The Structure of Multinational Firms’ International Activities

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December 15, 2019
Our task is to “describe the structure of MNE’s activities”, i.e. the connections across the MNE’s global structure

Two main structures:
- Horizontal: replicate activity across affiliates
- Vertical: splitting the GVC into different components

<table>
<thead>
<tr>
<th>Country Pairs</th>
<th>Horizontal Replication</th>
<th>Vertical Different</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>North-North</td>
<td>North-South</td>
</tr>
<tr>
<td>GVC</td>
<td>Regional</td>
<td>Global</td>
</tr>
<tr>
<td>Intangibles</td>
<td>Self-contained</td>
<td>Long Chain</td>
</tr>
<tr>
<td></td>
<td>Joint Input</td>
<td>First Link</td>
</tr>
</tbody>
</table>
Where is FDI?

FDI is mostly North-North.

- **Horizontal 1 - Vertical 0**
### Where are Affiliate Sales?

<table>
<thead>
<tr>
<th></th>
<th>Share host country</th>
<th>Share other foreign</th>
<th>Share US</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shares</td>
<td>0.594</td>
<td>0.297</td>
<td>0.109</td>
</tr>
<tr>
<td>Goods</td>
<td>0.562</td>
<td>0.331</td>
<td>0.107</td>
</tr>
<tr>
<td>Services</td>
<td>0.676</td>
<td>0.209</td>
<td>0.115</td>
</tr>
</tbody>
</table>

- Affiliate sales are mostly local.
- **Horizontal 2 - Vertical 0**
Nature of GVCs

- Input Index: High value → relies heavily on long GVCs for inputs
- Output Index: High value → output contributes greatly to long GVCs

```
Input Index

Output Index

Vertical Parent;
US I-phone (design)

Horizontal Parent

Intermediate Vertical
Affiliate;
Japan I-phone
(components)

Local Knowledge
Horizontal
Affiliate

Horizontal Affiliate

Vertical Affiliate;
China I-phone
(assembly)
```
FDI concentrated in lower right corner: **Horizontal 3 - Vertical 0**
Role of Intangibles

- Residuals: Value of final goods - cost of tangible inputs
- Manufactured Goods in 2014:

<table>
<thead>
<tr>
<th>Factor shares</th>
<th>Labor</th>
<th>Tangible K</th>
<th>Intangible K</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Intangible K</td>
<td>51.2</td>
<td>18.1</td>
<td>30.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distribution</th>
<th>Final Prod.</th>
<th>Upstream Prod.</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Intangible K</td>
<td>27.0</td>
<td>26.6</td>
</tr>
</tbody>
</table>

- Key role of parent intangibles in generating value
- **Horizontal 4 - Vertical 1**
Our goal is to describe the structure of MNE activity
Horizontal and vertical FDI is in the data, but horizontal dominates
Affiliates replicate activities in order to sell locally
Need more detailed data on flows of services and intangibles between parents and affiliates