

using early data on production techniques and more recent data on prices. Production techniques are generally captured in the "fixed proportions" model of I-O systems. In this framework, the ratio of constant-dollar inputs to constant-dollar outputs reflect the productivity of, say, materials and labour used. The unit cost measures shown in the next section combine productivity and price data. That is, they reflect both changing prices and changing utilization rates for the inputs. In most cases, the process of extending unit costs to 1984 combines trended or constant productivity measures from 1980 with a relevant aggregation of price/wage measures. Special attention was given to measuring unit labour costs, as recent data does allow a more careful presentation of labour productivity. Indeed, the combination of the 1982 recession and the 1983-84 recovery provides important changes in this area.

The treatment of indirect taxes was a challenging and useful addition. Canadian data was collected for total indirect taxes and indirect taxes net of subsidies. Although this latter subsidy measurement might be useful for purposes of negotiating trade protection measures, several data limitations made it impossible to present this information. Not only was it difficult to obtain comparable Canadian and American data on subsidies by industry, but the data that was available was only updated to the 1980 to 1982 time-frame. While the extrapolation of indirect taxes to 1984 did not seem likely to violate any known tax changes, the authors felt less able to support an assumption that the structure of subsidies has remained unchanged in both countries over the past few years. Examination of the results and a check of data sources also showed that U.S. data on indirect taxes includes royalties while Canadian data does not include this measure.

Consideration of the preceding remarks will help the reader to understand that great care must be taken in aggregating the various input measures. One clear objective of the study is to arrive at a single "total unit cost" measure for each industry based in a common currency. After consideration of all of the above issues, it is the authors' view that total costs defined as the sum of material, labour and indirect taxes is the more appropriate measure to use.

While this caveat may be disappointing, it is worthwhile to note that more research may be worthwhile in this area. U.S. analysis by Data Resources' Inter-Industry Group has prepared user cost of capital measures for a set of U.S. industries that