

The general interregional quantity model - multiplier experiments with a sub-regional model for Denmark

Topic: Multiregional input-output modelling

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Taking the Leontief and Miyazawa formulations of the interregional economic quantity model as the point of departure the general interregional static quantity model is developed. This model, which essentially is local rather than regional, incorporates a number of conceptual and theoretical changes, which have become necessary as economies become more diverse and differentiated. There is a need to integrate essentially subregional and local/urban activities covering such areas as commuting, shopping, tourism and trade into a general interregional modelling framework. The theoretical changes examined include a set of new geographical concepts and in the context of an interregional SAM the development of the two-by-two-by-two approach, involving two sets of actors (production units and institutional units), two types of markets (commodities and factors) and two locations (origin and destination). The equations of the general interregional quantity model are presented together with the solution of the model.

Multiplier experiments with a model covering 98 Danish municipalities are presented. Size of multipliers are explained by openness of the sub-municipality areas, such as interregional import- and export shares, in- and out-commuting patterns, shopping and tourism travelling patterns etc.