2SLS estimator:

- ✓Kleibergen and Paap (2006) test for under-identification
- ✓Cragg-Donald Wald F test for weak identification
- ✓ the Hansen p-value test for the validity of all the instruments (lag of variables)

Results (1/2)

Foreign Value Added (FVA)

- ✓Physical Infrastructure
- ✓ICT
- ✓Border and Transport Efficiency

Results (2/2)

Robustness

FVA Agriculture

FVA Textiles and clothing

- ✓Physical Infrastructure
- ✓ICT
- ✓Business Environment

FVA Food and Beverage

- ✓Physical Infrastructure
- ✓ICT
- ✓Border Efficiency

Conclusion and Recommendation

- Our results reveal that trade facilitation indicators such as physical infrastructure, ICT, and border and transport efficiency contribute positively to the upstream participation of SSA countries in GVCs.
  - The results are even more interesting at the sectoral level

- **Border and transport efficiency,** plays an important role in the participation of SSA countries in GVCs.
  - ✓ considering that the WTO Trade Facilitation Agreement fundamentally addresses the soft aspect of infrastructure, SSA countries need to accelerate its implementation to benefit from the facilities offered by this agreement and to be able to increase their integration into GVCs;

Conclusion and Recommendation

- Secondly, SSA countries need to continue to improve their performance **in physical and ICT infrastructure**.
  - ✓ Physical infrastructure is an area that has long required attention in sub-Saharan Africa, and this work underscores its increased importance in the era of global value chains;

- Third, and most encouragingly, improving **hard and soft infrastructure** is a way for sub-Saharan African countries to better connect to global value chains at the sectoral level.
  - ✓ This calls for well-targeted sectoral policies to reap the benefits of GVCs.

THANK YOU FOR YOUR KIND ATTENTION!