

cells indicate inclusion in both measures. "Ownership" cells are included in the ownership-based measure.

In two of the cells, BD (Sales of foreign-owned firms in Country 1 to foreign-owned firms in Country 2) and DB (Sales of foreign-owned firms in Country 2 to foreign-owned firms in Country 1), the transaction is included in both residence- and ownership-based trade measures, but in one case the sale is considered an export, while in the other it is an import. This is the most counterintuitive element of the ownership-based measures; i.e., when a good crossing the border into a country is considered an export of that country. What is important on an ownership basis is the change of country of ultimate ownership of the good, not its change of location. Although these two cells highlight the difference in the two measures more starkly than the others, in practice both BD and DB are probably insignificant, as mentioned above.³⁴

The traditional residence-based trade measures, exports and imports, can be transformed into ownership-based trade measures, foreign sales and foreign purchases. The definition of foreign is the key to the difference in the two trade measures. For residence-based measures, foreign means across the border, regardless of ownership. For ownership-based measures, foreign refers to the dominant ownership of the firm making the sale.

The ownership-based measure of foreign sales for Country 1 (EXPORTS, Country 1, Ownership) can be expressed in terms of its residence-based measure (EXPORTS, Country 1, Residence) as follows:

$$\begin{aligned} \text{EXPORTS (Country 1, Ownership)} = & \text{EXPORTS (Country 1, Residence) minus} \\ & \text{Shipments from domestically-owned firms and consumers (A) to} \\ & \text{Foreign-owned firms in Country 2 (D) plus} \quad (\text{AD} + \\ & \text{Shipments from Foreign-owned firms (B) to} \\ & \text{Domestically-owned firms and consumers in Country 2 (C) plus} \quad \text{BC) +} \\ & \text{Shipments from domestically-owned firms and consumers (A) to} \\ & \text{Foreign-owned firms in Country 1 (B) plus} \quad (\text{AB} + \\ & \text{Shipments from Foreign-owned firms in Country 2 (D) to} \\ & \text{Domestically-owned firms and consumers in Country 2 (C) minus} \quad \text{DC) -} \end{aligned}$$

³⁴ Julius, *op. cit.*, p. 79.