

From input-output to macro-econometric model

Topic: Input-output and sectoral macro-econometric modelling: Part of the same family

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Organised session 2019 - Input-output and sectoral macro-econometric modelling: Part of the same family

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Abstract

(1) Research question

This paper shows how it is possible to build a macro-econometric model, starting from a standard input-output framework.

(2) Method used

We first describe the data that are required. We then define an econometric specification to determine behavioural relationships within the model, for example price-demand elasticities.

The paper provides a detailed description of how these different elements may be combined to create a set of simultaneous equations that build on the structure of the national accounting system to create a dynamic, empirical macroeconomic model. The treatment of prices and the difference between real and nominal variables in the model is discussed. Extensions to the basic accounting system, for example to include the labour market and demands for energy and materials will be included.

(3) Data used

Input-output tables and time series macroeconomic and sector/product data for final expenditure, prices, output, value added and jobs from statistical offices.

(4) Novelty of the research

The final discussion in the paper relates the model to wider economic theory and current policy challenges. We show that the model may be quite different from neoclassical or New Keynesian macroeconomic theory but, depending on the specification of the equations, can be broadly consistent with post-Keynesian theory. We conclude with a comparison of some of the differences in properties between a basic input-output-based multiplier analysis and the model that we have just constructed.