Statistical unit in Short term statistics (STS) in Poland

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„…only if the Member States use common definitions of statistical units will it be possible to provide integrated statistical information with the reliability, speed, flexibility and degree of detail required…"

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

The choice and definition of statistical units (SU) play an important role in the processing of business statistics, particularly in short term statistics (STS). The current EU system of statistical units is laid down in Regulation No. 696/93 of March 15, 1993. STS mainly refers to Council Regulation No. 1165/98 of May 19, 1998. The observation unit for variables in Annexes A and B of NACE Rev.2 (Industry and Construction) is the kind of activity unit (KAU), while for Annexes C and D (Retail trade and repair and Other services) it is the enterprise. A review of the list of statistical units and their definitions is one of the projects currently under way in the context of FRIBS (Framework Regulation Integrating Business Statistics). Its main proposal initially presented to the STS WG in November 2013 and briefly to the BSDG in December 2013 is to use KAU as the only statistical unit in STS. A large number of countries (including Poland) are currently collecting and compiling data at the level of legal units. The implementation of KAU as the single SU in STS still requires additional discussion because of its possible impact on data and consistency with business registers. However, a review of the regulations on statistical units is necessary because of changes in the economic situation since 1993 and to ensure increasing consistency between different statistical domains. Additionally, the majority of member states do not really apply „current" units or their definitions differ from those set out in the regulations.

In response to the effects of increased globalization of economic activity, CSO of Poland in close cooperation with the Centre for Short-term Statistics at the Statistical Office in Poznan has launched a study concerning statistical units in short term statistics, including an analysis of the possibility of KAU implementation in Polish statistics according to the operational rules (OR) recommended by Eurostat. In this paper we want to present the methods of KAU delineation we used, problems with the implementation that we have encountered during early stages of our works, and some preliminary conclusions of that study.

Short-term statistics in Poland are produced and the basis of the Programme of Statistical Surveys of Official Statistics and are compliant with European requirements. STS production in Poland is mainly based on one study – a monthly survey of economic activity (DG-1). This ensures the consistency of data, and, to some extent, allows the reduction of respondent burden. Information collected in the survey is related to, among others, revenues from sales of products, goods and materials, retail and wholesale trade, employment, wages and hours worked. This scope of data allows the production of most STS indicators.

Reporting entities include legal units employing 50 persons or more, and a 10% sample of medium-sized units employing 10-49 persons. The thematic scope of the study includes entities that operate in the area of forestry and logging (A.02); marine fishing (A.03); mining and quarrying (B); manufacturing (C); electricity, gas, steam and air conditioning supply (D); water supply; sewerage, waste management and remediation activities (E); construction (F); wholesale and retail trade; repair of motor vehicles and motorcycles (G); transportation and storage (H); accommodation and food service activities (I);

information and communication (J); real estate activities (L); legal and accounting activities(M.69); activities of head offices; management consultancy activities (M.70); architectural and engineering activities; technical testing and analysis (M.71); advertising and market research (M.73); other professional, scientific and technical activities (M.74); administrative and support service activities (N); arts, entertainment and recreation (R); repair of computers and personal and household goods (S.95); other personal service activities (S.96).

The population surveyed in DG-1 is based on the statistical register and includes active units, both operating and at the development stage and also units in liquidation or bankruptcy. Units, which in December of last year were marked as liquidated, suspended, inactive due to liquidation, bankruptcy or units taken over by another entity are excluded from the DG-1 register. Entities are classified into a specific section of NACE based on the predominant type of activity, which is updated annually on the basis of different surveys conducted by CSO. Some changes are also made during the year if the entity reports such a need.

The DG-1 register contains about 100,000 units, of which approx. 32,000 are obligated to participate in the survey (of which approx. 44% are units employing 10-49 persons). Most units are engaged in manufacturing (35.6%) and trade (23.3%). The next largest sections in terms of the number of units are construction (10.1%) and transport (5.3%). Changes between the sections involve approx. 1% of the surveyed population, mostly medium-sized units. In terms of revenues sections C and G have the largest share in the survey (approx. 36% each), sections D, F and H each account for about 5% of revenues.

Information on the kinds of activity of legal units is provided by the annual SP survey. In this survey units indicate, among others, what types of activity they are engaged in and earn revenue from. The population of units surveyed in the SP survey is much bigger than that in DG-1, both in terms of the number of units (above 80,000 units employing 9 and more persons) and activities covered (almost all of NACE). Although there are some differences in the methodology of both surveys, the wider scope of SP is a good source of information about KAU for our study.

At the beginning of our analyses we had to interpret the definition of KAU. It is an enterprise or a part thereof which is involved in only one activity, or whose predominant activity has a greater share of value-added. The definition of the enterprise is quite wide: an enterprise may consist of one or more legal units, or even parts of them. Member States are at various stages of work on profiling enterprises, and also have very different systems for collecting data. Therefore, Eurostat has provided some scenarios describing the technical process of delineating KAU, which allows the estimation of KAU data based on legal units (1LEU ≈ 1KAU), but only if the secondary activity is insignificant. The choice of method for estimating KAU depends largely on how statistical information is collected and what units are available in the statistical registry. Owing to the fact that in Polish surveys reporting entities are legal units and studies on profiling are at a preliminary stage, at the beginning of our analysis, we focused on legal units.

To facilitate the delineation of KAU, Eurostat, together with Member States has prepared Operating Rules (OR), which provide guidelines as to how KAUs are to be delineated. First of all, the process of KAU delineation is limited only to those entities which, because of their size, e.g. the value of production, have a significant impact on aggregated data. This means that the first step of our study should be to define the relevant units. OR do not specify the criteria of significance and this is the first difficulty we encountered during our work. The first step was to determine the importance of activities of individual entities in specific NACE classes. We decided to apply a threshold as a share of a given NACE class in the revenues of all units in this class. It allowed us to approximately determine the impact

of potential KAU at the level of aggregates of individual activities. Calculations were made for the three thresholds of 1.5%, 3% and 5%. During the analysis of the results we decided to work on the set of KAUs whose revenues account for 1.5% of the revenues of all units in this activity.

The next step was to determine which activities have to be identifiable as KAUs. OR set two thresholds to limit their number. KAU includes the predominant activity and secondary activities which account for over 30% of the revenues of the unit calculated in the NACE class, or 20% of revenues calculated in the NACE division. During our work we decided to adopt the 30% threshold. By analyzing the results we realized that certain information can be lost during this process. We noticed that some insignificant KAUs in the enterprise may be very important in terms of revenues in the aggregates. Therefore, we prepared an alternative list of entities whose activities account for 15% of the company's revenues. Basing on that results, as it was expected, most substantial changes in the revenues are in services, but the most significant activities in the economy remain manufacturing and trade. That areas indicate some shifts in the amount of revenues, which will be explored further in the future.

KAU delineation has to involve an awareness of the structure of the economy, as some activities are more important than others. This does not mean that you should ignore the less important areas, as it may lead to loss of information on given activity. An important factor is also the activities structure of enterprises. In Poland, especially the trade units are very heterogeneous in their activities. In some cases enterprise is delineated into 2 KAU, but the following activities that do not meet the criteria of KAU still represent a large share of the revenues of the unit. These difficulties constitute challenges for proceeding with automatic KAU delineation and are a challenge for future works.