Can confidence intervals for input-output multipliers be estimated with supply and use tables?

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The Leontief quantity model generally provides point estimates of the output multipliers due to changes in final demand. The model could even be expressed for other variables such as value added, employment and environmental pressures. In doing this, input-output tables are required, typically with the same number of industries and products. This paper proves however that the Supply-Use based approach (SUBE) is able to provide confidence intervals to such multipliers using Supply and Use Tables and therefore, a different number of industries and products. Our empirical work is broadly supported by the WIOD database and by the use of panel data econometrics.

The SUBE approach therefore opens up the door to the estimation of confidence intervals and hypotheses tests of the standard backward input-output multipliers. We prove this statement in our paper given the negligible but statistically significant bias of the results compared with the Leontief inverse approach and using, as a novelty, panel econometrics. In the future, the SUBE approach should be seen as complementary to the classical Leontief input-output model to do standard input-output analysis with uncertainty measures for backward multipliers of any type, i.e. output, employment and value added, for instance.