Specialization within GVCs

by

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What did we know so far about what determine specialization ... in GVC?
Specialization according to comparative advantage...fragmented production

When some goods are produced in a GVCs

- Capital
- Labour
- Institutions
- Timeliness

- GVC-goods are institutional intensive and time sensitive
Specialization across stages of production

• Suppose sequential processing

1 2 ..... n

Upstream sector
downstream sector

• Who specialize in the downstream sectors?
Who specialize in the downstream sectors?

Countries with

• a lower probability to make mistake
• Better institutions
• IP rights
• Closeness to a large market

(Costinot et al. (2013))
What is new in our study?

Piermartini R. and R. Lanz

https://econpapers.repec.org/paper/zbwwtowps/ersd201805.htm
Focus on Transport costs

• Transport costs have an important fixed cost component ... are ADDITIVE non ad-valorem

• If they are high upstream, they will MAGNIFY along the supply chain

• Therefore quality of transport infrastructure give a comparative advantage upstream
Our regression

\[ \text{Export}_{ik} = \beta_1 \text{upstreameness}_k \times \text{INFRASTRUCTURE}_i \]

\[ + \beta_2 \text{upstreameness}_k \times \text{INSTITUTIONS}_i + \text{controls} \]

- Upstreamness = measure that increases with the number of stages separating a sector \( k \) from the final stage
- Several measures of institutions and quality of transport infrastructure
### Our Results

**Dependent var.:** $X_{ij}$

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
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<th>(6)</th>
<th>(7)</th>
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</thead>
<tbody>
<tr>
<td>$\text{upstream}<em>j \times T</em>{1_i}$</td>
<td>0.189***</td>
<td>0.300***</td>
<td>0.230**</td>
<td>0.182''</td>
<td>0.195*</td>
<td>0.186*</td>
<td>0.193*</td>
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<tr>
<td></td>
<td>(0.050)</td>
<td>(0.094)</td>
<td>(0.101)</td>
<td>(0.110)</td>
<td>(0.109)</td>
<td>(0.105)</td>
<td>(0.110)</td>
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<tr>
<td>$\text{upstream}<em>j \times Q</em>{i}$</td>
<td>-0.083</td>
<td>-0.148*</td>
<td>-0.163**</td>
<td>-0.146*</td>
<td>-0.142*</td>
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<tr>
<td></td>
<td>(0.072)</td>
<td>(0.078)</td>
<td>(0.079)</td>
<td>(0.077)</td>
<td>(0.075)</td>
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<tr>
<td>$\text{upstream}<em>j \times \text{Remoteness}</em>{i}$</td>
<td>0.364</td>
<td>0.387</td>
<td>0.369</td>
<td>0.368</td>
<td>0.360</td>
<td>0.363</td>
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<td>(0.263)</td>
<td>(0.274)</td>
<td>(0.275)</td>
<td>(0.276)</td>
<td>(0.266)</td>
<td>(0.276)</td>
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<tr>
<td>$\text{upstream}<em>j \times K</em>{i}$</td>
<td>0.110**</td>
<td>0.030</td>
<td>0.032</td>
<td>0.036</td>
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<td>(0.045)</td>
<td>(0.090)</td>
<td>(0.072)</td>
<td>(0.071)</td>
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<td>$\text{upstream}<em>j \times H</em>{i}$</td>
<td>0.012</td>
<td>-0.003</td>
<td>-0.004</td>
<td>0.002</td>
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<tr>
<td></td>
<td>(0.090)</td>
<td>(0.091)</td>
<td>(0.092)</td>
<td>(0.092)</td>
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<tr>
<td>$\text{upstream}<em>j \times \text{GDP p.c.}</em>{i}$</td>
<td>0.129</td>
<td>0.107</td>
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<td>(0.132)</td>
<td>(0.118)</td>
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</table>
Policy implications

For a commodity dependent countries, good transport infrastructure is key to participate to GVC.

Good institutions key to move up the value chain.
Thank you for your attention