



# MEASURING GDP IN A GLOBALISED WORLD

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

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- **What's the main problem?**
- **Solutions within the current international standards**
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- **Practical considerations**
- **Wrap-up and way forward**



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# What's The Problem?

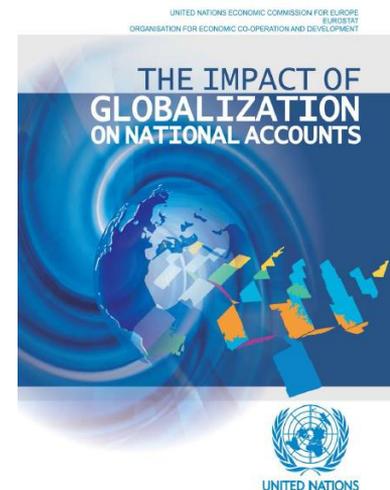


# Global production versus national statistics

- **Global production arrangements** between firms and within MNEs
- **Statistical complications have long been recognised** and discussed:
  - Goods for processing/merchandising
  - Transfer pricing
  - Special Purpose Entities
  - Relocations/reorganisations
  - Asymmetries in trade data
- **Clear friction between national statistics based on residency and global behaviour of MNEs**



[www.oecd.org/trade/valueadded](http://www.oecd.org/trade/valueadded)





# 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?**



Handbook  
on Deriving  
Capital Measures  
of Intellectual  
Property Products



# 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

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<b>All countries</b>	<b>0.840</b>
<b>Canada</b>	<b>0.848</b>
<b>Europe</b>	<b>0.579</b>
Ireland	6.639
Netherlands	0.878
Switzerland	1.614
<b>Latin America and Other Western Hemisphere</b>	<b>1.555</b>
Central & South America	0.978
Other Western Hemisphere	11.709
Barbados	34.967
Bermuda	36.062
United Kingdom Islands, Caribbean <sup>1</sup>	8.833
Western Hemisphere, n.e.c. <sup>2</sup>	6.347
<b>Middle East</b>	<b>1.837</b>
Other Middle East <sup>3</sup>	9.403
<b>Asia Pacific</b>	<b>1.178</b>
Hong Kong	0.953
Singapore	2.978

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Source: Robert E. Lipsey: Measuring the Location of Production in a World of intangible Productive Assets, FDI, and Intra-Firm Trade (NBER Working Paper 14121)



# Have They Gone Mad?

**Irish GDP up  
by 26.3% in  
2015!**

## Gross domestic blarney

Ireland's GDP, % change on a year earlier



Source: Central Statistics Office of Ireland



# 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?





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# **Solutions Within the Current International Standards**





# Highlighting alternative indicators

- **National Accounts  $\neq$  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





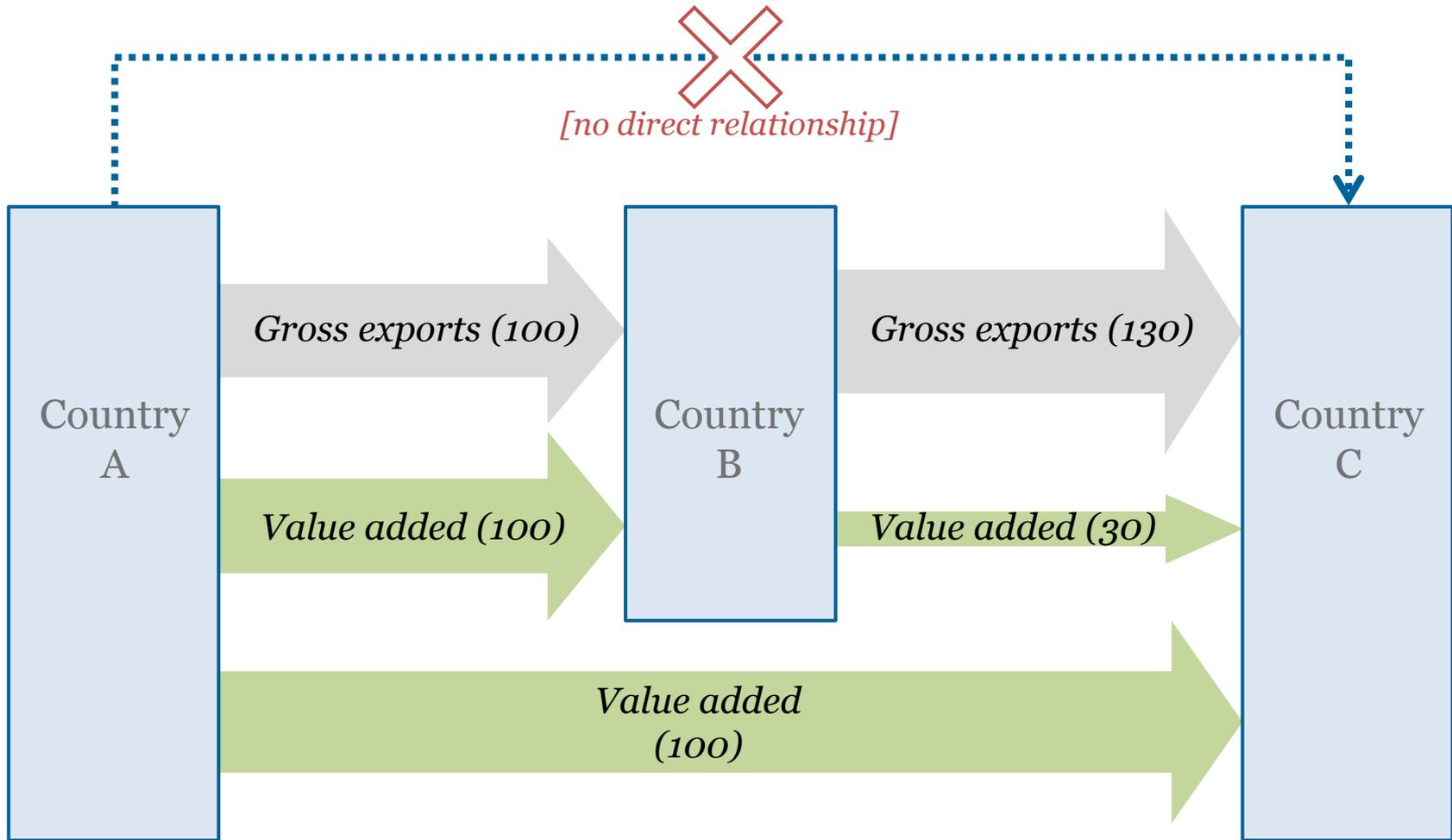
## More granularity

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- **Proposed additional breakdowns** in supply and use tables and in institutional sector accounts:
  - Public corporations
  - National private corporations, not part of domestic MNE
  - **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

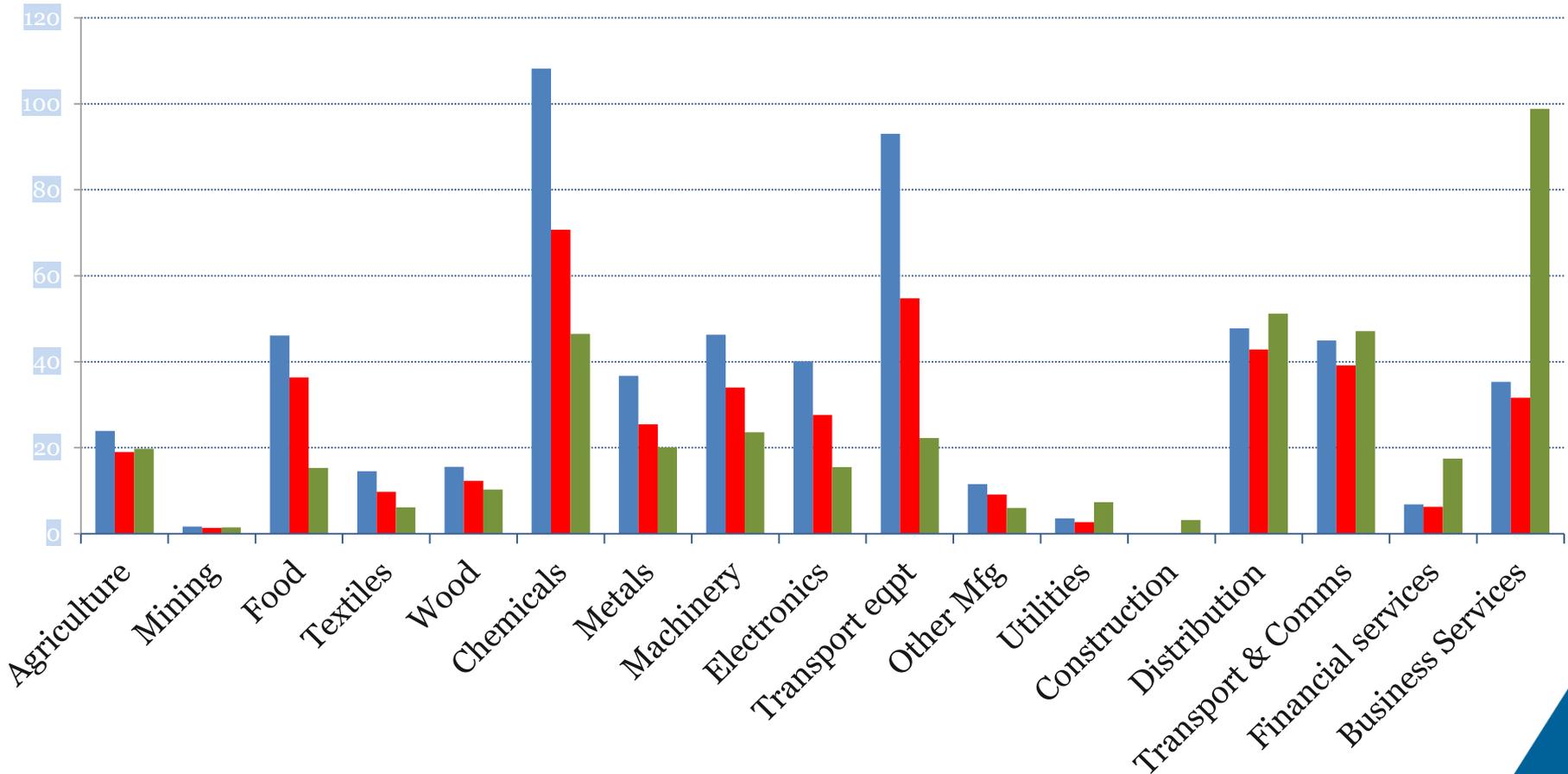


[in value added terms, there is a direct relationship between A and C]



# Example: Sources of Competitiveness

■ Gross    ■ Domestic VA in exported 'product'    ■ Exported VA by origin industry





## Defining additional indicators

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- Example of Ireland: **GNI\***
- **GNI\* = GNI minus retained earnings of re-domiciled firms minus 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?



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# **Solutions Beyond the Current International Standards**



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# **2008 System of National Accounts (SNA)**



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2009

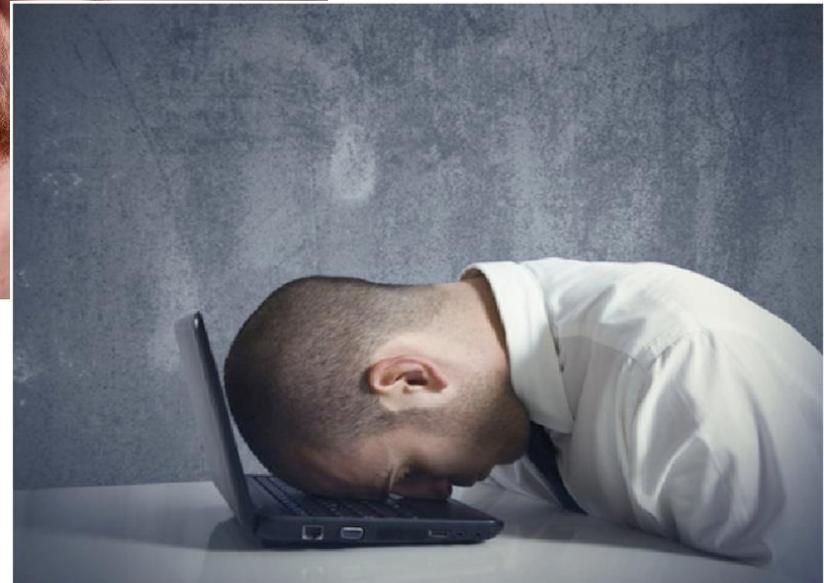
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**May lead to some reactions!**

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## Step 1: Consolidating SPEs

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- 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)

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- **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

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- **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

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- **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
- **$\sum$  GDP of national economies  $\neq$  World GDP**
- The end of GDP?
- Additional consideration: **extend reinvested earnings approach** to the ultimate owners of the equity?
- **$\sum$  NNI of nat. economies = World NNI**





## Step 5: Supplementary tables on MNEs

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- 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



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# Practical Considerations



# ***“In between dream and act there are hindering laws and practical issues” \****

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- **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



# Wrap-up and Way Forward



# 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?**





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**Thank you for your attention!**

