

## 6.2 Canadian Value-Added

As was pointed out in Section 2, the I-O model does not explicitly provide a Canadian share of the value of exports by industry, but does indicate the import share of commodity inputs in the production of exports (column 5 in the derived world table) and the import share of industry output in the production of exports (column 6 in the derived world table). A unique problem with deriving the Canadian content of exports by accepting the imported commodity input share as a measure of exports' foreign content is that the imports/commodity inputs ratio does not capture the domestic value-added of the exporting industry. This will cause the Canadian content of exports to be underestimated, and the foreign content of exports to be overestimated. A common problem with deriving the Canadian content of exports by using the imports/commodity inputs ratio or the imports/industry output ratio is that intermediate inputs from other domestic industries will almost certainly contain some imports. As a result, there is likely to be an underestimation of the import content, and an overestimation of the Canadian content, of exports by industry.

While fully acknowledging the technical difficulties, it is still of interest to proceed and calculate which groups of industries have a higher Canadian content, or value-added. In order to capture the domestic value-added of the exporting industry, we will use the imports/industry output ratio. Excluding other services, the transportation and communications industries averaged the lowest imports/industry output share, at 4.0%. Primary industries averaged 5.8% and manufacturers averaged 24.7%. In general, the lower the import share of industry output, the higher the Canadian value-added share. This exercise should not be regarded as producing precise measures, but it is indicative of how the industry groups rank in terms of their relative domestic value-added.

### 6.2.1 Value-Added and the Canada-U.S. Balance

Given the rough estimates of the import values of Canadian exports, one can speculate both quantitatively and qualitatively about a "Canadian value-added balance". Looking at international flows on a value-added basis would reduce exports by the value of their foreign content and reduce imports by the value of their Canadian content. We will approximate the adjustments required to Canadian trade with the U.S. in order to calculate a domestic value-added balance.

On the export side, the I-O reveals, as discussed above, how much imported inputs represent in the value of Canadian exports. By reducing manufacturers' exports by 24.7%, primary sector exports by 5.8% and transportation and