

Measuring the economic contribution of firms and activities in terms of national income

Topic: Handbook of Extended Supply and Use Tables: Country Applications

Author: Oscar Lemmers

Analysis how production translates into value added is well known. Part of that value added will flow abroad. Directly, e.g., because foreign owned multinationals transfer profits to the parent abroad. Indirectly, e.g., because an SME pays interest to a bank that uses it to pay dividends to foreign stockholders. The research questions of this paper are the following. How much of the value added generated by industries, types of firms (non-multinational, domestic multinational, foreign multinational) and different types of final expenditure (e.g., household consumption, government consumption and exports) ultimately ends up as national income? And how much will flow abroad and end up as foreign national income?

We develop a method and illustrate it with data for the Netherlands for the reporting year 2015. First, we compile an extended input-output table where each industry is split into three types. These types are non-multinational, domestic multinational, foreign multinational. For example, metal manufacturing is split into metal manufacturing non-multinational, metal manufacturing domestic multinational and metal manufacturing foreign multinational. We use the existing input-output table, microdata about production, value added, international trade and a multinational indicator. Then we compile a flow of funds table, using a mix of macro and micro data to split the income flows in the Dutch Sectoral Accounts. It shows income flows between each type of multinational in each industry, several sectors and rest-of-world. This allows for estimates at detailed level (for example, by industry, by type of enterprise, by type of final expenditure) how much of the value added flows abroad.

A novelty is that the indirect flow abroad is captured: income flows that flow abroad via other domestic entities. An example: when a manufacturer pays interest to a bank that uses it to pay dividends to a foreign entity. Other papers consider various types of income (e.g., interest, dividends, re-invested earnings) flowing abroad or various types of firms (e.g., multinationals and non-multinationals). To our knowledge, this paper is the first to do both.

The paper has three key messages and we quantify each of them. First, a substantial part of value added embedded in final expenditure flows abroad. Second, a sizeable part, also value added of domestically owned firms, first flows to a domestic entity and only then leaves the country. Third, there are substantial differences between industries and types of firms. This clearly shows that it is necessary to accommodate this heterogeneity in the analysis: one has to create an extended input-output table where industries are split by type of firm. The usual input-output table cannot properly answer the research questions.

Some examples of quantification: of the domestic value added, about 15 percent will ultimately end up abroad as an income payment. For value added at foreign owned multinationals, about a third ultimately ends abroad. For non-multinationals it is only about 2,5 percent and for domestically owned multinationals it is 10 percent. This is not surprising; foreign multinationals will transfer profits abroad to the parent. The domestically owned enterprises do not have foreign parents. Yet part of the value added at domestically owned enterprises flows abroad anyway, e.g., via payments to foreign stockholders. As far as different types of final expenditure are concerned, 18 percent of the value added embodied in exports is ultimately transferred abroad. It is much smaller for government consumption, where it is only 6 percent. This is because of the industry composition. In exports, many enterprises in the market sector are involved; they have income transfers abroad. However, in

government consumption one of the main suppliers is government itself, which hardly has income transfers of value added abroad.