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<p>Mexico, 20 – 24 September 2021 <i>Caisa Bergman, Richard Nilsson, Christian Ekström</i> <i>Statistics Sweden</i> <i>Session No. 6</i></p> <p>Profiling and Large Cases Units</p>
<p>A road map for implementing the results of profiling in the Swedish Statistical Business Register</p>

Abstract

At Statistics Sweden there is an ongoing project; Coordinated economic statistics with “new” statistical units. The project aim is to improve the economic statistics and be able to provide a clearer picture of enterprises and their activities. An important part of this project is to improve the statistical units Enterprise Group, Enterprise (ENT), Kind-of-Activity-Unit (KAU) and Local Kind-of-Activity-Unit (LKAU). These units were implemented in the Swedish Business Register about 20 years ago. The new situation is that we have adopted profiling as a method to analyse the structure of the enterprise groups and that we have profiled a large number of Enterprise Groups, most of them multinational.

A Large Cases Unit (LCU) has been active at Statistics Sweden since 2004. From the start, the focus has mainly been to ensure consistency between different statistical domains for the largest companies, to build good relationships with representatives for the large companies and create and manage the statistical units in the Business Register. From 2017, the LCU also carries out profiling activities and have developed a national profiling methodology based on the Recommendations Manual for the European business profiling.

The result of the profiling activities is that a larger number of ENTs consisting of more than one legal Unit (LEU) and a larger number of KAUs will be implemented in the Statistical Business Register (SBR) early 2022. To ensure consistency, all parts of the economic statistical system will use the same frame and thus the same statistical units will be used in the entire economic statistical system.

In this paper, we will briefly describe the aim of the above-mentioned project and how it is proceeding. We will also reflect on the practical challenges foreseen both with the creation of the statistical units and the maintenance of them in the SBR. The profiling process, operational rules and data sources for information on Multinational Enterprise Groups will also be described. Finally, we will briefly reflect on the challenges faced concerning the effects on sampling and data collection

Keywords: Profiling, Business register, Statistical Business Register, Statistical unit, ENT, KAU

1 Introduction

The need for profiling large multinational business groups (MNEs) is due to the fact that the administrative world does not always show the reality we want to measure. Large MNEs have increasingly organised their business across more legal entities and countries than before. Ancillary 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. There is a risk that certain aspects of business economy will be misinterpreted, for example the performance of small- and medium sized enterprises.

Through profiling, corporate organisational and control structures can be better described, and thereby more relevant statistics of higher quality can be produced.

This paper is a continuation of the paper “Profiling in Statistics Sweden: How to describe reality in a complex business environment” presented at the 26th meeting of the Wiesbaden group 2018. We have since then adjusted our profiling methods based on “trials and errors”. The description of our profiling methodology will be repeated with the addition to these adjustments

We will also reflect on some issues that have arisen during our profiling journey.

2 Coordinated economic statistics with “new” statistical units

The on-going project “Coordinated economic statistics with “new” statistical units” have been running from 2017. The goal is to improve the economic statistics, especially with regard to statistical units. Within the framework of this project, we have developed a method for automatic profiling and for national manual profiling. We also participates in the European profiling together with other European countries.

The statistical units Enterprise Group, Enterprise (ENT), Kind-of-Activity-Unit (KAU) and Local Kind-of-Activity-Unit (LKAU) was implemented in the Swedish Business Register (BR) about 20 years ago. However, only a few ENTs consisting of more than one legal unit were created back then. To better comply with the Regulation on Statistical units (Council Regulation no 696/93), Statistics Sweden started the project 2017 with the aim to intensify the profiling work.

The project also includes drawing up actions plans and carrying out tests for handling a greater amount of complex ENTs in the surveys concerned. We have also done impact assessments for concerned surveys.

Finally, the project are also responsible for developing a profiling tool (we use Excel today) and for adjustments to the BR.

3 The Swedish profiling strategy and methods

There are about 60 000 business groups (groups consisting of more than one legal unit) in the profiled version of the Swedish BR. Our strategy is to profile all business groups in the BR. In order to handle this large amount of groups, a systematic approach is required. We

have therefore created a process for profiling. The process is based on various programs with some manual handling and follows the following main steps:

- Automatic profiling
- Automatic control system
- Manual handling and validation
- Implementation
- Adaptation

All groups are profiled automatically at first. In order to manage resources, a priority system is required. We use an algorithm to describe the complexity of the groups. The more controls a group “gets flagged”, the more questions are surrounding the structure. This together with a size measure forms the complexity calculation. The largest and most complex groups are manually or semi-manually profiled. For groups with a simple group structure where no controls fall out, the delineation in ENTs can be done automatically without validation. This is of course the vast majority of groups.

We have completed the second year of profiling of the whole population of business groups. The table below shows the number of profiled business groups the first year of profiling. The second year we made quite a few changes to the method based on experiences gained during the first year, for example in regards of discussion about autonomy.

Table 1. Number of groups according to profiling method

	Automatic profiling	Manual profiling	Semi-manual profiling
Number of groups	About 60 000	180	470

The profiling work is done by staff at the LCU. Ten persons work with profiling, but no one works full time with profiling. Manual profiling is time consuming, especially the first time and when major reconstructions occur in an Enterprise group. The experiences we gained so far is listed below:

- Our plan was to do manual profiling for the largest groups and semi-manual profiling for medium-sized, but still quite complex groups. However, we ended up doing manual profiling for quite a few of the medium-sized groups. In addition, the group structures for some of the medium-sized groups turned out to be more simple than we expected. The strategy of lighter profiling for the medium-sized groups did therefore not work as well as we thought. As a consequence, we will transfer about 200 groups with simple group structure to the automatic profiling process.
- We worked during a longer period the first year of profiling since we used the latest available information (annual reports, information on websites etc.). The second

year, when we were doing updates, we had to wait until the annual reports were published. Many of these reports were late, to some extent due to the Covid situation. It left us with shorter time to check and adjust the profiling results from the first year.

- Intensive manual profiling includes contacts with the group head quarter in order to obtain information and check if the profiling results is accurate. There is no legislation to make the group cooperate. Our experiences is that a few groups cooperates, other cooperates to a limited extent and the rest of the groups are not interested in any cooperation when it is not mandatory. Due to the lack of interest from the large groups, we have mainly done desk profiling. In most cases, the results are good enough, but in some cases, we have to make assumptions since we do not have the information needed.
- Statistics Sweden participates in several partly EU-funded projects regarding European profiling. Participating countries are responsible for profiling a number of groups with the Global Decision Centre (GDC) in their country. The profiling activities applies to the whole group, not just the national part of the group. In a later stage, we do partnering profiling for the Swedish part of foreign controlled groups. Since most large groups are multinational, it is vital that we work together with colleagues in other European statistical offices. We find this work important and rewarding.
- We have adopted a top-down profiling approach, which is in line with the recommendation manual for European business profiling. We start at the top of a group and investigates if there is a division in segments or similar. Then we try to find out if there are autonomous parts in the segments. Although we have worked a lot with operational rules for manual profiling and have regular meetings to discuss difficult cases, we have seen that the LCU staff to some extent use different methods. When two persons profile independent of each other, we sometimes get different results. This has mainly to do with the interpretation of “autonomy”. This problem is addressed in next chapter of this report.

4 Autonomy

Definition of the statistical unit Enterprise according to the EU-Regulation on Statistical units (Council Regulation no 696/93):

“The enterprise is the smallest combination of legal units that is an organisational 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.”

The theoretical definition of the concept of autonomy is clear but in practical terms unclear and can be subjectively interpreted in several ways depending on who interprets. The countries within the Eurostat area have different laws, taxes, policies and company forms that allow the interpretation to differ between the different countries. Furthermore, it can also be problematic within a country.

We have found that the top-down approach works quite well for traditional, often manufacturing, groups, but not always that well for groups active in the service sector (for

example media) or for investment groups. An investment group acquires other companies, often groups. Their ownership strategy varies and thus also the extent of autonomy in the acquired groups. Should a business segment be considered an ENT if it consists of several acquired groups operating on their own account and with nothing in common except for their owner? Or should they be considered autonomous parts within the segment? What if the boards for the sub-groups are led by persons representing the owner of the group; do the subgroups still benefit from a certain degree of autonomy?

There are many issues to deal with and we often end up with conflicting operational rules how to delineate ENTs. We have developed operational rules for our national profiling. These rules have been revised several times during our profiling process. Even when we follow these operational rules, there is still an element of subjectivity in the profiling results, especially regarding autonomy for an ENT. Although we must accept subjectivity to some degree, we have tried to find methods that minimise the subjective views of the profilers. In addition to operational rules for profiling, we have developed a decision tree for determining autonomy. We are in the process of testing the decision tree, so it will most likely be revised somewhat. If this is a successful way to avoid or reduce subjectivity, we will adopt the decision tree after testing.

Head offices (HO): HO in domestically controlled groups are regarded as ancillary units in the Swedish BR, and do not form ENTs of their own. This means that they are grouped with the company they serve, for example, a HO (NACE 70.10) in a domestically controlled car manufacturing group will be assigned the same statistical NACE-code as the company they serve (NACE 29.10). This practise differs though between the EU-countries. We understand that the most common practice is to view a HO as an autonomous part of the group, which it of course is. Our view is that a HO only exist because of the production in their subsidiaries and therefore should be regarded as ancillary activities. We have not found clear guidance in this question in the manual för European business profiling. It is vital that countries try to harmonise their profiling practises as much as possible. This issue therefore must be solved in the near future.

5 Effects on data collection

A crucial part of the project is to identify the surveys that use ENT and KAU and to inform the persons responsible for these surveys about the project and discuss the implications for the different surveys. The results of the profiling activities (about 60 000 complex ENTs instead of 35 in the BR) has so far only affected the Structural Business Statistics survey (SBS). As from reference year 2022 it will affect all surveys that use ENT as statistical unit and to some extent also the surveys using KAU. All the surveys have made action plans for how to make the transition to this new situation, but there are still issues that are not completely solved. The most discussed issue is how it will affect data collection.

The main reason for not creating a large number of complex ENTs is the difficulty for respondents to report data at the ENT level. The relatively small number of complex ENTs that is part of the BR today can all report at the ENT level. We have contacted some new large business groups to try to persuade them to report data at the ENT level. Our experience so far is that most new ENTs will not be able to report at the ENT level. The consequence is that we must continue to collect data at LEU level and do the

consolidation ourselves (eliminating internal flows between LEUs in an ENT). In addition, most of the administrative data used in SBS and other surveys applies to LEUs. We have developed a method for consolidation for the non-additive variables in SBS, for example Turnover and Total purchases of goods and services. We will continue this work to fit the other surveys.

In order to do the transition to the new situation as smooth as possible, production systems need to be changed. The way we work will also change. One example is that validation of data needs to be done at both LEU and ENT levels. This will make the production process more time consuming and there are also costs for changing the production systems. Register maintenance work may also become more time consuming. Over the next few years, we will continue to move toward this way of organising our work, which will be a challenge.

6 Conclusions

Profiling is an ongoing process. We are regularly revising the operational rules, tools and the work processes as we gain new experiences during the work. It is a time consuming task, which makes it essential to do the work as efficient as possible. Some difficult issues need to be dealt with, for example the concept of Autonomy. Since most of the large groups are multinational, we need to work together internationally 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.