A reformulation of the FLQ approach to computing regional input-output coefficients

Topic:
Author: Anthony T. FLEGG
Co-Authors: Fernando de la Torre Cuevas, NapoleÃ³n Guillermo SÃ¡nchez ChÃ³ez, XesÃºs Pereira

In this paper, we examine alternative methods of computing regional input-output (IO) coefficients, with an emphasis on their relative accuracy and the complexity of the computations required. We propose a novel way of implementing the well-known FLQ (Fleggâ€™s location quotient) approach. Although the FLQ formula often yields very satisfactory results, the need to specify values of the unknown parameter Î´ in this formula presents an obstacle to its implementation. Here we develop a fresh approach to the use of the FLQ that substantially simplifies its application, while simultaneously enhancing its performance. We focus on how regional size, R, is incorporated in this formula and simplify the way in which R affects the allowance made for imports from other regions. We call this new formula the reformulated FLQ or RFLQ. We also show how the unknown parameter in the RFLQ can be computed. We test our proposal using the 2005 and 2015 Korean survey-based interregional IO datasets and contrast our estimates with both survey-based values and the results from several other techniques. We also examine two different information scenarios: with and without industry-specific information. The results suggest that the RFLQ can yield more accurate estimates of regional IO coefficients, and in a more straightforward way, than is possible with the traditional FLQ.
Keywords Regional input-output tables; non-survey methods; FLQ; RFLQ; 2D-LQ
Note: An earlier draft of this paper entitled â€œCurve shapes and parameters in FLQ regional modelling: some alternative approachesâ€• was presented at the IIOA conference in Alghero. The present substantially revised version is currently under review by Computational Economics.