Enhancing economic statistics quality by addressing large multinationals data through a Large Cases Unit (LCU)

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Abstract

The accelerating pace of economic globalization has introduced a multitude of challenges for statistical analysis, necessitating innovative frameworks to comprehend its multifaceted dynamics and captured them properly in statistics.

Firstly, large multinational corporations expand their operations internationally through an increasingly complex network of subsidiaries, which significantly complicates the representativeness and consistency of national business statistics. A precise profiling of the group and the 'enterprise' within the group as a statistical unit for analysis is crucial in statistics based on types and sizes of companies.

Secondly, the production processes of these large groups are often organized through global operations that are challenging or impossible to accurately reflect in statistical, administrative, and accounting sources. Furthermore, they are usually based on frequent utilization of intangible assets with diffuse economic ownerships.

The existence of a specialized and trained unit within national statistical offices dedicated to directly engaging with MNEs and analysing their global corporate and operational structure is key. This approach stands out as the most effective and quite possibly the sole method to guarantee a definitive stride towards assuring the quality of national business and macroeconomic statistics (national accounts and balance of payments) in a globalized economy. This paper investigates the pivotal role of Large Cases Units (LCUs) as a strategic means to grapple with the intricate statistical implications of the economic globalization showing the first outcomes of the LCU in the Spanish statistical system.

Keywords: globalization, business statistics, profiling, national accounts, balance of payments

1. Introduction

The accelerating pace of economic globalization has introduced a multitude of challenges for the quality of economic statistics, necessitating innovative frameworks to comprehend its multifaceted dynamics and captured them properly in figures. The global economy poses significant challenges for the collection and recording statistical due to the transnational nature of many economic and social activities. Two of them are specially underlined by all the statistical community: lack of harmonization of data collection systems between countries and the rapid evolution of technologies and business practices make it increasingly difficult to accurately capture a full and coherent picture of the global economy.

Firstly, the organizational structure of a multinational group of enterprises (MNE) is a complex and dynamic entity shaped by a multitude of strategic, operational, and environmental factors that that have become intertwined throughout the life of the company. The legal environment of the countries where the MNE operates, the entry into new markets, tax optimization strategies, the management of risks related to currency fluctuations, political instability, and economic changes, the development of new technological capabilities, cultural considerations that influence management practices, specialization of services, etc., etc., etc.

As a result, large MNEs expand their operations internationally through an increasingly complex network of subsidiaries, which significantly complicates the representativeness and consistency of national business statistics. A big company could be organized with different organizational models in terms of number and characteristics of subsidiaries keeping exactly the same operational business model. A precise delineation of the group and its constituent statistical units is vital in company-based statistics, considering their various types and sizes. This is what we call *profiling* in statistical jargon.

Furthermore, MNEs are economic agents involved in increasingly complex global production operations. Consider, for example, a large Spanish industrial group, as manufacturer of heavy transportation machinery, subcontracting the production of a series of railroad locomotives in Taiwan according to technical specifications and industrial design whose legal ownership is retained by the group's headquarters in Spain. Once manufactured, the trains are exported to different parts of the world, physically traveling directly from their place of production to the economy of the final buyer. Who then exports these trains? What value do the Spanish or Taiwanese economies contribute to this global value chain? Or let's complicate the scenario further by considering that the group decides to relocate the legal ownership of these industrial designs to a subsidiary resident in a low-tax jurisdiction, which licenses the right to use such patents to the parent company. What value do each of the three economies involved in this

global operation contribute? How can we measure and allocate it appropriately to each national economy?

Additionally, MNEs are economic agents who are also subject to frequent corporate restructuring, which often have transnational implications. In Spain, we had a highly publicized case last year, the FERROVIAL case, announced in April of 2023. In this case, the Spanish parent company of FERROVIAL merged with a subsidiary in the Netherlands, and the new parent company of the group became the new entity created by the merger - the absorption of the former parent company of the Dutch subsidiary by the former Spanish parent company. What statistical implications does this have? Are we recording it in a timely manner in Spain and the Netherlands, and consistently across all statistical domains?

Finally, they are very large economic agents. According to the *Business Statistics on Affiliates Companys*¹, compiled by INE, which have been published since the reference year of 2021, of the nearly 3 million companies that we have in Spain, only about 2%, precisely 1.9%, are part of an enterprises group. In fact, only 0.7% are part of a multinational corporation, whether Spanish or with a foreign parent company. However, this 1.9% accounts for 40% of employment in the economy (25% if we refer to groups in multinationals). It also represents 65% of the total business turnover of existing companies in Spain (30% if we refer to multinational groups). A huge impact of MNEs on national macroeconomic aggregates could be expected.

Indeed, it is easy to see how globalization begins to generate increasing concern within the statistical community. This concern arises from the possibility that we might not be measuring the same economic reality according to the same criteria across all countries, particularly in Europe but also globally. This concern escalated until it culminated with the well-known "Irish case" in 2016: the Central Statistical Office of Ireland undertook a very significant revision of its GDP growth for the Irish economy for the year 2015, due to the recording in the Irish economy of intellectual property assets used by a foreign multinational group. Many questions began to surface and were raised in international and European forums, generating what was a significant shock in the statistical community: is there a consistent treatment between countries of the economic property of MNEs intangible assets and their related flows?

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https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica C&cid=1254736161127 &menu=ultiDatos&idp=1254735576550

In this context, a series of targeted initiatives have been decisively launched during the last decade to address the statistical challenge of measuring the economy in a global context. Notably, a determined driver for the development of the Euro-groups Register (EGR)²; the creation of the Early Warning System³ for a narrow, timely and consistent monitoring of restructuring of multinational corporations; the elaboration and publication of the profiling recommendations manual⁴; the assessment of the recording of globalization in the National Accounts in the framework of the Gross National Income (GNI) verifications, which we noted is tied to the administrative implications of National Accounts aggregates, and which is one of the areas where the European Commission's audit of each country's national accounts is most thorough due to the budgetary and monetary implications these aggregates carry; the development of the FIGARO⁵ project as European statistics, aimed at creating inter-countries input-output tables, was decisively promoted; the development a globalization dashboard⁶ by Eurostat, that summarizes a series of indicators specifically aimed at measuring the activity of multinationals and globalization; the extension of these projects more globally within the OECD framework, where the Activities of MNEs Database (AMNE)⁷, as a base for the compilation of the Trade in Value Added (TiVA)⁸ indicators or the GIANT collaborative initiative at global level; it is also worth mentioning the significant efforts made in conjunction with the UN to explore the potential statistical uses of the *Legal Entity Identifier*⁹, as a project promoted in the wake of the 2008 financial crisis, aimed at assigning a unique identifier to all economic agents in financial transactions.

Underlying all these initiatives, there was also a clear move towards recommending the establishment of units within national statistical offices specifically dedicated to direct contact with the major multinational groups in each country to ensure that their statistical description and recording were conducted in accordance with the standards required. This approach was

² <u>https://ec.europa.eu/eurostat/web/european-statistical-system/-/the-eurogroups-register-egr-</u>

³ <u>https://ec.europa.eu/eurostat/web/globalisation-businesses/methodology/early-warning-system</u>

⁴ <u>https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-20-002</u>

⁵ <u>https://ec.europa.eu/eurostat/web/products-eurostat-news/-/edn-20210526-1</u>

⁶ <u>https://ec.europa.eu/eurostat/cache/dashboard/globalisation/</u>

⁷ <u>https://www.oecd.org/sti/ind/analytical-amne-database.htm</u>

⁸ <u>https://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm</u>

⁹ <u>https://www.gleif.org/en/about-lei/introducing-the-legal-entity-identifier-lei</u>

presented as the most effective, perhaps even the only, way to tackle this challenge. It was not a leap in the dark but rather built on successful experiences from countries particularly affected by economic globalization, such as Ireland or the Netherlands, where such units had been functioning in one form or another since the early part of the last decade, around 2010 to 2012.

As of today, this recommendation has been adopted by the vast majority of the EU Members States and EFTA countries, with 26 of the 31 countries having a **Large Cases Unit** (LCU) or a similar structure or in the process of establishing such units.

The positive response from the EU Member States has also enabled the creation of a European network of LCUs (called **MNE Net**), with the aim to serve as a forum for the exchange of national experiences concerning this issue and to strengthen cooperation among nations with the ultimate goal of ensuring coherence and consistency in statistical recording across various statistical domains and in all countries of, at least, those considered as top multinational companies -the largest and most complex with a European presence-. This network is playing a key role as the coordinating forum for the EWS on corporate restructuring processes.

In turn, national LCUs and the MNE Net are clearly aimed at improving the quality of economic statistical production in national business registers, business statistics, the national accounts and the balance of payments.

2. The LCU at INE-Spain

In April of 2022, an *Order of the Ministry of Economy and Business* (ETD 378/2022¹⁰) of the Spanish Government created a new Division at INE-Spain called the "**Large Cases Unit**". It was the Spanish LCU. The unit became operationally functional by July of the same year. As such, it has been in existence for slightly over a year and a half.

It was established as a unit directly subordinate to the Presidency, which also facilitates its coordination and integration efforts across various domains of economic statistical production that are situated in different hierarchical dependencies within the INE. The ministerial order explicitly lists its functions and objectives. Indeed, these functions are progressively developing as the unit expands and as the experience within the unit provides new insights into how we can approach tasks in the medium and long term. We are not only talking about the creation and implementation of an intensive profiling plan for multinational corporations but also the

¹⁰ <u>https://www.boe.es/diario_boe/txt.php?id=BOE-A-2022-7137</u>

identification, access, and custody of all information sources related to multinational groups, the depuration and validation of microdata that these multinational companies incorporate into the various statistical production domains of the INE, the closely monitoring of corporate reorganizations to ensure their accurate, consistent and timely statistical recording, the analysis and coordination of the statistical recording of these MNEs' global production arrangements as well as representing the INE within the European MNE Net among other responsibilities.

In turn, the fundamental objectives of the LCU can be summarized in three main points:

- Monitoring and close tracking of the activities of large multinational groups operating within the national economy.
- This is to ensure that their statistical registration is conducted according to current standards.
- Consistently both internationally and across different statistical domains.

As of today, the Division is organized into two main areas: the **profiling area** dedicated to the statistical delineation of multinational groups, and the **globalization area**, focused on analysing the statistical records of globalization. While the Division is not yet operating at full capacity, it is certainly approaching that level. This is largely due to the multidisciplinary experience of the team leaders involved, stemming from their diverse personal and professional backgrounds. Additionally, the enthusiasm and professionalism of the rest of the team, primarily comprised of recent cohorts of technicians and senior statisticians, contribute significantly to this progress. They are currently the backbone of all the work being developed.

The profiling area is tasked with executing the intensive profiling plan of MNEs and coordinating the EWS. The globalization area is aimed at observing, analysing, and contrasting the statistical recording of the global operations of these groups. Additionally, the LCU is working on future projects in statistical production that are specifically related to globalization. These projects are closely aligned with the National Accounts framework, or directly connected to it, and involve research on sources and methodologies to address new requirements proposed by the evolving standards of National Accounts for economic measurement in a globalized economy.

3. Approaching MNEs

At present, the portfolio of the Spanish Large Cases Unit (LCU) includes 20 multinational groups, most of them headquartered in Spain. Since initiating its intensive profiling activities in early 2023, the size of the LCU's portfolio of multinational enterprises (MNEs) has grown

significantly, expanding from 6 to 20 groups within a single year. This number is expected to continue increasing in the upcoming years, eventually achieving extensive coverage of the MNEs population in Spain.

In conducting these profiling activities, it is essential to establish criteria for determining which groups merit inclusion in the portfolio. A complexity index is devised, which assigns a value to each multinational group by considering factors such as employment figures, turnover, number of subsidiaries, and geographical scope of operations. Groups with higher index values are given priority for inclusion. While the index primarily relies on metrics provided by Eurostat, cross-referencing is carried out with various statistical sources, including INE's surveys and recordings, tax databases, and governmental ministries.

To quantify the significance of the groups within the Spanish LCU portfolio, it is notable that they collectively employ nearly 400,000 workers. This represents almost 2% of the total employment in the national economy and approximately 20% of the workforce in multinational groups headquartered in Spain. The turnover is around 250 billion euros, based on unconsolidated aggregated figures (i.e., simple summation). To contextualize, this turnover amounts to about one-fifth of Spain's GDP. When considering only the turnover from companies within these multinational groups, the figure escalates to nearly 30% of the total turnover. Thus, the portfolio addresses a significant segment of the national economy.

At the core of the LCU's activities lies that direct relationship with the managers of the multinational groups. But how does the LCU establish contact with the groups? Contact is initiated in a very formal manner, with a letter signed by the presidency of the INE addressed to the highest level of the group, typically its president. That is sufficient in the majority of cases, but in some instances, sending the letter to an intermediate level within the group's hierarchy has been considered. Occasionally, it may even resort to more informal practices, sometimes leveraging personal contacts. However, as I mentioned, we usually find success.

It is crucial, especially in meetings of this nature, to adhere to the following practices:

- Beforehand preparation is essential. We must ensure that we have thoroughly reviewed all available information about the group from our statistical sources, analysed their business model as much as possible using their corporate reports, consolidated accounts, and individual company accounts.
- Identifying the appropriate point of contact. It is key to determine the most effective point of contact within the group. Based on our experience in Spain, the corporate accounting department (or a similar function) usually proves to be the most suitable

contact. Although successful engagements have occurred at other levels within the group's hierarchy, these can sometimes present more challenges.

 Creating a trusting environment is essential for effectively conveying our objectives and reassuring the group that we handle their information efficiently and securely, as gleaned from our traditional systems.

If these points are achieved, very positive experiences are usually found:

- Firstly, a refreshed, innovative image of official statistics is conveyed, which surprises MNEs' managers. They often do not realize the level of detail and precision involved in our analysis of their business activities.
- High-level executives of the company are usually engaged, who possess a strong statistical awareness, making it easier to convey the importance of accurate statistical reporting for macroeconomic aggregates.
- In fact, no significant language barriers are encountered, as is often highlighted.
 Indeed, the experience of a corporate director or multinational group director in compiling and consolidating their accounts closely mirrors that of a national accounts compiler.
- Moreover, LCU's team has encountered a peculiar phenomenon where they perceive the relationship as very beneficial, even for them. Some noteworthy examples could be put on the table in how the review made of the group structure and global activities together the statistical services even assist them in organizing, managing and reporting tasks.

In these meetings, we tackle two fundamental objectives: *profiling* -the statistical delineation of the multinational group- and the analysis of their *global production arrangements*. Let's delve into each of these.

4. Profiling MNEs

The profiling area is tasked with implementing the intensive profiling strategy for multinational corporations. In the context of intensive profiling work, following the phases of group selection, contact, and meeting preparation, all gathered information is compiled, and the group undergoes profiling.

A precise profiling of the group and the 'enterprises' within the group are crucial in statistics based on types and sizes of companies. *Profiling* is divided into two phases: defining the group's scope and creating enterprise statistical units:

The **group's scope** is based on control, encompassing subsidiaries controlled by the group's headquarters.

After defining the group's scope, the creation of **statistical units** "*enterprises*"¹¹ commences. Statistical enterprises are stablished to comprehend the intricate corporate structure of the groups and accurately depict their activities.

The first stage is relatively straightforward, primarily because the statistical definition of a group of enterprises is based on control criteria, which aligns with those imposed by accounting regulations for formulating fully consolidated accounts within the group¹². Only those entities that are under the control of the parent company and are not included in the consolidated accounts as exceptions need to be identified.

The second stage, defining the statistical units 'enterprises', is a more complex task. This complexity stems from the statistical definition of the 'enterprise' unit itself, which is based on the criterion of 'certain autonomy of decision-making'. This criterion allows for various combinations of legal entities that could constitute 'enterprise' units. Therefore, to identify the 'enterprise' units that best represent the productive activity of the group, a comprehensive understanding of the business and its overall operations is essential. In this regard, communication with the multinational corporation is indispensable.

For this task to be carried out in such a way that it does not impose an excessive burden on the multinational group, good preparation beforehand is essential, as mentioned earlier. Therefore, before the meeting with the group, an analysis is conducted on how the group operates in its activities: consolidated and ordinary financial reports are studied, the consolidated memory, corporate websites... A first approach to statistical units 'enterprise' usually consists of the operating segments that the group presents in its consolidated report.

¹¹ "The enterprise is the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decisionmaking, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit." COUNCIL REGULATION (EEC) NO 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community.

¹² DIRECTIVE 2013/34/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC. <u>https://eur-lex.europa.eu/eli/dir/2013/34/oj</u>

Additionally, based on the experience of the Spanish LCU, in the event of finding lower levels of organization such as 'business lines', these groupings of legal units often serve as a good initial approximation of statistical units 'enterprise'.

Upon meeting with the group and conducting the prior study of the group's operations, the representative of the group is asked whether the initial proposal adequately reflects the group's operating structure. If the proposed framework closely aligns with reality, the enterprise units are outlined during the meeting with the group. However, if the proposal is not sufficiently accurate or if it's simply not feasible to delineate the enterprise units due to the complexity of activities or lack of information at that time, contact with the group is maintained (via email or phone), and the task is revisited after a certain period.

This profiling task is crucial for comprehending the complex corporate structure of the groups, particularly because traditional business statistics were based on the legal unit of analysis, which is no longer adequate for large and intricate business groups. Consequently, statistical units are required to overcome this distortion and accurately depict their activities.

5. Early Warning System

Within the profiling area of the Spanish LCU, the coordination of the *Early Warning System* as focal point at national level is carried out. The *Early Warning System* (EWS)¹³ is a tool in the European context that enables close monitoring of major corporate restructurings, thus facilitating timely and coherent statistical recording. This system operates by early detection and notification of potential corporate restructurings with transnational impact, especially those involving multinational groups operating in the local economy.

Established in 2018 as a voluntary cooperation mechanism, the EWS has examined 23 cases to date. The national LCUs take on a leading role in the system, although other entities within the statistical system, such as the business statistics units and the National Accounts and Balance of Payments departments, can also participate in the analysis.

Cases submitted to the EWS must meet several criteria, including involvement of two or more countries, significant impact, detection, and monitoring challenges, as well as major mergers and acquisitions. Additionally, cases posing questions regarding the statistical recording of globalization are considered.

¹³ <u>https://ec.europa.eu/eurostat/web/globalisation-businesses/methodology/early-warning-system</u>

In terms of procedure, when a participating country identifies or receives information about a corporate restructuring meeting the established criteria, it submits a detailed report to the system's Secretariat, managed by Eurostat. Subsequently, an analysis is conducted in collaboration with Eurostat and the affected countries, with potential involvement of the European Central Bank and national central banks. Occasionally, collaboration with the OECD may occur if the corporate group extends beyond the borders of the European Union.

Following the analysis, a preliminary opinion is issued, and an action plan is proposed. Confidentiality is ensured through specific information channels. Eurostat develops a summarized and anonymized methodological note, which undergoes consultation to reach consensus on the analysis and statistical treatment of the case.

The final explanatory note, prepared by Eurostat, is published on its website, and countries may also share their results.

In summary, the EWS enables meticulous monitoring of corporate restructuring processes in the local economy, recording them, monitoring them, and assessing whether they warrant system activation. His task is crucial for comprehending the complex corporate structure of the groups, particularly because traditional business statistics were based on the legal unit of analysis, which is no longer adequate for large and intricate business groups. Consequently, statistical units are required to overcome this distortion and accurately depict their activities.

6. Statistical recording of global production arrangements of MNEs

The globalization of companies poses new challenges for the preparation of national accounting aggregates. Multinational companies participate in global value chains in an increasingly complex and sophisticated manner, which makes it difficult to identify economic transactions and ownership of goods and assets, classify them and collect their data. According to the current accounting standards of national accounting and balance of payments, as well as in the manuals that complement them, exports and imports of goods and services of an economy are recorded when there is a change of economic ownership between a resident and a non-resident, regardless of whether the goods have crossed the border or not. Likewise, it is necessary that there has been a change in economic ownership, which does not always coincide with legal ownership, to recognize the transaction. However, the increasing complexity of the structure and organization of the production of goods and services of MNEs makes it difficult to observe, measure and record the economic flows and stocks.

Adequately measuring the real economy requires identifying and recording transactions, which is not always immediate, especially with global arrangements. For instance, transactions

involving goods flowing between a resident and a non-resident that do not physically cross borders are challenging to detect using conventional sources. Additionally, there are instances where informants may lack a comprehensive understanding of the operations they are questioned about.

Global goods production arrangements are classified into three types: *processing*, *factoryless* and *merchanting*.

- Processing:

MNEs send their raw materials or semi-finished products to other countries to be processed with the aim of taking advantage of the comparative advantages of said countries. Comparative advantages are not always due to cheaper labour. There may be other advantages such as the existence of a certain technological specialization, a logistical location, or others. When a multinational from country A wishes to benefit from a comparative advantage in country B, it can send goods it owns to be processed in country B without transferring ownership of the goods. Since there has been no change of ownership, the products have not been exported or imported. However, the processing of the products in country B involves the import of a service by country A and an export of services by country B. Furthermore, in the event that the products are sold to a third country C, there is an export from country A to country C, although there has apparently been an export from country B to country C.

- Factoryless:

It consists of subcontracting the production process to a non-resident but controlling the design specifications and often the manufacturing specifications. This operation allows multinationals to manufacture their products without having to have the tangible assets of manufacturing such as machines and factories. In this case, the multinational defines the product it wants to buy, specifying all its characteristics and looks for the manufacturer who can produce it in the most competitive way possible. The manufacturer assumes the risk of purchasing the raw materials and the production risks but does not have any risk in terms of marketing the product on the market, since it is paid when the products are finished according to the order. The multinational does not have the operational risks of manufacturing, since its purchasing obligation refers to products manufactured correctly, so any failures in the manufacturing process would be assumed by the manufacturer. The multinational assumes the risks of distribution and marketing, since once the products are bought it assumes the associated risks. The supply of a multinational with factoryless operations abroad is very difficult to distinguish from the supply through an import of finished products. The customs registration of an import of products purchase through factoryless is identical to the registration of an import of a purchase made

on the open market. However, open market or factoryless supply could change the nature of the multinational's business. In the case of factoryless supply, the multinational could be considered a manufacturer and in the case of supply by importing open market products, the multinational could never be considered a manufacturer, it would be a distributor or a marketer.

- Merchanting:

Consists of the purchase of a product from a non-resident and the subsequent sale to another non-resident without the goods having crossed the resident's borders and without the goods having been transformed by the resident. This type of operation is easily recognized in cases of raw materials or commodities trading, where an operator can buy oil (or any other raw material) in one foreign country and sell it in another. In this case, it is considered that the buyer has not made an import into his country of residence, but rather the purchase is recorded as a negative export and the sale as an export, leading to the recording of the net margin as an export from the country of the resident. This treatment attempts to avoid double-counting of imports in the economy. In effect, if the purchase is recorded as an import, then the import figures would be artificially increased because the merchandise has neither entered the country nor been consumed in the importing country. The resulting final record, negative export (purchase) and positive export (sale), is the margin of the operation that is incorporated as the country's added value.

Merchanting arrangement is easily identifiable and quite natural when it refers to the trading of raw materials, however, it is more difficult to identify when it comes to manufactured products or industrial products. For example, in the textile sector it is common for large multinational brands to subcontract production in certain countries and then sell said production in other countries without the goods ever entering the country in which the operation has been organized. We also observe a merchant arrangement when a manufacturer of capital goods (like transportation material) sells to a foreign customer and at the same time orders the production of the capital goods in a third country. To identify and quantify commercialization in these cases, it is often necessary to carry out a detailed analysis of the operation.

The operations described above (processing, factoryless and merchanting) are sometimes difficult to identify and require a specific analysis to determine their nature. On many occasions it is necessary to contact the MNE to confirm some details that may be decisive in classifying the production arrangements. The usual questionnaires for collecting statistical information and administrative records are often insufficient to accurately identify the nature of the operations. Furthermore, the people who fill out the questionnaires are normally not

knowledgeable about this type of operations, which contributes to not properly identifying the operations.

Global arrangements with intangibles also produce difficulties when it comes to adequately measuring their production and allocation to the economy that produces them. For example, a multinational can locate its intangible assets in any country and from there bill services to the rest of its subsidiaries in other countries for the use of said intangibles. The allocation of intangibles' location is occasionally driven more by organizational opportunities than by the actual production content of the asset. Nevertheless, the production of capital services is attributed to the country where the intangible assets are situated, thereby augmenting its production and exports. Moreover, accurately quantifying the price for the services of intangible capital poses a challenge, further complicating production measurement.

Intangible assets (*Intellectual Property Products*, IPPs) can be moved relatively easily to any location. This implies that they can be located in any country and utilized globally. In this way, multinationals find themselves with few physical restrictions when it comes to optimizing the corporate structure with respect to tax, reputational aspects, control or any other criteria. Due to these characteristics, the risks of dissociating the real economy from the registered economy increase. The response of the official manuals to this situation is based on bringing the commercial reality to the national accounts recording, so that if an intangible asset resides in a specific jurisdiction, it is considered that the economic owner of the asset resides in said jurisdiction. In short, it is about recognizing that the risks and economic benefits generated by the intangible asset are borne by the society in whose balance these rights appear. Therefore, the income generated by the asset is considered to be produced in the country of residence of the business owner.

Despite this apparent simplification, the manuals provide for a more in-depth analysis to establish the economic ownership of intangibles. To do this, they propose a complex decision tree that allows analysing the casuistry of the initial production of the asset and its financing to determine the economic owner. The pragmatic approach of assigning economic ownership automatically to the commercial owner leads us to the fact that a purely organizational decision of a multinational that decides to locate its intangible assets in country A automatically increases the GDP of country A since the capital services it generates. These intangible assets must be considered within the GDP of the country that provides the services. In any case, this effect is subsequently corrected in the cascade of national accounts since the country where the parent company resides will receive the benefits of its intangible assets in the country

through the dividends (distributed or not) of the subsidiary, so that will become part of the National Income.

The analysis required to determine the economic ownership of intangibles goes far beyond simply compiling a questionnaire and requires again the participation of an experienced analyst.

On the other hand, multinationals use corporate structures that do not respond to a productive activity of goods and services, but whose purpose is to access financial markets, isolate risks from the parent company, obtain tax advantages or preserve the confidentiality of their operations in certain markets. They are the so-called *Special Purpose Entities* (SPEs) that are characterized by being subsidiaries of non-resident multinationals, have a high volume of assets and liabilities and have practically no personnel. These types of companies may hold significant economic sway, yet they often lack relevance in terms of the real economy. Their operations typically don't contribute value to the economy; instead, they either transfer it to other jurisdictions or fragment it. This can lead to distortions in the actual flow of foreign direct investment.

This type of situation has led to the incorporation into the manuals of a classification and standardization of global production operations to facilitate the work of identifying the operations and unifying the registration criteria. But the conceptual and methodological identification of the operations is not enough to guarantee their registration. A more convenient measurement instrument is also necessary than the mere collection of statistical or administrative data. It is important to understand the operation of the value chains of each industry to identify the specific operations that are being used and record them appropriately. That measuring instrument is the LCU.

7. Globalization Group

At the outset, we developed a highly cross-functional approach that feeds into various aspects of economic statistical production, necessitating thorough coordination. To facilitate this, a *Globalization Group* (GG) was established, comprising all units within the INE and the national statistical system involved in economic statistics production. This includes the LCU, the National Accounts Department and the Business Statistics units and other external stakeholders, notably the Central Bank (Banco de España), responsible for Balance of Payments and Financial Accounts, and the Tax Agency, overseeing crucial aspects of globalization measurement such as foreign trade statistics and customs data.

The group serves as a forum for joint coordination and assessment, focusing on the potential integration of LCU's work across various economic statistical production areas, specially focused on the non-financial side of the economy. It also functions as a platform for general evaluation and discussion regarding any aspect related to the statistical recording of globalization.

The group's operational framework includes two regular annual meetings (May and November), with provision for additional extraordinary meetings as needed for joint analysis and evaluation of emergent issues.

One of the initial actions undertaken by the group was the approval of a protocol for addressing potential issues, inconsistencies, or deficiencies identified in the statistical recording of economic globalization by the LCU or any other group member. This protocol involves communicating the identified concerns to the relevant basic statistical sources and synthesis statistics represented within the group through a report to the GG. The report is collectively assessed, with possible further consultations with involved multinational groups and potential engagement with affected counterpart countries, aiming for consensus and coordination in statistical recording and treatment, ultimately leading to an action plan concerning INE's statistical actions, particularly those concerning coordination with other production statistical areas.

The changes that occur in global operations of MNEs are also reflected in the changes that occur in accounting manuals. A coordinated mechanism is necessary also to incorporate the modifications planned in the 2025 SNA (and in the future European System of Accounts) that will affect a large part of statistical production. The GG can play a coordination role that facilitates the incorporation of the new accounting criteria between administrative records, basic statistics, National Accounting, and the Balance of Payments.

8. Conclusions

Large multinational corporations (MNEs) extend their operations globally through an increasingly complex network of subsidiaries, significantly complicating the representativeness and consistency of national business statistics. Additionally, the production processes of these large groups are often organized via global arrangements that are difficult or impossible to accurately capture in statistical, administrative, and accounting sources. These processes frequently rely on the use of intangible assets with unclear economic ownership.

Given this complexity, it seems to be clear that a specialized tool is necessary to ensure accurate recording of multinational activities. A detailed, case-by-case analysis is essential,

requiring a closer examination of the intricacies of these operations. Merely collecting data through questionnaires and administrative records proves insufficient for grasping the full scope of MNEs' economic activity.

The establishment of a specialized, well-trained unit within national statistical offices, dedicated to directly engaging with MNEs and analysing their global corporate and operational structures, is crucial. This is a *Large Cases Unit* (LCU). This approach emerges as the most effective, and perhaps the only way, to ensure significant progress in enhancing the quality of national business and macroeconomic statistics in a globalized economy.

Moreover, direct interaction between the statistical system and executives of large MNEs through LCUs is pushing the boundaries of traditional methods of relationship building and data collection for official statistics. This engagement is paving the way for a new era in compiling economic statistics in a globalized world, maintaining the highest standards of quality.

Acknowledgments

We would like to acknowledge the invaluable support of the INE-Spain LCU team, without whose efforts this paper would not have been possible. We also appreciate the close collaboration of all institutions and units that are part of the Globalization Group. This includes the National Accounts Department, the Economic Sectors Statistics Directorate, and the Short-Term Statistics Directorate at INE-Spain; the Banco de España; the Customs and Excise Department of the Spanish Tax Office; and the Economic Analysis and Statistics Directorate of the Ministry of Transport and Sustainable Mobility of the Spanish Government. Special thanks are extended to the managers of the multinational groups in the Spanish LCU portfolio for their understanding, sensitivity to statistical objectives, and their fruitful cooperation.

References

- Ahlborn, M., Draken, F., Manthe, V. (2021). Quality assurance in official statistics: large cases unit. *Federal Statistical Office (Statistisches Bundesamt)* 2 (2021), p.31 et seq.
- Ambroselli, S., Amante, S., Bilotta, E., Gentili, B., Orsini, C., Sartor, F. (2019). The task definition process for Istat Large Cases Unit. *Rivista di Statistica Ufficiale* N. 1/2019
- Council of the European Union. (1993). Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31993R0696

Eurostat. (2020). European business profiling: Recommendations manual, 2020 edition. <u>https://ec.europa.eu/eurostat/documents/3859598/10479728/KS-GQ-20-002-EN-N.pdf/e13f0907-5e5a-7521-604a-287004d07043?t=1582627153000</u>

Eurostat. (2021). European business statistics methodological manual for statistical business registers <u>https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-20-006</u> Eurostat. (2022). European business statistics compilers' manual for international trade in goods statistics - detailed data

https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-20-006

European Parliament, & Council of the European Union. (2013). European system of national and regional accounts in the European Union. Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013.

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0549.

- European Commission, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, & World Bank. (2009). The 2008 SNA. https://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf
- Stapel-Weber, S. & Verrinder, J. (2016). Globalisation at work in statistics Questions arising from the 'Irish case'. *Eurostat Review on National Accounts and Macroeconomic Indicators*

UNECE, UN (2015). Guide to measuring global production

https://unece.org/DAM/stats/publications/2015/Guide_to_Measuring_Global_Production_2015_. pdf