Adjusting GDP in time of globalisation?

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A stupendous growth

- July 2016: the Irish Central Statistical Office (CSO) announces a revision of its estimate for growth (real GDP) for 2015
- The previous figure was +7%.
- The new figure is **+26,3%**
- Ireland was dubbed in the 90s: the European "Tiger" or the "European Korea".
- But this extraordinary figure led to talk about…

Leprechaun economics?

- Paul Krugman (Nobel Laureate) in Twitter (12/7/2016):
- *"Leprechaun economics: Ireland reports 26% growth. But it does not make sense! Why are these in GDP?"*
- Who are "Leprechauns" ?
- They are a a type of fairy in Irish Culture…

Irish Leprechaun

Other record breaking leprechaun numbers

- GDP at current price: +32.4%
- Output industry: +97.8%
- Net exports: +102.4%
- Increase of capital stocks : +300 billion euros (+40%)
- *In contrast:*
- Consumption of goods and services: +4.5%

What happened?

- Simple official relocation in Dublin of the balance sheet of a few very big US Multinationals (MNEs)

- **For tax reasons…**

- Nothing else has changed in the organisation of the MNEs
  - No change in the location of factories
  - No change in the location of R&D units
  - No more staff in Ireland

Administrative relocation of balance sheet

- Balance sheet = Intellectual Property Products (IPP)
- IPP = licences = royalties
- In the System of National Accounts (SNA): royalties = production
- The simple registration in Ireland of a business doubles manufacturing production, without any additional employment?
- Magical productivity gains…

A result of SNA 2008?

- CSO convinced that they apply correctly SNA
- Supported by Eurostat
- Main argument: the "economic ownership" of the capital has been passed to the Irish subsidiary of the MNE
- Economic ownership: a very vague definition
- "*The economic ownership is defined as being able to claim the benefits associated with the use of an asset by virtue of accepting the associated risks*"
- In practice: "*In the absence of a straightforward indicator of economic ownership the United Nations' Guide relies on* ***legal*** *ownership*".
- Are we talking economics or legalities ?

CSO: GDP is obsolete, promote GNI*

- The figures published in July 2016 was questionned, even in Ireland.
- What means +26% growth for the employement policy of the Irish government?
- CSO organised a task force which reported in February 2017.
- Conclusion: promote a new version of "Gross National Income: GNI*" = *excludes the <u>depreciation</u> attributable to relocated capital assets and the impact of <u>re-domiciled firms</u>*
- Growth of GNI* in 2015 = +6%

Analysis of GNI*

- Why not GDP* ?
- Official reason: because GNI is more adapted to Ireland than GDP (European Budget is based on GNI not GDP)

1. GNI* = GNI - depreciation of foreign owned assets.

   Bizarre: why call it **G**NI if it is net of depreciation? There is a word for that in SNA: **Net** National Income.

2. GNI* = GNI – retained earnings of foreign owned enterprises

Conclusion: GNI* is a bizarre construction with the objective of undoing the impact of application of the "economic ownership principle" !

Would it not be better to reflect on this "principle"?

No, GDP is not obsolete

- There is no world government.
- Economic policy is conducted at national level
- **G D**omestic **P** is an essential indicator for economic policy
- Because of its link to employment
- Globalisation and MNEs create difficulties to obtain high quality indicators
  - Transfer pricing
  - Artificial location of intangible capital
  - Creation of artificial internal debt positions/interest flows
- But it is an obligation for National Statistical Offices to fight for better measure of GDP
- And there are ways to do it!

MNEs need special treatment in SNA

- MNEs are world-wide enterprises
- They do not know borders
- The concepts of “domestic institutional unit” or of “residence” are foreign to them
- They organise their business based on optimising their production process:
  - R&D in high qualified regions (Silicon Valley, etc.)
  - Production in low labour cost regions (China, Bangla-Desh, etc.)
  - Profit in low tax countries (Ireland, Singapore, etc.)

Lets talk economics not legalities

- To attribute a “national economic ownership” to a subsidiary of an MNE is a fantasy
- MNEs will arrange the status in function of their optimised production process based on legalities/tax
- Why are US MNEs registering their balance sheet in Ireland? Essentially, for tax reasons
- Tomorrow, they can move it by a click to Singapore…

Statisticians should base themselves on economics:

- When a US MNE registers in Ireland without changing at all its production process, GDP should not be impacted at all.
- Of course, royalties now come in Ireland, but this is cash (property income) not production!

Let's use <u>economic</u> conventions

- GDP = ∑ Value addeds
- **Main issue**: *where is value-added created?*
- *Production = f(Intermediate Consumption, Labour, Kapital) => Value Added = f(Labour,Kapital)*
- Value added should be located where the factors are located
- Labour is easily located
- Physical capital is easily located
- The issue is with intangible capital, which can be located anywhere

Three solutions

1. Treat royalties as property income and not production.
   - Not heretical: the 1968 version of SNA did so…
   - In line with business accounting
   - But this would mean “decapitalise” R&D
   - But not palatable for many statisticians:
   - Capitalisation of R&D was the main change of SNA 2008

Solution two

1. Impute the location of the intangible capital where it has been created
   - Locate the licenses where the researchers are (Silicon Valley)
   - The production (equal to royalties) would be rerouted there
   - The cash would still be recorded, as property income, where it arrives (and taxed) in reality
   - This would not affect GDP but only GNI

Solution three

- Breakdown the profit of the MNE using a “formulary apportionment” method
- Rationale:
  - The MNE is a global enterprise by itself
  - Value-added = Compensation of employees + Operating surplus
  - Compensation of employees is “located”
  - The MNE has a global (world-wide) profit (located where it decides to locate it for tax reasons)
  - Its global profit should be broken down by country using a structure based on employees/tangible capital/sales

Solutions two and three are already in use

- Two similar situations:
  - National accountants *vs* MNEs
  - Regional accountants *vs* Large national enterprises
- Large national enterprises have specialised subsidiaries in different regions of the country.
- Regional accountants heavily use formulary apportionment to derive regional GDP
- In the US, tax authorities use formulary apportionment to attribute profit to States

Are these solutions realistic?

- A recent OECD survey confirmed that NSOs and/or Central Banks have very poor information on MNEs accounts
- Only one country (over 34) corrects GDP for transfer pricing!
- But, under the OECD Base Erosion and Profit Shifting (BEPS) program (Action 13), the OECD has imposed a new reporting system to MNEs : **Country-by-Country reporting**
- MNEs will be obliged to report each year the breakdown of their activities/financial results by country
- NSOs and Central Banks should have access to this fantastic new source of data on MNEs
- OECD Code of Statistical Practice: statisticians should have access, by principle, to administrative data

Is the Irish method for GDP better for tax analysis?

- With the administrative registration of intangible capital in Ireland, big royalties now flow in Ireland
- They are now taxed in Ireland
- Isn't it "normal" that GDP increases dramatically, in line with tax?
- No: GDP is a production indicator
- It is not meant to be a measure of tax base
- Gross National Income (GNI) is more adapted, Net National Iincome is still more adapted
- But even NNI does not include holding gains/losses.

Can relocation of tangible capital have the same impact on GDP?

- Some experts justify the Irish treatment saying that such thing can happen even with tangible capital
- Example: import by a small country of a big petroleum platform
- The production of petrol generates a brutal increase of GDP and overall productivity
- But this not comparable to the Irish case:
  - MNEs do not sell their “originals” because they constitute the core of their business (Microsoft does not sell the original of Windows). MNEs only transfer their intangible assets between subsidiaries !
  - The production of petroleum is a real activity/The production of royalties by a license is not an activity
  - The production of petrol is really located in the country/the production of royalties is not located anywhere
  - Royalties are financial flows and can be moved anywhere by a click, not a petroleum platform

The Irish example is contradictory to BEPS

- The official objective of the OECD BEPS initiative (signed by more than 50 countries) is:

  To have the MNEs pay tax where their profit is really generated
- This needs to define where the profit is generated, economically and not artificially
- By using implicitely the convention of the legal registration of the balance sheet, the Irish example goes against the spirit of BEPS
- It is a pity while tax experts expected national accounts to be based on economic criteria

Do we need to change GDP in time of globalisation?

- My answer is NO.
- GDP remains a valid theoretical concept whatever the organisation of firms
- The issue is
  - To avoid being blinded by the legal organisation of MNEs
  - To base our estimations/imputations on economics
  - To develop our knowledge of MNEs' accounts, in particular using the new Country-by-Country reporting under BEPS
- Irish CSO says they apply the rules of SNA.
- If this is the case, we have to come back on the interpretation of the concept of "economic ownership" in SNA
- If the rules are bad, lets change the rules…