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Poster Session on Profiling

Profiling in Sweden: Achievements and Challenges

1. Introduction

For several decades, large and often multinational companies have increasingly organised their business across more legal entities than before. Auxiliary activities are often placed in separate legal units and mistakenly seen as primary production in the economic statistics. This overestimates the number of enterprises and several economic variables, such as turnover and production value. Therefore, how business groups choose to organise themselves can have effect on the distribution of GDP across sectors and statistics by size class. There is a risk that certain aspects of the business economy will be misinterpreted, for example entrepreneurship and where job growth occurs. Through profiling, corporate organisational and control structures can be better described, thereby producing more relevant statistics of higher quality.

2. Business Profiling

In the Swedish Business Register (BR), approximately 35 Enterprises (ENT) consist of more than 1 legal unit (LEU). In addition about 35 ENTs are divided in Kind of Activity Units (KAUs). To better comply with the EU-Regulation on Statistical units (Council Regulation no 696/93), Statistics Sweden have intensified the profiling work during 2017-18. Our plan is to profile at least 50 more business groups manually. We have also developed a method for automatic profiling of smaller business groups. However, no decision about implementation of automatic profiling has yet been taken.

The need for profiling is due to the fact that the administrative world does not always show the reality we want to measure. The target population (ENT / KAU / Local KAU) is not the same as the legal population (LEU / Local unit (LOU)). Each business group has its own legal structure and from these business groups we have to delineate the ENTs we want to measure (the target objects). We want to avoid that different ways of organising business groups will affect the statistics.

The definition of an ENT according to the EU-regulation is as follows:

“The enterprise is the smallest combination of legal units that is an organizational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.”

About 12 percent of the LEUs in Sweden are included in the Swedish Business Group Register (KCR), but these 12 percent account for 69 percent of the total number of employees. In order to manage resources for profiling, a priority system among the enterprise groups is required. We use an algorithm to describe the complexity of the groups. The largest and most complex groups will be manually profiled. For groups with a simple group structure, where no controls fall out, the breakdown in ENTs can be done automatically without validation.

For the intermediary of business groups, those who do not have a simple enough group structure to be handled completely automatically, but do not require intensive profiling, validation work needs to be done. Depending on available resources, this work may be more or less extensive.

3. The profiling method

3.1 Automatic profiling

The profiling will show how the LEUs in a business group are connected and which parts together form an ENT. In Sweden there are about 40,000 business groups, all of which need to be profiled. It is not possible to go through all manually and therefore a method of automatic profiling has been developed. The Swedish Group Register (KCR) contains all Group LEUs. The information is retrieved from annual reports and reflects the closing date of the fiscal year. The profiling is based on the ownership conditions of the KCR.

3.1.1 Approach

As a starting point for the method, we use the definition of ENT according to the EU Regulation on Statistical Units. According to the regulation, an ENT must have control over its own resources and produce goods or services for the market. We aimed to create an algorithm that points out the LEUs that together form an ENT.s. Based on the definition, we have formulated principles and subsequent rules that govern the delimitation.

Principle 1 – Control

A LEU owned by another LEU can not be considered to have full control over its resources and we have therefore used ownership according to KCR as an indication of control (or rather lack of control). According to the principle of control, for example, a subsidiary may be subject to a possible merge with its mother.

Principle 2 - Joint output (Industry)

It is likely that LEUs in the same industry within the same group will produce the same output, especially if they have an ownership relationship between them. It is likely that these LEUs should belong to the same ENT.

Main rule 1: Mother and daughter who have the same industry (according to 4-digit NACE) should belong to the same ENT

Principle 3 – Relation between production and auxiliary activities

LEUs that only have the purpose to serve other group LEUs are considered as auxiliary activities. Traditionally, these have been classified as auxiliary companies (in the BR). Their values have been added to the industry they serve. These support services often belong to specific industries, but the values are usually small compared to producing LEUs.

Main rule 2: A subsidiary in a specific industry, which is small in relation to its mother (maximum 10% of the mother's turnover), should belong to the same ENT.

These rules and principles provide guidance for developing the methods used today. The aim is to improve the quality of aggregated levels, which can sometimes be at the expense of the quality of individual objects.

3.2 Manual profiling

An ideal situation would be to set up rules for managing different LEUs within a business group in order to make all profiling automatically. However, the large, usually multinational, corporate groups' organisation are too complicated. In these cases, automatic profiling may result in a failed result. Therefore, manual profiling is usually required for the largest business groups.

Eurostats' operational rules for profiling distinguish between simple (light) and intensive profiling. The light method involves a desktop study, using available information (for example annual reports, websites, surveys etc) while intensive profiling is done in cooperation with the business group.

Regardless of the extent of manual profiling, the starting point is the Swedish part of the business group. The profiler gathers information about the group structure, preferably starting with reading the consolidated accounts. The main activities of the business group are mapped and all information is documented. It is important to document the positions taken during the course of work.

The first time a group is profiled, it is usually a time-consuming process. Only one visit (to the headquarter of the business group) can take several working days per person (preparation, the visit itself, documentation, feedback). As groups are reorganised and new LEUs are added and others disappear, an update should be made at least annually. That work does not have to be as time consuming.

3.2.1 The smallest combination of legal units versus control

One issue that we still are discussing is to what extent an ENT should be in control. The extreme is to consider the entire domestic (Swedish) part of a business group as an ENT. But according to the European profiling method, the different segments within a business group could be considered as ENTs. It is also possible to create more than one ENT in each segment. The ENT should have sufficient control over its resources. However, what is sufficient control?

The manual profiling method in Sweden follows the recommendation from Eurostat regarding using the segments as a starting point, but the method also glances at the Swedish method for automatic profiling (as described in section 3.1). This is a bottom-up-method where the parameters ownership and activity are important. Legal units that perform auxiliary activities are grouped together with the closest related primary producer according to ownership in the enterprise group. The result of this method is often that we end up with ENTs with only one primary activity according to NACE and consequently that unit will be appropriate for making statistics on both ENT and KAU level. In our opinion this method follows the description of an enterprise according to the regulation ("The smallest combination of legal units...") rather well. The hardest part is to establish if the ENTs has a certain degree of decision making according to the same regulation.

4. Consolidation

In order for the profiling to have the desired effect, financial flows between LEUs within an ENT need to be considered. This is taken care of by consolidation which means that internal flows are eliminated to avoid double counting.

At the Structural Business Statistics (SBS) meeting in Luxembourg in April 2017, a Eurostat document containing recommendations for the implementation of ENT in SBS was presented. A number of SBS variables were categorised as additive or non-additive. The additive variables can easily be aggregated when calculating data for ENTs. For the non-additive variables, consolidation of data is suggested when creating ENTs with more than one LEU.

Some examples of Additive variables

- Value added
- Gross operating surplus
- Number of employees

Some examples of Non-additive variables

- Turnover
- Production value
- Total purchases of goods and services

A method of consolidation have been developed for the variables classified as non-additive. Some simplifications have been done in order to make the consolidation process a bit smoother. For example, if the turnover is to be calculated for an ENT, the turnover of the auxiliary LEUs will be deducted from other external costs for the same LEUs. This simplification means that a match between sellers and buyers within an ENT does not need to be done. At ENT level, it makes no difference, but it makes the calculations easier.

5. Conclusions

Profiling is an ongoing process and we are still developing the tools and the work processes. It is a time consuming task, which makes it essential to do the work as efficient as possible. Statistics Sweden participates in several partly EU-funded projects with the aim that, together with other countries, establish operational rules for this work. We need to work together in order to agree on best practices. At the same time, the way business groups organise themselves is to some extent national (for example, there are differences in tax legislation). Even with common guidelines for profiling, national legislation will differ between countries as well as the impact of profiling on economic statistics.