

## Strategies to Strengthen Industrial Cooperation with Major Emerging Countries in Southeast Asia

ISSN 2233-9140

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### 1. Trade Structures with Korea by Production Process and Production Networks

#### A. Trade Structures of Major Industries by Production Process

This chapter examines the trade structures by production process of the largest export businesses between Korea and three Southeast Asian countries (Indonesia, the Philippines, and Vietnam) over

the last 10 years (from 2002 to 2011).<sup>1</sup>

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<sup>1</sup> All industries were largely divided into 21 sections based on the two-digit HS code (Chapter). Section 16 was then divided into chapter 84 (machinery) and chapter 85 (electronic products) and other industries were separately added, resulting in a division of all industries into 23 sections. In the analysis of Korea's three top export industries to the three Southeast Asian countries, all of the approximately 2,000 six-digit HS code (sub-heading) items were examined using the BEC data of UN Comtrade. China's and Japan's export structures to the three Southeast Asian countries by industry and by production process were also examined using the same method.

In trade with Indonesia, Korea displays a pattern of exporting almost all mineral products (Section 5) as semi-finished goods and importing more than half of the same as primary goods. This stems from the fact that Korea, lacking in resources, imports large amounts of primary goods from resource-rich Indonesia, processes the goods, and then exports them as semi-finished goods. Textiles / textile articles (Section 11) and base metals / articles of base metal (Section 15) were also overwhelmingly high in semi-finished goods for both exports and imports. This is because related industries in Indonesia have not been developed and most Korean enterprises in Indonesia have simple assembly-type production structures.

In the case of the Philippines, both exports and imports of electronic products (Chapter 85) consist of an over 80% share of parts & components, while exports and imports of mineral products are dominated by semi-finished goods and primary goods, respectively. As for base metals / articles of base metal, Korea exports almost all products in the form of semi-finished goods while imports are in the form of semi-finished goods and primary goods.

In trade with Vietnam, in the case of textiles / textile articles, most exports are in the form of semi-finished goods and imports in the form of consumption goods and semi-finished goods, while since the mid-2000s there is a noticeable increase in the share of consumption goods to total imports. Korea has been exporting and importing most base metals / articles of base metal in the form of semi-finished goods, and in the case of electronic products, while in exports the share of parts & components is overwhelmingly high, imports are divided between 60 to 70% of parts & components and 30 to 40% of capital goods.

## B. Production Networks with Korea by Major Industry

This chapter takes a look at Korea's production networks focusing on the top export industries with the three Southeast Asian countries, based on questionnaire surveys with Korean enterprises operating in these markets. To begin with, in the area of mineral products, Korean enterprises in Indonesia locally purchased around 3/4 of all raw and subsidiary materials and sold more than 70% of products in local markets, reflecting the nature of the industry. This is in line with the claim that the purpose of expanding business to overseas markets is to secure local markets and primary goods.

In the area of textiles / textile articles - Korea's top area of investment - Korean enterprises operating in Indonesia and Vietnam generally import raw materials and parts from China and Korea in the form of packages, and export most finished products to the US, the EU and Japan. Another noticeable feature is that parent companies and overseas customers seem to lead the import of raw and subsidiary materials and export of finished products for Korean companies, and that most of those companies are final goods manufacturing enterprises that perform simple toll processing using CMT (cut, make, and trim) methods. Korean enterprises in Vietnam have recently diverged from this pattern as seen in the rising share of local purchase, centered on dyes and polyester.

Base metals / articles of base metal businesses operating in the Philippines tend to purchase key raw and subsidiary materials locally or from Korea, and sell most of the products in local markets. Meanwhile, electronics companies in the Philippines import approximately half of their raw and subsidiary materials from the same companies or groups in Korea, about 30% from China, and export more than 70%

of their products to Korea, the US and the EU.

Vietnam has recently been emerging as a new production base of electronic products, not only for Korea but also for the global electronics sector. Korean electronics enterprises in Vietnam generally import raw and subsidiary materials from China and Korea, and sell 43% and 40% of their products locally and to China, respectively. As more Korean electronics companies enter the Vietnamese market, the share of local sales is growing higher.

## **2. Comparison of Trade Structures by Production Process and Production Networks of Korea/China/Japan with the Three Southeast Asian Countries**

In the case of mineral products, Korea, China, and Japan all export primarily semi-finished goods to Indonesia. The recent rapid increase of exports of semi-finished goods from China can be interpreted as a reflection of the swift growth of China's fuel and energy industries. Most Korean, Chinese, and Japanese companies in Indonesia displayed a tendency to locally purchase primary goods and likewise sell products in local markets. This implies that all Korean, Chinese, and Japanese enterprises commonly utilize Indonesia as a base for supplying resources.

In the area of textiles / textile articles, industrial cooperation between Korea/China/Japan and Indonesia takes on different forms of development by country. With regard to export structures by production process, while all these countries primarily export semi-finished goods, a conspicuous difference is the growing share of consumption goods in China's exports.

Whereas Korean enterprises in Indonesia mainly purchase raw materials from China and their home country, Chinese and Japanese enterprises are more likely to purchase raw materials locally, from Indonesia, or from their home countries. Also, while Korean and Chinese companies have made the US their largest export target, Japanese enterprises export mostly to their home country.

In the area of textiles / textile articles, as with Indonesia, exports from Korea/China/Japan to Vietnam were dominated by semi-finished goods. Noteworthy is the rise in consumption goods exported from China to Vietnam. Whereas Korean and Chinese enterprises in Vietnam purchase most raw and subsidiary materials from China and Vietnam, Japanese companies import nearly 60% of their raw and subsidiary materials from their home country. The top export target for Korean enterprises is the US, and the US and Vietnam for Chinese enterprises, while Japanese enterprises mainly export their products to their home country.

In the case of base metals / articles of base metal, all three countries export mainly semi-finished goods to the Philippines. This was especially true for Korea, which exports all base metals / articles of base metal in the form of semi-finished goods. Korean, Chinese and Japanese enterprises in the Philippines are purchasing close to 80% of raw materials and parts from their home countries and the local market. While Korean and Chinese companies sell most of their products in the local market, Japanese companies export roughly 2/3 of their products to their home country.

The shares of parts & components in exports of electronic products to the Philippines differ by country, ranging from 80-90% from Korea, 60-70% from Japan, and 40-50% from China, and display a downward trajectory in all three countries. The share of capital goods is rising

at a fast pace, however, in the case of China and Japan. The production networks of Korean, Chinese, and Japanese companies operating in the Philippines are each characterized by distinct patterns. Korean enterprises import most key parts from Korea and China and export their products primarily to Korea and the US. Chinese enterprises import most parts from China and Japan, and sell their products mostly in the local market.

The export structures of electronic products from Korea, China, and Japan to Vietnam also take on different characteristics. Korea displays an overwhelmingly high share of parts & components in electronic products exports, and this share is growing at a swift pace. Japan likewise shows a high share of parts & components but the increase rate is becoming slower. In the case of China, the situation is notably different with the share of capital goods standing at 40-50%. Korean and Chinese enterprises in Vietnam commonly sell most of their products to the Vietnamese market, while Japanese enterprises mainly export to their home country but still sell 1/3 of their products to Vietnam. This implies that Vietnam has recently been emerging as a new electronics production hub and at the same time is deeply incorporated into East Asia's supply chain.

### 3. Strategies to Reinforce Industrial Cooperation with Emerging Southeast Asian Countries

The reinforcement of industrial cooperation between Korea and major emerging Southeast Asian countries should become the foundation of sustainable economic growth and job creation in the mid- to long-term by helping inject vitality into domestic industrial sectors and

boosting trade expansion while also promoting domestic and overseas investments. To this end, the Korean government should continue to support private cooperation channels for industrial sectors by creating basic environments to reinforce bilateral industrial cooperation and continuing development cooperation with Southeast Asian developing countries. Korean enterprises should recognize the strategic value of Southeast Asia as an emerging market, seek strategic investment measures in accordance with local governments' industrial promotion strategies, and reinforce East Asian production networks.

To the end of strengthening industrial cooperation between Korea and major emerging Southeast Asian countries, we propose the following cooperation strategies. First, the Korean government should continuously reinforce the current intergovernmental consultative body while creating business-friendly environments, and concentrate on reinforcing Korea's soft power by actively utilizing development cooperation. To this end, ODA tailored to each industrial sector should be expanded and ultimately contribute to enhancing the industrial competitiveness of Indonesia, the Philippines, and Vietnam. In addition, strategies to reduce service link costs should be prepared to help Korean manufacturing businesses easily build global production networks, and we should also sign AEO-MRAs (Authorized Economic Operator-Mutual Recognition Agreement) with emerging Southeast Asian countries if necessary.

Second, there is a necessity to formulate strategies that continuously help strengthen the competitiveness of Korean enterprises in Southeast Asian countries by industrial sector. Given that Vietnam will join TPP, in the case of the textiles / textile articles companies, there should be support for companies to enter local markets beginning from the initial stages

of yarn production, so as to satisfy the US's rules of origin for textiles (e.g. yarn forward). The ongoing initiative of "Korea-Indonesia industrial cooperation" should seriously consider technology cooperation in the area of textiles / textile articles as a representative example of industry-related ODA. In the case of base metals / articles of base metal and electronics, the Korean government's active support would be an advisable measure that would help improve the inadequate systems of the local governments (e.g. standardization, reinforcement of safety standards, etc.).

Third, to compete with rivals such as China and Japan, systems that can constantly obtain necessary information and exchange the information with local governments should undergo further reinforcement. The biannual

meetings held between Korea and Vietnam's Ministries of Finance, National Tax Services, and Customs Services should also be initiated with Indonesia and the Philippines, and the involvement of provincial governments would also be a necessity.

Fourth, the Korean government should develop successful cases of cooperation and fully utilize these model examples in the area of industrial cooperation, a key area of focus with regard to Indonesia, the Philippines, and Vietnam. Large-scale public-private partnership projects should be backed by successful strategies that combine the Korean government's financing and the private sector's technology, and it is also necessary to seek measures that encourage companies to voluntarily participate in industrial cluster projects. 