Sectoral disaggregation of input-output tables by entropy econometrics: is small (and medium) that beautiful?

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Author: Esteban FERNANDEZ-VAZQUEZ

Small and Medium Enterprises (SMEs) are expected to present larger interconnections with other companies, given their usually higher level of territorial integration and stronger linkages with suppliers and customers. However, this hypothesis cannot be directly tested basing on usual input-output (IO) tables compiled by statistical agencies, because IO tables do not provide information about the size of the companies in each industry. This is only an example of the more general situation where the information contained in the IO tables is not detailed enough to give an answer to our research questions. To deal with problems like this, the literature has proposed several disaggregation techniques, since the original work by Wolsky (1984) to the more recent proposals by Lindner et al. (2012, 2013). This paper proposes a flexible disaggregation technique based on entropy econometrics that (i) uses as exogenous information all the data available on the sector(s) to be disaggregated, and (ii) allows making statistical inference on the results produced. Its use is illustrated by disaggregating industries belonging to the branch of commercial services in the Spanish IO table (2010) into small, medium and large companies.