# Assessing the MNE Pilot Exercise – the case for LCUs

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**Abstract**

Due to the complexity of the global economy, it has become increasingly challenging to measure it in official statistics. This paper focuses on one aspect of globalisation; measuring the cross border activity of Multi National Enterprises (MNEs). The starting point is the MNE Pilot Exercise, which is an initiative launched by Eurostat and endorsed by the European Statistical System Committee (ESSC). The overall aim is to achieve an understanding of the reliability of the recording of globalisation in EU member states’ GNI (Gross National Income). Based on our experience we will argue, that cooperation within national statistical institutions (NSIs) is a necessary prerequisite for successful cooperation between NSIs. At the same time, we realise, that the starting point for cooperation between NSIs varies between countries and that this cooperation should be developed in small steps. Further, we will argue, that the cooperation within NSIs should take place in Large Case Units (LCUs). The paper will discuss the challenges related to changing the working processes in the production of business and macroeconomic statistics and formulates six conditions for the work of an LCU to be successful.

**Keywords**: Globalisation, Multinational Enterprises, Cross-border microdata-exchange, Future statistical production and cooperation, Large cases Unit (LCU)

## Introduction

Measuring the global economy in official statistics has become increasingly challenging in recent years. Particularly, a number of significant changes over the past 40 years or so, which have become synonymous with economic globalisation, have made the business world increasingly ‘borderless’ and given rise to (and to a large extent have been driven by) Multinational Enterprises (MNEs) . Politically, the promotion of free trade — based on the removal of tariff and non-tariff barriers — and the deregulation of various markets, not least financial deregulation, paved the way for increased global economic activity. And the rapid introduction of new information technologies considerably lowered the costs of communication and increased exponentially the exchange of information (Baldwin 2016). At the same, the containerization of global trade vastly lowered the costs of moving goods around the world (Levinson 2008).

All of these changes have impacted upon the way that MNEs behave. In particular, it has become increasingly common for MNEs to fragmentise – slice and dice – the production of goods and services into stages or tasks. This process has facilitated the creation of global value chains, i.e. the full range of activities undertaken to bring a product or service to market, including research and design, production, marketing, logistics and distribution. These tasks in the value chain may be performed by different enterprises within the same MNE, or alternatively some tasks may be outsourced to enterprises outside the MNE, and can be carried across different countries, thus putting the global in global value chains (Amador and di Mauro, 2015).

In this way, globalisation poses challenges in correctly recording the organisational structures and economic flows of MNEs in official statistics. Some of the main challenges include (Eurostat 2017):

* measuring the value added of MNEs production of goods and services, which are rarely designed, manufactured, assembled, nor marketed in a single country, but rather along global value chains;
* capturing “factoryless” goods production;
* capturing the flow and location of MNEs intangible assets and intellectual property rights (IPPs);
* how digital economy allows the coordination of MNEs activities and sales to consumers with no restrictions linked to physical location (e.g. streaming services);
* the impact of MNEs restructuring on macroeconomic aggregates, in particular for small open economies;

The immediate relevance of these challenges was illustrated by “the Irish case” in 2016, when the Irish Central Statistics Office revealed that real GDP grew 26 percent in 2015. The main reason for the particularly high growth rate was that a number of large MNEs relocated their economic activities, and more specifically their underlying intellectual property, to Ireland. As a result, sales (production) and value added generated from the use of intellectual property now contribute to Irish GDP rather than to other countries’ GDP (OECD 2016). Similarly, although less dramatically, in 2016 Statistics Denmark revealed that Danish GDP-levels had been underestimated for years largely due to undercounted global production activities of Danish MNEs (Statistics Denmark 2016).

As a response, Eurostat has launched a number of initiatives to tackle these challenges. This paper focuses on one such initiative: The MNE Pilot Exercise. More specifically the paper will focus on the importance of cooperation between Business Statistics and Macro economic statistics and how this cooperation can be enhanced and facilitated by setting up Large Cases Units (LCUs).

Building on the experience gained from the MNE Pilot, this paper will argue that the cooperation within the statistical institutions is a prerequisite for successful cooperation between national statistical institutions. This is a new way of working, and the paper will discuss the challenges related to changing the working process. In addition the paper will discuss the necessary underlying institutional framework if micro data are to be exchanged between countries.

## The GNI MNE Pilot

The GNI MNE pilot exercise was proposed by the group of Directors of Macroeconomics Statistics of the ESS (DMES) and launched in February 2018 by the European Statistical System Committee (ESSC) with the overall aim to achieve an understanding of the reliability of the recording of globalization in EU member states’ GNI data. The reason for focusing on GNI is clear: it is used to determine the EU budget and Member States contributions to the budget; and has thus attracted the attention of the European Court of Auditors. In this way the pilot is in large parts a response to two specific recommendations of The Court on GNI; (i) to analyse the implications of MNE activities on the estimation of GNI and (ii) to confirm that R&D assets are captured correctly in terms of value and residency.

The Pilot centres around 25 specific MNEs selected on the basis of size (with a view to secure a reasonable country-spread). NSIs, NCBs and, in some countries, also customs authorities in EU have accepted to voluntarily share confidential microdata on an unprecedented scale with a view to:

* Secure the proper structure of the MNE group in terms of enterprises (e.g. checking for missing or double counted units)
* Analyse the valued added (using the Business Statistics definition as a proxy for the National Accounts definition) of the individual MNEs and the distribution within the EU.
* Analyse the research and development (R&D) performed and location of Intellectual Property Products (IPPs)
* Assess the intra- and extra-company trade flows
* Secure methodological consistency across Member States for a given MNE in relation to e.g. globalised production processes (goods for processing and merchanting)

The sharing of microdata is based on the “Code of Conduct on Micro-Data Sharing”, prepared in the context of the Pilot. In practice, data is exchanged and stored in a secure EU-Commission environment (called S-Circabc) through the completion of pre-defined questionnaires. Each MNE is allocated a Lead Country (its “home country”), which is responsible for analyzing the data received from the Participating Countries (other EU member states where the MNE is active).

The sharing of microdata and subsequent analysis represents a substantial and unexpected burden on the NSIs. And a first lesson from the Pilot exercise is that this work relies on an extraordinary willingness from the NSIs to exchange microdata at a hitherto unprecedented scale and dedicate substantial resources within a very short timeframe.

Even though the GNI MNE pilot exercise has not been concluded (it will be by the end of 2019), some key emerging issues are already evident. In the following, we discuss the - in our opinion – most important issues and lessons learned. First, we focus on data issues. Next, we turn to the perhaps most important lesson: the urgent need for and benefit of increased cross-statistical domain and cross-country cooperation on MNEs (including engaging with the MNEs) in the form of Large Case Units (LCU).

### Data issues

*Data exchange:* Voluntary data sharing on MNEs was only for the pilot, however legal and operational frameworks for post-pilot continuation of the data sharing are needed. So far there are more questions than answers; which statistical information should be exchanged for which MNEs? Will this require additional regulation or is the forthcoming legal framework for sharing information established under FRIBS sufficient? These questions need answers and will be addressed in final part of the Pilot (Fall 2019).

*Lack of benchmark-data:* A recurrent conclusion from the MNE cases are the lack of available benchmark data in the Lead Countries for reconciling the collected data. OFATS and the EuroGroup Register (EGR) can be useful as sources for reconciling data on employment and turnover. However, not all countries collect intra-EU data for OFATS, and EGR was frequently out-of-date and/or with lacking coverage of MNE enterprises and data (see below). For value added no good benchmark indicator exists, which makes it near-impossible to analyse and reconcile the valued added of individual MNEs and the distribution within the EU; a primary objective of the Pilot. Identifying and perhaps collecting additional data from MNEs is needed in the future.

*Branches:* During the Pilot, the issues of branches emerged as a potential source for significant double-counting of MNE activity. This occurs when a MNE establishes a branch (instead of a legal unit) in another country, where the activity is included in the MNEs accounts in the home country, but also reported in the country with the branch. Theoretically, the branch activity should be excluded from e.g. SBS and NA in the home country and included in country of the branch. It is, however, unclear to which extent branches are identified and treated correctly in the EU. This issue should be further investigated.

*The EuroGroup Register (EGR):* It is clear from the pilot that a database with cross border relationships and activities of the most important MNEs, such as the EGR, is needed to facilitate the reconciling of MNE activity in the EU. However, during the pilot, questions related to the quality and uses of the EGR were raised and the need for cross-domain inputs to the EGR process emphasised. As mentioned above, the EGR was frequently found to be out-of-date and/or with lacking coverage of MNE group enterprises and data. Thus, a key recommendation is to ensure a more timely and high-quality EGR which covers the most important MNEs in the EU.

The above examples of emerging issues are a selection of the most important ones. Many more have been identified and will be addressed in the final pilot report. The overall conclusion is that reconciling MNEs’ statistical reporting requires intensive cooperation across many statistical domains inside NSIs and cross-border cooperation between NSIs. It is equally clear that the former is a prerequisite for the latter. In other words, in order to participate meaningfully in cross-country reconciliation of MNEs’ statistical reporting, NSIs need to ensure that MNEs’ statistical reporting is consistent across statistical domains domestically.

### The importance of LCUs

Many EU member states have established LCUs or have assigned experts to conduct LCU-functions to achieve a better understanding of the MNEs and improve the quality and consistency of their data across statistical domains. In a moment, we discuss the Danish experience with establishing a LCU but first some general comments on LCU functions.

While countries have organised and defined their LCU-functions differently based on the specific national situation, a number of practices for the LCU work in the EU can be identified:[[1]](#footnote-1)

* The core task of an LCU is to deliver consistent micro data on MNEs;
* The MNEs covered are generally those with greatest impact on the national statistics;
* The LCUs carry out consistency checks across surveys and sources, including administrative data when available, and analyse globalisation effects of MNEs on economic and business statistics;
* Often problems identified by the consistency checks are solved having direct contact with MNE groups across multiple surveys;
* The LCU work is situated within the NSI. While the exact organizational structure varies, the LCU generally complements other statistical domains (e.g. business register, business surveys, and national accounts) rather than replacing them. Depending on national circumstances the consistency work can also include national central banks;
* LCUs need to include a balance of statistical, accountancy, business and communications skills to assure their success.

Some countries, notably Ireland and the Netherlands, have more than 10 years of experience with LCU work. Talking to representatives from these (and other) countries leaves no doubt about the tangible benefits, including improved data quality and consistency in business and macroeconomic statistics, better engagement with MNEs and better understanding of their globalised business models. And the experience from the Pilot Exercise certainly supports this: countries represented by or drawing on LCUs are more likely to present up-to-date knowledge about the MNEs; often as a result of having discussed the issues directly with the MNE.

Eurostat is supporting LCU work through workshops and training courses. Eurostat is also financing a consortium of member states[[2]](#footnote-2) to provide support and guidance to Member States planning to set up or in the process of establishing an LCU. Furthermore, Eurostat is supporting greater cooperation between the national LCUs and the creation of an LCU network in the EU. The vision is that LCUs should become focal points for all the MNE-related activities at the EU level.

## Setting up a LCU: the Danish experience

Traditionally, at Statistics Denmark business statistics and macroeconomic statistics have been organized in separate divisions in the statistical institutions with more or less cooperation. Generally the cooperation was more coordination, for example on conceptual issues such as industry classification and variables, and simply clarifying questions related to the specific content in the various business statistics.

Over the past five years this cooperation has gradually changed towards more cooperation in producing the actual statistics, mainly International Trade in Goods (ITGS), Initernational Trade in Services (ITS), Balance of Payments (BoP), Structural Business System (SBS) and Prodcom. This change was initiated by the National Accounts having increasing problems balancing the supply-use tables and was enhanced by the implementation of BPM6 and ESA2010. In the process of implementing the changes in the manuals related to globalization, it became increasingly clear that companies with significant global activity and production outside Denmark were underreporting these activities. Therefore a project was set up in order to investigate and reconcile data for some of the largest Danish MNEs. The project ran from 2014-2016 and resulted, as mentioned above, in substantial upward revisions of GDP and net-exports in the Balance of Payments.

The result of the project was an eye opener and made it clear that this way of working had to continue – it provided a strong business case for setting up an LCU. The idea of having a LCU is to move the consistency work between various business statistics from the balancing of national accounts to take place while processing these statistics. This is to be done for the largest and most complex reporters of data (MNEs).

At Statistics Denmark we have been in the process of setting up an LCU since early 2015. One lesson learned is that there is a long way from the first attempts to work across statistical domains, to actually having a mature setup that is integrated in the daily production of business and macroeconomic statistics (national accounts and balance of payments). We have made some valuable experience in this process. In the following we will group these experiences into six elements that should be taken into account when setting up an LCU.

The six elements that must be in place when setting up an LCU are:

* Acknowledgement
* Tasks and working processes of the LCU
* Dedicated resources
* Skills needed
* Organizational setup
* IT infrastructure

### Acknowledgement

Setting up an LCU is a cultural change in the way of producing statistics. It is therefore necessary, that all involved parties from business statistics and macroeconomic statistics acknowledge the need for an LCU. It should not be underestimated, that it actually moves statistical sovereignty form the individual statistical domains to a new unit. In addition, this happens for the most important reporters and therefore, a feeling of losing ground may arise. These dynamics should be recognized when the working processes and the tasks of an LCU are designed.

### Tasks and working processes of the LCU

Important and typical tasks of an LCU are to profile MNEs (including understanding their business model) and to reconcile the reported data. It is important that the involved statistical domains have explicit agreements on the tasks of the LCU and on the priorities of the work. It must be decided at the level of senior management if profiling is of higher priority than data consistency or vice versa? If not, there is a high risk of misunderstandings and a (more or less) random priority of the tasks that do not reflect the overall goal of the work.

There must also be explicit agreements on the working processes. The basic tasks of the LCU are to profile and reconcile data. But the relevant statistical domains must be involved in concluding and agreeing on the results and deciding when to implement any changes in the statistics. Due to the revision policies of the balance of payments and national accounts implementation of revisions to reported data must be coordinated.

### Dedicated resources

The work of an LCU can be organized as a network in the one extreme and as a separate unit in the other extreme. Our experience is that at least dedicated resources must be allocated – otherwise daily work will leave no room for LCU work. It is also our experience that the work must be more formalized than a network, because it is necessary to have dedicated resources to drive the work. Setting up a separate unit completely dedicated to LCU work will depend on resources available, but less may also work.

### Skills needed

The skill needed in an LCU range from business register, accounting, business statistics and macroeconomic statistics. And preferably these skills should be represented in each of the staff members. However, this is unlikely to be possible in the short run. But it is still important to have the skills represented in the LCU and that these skills are combined with an atmosphere of sharing and cooperation.

### Organisational setup

As has already been touched upon, the organizational setup can range from an unformal network to a separate unit. Our experience is that some kind of formal organization is necessary to achieve progress and results. We also find that it is of less importance if it is a separate unit at the same level as “normal units” or if it is a “unit within a unit” as long as there are dedicated resources, explicit agreements on tasks and division of work, a daily leader to drive the work and acknowledgement of the need to cooperate.

### IT infrastructure

Existing it-systems are not developed with the purpose of comparing variables from different statistics in order to check them for transverse consistency. Therefore new IT systems must be developed to facilitate the work of the LCU. These it systems can be more or less advanced and resources available will normally determine how advanced the systems can be.

## Conclusion

The increasing globalisation and complexity of economic activity in general and the MNE Pilot Exercise in particular have made it clear, that cooperation is a necessary condition in the production of good quality statistics. This cooperation should take place within NSIs and between NSIs.

The complexity in understanding the cross border organisation and activity of MNEs call for cooperation between business statistics and macroeconomic statistics. Within the NSIs, the ideal set-up of this work is in LCUs with skills from accounting, profiling and business and macroeconomic statistics. This is a new way of working and a cultural change in the organisation and processing of statistics. In our opinion six conditions for an LCU to be successful must be fulfilled: It should be acknowledged at all levels in the organisation, explicit agreements on the division of work and tasks should be in place, the organisational set up should be clear, a minimum level of it-infrastructure should be developed, necessary skills should be present and finally sufficient dedicated resources should be allocated.

Due to the cross border character of the activity of MNEs, cooperation between NSIs is also needed. However, we acknowledge that the starting point for data consistency work and varies between countries and therefore international cooperation has to be developed in small steps.

Exchange of microdata between countries in line with the MNE Pilot Exercise requires an agreed framework that takes care of the legal basis, a secure it-platform and rules of procedure in the form of a “code of conduct”. Reconciliation of micro data between countries requires that the involved countries have sufficient knowledge of the MNE in question. All these elements are necessary steps that must be taken before successful exchange and reconciliation of data for MNEs between countries can take place.

Realising that LCUs are a necessary condition for efficient data consistency work, a first step could be to establish LCU networks. In these networks, more advanced countries could share their experience with countries that are in the process of setting up LCUs. Further, “best practices” for setting up LCUs could be developed for the benefit of others.

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1. “A systematic and coordinated approach for a better and more consistent measurement of MNEs across economic statistics”, unpublished strategy paper by the Strategic Development Group of the Business Statistics Directors Group and Eurostat. [↑](#footnote-ref-1)
2. Denmark, Ireland, Luxembourg, the Netherlands and Sweden. [↑](#footnote-ref-2)