SNA/M1.17/3.4

11th Meeting of the Advisory Expert Group on National Accounts,
5-7 December 2017, New York, USA

Agenda item: 3.4

De-globalized GDP by using modified GNI and cross-border inter affiliate flows of Intellectual Property and the consequences for the SNA framework

Introduction

In July 2016 CSO (Ireland) reported an annual real increase in GDP of 26.3% for 2015. This extraordinary result prompted the Director General of CSO to convene the Economics Statistics Review Group (ESRG) chaired by the Governor of the Central Bank of Ireland. The mandate of the group was to consider the creation of additional economic indicators to assist policy makers, analysts and other users gain greater insight and understanding of the underlying developments in the Irish economy.

Documentation

Paper on: De-globalized GDP by using modified GNI and cross-border inter affiliate flows of Intellectual Property and the consequences for the SNA framework (*Ireland*)

Main issues to be discussed

The AEG is requested to:

- Express their views on the usefulness of GNI* and the other analytical indicators discussed in helping users arrive at a more informed understanding of developments in the underlying economic conditions particularly in extreme scenarios for the economy such as the GDP and GNI results for Ireland in 2015.

- Express their views on the proposed alternative approach to the recording of the inter-affiliate flows of Intellectual Property as described in the paper.

De-globalized GDP by using modified GNI and cross-border inter affiliate flows of Intellectual Property and the consequences for the SNA framework

Modified GNI and other indicators devised by ESRG

1. In July 2016 CSO (Ireland) reported an annual real increase in GDP of 26.3% for 2015. This extraordinary result prompted the Director General of CSO to convene the Economics Statistics Review Group (ESRG) chaired by the Governor of the Central Bank of Ireland. The mandate of the group was to consider the creation of additional economic indicators to assist policy makers, analysts and other users gain greater insight and understanding of the underlying developments in the Irish economy.

2. The ESRG considered indicators that might develop more understanding on the level and composition of economic activity in the Irish economy. There was also a clear recognition that in highly globalized economies like Ireland it has become increasingly difficult to represent the complexities of the economy in a single headline indicator.

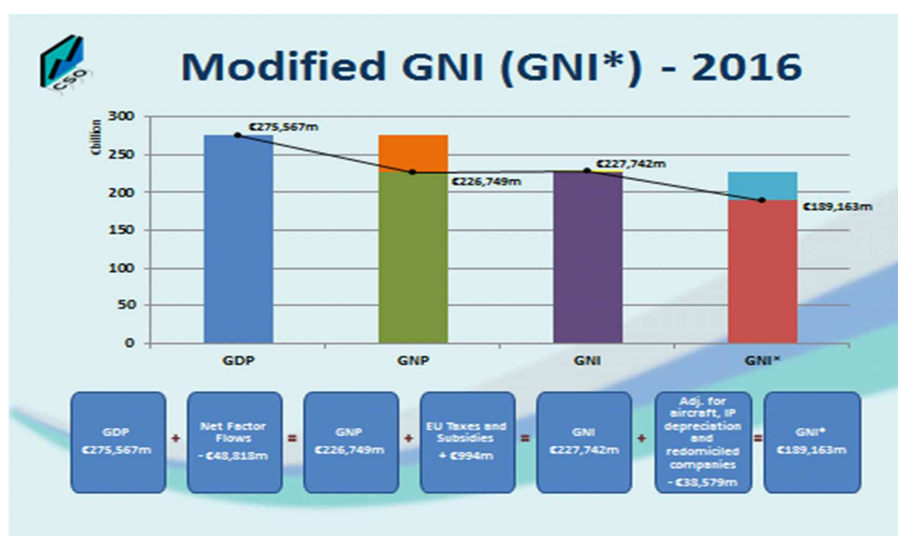
3. Three types of indicators were proposed by the ESRG in addition to recommendations on improved communications and institutional cooperation:

4. Firstly to address the need for a reliable level indicator of the size of the economy to assist private sector decision making, fiscal planning and the sustainability of public and private debt stocks, the ESRG recommended the introduction of modified GNI (GNI*). This level indicator is for use primarily as a denominator in ratio analysis, and as an alternative or to compliment the use of GDP.

5. Modified GNI (GNI*) was produced for the first time in July 2017 and is already been used to assist in the analysis of the sustainability of government debt levels, deficit ratios etc.

6. Modified GNI excludes the impact of certain aspects of globalization namely the depreciation related to both the cross border additions to the stock of IP assets and the stocks of aircraft involved in international aircraft leasing for Ireland. In addition retained earnings of corporate inversions or redomiciled plcs headquartered in Ireland are also excluded (see Fig 1 below).

Fig 1 Modified GNI (GNI*)



7. A *structural indicator* was also introduced into the Annual Institutional Sector Accounts in November 2017. In this case a separate set of accounts within the non-financial sector (S.11) for the foreign owned MNE sector[1] and also for the Other (largely domestic) sector were produced including production, distribution income, saving, investment, lending/borrowing and a full suite of financial accounts. This accounting presentation aligns with the current framework of the sequence of accounts and sectors in the SNA.

8. A *cyclical indicator* was also proposed by ESRG to allow a better understanding of where Ireland is in the economic cycle called Modified Total Domestic Demand. This entailed the construction of an adjusted measure of investment and by extension a measure of underlying domestic demand. This is a quarterly indicator, produced for the first time in July 2017, and excludes the impact on the quarterly accounts main aggregates of imports of intellectual products and aircraft involved in international leasing activities and the additions of these imports to GFCF.

9. It should be noted that for the cyclical indicator the adjustments to imports (net exports) and GFCF offset one another as investment is added and imports subtracted from GDP. Consequently the GDP result is the same in both modified and unadjusted presentations.

10. In the Irish Economic accounts, it is important to note that these new indicators are included as analytical presentations in separate annexes of the quarterly or annual accounts rather than as Official Statistics.

[1] Initially the MNE sector is the totals for the companied covered by the LCU - will be developed further using a more intensive micro data approach in 2018 and after.

Inter affiliate flows of Intellectual Property

11. One of main explanatory factors behind the dramatic increases in Irish GDP in 2015 was a series of corporate relocations of Balance Sheets dominated by Intellectual Property assets.

12. These assets in turn had a very significant impact on the depreciation charge (CFC) reported for 2015. In fact when the impact of depreciation is excluded from GNI the resulting Net National Income (NNI) increase for Ireland in 2015 amounted to 6.3% (in current prices) compared to a GNI increase of 34.4%..

13. There are a number of features of these IP assets now resident in Ireland

14. Firstly the economic rationale for transferring IP between affiliates from one country to another can be difficult to understand. The use of IP within an MNE group can be facilitated through the payment of royalties without the necessity to change the geographic location of the patent or licence being used in production. Given the intangible nature of IP products there isn't any particular need for these products to be located where production is occurring or even in the location where the Global Value Chain (GVC) is being managed from. However, in certain instances R&D activities are co-funded by a number of foreign affiliates in an MNE group. In such cases cross border movement of IP could result after successful research and development has been completed.

15. To further complicate matters, it is also possible that some IP that has been purchased (or relocated as part of a general balance sheet relocation) is not coming from the country where the IP was developed in the first place and instead is coming from another foreign affiliate in line with tax optimisation strategies being followed by MNEs. Movement of IP assets can also occur following corporate restructuring as MNEs may want to demonstrate greater transparency and compliance for example in line with BEPS recommendations or other Irish legislative changes. In these cases the IP may be associated with global production arrangements of the Global Value Chain operations abroad of Irish MNEs. In these scenarios is it appropriate to record these particular cross border inter affiliate IP asset transactions or additions to the National balance sheet as additions to the capital stock of Ireland ?

16. Could these inter affiliate transactions in cross border IP assets be viewed instead as transactions in a type of securitised asset and be recorded in the Financial Account of the Balance of Payments? A securitised asset is the bundling of an existing asset(s) into a tradable security. Indeed, there are quite a number of examples of the securitisation of Intellectual Property Products[2]. In such cases capital assets are transformed into financial assets or the assets and payment profiles of the assets are used to create additional financial assets. In the macro- economic accounts this would entail a reclassification of the IP asset through the "Other Changes in Volume" route.

[2] http://www.wipo.int/sme/en/ip_business/finance/securitization.htm

17. The movement of IP across an MNE group is not to enable production to take place but rather to facilitate income being earned at one particular location as opposed to another. A considerable part of this income in the form of profits earned is in reality the remuneration of these IP assets. Could these R&D related flows be recorded as income on a securitised asset rather than services on a capital asset in this reclassification scenario?

18. As the R&D activities that resulted in the creation of these assets have already occurred in another country, viewing these highly mobile intangible assets that remain within an MNE group as being different in nature to R&D expenditure or the resulting patented asset might seem plausible. This particular type of cross border inter affiliate R&D asset might be thought of as having characteristics more akin to a financial asset. In this case the flows accruing to the securitised asset would be recorded as interest flows rather that the royalty service flows normally earned by IP assets. Of course this approach would eliminate the impact of CFC on GNI that was referred to earlier.

19. This recording approach might be justified because the nature or substance of the R&D assets are closer to financial rather than capital ones. As financial assets, the impact on the macroeconomic accounts, when compared to the actual results for 2015, would be more aligned with the domestic impact of the relocation or purchase. The financial accounts would be balanced between the securitised asset transaction and the related intragroup liability transactions in loans incurred to fund the IP purchase. Therefore the impact on the net International Investment Position (IIP) would be neutral and balanced with the purchase of the securitised asset being offset by the transaction in loan liabilities. The income earned would be fully outflowed in Net Factor Flows as the CFC would not be impacted by the addition to assets. In this case GNI presents a more realistic result similar to the NNI result reported for 2015.

20. In this proposal, however, there is clearly the risk of asymmetric recording where the originating country - the country of the Head Quarters of the MNE - records the asset sale as a reduction in capital stock /capital formation while the statistical compiler in the receiving or country of the affiliate records the asset as a financial asset. This proposal therefore also entails international coordination and a case by case type of treatment by compilers in both economies.

21. Accordingly, despite the practical attractions of treating or recording these capital assets as financial ones, a fundamental question is whether this approach can be justified within the framework of the SNA?

22. The answer to this question is clearly that the IP assets are undoubtedly involved in the production process as inputs. In the cases under consideration although there aren't explicit royalty flows, the capital assets are clearly involved in the production process and by extension in the generation of GVA and GDP. A key consideration is the impact on productivity measures. In this proposal, the measure of capital services would be understated as the scale of capital assets used in production is reduced with a corresponding in financial assets. As a result the residual TFP measure would be overstated. Looking at this issue more generally, the impact on productivity measures prior to SNA 2008 with the exclusion of IP

from capital assets had a similar impact on capital services and TFP measures so it is really not appropriate to exclude these IP assets.

23. The pros and cons of the proposal are as follows:

Pros

- The imbalance between the financial and capital account is resolved.
- The large charge for depreciation ceases and doesn't increase GNI.

Cons

- There is an IP input into production and it needs to be measured.
- Can no longer "follow the money" as company and economic accounts would be on a different basis.
- Productivity measurement would not include the critical element of capital services to enable an allocation of the increased operating surplus in GVA to the various factors of production.

24. As it stands this proposal represents a deviation from the existing standards, SNA 2008 and BPM6, and the question is firstly can it be conceptually justified and secondly can it be made operational?