MEASURING GDP IN A GLOBALISED WORLD

Seminar “Globalisation in Ireland: Understanding the Impact on Ireland’s Accounts”
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Overview

• What’s the main problem?
• Solutions within the current international standards
• Solutions beyond the current international standards
• Practical considerations
• Wrap-up and way forward
What’s The Problem?
Global production versus national statistics

- **Global production arrangements** between firms and within MNEs

- **Statistical complications** have long been recognised and discussed:
  - Goods for processing/merchanting
  - Transfer pricing
  - Special Purpose Entities
  - Relocations/reorganisations
  - Asymmetries in trade data

- **Clear friction** between national statistics based on residency and global behaviour of MNEs
Adding IPPs and digitalisation

• Added complication when globalisation meets IPPs and digitalisation

• No physical and local constraints => relatively easy to relocate from one country to another

• Impact can be large, especially in small economies

• GDP still valid as a measure of domestic production? Is it still usable for designing monetary, fiscal and structural policies?
Special Purpose Entities in The Netherlands (2010)

- Value Added: -390
- Property income received: 117350 (19.9%)
- Property income paid: 114480 (19.4%)
- Taxes on income: 1820
- Total financial assets (*1,000 mln. Euro): 2060.1 (349.9%)
### Ratio of Profit-type Return to Compensation of Employees

<table>
<thead>
<tr>
<th>Region / Country</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>All countries</td>
<td>0.840</td>
</tr>
<tr>
<td>Canada</td>
<td>0.848</td>
</tr>
<tr>
<td>Europe</td>
<td>0.579</td>
</tr>
<tr>
<td>Ireland</td>
<td>6.639</td>
</tr>
<tr>
<td>Netherlands</td>
<td>0.878</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1.614</td>
</tr>
<tr>
<td>Latin America and Other Western Hemisphere</td>
<td>1.555</td>
</tr>
<tr>
<td>Central &amp; South America</td>
<td>0.978</td>
</tr>
<tr>
<td>Other Western Hemisphere</td>
<td>11.709</td>
</tr>
<tr>
<td>Barbados</td>
<td>34.967</td>
</tr>
<tr>
<td>Bermuda</td>
<td>36.062</td>
</tr>
<tr>
<td>United Kingdom Islands, Caribbean¹</td>
<td>8.833</td>
</tr>
<tr>
<td>Western Hemisphere, n.e.c.²</td>
<td>6.347</td>
</tr>
<tr>
<td>Middle East</td>
<td>1.837</td>
</tr>
<tr>
<td>Other Middle East³</td>
<td>9.403</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>1.178</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>0.953</td>
</tr>
<tr>
<td>Singapore</td>
<td>2.978</td>
</tr>
</tbody>
</table>

Have They Gone Mad?

Irish GDP up by 26.3% in 2015!

Source: Central Statistics Office of Ireland

Economist.com
Some quotes from the press

• “This Tax Haven Just Revised Its 2015 GDP up From 7.8% to 26.3%” (Fortune)
• “Handful of multinationals behind 26.3% growth in GDP” (Irish Times)
• “Ireland’s Economists Left Speechless by 26% Growth Figure” (Bloomberg)
• “Why GDP growth of 26% is mad” (Economist)
• “It’s complete bullshit, it’s Alice in Wonderland economics” Colm McCarthy, University College Dublin
• “World Economies Watch As Ireland Reaps 26% GDP Windfall On Tax Inversions” (Business Insider)
Are we doomed?
Solutions Within the Current International Standards
Highlighting alternative indicators

- **National Accounts ≠ GDP**
- The System of National Accounts is a framework from which a **variety of indicators** can be derived
- **Some indicators** such as NNI and Household Disposable Income **hardly/not affected** by e.g. relocations
- Better use and communication needed
More granularity

- **Proposed additional breakdowns** in supply and use tables and in institutional sector accounts:
  - Public corporations
  - National private corporations, not part of domestic MNEs
  - National private corporations, part of domestic MNEs
  - Foreign-controlled corporations
    - Of which: Special Purpose Entities (SPEs)
- Breakdown for SPEs may only be relevant for some countries
Applying alternative types of analysis: Trade in Value Added

Gross exports (100)

Country A -> Country B

Value added (100)

[in value added terms, there is a direct relationship between A and C]

Value added (30)

Country B -> Country C

Gross exports (130)

[no direct relationship]
Example: Sources of Competitiveness

Gross | Domestic VA in exported 'product' | Exported VA by origin industry
Defining additional indicators

- Example of Ireland: GNI*
- \[ \text{GNI}^* = \text{GNI} - \text{retained earnings of re-domiciled firms} - \text{depreciation of categories of foreign-owned domestic capital assets (such as IP capital assets)} \]
- Would it work in all circumstances?
- Consistent with the 2008 SNA?
Solutions Beyond the Current International Standards
2008 System of National Accounts (SNA)
May lead to some reactions!
Step 1: Consolidating SPEs

- If not located in another country, they would **not be considered as separate institutional** units and would be consolidated.
- **No economic substance**: often brass plates.
- Assigning e.g. ownership of IPPs to these units is matter of legality or practicality.
- **Consolidate SPEs with the ultimate owner**.
- What about affiliates with high volumes of IPPs and related value added, with a true physical presence and economic ownership of IPPs?
Step 2: Gross International Product (GIP)

- **GDP**: production by resident units, whoever controls them
- **GIP**: production by domestically-controlled units, wherever it takes place
- Allocates activities of affiliates abroad to the country where decisions are made (similar to treatment of embassies and consulates)
- Insights on how economic decision-making generates GIP in the decision making country
- **Statistical unit = enterprise group**
- But … true physical presence, at least when it comes to employment and tangible capital
Step 3a: Allocating “only” profits and IPPs to the ultimate owner

- **Problems with** allocation of output and value added mainly related to **the parts that are neither physically not locally constrained**
- Logical alternative to GIP is to **allocate profits and IPPs to the country of the ultimate owner**, and allocate the other parts to the countries in which the affiliates are located
- From a conceptual perspective, this would make sense as the **parent is the true economic owner** of the profits and corporate assets such as IPPs
- Basically, upward shift of (distributed and reinvested) earnings from GNI to GDP
3b. Alternative: proportional allocation of profits and IPPs

- **Proportional allocation of profits and (use of) IPPs** across activities of MNEs
- Denominator: compensation of employees and depreciation of tangible capital?
- It probably leads to **more stable macro-economic** data, but would it lead to **better interpretable results from an economic substance point of view**?
- It would, for example, lead to **allocating IPPs to countries with low knowledge-intensive activities**
- What about e.g. macro-analysis of multinational activities?
- Results are largely imputed without much economic rationale, thus creating a fictitious world
Step 4: Treat profits and IPPs of MNEs at a supranational level

- One of the problems with option 3a (not option 3b) is related to the impact of possible relocations of headquarters on the level and growth of GDP.

- **Treat profits and IPPs of MNEs as supranational phenomena**, which cannot be allocated to national economies.

- $\sum \text{GDP of national economies} \neq \text{World GDP}$

- The end of GDP?

- Additional consideration: extend **reinvested earnings approach** to the ultimate owners of the equity?

- $\sum \text{NNI of nat. economies} = \text{World NNI}$
Whatever solution is chosen, within or beyond the 2008 SNA, analysis of MNE-behaviour requires looking at the complete elephant, not the national parts.

Supplementary tables on MNEs, in addition to the traditional monitoring of national economies?

BIS already compiles, for example, banking statistics on a “nationality” perspective, to arrive at a better understanding of foreign exposures.

Similarly, performance and productivity analysis of MNEs is perhaps only feasible when considering the whole enterprise group.
Practical Considerations
Application of solutions beyond the 2008 SNA requires extensive exchange of individual enterprise information at the international level

- Top-down approach (e.g. BEPS-data, or alternative/additional collection of data on MNEs at the international level)
- Bottom-up approach (monitoring and analysis of MNEs primarily based on collection of data on the national level)

But … we already have major problems in arriving at consistency at the national and international level, even problems in arriving at exhaustive estimates at international level

Need for enhancing (the possibilities for) international co-operation and co-ordination

* Quote from the poem “The Marriage” by Willem Elsschot

“In between dream and act there are hindering laws and practical issues” *
Wrap-up and Way Forward
At the national level, no conceptual issues in applying solutions within the current framework of national accounts.

But ... it does require sources, resources and time to implement.

Need to continue and step up current initiatives, such as EuroGroups Register, Early Warning System, and Large Cases Units.

Currently no appetite for revision of the 2008 SNA, but can we wait until say 2030?

Is there an intermediate solution to adapt the conceptual framework?
Thank you for your attention!