COVID19 shock on imports in Tunisia: drivers of vulnerability vs factors of resilience

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Introduction

• Large disruptions from COVID19 shock on most economies

• Consequences on developing countries particularly important because of their trade dependency

• Policy makers asked to tackle quickly these challenges
This presentation

• Identify most impacted sectors

• Undercover main drivers of vulnerability

• Thoughts on factors of resilience

• Discussion
COVID19 shock: some facts

Tunisia’s imports are plotted in continuous lines. The dashed lines represent Tunisia’s exports.
COVID19 shock: imports’ change by sectors

ERSD WTO Webinar Series “Economic Resilience Is the New Normal?”
COVID19 shock: imports change by product type

ERSD WTO Webinar Series “Economic Resilience Is the New Normal?”
Drivers of vulnerability vs. factors of resilience

Three criteria:

1. **Partners concentration**: whether Tunisia’s imports depend on a limited number of suppliers
   - Herfindahl-Hirschman Index (HHI)
   - Imports which are dominated by a limited number of countries are the most vulnerable

2. **Feasibility**: whether a product is feasible to produce with the productive capacities of a country
   - “proximity” concept: if two goods share the same factors of production, they will tend to be produced by the same country
   - A high probability that two products are co-exported indicates that they share many similarities.
   - A country producing one of them is likely to have the productive capabilities necessary to make the other

3. **Import intensity**: measured with the revealed comparative advantage for imports (import-RCA)
   - Import-RCA compares a product’s share in a country’s imports to its share in world imports
   - Products that are imported intensively are more vulnerable to supply shocks

**k-means clustering analysis to construct two groups of products risky and non risky based on the three indicators**
Drivers of vulnerability vs. factors of resilience

ERSD WTO Webinar Series “Economic Resilience Is the New Normal?”
Drivers of vulnerability vs. factors of resilience: By number of products

**Change in imports (%)**
- Agriculture, meat and dairy, seafood
- Food, beverages, tobacco, wood, paper
- Chemicals, plastics, rubber
- Iron, steel, and other metals
- Other industries
- Textiles, apparel, leather, footwear
- Machinery, electronics, transportation equip.
- Extractive industries

**Risky products (%)**
- 0
- 5
- 10
- 15
- 20
Drivers of vulnerability vs. factors of resilience: by imports’ value

- Agriculture, meat and dairy, seafood
- Food, beverages, tobacco, wood, paper
- Chemicals, plastics, rubber
- Iron, steel, and other metals
- Other industries
- Textiles, apparel, leather, footwear
- Machinery, electronics, transportation equip.
- Extractive industries

Change in imports (%)

Risky products (%)

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Drivers of vulnerability vs. factors of resilience

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Resilience case study: COVID19 products

• 20.6% of COVID19 products experienced a drop on imports and an increase in exports (14/68)

• Possible to substitute its production at home because of productive capacities

• Feasibility as a main driver of resilience in this case
<table>
<thead>
<tr>
<th>HS2007</th>
<th>Change in imports</th>
<th>Change in exports</th>
<th>Description</th>
<th>Sector</th>
<th>End use</th>
</tr>
</thead>
<tbody>
<tr>
<td>382490</td>
<td>-100</td>
<td>139,1</td>
<td>Chemical products, preparations and residual products of the chemical or allied industries, n.e.c. or included in heading no. 3824</td>
<td>Chemicals, plastics, rubber</td>
<td>Intermediate</td>
</tr>
<tr>
<td>391620</td>
<td>-47,94</td>
<td>8,67</td>
<td>Vinyl chloride polymers; monofilament, of which any cross-sectional dimension exceeds 1mm, rods, sticks and profile shapes, whether or not surface-worked but not otherwise worked</td>
<td>Chemicals, plastics, rubber</td>
<td>Intermediate</td>
</tr>
<tr>
<td>621149</td>
<td>-47,83</td>
<td>27,17</td>
<td>Track suits and other garments n.e.c.; women's or girls', of textile materials n.e.c. in item no. 6211.4 (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>721790</td>
<td>-44,84</td>
<td>172,6</td>
<td>Iron or non-alloy steel; wire, n.e.c. in heading no. 7217</td>
<td>Iron, steel, and other metals</td>
<td>Intermediate</td>
</tr>
<tr>
<td>621600</td>
<td>-32,67</td>
<td>24,62</td>
<td>Gloves, mittens and mitts (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>650590</td>
<td>-31,76</td>
<td>6,94</td>
<td>Hats and other headgear; knitted or crocheted, or made up from lace, felt or other textile fabrics, in the piece (but not in strips), whether or not lined or trimmed</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>340220</td>
<td>-24,96</td>
<td>79,06</td>
<td>Washing and cleaning preparations; surface-active, whether or not containing soap (excluding those of heading no. 3401), put up for retail sale</td>
<td>Chemicals, plastics, rubber</td>
<td>Final</td>
</tr>
<tr>
<td>590700</td>
<td>-19,37</td>
<td>56,13</td>
<td>Textile fabrics; otherwise impregnated, coated or covered, painted canvas being theatrical scenery, studio back-cloths or the like</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Intermediate</td>
</tr>
<tr>
<td>621050</td>
<td>-15,66</td>
<td>168,39</td>
<td>Garments; women’s or girls', n.e.c. in item no. 6210.3, of the fabrics of heading no. 5602, 5603, 5903, 5906 or 5907 (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>401519</td>
<td>-12,44</td>
<td>5046,11</td>
<td>Rubber; vulcanised (other than hard rubber), gloves, mittens and mitts other than surgical gloves</td>
<td>Chemicals, plastics, rubber</td>
<td>Final</td>
</tr>
<tr>
<td>392390</td>
<td>-11,53</td>
<td>9,33</td>
<td>Plastics; articles for the conveyance or packing of goods n.e.c. in heading no. 3923</td>
<td>Chemicals, plastics, rubber</td>
<td>Intermediate</td>
</tr>
<tr>
<td>340111</td>
<td>-7,53</td>
<td>19,38</td>
<td>Soap and organic surface-active products; in the form of bars, cakes, moulded shapes, and paper, wadding, felt and nonwovens, impregnated, coated or covered with soap or detergent, for toilet use (including medicated products)</td>
<td>Chemicals, plastics, rubber</td>
<td>Final</td>
</tr>
<tr>
<td>611490</td>
<td>-0,56</td>
<td>32,48</td>
<td>Garments; of textile materials (other than cotton or man-made fibres), knitted or crocheted, n.e.c. in chapter 61</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>392620</td>
<td>-0,55</td>
<td>29,43</td>
<td>Plastics; articles of apparel and clothing accessories (including gloves, mittens and mitts)</td>
<td>Chemicals, plastics, rubber</td>
<td>Final</td>
</tr>
</tbody>
</table>
Vulnerability case study: COVID19 products

• 45.6% of COVID19 products with a drop on imports and a drop on exports (31/68)

• Not possible to produce at home

• Importance of international coordination in this case to allow access to COVID19 products
<table>
<thead>
<tr>
<th>HS2007</th>
<th>Change in imports</th>
<th>Change in exports</th>
<th>Description</th>
<th>Section</th>
<th>End use</th>
</tr>
</thead>
<tbody>
<tr>
<td>611300</td>
<td>-93,73</td>
<td>-9,13</td>
<td>Garments; made up of knitted or crocheted rubberised textile fabrics, or fabrics otherwise impregnated, coated, covered or laminated</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>621040</td>
<td>-60,35</td>
<td>-20,25</td>
<td>Garments; men's or boys', n.e.c. in item no. 6210.2, of the fabrics of heading no. 5602, 5603, 5903, 5906 or 5907 (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>901839</td>
<td>-57,26</td>
<td>-15,15</td>
<td>Medical, surgical instruments and appliances; catheters, cannulae and the like</td>
<td>Other industries</td>
<td>Intermediate</td>
</tr>
<tr>
<td>760429</td>
<td>-48,89</td>
<td>-20,4</td>
<td>Aluminium; alloys, bars, rods and profiles, other than hollow</td>
<td>Iron, steel, and other metals</td>
<td>Intermediate</td>
</tr>
<tr>
<td>650610</td>
<td>-47,9</td>
<td>-50,03</td>
<td>Headgear; safety, whether or not lined or trimmed</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>481810</td>
<td>-39,79</td>
<td>-28,48</td>
<td>Paper; toilet paper</td>
<td>Food, beverages, tobacco, wood, paper</td>
<td>Final</td>
</tr>
<tr>
<td>621142</td>
<td>-38,34</td>
<td>-21,83</td>
<td>Track suits and other garments n.e.c.; women's or girls', of cotton (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>902000</td>
<td>-36,26</td>
<td>-33,17</td>
<td>Breathing appliances and gas masks; excluding protective masks having neither mechanical parts nor replaceable filters and excluding apparatus of item no. 9019.20</td>
<td>Other industries</td>
<td>Intermediate</td>
</tr>
<tr>
<td>391690</td>
<td>-36,14</td>
<td>-76,2</td>
<td>Plastics; monofilament, of plastics n.e.c. in heading no. 3916, cross-sectional dimension exceeds 1mm, rods, sticks and profile shapes, whether or not surface-worked but not otherwise worked</td>
<td>Chemicals, plastics, rubber</td>
<td>Intermediate</td>
</tr>
<tr>
<td>621132</td>
<td>-35,98</td>
<td>-17,11</td>
<td>Track suits and other garments n.e.c.; men's or boys', of cotton (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>732690</td>
<td>-28,97</td>
<td>-16,84</td>
<td>Iron or steel; articles n.e.c. in heading no. 7326</td>
<td>Iron, steel, and other metals</td>
<td>Intermediate</td>
</tr>
<tr>
<td>847989</td>
<td>-25,82</td>
<td>-15,65</td>
<td>Machines and mechanical appliances; having individual functions, n.e.c. or included in this chapter</td>
<td>Machinery, electronics, transportation equip.</td>
<td>Intermediate</td>
</tr>
<tr>
<td>560410</td>
<td>-25,67</td>
<td>-32,25</td>
<td>Rubber thread and cord; textile covered</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Intermediate</td>
</tr>
<tr>
<td>621790</td>
<td>-23,32</td>
<td>-36,5</td>
<td>Clothing; parts of garments or of clothing accessories, other than those of heading no. 6212 (not knitted or crocheted)</td>
<td>Textiles, apparel, leather, footwear</td>
<td>Final</td>
</tr>
<tr>
<td>901832</td>
<td>-23,2</td>
<td>-11,99</td>
<td>Medical, surgical instruments and appliances; tubular metal needles and needles for sutures</td>
<td>Other industries</td>
<td>Intermediate</td>
</tr>
</tbody>
</table>
Discussion

• Risky products based on three criteria partners concentration, import intensity and feasibility

• Intermediate products are the most risky

• Most impacted sectors
  • participating in backward GVC in Tunisia, textiles and machinery
  • more than 20% of their products is risky
  • More than 30% of imports value of machinery is risky
Discussion

• Other factors could explain the drop in imports such as demand not considered

• These GVC sectors were the main drivers of exports. The shock on imports is reflected on a even a bigger shock on exports

• Important to understand the sources of vulnerability and factors of resilience to find solutions either national or international
Discussion

• National: structure under the PM to quickly respond to problems encountered by these sectors with a permanent dialogue between public and private representative to alleviate sources of vulnerability and diversify feasible products

• Regional: new and comprehensive trade agreement with Tunisia’s main partners (EU) may focus on supply chain sectors, alleviation of NTBs and more standard harmonization

• Multilateral: trade facilitation and help access to COVID19 products