TRADE COSTS IN THE ARAB REGION

EGM, Rabat 16-17 December 2019
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"All the major puzzles of international macroeconomics hang on trade costs."

Maurice Obstfeld & Kenneth Rogoff
Estimating Trade cost in the Arab region

**IMPORTANCE**
Estimating trade cost is an important first step both at the aggregate and sectorial levels, to assess its effect on growth and competitiveness of the region, GVCs integration, Intra-trade, potential, etc.

**SECTORS**
15 sectors are presented in this paper, the sectors are defined according to ISIC revision 3 (Annex 4)

**BLOCKS**
Aggregation has been made according to 13 blocks of partners (Annex 1)

**DATA SOURCES**
Data was collected from variety of sources, mainly was retrieved from UN COMTRADE, UNIDO INDSTAT 2, data also was supplied by figures from national resources.
Methodology

- The methodology adopted here is an indirect method which is based on the inverse gravity approach introduced by Novy (2013).

\[ \tau_{ij,t}^k = \left( \frac{x_{iit}^k x_{jjt}^k}{x_{ijt}^k x_{jit}^k} \right) \left( \frac{1}{2(\sigma^k - 1)} \right) - 1 \]

where:

- \( \tau_{ij,t}^k \) is the tariff equivalent trade cost from country \( i \) to country \( j \) at time \( t \) for sector \( k \).
- \( x_{iit}^k \) and \( x_{jjt}^k \) is the domestic trade of sector \( k \) in country \( i \) and \( j \).
- \( x_{ijt}^k \) and \( x_{jit}^k \) is the bilateral trade of sector \( k \), for country and \( j \).
- \( \sigma^k \) is the elasticity of substitution between goods in sector \( k \).
The database was constructed in reverse order, first, sectorial production data according to the ISIC Rev.3 from the UNIDO INDSTAT2 2014 ISIC Rev.3 database were collected, second, to build the remaining part of the dataset the corresponding bilateral trade from the UN’s COMTRADE database was mapped from HS 6-digits (2007) to ISIC Rev 3 according to the concordance H3 to ISIC Rev3, third, data from national resources were supplied to fill the sectoral gap.
Export cost for the Arab region
Intra-Arab export cost averaged 129% over the period.

The highest export cost with the Arab region was recorded in Mauritania.

Many Arab countries have seen a decrease in the cost of its intra-exports.

Overall intra-Arab export cost is decreasing over the period.
Import and export cost for Arab countries average for 2000-2015

<table>
<thead>
<tr>
<th>Region</th>
<th>Import</th>
<th>Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASU/NEZ</td>
<td>222%</td>
<td>181%</td>
</tr>
<tr>
<td>ASEAN</td>
<td>227%</td>
<td>170%</td>
</tr>
<tr>
<td>Europe 28</td>
<td>196%</td>
<td>153%</td>
</tr>
<tr>
<td>LAT &amp; CNT America</td>
<td>256%</td>
<td>208%</td>
</tr>
<tr>
<td>NAFTA</td>
<td>155%</td>
<td>179%</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>129%</td>
<td>93%</td>
</tr>
<tr>
<td>Arab region</td>
<td>91%</td>
<td>123%</td>
</tr>
<tr>
<td>GCC</td>
<td>135%</td>
<td>135%</td>
</tr>
<tr>
<td>AMU</td>
<td>217%</td>
<td>117%</td>
</tr>
<tr>
<td>Rest Arab countries</td>
<td>146%</td>
<td></td>
</tr>
</tbody>
</table>
Imports Trade costs in Tunisia- A case study
Exports Trade costs in Tunisia- A case study
The case of Jordan, import Cost

- 2000
- 2005
- 2010
- 2015
The case of Jordan, Export cost

![Bar chart showing export cost percentages for different regions and time periods.]
Trade costs at the sectoral level

• For most of the industrial sectors, on average Arab countries traded among each other at a relatively high cost than with other trading partners close to the region.

• Several Arab countries re-exported actively, hence played the role of a trading hub for many sectoral products.

• The complexity of trade regulations and inefficiencies of logistics are the main reasons behind this high level of costs, at the sectoral level.
The most expensive sectors for GCC, are 23 "Coke, refined petroleum products, and nuclear fuel" with cost 317% (for export), and (293% for import), followed by sector 22 “printing & publishing”, and sector 26 “Non-metallic and mineral products”

The cheapest sectors for GCC, are 19 "Leather, Leather products, and footwear" with cost 118% (for export), and (129% for import), followed by sector 29 “Machinery & equipment”, and sector 27 “Basic metals”
The most expensive sectors for Mashreq, are by sector 22 “printing & publishing” with cost 270% (for export), and (301% for import), followed by sector 23 “Coke, refined petroleum products, and nuclear fuel” and sector 26 “Non-metallic and mineral products”.

The cheapest sectors for Mashreq, are 27 ”Basic Metals” with cost 133% (for export), and (158% for import), followed by sector 29 “Machinery and Equipment”
Sectoral trade costs - by sub-region (Maghreb- Algeria-Morocco-Tunisia)

The most expensive sectors for Maghreb, are by sector 22 “printing & publishing” with cost 232.24% (for export), and (285.85% for import), followed by sector 23 “Coke, refined petroleum products, and nuclear fuel” and sector 26 “Non-metallic and mineral products”.

The cheapest sectors for Maghreb, are sector 27 “Basic Metals” with cost 178.6% (for export), and (211.8% for import), followed by sector 31 “Electrical machinery & Apparatus.”
Overall, we conclude that the most expensive sectors in the Arab region are sectors 22, 23, and 26. Where the Maghreb sub-region exhibits the highest trade costs both exports and imports among all other sub-regions, (all blocks are combined). While sectors with lowest trade costs are 19 “Leather, Leather products, and Footwear” and sector 31 “Electrical machinery and apparatus”.

Sectoral trade costs-Whole Arab Region
Exports Trade costs in Tunisia- A case study- Sectoral Analysis

Sectors with highest export trade cost are:
19- Leather, Leather Products, & Footwear
20-Wood Products
22-Printing & Publishing
33-Medical. Precision and Optical Instruments
34-Motor Vehicules, Trailers, Semi-Trailers
36-Furniture.

While sectors with low export trade costs are:
29-Machinery & Equipment
31-Electrical Machinery & Apparatus
Imports Trade costs in Tunisia- A case study- Sectoral Analysis

Sectors with highest import trade cost are:
20-Wood Products
26-Non-Metallic Mineral Products
28-Fabricated Metal Products
29-Machinery & Equipment
36-Furniture
While sectors with low import trade costs are:
31-Electrical Machinery & Apparatus
33-Medical. Precision and Optical Instruments
34-Motor Vehicles, Trailers, Semi-Trailers

Raisons for high trade cost are:
1- value of the products that make up these sectors
2- tariffs and non-tariff measures applied on these sectors
3- the customs clearance procedures in favor of the totally and partially exporting companies and which are most often oriented towards the EU
Imports Trade costs in Egypt A case study- Sectoral Analysis

The 5 cheapest sectors are: “25 Rubber and Plastic Products” with an average of 135%, “36 Furniture” with 136%, “28 Fabricated metals products” with 140%, “27 Basic Metals” with 151% and “21 paper and paper products” with 170%.

The most 5 expensive sectors are “22 Printing and publishing” with an average of 297%, “19 Leather, leather Products and Footwear” with 217%, “15 Food and beverages” with 207%, “26 Non-metallic Mineral Products” with 206% and “34 Motor Vehicles, Trailers, Semi-trailers” with 202%.
Chapter 2: Transport cost in the Arab region

- Primary data from the ground
- CIF/fob ratio
- Model
- Logistics indicators
Container Transport Cost

Rodrigue, the geography of transport system 2011
Logistics Performance Index (LPI)

- The LPI provides an estimation of the supply chain performance, for 160 countries.
- Arab countries vary greatly in their logistics performance.
- The results affirm the poor overall Arab countriesendeavour to promote their logistics sector as only 3 countries fall in the top quantile while eight of the countries fall in the bottom quantile.

![Bar chart showing Arab Region Aggregated LPI 2012-2018 Score and Rank](chart.png)
• The Domestic LPI looks in details at the logistics environments inside countries such as ports and borders..

• Arab countries vary greatly in their logistics performance

• This indicator is useful for transport cost analysis as it shows where the bottle necks of the flow of goods across a country are, despite it is based on perceptions of users not factual figures.
LINNER SHIPPING CONNECTIVITY INDEX

- Maritime shipping carries around 80% of the volume of international trade.
- Countries more connected to the global shipping networks are generally more competitive in international markets and in connecting to GVCs.
- The Arab region suffers from low connectivity to global networks of shipping although it has some of the oldest port hubs in the world.
- The Arab region exhibits low performance in terms of maritime connectivity, while ASEAN region scores better performance given the similitude between these two regions.
MAJOR DELAYS IN THE ARAB REGION
COST OF TIME

- Criminal activities (e.g., stolen cargo): 13%
- Maritime transshipment: 28%
- Solicitation of informal payments: 31%
- Compulsory warehousing/transloading: 39%
- Pre-shipment inspection: 45%
### COST OF DOING BUSINESS

<table>
<thead>
<tr>
<th>Economy</th>
<th>Ease of Doing Business Rank</th>
<th>Trading Across Borders</th>
<th>Ease of Trading Across Borders (DTF)</th>
<th>Rank</th>
<th>Time to Export (hours)</th>
<th>Time to Import (hours)</th>
<th>Cost to Export</th>
<th>Cost to Import</th>
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<tbody>
<tr>
<td>ASEAN</td>
<td>102.8</td>
<td>78.539</td>
<td>97.6</td>
<td>144.46</td>
<td>155.03</td>
<td>409.25</td>
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<td>GCC</td>
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<td>83.6333</td>
<td>112.83</td>
<td>84.1667</td>
<td>190</td>
<td>487</td>
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<tr>
<td>Mashreq</td>
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<td>79.185</td>
<td>134.33</td>
<td>203.167</td>
<td>255.17</td>
<td>1025.5</td>
<td>984.83</td>
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<tr>
<td>Maghreb</td>
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<td>81.5925</td>
<td>111.75</td>
<td>127.25</td>
<td>250</td>
<td>631</td>
<td>661.75</td>
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<td>Horn of Africa</td>
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<td>62.4033</td>
<td>139.33</td>
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<td>886.333</td>
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<tr>
<td>LDC</td>
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<td>77.41333</td>
<td>170</td>
<td>237.5</td>
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<tr>
<td>Arab Region</td>
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<td>76.8455</td>
<td>133.65</td>
<td>157.483</td>
<td>207.3</td>
<td>827.867</td>
<td>986.08</td>
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</tr>
</tbody>
</table>
Conclusion and Recommendations

• Reducing Trade cost will boost trade competitiveness, enable more integration in regional and global value chains, product diversification and job creation.

• Improvement of the quality of infrastructure at ports.

• Enhancing connectivity to global transport network is a prerequisite for lowering transport cost and thus trade cost.

• Full implementation of trade facilitation measure is necessary action.

• Need to improve transparency and digitization of process and provision of necessary information via electronic means and portals can have a good effect on trade cost.
THANK YOU