Size-extended SUIOT for Belgium: an overview of methodological issues and analytical possibilities

Topic: Handbook of Extended Supply and Use Tables: Country Applications
Author: Bernhard MICHEL
Co-Authors: Caroline HambÃ¿e

Extended supply-and-use and input-output tables (ESUIOT) are a key tool when it comes to mapping how global production arrangements shape the economic activity within a country. In these tables within-industry firm-heterogeneity in terms of criteria such as size, trading status and ownership is taken into account through a systematic disaggregation of relevant industries. As an input for analytical work, ESUIOT contribute to enhancing the relevance of national accounts (NA).

This paper describes the construction process of size-extended SUIOT for Belgium for the year 2019 and highlights analytical possibilities provided by these tables. Heterogeneity in terms of size is likely to lead to within-industry technological differences. SUIOT that take these differences into account are of particular interest for determining how important small and medium-sized enterprises (SMEs) are for the Belgian economy and for understanding their role and position in domestic and global value chains. Such insights are valuable for designing policies that lend effective support to SMEs.

Our work allows to highlight major methodological issues in the construction of size-extended SUIOT. The most prominent of these issues concerns the definition of firm size classes, which needs to take into account group affiliation. In first instance, we define three categories of firms: small firms, medium-sized firms and large firms. Then, we investigate the link with group affiliation: the idea is that small and medium-sized firms that are part of an enterprise group are likely to be different in technological terms from firms in the same size classes that are not part of a group. Therefore, we expand the definition to separate out small and medium-sized firms that belong to a large domestic or Belgian multinational group or to a foreign-controlled group. This yields a combined size-ownership classification with genuine small and medium-sized firms â€“ those that are not part of a group or part of a small group â€“, pseudo small and medium-sized firms â€“ those that belong to a large or foreign group â€“ and large firms. Classifying firms from the business register into these categories requires data on employment, turnover and group affiliation. We provide a detailed overview of the data sources we have used (including a detailed discussion on how to measure group size with the data at our disposal) and report descriptive statistics for firms classified according to this combined size-ownership criterion.

For the construction of the size-extended SUIOT per se, we have gathered all the firm-level data used in the construction of regular SUT for Belgium and merged the firm classification into these datasets. Moreover, we have determined which industries should be disaggregated. We have then disaggregated these industries in the regular 2019 Belgian SUT based on these data. This work is done at the most detailed industry breakdown of the Belgian tables. In subsequent steps, we have also disaggregated the rows of the SUT and produced a split of the use table at basic prices according to the origin of the goods (domestic or imported). This allowed to derive a size-extended IOT, which we then integrate into the 2019 global multi-country table from FIGARO.

In analytical terms, we produce an IOT that is aggregated by ownership-size class. This provides an estimate of the share of genuine and pseudo SMEs in total value-added and employment. We also confirm within-industry technological differences between the three ownership-size-classes, and we analyse the integration of both types of SMEs into domestic and global value chains.