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Methodological note

Eurostat experimental statistics on the structure of multinational enterprise groups

EuroGroups Register

The EuroGroups Register (EGR) is a statistical register of Eurostat and national statistical authorities of the European Union (EU) and European Free Trade Association (EFTA) countries.

The EGR covers the population and units of multinational enterprise groups present in the EU and EFTA countries. A multinational enterprise group is defined as an enterprise group comprising at least 2 enterprises or legal units located in different countries. If one legal unit of an enterprise group is in the EU or EFTA, the multinational enterprise group is already in the scope of the EGR.

EGR production process

To create the EuroGroups Register, Eurostat collects input information on group members and on their relationships from the national statistical business registers of EU and EFTA countries, and from one commercial data source.

The following information is collected from national statistical business registers on the constituent units of the groups:

- **legal units (companies)**: national identification number, name, address details, date of birth for all resident legal units belonging to multinational enterprise groups;

- **relationships between legal units**: domestic and cross-border relationships of the resident legal units, including the identification number of the subsidiary, identification number of the parent, type of the relationship (control or minority), percentage of the ownership and control;

- **enterprises (statistical representation of companies)**: national identification number, name, address details, date of birth and economic characteristics as main activity code, number of persons employed, turnover and institutional sector on all enterprises of the delivered resident legal units.

All entities in the EGR process are uniquely identified. For unique identification of legal units the EGR project launched an internal identification system, called EuroGroups Register identification service, assigning globally unique identifiers to companies present in EGR. The unique identifier for EU and EFTA legal units is composed by the country code, the EGR register code and the national ID number. Unique identification is a key to clearly identify participants of cross-border relationships and to avoid duplications.
The EGR acquires every year data on the largest multinational enterprise groups from a commercial data provider. This acquisition ensures consistency and completeness of the largest enterprise groups in EGR. The commercial data provider delivers data on legal units and relationships between the legal units of 3,000 predefined multinational groups, with the same characteristics as the national sources.

After validation of input data from the national sources and the commercial data provider, the EGR calculates the consolidated picture on the legal units, on their relationships and enterprises.

Complementary and conflicting information of the different sources are treated in the EGR process with predefined priority settings and business rules. In the EGR production the highest priority data are the data from the country of the subsidiaries (bottom-up view), followed by the data from the country of the parent companies (top-down view), followed and complemented by data from commercial data provider.

Having final legal units and relationships for a reference year the EGR calculates the enterprise group structures. The enterprise groups are built on those legal units, which are linked together by control relationships, where the voting rights are above 50%.

The following enterprise group characteristics are calculated in the EGR process for each group: EGR identification number, group name, country of global decision centre (country of the group), group main activity code, group employment and group turnover.

Before publishing the final data on the groups, the calculated group structures and group characteristics are revised and validated by the participating countries and Eurostat.

The EGR produces annual data, reflecting the status of the registered enterprise groups as of 31st December of the reference year. The collection and validation of the EGR data are complex and long processes. The EGR final data for reference year T are available for users 15 months after the end of the reference year, in March T+2.

**Production cycles**

The first reference year in EGR was 2008, since when a frame has been produced for all reference years. For reference years from 2008 to 2011, the EGR processed every year data on 5,000 to 10,000 groups. These first four EGR cycles were implemented using version 1.0 of the EGR system. The EGR 1.0 process was based on commercial data, which were validated through comparison with national data.

Work towards developing the EGR 2.0 system started in 2012, and the new process was fully launched in 2015 and is using currently in the statistical production. The switch to EGR 2.0 improved both the EGR process and the IT system. Currently, EGR collects data from national statistical authorities and complements them with commercial data. As a result of the changeover from EGR 1.0 to EGR 2.0, the NSI data - which are only supplemented by commercial data - became more relevant.

EGR aims to cover all relevant multinational enterprise groups active in Europe. For reference year 2016, the EGR produced data on 111,508 registered multinational enterprise groups, covering 779,326 enterprises.
Information system

EGR offers online applications for users with remote access. With the EGR applications users can identify legal units, browse and improve EGR data. Users and producers alike benefit from the following EGR applications:

- **EuroGroups register identification service** - an application supporting the EGR producers in identifying legal units.
- **EuroGroups Register CORE application** - the heart of EGR system, it stores, transforms and consolidates input data of different sources and generates the EGR frames.
- **EuroGroups Register interactive module** - an interactive web interface to browse and validate data in the consolidation area of EGR.
- **EuroGroups register FATS online interface** - an application providing users with a foreign affiliates statistics (FATS) oriented web interface for browsing and downloading EGR data.

EGR data and experimental statistics

The EGR delivers detailed information on all registered multinational enterprise groups and their constituent units for all available reference years:

- **legal units belonging to multinational enterprise groups**: EGR identification number, national identification number, name, address details, date of birth, EGR identification number of the group to which the unit belongs;
- **relationships between legal units**: relationships of legal units in the groups, including the EGR identification number of the subsidiary and parent, percentage of the ownership and control;
- **enterprises**: EGR identification number, national identification number, name, address details, date of birth and economic characteristics as main activity code, number of persons employed, turnover and institutional sector, EGR identification number of the group to which the unit belongs;
- **enterprise groups**: EGR identification number, group name, group head, country of global decision centre, group main activity code, group employment and group turnover.

For the experimental statistics on the structure of multinational enterprise groups only the active groups are selected from EGR, those multinational enterprise groups, which have employees in their enterprises in two or more countries, at least one of them in the EU. In the EGR 2016 population 47 621 groups matched this definition.

The experimental statistics data tables and graphs are based on the following characteristics of the enterprise groups and their enterprises:

- group country of global decision centre, defining the country of the enterprise groups;
- group main activity code, defining the complexity of the enterprise groups;
- group employment, defining the size of the enterprise groups;
- number of enterprises with employment in the groups, defining the EU presence of the groups;
- group employment, defining the top 5 partner countries;
- group employment, defining multinational enterprise groups employment share in EU.
EGR coverage and accuracy

The EGR coverage is very good for large and medium sized groups, where the estimated coverage is above 95%, but not for small groups and their enterprises, with estimated coverage of 60%, based on enterprise-level comparisons to 2015 national Foreign affiliates statistics (FATS) data. In this comparison EU and EFTA national statistical authorities matched the enterprises in EGR with the enterprises of the national foreign affiliates' populations.

Combining multiple sources can also produce errors in group structures. Despite all validation work invested into the process the EGR output can have accuracy problems. Some group structures can be broken or fragmented. The accuracy of country of the global decision centre for 2015 EGR groups is estimated to 82%, based on enterprise-level comparisons to 2015 national FATS data.

With the coverage and accuracy of EGR 2015 data it is not possible to reach very precise conclusions for the total population of multinational enterprise groups in the EU on the basis of EGR data.

Eurostat and the participating national statistical authorities are continuously working on the improvement of the EGR quality.

Access to EGR micro data

EGR micro data are subject of statistical confidentiality and can only be disseminated to national statistical authorities of the EU and EFTA countries. National statistical compilers are given access to all units of the multinational enterprise groups, if at least one of the group’s units is within their national territory. These populations can be used for national survey frames.

It is planned that the EGR should become a platform that supports the production of micro-based statistics on globalisation in Europe. EGR data help national statistical institutes and national central banks compile statistics and micro data are not disseminated by Eurostat to the public.

Legal background

The necessary data exchange between the national business registers and Eurostat is defined in Article 11 of Regulation 177/2008 on business registers and implemented through 2 regulations on exchange of confidential data.