

Handling Multinational Enterprises: Istat's early experience in Large Cases Unit

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Abstract

The way Multinational Enterprises (MNEs) organise and reorganise their businesses worldwide has an impact on the production of the official statistics. During 2016, a dedicated team specifically devoted to large and complex units was established within the Directorate for Economic Statistics of the Italian National Institute of Statistics - Istat aiming at identifying the effects of complex restructuring at the early stages of the statistical production process. The main objective of this paper is describing the results of several analyses the Large Cases Unit (LCU) Team has conducted during the first phase of the project in evaluating size, significance and complexity aspects according to both the characteristics of national economy and the internal organisation of Istat.

Keywords: Multinational Enterprises (MNEs), Large Cases Unit (LCU), official statistics, globalisation.

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1. Introduction²

The way Multinational Enterprise Groups (from hereon will be referred to as MNEs) organise and reorganise their businesses worldwide has an impact on the production of the official statistics. Complex restructuring may affect single legal entities belonging to the MNEs, every kind of statistical unit used in the statistical production processes, all the National Statistics domains and the International comparability. For official statistics, globalisation is “one of the largest ‘statistical measurement’ challenges facing producers of economic statistics today” (Hussain *et al.*, 2019: 44). In fact, according to Sturgeon (2013), globalisation is a cross-border process for which an integrated and international standard approach mainly based on a better use of existing data is essential for handling the issue.

The Italian National Institute of Statistics - Istat during the last ten years has been involved in several international activities in order to manage the implications deriving from globalisation, such as the EuroGroup Register (EGR)³, International profiling activities⁴, Early Warning System, Gross National Income (GNI) MNE Pilot, Foreign Affiliates Statistics (FATS), International Sources statistics, and various projects aimed at improving the quality of National Accounts, concerning both input and output data. Eurostat has played a central role both in the research of a standard approach and in sharing common tools and practices, but also other international institutions have been increasingly interested in developing new ways to afford the problem in an international perspective. The United Nations Economic Commission for Europe (UNECE), Eurostat and the Organisation for Economic Co-operation and Development (OECD) have published in 2011 a guide on the Impact

2 Although the article is the result of a joint work, the single parts are authored as follows: Sections 1, 2, 3, and 6 by Simone Ambroselli; Paragraph 4.1 by Barbara Gentili; Paragraph 4.2 by Fabiana Sartor; Paragraph 4.3 by Barbara Iaconelli; Paragraph 4.4 by Ilaria Straccamore; Paragraph 4.5 by Luigia Mattei; Paragraph 4.6 by Sonia Amante; Paragraph 5.1 by Chiara Orsini; Paragraph 5.2 by Elisabetta Bilotta. Proofreading by Fabiana Sartor.

3 EuroGroups Register (EGR) is the statistical business register of multinational enterprise groups having at least one legal unit in the territory of the EU or EFTA countries.

<https://ec.europa.eu/eurostat/web/structural-business-statistics/structural-business-statistics/eurogroups-register>

4 UNECE, Guidelines on Statistical Business Registers (2015): “6.111 Profiling is the practice of using company accounts, often accompanied by interviews with senior enterprise officials, to build and define the structure of enterprises, mainly those involved in large complex enterprise groups. The resulting profiles are used to produce a reporting structure appropriate for the surveys conducted by the NSI. Profiling usually involves establishing contact with the enterprise being profiled to develop a good understanding of its structure. It is possible, however, to complete smaller profiles simply using published accounts”.

of Globalisation on National Accounts (UNECE, 2011). OECD globalisation indicators were produced in 2005 and 2010 while UNECE produced a Guide to Measuring Global Production in 2015 (UNECE, 2015a).

However, contributions have been generally referred to single statistical domains and mainly devoted to measure *ex post* the impact of MNEs operations according to a national perspective. For example, the profiling technique has been mainly focussed on establishing the appropriate statistical units (Eurostat Business Register Recommendation Manual, BRRM 2010) rather than assessing economic variables measurement. Therefore, taking advantage of the experience of some pioneering countries, such as Ireland, the Netherlands, Sweden, Finland (UNECE, 2011), and Canada (Statistics Canada, 2018), the idea of setting up in the organisational chart such specific units inside dedicated to the largest and complex MNEs, alongside other activities, has started to be considered also in different contexts.

Aiming at identifying the effects of MNEs' complex restructuring at the early stages of the statistical production process, the Istat Modernisation Programme in 2016 established within the Directorate for Economic Statistics (DCSE)⁵ a Large Cases Unit (LCU) Team responsible to deal with the inconsistencies of the largest MNEs operating in Italy. Therefore, the main ambition of the team is to keep the statistical domains experts informed by adopting an *ex ante* approach applied to a National Statistical Organisation (NSO) level.

The main objective of this paper is describing the results of several analyses the LCU team has conducted during the first phase of the project in evaluating size, significance and complexity aspects (UNECE, 2015a) according to both the characteristics of the national economy and the internal organisation of Istat. Size aspect defined according to one or more variables, such as gross value added, turnover, value of production or number of employees, helps in identifying largest MNEs. Since larger does not necessarily mean complex, the complexity aspect needs to be evaluated according to other features such as the enterprise group structure or the number of activities carried out by the MNE. Finally, significance for data collection is related to the selection of the most important respondents, the dominant groups or the respondents who

5 Official name in Italian “*Coordinamento delle unità economiche complesse*” (Coordination of complex economic units).

have problems in data provision. Therefore, the work is fully embedded in the context of official statistics studies and, in particular, it shows the process and rationale of the Italian experience in setting up an LCU team.

Several analyses were conducted investigating two basic concepts: the contribution to the National statistics of the MNEs in the target population (large and complex MNEs) that combines size and significance aspects, and complexity, proxied by the multi-business concept and business groups restructuring signals. In addition, conceptual external inputs from Eurostat and other international organisations were considered to improve the international perspective.

In terms of contributions, at first the paper had a practical implication: findings helped in defining the daily activities to be carried out by the Italian LCU team. However, findings also added new insights and suggestions to the international debate on LCUs or similar activities sharing our national experience in the first phase of the project.

The paper is organised as follows. Section Two is intended to review the most significant literature, the international manuals and reports on different statistical domains and the countries best practices related to MNEs and LCU or similar activities. Basic concepts under investigation during the early stage of the project are discussed in Section Three, while Section Four presents the preliminary studies results. Interesting international initiatives for our purposes are shown in Section Five. Conclusions, limits and possible future research developments are presented in Section Six.

2. Background and context

UNECE, 2011 guide represents the main output of the Expert Group on the Impact of Globalization on National Accounts established in 2007 to review and present proposals for dealing with the main problems in the compilation of national accounts and related source statistics due to globalisation. For the purposes of this paper, the guide contains *in nuce* two important elements that became crucial in the following years. First of all, the latter reference to the ‘related source statistics’ clarifies that the treatment of globalisation related issues posed by the MNEs is a process that has to start at the beginning – the business register and related statistics. A coordinated approach is almost essential and efficient in handling large and complex MNEs. Secondly, the Guide illustrates the experience of four countries, Ireland, the Netherlands, Finland and Sweden, in dealing with measurement issues and statistical units definition problems (van Delden *et al.*, 2018) associated with the global nature of the MNEs. In these cases, NSOs have adopted an organisational solution by establishing dedicated units, named at that time as ‘consistency units’ and which will be later generally identified as LCUs, regarded as “essential for ensuring that the data of large corporations are incorporated coherently across economic statistics” (UNECE, 2015a: 87).

Generally, these teams/units are composed by experts with different skills adopting a micro-data approach. As part of the overall objective of addressing globalisation problems caused by MNEs, the approaches contain some useful differences to explain the multi-faceted issue of concerning coherence. Countries’ specific aims, such as ensuring the coherence and plausibility in compiling national accounts and related statistics (Ireland), identifying inconsistencies at an early stage of statistical production to resolve them and to prevent their recurrence (the Netherlands), asking the right questions to the MNEs (Sweden), comparing monthly, quarterly and annual data within and across areas of statistics (Finland), helped us in defining our approach.

The need for this organisational solution firstly emerged in countries very dependent on international trade and investments or in which very few business groups cover a large proportion of the national economy. According to UNECE, 2011, top ten foreign-owned MNEs in Ireland covered 34 per cent of all exports of goods and service, while top 50 companies in Finland account for about 30 per cent of turnover. Furthermore, top 320 enterprise groups in

the Netherlands cover 40 per cent of turnover and 35 per cent of gross value added (UNECE, 2015a). Other interesting examples of LCU activities outside Europe include the Enterprise Portfolio Management (EPM) programme, responsible for managing all aspects of ongoing relations with Canada's 300 largest and most complex businesses that started in 2006. In their experience, 99 per cent of the entities recorded in their Statistical Business Register are referred to as 'simple' (one operating entity, one industry, and located in one geographic region), however the remaining one per cent of businesses labelled as 'complex' account for approximately 52 per cent of the total economic activity in Canada (Statistics Canada, 2018).

Concerning organisational aspects, Chapter 6 of the Guide to Measuring Global Production (UNECE, 2015a) focussed on presenting the outcomes of a survey carried out in March 2013 by the Task Force on Global Production to get a better understanding of the organisation of work and the type of analysis carried out by LCUs. The results showed as criteria for identifying large and complex entities generally comprise the following aspects: size, complexity and significance, in terms of selecting the most important respondents. Furthermore, concerning the organisation of the activities, despite NSOs have generally set up independent units, there are also teams of experts (Finland) and mixed forms (New Zealand). Such kind of units have been variously located: business statistics (Hungary); business statistics that also include national accounts (Canada, France and the Netherlands)); national accounts (Ireland), and data collection (Finland and Sweden) (UNECE, 2015a). Finally, LCU attributions vary greatly among different experiences including activities such as monitoring to identify current and forthcoming problems in data provision, data analysis, profiling, coordination, and contacts with large respondents. Despite the location of LCU (or similar) being recommended to be placed near the start of the process, maybe sitting alongside the statistical business register, the most important aspect to consider is the variety of skill set required to undertake the work.

However, the acceleration of the international debate on LCUs and similar type of activities occurred following the so-called 'Irish case'. In July 2016, the Irish NSO communicated for National Accounts for 2015 an annual increase in GDP of 26.3 per cent (CSO, press release, 2016) reporting a scale

of increase that was unprecedented in OECD economies historically⁶. As commented in the press release, in that case, globalisation exposed all its pervasive effects on official statistics showing as Gross Domestic Product (GDP) and Gross National Income (GNI, previously GNP) do not always help to understand what is happening in a single economy. As stated by Stapel-Weber and Verrinder (2016), “This is the first time — despite long conceptual discussions — that statisticians have been prompted by real economic events to take globalisation as seriously as it has to be taken, with major impacts for all kinds of economic statistics (national accounts, balance of payments, business, employment and trade). What makes the case very relevant for Europe, and the work of Eurostat, is that this could happen again any time as huge multinationals move their business around Europe and the globe”.

In the light of these premises, a dedicated team devoted to large and complex MNEs operating in Italy was introduced in Istat during 2016 according to the reorganisation programme. Identifying the inconsistencies or changes required at the earliest possible stage of the statistical production process and sharing all the issues related to the MNEs investigated have been identified as the main objectives of the LCU Team. The activities of the team, partly ascribable to the LCU typology, has been included in the official mandate of the Directorate for Economic Statistics. Co-operating and collaborating with other Directorates, such as National Accounts to obtain a common and coherent treatment for specific and complex cases, and Data Collection to evaluate the degree of cooperation of the main units, have also been considered as key elements to the process.

According to the internal organisational guidelines, members of the LCU Team have been engaged part-time in the work and selected on the basis of different experiences in order to ensure both an appropriate mix of skills and an extensive network across different divisions. Heads of business primary statistics divisions have been consulted to identify staff to be involved. In particular, the team has been made up of experts of National Statistical Business Registers (nSBR), Structural Business Statistics (SBS), Short Term Statistics (STS), Foreign Affiliates Statistics (FATS) and Foreign Trade statistics. Therefore, experts from all the statistical domains within the Directorate

⁶ Central Statistics Office.

<https://www.cso.ie/en/media/csoie/newsevents/documents/IrelandEconomicGrowthFigures.pdf>

for Economic Statistics have been included in the team. Concerning the resources, team members have been involved from a minimum of five per cent to a maximum of 70 per cent of their working time and, during these years, the average number of different experts in the network has been 15 while the maximum has been 23. Finally, no additional budget and funds have been used.

3. Methods

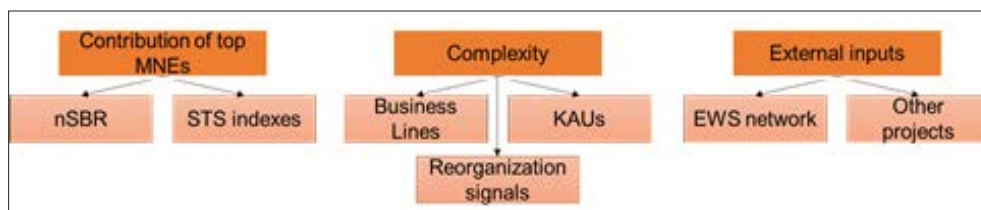
During the first phase of the project, the LCU Team conducted several studies for evaluating what large and complex could mean in our context. According to Task Force on Global Production survey results (UNECE, 2015a; see previous Section), population of large and complex enterprises are generally identified by the following aspects: size, complexity and significance. The size of a MNE could be measured by several variables, such as gross value added, turnover, value of production and number of employees. Complexity could be assessed by the number of legal units (or enterprises) in the group or the number of layers in the structure of the enterprise group. Furthermore, complexity could be evaluated in terms of operations by industry or geographical area. Finally, significance for data collection could be achieved by selecting the most important respondents, the dominant groups or the respondents who have problems in data provision.

Based on these three criteria – size, complexity and significance – the LCU Team defined the number of top MNEs in the target population (from hereon will be referred to as ‘target’), that is the list of the largest and complex MNEs acting in Italy, and investigated two basic concepts:

- i) the contribution of top MNEs to the National statistics, that combines size, useful to define the target, and significance, an important aspect in understanding the impact of groups under analysis on business surveys.
- ii) the complexity proxied by the multi-business concept and by restructuring signals from business groups.

Figure 3.1 shows all items evaluated by the team for each topic.

Figure 3.1 - Basic concepts and methods



Source: Authors' elaboration

Concerning the first item, nSBR⁷ and National Statistical Business Register on Enterprise Groups⁸ were examined to develop a provisional procedure to select top business groups operating in Italy to be included in the target list. Therefore, the size topic was investigated through the evaluation of the impact on statistical business registers. Furthermore, an analysis of the actual role of large business groups from a register-based perspective was made (Paragraph 4.1). In addition, the LCU Team conducted studies to verify the contribution and the degree of cooperation of top business groups on short-term surveys. These analyses helped in defining the actual role of large business groups in the composition of two short-term economic indicators, the monthly retail trade index (Paragraph 4.2), and the services turnover index (Paragraph 4.3).

Regarding complexity, we chose to emphasise economic aspects and breaking events rather than other elements, such as the number of layers in the structure of the enterprise group and complexity in terms of geographical area. Nevertheless, those latter aspects are currently captured by other Istat teams devoted to profiling and EuroGroup (EGR) activities.

The LCU Team firstly focussed on the concept of multi-business activities. In order to evaluate the presence of the kind of activity units (KAUs) for top enterprises (Paragraph 4.4), a qualitative study was conducted to analyse signals deriving from the SBS Total Survey on large enterprises (SCI)⁹ and financial statements (administrative data). According to the Council Regulation (EEC) No 696/93 on the statistical units, a KAU groups all the parts of an enterprise contributing to the performance of an activity at class level (four digits) of NACE classification and corresponds to one or more operational subdivisions of the enterprise. Furthermore, within the framework of 2011 Business Census, a dedicated survey on top Italian enterprises (or enterprise groups)¹⁰ (MPSUC) was launched to collect information on their organisation and the LCU Team investigated the results concerning the number of different business lines carried out (Paragraph 4.5). The concept of business line considered for this survey derives from the international accounting standard IRFS 8 concerning the disclosure of the operating segments in the financial statements. An operating segment is defined as a component of an

7 <https://www.istat.it/it/archivio/216767>

8 <https://www.istat.it/it/archivio/234313>

9 <https://www.istat.it/it/archivio/13635>

10 <https://www.istat.it/en/archivio/187836>

entity (enterprise or enterprise group) that “engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity); whose operating results are reviewed regularly by the entity’s chief operating decision maker; for which discrete financial information is available” (IFRS 8:2).

Restructuring events inside the target groups were considered as another way to proxy the complexity inside MNEs (Paragraph 4.6). The LCU Team defined different streams of monitoring activities to share signals concerning complex reorganisations able to affect the statistical production.

Conceptual external inputs from Eurostat and other international organisations were considered to refine the definition of the tasks also according to an international perspective. Cross-countries impact of MNEs activities requires the development of international networks able to guarantee information and coordination, such as the Eurostat Early Warning Signal network (Paragraph 5.1). As international aspects tend to be very demanding, The LCU Team has started following the news concerning these topics trying to define dedicated tasks to handle them (Paragraph 5.2).

4. Findings

This section includes an overview of the analyses produced by the LCU Team during the first phase of its activity. These works were designed to define the target MNEs, investigating their role and evaluating their complexity.

4.1 The target groups and their impact on nSBR

The size topic was investigated through the evaluation of the impact on statistical business registers. The LCU target list was defined on the basis of the Italian Business Register and the Italian Business Register of Enterprise Groups data. The procedure followed for a year 't' starts at the business group level. Two different orders for business groups are generated, by turnover and number of employees. After that, groups belonging to the top 200 ranking both for turnover and number of employees are selected. The third step consists in completing the list to obtain a total number of 130 business groups according to the turnover order only. Finally, worldwide top MNEs operating in the so-called digital economy, such as e-commerce and sharing economy, are added in the list even if their values are not very high in Italy. The total number of business groups annually included in the target is 140, 45 per cent foreign-owned MNEs, 41 per cent of Italian MNEs, and 14 per cent of domestic groups. Italian MNEs cover the 58 per cent of total turnover and 53 per cent of employment, while foreign-owned MNEs generate 35 per cent of turnover and 27 per cent of employment. Domestic groups account for 20 per cent of employment and seven per cent of turnover.

Enterprise groups in the target are formed annually and in average by 3,300-3,600 legal units¹¹. By comparing years 't' and 't-1', generally, about 75 per cent of the enterprises appear in both the targets while half of the remaining units are not confirmed because of inactivity or liquidated in the year 't'. A longitudinal evaluation is also carried out to test the stability of the business groups in the target.

Due to the characteristics of the Italian system, mainly based on small and medium enterprises, statistical registers annually record 4.4 million

¹¹ For the reference year 2016, according to the nSBR outputs, legal units coincide with the statistical unit "enterprise".

enterprises and about 220,000 of those belong to business groups (nearly 100,000). Therefore, coverage percentages found for other Countries as shown in Section Two (UNECE, 2011; UNECE, 2015a; Statistics Canada, 2018) are unexpected in our case. Enterprises in the target list represent annually less than one per cent of the total units in the nSBR. In terms of economic variables, they cover the eight per cent of total employment, 16 per cent of gross value added, and 26 per cent of total turnover. Considerable differences have emerged among NACE Sections and adopted criteria. Table 4.1 shows the NACE Sections greatly covered by the enterprises included in the LCU Team's target list.

Finally, it is important to consider that Section K (Financial and insurance activities) has been evaluated over the employment criterion only, showing a coverage value of about 40 per cent, while the contribution of top MNEs for Manufacturing (Section C) accounts for about eight per cent of total employment, nearly 18 per cent of turnover, and more than 11 per cent of gross value added. Employment criteria generally shows a great degree of stability over time, while turnover and gross value added are less stable.

Table 4.1 - Enterprises in the LCU target list: criteria for the evaluation of the impact in terms of economic variables. Main NACE Sections. Year 2016

NACE Sections	Employment	Turnover	Value Added
B Mining and quarrying	46,0	92,2	58,6
D Electricity, gas, steam and air conditioning supply	63,5	76,1	68,6
E Water supply; sewerage, waste management and remediation activities	17,8	22,4	26,5
H Transportation and storage	27,3	25,7	39,7
J Information and communication	19,1	45,7	41,8

Source: Authors' elaboration on Istat data

4.2 Contribution of top groups to STS monthly retail trade index

The analysis focusses on the contribution and the degree of cooperation of large business groups to the Monthly Retail Trade Survey and specifically assesses the weight of large business groups falling into LCU target list on total turnover in the retail industry.

For this study, in order to determine the weight of the units belonging to the LCU target list, SBS data on turnover were preferred against information from the survey, as values gathered through questionnaires included goods with different VAT rates and missing data. Furthermore, using absolute values from the survey is not recommended as indicators of retail trade rely on algorithms calculating percentage changes; therefore, to obtain absolute values, the whole information system of the survey should have been recalibrated significantly.

Restructuring of groups and enterprises could determine missing data for new units to be potentially included in the sample. When such an issue occurred, missing values were imputed using administrative sources (financial reporting statements) and SBR data.

Considering that the study was conducted during the initial stage of the project (end of 2016-beginning of 2017), in order to use structural information on turnover as previously stated, the selected reference year for analysing data was 2014. Businesses involved in the LCU target were merged to the sample of the Monthly Retail Trade Survey that for the reference year counted about 8,000 enterprises resident in Italy, classified as operating in NACE Division 47.

Results highlight that about 30 per cent of the business groups in the LCU target list were sampled in the Retail Trade Survey, having at least one enterprise for each group. The enterprises belonging to the target business groups were 89, representing just one per cent of the sample, however they contributed for 50.4 per cent of the total turnover of the retail trade sample for the year 2014. Another 23 enterprises belonging to LCU target list were not selected for the sample even though they were eligible, however their potential contribution to total turnover accounted approximately for a further two per cent.

Generally speaking, large groups demonstrated a very active cooperation and showed a high response rate, especially larger enterprises in terms of employees. The analysis revealed that eight groups (out of 40) partially cooperated, as several enterprises answered the survey, while other enterprises from the same group did not provide the required data; just one of the non-respondents was a very large enterprise. Concerning this latter case and for two more enterprises, the top management of the business groups officially

declared to Istat that their policy does not allow them to share their sales figures (even when surveys are mandatory). Failure to complete and return a compulsory questionnaire results in legal action handled by a designated Istat division. An enterprise group refusing to cooperate represents a crucial (and actually the most negative) signal to be considered by the LCU to decide whether to build relations with the businesses.

4.3 Contribution of top groups to STS turnover services index

This work has the objective to verify the impact and the degree of cooperation of the business groups in the LCU target list for service industries in complementing the analyses based on size dimension (Paragraph 4.1). Enterprises in the sample of the quarterly survey on Turnover Services (FAS) for 2014 were approximately 21,500, of which about 7,100 belonging to business groups for the same year. Concerning the LCU target list, 393 enterprises were sampled in the FAS survey (about 11 per cent of the enterprises in the target list) belonging to 98 business groups (the 70 per cent of the groups in the scope).

The degree of cooperation was evaluated considering the quarters of the year 2014. A four-digit flag was introduced according to answers enterprises gave for each quarter (responses and non-responses were coded in all possible combinations of '1' and '0'): 360 enterprises (92 per cent of the target) answered for all the quarters; 12 for one to three quarters (3 per cent); 21 did not provide data for any of the four quarters (5 per cent). The involvement of top groups operating in Italy was evaluated in terms of number of enterprises in the sample. For nine groups, more than ten enterprises belonging to the same group were investigated, reaching the maximum of 24 in one case. For 18 cases, from five to ten enterprises of the same groups were sampled and another 46 groups were surveyed for more than two (and less than five) enterprises. Finally, 25 groups were represented in the sample by one enterprise only.

Considering the enterprise group level, the study highlighted an excellent degree of cooperation in the FAS survey. For the largest 20 groups, more than 90 per cent of their enterprises cooperated for all the quarters. Moreover, 48 groups (49 per cent of the business groups involved) investigated through

more than two enterprises answered for all the enterprises and all the quarters. In addition, it is also important to underline that the majority of the cases of missing answers for one or more quarters were generally justified by demographic events (mergers, split-offs) mainly concerning enterprises within the same groups and already in the sample. Only in two cases, a complete non-response was registered.

In terms of contribution, the enterprises belonging to the LCU target list that answered for all the quarters of the year 2014 represented 33.5 per cent of the total turnover. Also, it is important to note that for the service industries, the group dimension plays a crucial role. In fact, the respondents to the survey for all the quarters belonging to business groups covered for 2014 about the 88 per cent of the total turnover recorded for the survey.

4.4 Financial reporting and KAUs

This section summarises the results of the analysis of a small number of large companies belonging to enterprise groups in the LCU target list in 2016. The aim is to investigate the presence of information about different economic activities coexisting within the same company to identify potential KAUs.

Data from the SBS Total Survey on large enterprises (SCI) referred to the year 2015 were analysed in order to evaluate the presence KAUs and the results indicated that less than one per cent of the enterprises (86) provided economic data on this statistical unit. SCI is annual survey concerning the economic accounts of the enterprises, including professional and artistic activities, with 250 or more persons employed.

In order to identify complex business organisations, the 30 largest companies in terms of both gross value added and turnover were considered and then, eight of those which did not declare any KAUs in the SCI survey were selected for further analyses.

A more in-depth study of such companies was carried out by consulting different administrative and statistical sources. Financial statements from the business accounts represented the main source of information, especially sections related to Income Statement, notes to the financial statements

and Management Report. The nSBR was also examined to check whether information found in administrative sources had already been acquired by Istat.

Among the selected companies, one performs its principal economic activity in wholesale and retail trade industries, four in transportation and storage industry, two in manufacturing industry and one in the information and communication industry. For these selected companies, data from financial statements led to identify 19 potential secondary economic activities: 12 of them were both in the administrative and statistical sources, the remaining seven were not in the nSBR. Even if referable to a small sample, it is interesting to note that an average number of 2.4 activities were disclosed in the financial statements.

It is recognised that the use of data from business accounts in economic statistics can be challenging and often requires adjustments to move on to the basis required for business statistics and national accounts. Even though the analysis provided useful signals of different business lines coexisting in complex enterprises, the disclosure of this kind of information in the financial statements is strictly dependent on the reporting choices adopted by each enterprise. Furthermore, the comprehension of such information was not always immediate. In some cases, financial statements contain separate income statements for different business lines and identifying the secondary economic activities was easy. Details on revenues and operating costs could also allow to easily determine the economic importance of each activity and its contribution to the overall business income. In other cases, financial statements contain the overall income, and the existence of secondary economic activities could be only presumed from the Notes to the Financial Statements or from the Management Report.

In addition, this analysis pointed out that the statistical information gap on operative and organisational aspects characterising companies that are particularly relevant on the Italian scenario. Seven potential secondary economic activities identified through administrative sources were recorded neither in the Survey nor in the nSBR and three of them were closely related to the company's mission and economically significant. The remaining four potential secondary economic activities do not characterise ordinary operations and marginally contribute to the overall revenue of the single

enterprise but, in some cases, they could have a significant impact in terms of industries involved.

4.5 Business Lines and complex units (MPSUC survey)

Within the framework of 2011 Business Census, in 2014, Istat conducted a multi-purpose survey on top Italian enterprises or enterprise groups (MPSUC). The objective of the survey was measuring the characteristics of the resident companies that present a considerable degree of complexity in organisational models and decision-making processes.

The reference year of the MPSUC survey is 2013 and about 3,000 complete, coherent and useful questionnaires for publication were collected (response rate of 90.2 per cent).

Enterprises and business groups were split into the following three sub-groups:

- companies or main groups (A): companies or groups of companies that in the three-years period 2011-2013 achieved, on average, a turnover equal to or greater than 2.5 billion euros or that had at least 10,000 employees.
- companies or large groups (B): companies or groups of companies that in the three-years period 2011-2013 achieved, on average, a turnover lower than the values recorded for the main companies or groups but in any case, equal to or greater than 250 million euro and which had at least 500 employees (but less than 10,000).
- medium-large companies or groups (C): other companies or groups other than the main and large companies that are included in the survey sample according to the defined criteria.

For the respondents, 4,680 business lines able to show the complexity aspect (see Section Three) were collected. For what concerned this survey, a business line could be defined according to the following criteria: identifying a relevant and identifiable segment of the economic activities carried out within the company; generating revenues and costs; information available in a structured and non-occasional way on the costs and revenues generated by the individual business line; operating results periodically reviewed

at the highest operational decision-making level. According to the results, respondents generated 1.6 business lines on average. The complexity of the companies increases with the size: the companies or main groups presented on average about three business lines in Italy and one business line abroad; the companies or large group presented on average one business line in Italy and one business line abroad.

It is important to underline that 71 per cent of the respondents declared to operate through one business line. The rest, about 850 enterprises/groups, carried out their activities running more than one business line (in total, about 2,500). Thus, these respondents operated with an average number of three business lines. For the sub-groups, the situation was as follows: for group A, the average number was 3.5; for group B, 3.4; and for group C, 2.8.

Concerning the criteria used by the groups/enterprises to define the business lines, table 4.2 synthesises the answers for the three sub-groups. Different types of products/services (62.5 per cent) and different production processes (27.6 per cent) represented the main criteria for defining the business lines covering more than 90 per cent of the cases. Different market location mainly affected main groups while different customers played an important role especially for groups A and B.

Table 4.2 - Criteria for the definition of the business lines by economic dimension (percentage values). Year 2013

SUB-GROUPS	MAIN CRITERION					Total
	Different production processes of products/services	Different types of products/services	Different market location	Different customers	Others	
Group A	24	58,7	9,3	8	-	100
Group B	27,1	57,8	4,7	9,7	0,8	100
Group C	28,3	64,8	2,4	3,4	1,1	100
Total	27,6	62,5	3,6	5,3	0,9	100

Source: Istat, Multi-purpose survey on top Italian enterprises or enterprise groups (MPSUC)

Furthermore, in order to assess the degree of stability of the business lines reported in the MPSUC survey, 16 of the most relevant business groups within subset A were selected and further scrutinised for the period 2013 - 2016.

Consolidated financial statements were the main sources used to compare the results of the MPSUC survey. Statistical units were linked to the Italian Business Register of Enterprise Groups in order to evaluate the hierarchical control chain position of the respondent within the enterprise group structure. When applicable, a comparison was made between business lines collected via survey and operating segments (IFRS 8) disclosed in the consolidated financial statements.

During the period 2013 - 2016, in seven cases (out of 16) the number of business lines did not change while in four cases changed due to internal reorganisations (two increases and two decreases). A very complex organisational change was found in one case because the group adopted a Countries/Divisions matrix in comparison to the previous one based on business lines. Finally, in four cases, differences were found also for the reference year 2013 even if not very significant in terms of number of employees and turnover. In these cases, the number of business lines indicated in the MPSUC survey differs from those indicated in the consolidated financial statements for two reasons: for the purposes of the survey, respondents merged business lines disclosed separately in the financial statements; holding activities was not considered as business lines in the survey.

Results show that more than a half of the business groups in the sample modified their structure in terms of disclosure of business lines during a period of three years.

4.6 Reorganisation signals

To investigate complexity, the LCU Team decided to mainly focus on the analysis of restructuring signals. The basic idea is to analyse signals in a wider perspective considering business groups or sub-sets of them.

Firstly, an evaluation could be carried out by analysing the requests collected through the Business Statistical Portal which is the infrastructural solution Istat has adopted as single access point to data acquisition systems. The web device also allows respondents to send their requests to the survey and registers managers.

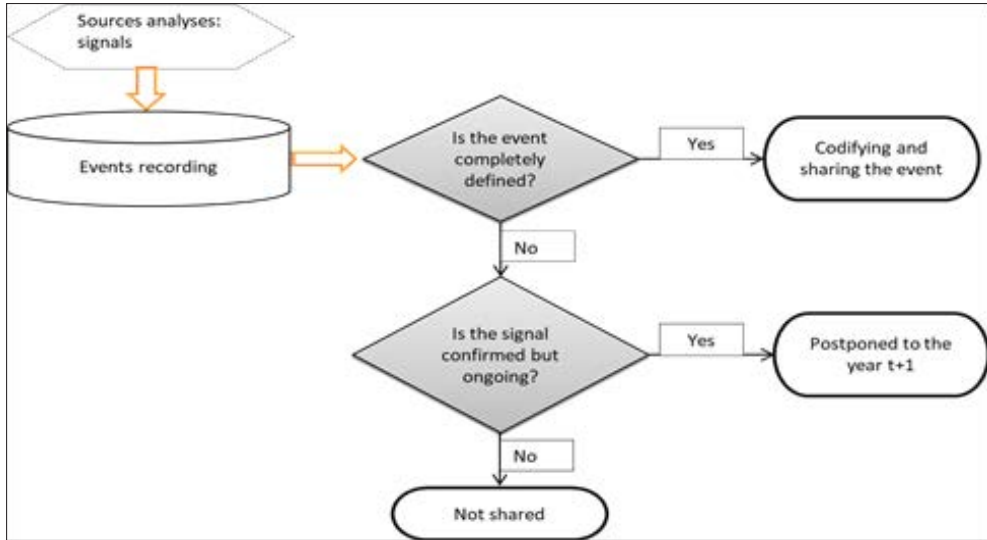
Concerning our purposes, analysing this kind of requests has a crucial advantage: data are stored in a dedicated repository and can be immediately processed. In fact, the records contain internal identification codes that link them to the nSBR. Therefore, evaluating the requests for the enterprises belonging to the business groups in the target offered the chance to build a provisional database to retrieve indications on potential complex restructuring of the main groups active in Italy. In that way, the analysis of the signals determines an *ex post* evaluation of the cases.

Secondly, according to the experience of the colleagues working on FATS statistics, a further possibility to early discover complex restructuring events resides in analysing articles in specialised newspapers and magazines and public sources. The aim is to capture relevant signals about events that may significantly change the structure of the main enterprises of business groups with large implications at national and international level. The main source for this activity is ‘*Il Sole 24 Ore*’ which is the main Italian daily business newspaper, but also other specialised magazines could be considered. In this case, the activity could be assimilated to an *ex ante* evaluation of the signals.

Due to this latter characteristic, the activity is fully consistent with the main purpose of the project that is identifying the effects of complex restructuring of MNEs at the early stages of the statistical production process. At the same time, the main risk consists in sharing news of a poor relevance for statistics or not completely defined. To reduce this risk, the activity should consist in evaluating and then sharing public news when they are certain, with significant effects from an identifiable starting point, and able to influence the statistical outputs or affect the contact activities with the large and complex units. In addition, another important risk is related to the fact that news must be firstly codified to identify the units affected by the event.

This study resulted in defining the process that the LCU Team should follow to monitor day-to-day activities starting from publically available sources (figure 4.1).

Figure 4.1 - Monitoring from publically available sources - the process



Source: Authors' elaboration

5. International aspects

This section includes the description of external inputs deriving from international projects and initiatives that helped LCU team defining part of their day-to-day tasks.

5.1 Eurostat Early Warning System (EWS) network

Globalisation has created new business opportunities for MNEs and challenges for NSOs in producing effective business statistics and National Accounts aggregates. For instance, a rapid record of a business re-organisation of an MNE has become particularly difficult in terms of data collection, production, and statistical analysis, especially when crossing national boundaries and having sizeable effects on the European (and beyond) and National Statistical system. In response to the needs of NSOs, in 2017, Eurostat established the Early Warning System¹², to ensure broad consistency in applied methods, statistical treatment and communication of results across the European Statistical System (ESS). The EWS has been conceived as a structured, light developing procedure based on the voluntary cooperation among National Authorities dealing with official statistics. Coordinated by the Eurostat EWS-secretariat, the network of national EWS correspondents aims to early exchange information on restructuring events across Member States directly concerned, by achieving an agreed methodological treatment of the cases. As National Accounts main aggregates and the Principal European Economic Indicators (PEEIs) are concerned, NSOs are Members of the EWS. Moreover since 2018 Eurostat has been cooperating with the European System of Central Banks (ESCB) and the European Central Bank (ECB), which has become part of the EWS network of correspondents.

The timely and interlinked communication among EWS Members, respecting the statistical confidentiality, ensures that the restructuring cases are treated consistently addressing issues related to business statistics and National Accounts revisions. Hence, the individual cases are discussed by an *ad hoc* task force composed by national correspondents of the Countries

12 Eurostat, 'An Early-warning System (EWS) for the correct and consistent statistical treatment of restructuring events of multinational enterprise groups and their enterprises in European statistics', March 2020. <https://ec.europa.eu/eurostat/web/economic-globalisation/early-warning-system>

affected by the globalisation event. Moreover, the EWS correspondents¹³ of the Countries and Eurostat share only necessary and limited information on the specific restructuring case when dealing with consistent statistical treatment of single globalisation cases. NSO reports containing the description of the restructuring case, information on affected statistical domains, the list of other Countries which may be concerned and methodological assessment are stored by Eurostat in the secure collaborative platform used for sharing information and resources (S-Circa BC). The general access to this group is restricted to EWS correspondents and the case-specific information are available only for the NSOs that are directly involved. As a result of the case discussions, Eurostat produces an anonymised methodological summary note containing the case statistical treatment agreed by EWS Members concerned.

To develop further methodological and conceptual guidance on restructuring of MNEs, Eurostat is planning to involve the OECD in the EWS, to address globalisation events adding further value, when non-EU countries are affected.

At national level, the Italian Institute of Statistics is committed to EWS through the LCU Team. To identify and to analyse the EWS cases related to MNE restructuring and globalisation issues, Istat has set up a small group of experts in various domains within the LCU Team. Within the framework of EWS, the LCU team works closely on business statistics by liaising with National Accounts experts, to ensure that EWS correspondents appropriately deal with MNE cases. By capturing the impact of globalisation through business statistics and national accounts aggregates, the multi-skilled team are involved by EWS correspondents when the MNE case needs to be analysed or detected.

5.2 Other international initiatives

As described in Section 2, the wider-international dimension of the MNEs requires an answer that goes beyond the national perspective (or EU perspective) not only to analyse the restructuring events, but also to deepen the knowledge of the global operations of the largest business groups, regardless of organisational changes.

¹³ The EWS network consists of two national correspondents nominated by each National Statistical Institute and each International Authority dealing with statistics.

Concerning the former aspect, the main answer of the ESS has been the development of the EWS (Paragraph 5.1) while, for the latter, Eurostat has launched several initiatives to analyse the current treatment of MNEs among different countries. Studies focussed on implications of MNEs activities in compiling national accounts and the GNI MNE Pilot exercise, launched by the Joint BSDG/DMES¹⁴ Task Force on globalisation, falls specifically in this stream of analyses. Considering the purposes of the GNI MNE Pilot exercise, it is interesting to note that the work of the LCU requires a coordinated and consistent approach to different tasks, such as EGR, EU Profiling, and all the other initiatives related to LCU programmes (Alajääskö *et al.*, 2018). Furthermore, mainly for National Accounts purposes, other actions, such as the Integrated Global Accounts and Global Production (IGA) and the Full International and Global Accounts for Research in Input-Output (FIGARO) projects, dealt with the globalisation-related aspects and their possible implications to the accounting frameworks at EU and national levels. Regarding large and complex enterprises, the Voorburg Group on Service Statistics¹⁵ also dedicated a specific poster to the topic in the meeting hosted in Rome in 2018¹⁶ while, in the same year, the Working Party on International Trade in Goods and Trade in Services Statistics emphasised the increasing use of LCUs solution within the NSOs to better understand complex issues¹⁷ such as globalisation and digitalisation.

The Global enterprise perspective introduced in the UN volume “The Guidelines on Accounting for Global Value Chains: GVC Satellite Accounts and Integrated Business Statistics” (2009) has also shed new lights on the way a MNE can be analysed in a wider perspective. In fact, according to the business statistics framework introduced by these guidelines, the global enterprise activities can be broken down first by business line and then by the supporting business functions, which together define the business process. In addition, each business function of a business line can be carried out inside or outside the global enterprise and can be located either in the resident country or abroad (UN, 2019 Part three, Integrated business statistics). Such a framework could be very useful in complementing the complexity analyses in

14 BSDG: Business Statistics Directors Group; DMES: Director of Macro-Economic Statistics.

15 <https://www.voorburggroup.org/>

16 <https://www.istat.it/en/voorburg-2018>

17 [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=STD/CSSP/WPTGS\(2018\)3&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=STD/CSSP/WPTGS(2018)3&docLanguage=En)

defining the groups in the NSO target. However, different linkages are needed between the business functions and the industrial / product classifications used within NSOs.

Finally, different proposals have been made for the establishment of an LCU network. The work of the UNECE “Task Force on Exchange and Sharing of Economic Data”, established by the Bureau of the Conference of European Statisticians (CES) in 2017, highlighted the growing need to set up and coordinate an international network of experts on MNEs in order to exchange experience and best practices in data sharing, and metadata type information on MNEs, such as their structure and the available sources. The network could also improve the sharing of information on tools and techniques.

Eurostat has investigated the topic of an LCU network launching new projects also considering different forums of related aspects such as profiling and macroeconomic statistics. The benefits of such a structure could be summarised as follows: “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 NSOs 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” (Hussain *et al.*, 2019: 54). Because of the importance of the ongoing international initiatives, the LCU team members have been variously involved in different projects in order to follow the advancements in these fields.

6. Discussion and conclusions

During the first period of its activity, Istat Large Cases Unit Team conducted several studies in order to determine the business groups in the target list, their contribution to the National statistics, combining size and significance aspects and their complexity, proxied by the multi-business concept and business groups restructuring signals. International projects were also considered to follow the international debate. Therefore, the organisational solution Istat adopted to deal with the inconsistencies of the top MNEs involved setting up a dedicated team and improving the connection to global networks, such as the Early Warning System (EWS).

Analyses were conducted to examine both the characteristics of the national economy and the internal organisation of Istat, focussing on the team mandate that relies on identifying the effects of complex restructuring of MNEs at the early stages of the statistical production process.

Business groups in the target were defined in terms of size, based on turnover and employees, and their impact on national statistics. The result of the selection method consisted in 140 business groups in the target per year. Due to the characteristics of the Italian system, mainly based on small and medium enterprises, the enterprises in the target represent annually less than one per cent of the total units in the nSBR, the 8 per cent of the total employment, the 16 per cent of the gross value added, and the 26 per cent of the total turnover. Business groups have a greater impact on the two STS surveys considered for this study, contributing for more than a half of the total turnover for the Monthly retail trade survey and more than one third for the quarterly survey on Turnover Services. These studies also show an excellent degree of cooperation of the top business groups in the target in answering the NSO's surveys.

Considering the results of these studies, the characteristics of the LCU based on a network of experts working part-time at the project and the presence in the organisational chart of other initiatives related to globalisation aspects, the number of 140 business groups for monitoring activities appears to be feasible and also confirmed for the following years.

Complexity was firstly investigated by the multi-business concept. An analysis combining statistical and administrative sources was conducted and even if associated to a small sample of enterprises, an average number of 2.4 activities were disclosed from financial statements. In total, 19 potential secondary economic activities were found: 12 of them were both in the administrative and statistical sources while the remaining seven were not in the nSBR. To consider that none of them reported KAUs data in answering the SBS Total Survey on large enterprises (SCI). Concerning the same topic, according to the multi-purpose survey on top Italian enterprises or enterprise groups (MPSUC), 71 per cent of the respondents declared to operate with one business line but about 850 enterprises/groups carried out their activities with more than one business line (an average number of three business lines). It is very interesting to note that the number of business lines increases by the size of the units: 3.5 for the main groups; 3.4 for large groups; 2.8 for medium-size groups. These studies show that the presence of several activities within the same companies is a very frequent feature and that it is even more relevant for larger companies. Different types of products/services (62.5 per cent) and different production processes (27.6 per cent) represent the main criteria for defining the business lines covering more than 90 per cent of the cases. However, the complete evaluation of the different businesses carried out by an enterprise is a demanding and time-consuming activity requiring an in-depth study of the financial reports that generally are available at least six months after the reference period. For this reason, in order to investigate the complexity at an early stage of the process, the LCU Team focussed on analysing restructuring signals in a wider perspective, by considering business groups. According to these findings, LCU monitoring activities should be based on processing different signals to obtain a complete comprehension of the business reorganisation and to share a quick assessment of the impact for the statistical domains. Requests collected through the Business Statistical Portal, news from specialised newspapers and magazines and Eurostat EWS cases, emerged as the main research streams useful to consider in defining and carrying out the LCU monitoring activities.

The work underlying the paper – setting up a specific unit inside the organisational chart dedicated to large and complex MNEs – is a topic of growing interest for official statistic and is important to address the challenge of the impact of globalisation to the quality of economic statistics, ranging

from the business register all the way through to the quality and interpretation of the estimates of productivity. In terms of contributions, findings have firstly a practical implication for Istat, helping in defining the daily activities to be carried out by the Italian LCU team. Describing the Italian experience, the paper also aims to contribute to the international debate on the topic, providing suggestions for other NSOs wishing to set up similar-type units and affording similar challenges.

Even though this contribution consists of a synthesis of different studies made during the first phase of the project, some limits have been identified. Firstly, from an organisational perspective, part-time basis represents a good solution to create networks but for some members of the LCU Team, the working percentages on the project cannot be spread over the whole year and the ability to react quickly to the signals could be reduced due to the peaks and milestones of their other activities. Furthermore, restructuring cases are randomly distributed during the year and, accordingly, the LCU Team is not able to completely schedule all the activities to carry out well in advance. Even though limited by the internal organisation dispositions, obtaining an increase of the involvement percentages in the LCU for at least a part of the staff would maximise the results of the team.

Concerning future works, the improvement of inter-organisational relations represents the next main step to consider for the LCU Team. That implies the need to evaluate and setting up procedures to cooperate at different levels: from more informal ways within the same Directorate (in our case, Economic Statistics) to more structured protocols with other Directorates, such as Data Collection and National Accounts. For example, maximising synergies with the National Accounts team to deal with specific aspects such as economic ownership, contract manufacturing agreements, merchanting companies and enterprises with intellectual property product (IPP), would be crucial for a successful action. Furthermore, external relations with respondents and partnership with other national and international institutions need to be properly handled, in the first case to always obtain the necessary cooperation from the most relevant business groups and, in the second case, to have an increasingly complete view of the problematic aspects related to globalisation. Evaluating the degree of cooperation of the business groups in the target should represent the preliminary step to build solid relations with

key respondents. Early studies show that top MNEs are keen to cooperate even though several difficulties emerged when asking questions related to specific globalisation issues. An effort in adopting a more user-friendly language, and less strictly statistical, should be made. Finally, it can be noted that even if limited in number, the EWS cases can determine an impact on the registration of variables and flows, highlighting the importance of improving relations with other countries.

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