Trade in value added
Concepts, applications and challenges

Training Workshop on Trade in Services Negotiations for AU-CFTA Negotiators
Nairobi, Kenya

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Agenda

1. The emergence of trade in tasks: impact on policy (and on statistics!)
2. Measuring gross vs value-added trade flows
3. The OECD-WTO TiVA initiative
4. What TiVA indicators can tell
5. Some caveats and way forward
1. The emergence of trade in tasks

“trade in tasks” and GVCs

- Development of infrastructure and technology
- Lower applied tariffs and trade policy incentives
- International consumer demand
- Outsourcing/offshoring strategies and FDI

Global Value Chains (GVCs)

- Trade in intermediate goods
- Intra-firm trade
- Processing trade
1. The emergence of trade in tasks

Some policy-related questions

• How much exports really contribute to economic growth and employment
• Where domestic value added is created
• Are services “non-tradable”? 
• Are imports “bad”? 
• Which countries trade with whom
• How trade imbalances change
• …
1. The emergence of trade in tasks

Statistical challenges

“Traditional” trade statistics

– flows of goods are recorded in gross terms each time they cross borders => multiple-counting
– all final value accrues to the last country of assembly, irrespective of the true origin of the value-added

New information needs

– decomposition of gross trade flows in their VA components
– intra-firm trade, trade by enterprise characteristics

⚠️ Gross trade statistics still important!!!
2. Measuring gross vs VA flows

“Traditional” trade flows
2. Measuring gross vs VA flows

"Value-added" flows

Decomposition of gross exports into their value-added components
2. Measuring gross vs VA flows

The Input-Output approach

*National I-O tables* + *Bilateral trade data*

*Estimates* of the value added by each industry/country in the production chain
2. Measuring gross vs VA flows

The Input-Output approach

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<th>economy 1</th>
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- **domestic consumption of intermediate goods/services**
- **imports of intermediates**
- **domestic consumption of final goods/services**
- **imports of final goods/services**
- **GDP**
3. The OECD-WTO TiVA initiative

The Trade in Value Added database


- Fostering the use of Input-Output modelling to assist policy-making
- Development of methodologies
- Regular production of trade in value added indicators
3. The OECD-WTO TiVA initiative

The Trade in Value Added database

• Coverage
  – 62 countries
  – 34 industries (incl. goods and services – ISIC rev. 3)

• Indicators
  – set of 40 indicators on trade in value added
  – matrix on the origin of value added in gross exports by source country and industry
## 4. What TiVA indicators can tell

### VA components of exports

<table>
<thead>
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<th>VA components as % of gross exports, total manufactures, 2011</th>
<th>South Africa</th>
<th>United States</th>
<th>China</th>
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<td>Domestic value added</td>
<td>72</td>
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<td>Direct domestic value added</td>
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<td>41</td>
<td>21</td>
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<td>Indirect domestic value added</td>
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<td>Foreign value added</td>
<td>28</td>
<td>22</td>
<td>40</td>
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</tbody>
</table>

Source: author’s calculations based on OECD-WTO TiVA database, June 2015
4. What TiVA indicators can tell

Services VA in manufactures exports

Note: Figures refer to 2011.

Source: author’s calculations based on OECD-WTO TiVA database, June 2015
4. What TiVA indicators can tell

Services VA in manufactures exports

Note: Figures refer to 2011.

Source: author’s calculations based on OECD-WTO TiVA database, June 2015
4. What TiVA indicators can tell

Services VA in exports – Tunisia

- Mining and quarrying
- Computer, Electronic, optical equipment
- Chemicals and chemical products
- Electrical and optical equipment
- Textiles, textile products, leather and footwear
- Hotels and restaurants
- Real estate, renting, business activities
- Transport and storage
- Post and telecommunications
- Financial intermediation

Note: Figures refer to 2011.

Source: author’s calculations based on OECD-WTO TiVA database, June 2015
4. Some caveats and way forward

**TiVA - a note of caution**

**TiVA indicators are estimates**

- Underlying data are not perfect
  - inconsistencies across countries
  - lack of complete bilateral trade in services data

- Several assumptions are used: results must be interpreted with caution
  - firms are treated as homogeneous

- The level of industry detail may (currently) not be enough for policy analysis
4. Some caveats and way forward

TiVA - future plans

- Extending TiVA database coverage: countries, sectors, years
- More trade in value added indicators
- Improving the quality of the results:
  - trade statistics (bilateral trade in services, inconsistencies of “mirror” merchandise trade flows)
  - standardization and development of national I-O tables
  - including official processing trade data in the II-O tables (e.g. for China, Mexico)
  - taking into account firm heterogeneity