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Imports from Asia Lead Economic Conditions in Japan

Katsuaki Ochiai
Associate Senior Economist

It is said that in recent years the linkage between economic conditions in Japan and other Asian countries has been getting stronger. In addition to the newly industrializing economies (NIES), China and members of the Association of Southeast Asian Nations (ASEAN), such as Malaysia, Thailand, Vietnam and Indonesia, have emerged as newly industrializing economies. It is believed that since these countries and regions began to show dramatic economic growth, their economic relations with Japan have become deeper.

This paper presents the results of a study on Japan's relationship with the Asian countries based on actual data. At the same time, it will introduce the results of an analysis, which shows that movements of data on trade with the Asian countries are useful in grasping the present conditions and making forecasts of the Japanese economy¹.

Increasing Linkage of Economic Growth in Japan, the U.S. and Asia

First, we will verify movements of macroeconomic data in the Asian countries. Unfortunately, however, we had to exclude China (which is believed to hold the most interest of all concerned) from our analysis, because its data on quarterly real gross domestic product (GDP) have been disclosed only since 2005.

After excluding 1998, the year in which the Asian currency crisis (an extraordinary factor) deepened, we verified how the currency crisis changed the relationships of the Asian countries' economic growth patterns, based on data from 1993 to 2008.

As the Table indicates, although South Korea, Thailand and Indonesia, the nations which were directly hit by the Asian currency crisis, demonstrate somewhat

Table : Changes in Linkage between Economic Growth Rates

	Japan	South Korea	Taiwan	Malaysia	Singapore	Indonesia	Thailand	The Philippines	U.S.
Japan			+	+	+	+		+	+
South Korea			+	○	+		-		
Taiwan	+	+		+	+	+	+	+	○
Malaysia	+	○	+		+	+	○	+	+
Singapore	+	+	+	+		+		○	+
Indonesia	+			+	+		-	+	+
Thailand		-	+	○		-		+	+
The Philippines	+	+	+	+	○	+	+		+
U.S.	+		○	+	+	+	+	+	

Notes: The years from 1993 to 1997 comprise the earlier period, while those from 1999 to 2008 comprise the latter period. (1998 was excluded because it was severely affected by the Asian currency crisis.)

+: No linkage in the earlier period, but linkage in the latter period

○: Linkage both in the earlier and the latter period

-: Linkage in the earlier period, but no linkage in the latter period

Empty cells denote no linkage either in the earlier or latter period.

¹ For details, please see Yoshimi Tonogi, Katsuaki Ochiai and Kazumi Asako, "Ajia shokoku no keiki to nihon no keiki: CI to boeki tokei ni yoru rendosei no kensho" (Economic Conditions in Asian Countries and Those in Japan: A Study of Linkage Based on CI and Trade Statistics), Fainansharu Rebyu (Financial Review), No. 90, August 2008, Ministry of Finance, Policy Research Institute.

different trends, we found that since the currency crisis, the linkage among Japan, the United States and other Asian countries has increased on a broad range.

This is attributed to a “system of division of labor in production,” which is said to have spread rapidly among these nations since the end of the 1990s².

Imports of Intermediate Goods Lead

In order to verify the presence of a system of division of labor in production in Asia and its impact on Japan, we focused on data on Japanese imports from Asia in terms of their total amount and by goods category to analyze their relationship with economic conditions in Japan.

First, we verified the relationship between the movement of the total amount of Japanese imports from Asia and the movement of the Japanese economic indicators which are adopted in compiling the leading and coincident composite indices (CIs) of the business index released by the Cabinet Office.

We found coincidence (a trend in which changes occur at the same time) between imports from Asia and indicators that are adopted in the compilation of Japan’s leading CI. Specifically, there was coincidence between Asian imports and the Final Demand Goods Inventory Ratio Index, the Industrial Production Goods Inventory Ratio Index, real machinery orders and the Consumer Durables Shipment Index. Imports from Asia lagged one month behind the Nikkei Commodity Index (42 categories) and the Investment Environment Index.

Meanwhile, they were found to lead by two to three months the indicators used in the compilation of the coincident CI. These indicators are the Production Index (industrial production), the Industrial Production Goods Shipment Index, large-lot electricity consumption, the Capacity Utilization Ratio Index (the manufacturing industry), the Overtime Working Hours Index (the manufacturing industry), the Commercial Sales Index (the wholesale industry) and sales by small and medium enterprises (the manufacturing industry). It appears that this fact indicates that imports from Asia tend to lead business conditions in Japan.

Then, in order to see which categories of import goods are responsible for the linkage with business conditions in Japan, we analyzed the relationship between the data on 35 categories of imports by goods³ category and Japan’s leading and coincident CIs.

The analysis revealed that the imports of 27 items led (coincidence with the leading CI

² Fumihide Takeuchi (2006), “*Ajia keiki tonou rendousei wa naze takamatte irunoka: dogaku ippan kinko moderu ni yoru bunseki*” (Why is the linkage with Asian economic conditions getting stronger?: An analysis based on a Dynamic General Equilibrium Model), Japan Center for Economic Research, *Discussion Paper* No. 108.

³ The data by category of goods were independently compiled by NEEDS-FinancialQUEST.

or lead over the coincident CI) or were coincident (coincidence with the coincident CI) with business conditions in Japan⁴. Imports of some items both led and were coincident with Japanese business conditions.

Out of these, many intermediate materials, including materials, organic chemical compounds, and electronic components, such as semiconductors, showed a tendency to lead business conditions in Japan.

This finding demonstrates that in the system of division of labor in production in Asia, Japan depends on Asian countries for the production of intermediate goods.

Asian Trends Are Important in Forecasting Business Conditions

The shift from a “full-set” model industrial structure, in which all production processes are carried out in Japan, to the division of labor with the Asian countries increases the linkage of business conditions in Japan and the Asian countries through the imports of capital goods and intermediate goods.

Due to the fact that in some Asian countries, systems for compiling business indicators are not yet in place, it is difficult to analyze in depth the economic relationship between these countries and Japan. However, the importance of paying attention to economic conditions in other Asian countries, and of analyzing Japanese data on imports from these countries as we did in this study, will become greater and greater.

Katsuaki Ochiai

*Associate Senior Economist in the Economic Research Department, JCER,
specializing in macro economics, income distribution theories, etc.
His major theme of research is the relationship between productivity and human
and physical capital.*

For inquiries regarding this paper, please contact at ochiai@jcer.or.jp.

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Japan Center for Economic Research (JCER)

Nikkei Kayabacho Bldg. 2-6-1 Nihombashi Kayabacho, Chuo-ku, Tokyo 103-0025, Japan

Phone:81-3-3639-2801 / FAX:81-3-3639-2839 / E-mail:jcernet@jcer.or.jp

⁴ Neither lead nor coincidence was found for eight items: meats, soybeans, crude oil and petroleum, crude and refined partly, motor spirit, liquefied petroleum gas, coal and power generating machinery.