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Session 5

Globalization, do the statistical business registers have the appropriate statistical units at hand?

Units unchanged or units unchained: How to react to globalisation from a statistical units' perspective?

Abstract

Globalisation challenges business statistics in many ways. Important and potent economic actors no longer respect national borders as limiting factors for their organizational, legal and operational structure and economic behavior. On the contrary, especially the big players make use of different legal – e.g. fiscal – rules in different nations in order to maximise their economic independence and profits.

How can official statistics maintain a reliable source of information for political decisions in these circumstances? Which units to use by domain statisticians in order to obtain and present the picture of what is going on in the globalised economy? Should we – the statistical business register – continue to provide the established set of units (local units, legal units, enterprises, enterprise groups,…) and the sometimes hard to obtain links between them?

The issue is complicated further by the fact that statisticians should clearly distinguish between different roles of units: Respondents (to answer the survey), observation units (about which data is collected) and statistical units (about which the statistical results are presented).

Do units (and concepts) still matter?

Or should we catch what comes along and try our best to make some sense of it?

The contribution for the Wiesbaden Group will try to illustrate the problem and to suggest possible - conceptual and practical - ways to deal with it.

Keywords: Statistical units, globalisation, business register, roles of units, methodology

1 Introduction

Globalisation challenges business statistics in many ways. Important and potent economic actors no longer respect national borders as limiting factors for their organizational, legal and operational structure and economic behavior. On the contrary, especially the big players make use of different legal – e.g. fiscal – rules in different nations in order to maximise their economic independence and profits. We observe the development of highly interdependent global production arrangements and increasingly complex enterprise group structures. Statistical offices need to consider this when developing methods and practices to draw an adequate picture of the economic activities. The challenge for the Statistical Business Register is to collect and provide coherent and relevant information on various types of units in a continuously changing world.

How can official statistics maintain a reliable source of information for political decisions in these circumstances? Which units to use by domain statisticians in order to obtain and present the picture of what is going on in the globalised economy? Should the Statistical Business Register continue to provide the established well-defined set of units (local units, legal units)? Should it put effort in providing the also well defined, but more challenging units (enterprises, enterprise groups, kind of activity units) and the sometimes hard to obtain links between them?

Do units (and concepts) still matter?

Or should we catch what comes along and try our best to make some sense of it?

2 What do we want to know?

What do we want to know about our world – our economy?

Illustration: What do we want to know about cars:

How many cars are produced in Germany?

How many cars are produced by German car manufacturers?

How many people in Germany are occupied by the production of cars?

How many people are involved in the production of cars?

How many people make their living because we drive a lot in cars?

How much power/influence has the car industry on politics?

Little quiz: everybody receives a set of statistical units and makes a proposal which to use best for which question.

	Unit type 1	Unit type 2	Unit type 3	Unit type 4	…
Question 1					
Question 2					
Question 3					
Question 4					
…					

To fill in the table above could provoke some discussion: “What do you mean?” and “For which purpose do you want to use this unit?” may be some of the issues of the debate. In other words: Globalisation urges us to be more specific in our questions (and our answers).

To chose and use the appropriate type of statistical units makes ***necessary to speak a common language*** about the units we discuss. We have to use clear an unambiguous terminology. This forms a basic element of an infrastructure especially when we deal with globalisation.

A second prerequisite for efficient work on globalisation issues is to ***assign clear tasks to the different units*** we make use of. We have to distinguish clearly between different roles of units: Respondents (to answer the survey), observation units (about which data is collected) and statistical units (about which the statistical results are presented). This is still not as common as we should expect, the intersections and overlaps in the roles of units are not quite as obvious, transparent and undisputed as they should be[1].

3 Language: Globalisation and the concepts of statistical units

Using a common language means using the same terms for the same concepts and using different terms for different concepts. This is by far not the case today. As an example one may read the abstracts of session 6 of this meeting tomorrow.

We there find the terms

- multinational enterprise groups (MNE groups)
- multi-national enterprises (MNEs)
- Enterprise (ENT),
- Kind-of-Activity-Unit (KAU)

[1] Of course both aspects are highly relevant when statisticians deal with other aspects than globalisation, but the latter has highlighted the importance even more.

- Local Kind-of-Activity-Unit (LKAU)

- firms
- companies

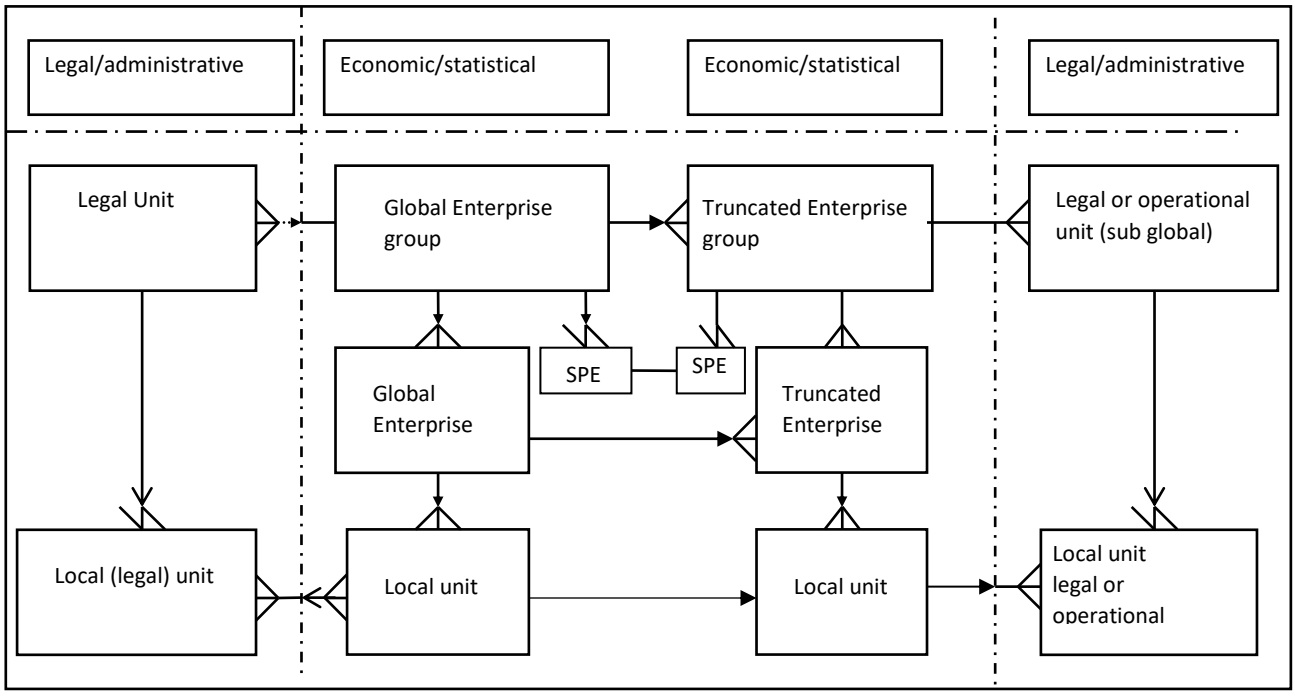
- affiliates and subsidiaries
- ultimate controlling institutional unit (UCI).

If we have a closer look, we will realise that first five terms (multinational enterprise groups (MNE groups), multi-national enterprises (MNEs)[2], Enterprise (ENT), Kind-of-Activity-Unit (KAU), Local Kind-of-Activity-Unit (LKAU)) use common statistical terminology (EU Regulation 696). The next two (firms, companies) are more what we read in the newspapers: But which of the well defined units of statisticians are are they: Is a “firm” equivalent to a legal unit? Does a “company” represent an enterprise or an enterprise group? Or a legal unit again? The last two in the list (affiliates and subsidiaries, ultimate controlling institutional unit (UCI)) describe aspects/roles of units.First guess would be these are roles of legal units, but can we be sure?

This little empirical example may illustrate that using the same language is key in order to have a common concept of globalisation issues and to be able to communicate about and to deal with the issue.

[2] Although the author would clearly prefer the term Global Enterprise (GEN)

Graph: A globalization related unit model (taken from EssNet Profiling 2014)



4 Tasks (or roles): Globalisation and the purposes of (statistical and other) units

Statisticians have to distinguish clearly three tasks of units:

- reporting unit: respondent, unit providing information to the data collector.
- observation unit: unit about which information is provided.
- statistical unit: unit a statistical output refers to.

Statistical work is by nature easier when all three aspects coincide: We ask subjects (respondents, reporting units) about some of their features (as observation units) and produce statistical figures about the quantitative or qualitative dimensions of these features referring to these subjects (as statistical units). This may be one understandable reason why e.g. still many domain statisticians stick to an equivalence of the legal unit and the 'enterprise': It makes work easier.

The good old days of legal and local units[3]

For many years two types of units played a predominant role in many statistical offices: Legal units and local units. Accordingly they are stored and maintained in many Business Registers.

Reasons why domain statisticians make use of legal units or local units are:

[3] Some statisticians use the term „establishment" as an equivalent for local units but to the author's knowledge others use this term as equivalent for enterprises. So this is one more example of fog in our terminology. The term „local unit" should help to avoid this.

- The possibility to *identify* them, since – like other units from the administrative world – they are defined and addressed by various public administrations.
- Data for statistical use can be *attributed* to them, e.g. financial accounting data or data on persons, like social security data about employment.
- Availability of data to *collect* from administrative bodies (which is easier for statisticians than collecting all data themselves by surveys).

These three aspects all refer to the use of legal units or local units as ***observation units***. Of course also their use as ***reporting units*** to address them as respondents in surveys should be mentioned.

There are also reasons not to make use of legal units or local units. These aspects belong to the (partly missing) usability of legal units or local units as ***statistical units***:

- If we want to observe figures e.g. about complex enterprises, the unconsolidated flows between the legal units inside these enterprises disturb the picture of the observation unit (the complex enterprise). For local units some of the features of an enterprise would have to be calculated artificially or are misleading – so there is no point in presenting them referring to local units (e.g. investments in R&D, access to financial sources).
- Legal units and local units may not be autonomous and data on legal units may then not be meaningful but give a wrong picture, disturbed e.g. by non-market prices. Local units may be attributed tasks which belong to a greater set of production factors and do not constitute a meaningful economic behaviour referring to the local unit itself (e.g. logistic centre or facility management unit).

Modern times' statistical units

Applying the definitions of the statistical units "entreprise group", "enterprise" and "KAU" implies to put efforts in distinguishing between reporting and observation units (for data collection) and statistical units (for data compilation and publication). Whereas legal units will further be needed as respondents, statisticians will have to be explicit in their survey about which observation unit they request information. And to explain about this, they will have to derive the appropriate observatin units from the statistical units about which they want to present data in the end.

Step 1: What do we want to describe? → chose appropriate statistical unit

Step 2: For which units is it the data we need available/observable → chose observation unit

Step 3: Which unit can be approached to deliver us the desired data →chose reporting unit

These three steps have to be done by domain statisticians. They need the business registers to provide not only different types of units but also the relations between different types of units in order to chose the reporting units which can give data about observation units which allow to calculate data about the desired statistical units. The Business Register may have to invest more to provide units ands relations between units that are

needed for future's appropriate statistics. Business Registers have to make sure to allocate their resources according to user needs. Therefore clarification is necessary about the users' needs concerning the relevant aspects of the units.

5 Giving new opportunities to business registers' users

There is *NOT THE* appropriate statistical unit to capture globalization. It depends on the issue.

T capture globalisation domain statisticians must ask the right variables about the appropriate observation units and they must approach the reporting units which are in possession of this information. This is ambitious – but the register information as a base infrastructure is at hand meanwhile to provide

- different kinds of units
- relations between different kinds of units
- basic features about the units and the relations.

By relating these three aspects domain statisticians can explore a wider set of data sources compared to earlier days and they can ask more specific aspects in their surveys. They can produce and provide a much wider variety of statistical output. They can react with more flexibility to changes in the questions posed and make use of the different opportunities which are inherent the different kinds of units.

Enterprise groups: Commonly seen as the most relevant actors in the globalised economy, but basic concepts for units, such as continuity rules, are not satisfactory existing. But data about the unt enterprise group is one thing, data about their activities – especially cross-boarder-activities – is something different. The latter is someting various statistics are interested in, e.g. International trade or Balance of Payments. Surveying this kind of data and making sure to interpret the figures appropriately has become a tricky business. Often statisticians need help and therefor contact the enterprise group for explanations. It has proven possible to do this, e.g. Large Cases Units in many statistical office do it. The Business Register can help to provide the best contact partners within the enterprise groups: Legal Units with the roles of Group Head, Decision Centre or (Highest) consolidating unit.

Enterprise: In the European Union structural business statistics enforced their endeavours to apply the enterprise concept from reference year 2018[4] onwards. Great investments have been made building up profiling capacities. The EU Statistical Unit Regulation defines and describes the enterprise concept regardless of geographical borders. The degree of autonomy which is attributed to them distinguishes between enterprises and enterprise groups. There is good reasoning that in today's globalised economy the postulated "sufficient" degree of autonomy for enterprises is found in sub-units of enterprise groups which are not limited by national borders. In other words:

[4] For older reference years some Member States of the EU already applied the EU definition of the enterprise, but many Member states used the legal unit as proxy for enterprise.

Statisticians would find global (meaning: multinational) enterprises if they would be looking for such.

But this alone would not help statisticians who want to secure the quality of national figures. Why is this? Because global enterprises act globally and this global acting would only be adequately captured in figures that are themselves global. So everybody who calls for using a concept of global enterprises in order to capture globalisation must at the same time call for splitting the figures about these global enterprises artificially in national parts in order to describe the effect of globalisation on national statistical figures. In other words – interpreting and applying the enterprise concept globally is adequate to capture globalisation in proper statistical figures, but it will produce global statistical figures, not national ones. The appropriate enterprises for EU structural enterprise statistics are units in national perimeter since the EU statistical programme aims for national figures of the Member States.

Using the enterprise as observation unit for globalisation is therefore not obvious. If domain statisticians do so they have to decide about the national or global interpretation which they want to apply for the implementation of the enterprise. This may be derived from the content of the data they are looking for.

Special purpose entities: Enterprise groups make use of them to arrange their businesses formally in order with national laws but maybe without respecting the purpose of these laws. Often global players in the economy use the differences in national regulatory settings, different fiscal and labour conditions to maximize profits and to minimise risks. Special tasks and special risks are placed on specialised units and these are places in well-chosen countries. Who controls these units and who receives their revenues in the end is often hard to discover. To keep a register of all these units seems hardly possible, many are not persistent, many are inactive, others change their character over time. Again the explanations of competent reporting units within the enterprise groups can be helpful (see above).

Local Units: Good old local units are not only commonly available as respondents, they are extremely important as observation units for for regional analyses. But as observation units they have limits since reliable information for some variables are hard to obtain.

Kind of activity units (KAU): Would for many economic issues be preferred to the enterprise if only enough variables would be collectable. Internal reporting for the management of enterprises and enterprise groups should be available for the observation unit KAU in many cases – but this is sensitive information. Competitors would love to have some of it too. Burden both on respontends andon statistical offices prevents to survey much about the observation unit KAU.

Local Kind-of-activity unit: This unit looks very promising to domain statisticians and national accountants – but only in conceptual view. The issue looks very different when it comes to data availability and response burden – here in a way the limitations of Local Units are multiplied by those of KAU.

6 Conclusions

The recent years proved once more that dealing with statistical unit issues is time consuming, laborious and intellectually challenging. At the same time, it proved that a sound understanding of unit issues is essential for the production of comparable and relevant statistical figures.

Do units (and concepts) still matter? – Yes, they do!

Many Business Registers are in much better situation than they used to be. They have a wider set of units at hand compared to earlier decades. They started exploring the relations between units. They start to concentrate on the appropriate features of the different units. International comparability askes for harmonisation of concepts and adaption of best practices.

Or should we catch what comes along and try our best to make some sense of it? – No, we shouldn't! On the contrary.

Business Registers are better equipped than ever by concepts, information technology and data sources. But the Business Registers have to invest further to make use of their chances. Business Register maintenance requires more resources, and moreover there are limits of giving the work to algorithms and automation. Maintenance is more laborious, sources of information are sometimes tricky. The most important units have to be quality-checked manually in the business register by highly experiences staff like profilers and and analysts of enterprise group structures.

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