Abstract

There is a growing demand for statistics to better grasp globalization phenomena and especially to get information on multinational enterprise groups. This was mainly triggered by rapid increase of the multinational enterprise groups in number and complexity and the need to harmonise statistical business register populations for domain dealing with cross-border statistics.

To deal with this, EU Member States and European Free Trade Association (EFTA) countries and Eurostat have collaborated to build up the **EuroGroups Register** (EGR). The EGR is the statistical business register of multinational enterprise (MNE) groups operating in European countries. It compiles and collects input information on MNE groups from national statistical institutes in EU Member States and EFTA countries and from commercial data source. Based on a yearly cycle after consolidation and validation, the EGR contains information on MNE groups’ characteristics, global structures and their respective enterprises.

At the end of the cycle, Eurostat provides with the EGR final frame the national statistical authorities and national central banks for statistical purposes. The EGR final frame contains a large amount of microdata on multinational enterprise groups operating in Europe on groups’ structures, their respective enterprises and legal units. The access to EGR microdata is restricted to European national statistical authorities. Eurostat disseminates EGR metadata and some statistical article on the structure of multinational enterprise groups in Europe on the Eurostat website.

**Keywords:** Multinational enterprise groups, Globalization, Statistical business registers, Dissemination
1. Introduction
Globalization presents significant statistical challenges, particularly for small and open economies in terms of measuring statistical indicators and communicating the results to users [1]. In 2019, the Directors Generals in National Statistics (DGINS) Conference on economic globalization held in Bratislava recognized that further actions at European Statistical System (ESS) level are necessary to ensure high quality and relevant statistics for users and in accordance have supported bringing various activities, instruments and capacities together in a systematic, coordinated and cost-effective joint approach.

The statistical business registers (SBRs) are referred to operate as the ‘backbone’ in the production of the business and macroeconomic national and European statistics because they provide the core infrastructure to ensure data consistency between various statistical outputs [2]. Despite growing interest in the structure of multinational enterprise (MNE) groups, Eurostat does not yet disseminate any European statistics at such statistical unit level as an MNE group. To meet this information need, Eurostat in recent years has been publishing experimental statistics article that has been revamped with the last publication.

Experimental statistics use new data sources, methods and concepts in an effort to respond better to users' needs.

2. EuroGroups Register
Together with EU Member States and European Free Trade Association (EFTA) countries, Eurostat has set up a unique database called the EuroGroups Register (EGR), which contains a large amount of information on multinational enterprise (MNE) groups operating in Europe. When at least one legal unit of a MNE group is registered in EU or EFTA country, the group is in the scope of the EGR. The EGR provides the national statistical authorities with a harmonized picture of MNE groups for the production and quality assessment of their national statistics.

3. EGR and European business and macroeconomic statistics
European business and macroeconomic statistics provide users and policymakers with information for decision-making or for analytical purposes. EGR is an essential and unique source able support surveys for which a coordination between EU Member States and EFTA countries is needed with the aim correctly identify the statistical populations, select representative sample and avoid bilateral asymmetries and inconsistencies in official statistics.

The EGR is providing consistent and timely information on the MNE groups to the ESS and to the ESCB, as well as serves for checking the quality of produced official statistics, with the aim to increase consistency between European macroeconomic and business statistics. Over 550 statisticians has access to EGR data and can retrieve the following harmonized information on groups, enterprises, legal units:

- identification,
- demographic events,
- stratification parameters,
- control and ownership relationships,
- economic variables.

All users producing globalization related statistics can find beneficial information in the EGR.
For FATS producers, the ultimate controlling institutional unit of the MNE group is the key information that can easily be identified in the EGR.

For FDI statistics mainly based on financial transactions/positions between directly and indirectly owned incorporated or unincorporated enterprises, the EGR is also able to provide data on majority and minority ownership.

For Balance of Payments (BoP) and National Accounts (NA) statistics, the EGR can be used to distinguish Special Purpose Entities (SPE) and other foreign controlled units, like branches.

The EGR is also more and more used as a reference information on multinational enterprise groups to scrutinize key macroeconomic aggregates such as GNI. [3]

Last but not least, business and trade statistical areas can benefit from relevant information related to MNE group structure and better spot intra-MNE flows and potential existence of transfer when prices do not reflect the ‘arm’s length’ market valuation.

4. EGR to analyse multinational enterprise groups

The EGR can also be used as a data source to analyse and disseminate statistics on multinational enterprise groups operating in the EU and EFTA countries - called European countries from now on. Eurostat has recently released an article on the structure of MNE groups operating in Europe based on the latest EGR data. The article describes with a European perspective the main structural characteristics of MNE groups with activities in Europe, looking at their country of control, size, economic activity and geographical presence in Europe, and worldwide. The following paragraphs take a more global angle, using EGR data to gather statistics describing more specifically the degree of globalization of the MNE groups operating in Europe, i.e. do MNE groups active in Europe behave as in a world without borders?

In 2020, according to the EGR, 135 450 MNE groups operated in Europe, they employed over 100 million people worldwide and over 42 million people in Europe – around one in every five people employed in Europe worked for a MNE group.

The MNE groups operating in Europe were of 164 different nationalities. However, 75% of them were European MNE groups. The nationality of a MNE group is assigned to the country of where the global decision centre (GDC) is i.e. the country where the group’s strategic decisions are taken at global level.
In 2020, the majority of the MNE groups operating in Europe (63%) were European groups present only in Europe, 13% were European groups present in and outside Europe and 25% were extra-EU groups. In terms of employment, among the 42 million people in Europe working in an MNE group, 25% were employed by a European group present only in Europe, 59% were employed by a European group present in and outside Europe and 16% were employed by an extra-EU group. In a more global perspective, among the 100 million people working in a MNE groups operating in Europe, 58% were employed by an extra-EU groups and 30% were employed by a European group present in and outside Europe.
In 2020, the MNE groups operating in Europe had more than 1 million legal units active in more than 210 different countries, 65% of these legal units were located in Europe, 13% in the United States of America and 8% in the United Kingdom.

The globalisation of an MNE group can be evaluated by the dispersion of its locations by measuring the number of countries in which the group has legal units. For the MNE groups operating in Europe, this number ranged from 2 to 144. However, most of the MNE groups operating in Europe (92%) had legal units located in fewer than 5 different countries. At the other end of the scale, 1% of the groups had legal units located in 20 or more different countries. Thus, according to this indicator, only a limited number of MNE groups operating in Europe had a high degree a globalisation, but there were mostly large groups employing more than 1 000 in the world.
However, a significant number of countries of establishment does not necessarily mean a uniform distribution of the activities of the group to a global scale. The dispersion of activities can be better captured using a concentration indicator, such as Gini index, Theil index or the Herfindahl-Hirschmann indicator [4]. The latter is rather easy to evaluate and to interpret. In practice, the opposite of this indicator is considered as a theoretical number of countries ranging from 1 if the group concentrates its activities in few countries to N if the group uniformly distributes its activities around the world. N is the total number of possible countries of establishment (N=210). Focusing on the groups located in 20 or more different countries, the highest value of the 1/H indicator is 14 for a groups with legal units located in 31 different countries. That is to say, if this group had activities uniformly distributed if would have been present in 14 countries only. Thus, the average of the index is 3.8 when the average number of countries’ location is 35.9. However, the quality of such indicator depends on the availability of the employment at detailed.

In 2020, according to the EGR, most of the MNE groups operating in Europe were European groups only active in European country. However, the groups with the highest degree of globalisation were large groups concentrating most of the employment.
This paragraph is an example of the use of EGR to analyse MNE groups. The EGR is a very rich data source, allowing statisticians to provide users with various type of statistics based on different type of statistical units and concepts.

5. Conclusion
The fragmented picture statistical authorities of EU and EFTA countries have on MNE groups operating on the European market might cause quality problems for several types of statistics related to globalization.

With the EGR, countries can exchange microdata from statistical business registers and benefit from everyone’s contribution to quality improvements in relation to coverage, completeness and accuracy.

The direct production of statistics from EGR can also significantly shorten the timeliness of some output, avoiding or reducing direct data collections based on surveys, at the same time increasing the consistency within one country and across countries.

With experimental statistics articles, Eurostat aims not only to provide statistical information to the users, but also create a platform to interact with users. The key objective is to receive public’s feedback on the relevance of the produced output to understand better how statistics on globalization could be further developed and improved. Therefore, Eurostat plans to continue analysing the EGR source and improve its current dissemination with additional output to offer users more insights on the globalisation phenomenon and MNE groups’ activities.

At national level, statisticians also have the possibility to carry out many interesting analysis using the EGR data, by using a micro data linking (MDL) approach. Thanks to the national identifiers contained in the EGR, it is possible to link all the MNE groups’ data across several domains, analyse their consistency and disseminate new statistics. MDL is highly promoted and supported by Eurostat because it allows generate new and relevant statistical output at reduced additional cost and without any additional burden. According to several countries, the return from the initial investment, that is initially needed to build up the necessary methodological and infrastructural capability, is quickly paid off by the benefits obtained in increased statistical data consistency and richness of the additional statistical output.

6. References
2. Eurostat, [Statistical Business Register](dedicated section)