

3. STATISTICS CANADA INPUT-OUTPUT MODEL AND METHODOLOGY

- THE MODEL

In order to assess the impact of Canadian international exports on job support, a simulation was run on Statistics Canada's Input-Output model of the Canadian economy. Among the many uses of Input-Output tables is the construction of models which trace and quantify the direct and indirect effects of some postulated economic activity -- in this case, international exports.

The Input-Output model represents an integral part of the Canadian System of National Accounts. This system is modeled to a large extent on the United Nations System of National Accounts with adaptations which reflect the Canadian economic infrastructure, such as our overall approach to indirect taxes and subsidies, and our mix of export commodities.

The Input-Output accounts are a comprehensive measure of economic activity. All facets of the economy, unlike other Statistics Canada surveys, must be somehow measured, even when data relating to a particular aspect of activity are deficient. All parts of the accounts are constructs and as such they impose constraints with respect to the relationships among the various classes of activities. The dependence on others for data as well as the exhaustive procedures for remedying errors and balancing the model, necessitate a construct in which the most recent overall structure is often three to four years old.

While statistically difficult to develop, the theoretical concept of input-output tables is simple. The Input-Output accounts are a complete accounting of transactions generating the production process, identifying intermediate transactions between production entities as well as primary inputs and final output. Since some output is met by imports, imports are a deduction from final demand in the model used. The accounting for intermediate use provides for a formal linkage between primary inputs (GDP) and final demand outputs (Expenditure on GDP).⁶

⁶ A complete description of the methodology used in the Input-Output model is available in *The Input-Output Structure of the Canadian Economy 1961-1981* (Statistics Canada publication Catalogues 15-510 and 15-511).