

Irish GDP up by 26.3% in 2015?

On 12 July 2016, the Irish Central Statistics Office published its latest national accounts data for 2015, revealing that real GDP growth was up 26.3% from 2014 (and up 32.4% in current prices). These figures have attracted considerable attention in the international press, with commentators raising questions about their reliability and about the conceptual basis for the measurement of GDP.

The main reason for the particularly high Irish GDP growth rates lies in the fact that in recent years, attracted in large part by low corporation tax rates, a number of large multinational corporations have relocated their economic activities, and more specifically their underlying intellectual property, to Ireland. As a result, sales (production) generated from the use of intellectual property now contribute to Irish GDP rather than to other countries' GDP. Given the size of these companies, the boost to GDP growth has been correspondingly large.

Does GDP adequately reflect economic activity?

It is because intellectual property can, in principle, be located anywhere that questions have been raised concerning the ability of the conceptual accounting framework used to define GDP to adequately reflect economic reality. Specifically, these questions revolve around the rules governing economic ownership that determine the location of capital and the corresponding value added it generates. In this sense, and to help frame the discussion around the notion of economic ownership, it is important to note that had the intangible assets, such as intellectual property, of the relocated firms been instead purchased outright by an independent entity already resident in Ireland, for use in subsequent production by that entity, the same increase in Irish GDP would have occurred. Note too that, had the relocated companies transferred physical and tangible capital used in production (ideally in combination with domestic labour), there would arguably be little contention about the revision to Irish GDP; this would also be the case, if for example an airplane leasing company were to relocate in Ireland.

Before getting into the detail of the accounting rules governing economic ownership however, it is instructive to first recap what GDP is (and indeed what it isn't). Paragraph 6.2 of the 2008 System of National Accounts (SNA), the international standards for compiling national accounts and GDP in particular, states the following: "*Production is an activity, carried out under the responsibility, control and management of an institutional unit, that uses inputs of labour, capital, and goods and services to produce outputs of goods and services*"¹. GDP corresponds to the value added, i.e. the balance of total output and the intermediate use of goods and services related to this production, and consists of the remuneration for the input of labour, in the form of compensation of employees, and for the input of capital (both tangible and intangible), in the form of (gross) operating surplus.

Up until the last few decades, this definition raised few eyebrows, largely because intangible capital was largely used where it was produced. However, globalisation, in particular the growing importance of global value chains, combined with the increasing importance of "intangible assets" used in production, has changed the production landscape, as multinational enterprises (MNEs), in particular, have sought to maximise profits and minimise costs, including through minimisation of their global tax burden, by (re)allocating their economic activities across the world. These relocations include transfers of economic ownership of Intellectual Property Products (IPPs), with associated risks as well as benefits from their use, the latter in the form of income from the

¹ Please note that unpaid household services are typically excluded from the production boundary, and thus from GDP, according to the 2008 SNA.

production of goods and services, including receipts from licenses and patents, accruing to the host economy.

The above to a large extent explains the case for the recent increase in Ireland's GDP, albeit with the added complication that the intellectual property is used in contract manufacturing type of arrangements. Under these arrangements, Irish enterprises (among which Irish affiliates of foreign MNEs) involve contract manufacturers, including those domiciled outside Ireland, to produce final products using the blueprints from the IPPs. The subsequent distribution and sale of these products, organised by the Irish enterprises, results in value added being created in the Irish economy, which also includes income generated by the IPP.

It is clear, from the above, that the use of intangible assets in production can generate significant value added, and so the recording of value added through their use reflects one dimension of economic reality. But perhaps the key question is whether that economic reality (value added) is recorded in the correct place, whether the value added should be recorded in Ireland or elsewhere. This is not a trivial question. To determine this, the SNA looks to economic ownership (as opposed to legal ownership). The SNA refers to the economic owner of an asset as being the entity that assumes the risks and gains the rewards of ownership, and stresses that the default position should not necessarily assume that legal and economic ownership align. In the Irish cases at hand, it is clear that the legal ownership has been transferred to Ireland, but it is important to stress that it does not immediately follow that economic ownership has also been transferred². However, decision making and control, two important criteria used in assessing economic ownership do appear to have been relocated to Ireland as well, justifying the inclusion of the associated value added leveraged from the use of the underlying intellectual property in Ireland.

That is not to say that this is an entirely satisfactory outcome for everybody. It is quite obvious that the increasing use of intellectual property in production, and the increasing value intellectual property adds to both tangible goods and intangible services, challenges the arguably "archaic" views of production that sees growth through a prism of physical factors of production, such as tangible capital and labour. Indeed it was to address the growing importance associated with intangibles that the SNA has increasingly recognised various IPPs, including research and development and software, within the boundary of assets recognised as such in the SNA. In this sense it is equally important to note that it is not because the SNA now recognises IPPs as assets that the Irish issue arises. The spectacular growth in GDP resulting from the relocations would have occurred even if the recent changes to the SNA, as agreed upon in the 2008 SNA, had not occurred. The only difference would be that under earlier versions of the SNA there would be no information to reveal the scale of intangible capital, and, so, the contribution it makes to GDP growth as a factor of production. The Irish revision does however help to illustrate the limits of GDP and in particular the care needed in its interpretation, particularly in the domain of material well-being. It also highlights the importance of focussing on additional aggregates including those defined within the SNA, and not exclusively on GDP (see below).

As a final point regarding the definition of GDP, some have argued that adjustments should be made to "better reflect (an alternative view of) economic reality". However, in this respect, it should be noted that it is simply impossible to adjust for the relocation of IPPs, and to create a complete set of

² The 2008 SNA applies the principle of economic ownership when it comes to the allocation of assets to enterprises, government and households. If, in the Irish case, only the legal ownership would have been transferred, the relevant MNE-affiliate would have been treated as a conduit through which the license fees or royalties are intermediated. The latter however is not the case in Ireland. For a more extensive discussion of the principle of economic ownership, and how to apply it in practice, reference is made to the Guide to Measuring Global Production, more specifically chapter 3; see http://www.unece.org:8080/fileadmin/DAM/stats/publications/2015/Guide_to_Measuring_Global_Production_2015.pdf.

alternative prices for the transfer prices charged by multinationals for their internal cross-border deliveries alike. Statisticians would, for example, have to impute prices (replacing the transfer prices applied by the MNEs), in a consistent way at a global level, using questionable assumptions, such as allocating an equal proportion of profits to nationally available compensation of employees. They would also need to adjust the business accounting data for the relocation of IPPs. Legal arrangements would also not allow for the international exchange of individual data, needed to make these adjustments in an internationally consistent way. But perhaps more importantly, one should not overlook the fact that the relocation of IPPs, and transfer pricing alike, do actually represent an economic reality, even if that may not be the preferred perspective for all types of economic analysis.

GDP is not an indicator of a country's material well-being

What further complicates the understanding of the Irish case is the fact that often GDP is interpreted as an indicator of the purchasing power or the material well-being of a country. In this respect, it is important to state that GDP is primarily a gross measure of economic activities on the economic territory of a country, and the income generated through those activities. High levels of GDP thus do not necessarily mean high levels of the (net) income flowing to the residents of an economy. This is because some of the income generated by production may be repatriated to non-residents, for example in the case of income generated by affiliates of multinational enterprises. Another part may be needed to compensate for the additional depreciation costs. In the case of Ireland, Net National Income (NNI), which equals GDP *plus* net receipts of compensation of employees and property income (interest, dividends, reinvested earnings of foreign direct investment, etc.) from the rest of the world *minus* depreciation, shows a considerably lower growth rate. Whereas in 2015 GDP in current prices increased by 32.4 %, growth of NNI amounted to “only” 6.4 %.

Going one step further, one could also look at household disposable income, a key measure of average material well-being of people. Here, the income retained by corporations and government is also excluded. In 2015, Irish households experienced a growth of 5.3 % in their disposable income. Adjusted for price changes, the growth rate was 4.6 %³. The international comparison of levels of various national accounts indicators across countries can also be quite illustrative in this respect. It shows that, while Irish GDP per capita is well above the OECD average, by 24 percentage points in 2014, Irish household disposable income per capita is 22 percentage points below the OECD average⁴⁵.

When looking at the economic performance of a country, it is therefore important not to focus solely on GDP. The system of national accounts is a complete and consistent framework for the description of an economy. From this system, a variety of indicators can be derived, depending on what exactly one wants to monitor or analyse. If one wants to look at the material well-being or the purchasing power of a country's resident population, it is much better to use data on, for example, household disposable income or household final consumption. For more information, see the OECD Dashboard of Household Statistics: www.oecd.org/std/na/household-dashboard.htm. An even broader perspective on the well-being of a society, which goes well beyond income developments,

³ Both numbers have been derived from the results according to Q4 2015 Non-Financial Institutional Sector Accounts published by CSO.

⁴ In the calculation of the OECD-average, the following OECD-countries have been excluded, because of lack of data on household disposable income: Iceland, Israel, Luxembourg and Turkey. Furthermore, household adjusted disposable income has been used as an indicator. In this income variable, disposable income has been adjusted to include the goods and services provided for free or at reduced prices by government and non-profit institutions serving households. It predominantly consists of health and education.

⁵ Unfortunately, data for 2015 are not yet available for a sufficient number of countries. However, one may expect that the divergence between GDP and household disposable income per capita has grown even wider, compared to 2014.

and also takes into account other aspects affecting well-being such as health, education, security, housing, etc., is provided in the OECD Better Life Initiative; see www.oecd.org/statistics/better-life-initiative.htm.

Conclusions

Globalisation combined with a growing importance of intangible assets creates issues in relation to the appropriate allocation of production and value added to countries. The relocation of such activities within MNEs may have a significant impact on the levels and the growth rates of GDP. Although it represents a certain economic reality, it goes without saying that it makes it much harder to interpret economic developments appropriately. It also makes it much more important not to derive incorrect conclusions from the developments of GDP. One cannot put developments on (material) well-being on a par with economic growth. For this purpose, one should rely on other indicators from the system of national accounts and look at broader measures of well-being.