EVIDENCE BASE FOR GVC POLICY MAKING: TIVA

High Level on the Future of Arab Economic Integration in a Changing Global Trade Landscape

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Increasing international fragmentation of production

Explosion of trade in intermediates as firms specialise in stages (tasks) of production

Gross trade flows increasingly embody components (and so value) created elsewhere
But conventional trade statistics don’t reflect this...

Creating ‘misleading perceptions’ and imperfect policies: in a GVC world, exports require imports >> protectionism can damage domestic industries.

Export driven growth strategies may target the wrong sectors

• High export value but low GDP contribution

They mask:

• Underlying nature of bilateral trade relationships and production interdependencies
  – Systemic risks - impact of macro-economic shocks on supply-chains

• And true nature of competitiveness – upstream matters as much as downstream; especially services >> services trade restrictions can hurt exporting manufacturers

And are silent on

• Jobs, skills

• And the importance of regional value chains for global integration
Requiring a new statistical response: TiVA

[no direct relationship]

[in value added terms, there is a direct relationship between A and C]
Origin and destination of UK’s ICT exports in value-added terms
TIVA: WHAT DOES IT TELL US?
Today, 70% of international trade is for production in GVCs

Services, raw materials, parts and components trade across countries before being incorporated into final products

Implications for trade policy, as border barriers result in cumulative costs
A tax on imports can be a tax on exports: **Exports require imports**

Foreign value added content of gross exports

[Bar chart showing the foreign value added content of gross exports for various countries, with data points for 2008, 1995, and 2014.]
And imports can drive global integration

Morocco’s imported intermediate inputs used for exports, by import category, percent of intermediate imports,
TiVA provides new perspectives: on export intensities

**Exported domestic value added as % of GDP**

[Bar chart showing the percentage of exported domestic value added as a % of GDP for various countries.]
Services are the Key to Competitiveness

- Global production networks rely on the logistics chain, which requires efficient network infrastructure and complementary services.
- Trade flows in value added terms reveal transport, logistics, finance, communication services etc. play a significant role in exports of goods.
- Value created by services as intermediate inputs represent over a third of the total value added in manufacturing exports.
- More efficient service sectors enhance the competitiveness of manufacturing firms.
Competitiveness requires a whole of supply view of production: services matter.

Services content of gross exports, percent, 2014

Services content by industry, Morocco

[Graph showing services content by industry for Morocco]
Production is fragmented and inter-connected: Who does protectionism hurt

US VA content in US manufacturing imports from NAFTA

US trade deficit with selected partners
Distance still matters – GVCs require regional integration

Significant trade relationships in value-added terms
Weak regional integration = weak global integration

**Extra-regional and intra-regional trade in intermediates, selected regions, 2014**

% of total intermediate trade

<table>
<thead>
<tr>
<th>Region</th>
<th>Extra-regional</th>
<th>Intra-regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>Asia</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>Asia (CHN excluded)</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>EU28</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>LAC</td>
<td>10</td>
<td>0</td>
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<tr>
<td>LAC (MEX excluded)</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Factors driving domestic value-added exports**

- Domestic Demand (log of value)
- Lagged foreign value added in exports (log)
- Skill Intensity
- Capital labour ratio (log)
- Relative output per worker
- Sophistication of Exports
- Share of FDI stocks in GDP
- Tariffs charged (log)
- Rule of Law
- Distance to economic activity (log)

- Emerging
- Developed
And more is not necessarily better

Extra-regional and intra-regional trade in intermediates, selected regions, 2014
% of total intermediate trade

Regional and mega-regional agreements, 2016
Intra-MENA integration is very low > which may hamper diversification
TIVA: HOW IS IT MEASURED?
With a global input-output table

<table>
<thead>
<tr>
<th>Country A</th>
<th>Country B</th>
<th>Country C</th>
<th>Final Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector 1</td>
<td>Sector 2</td>
<td>Sector 3</td>
<td></td>
</tr>
<tr>
<td>Sector 1</td>
<td>Sector 2</td>
<td>Sector 3</td>
<td>Country A</td>
</tr>
<tr>
<td>Sector 2</td>
<td>Sector 3</td>
<td></td>
<td>Country B</td>
</tr>
<tr>
<td>Sector 3</td>
<td></td>
<td></td>
<td>Country C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Taxes less subsidies on products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value added</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

**Industry AND country dimension:**

**Value added and output (National Accounts consistent):**

**Final demand by category and country:**
Directly from national Supply and Use Tables [SUTs] (converted to industries):

1. Intermediate domestic use; 2. Value added, output per ind.; 3. Final demand (EXCL exports)

With additional assumptions on source of imports by industries:

4. Exports of intermediates to specific industries by partner country (B and C)
5. Exports of final demand by partner country (B and C).
6. Imports for intermediate use, by partner country and importing industry
7. Imports for final use, by partner country and exporting industry.
Requiring a balanced view of trade

Asymmetries in services

Schema for merchandise trade and international trade in services

- Data preparation
  - Module A: Data collection and harmonization
  - Module B: Conversion to a common valuation (FOB)
- Data adjustment
  - Module 1: Adjustments for unallocated and confidential trade
  - Module 2: Adjustments for Hong Kong re-exports
  - Module 3: Adjustments for Swiss non-monetary gold
  - Module 4: Adjustments for obvious product misclassifications
  - Module 5: … etc
- Trade balancing
  - Module C: Balancing bilateral trade by HS 6-digit product
- CPA conversion
  - Module D: Conversion of HS 6-digit products to CPA 2.12-digit

Data collection
- Data collection
- Data cleaning & preparation

Data estimation
- Additional national data, backcasting, forecasting, interpolations, derivations, integration of EBOPS2010 data, gravity-model based estimates

Trade balancing
- Symmetry-index weighted average

Conversion to CPA
- Country-specific conversions of EBOPS to CPA using correspondence tables, SUT information and STEC
## TiVA 2018: Coverage - Countries

<table>
<thead>
<tr>
<th>OECD</th>
<th>All OECD 36 countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRIICS</td>
<td>Brazil, China, India, Indonesia, Russian Federation, South Africa</td>
</tr>
<tr>
<td>Other EU28</td>
<td>Bulgaria, Croatia, Cyprus, Malta, Romania</td>
</tr>
<tr>
<td>Other G20</td>
<td>Argentina, Saudi Arabia</td>
</tr>
<tr>
<td>Other South Eastern Asia</td>
<td>Brunei Darussalam, Cambodia, Malaysia, Philippines, Singapore, Thailand, Viet Nam</td>
</tr>
<tr>
<td>Other Eastern Asia</td>
<td>Chinese Taipei, Hong Kong China</td>
</tr>
<tr>
<td>Other Africa/MENA</td>
<td>Tunisia, Morocco</td>
</tr>
<tr>
<td>Other Central and Southern America</td>
<td>Colombia, Costa Rica, Peru</td>
</tr>
<tr>
<td>Other</td>
<td>Kazakhstan, Rest of the World</td>
</tr>
</tbody>
</table>
TIVA FOR ESCWA
What’s needed?

- **What would we like?**
  - Improved information for the region on GVCs
  - All countries
  - Supported by optimum quality SUT tables
    - More timely, more regular, more detailed.
  - OECD has developed a SUT questionnaire with Eurostat being promoted as international benchmark
  - OECD is engaged in ‘technical’ support programmes (e.g. Morocco): ESCWA?
Round-up

- Weak regional integration may be hampering global integration
- High natural resource dependencies may be crowding out investment, innovation and diversification into potential high-growth high skilled activities.
- Evidence base needs to be strengthened:
  – Particularly on employment: skills, education levels, salaries, gender.
FIND OUT MORE

www.oecd.org/trade/valueadded