Vegetables and fruits in Egypt: Facilitating exports

Olha Pindyuk
VEGFTNT – SECTOR DESCRIPTION

- 0.7% of total output, 1.8% of merchandise exports
- Very small share of global exports
- Major export destinations: EU (50%), Other Middle East (34%)
- $ESUBM=3.5$ (regional), $ESUBD=1.85$

<table>
<thead>
<tr>
<th>Vegftnt trade costs structure, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>UnSkLab</td>
</tr>
<tr>
<td>Capital</td>
</tr>
<tr>
<td>Land</td>
</tr>
<tr>
<td>Chemical</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
**Export Procedures in Egypt**

<table>
<thead>
<tr>
<th>Nature of Export Procedures</th>
<th>Duration (days)</th>
<th>US$ Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents preparation</td>
<td>9</td>
<td>85</td>
</tr>
<tr>
<td>Customs clearance and technical control</td>
<td>1</td>
<td>182</td>
</tr>
<tr>
<td>Ports and terminal handling</td>
<td>2</td>
<td>170</td>
</tr>
<tr>
<td>Inland transportation and handling</td>
<td>2</td>
<td>300</td>
</tr>
<tr>
<td><strong>Totals:</strong></td>
<td><strong>14</strong></td>
<td><strong>737</strong></td>
</tr>
</tbody>
</table>


- 4 days are spent on customs clearance, technical control, ports and inland handling
- Vegetable are highly perishable commodities, so I assume that these 4 days are equivalent to 8% of trade costs
**EXPERIMENT FORMULATION**

- **Experiment:** reduce time from 4 days to 1 day (shock \( ams \) - by 6%), use standard closure
- \( ams \) - import \( i \) from region \( r \) augmenting tech change in region \( s \)
  - **Equation** IMPORTDEMAND
    \[
    qxs(i,r,s) = -ams(i,r,s) + qim(i,s) - ESUBM(i) \times \left[ pms(i,r,s) - ams(i,r,s) - pim(i,s) \right];
    \]
  - **Equation** DPRICEIMP
    \[
    pim(i,s) = \text{sum}(k,REG, MSHRS(i,k,s) \times [pms(i,k,s) - ams(i,k,s)]);\]
RESULTS: VEGFTNT IN EGYPT

- $q_o = 0.8\%$; contribution of export demand is 86%
- $q_{xs} = 15.7\%$ - primarily due to substitution effect
- $p_{mi}$ in export destinations are negative very small (XME – -0.35%, rest – negligible changes)
- $p_s = 0.27\%$ - primarily due to endowments prices (pfe) effects
- Land (sluggish factor) makes the biggest contribution to $p_s$ (67%); UnSkLab accounts for 24%
- $p_{factreal}$ for Land increases by 1.1%, for UnSkLab – by 0.4%; for other primary factors real returns decrease
- Demand for Capital, UnSkLab, SkLab ($qfa$) increases by 0.9%, for Land – by 0.5%.

(Other sectors very slightly decrease their output and exports)
RESULTS: VEGFTNT IN EGYPT - II

- EV increases by USD 16.9 mln
- Primarily through TOT effects (USD 10.7 mln)
- The biggest contribution to TOT improvement comes from transportation services, financial services, other services, and Vegftnt (66%)
EXPERIMENT WITH AN ALTERNATIVE CLOSURE

- Allowing for unemployment in UnSkLab and fixing real wages
- swap qo("Unsklab", "Egypt") = pfactreal("Unsklab", "Egypt")
- Changes in qo, qxs, qfe, ps – negligible as compared with the standard closure scenario
- $pfactreal$ (UnSkLab) is zero, slightly higher growth in return to Land (1.2% vs 1.1%)
- Significant change in EV though – USD 31 mln vs USD 17 mln.
- Extra welfare increase due to better endowments allocation
**SOME CONCLUSIONS**

<table>
<thead>
<tr>
<th>Change in exports of Vegftnt and Egypt’s welfare</th>
<th>Doha</th>
<th>ams6veg</th>
<th>ams6veg - unempl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exports</td>
<td>7.8</td>
<td>18.4</td>
<td>15.7</td>
</tr>
<tr>
<td>Welfare change</td>
<td>11</td>
<td>16.9</td>
<td>30.9</td>
</tr>
</tbody>
</table>

*In 2001 constant prices*

- Improving exports procedures just in one sector might bring higher welfare improvements than partial liberalization under Doha