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Session 3: Globalisation and Large Case Units

**Similarity metric for comparison of enterprise groups**

**Abstract**

Data on enterprise groups are stored in the statistical business registers at national, European and global level. Enterprise groups are structured as legal units with control relationships between them. This results in complex structures of different sizes that have to be compared at different points in time or from different sources.

Destatis developed a similarity metric for the comparison of enterprise groups from different sources or at different points in time. This metric is intended to provide an indication of whether there is similarity in terms of the associated units and their economic characteristics between two enterprise groups. The similarity metric can have values between 0 and 1. The lower the similarity metric, the lower the similarity. Identical enterprise groups have a similarity metric of 1. For enterprise groups without any overlap of units, a similarity metric of 0 is output.

The motivation, development and calculation of the similarity metric will be presented using theoretical examples. Then we will describe use cases for the metric with data from the German statistical business register and the EuroGroups Register. Based on this, we can discuss further possible use cases.

The idea of the similarity metric of enterprise groups can be used for defining continuity or for temporal data analysis to study the economic and structural changes of enterprise groups. A metric for other statistical units or a case-by-case analysis of the similarity of certain - for example competing - enterprise groups could also be developed with the similarity metric.

*Keywords: Enterprise Groups, Data Sources, Globalisation, Business Register*