

Chapter 7

Trade Structures and Embodied Production Factors in Asian Countries and Regions

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This paper analyzes trade patterns for selected products of Asian nations from the factor contents perspective utilizing long-term trade data adjusted by the Institute of Developing Economies (IDE). The trade data used in these analyses is SITC-R1 (three-digit level). This data was drawn from the UN trade database (with the exception of Taiwan; in this case statistics originating from the nation itself were used) and formulated by IDE-JETRO. The data used here differs from the UN data in that the product categories for all countries and periods have been converted to the three-digit SITC-R1 categories.

The trade statistics formulated by the UN (and Taiwan) have the problem of variations in categories depending on the year under consideration. In the case of China, for example, SITC-R2 categories were used before 1991, while SITC-R3 categories have been used since 1992. When categories differ in this way, the IDE unifies them utilizing its own converter (product category comparison table). When particular products correspond to multiple SITC-R1 product categories, the trade data for these products is uniformly divided and included in the corresponding categories for processing.

The factor contents for each industry used in the analysis were obtained from a database formulated by Ito, En and Fukao at the Research Institute of

Economy, Trade and Industry (RIETI). These data were formulated on the basis of data concerning value of production by industry type, number of production and non-production workers, and value of tangible fixed assets excluding land in the 1990 Japanese industry statistics tables. 1990 data were used because labor input data classified by production and non-production is only available until that year. It is necessary to use some caution because the tangible fixed assets in the industrial statistics table represent the figures on company books. Correspondence between industry categories in the industry statistics tables and SITC-R1 trade statistics product categories was achieved by making sub-category data from the industry statistics tables correspond with 1980-1985-1990 inter-industry tables base categories, and converting the resulting data to SITC-R1 categories. The industrial statistics table data are business-based statistics; because one business entity might produce multiple products, it is necessary to be aware of the potential problems which exist in achieving the correspondence described above.

Among other results, the analysis has demonstrated that when compared to GDP per capita and economic development indicators, China has a relatively low level of pure imports of embodied capital

stock in trade; in addition, countries which actively accepted direct inward investment during the 1980s,

such as Thailand and Malaysia, also showed significant changes in their trade structures over that period.