Input-Output Analysis of the Interdependence between Japan and China through Japanese Overseas Production

Topic: International Input-Output and Supply-Use models

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As well known, China has been expanding for 30 years after opening her economy and introducing market mechanism in it. In that process, foreign direct investment has taken important role, and many foreign firms including Japan have built their plants and branches in China. These overseas production changes the pattern of international trade between Japan and China.

METI, Japan and National Bureau of Statistics, China has cooperatively compiled 2007 Japan-China International Input-Output table, with 77 sectors for each country. This table captures the latest interdependent structure between them.

Using METI Statistics "Survey of Overseas Business Activities," we reconstruct the table as one that extracts Japanese production activities from China. Here we use micro data of about 3600 establishments on this Survey Statistics. The table consists of Japan, China, and Japanese subsidiaries activities in China with 30 sectors for each.

From this table, we are able to observe that, if Japan imports electronic machinery goods from China, Japanese subsidiaries and/or non-Japanese subsidiaries, semiconductors and related parts are imported from Japan and the rest of the word. This means that Japanese subsidiaries take important role in Chinese export, and induces imports of intermediate goods from Japan and other countries; probably Korea and Chinese Taipei.

Some other simulations about the role of Japanese subsidiaries for Chinese economic development, and the economic relation Japan and China through Japanese overseas production in China will be discussed.