Identifying economic ownership of Intellectual Property Products: The German experience using the GMPG Decision Tree

Meeting of the Group of Experts on National Accounts
Geneva, Switzerland, 25-27 April 2023
Intellectual Property Products (IPPs)

Definition

„the result of research and development, investigation or innovation leading to knowledge, use of which is restricted by law or other means of protection” (ESA 3.132)

➢ challenging issue: identification of economic ownership of IPPs

➢ Guide on Measuring Global Production (GMGP) offers a decision tree
IPP in German National Accounts

Share of GFCF in IPPs of total GFCF in Germany for the years 2000-2020, percentage value
GMGP decision tree

**Control/ownership of unit**
- The unit is part of a MNE

**Production of the IPP**
- The unit produced the IPP

**Type of producer**
- The unit is a main producer of other goods and services and is expected to use the IPP in its production process
- The unit is a main IPP producer.

**Income and expenditure related to IPP**
- The unit may, or may not, receive funding from the parent as compensation for IPP development costs but this aspect is not decisive.
- The unit does not receive income from royalties or licenses to use, but either receives compensation for IPP development from the parent or sells the IPP originals to the parent.
- The unit receives income from royalties or licenses to use, or does not receive any compensation for IPP development from the parent, so it can be assumed that it is expected to obtain income from royalties and licences to use in the near future.
Identifying economic ownership of Intellectual Property Products

**GMGP decision tree**

**Production of the IPP**
- The unit did not produce the IPP

**Type of producer**
- The unit is a main producer of other (non IPP) goods and services and may use the IPP in production
- The unit is not a producer of other (non IPP) goods and services. Its main output is IPP related.

**Income and expenditure related to IPP**
- The unit pays royalties or licenses to use
- The unit purchased the IPP original for use in production
- No IPP related payments are being observed. IPP use may be indirectly observed based on the nature of the production process (with usually high IPP requirements) and above average returns to capital.
- Purchase of the IPP from the parent and income from royalties and licenses to use may, or may not, be observed.

Decision about the economic ownership
Identifying economic ownership of Intellectual Property Products

German Approach

Using the GMGP decision tree

- Data basis: Multinational enterprises (MNEs) of the GNI reservation on globalisation

- Key advantages of the test sample:
  - Data exchange between different institutions in Germany
  - Further shared data of EU member states
  - Additional information from direct MNE contacts
## Relevant data sources

<table>
<thead>
<tr>
<th>Node</th>
<th>Control/ownership of the unit</th>
<th>Is the unit part of an MNE?</th>
<th>Data sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Production of the IPP</td>
<td>Is the unit an IPPs producer?</td>
<td>SBS, public sources, other</td>
</tr>
<tr>
<td>2</td>
<td>Type of producer</td>
<td>What is the main kind of activity of the unit?</td>
<td>NACE REV. 2 - ISIC REV. 4</td>
</tr>
<tr>
<td>3</td>
<td>Use of IPPs</td>
<td>Is the unit expected to use the IPPs in the production process?</td>
<td>Public sources</td>
</tr>
<tr>
<td>4.1</td>
<td>Income from royalties</td>
<td>Does the unit receive income from royalties or licenses to use IPPs?</td>
<td>Balance of payments</td>
</tr>
<tr>
<td>4.2</td>
<td>Expenses for royalties</td>
<td>Does the unit pay royalties or for licenses to use IPPs?</td>
<td>Balance of payments</td>
</tr>
<tr>
<td>5</td>
<td>Compensation for R&amp;D</td>
<td>Does the unit receive compensation for IPPs development?</td>
<td>Balance of payments</td>
</tr>
<tr>
<td>6.1</td>
<td>Income from selling IPPs</td>
<td>Does the unit receive income from selling IPPs?</td>
<td>Balance of payments</td>
</tr>
<tr>
<td>6.2</td>
<td>Expenses for buying IPPs</td>
<td>Has the unit expenses for buying IPPs?</td>
<td>Balance of payments</td>
</tr>
</tbody>
</table>
Results

Depending on the MNE case:

- GMGP decision tree is useful
  - for small units with a distinct business activity

- GMGP decision tree is not feasible
  - for large and complex units e.g. parent companies
  - IPP flows are not available on the level of the individual transaction

General problem of data availability
Open issues when applying the GMPG decision tree

- Data availability
  - Insufficient data basis in the German/European statistical system
  - Limited information of financial reporting of MNEs
  - Direct MNE contact can be useful

- Utilization of the derived results?
  - Adequate coordination involving all relevant NSIs
  - Possibility to share microdata
Conclusions

➢ German experience led to differing results
➢ Useful instrument for a limited range of units
➢ Sufficiently large data basis is required to apply the GMPG decision tree
➢ **Current data basis in ESS needed to be extended**
➢ Remaining obstacles regarding the utilisation of the results are not solved, e.g. microdata exchange
Thank you for your attention!

Questions?
Contact

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