

Shipments from Foreign-owned firms (B) to
Foreign-owned firms in Country 2 (D). (BD +

Shipments from Foreign-owned firms (D) to
Foreign-owned firms in Country 1 (B). DB)

or

EXPORTS = **EXPORTS** minus (AD + BC) plus (AB + DC) minus (BD - DB).
(Country 1, (Country 1,
Ownership) Residence)

The first set of parentheses is the FDI-related trade included in the exports of Country 1 on a residence basis. The second set includes the local sales by Country 1's firms and workers to foreign-owned firms in Country 1 (AB) and the local sales of its own firms in their host economies (DC). The final set of parentheses represents transactions between foreign-owned firms abroad and those in their home countries, which is assumed to be zero both for imports and for exports. Data on it are not available, but this assumption is unlikely to introduce a significant or systematic distortion to the estimates developed below.³⁵

Ownership-based foreign purchases can also be expressed in terms of their residence-based imports as:

IMPORTS = **IMPORTS** minus (DA + CB) plus (BA + CD) minus (DB - BD).
(Country 1, (Country 2,
Ownership) Residence)

Table A.1 shows the estimates of ownership-based trade measures for the U.S. and Japan. For the United States, foreign sales (exports, ownership-based) are more than five times as large as exports (exports, residence-based), while foreign purchases (imports, ownership-based) are almost three times as large as imports (imports, residence-based). Thus the ownership-based measures show a much greater degree of integration of the U.S. economy with the rest of the world than do traditional trade measures. For Japan, foreign sales are 1.7 times exports and foreign purchases are 1.7 times imports. Despite its large trade presence, the smaller degree of integration of the Japanese economy, relative to the U.S., comes through in its ownership-based measures. Foreign sales represented 27% of U.S. gross national product in 1986, compared with 21% for Japan in 1983. In the same years, U.S. exports were 5.3% of GNP while Japanese exports were 12% of its GNP.³⁶

³⁵ Julius, *op. cit.*, p. 80.

³⁶ Julius, *op. cit.*, pp. 80-81.