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Measuring activities of multinational enterprise groups via large cases units

MUSHTAQ HUSSAIN ⁽¹⁾, RAMI PELTOLA ⁽²⁾ AND SANJIV MAHAJAN ⁽³⁾

Abstract: MNE groups stand at the centre of economic globalisation. They play a very important role cutting across most economies in the world. This paper presents the rationale, and the recommendation, as to why national statistical institutes (NSIs) should establish a team of experts (also named large cases unit — LCU) to deal with all statistical aspects of MNE groups in economies where such MNE groups are significant. The main objective of an LCU is to provide all relevant statistical domains with consistent data originating from the biggest MNE groups for compiling their statistics. This can be ensured by collecting timely and accurate data for MNE groups at the very beginning of the production process of economic statistics, enabling a prompt reaction to data changes and the resolution of anomalies before they are processed by any of the statistical domains. The paper argues that in an ever-changing globalised world, investment in an LCU-type entity is essential to ensure that national statistics are of high quality and do not double-count or miss any activity.

Keywords: LCU, economic globalisation, consistency

JEL codes: E01, F62

⁽¹⁾ Eurostat, Unit C.5: Integrated global accounts and balance of payments.

⁽²⁾ United Nations Economic Commission for Europe (UNECE).

⁽³⁾ Office for National Statistics (ONS), United Kingdom.

1. Introduction

The impact of globalisation through multinational enterprise groups (MNE groups) presents one of the largest ‘statistical measurement’ challenges facing producers of economic statistics today. This paper presents the rationale, and the recommendation, as to **why national statistical institutes (NSIs) should establish a team of experts to deal with all statistical aspects of MNE groups in economies where such MNE groups are significant**. The establishment of such a team dedicated to data collection, data reconciliation and managing the relationships with MNE groups goes a long way in addressing these challenges. For the purposes of this paper, we will refer to this team as a ‘large cases unit’ (LCU).

This type of team should adopt an account management approach with the MNE groups as well as data sharing, data exchange and data reconciliation with other NSIs and national central banks (NCBs). This should enable NSIs collectively to address the ever-growing impacts of globalisation (which encompass the creation and use of intellectual property products) on the quality of collected data which feed into main statistical outputs like the national accounts and balance of payments and then in turn into downstream products such as productivity and environmental analyses.

By having an effective, efficient and appropriately resourced LCU, the quality of domestic economic statistics, and key aggregates, will be improved. Furthermore, with such LCUs operating via an ‘international network’ supported by international organisations, this would further enhance these benefits as well as improve international comparability and the reduction of trade asymmetries.

2. Background

MNE groups stand at the centre of economic globalisation. They play a dominant role in global production, which is then reflected statistically in their contribution to total external trade, foreign direct investments or international transfers of knowledge and technology. A study carried out in 2001 showed that over 80 % of all international trade is related to at least one MNE group, while a third takes place within MNE groups (Kleinert (2001)).

MNE groups play a very important role cutting across most economies in the world. In many European Union (EU) Member States their contribution to production, value added, employment, trade in goods and services, foreign direct investments, and so on is substantial. Indeed, in 2011, in the French economy, MNE groups represented roughly half of total employment (47 %) and total value added (56 %) of all enterprises located on French territory (Boccara and Picard (2015)). According to a recent study carried out by Statistics Netherlands (CBS (2017)), MNE groups were responsible for 21 % of total employment and 30 % of total value added in the Netherlands. Moreover, these MNE groups were responsible for about three quarters of Dutch international trade (excluding re-exports) in goods and services.

The collection of reliable and consistent statistical information from MNE groups is, therefore, of utmost importance for NSIs and/or NCBs. Data received from MNE groups should be

complete in terms of recording on statistical business registers and the statistics recorded should be coherent across different statistical domains. These domains include short-term statistics (STS), structural business statistics (SBS), international trade in goods statistics (ITGS), international trade in services statistics (ITSS), foreign direct investment (FDI) and foreign affiliates statistics (FATS), and ultimately, these will feed into the balance of payments (BoP), national accounts (NA) including financial accounts (FA) by institutional sector, prices and labour market data as well as environmental accounts (EA), thereby providing a full, coherent and correct picture of the economy and the environment.

As data collection in many countries may be decentralised and not sufficiently coordinated across statistical domains, large MNE groups are usually confronted with many different questionnaires where some of the questions ask for the same or similar information. On the other hand, the multifaceted organisational structure of MNE groups, their complex ownership structures and intricate global production arrangements create major challenges for NSIs and/or NCBs in measuring their activities and properly recording their transactions.

For such reasons, the establishment of a specialised team within an NSI to focus on communications and relationships with the largest MNE groups, as well as data collection, processing and quality assurance of data is becoming an essential requirement. The main purpose of such a team is to improve the quality, consistency and coherency of data, although there can also be other beneficial impacts such as better use of resources and reducing the statistical reporting burden on MNE groups.

This is a key first step and addresses the domestic picture for MNE groups. More importantly, any developments within this domain also need to address the global picture of MNE groups. Here, international organisations need to step in to help integrate data and ensure a coherent global picture of MNE groups.

The present role of Eurostat and other international organisations in this respect is a facilitating one but this could, and should, change as time goes by, for example, through the creation of a worldwide register of MNE groups and/or even international data collection and data reconciliation. EU Member States provide statistics to Eurostat based on various agreed domain specific statistical regulations. These regulations describe concepts, definitions and required outputs, as well as timeliness. EU Member States, however, decide themselves how to organise the collection of data and the production of statistics, in line with the subsidiarity principle ⁽⁴⁾.

This paper summarises available information, updates and shares good practices, and concludes by developing a consolidated approach for how to deal with statistics in relation to MNE groups. It incorporates comments made by members of the UNECE Task Force on Exchange and Sharing of Economic Data during a meeting in April 2018.

For the purposes of this paper — given the different roles, links and structures of NSIs and NCBs in different countries — and to avoid repetition, any reference(s) to NSIs should hereafter be read to apply to NCBs too, as appropriate. NCBs may be directly or indirectly involved

⁽⁴⁾ In areas in which the EU does not have exclusive competence, the principle of subsidiarity, laid down in the Treaty on European Union, defines the circumstances in which it is preferable for action to be taken by the European Union, rather than the Member States. The legal basis is formed under Article 5(3) of the Treaty on European Union and Protocol (No 2) on the application of the principles of subsidiarity and proportionality.

depending upon the MNE group case or issue(s) through the provision of various sources such as centralised securities databases, security by security holding statistics and analytical credit registers providing details on external financing of MNE groups.

3. Large cases unit (LCUs)

Every country with a significant number of MNE groups should consider establishing a specialised unit responsible for MNE groups. Such a specialised unit is often called a large cases unit (LCU) as it deals with large and complex cases of MNE groups trading across borders and within national boundaries. At the beginning of 2019, the NSIs of Canada, Denmark, Finland, France, Hungary, Ireland, Italy, Luxembourg, the Netherlands and Sweden have established LCUs, while the United Kingdom (undergoing a pilot exercise to develop an international business unit), Belgium (in the NCB) and Norway are considering creating permanent LCUs. Other countries have dedicated programmes to perform similar activities (for example, profiling) as LCUs. However, LCUs are still quite rare and are mostly concentrated in EU Member States.

Establishing an LCU requires, and brings, a cultural and organisational change to the traditional way of organising statistical production. The common question is: what does the NSI want to achieve by establishing an LCU? Consequently, the way LCUs are then organised, and located, in practice can differ from country to country depending upon the organisational structure of the NSI, available resources, and so on. One of the key roles of an LCU is to facilitate the cultural change needed by bridging any cultural divide within the organisation and/or across organisations. In this paper, different approaches and common characteristics are described. It is also worth noting that, unlike the sequential system described in the Generic Statistical Business Process Model (GSBPM), the LCU brings together various functions from different parts of the GSBPM (UNECE (2013)).

A. Stakeholders of a LCU

Three important stakeholders of LCUs, namely the statistical domains in the NSI, MNE groups and NCBs, were mentioned in the background to this paper. In addition to these stakeholders, LCUs need to liaise, cooperate and communicate with many other stakeholders.

At the NSI, one important stakeholder is the senior management of the NSI. They need to understand the important role and impact of the LCU, provide their full support with readiness to engage in meetings with the senior management of MNE groups (where necessary), and provide adequate resources for the work to be undertaken by the LCU. To establish a separate, autonomous LCU, some organisational restructuring and shifting of resources is likely to be required. Strong senior management and leadership are essential to overcome initial internal resistance for the benefit of the NSI.

Often the first contact with an MNE group requires the involvement of senior management from both organisations and this contact should be maintained thereafter.

The work of the LCU also relies on dynamic and close cooperation with statistical domains and the statistical business register as a source of data and as a tool for consistency improvements.

It is especially important to ensure data consistency with other producers of official statistics such as the NCB (as a producer of BoP statistics in many countries) and customs authorities (as a data collector of ITGS). These organisations should be involved with the LCU with regular communication: good working relations and bilateral data exchange (as appropriate) are essential to ensure consistent and high quality data on MNE groups across the various parts of the national accounting framework. Where the statistical system is decentralised, the LCU may need to be established as a centralised organisation providing a link to all the producers of statistics — here the role of the LCU is even more critical.

LCUs may need to establish direct contacts with key administrative data providers, as full access to their data is important for a proper analysis of consistency. If allowed by the relevant statistical laws, access to the data of private data holders has similar importance. LCUs may also review the availability of private data sources with relevant data on MNE groups ^(*).

The counterpart may be either the national unit of an MNE group or the headquarters of an MNE group situated in the compiling country (typically with MNE groups but possibly also large national enterprises). Residency will need to be considered when defining the strategy for data collection, which may be different via an international network of LCUs for the non-resident parts of the MNE group. Typically, the headquarters have a more complete picture of the operations of the enterprise but may at the same time have more difficulties in reporting country specific data.

Cooperation with LCUs (or other units) in NSIs of other countries will need to be developed. In the first place, this should include sharing of best practices in LCU work. Thereafter, LCUs should be the contact point for more regular information exchange, data exchange and data reconciliation underpinned by a secure framework for the international network of LCUs.

Eurostat has recently launched a grant for establishing LCUs and one of its goals is to set-up a dedicated discussion forum of LCU-related topics for countries in the European statistical system (ESS). It is important to follow-up how this forum develops and to consider possibilities for creating links between the forum and other countries with an interest in developing statistics on MNE groups.

International organisations have developed, and are developing, several other crucial areas in relation to work on LCUs, for example:

- Eurostat has several initiatives such as the EuroGroups Register (EGR), international profiling, an Early Warning System (EWS), and so on (see Section 4 for more details);
- the Organisation for Economic Cooperation and Development (OECD) undertakes a range of work in this area (for example, an Analytical Database on Individual Multinationals and their Affiliates (ADIMA), Base Erosion and Profit Shifting (BEPS), reconciliation of asymmetries, and so on);
- the United Nations Statistics Division (UNSD) is working towards a Global Groups Register (GGR); and

^(*) For example, by means of targeted web searches of companies, web scraping tools, analytical databases like the OECD's ADIMA database, and private databases on mergers and acquisitions.

- UNECE plans to establish an LCU network to facilitate, for example, a framework for data sharing.

The exchange of information, experience and good practice at international forums is crucial.

Users of statistics receive benefits from the work of LCUs and are also important stakeholders. They benefit from the provision of more consistent and coherent statistics, and furthermore, the service provided to users may be improved through better understanding and analyses of MNE groups.

Irrespective of the stakeholder concerned, the language used to communicate with them is extremely important. LCUs need to be ready to take on the role of interpreter between different players in the supply, production and use of official statistics when it comes to data consistency, especially in terms of their dialogue with MNE groups.

B. Benefits of an LCU

The major benefit of an LCU is that a multi-skilled account management team should ensure the collection of timely and accurate data for MNE groups at the very beginning of the production process of economic statistics, enabling a prompt reaction to data changes and the resolution of anomalies before they are processed by any of the statistical domains. Data consistency should be ensured by analysing the data received from different surveys and addressing potential issues at the first receipt of data.

Depending upon the role and responsibilities of the LCU, the response burden on the MNE group could be significantly reduced — this forms a unique selling point to gain the cooperation of MNE groups. The LCU could collect the data, maybe using data readily available from the MNE group and/or bespoke questionnaires designed to suit the MNE group. The LCU could ensure the data are only collected once rather than collecting some of the data multiple times through different questionnaires.

A multi-disciplinary team should have the skills and capability of understanding these complex MNE groups, their accounts, and underlying global issues such as:

- factoryless goods production;
- goods sent abroad for processing;
- merchanting of goods and services;
- contract manufacturing;
- toll processing;
- transfer pricing;
- stocks and flows of intellectual property products (IPPs);
- activity of special purpose entities (SPEs);
- internet-related activity; and
- FDI and related income flows.

The measurement and consistency challenges posed by the above issues are not new but have grown significantly in the past two decades and constitute the main problem areas that need to be addressed. By setting-up an LCU, NSIs would be well placed to ensure that these issues are addressed in relation to the functioning of MNE groups.

C. Main objective of an LCU

The main objective of an LCU is to provide all relevant statistical domains with consistent data originating from the biggest MNE groups for compiling their statistics. In practice, inconsistent data are often discovered at different stages of the statistical value chain. Ultimately, many statistical differences and (mis-)measurement issues can be identified when balancing supply and use tables (where for example, the supply and use of goods and services in an economy do not equal), although this may be considered too late in the production chain. Similarly, differences or imbalances can be identified when compiling the institutional sector accounts. Analysing such discrepancies, the differences may be traced back to inconsistent data covering MNE groups in source data, for instance between foreign trade statistics and structural business statistics. An LCU should identify and resolve these inconsistencies at an early stage before dissemination by the individual primary statistical domains. In general, this may lead to the following activities ⁽⁶⁾:

- Define the population of MNE groups that should be managed by the LCU.
- Develop and maintain regular communication and good working relationships with the selected MNE groups and develop a contract manager type role, for example, acting as a single contact point for the MNE group and other staff within the NSI.
- Coordinate data collection for various statistical domains (for example, STS, SBS, FDI, outward FATS) by designing common or bespoke questionnaires (monthly, quarterly and annual) and carrying out centralised data collection from the selected MNE groups. This eliminates the duplication of questions and cuts the statistical reporting burden on MNE groups by substantially reducing the number of questionnaires sent to them.
- Other data collection strategies can be developed such as collecting all the data that the MNE group can provide in the form convenient for them, for example, through management accounts. However, in this scenario, the burden switches to the NSI to process the data (as required) and to implement more effective and efficient strategies such as collecting data electronically. On the other hand, spending time with the MNE group mapping their datasets to those required by the NSI and generating bespoke forms to be submitted electronically would benefit both parties.
- Analyse all aspects of the data submitted to the NSI by the selected MNE groups operating in the country. This includes the delineation and classification of statistical units of the enterprises concerned.
- Exchange and reconciliation of mirror data with partner LCUs, for example trade asymmetries or property income flows.
- Carry out consistency checks of the various statistical and administrative returns, within and between the statistical domains (in other words, check if data from separate statistical domains are consistent with each other).
- Eventually, provide all relevant statistical domains (business statistics as well as national accounts and balance of payments) with consistent data for compiling their statistics.

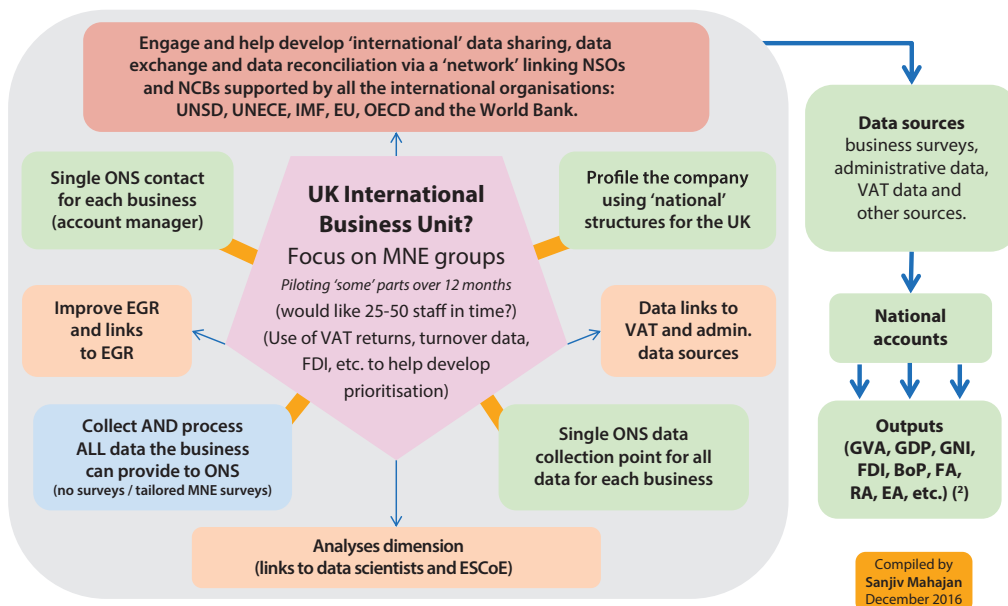
Depending on the specific tasks of the LCU concerned, the LCU could thereby take over the responsibility for consistency and provide a complete and coherent picture of the MNE group and its contribution to each statistical domain. In some cases, the unit is not called a 'large cases unit' as the functions covered are more like a 'consistency unit' which better reflects

⁽⁶⁾ It should be noted that not all existing LCUs are involved in all of the above-mentioned actions.

its objectives and goes far beyond traditional profiling-related functions. For example, in the United Kingdom, a pilot exercise is underway to work with MNE groups; if successful, over the longer-term the aim would be to develop into the 'International Business Unit' as shown in Figure 1.

Figure 1: Pilot exercise — developing an International Business Unit in the United Kingdom ⁽¹⁾

Vision - Evolving strategy for MNE group data management



⁽¹⁾ The Economic Statistics Centre of Excellence (ESCoE) based in the United Kingdom provides the Office for National Statistics with research that addresses the challenges of measuring the modern economy, as recommended by Professor Sir Charles Bean in his *Independent Review of UK Economic Statistics*.

⁽²⁾ Gross value added, gross domestic product, gross national income, foreign direct investment, balance of payments, financial accounts, regional accounts, environmental accounts.

D. Positioning of an LCU within the organisational structure of an NSI

Those NSIs which already have an established LCU usually differ in terms of the positioning of the LCU within their organisational structure. For example:

- In Finland, the LCU is situated in the Data Collection Department, as part of the Business Register Unit. As all the data are collected centrally by the Data Collection Department, the LCU is not involved in data collection from MNE groups.
- In the Netherlands, the LCU is situated in the Business Statistics Department, between data collection and data analysis. Here again, as all data are collected centrally, the LCU receives the relevant data from the data collection unit and carries out consistency tasks, before providing the data to other statistical domains.
- In Ireland, on the contrary, the LCU is part of the National Accounts Department. However, in this case the LCU itself collects data, carries out consistency checks and provides all relevant domains with the final data.

In the three cases mentioned above, three different approaches have been taken. However, the common feature in all these cases is the fact that the LCU is organisationally close to where the data are collected or is even responsible for data collection itself. It is also important to note that in these three NSIs, data collection, business statistics, national accounts and balance of payments are also organised differently and may have different roles, responsibilities and coverage.

Following the principles and approaches described in *Guidelines on Integrated Economic Statistics* (United Nations, 2013) and the GSBPM, it is recommended that the LCU should sit close to, and separate from, the statistical business register and data collection areas, thus near the start of the statistical value chain.

The LCU would need to be an autonomous unit at arms-length from its stakeholders to ensure impartiality and independence, for example, the LCU would apply guidelines consistently, correctly and fairly, irrespective of the preferences of statisticians working in areas such as short-term statistics or structural business statistics. The LCU would then naturally feed timely, reconciled, coherent and consistent data through to the statistical survey domains, and beyond, avoiding unnecessary process and feedback loops. Responsiveness and timeliness dimensions are key for short-term surveys and associated statistics. The LCU will still need to involve key downstream actors such as national accounts and balance of payments statisticians, as well as having links to other areas such as analyses of productivity and linking microdata.

E. Size of an LCU and required skills

The size of the LCU should logically depend on various factors, such as, the:

- number of selected MNE groups;
- size and complexity of MNE groups;
- number of survey questionnaires sent per year to MNE groups;
- amount of time spent on collecting and checking information for each MNE group; and
- staff resources — the number of ‘ring-fenced’ staff working either full-time or part-time in the LCU, as they may also work in other domains. It is recommended that LCU staff are ‘ring-fenced’ and work only for the LCU and not partly for other statistical survey domains. This will help to remove any conflict of interest and ensure an efficient process feeding into the survey areas and beyond. This will be dependent upon the resources and budget available to the NSI.

The following skills and experiences are desirable in an LCU:

- good communication skills to develop and maintain a good working relationship with MNE groups. Communication inside the NSI (and the NCB, as appropriate) is also important — the LCU should listen to users and discuss (conceptual) issues as well as be able to convince the statistical domains that the data provided are correct, consistent and coherent and need no further adjustments;
- experience and knowledge about business models, business practices and the functioning of MNE groups to understand the content and validity of the statistical returns;
- experience in the different types of profiling techniques, preferably manual ‘intensive’ profiling;
- expertise in accountancy, to be able to understand business accounts and translate the information to statistical concepts in line with the system of national accounts (SNA) and the IMF’s balance of payments manual (BPM) — bridging the gap is key, as well as being able to communicate in a language that businesses understand;
- experience and knowledge of the statistical system and the relations between different statistical domains;
- proficiency in statistical techniques and data engineering dealing with a large amount of information;
- identification, investigative and data problem resolution skills such as reconciling data from different domains, company accounts and other sources;
- administrative skills;
- providing support for information technology solutions;
- a mix of internal competencies from different areas (registers, business surveys, national accounts, balance of payments, etc.) is considered a strong asset to be integrated with external knowledge (finance, international accounting standards, business strategy) provided by training and/or consultancy.

In most of the cases above, it is rare that all of the skills mentioned are available in one person. Thus, the focus should be on building a team whereby all of the skills and competencies required are brought together and complement each other. The number of staff, part-time and/or full-time, solely deployed in the LCU will vary in each NSI depending upon the skills and experience mentioned above.

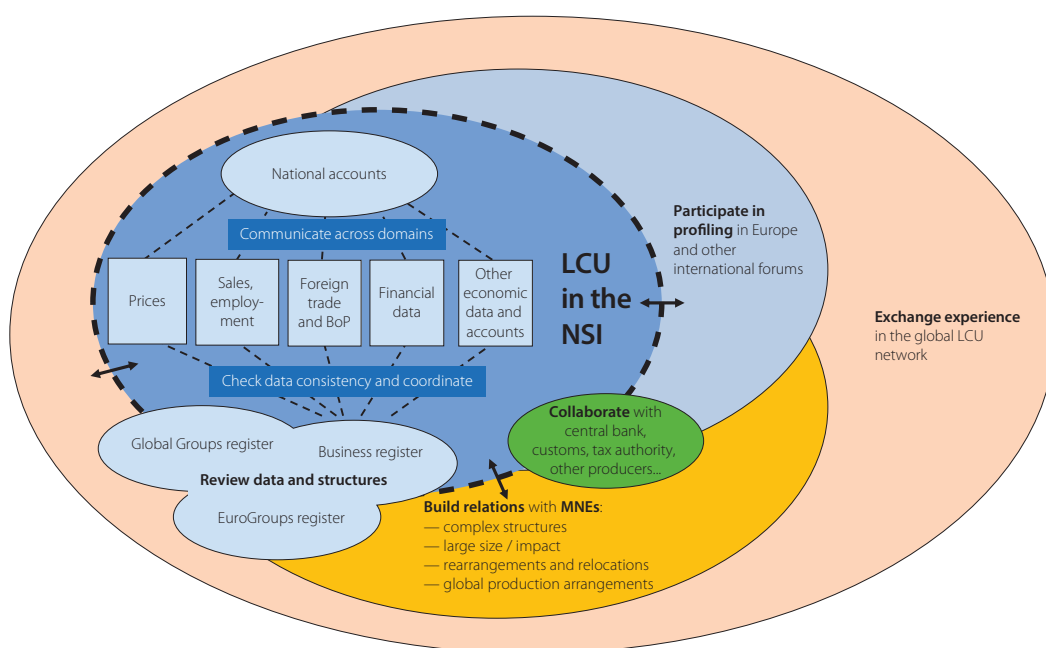
F. Working procedures for an LCU

The working procedure of currently existing LCUs usually includes:

- regular contacts with the MNE groups and official formal meetings, complemented by ad-hoc and informal contacts;
- good preparation for MNE group meetings by reviewing the company structure, company data and notes and actions of previous meetings;
- service-minded attitude to all statistical domains to whom the LCU will provide consistent and coherent data for compiling their statistics;
- intra-institutional and international cooperation, including contacts with LCUs in other countries — this should be part of the LCU strategy from the beginning.

Figure 2 illustrates the role that an LCU may play in the statistical production process. As already mentioned, the role of an LCU may be crucial to the statistical production process insofar as it provides coherent data to national accounts, balance of payments and other upstream domains by building relations with MNE groups and ensuring close cooperation with other relevant authorities inside and outside the country.

Figure 2: Role of LCUs in the statistical production process



It should be noted that to work as effectively as possible, it is important to have the right selection of MNE groups to be managed by the LCU. The size of the MNE group is an important but not the sole criterion. Other important selection criteria are complex ownership structures, opaque organisational structures, the number of countries across which the MNE group operates, transmission of inconsistent data, re-arrangements and relocations of MNE groups, involvement in global production arrangements, ownership of intellectual property products, etc. The LCU may also need to monitor resident subsidiaries of MNE groups whose controlling institution resides outside their territory.

It might be useful to have a suite of criteria, and priorities, to help define (and possibly to review regularly) the units treated by the LCU.

Furthermore, it is very important that the selected MNE group is willing to cooperate which should underpin the functioning of the LCU — this may not always be the case. Indeed, one of the prime functions of the LCU and senior management will be to pursue initiatives to foster collaboration with the MNE group.

4. International aspects

Sections 2 and 3 are essential steps in setting up a foundation so that the LCU can ensure the domestic data for the MNE group are consistent and coherent. However, the real problem is that the LCU will not have the complete picture: indeed, a global perspective is needed to ensure there are no parts missing or being double-counted. Here, international organisations need to play a role in developing processes and frameworks for facilitating access to information and helping to reconcile data consistency across borders.

To understand MNE groups fully and to compile data on their global business activities better, it is important to understand their structure and their international ownership chain(s). MNE groups organise their production chains across national boundaries with affiliates in numerous countries as well as potentially having various links with different companies in a broad range of countries. Therefore, a proper treatment of MNE groups would require cooperation between all concerned NSIs in the form of the exchange of relevant information, sharing statistical data related to the activities of those MNE groups and the reconciliation of data to ensure the whole picture was correct. Without a full picture of the activities of the MNE group, it is a challenge to produce meaningful and correct measurements of global production and trade, and to understand the influence of MNE groups on macroeconomic and business statistics.

Therefore, data sharing, data exchange and data reconciliation between national LCUs is essential if they are to accomplish their tasks in an efficient and effective way. An international network of LCUs seems to be the right answer to facilitate the necessary exchange of relevant information. LCUs may have a special role in facilitating international work towards better understanding MNE groups. LCUs could provide a point of contact between NSIs for MNE group profiling and data exchange. The active involvement of LCUs in international work and the follow-up of results achieved in recent international initiatives would support national work on MNE groups.

However, the exchange of confidential data will face a number of different obstacles of a legal, administrative, statistical, technical and cultural nature. Several on-going international initiatives are attempting to make progress in addressing such issues across countries:

- the G-20 Data Gaps Initiative;
- a number of European Commission initiatives (for instance, the EuroGroups Register (EGR), EU profiling, the FDI network, the gross national income (GNI) MNE groups pilot exercise, and the Early Warning System (EWS);
- the Nordic LCU network; and
- the UNECE Task Force on Exchange and Sharing of Economic Data.

In March 2017, a **G-20 Data Gaps Initiative** (DGI) workshop on data sharing concluded that national authorities should review non-legal restrictions to data exchange, build trust by striking a balance between making more data available while maintaining confidentiality, and start with the sharing of data at the national level to contribute to further data sharing internationally. The G-20 DGI workshop highlighted the need for further standardisation and use of common frameworks in statistical production and data exchange (for example, Statistical Data and Metadata Exchange (SDMX)) and noted the necessity to consider ways to adopt common identifiers. Also noted was the need to establish an international network to advance work, and it was suggested that members of the DGI contact group ^(?) serve as a first point of contact for questions on data sharing and accessibility. It would be useful for LCUs to liaise with the national contacts in G-20 countries in order to highlight issues and progress from a statistical viewpoint.

The European statistical system has set-up the **EuroGroups Register** (EGR), a unique international business register of MNE groups that have more than one enterprise in the territory of the EU. The EGR contains information that identifies each enterprise in terms of ownership, activity, persons employed, as well as structure and turnover. Together with national business registers, the EGR helps to provide a more informed view of the impact of MNE groups on the economy. This can immensely facilitate the work of LCUs, as the EGR should lead to better survey frame populations and improve the quality of information on MNE groups. Although the EGR can be improved regarding quality and timeliness, it is a key tool to facilitate further developments.

Another important tool in obtaining consistency in the observation and description of large and complex MNE groups is **EU profiling**. This approach should precede the work of LCUs in reconciling data for MNE groups. Profiling is a method to analyse the legal, operational and accounting structure of an enterprise group at national and EU level, to establish the statistical units within that group, their links, and the most efficient structures for the collection of statistical data. The initial step of profiling is the delineation of statistical units in large and complex MNE groups. It is therefore directly linked to the EGR, which offers a starting point in terms of acquiring a first view of the legal units concerned and an understanding of how MNE groups are structured and controlled. However, a more up-to-date, live and dynamic EGR is necessary. For MNE groups, 'intensive' profiling including company visits will also be necessary, especially for more complex cases.

^(?) Members of the DGI contact group are senior-level officials identified by the G-20 national authorities to serve as main points of contacts for the inter-agency group (IAG) of the DGI. These officials are the first point of contact for annual monitoring reports, attend global conferences, and coordinate with the policy departments of their respective institutions.

The **FDI network** project (a joint Eurostat and European Central Bank (ECB) initiative) was launched in June 2009 to reduce asymmetries and increase the internal consistency of EU and euro area balance of payments statistics. The FDI network is a secure tool for FDI compilers to exchange information (microdata) on FDI transactions and (since 2012) FDI positions, while preserving the confidentiality of the data. Although it does not allow for the reconciliation of all transactions and positions, bilateral exchange of microdata between statisticians is considered as a good practice to reduce asymmetries and to identify the reasons behind them.

Participation in the FDI network is based on the following principles:

- It is a voluntary exercise.
- FDI compilers participating in the network undertake to follow the rules and provisions laid down in the FDI network manual.
- The activities of the FDI network will be carried out in line with European Commission legislation related to statistical activities within the European statistical system and the European system of central banks.

The objective of the **GNI MNE groups pilot exercise** is to achieve by the end of the current GNI verification cycle in December 2019 a reasonable understanding of the reliability of the recording of globalisation issues through GNI data. This will help to identify the globalisation measures necessary after the end of the 2019 cycle. In addition, the two recommendations made by the European Court of Auditors in relation to globalisation need to be satisfied ⁽⁸⁾. As part of this initiative, the European Statistical System Committee (Director-Generals of the EU NSIs) agreed to share microdata for this pilot exercise on a trust-based approach established around Regulation (EC) No 223/2009 on European statistics; a longer-term solution should be developed for the future. Microdata will only be shared between EU Member States working on the same MNE group in relation to the statistical validation process and therefore will not be available to the public or other international organisations.

Eurostat has established the **Early Warning System** (EWS) which aims to identify important MNE Groups and possible restructuring cases, and to agree a common recording, preferably before the changes materialise or need to be incorporated in business statistics, balance of payments or national accounts. The purpose is to ensure consistency of applied methods, statistical treatment and communication of statistics involving MNE groups across EU Member States. The EWS provides a light procedure for voluntary cooperation between national statistical authorities and Eurostat, and between business statisticians and national accountants.

In September 2017, the Nordic countries decided to establish a **Nordic LCU network**. In the first phase, the network aims to share practical information on tasks and processes of these units in the Nordic countries. Later, the network intends to discuss the need and possibilities to share data on MNE groups for statistical purposes among the statistical authorities of the countries concerned.

The **UNECE Task Force on Exchange and Sharing of Economic Data** is also vital in relation to making progress on identifying the enablers of and the obstacles to international data sharing and data exchange, as well as developing possible solutions.

⁽⁸⁾ The two recommendations were: (i) to analyse all potential implications of multinational activities on the estimation of GNI; and (ii) correctly capture R & D assets in terms of valuation and residency.

5. Conclusions

Even though the activities of LCUs vary across countries and MNE groups are rapidly changing cross-country production chains, LCUs can provide an essential mechanism to support statisticians in dealing with the data for MNE groups across statistical domains. LCUs can also improve efficiency by promoting the use of common tools, drafting instructions for data collection and enhancing the consistent treatment of data for large and complex enterprises operating nationally and/or internationally. Moreover, when LCUs review data for MNE groups, they do so for various statistical domains, whereas without LCUs, this work would be done multiple times for various statistical domains leading to higher costs and lower levels of consistency across datasets.

Good communication with MNE groups can result in receiving timely and accurate information on the restructuring or relocation of MNE groups before these changes impact on the statistics disseminated by NSIs. The EWS, which has been launched by Eurostat with the participation of all EU Member States, relies on the potential of a well-functioning LCU and would benefit from the development of an international LCU network.

Examples from countries with existing LCUs show that while the setting-up of the LCU requires initial investment and training, in the medium and longer-term efficiency gains and even resource reductions can be achieved, while the response burden for MNE groups may also be diminished. All countries with an established LCU benefit from a better level of knowledge and understanding of major MNE groups and higher quality data covering their activities.

In summary, in an ever-changing globalised world, investment in an LCU-type entity is essential to ensure that national statistics are of high quality and do not double-count or miss any activity. It is also important to make the step to share data, exchange data and reconcile data for MNE groups beyond just the national concept. Global data sharing will enable NSIs (and NCBs) to develop a consistent and complete view of MNE groups, thereby improving international comparability of economic statistics and reducing trade asymmetries (Mahajan (2017)).

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