

Building Bridges: Conciliating Consumer Surveys and IO Tables with Minimal Information

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The combination of consumption data from household surveys with the information contained in IO tables is a crucial step to conduct impact analysis related to the effects generated by consumption patterns on the generation of value added, CO₂ emissions or energy uses, to mention just some examples. The point of departure of these analyses consist, basically, on connecting the information on consumption made by households with the final demand vector (or matrix) present in the IO tables, which is then conveniently modified to produce the multipliers of interest. This process requires the construction of a concordance or bridge matrix to make this connection possible, since several issues affect the combination of these two data sources: differences in price valuation between consumption surveys and IO tables, the influence of taxes and margins or the different product classifications between these two frameworks make this combination a challenge for the researcher.

In this paper we explore this challenge with a twofold purpose: (i) to investigate how important a "good" or "bad" conciliation of our consumption data between household surveys and IO tables affect our results in terms of impact analysis; and (ii) to propose a conciliation technique between both data structure, which using only minimal information provides a systematic way or reconciling them if detailed data are not at hand. This technique is based on entropy econometrics and it allows making statistical inference on the bridge matrix estimated. Both research objectives are illustrated by means of numerical simulation and by its application to real-world cases.