Regional and multiregional input-output analysis has long been one of the main empirical approaches in regional macroeconomics. The data base for this research is the (multi)regional input-output table, which is an enlargement of basic regional economic accounts. The method has been used for instance for structural and impact analysis and many input-output tables have formed a part in larger regional model systems.

At the national level it is common to construct input-output tables on the basis of the supply and use approach. However, at the regional scale the traditional (industry by industry) tables still form the large majority. It can be claimed that supply and use tables have sounder theoretical basis, as they are based on commodities, which are the basic units of the activities of the firm. As an accounting device supply and use tables are superior because less assumptions and modelling are needed to construct them.

Contrary to most countries, in Finland regional supply and use tables are now being developed simultaneously with the corresponding national tables. This has at least two major benefits for the regional work. First, consistency with national tables can be better realised when both systems are developed at the same time. Second, a great part of the computer system can be developed so that both regional and national figures are calculated simultaneously. The theoretical roots of the Finnish case are largely in the corresponding Dutch experiences as presented in Eding et al (1998).

In Finland the task of constructing regional input-output tables has earlier been the effort of separate researchers. However, the present work is conducted at Statistics Finland, the source of the base data. This means that less ad hoc estimation methods are needed, increasing the reliability of the tables. The system consists of the 20 Finnish provinces, forming the NUTS 3 regional level in Finland. The working level of the study is some 70 industries and 200 product groups, but because of concealment rules, problems of classification and data availability, some aggregation will be necessary at the later stages of the project. The data year is 1995.

The basic idea in compiling the table is to use as much primary data as possible and to resort to substitute indicators only when necessary. Many different regional statistics and registers are used in the work. The national input-output table is an important reference point. For the industrial supply and use of commodities, manufacturing statistics is the most important source. This annual data set is based on a postal survey, and it contains detailed information on deliveries of goods by
commodity, use of raw materials, packaging materials and energy inputs. Data is obtained at the level of individual outlets of firms, which is essential for regionalisation. For the service sector, information on the supply and use of commodities is not as accurate; here various business registers are combined. Household consumption, the largest item of final demand, is estimated by the annual Household Expenditure Survey, containing detailed information on consumption by commodity. As it is sample-based and contains only some 2300 households annually, data of three consecutive years 1994-1996 were combined to decrease variation in the results.

The estimation of interregional trade flows is the most important and difficult single task in the construction of a (multi)regional input-output table. The results obtained about trade between regions strongly affect the resulting picture of the regional economy and the reliability of applications. It was felt necessary to base the estimation of interregional trade on separate empirical research rather than indirect methods of calculation. This subject has been much discussed in the literature, showing the accuracy problems of non-survey methods. In the Finnish study a survey was conducted, asking firms about the spatial distribution of their total sales into the own province, other most important provinces separately, rest of Finland together, and abroad. Total sales of the outlet were asked instead of the regional origins of input purchases, because experience had shown that firms keep better record of their sales. However, there are several service industries which may find it difficult to divide their sales spatially. Consequently, the firms were asked about the spatial distribution of their total input costs of some of these services, giving an indirect way of obtaining additional elements for the input-output table. The regional destination of that part of sales going through wholesalers was estimated by an additional survey, completed with separate interviews. Finally, certain services were assumed to produce for local markets only, examples being retail trade and many personal services. Altogether it was considered important to keep the questionnaire short, because of problems of non response and quality of data. The size of the sample was 9700 outlets of firms for the main part of the survey, and the final response rate was 52 percent. The Finnish multiregional input-output table will be completed at the end of the year 1999.

REFERENCE


CONSTRUCTION DE TABLEAUX REGIONAUX "INPUT-OUTPUT" EN FINLANDE: APPROCHE "SUPPLY AND USE"

L’analyse régionale “input-output” est une méthode de recherche appréciée depuis longtemps dans les cas où l’on veut étudier la croissance et les structures des économies locales d’une manière empirique et en ce qui les lie à l’économie de l’échelle nationale. L’Institut National de la Statistique de Finlade mène en ce moment un projet qui produira un système “input-output” multirégional (multiregional input-output system) pour les 20 départements finlandais. Les tableaux seront construits en utilisant la méthode offre-demande (supply and use method), et le niveau de précision au cadre du travail sera de 200 commodités (commodities) et de 70 branches d’activité (industries). Le projet cherche à profiter le plus que possible des matériaux régionaux génues, et les méthodes d’évaluation indirectes ne seront employées qu’en cas de nécessité. Les courants commerciaux inter-régionals (interregional trade flows) formeront une des issues centrales du travail. Ils seront évalués à partir d’une enquête séparée, dans laquelle les entreprises seront questionnées sur la répartition de leur vente totale parmi les différentes régions. La recherche sera achevée à la fin de l’année 1999.