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The Disconnection of GDP from Economic Activity Carried out in Ireland

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The unsuitability of GDP as a measure of both the size of the Irish economy and its rate of growth has been well documented for over 20 years. The problems with using GDP in an Irish context were brought into sharp focus in 2016, when CSO National Accounts data recorded an increase in GDP for 2015 of just under 26 per cent, a year in which employment grew by 3.4 per cent. Since 2015, there is evidence of a widening gap between measured GDP, in the official National Accounts published by the CSO, and what could be considered as underlying domestic economic activity – i.e. economic activity conducted in Ireland that affects the employment and incomes of Irish residents. In 2021, GDP is likely to overstate the underlying rate of growth in the Irish economy by around threefold. This Box outlines some of the reasons for the growing disconnection between GDP and other measures that more closely align with economic activity that takes place in Ireland.

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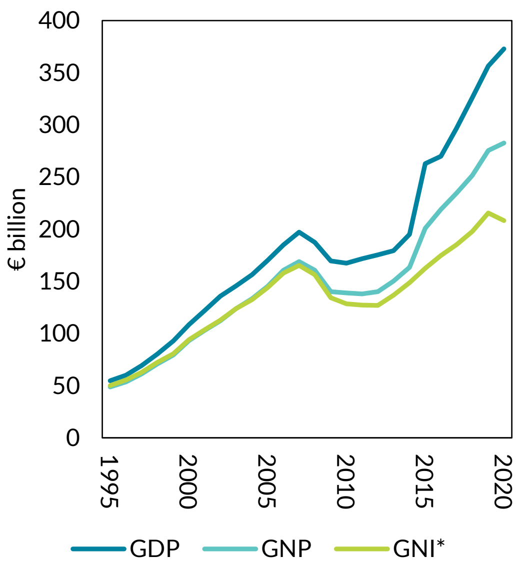
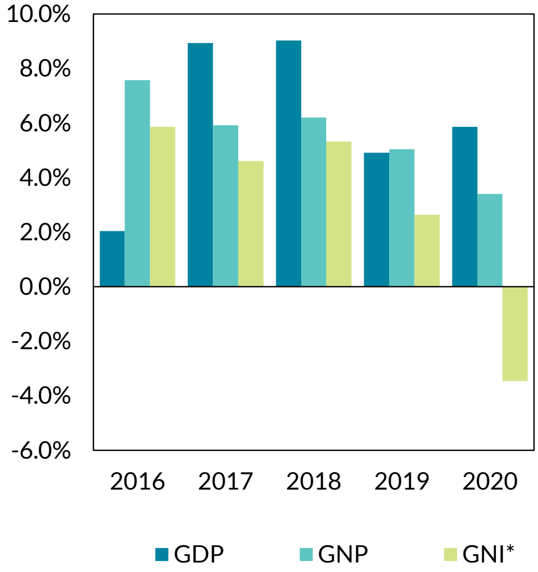
Widening Gap between GDP and Modified National Income of Irish Residents (GNI*)

Figure 1: GDP, GNP and GNI*, Current Prices



Source: CSO

Figure 2: GDP and GNI* (Constant Price Growth)



Source: CSO

Figure 1 shows three headline National Accounts indicators for Ireland published by the CSO: GDP, GNP and GNI*. The net profit outflows of Multinational Enterprises (MNEs) is deducted from GDP to arrive at GNP. GNI* is an adjusted indicator of the level of national income. It removes from GNP the profits of redomiciled PLCs and other flows linked to MNE activities that do not affect economic conditions in Ireland.[2] Of the latter, the largest item is the deduction for the depreciation on foreign-owned IP assets in Ireland. Table 1 shows the walk from GDP to GNI* for 2020.

Table 1: GDP to GNI* in 2020

	2020 € Million
GDP	372,869
Net factor income	-90,235
GNP	282,633
EU subsidies less taxes	1,102
GNI	283,735
Income of redomiciled PLCs	-4,506
Depreciation on R&D and IP	-61,252
Depreciation on aircraft leasing	-9,799
GNI*	208,178

Source: CSO

[2] See Lane, Philip R., 2017, "The Treatment of Global Firms in the National Accounts." Central Bank of Ireland Economic Letter, Vol. 2017, no. 1.

In 2014 the gap between GDP and GNI* amounted to €46.1 billion. In 2020 this had widened to €164.7 billion, meaning that GDP was 79 per cent higher than GNI*. In 2021, nominal GDP is likely to surpass €400 billion, while GNI* is expected to measure in the region of €220 billion. The magnitude of the widening gap between GDP and GNI* provides an overall picture of the extent to which GDP overstates the level of economic activity in Ireland.

The CSO produces National Accounts and Balance of Payments Statistics, in accordance with the standards set by the UN and the IMF, which are required under EU legislation.[3] To keep pace with changes in the nature of economic activity over time, these international standards are revised periodically. In 2014, the new European System of National and Regional Accounts (ESA 2010) framework was introduced to replace the previous rules dating back to 1995 (ESA 95). The revised standards had implications for the measurement of economic activity in Ireland.[4]

Since 2014, large inflows of intellectual property assets have been recorded in the Irish National Accounts. The depreciation associated with this rise in the foreign-owned domestic capital stock has the effect of increasing GDP, GNP and unadjusted GNI. In addition, with the increased globalisation of production processes, the output and employment generated by higher intangibles investment often takes place outside of Ireland. The majority of this external activity takes the form of merchanting and contract manufacturing, both of which are recorded in the Irish statistics.[5] The consequence of these combined changes is that headline measures of domestic demand, exports and imports – and hence GDP – are not meaningful for Ireland.

To address the problem with measuring domestic demand, the CSO introduced Modified Domestic Demand (MDD), which excludes intellectual property from investment. The CSO also developed GNI* in order to provide a modified indicator of the overall level of national income. Both of these supplementary indicators have proven helpful. While GNI* is useful as a standalone level indicator, a drawback with this measure is that it is calculated in a top-down manner – i.e. by subtracting a number of items from headline GDP, rather than by modifying the components of GDP and then adding these up, to arrive at an adjusted estimate of economic activity. This top-down calculation means that it is not possible to identify the contribution of specific sectors of the Irish economy to overall GNI*

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[3] The manual for implementing ESA 2010 is available here, while the BOP / IIP 6th Edition manual can be found here.

[4] To take account of the on-going globalisation of production processes and the increasing role of intangible assets, such as intellectual property (IP) and research and development (R&D), the measurement of investment (Gross Fixed Capital Formation) was broadened to include IP and R&D, adding to both GDP levels and the total stock of fixed assets measured in the economy. Second, ESA 2010 changed the nature of how trade (exports and imports) is recorded. In particular, changes in economic ownership between residents underpins the measurement of trade, rather than the physical movement of goods across borders.

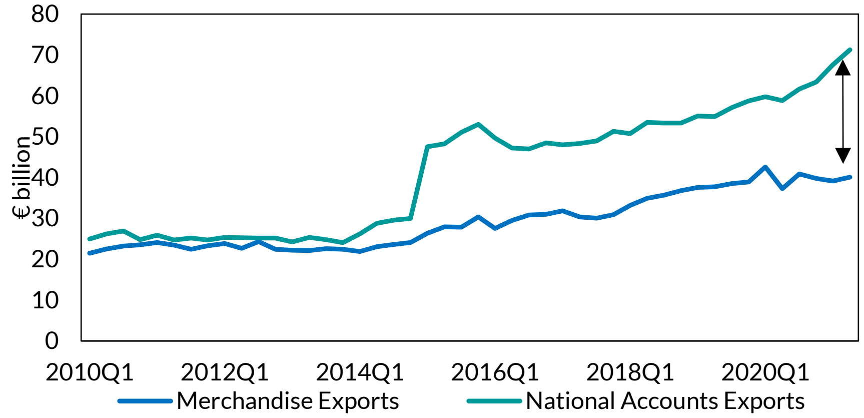
[5] Contract manufacturing occurs when Irish merchants sell goods or services under their own name, but the physical manufacturing process is carried out by non-Irish entities, through specific contractual arrangements. The inputs used in this production process remain the property of the Irish merchant, so that no change occurs in the ownership of the goods being produced. Merchanting occurs when goods are purchased and subsequently sold without transformation by Irish merchants without the goods entering or leaving Ireland.

growth. On the expenditure side of the National Accounts, while a modified estimate of domestic demand now exists, a significant ongoing problem relates to understanding developments in the trade side of the Irish economy (exports and imports), where no such modified series are available. As a small open economy, understanding the performance of the traded sector is key to assessing the composition of the economy's overall growth and the true underlying pace of activity.

To illustrate the current difficulties, Figure 3 shows CSO data on goods exports measured on a cross-border basis – these are goods physically produced in Ireland – along with the estimate of goods exports from the National Accounts. Up to 2014, the value of goods exports from these two sources was similar, but a large difference has opened up between the series since 2015. In Q2 2021, physical cross-border exports in the CSO's External Trade Statistics were reported at €40.1 billion. These are goods produced in Ireland using Irish labour, capital and other inputs. In the National Accounts, goods exports were reported at €71.3 billion, a gap of €31.2 billion. This difference is explained by goods produced abroad on behalf of Irish resident firms using contract manufacturing and merchanting arrangements. The latter activity has no effect on the employment or incomes of Irish residents but as Figure 3 shows, the extent of the activity has been increasing in 2020 and 2021 and has been the main factor driving annual Irish GDP growth to 16.4 per cent in the first half of 2021. Taking account of the surge in offshore exports in the National Accounts in the first half of 2021, GDP growth in this *Bulletin* is now projected to measure around 15 per cent for the year as a whole. Excluding the effects of the distortionary elements inflating GDP, underlying economic activity as proxied by GNI* is projected to increase by 5.6 per cent in 2021, 10 percentage points lower than the GDP figure. Further increases in exports due to contract manufacturing and merchanting will continue to distort Ireland's trade performance and inflate GDP in the National Accounts.

Value of Goods Exports Manufactured in Ireland Significantly Lower than Value of Exports Reported in the National Accounts

Figure 3: Goods Exports in the CSO National Accounts and Merchandise Trade Statistics



Source: CSO

A key benefit of the National Accounts is that they provide a comprehensive statistical framework, designed to facilitate analysis to inform economic policy decisions. The National Accounts can supply valuable data to analysts, policy makers and the public on the overall size of the economy, its rate of growth and the composition of growth. Unfortunately, the current distortions affecting the National Accounts, in an Irish context, severely limit their usefulness to provide this information. Honohan (2016) outlined an approach for the production of "trimmed" National Accounts that could be implemented by isolating the majority of the distortions in an "offshore" sector and then allowing analysis of the remainder of the on-shore productive sectors, trimmed of these distortionary activities.[6] FitzGerald (2016, 2020) has put forward a methodology for estimating an additional measure, Net National Product (NNP), using detailed industrial sector and ownership data.[7] Both of these approaches would provide analysts with a much improved understanding of the drivers of growth in the Irish economy. Further work on the development of Ireland's National Accounts statistics would be welcome, so that the data can be better used for economic analysis and to inform policymaking. In particular, consideration should be given to the publication of supplemental National Accounts, which exclude the MNE activities that do not add to the employment or welfare of Irish residents.

[6] Honohan, Patrick, 2016, "Towards a Trimmed-GDP Concept", mimeo.
[7] FitzGerald, John, 2016, "Problems with the Irish National Accounts and Possible Solutions", mimeo. FitzGerald, John, 2020, "Understanding Recent Trends in the Irish Economy", ESRI Special Article. In July 2021, the CSO published a new indicator, Net National Income (NNI) at constant prices, that is a useful step in this direction and is internationally comparable. See https://www.cso.ie/en/releasesandpublications/ep/p-nie/nie2020/mainaggregates/