Draft note
Patrick Honohan
11 November 2016

TOWARDS A TRIMMED-GDP CONCEPT

Outline

Distortions to the interpretation of the Irish national accounts now go well beyond the traditional (and already quite serious) problems related to transfer pricing. In particular the scale on which intangible and internationally mobile assets have been accumulated by a number of MNCs for the purpose of essentially offshore operations has generated enormous problems. There are also problems generated by the import and export of goods manufactured under contract abroad by other MNCs.

This note proposes a trimmed-GDP concept, based on retaining the full ESA approach, but creating, for analytical purposes, a notional sector in which the "offshore" activities of the largest distorting firms are grouped. The activity of the rest of the economy, excluding the notional sector, can be analysed through trimmed accounts, with a trimmed-GDP. The trimmed accounts would be largely free of the MNC-distortions, and could be published without compromising confidentiality of individual firm data.

The approach can be made practical by means of some imputations which, even if crude, are defensible in the interest of robust policy interpretation of such matters as growth rates, trends in competitiveness and fiscal sustainability.

The traditional problem

Significant problems, resulting from the activities and accounts of MNCs, of interpreting Irish national accounts are not new. GDP has exceeded GNP (GNI) by an average of 19 (18) per cent for the past 15 years and in 2015 the excess had reached a record 25 per cent.

This is something unique in international comparisons. In most countries GDP is close to GDP, with rather modest net factor incomes. (The only country of any size that has had anything close to a comparable experience is Singapore, where GDP exceeded GNI by about 7 per cent in 2004-5, and on average by 3½ per cent in the decade since then).

For many years the main source of distortion was transfer pricing by firms especially in the IT and Pharma sectors. Growing exports and profits of these sectors for at least three decades up to 2002 pushed measured GDP growth rates persistently higher than GNP.

During these decades it became a common practice among economic analysts to rely more on GNP growth than on GDP as a more reliable indicator of broad economic trends.[1]

[1] This helped somewhat in deflating exaggerated views of the – admittedly successful – growth experience. For instance from 1996-2002 real GDP grew by a cumulative 64 per cent, compared with GNP by only 46 per cent. Likewise the downturn from 2007 to 2012 in GDP is only 8 per cent, whereas GNP fell by 12 per cent.

However, GNP is far from being an ideal substitute for GDP in assessing trends in economic activity and in questions relating to the overall size of the economy. For example, regardless of trends in economic activity, GNP is affected by fluctuations in such things as net interest payments, which were sizable. Furthermore, by excluding the profits of MNC subsidiaries in Ireland, GNP excludes a significant part of the tax base.[2] (For this last reason, the Irish Fiscal Advisory Council, 2012, proposed the use of a weighted average of GNP and GDP as a compromise indicator for the purpose of measuring debt capacity).

Recent additional complications

(a) Types of business

More recent years have brought additional complications of interpretation on top of that caused by the issue of transfer pricing with which we had become familiar. These complications (well described in FitzGerald, 2015) include the ownership of (i) intangible or (ii) internationally mobile capital assets by MNCs resident in Ireland. Examples of the first are intellectual property (sometimes explicitly recognized in the form of valuable patents; often only implicit in the form of goodwill arising from corporate acquisitions) and of the second, aircraft owned by leasing companies (or by Ryanair, an MNC of whose revenue Ireland accounts for only about 10 per cent). Investment in most such assets[3] enters the Irish National Accounts as imports and investment, as does depreciation on such assets. Complications of interpretation are also created by some sizable firms resident in Ireland but which sell internationally products manufactured abroad under contract; the products are included in the Irish National Accounts as imports and exports even if they never physically come to Ireland.

Box: Some firm-level examples

According to their 2015 annual report, Allergan PLC (an Irish-headquartered pharma company resulting from a series of so-called inversion transactions) increased "product rights and other intangible assets" by over USD50b in that year, and "goodwill" by more than (an additional) USD25b in that year. These two items no account for almost 84 per cent of the firm's total assets of USD136b at end-2015; the firm employs 850 people in Ireland, giving total assets per employee in Ireland of USD160m.

It is widely surmised (e.g. Garside, 2016), but not confirmed, that the US-based IT company Apple transferred ownership of a large block of intangible assets in the form of intellectual property to an Irish-resident entity in its group during 2015, with the probable result that the USD value of the total assets of its Irish entities now also comes to some tens of millions per Irish employee.

Aercap is the largest Irish-headquartered aircraft leasing company (and the second-largest in the world). At end-2015 it owned over 1600 aircraft valued at USD32b. Aercap employs 164 persons in

[2] Profits earned by MNCs that are subsidiaries of foreign entities are treated in the National Accounts as if they were immediately remitted to the parent. If the MNC is headquartered in Ireland, even if owned by shareholders abroad, the profits are not so treated; profit distributions to foreign shareholders are only recorded when they actually occur, which may be many years after the profits are earned.

[3] Goodwill is treated differently to other intangible assets in the National Accounts.

Ireland, giving total assets per employee in Ireland of USD262m. A smaller Irish leasing firm Avolon (established in 2010 and with 56 employees in Ireland at end-2014) became a wholly-owned subsidiary of a Chinese firm Bohai, itself majority-owned by the Chinese conglomerate HNA Group, in early 2016. Following the takeover and other financial transactions, Avolon's fleet size (which had stood at 126 at end-2014) was expected to jump to 910 by early 2017, making it the third largest aircraft leasing company in the world. The largest aircraft leasing company of all is Gecas, a subsidiary of US technology group GE. Like Aercap, Gecas has origins in the 1992/3 collapse of Guinness Peat Aviation (GPA) and retains a significant operation in Ireland.

In contrast, Ryanair, with some 11,000 employees (I do not know how many in Ireland), has a fleet of 298 owned aircraft valued at €6b amounting to perhaps a few million per Irish employee. About 10 per cent of Ryanair's revenue comes from Ireland.

(b) What are the problems?

Among the most important indicators derived from the National Accounts which can be significantly affected by the presence of large MNCs of these types are:

(i) GDP and GNP growth rates (if the MNC sector is growing or shrinking relative to the rest).

(ii) Ratios to GDP of investment, exports and imports (for example as indicators of the exposure of the country to external disturbances); of tax revenue, government debt; share of profits in the economy.

(iii) Aggregate labour productivity, trends in unit labour costs and hence in cost-competitiveness.

(iv) Current account of the balance of payments (for example when the full value of the acquisition of a capital good enters imports, but only the flow of revenue it generates enters exports)

For example, making international comparisons with these indicators risks either placing Irish economic performance as an outlier when this is not warranted, or masking a true outlier position. Assessments of risk and performance can be badly skewed by such distortions.

One solution: Trimmed accounts

(a) Outline of the approach

While the SNA and ESA have determined how these MNCs should be treated and have developed a globally consistent methodology, several of the choices made by the SNA (and therefore ESA), while generally acceptable for most countries, create problems of interpretation where the global assets or international transactions assigned to the Irish legal entity of a large MNC are disproportionate to the factors of production actually resident in Ireland.

In order to bypass these problems, without compromising the consistency of the Irish National Accounts with ESA, one approach would be to **create an artificial production**

sector isolating the bulk of the distortions and allowing analysis of the aggregate of the remainder of the productive sectors trimmed of these outlier MNC activities. For example, there would be a **trimmed-GDP** (alongside conventional GDP); exports, imports, capital stock, productivity etc., could also be analysed in the trimmed accounts.

The general approach would be implemented by **selecting a manageable set of the largest firms** affecting the problems of interpretation. The activities of these firms would then be **split into "onshore" and "offshore" components**, with the latter assigned to a new artificial "offshore" sector which could then be trimmed off the rest of GDP.

(b) How to split the firms

The accounts of each of these selected firms would then be segmented into two artificial entities, one (the "onshore" firm) designed to capture the activities of the firm clearly linked to employment and fixed capital located in Ireland, the other ("offshore") including everything else to do with the actual firm.[4] If the firm's own business accounts allow the components of this breakdown to be measured directly, including the firm's use of intermediate goods and services, then the job is conceptually straightforward.

Otherwise, the split must be carried out in an approximate way using imputed rates of return, wage rates etc. For example, the simplest and most crude way of doing this would be as follows.

Split option A

- The "onshore" firm is assumed to employ only the staff resident in Ireland and any fixed capital located in Ireland.
- Everything else is assigned to the other ("offshore") firm. The "onshore" firm sells output to the "offshore" firm at an imputed cost-plus price.

The "onshore" firm is included in the same economic sector as the selected firm is in the standard accounts; the "offshore" firm is not included in that sector, but is placed in a new notional sector. This approach allows a trimmed set of national accounts, excluding the "offshore" firms, to be published without compromising confidentiality of any actual firm, because the confidential information of all of the "offshore" firms is bundled together in the excluded "offshore" sector.

This approach should eliminate from the trimmed series most of the distortions created by the selected firms (on exports, imports, productivity, balance of payments, overall activity).

Split option B

A somewhat more satisfactory way of splitting would involve also assigning to the "onshore firm" purchases of intermediate goods and services from Irish firms as well as final sales to

[4] They could be pictured as two separate firms each of which issues shares (which happen to be owned by a notional private equity firm located outside of Ireland) and each of which immediately distributes all of its profits in dividends.

Irish purchasers. This split is evidently conceptually preferable, though may be more difficult to carry out in practice

(c) Taking account of taxable profits of the selected MNCs

One important exception results from the fact that the split also removes profit elements that are taxable in Ireland. As such, the trimmed GDP would understate taxable capacity.

In order to restore the profit element, one further notional/artificial firm could be created in the accounts as an owner of all of the "offshore" firms. This "MNC profit centre" firm would have no employees and no fixed capital or other costs. It would simply act as a financial intermediary earning all of the profits of the "offshore" firms, paying the total corporation tax actually paid by all of the identified firms (net of that already calculated for the "onshore" firms) and distributing the remainder promptly to the shareholders of the selected firms. Adding the "MNC profit centre" to the trimmed GDP produces a further indicator ("trimmed GDP+") especially useful for fiscal analysis.

(d) Selecting the firms

The firms to be selected for this splitting should be those which most contribute to the distortions. As described above, the distortions occur for companies with very large reported intangible or internationally mobile assets or which, often exploiting the potential of transfer pricing or tax-domicile rules, book very large exports through Irish-resident firms. Such outlier firms in terms of their scale and of the intensity of their use of factors of production/inputs located in Ireland. The scale can be captured by the size of a firm's total assets or exports. The most obviously available measure of the intensity dimension of outlier status would involve relating scale to the Irish wage bill.[5]

Thus, a list should be prepared of the MNCs which are both large and for which their total assets or their total exports are large in relation to the Irish wage bill.

For example, we could choose thresholds of total assets [say €1 billion] and total exports [say €1 billion]. Any firm exceeding either of those scale thresholds that also has a total asset-to-wage bill ratio of more than [say 20] *or* exports-to-wage bill ratio of more than [say 100] could be selected for the trimming exercise. [6] [How many firms would this yield]?

(e) Possible objections

It may be objected that the extremely crude process of imputation is unsatisfactory and indeed risks trimming out parts of MNC activity that are actually closely tied to the Irish economy. Clearly the imputation method could be refined relative to the extremely simple one proposed. And imputation is apparent in many other aspects of the National Accounts (FISIM is one example). Even without further refinement, the trimming is a definite

[5] More complex alternatives could also take account of the input of Irish materials, assets located in Ireland and even the profits ultimately attributable to Irish shareholders, but these are less readily available.
[6] All of the firms mentioned in the box above, with the likely exception of Ryanair, would thus be selected.

improvement on the uninterpretable data which the standard method has now begun to generate.

It may also be objected that the approach understates the problem by selecting only the largest firms for which the problems arise. However, peculiarities of this and other types undoubtedly exist in all economies. There is a case for a trimmed estimate only because it is known that (influenced by tax arrangements) a number of very large global companies have made accounting and residency choices that systematically affect Ireland's accounts. It is only the data relating to these firms that needs to be dealt with in order to restore an adequate basis for international comparison.

(f) Comparison with alternatives

Several alternative approaches can be suggested. Generally speaking, there is a trade-off between simplicity and the degree to which the proposal deals with the problem.

The device of using GNP or GNI rather than GDP has already been discussed above. Apart from the general point that GNP/GNI are designed as income rather than domestic activity measures, these gross measures are also contaminated by the fact that they are still distorted by replacement capital formation (for example of the intangible assets or aircraft).

NNP or National Income does exclude the depreciation (capital consumption) allowances and as such are undistorted by replacement investment. However, NNP is not widely used in international comparisons.

Furthermore, simply using GNP/GNI or NNP/National Income does not address other mentioned problems such as those relating to exports, balance of payments.

Another alternative would be simply to segregate all MNCs. But, for most analytical purposes, this would be going too far. Ireland is the most globalized economy in the world and much of its onshore activities are carried out by and for MNCs. The non-MNC parts of the economy are quite unrepresentative of the economy as a whole.

References

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