An Phríomh-Oifig Staidrimh
Central Statistics Office

information
notice

NIE 2016 Frequently Asked Questions

1. What happened to Irish GDP and GNP in 2015?

GDP in 2015

The highly globalised nature of the Irish economy was demonstrated dramatically in July 2016 with the publication of the national accounts and balance of payments statistics for 2015.

The level shift in GDP of 26% in the 2015 results was driven by relocations of entire balance sheets to Ireland, with the activity related to these relocations having consequential impacts on the statistics. These relocated balance sheets were dominated by intellectual property products that are categorised as intangible assets in national accounts statistics.

The practice of relocating intellectual property to Ireland has been growing in recent years, but the scale of the relocations in 2015 was substantial and added €300 billion to Ireland's capital stocks.

Associated with the relocations were significant increases in contract manufacturing activity attributable to Ireland. When the net effects of sales of products produced abroad under contract were added to Ireland's trade in goods, the balance of trade in goods and services in the national accounts results doubled from €35bn to €80bn between 2014 and 2015, driving GDP to a new level, a level shift that will be visible in the results while the underlying activities and structures remain in place.

In the past, the impact of contract manufacturing activities on exports of goods was largely offset by imports of R&D services, as Irish companies made payments to non-resident parts of their groups for the use of intellectual property. However, when the intellectual property products are located in Ireland, these offsetting charges don't occur and the full effect of contract manufacturing is attributed to GDP, as seen in the results for 2015.

GNP in 2015

The intangible capital assets in the relocated balance sheets have led to significant increases in the estimates for depreciation of assets in the national accounts. Because of this increase in the depreciation charged in Ireland, foreign direct investment profits attributable to the rest of the world are reduced. These profits are a major part of the difference between GDP and GNP. The lower levels of profits, due to the increased depreciation charges, lead to a narrowing of the gap between GDP and GNP.

GNP is often seen as a better measure of the underlying level of economic activity in Ireland as the effects of foreign direct investment profits are removed, but as an indicator, it is now also elevated by these relocations. GNP grew by 16% in 2016.

2. What are the CSO doing to help users understand the complexities of the Irish economy?

The impact of globalisation activities on economic statistics, as seen in Ireland's 2015 results, presents significant challenges for the CSO, Eurostat, the UN and the IMF, particularly around indicators of domestic performance for national users. It is increasingly difficult to represent the complexities of activity in highly globalised economies, such as Ireland's, in single headline indicators (GDP and GNP).

In September 2016, a cross sector group was convened by the CSO to develop recommendations for the CSO on the development of a broader suite of domestically-focused economic indicators and information to supplement the internationally agreed measures of economic activity such as GDP and GNP. The group met between September and November 2016 and reported to the Director General of the CSO on 23rd December 2016. The report of the group, along with the CSO response and all input documents to the group, was published on the CSO's website on 3rd February 2017[1].

[1]The ESRG report and the CSO response are available at: http://www.cso.ie/en/csolatestnews/eventsconferencesseminars/resrg/

The expert group made 13 recommendations across five themes, including three key recommendations:

- GDP and GNP continue to be the standard international measures, however the development of a new level indicator, modified Gross National Income (or GNI*), was recommended to address the unique nature of the Irish economy. Its primary use will be as a denominator in ratio analysis.
- The group also recommended quarterly publication of modified domestic demand measures that take account of the impact of IP relocations, contract manufacturing, aircraft leasing and re-domiciled companies. The seasonally-adjusted volume change calculated for the modified domestic demand time series will be available for analysts of growth in the domestic economy.
- The highly globalised nature of the Irish economy makes interpretation of the economic statistics difficult for users who are interested in the performance of the domestic companies in the Irish economy. Separating results by multi-national enterprise (MNE) and other sectors is recommended to give users insight into how ownership impacts the statistics.

Annual initial results for modified GNI (or GNI*) and the quarterly underlying domestic demand measures were published in the National Income and Expenditure 2016 and the Quarterly National Accounts Quarter 1 2017 releases respectively.

Separation of key aggregates such as GDP and GNP by foreign-owned MNE and other sectors will be introduced in the annual sector accounts publication scheduled for Quarter 4 2017, using the CSO's large cases companies initially as a proxy for foreign-owned MNEs.

3. What is GNI*?

GNI* is designed to be a national indicator that excludes the globalisation effects that disproportionately affect the measurement of the size of the Irish economy.

Specifically, the expert group convened by the CSO to review economic statistics recommended a modified version of the existing GNI aggregate. Modified GNI (or GNI*) is defined in the recommendations as GNI less the impact of re-domiciled companies and the depreciation attributable to relocated capital assets.

The initial annual results for modified GNI (or GNI*) published in mid-2017 by the CSO focus on excluding the impact of re-domiciled companies and the depreciation of intellectual property products and of leased aircraft from GNI. Table 1 shows GDP and the transition from GNI to modified GNI (or GNI*).

Table 1 GDP and Transition from GNI to GNI*

€ billions	2014	2015	2016
GDP (current prices)	**194.5**	**262.0**	**275.6**
less Net factor income from the rest of the world (which includes MNE profits) and EU taxes and subsidies	*-28.7*	*-54.8*	*-47.8*
GNI (current prices)	**165.9**	**207.2**	**227.7**
less Factor income (mainly profits) of re-domiciled companies	*-6.9*	*-4.7*	*-5.8*
less Depreciation on R&D related IP imports	*-0.8*	*-25.0*	*-27.8*
less Depreciation on aircraft related to leasing	*-3.8*	*-4.6*	*-5.0*
= Modified GNI (or GNI*)	**154.5**	**172.9**	**189.2**

This new indicator gives users a view of the level or size of the Irish economy and will be a useful supplementary indicator of the level of the Irish economy for analytical and economic modelling purposes, such as budgetary or fiscal analysis as outlined in Table 2.

Table 2 Government Debt Ratios

	2014	2015	2016
General Government Gross Debt (GGGD), March 2017	€203.3bn	€201.4bn	€200.6bn
GGGD as % GDP	104.5%	76.9%	72.8%
GGGD as % Modified GNI (or GNI*)	131.6%	116.5%	106.0%

Results for GNI* at constant prices will need to be built from the detailed micro-data and the CSO plan to develop these estimates during the second half of 2017 and early 2018.

4. Apart from GNI*, what are the other recommendations of the expert group?

The expert group made 13 recommendations across five main themes:

- Level Indicators
- Structural Indicators
- Cyclical Indicators
- Communications
- Co-operation

The *Level Indicators* recommendations include the proposal for the development of modified GNI (or GNI*) to give users a supplementary indicator on the size or level of the Irish economy (see Question 3, What is GNI*?). This section of the report also recommended developments related to other aggregates from the national accounts framework, the Net Domestic Product (NDP) and Net National Product (NNP) indicators, which measure economic activity with the effects of depreciation removed.

The *Structural Indicators* recommendations focus on addressing the difficulties for users who are interested in the performance of the domestic companies in the Irish economy. Separating results by foreign-owned MNE and other sectors, as recommend by the expert group, will give users insight into how the ownership structure of our economy impacts the statistics.

The CSO proposes initially to include a breakdown of the non-financial corporations (NFC) sector into two broadly-defined, foreign and domestic, sub-sectors in the annual sector accounts publication. The NFC sector accounts for most of the MNEs operating in Ireland. Initially, the breakdown will be between the companies covered by the CSO's Large Cases Unit, i.e. the largest and most complex MNEs, and the remainder. The CSO plans to publish the annual sector accounts results, including this new breakdown, in Quarter 4 2017.

The *Cyclical Indicators* key recommendation proposes a new quarterly underlying domestic demand indicator, where the impact on capital stocks of intellectual property product relocations and of aircraft leasing companies are removed. (See Question 5, What is Modified Domestic Demand?)

The *Communications* recommendations have been incorporated into the CSO's draft Communication Strategy and the recommendations on co-operation highlight the importance of the CSO's ongoing engagement nationally and internationally on globalisation measurement challenges.

Overall, delivery of the recommendations will be incremental with initial key deliverables included in the annual National Income and Expenditure (NIE) results, scheduled for mid-2017. Progress on the deliverables will be kept under review and feedback will be sought from users on developments.

5. What is Modified Total Domestic Demand?

In the national accounts framework, total domestic demand is defined as personal and government spending on goods and services plus capital stock additions and valuation changes.

To remove certain significant globalisation effects, a modified total domestic demand indicator was recommended by the expert group. The new indicator excludes trade in aircraft by aircraft leasing companies and imports of R&D related to intellectual property imports from the additions to capital stocks. This measure will more accurately reflect the level of activity within the domestic economy, for example, it will bear a closer relationship with employment growth. In addition, the overall measure of total modified investment expenditure (and related capital stock) will be a better guide to the physical capital used to produce domestic output.

Estimates of this quarterly underlying total domestic demand measure will be published for the first time in mid-2017 and will be available subsequently each quarter, at current and constant prices and on a seasonally adjusted basis.

6. What CSO indicators are currently available to provide insight on activity in the domestic economy?

The CSO currently produces a wide range of economic, business and social indicators that focus on domestic activity including such key indicators as personal consumption, retail sales and employment.

Details of these and other useful indicators of domestic activity in the Irish economy are available at http://www.cso.ie/indicators/Maintable.aspx.

Table 3 Headline 2015 results for key indicators at the time of the level shift in GDP

Headline Indicator	2015	Y-on-Y change
GDP (constant prices)	**€262bn**	**+ 26%**
GNP (constant prices)	**€206bn**	**+ 16%**
Domestic Indicator	**2015**	**Y-on-Y change**
Retail Sales Index, Value, 2010=100	**109.8**	**+6.9%**
Numbers in Employment, 000 at end 2015	**1,983**	**+ 2.3%**

The CSO currently publishes quarterly non-financial sector accounts which help to provide insight into the household sector and the CSO also publishes annual sector accounts for the non-financial and financial sectors that give a comprehensive overview of the impact of the various sectors on the Irish economy.

The CSO continues to develop additional outputs on that help users to understand the impact of globalisation activities on the Irish economy such as the information published on activities of foreign-owned multinational enterprises and other sectors and the foreign direct investment in Ireland publication.

A series of technical notes on globalisation and ESRG related issues, including notes explaining re-domiciled companies, a modified current account to mirror modified GNI (or GNI*) and goods exports and imports in the macro-economic statistics are available at http://www.cso.ie/en/methods/nationalaccounts/newdevelopmentsandtechnicalnotes/.

7. Are there indicators that measure whole-of-economy activity in the national accounts framework, apart from GDP and GNP?

Gross Domestic Product (GDP) and Gross National Product (GNP) measure Irish economic activity *including* depreciation, i.e. before any deduction for depreciation. Similar to GDP and GNP, Net Domestic Product (NDP) and Net National Product (NNP) are whole-of-economy measures, but they measure economic activity after taking account of depreciation.

The high levels of capital assets in the balance sheets relocating into Ireland in 2015 have led to significant increases in the estimates for depreciation of assets in the national accounts. Because of this increase in the depreciation charged in Ireland, the NDP and NNP indicators provide estimates of activity with much of this recent relocation effect removed.

In particular, NNP (or the closely related aggregate Net National Income, NNI) measures economic activity with the effects of depreciation and the net effect of profits of multi-national entities removed and is a useful indicator of underlying economic activity in Ireland. The following table (at current prices) outlines the effect of the large depreciation charge in the 2015 results:

Table 4 Transition from GDP to NNI

Year	GDP	*of which Depreciation*	Net Factor Flows	GNP	NNI
2014	€195bn	*€30bn*	- €30bn	€165bn	€136bn
2015	€262bn	*€57bn*	- €56bn	€206bn	€150bn
Difference	€67bn	*€27bn*	- €26bn	€41bn	€14bn
Change	34.7%			25.0%	10.3%

The CSO currently publishes annual results for NNP in the National Income and Expenditure release. The ESRG Level Indicators section includes the recommendation that the CSO continue with its current work programme to develop annual and quarterly net national product (NNP) time series in constant prices by end-2018.

8. What was the main impact on GDP of moving to the ESA 2010 standards?

The impact of ESA2010 implementation on Ireland's GDP level is almost fully accounted for by the treatment of research and development (R&D) expenditure. Under ESA2010, expenditure on R&D, including expenditure of intellectual property products, is recognised as capital investment and is added to the capital stock of Ireland.

When the ESA 2010 standards were implemented in 2014, the effect of the changed treatment of R&D expenditure on the results was to increase the level of GDP by approximately 4% in each of the years 2010 to 2013, while other ESA 2010 changes added less than 1% to GDP in those years.

9. What is the impact when intellectual property products relocate to Ireland?

In recent years, there has been a pattern of intellectual property products relocating to Ireland, either through purchases of intellectual property by Irish entities or through the relocation into Ireland of entire balance sheets containing intellectual property products. In both cases, the impact of these relocations on GDP is neutral.

Since the introduction of the ESA 2010 standards, the purchase of an intellectual property product is added to Ireland's capital stock, offsetting the import of the product recorded as part of imports of goods and services in the national accounts statistics. Where the relocation of an entire balance sheet occurs, the assets are added to Ireland's capital stock as part of other (i.e. non-transaction) changes in the stock, again with no impact on GDP.

When intellectual property product relocations occur, users will notice the significant spikes in imports of goods and services and in gross domestic fixed capital formation.

Also, when the intellectual property is located in Ireland, imports of R&D services may be affected as Irish companies no longer make payments to non-resident parts of their groups for the use of intellectual property. Additionally, additional exports of royalties (i.e. payments by other parts of the groups to Ireland for use of the intellectual property) may occur, but are unlikely to offset drops in royalty imports as the general practice is to co-locate the intellectual property to the country carrying out the related manufacturing or service activity.

10. What is contract manufacturing?

Contract manufacturing occurs when a company in Ireland engages a company abroad to manufacture products on its behalf (and vice versa). The products can be new products or products formerly produced by the Irish company. The inputs used in the production process remain in the ownership of the Irish company. The foreign contract manufacturer supplies a manufacturing service to the Irish company and never takes ownership of the product.

Once the production cycle is completed, the product is then sold to a customer abroad and a change of economic ownership takes place between Ireland and the country of the buyer. At this stage, the export of this good is recorded in the Irish national accounts and balance of payments statistics. The value added that is attributed to Ireland from this production is the sale price of the good produced less the following typical costs associated with production:

- Import of manufacturing services
- Supply of material inputs used in production
- Import of royalties for use of the patents
- Imports of other services including transport.

Activities related to globalisation such as contract manufacturing are carried out by all types of companies and happen in both directions – Irish-owned companies are involved in contract manufacturing and Irish companies are also providers of contract manufacturing services to foreign customers.

11. GDP under ESA 95 and ESA 2010 standards - does contract manufacturing cause a difference?

In short, no.

Adjustments are made to the primary trade data (sourced from the International Trade monthly series of imports and exports of goods) to move from a “crossing the national border concept” in the international trade statistics to a “change of economic ownership concept” as required for national accounts statistics. Adjustments for contract manufacturing are the most significant of the adjustments needed to move to the change of economic ownership basis, with the value added of production carried out abroad attributed to Ireland in the national accounts statistics.

The adjustments for contract manufacturing and for other economic changes of ownership precede the adoption of the ESA 2010 standards for national accounts statistics. As in the ESA 2010 standards, the ESA 95 standards specified a change of economic ownership approach and the impact of contract manufacturing was included in national accounts results compiled under the ESA 95 standards before the move to the ESA 2010 standards in 2014.

The value added from contract manufacturing incorporated into the GDP results published on July 12th was driven by new information from data respondents and would be included in Ireland’s national accounts statistics under either ESA 2010 or ESA 95 standards.

12. What’s the basis for compiling national accounts and balance of payments statistics for Ireland?

The national accounts and balance of payment statistics for Ireland are compiled in accordance with the international standards for the statistics. Standards for national accounts statistics for EU Member States are set out in the 2010 edition of the European System of Accounts (ESA 2010) and these standards are incorporated in the EU legislation governing the production of the statistics. The ESA 2010 standards are themselves based on the UN SNA 2008 global standards for national accounts statistics.

The CSO publish balance of payments statistics in compliance with version 6 of the IMF Balance of Payments standards (BPM6) and as for national accounts statistics, compilation of balance of payments statistics to meet BPM6 standards is required under EU legislation.

Compiling national accounts and balance of payments statistics in accordance with the international standards ensures comparability of the statistics over time and across countries. As required under EU legislation, the CSO will continue to produce national accounts and balance of payments statistics in compliance with the international standards. The sources and methods for national accounts and balance of payments statistics compiled by the CSO are verified by Eurostat under the GNI Regulation that covers EU Member States own-resource contribution to the EU budget.

The national accounts and balance of payments statistics published by the CSO in accordance with the international standards provide a valuable reflection of the complexity of the highly globalised Irish economy relative to other economies and the results highlight the level of concentration of multi-national activity in Ireland.

13. What data sources are used by the CSO to compile national accounts and balance of payments statistics?

The national accounts and balance of payments statistics for Ireland are based on data provided by companies to the CSO. The CSO's Large Cases Unit (LCU) engages directly with the largest foreign-owned MNEs to collect statistical data across all of the activities of these companies. Data from CSO's balance of payments surveys of the non-financial and financial sectors and data from CSO's short-term and structural business statistics surveys are also key components of national accounts and balance of payments statistics.

Additionally, the LCU has access to other data sources, including Trade in Goods and Corporation Tax data. The broad range of information available to the LCU ensures coherent and consistent recording of activity across CSO macro-economic and business statistics and the LCU engagement with the largest multi-national companies ensures that the complex structures of multi-nationals are correctly reflected in the statistics.

14. Confidentiality - why is some of the detail not available in the results?

One of the core principles of a national statistical institute is protection of the confidentiality of all information supplied by data providers. The CSO's ability to compile Official Statistics is based on the extent to which individuals and companies trust the CSO with sensitive information and the CSO's guarantee of confidentiality for all data providers is built on the fundamental requirement of non-disclosure of confidential data as set out in national and EU statistical legislation.

To comply with the requirement for confidentiality, the CSO cannot divulge any information that would lead to the disclosure of information on an individual or company when publishing aggregates and may have to suppress certain detail in the results to comply with this requirement.

The scale of the revisions to the national accounts and balance of payments statistics published in July 2016 led to the suppression of some detail in the results to prevent disclosure of confidential data. The suppression of detail in subsequent national accounts, balance of payments and CSO business statistics releases affected by the revisions will be managed to best balance the requirement for confidentiality against the need to provide detail for users of the statistics while complying with the legal requirements on confidentiality.

15. Who has access to the information before it's published?

The CSO is committed to the European Statistics Code of Practice which a principle on Objectivity and Impartiality specifies:

> *All users have equal access to statistical releases at the same time. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.*

The CSO policy on Pre-Release Access gives effect to this principle. The policy specifies the CSO's standard practice that statistics are released to all users at the same time. However the CSO recognises that in very limited circumstances a business need for pre-release access may be substantiated. Any form of pre-release access is a privilege.

Three forms of limited pre-release access are permitted on the day of a release under the CSO policy:

1. Advance Notification of Results to Named Officials (at 10:00 am)
2. Official or Ministerial Briefings (which can take place at 08:30 am)
3. Press Briefings (at 10:30 am)

Full details of the policy are available at
http://www.cso.ie/en/aboutus/dissemination/csopolicyonpre-releaseaccess/

Pre-release access for national accounts and balance of payments statistics is permitted as part of the press briefing on the day of these releases and in the case of national accounts statistics, briefing of officials from the Department of Finance, the Central Bank of Ireland and the NTMA takes place at approximately 8:30 am on the day of the release.

16. How is economic activity measured?

Gross Domestic Product (GDP) is the principal aggregate indicator of economy activity for a country or region and measures the total value added (or output) in the production of goods and services in the country.

Net factor income from the rest of the world (NFI) is the difference between investment income (interest, profits etc.) and labour income earned abroad by Irish resident persons and companies (inflows) and similar incomes earned in Ireland by non-residents (outflows). In Ireland, NFI is dominated by the profits of foreign-owned multi-national entities (MNEs) located in Ireland (outflows) and increasingly, by the overseas profits of MNEs who choose to headquarter in Ireland (inflows).

Gross National Product (GNP) is the sum of GDP and NFI. Because NFI is the difference between two large gross flows, its magnitude can fluctuate greatly from one quarter to another. This can lead to significant differences between the GDP and GNP growth rate for the same quarter.

Because of the scale of globalisation activities, it is increasingly difficult to understand and describe the complexity of the Irish economy through headline aggregates such as GDP and GNP. GNP is often seen as a better measure of the underlying level of economic activity in Ireland, but as the extent and the impact of globalisation events increases, it is also affected as an indicator of what’s happening in the “real” economy.

ENDS