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Opinions

Structural Changes in Global Value Chains (GVCs): ASEAN and India

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Technology advancement has reshaped international trade over the past years. More specifically, advancements in technology have reduced air and ocean transportation costs significantly (Hummels, 2007). It became possible to move a large volume of goods across borders, and many countries made an effort to lower their trade barriers by reducing tariffs and signing bilateral or multilateral trade agreements. From such technological progress to multinational policy efforts, inter-national trade has become a significant contributor to globalization.

An important change is that the way goods are produced has undergone a transition; countries have begun to produce goods “jointly” across their territories. Traditionally, a firm assembles the intermediate goods and produces the final goods within a country. As the low iceberg costs from international trade lower, value chains do not remain in a single territory. Based on comparative advantages, a producer uses inputs from around the world, and the production stages spread across the countries. This phenomenon is called the “second unbundling” (Baldwin, 2006). It signifies the separation between production activity and geographic location of production. Now, so–called global value chains (GVCs)

are one of the key features in international trade.

Out of the three major unbundling blocs, which are North America, Europe, and Asia, one of the striking changes took place in Asia. With a strong labor-intensive manufacturing industry, China has risen to serve as an Asian production hub. Many countries ship intermediate goods to China and China produces the final goods. Due to these international value chains, China has enjoyed rapid economic growth and received technology transfer from the world.

China still serves as a leading production hub in Asia, but it is interesting to look at recent production unbundling in ASEAN and India. Catalyzed by increasing labor costs in China, production networks have begun to extend to ASEAN and India. As ASEAN and India have young and large populations, they have definite advantages in labor-intensive processes. Recent trade statistics show that ASEAN and India are importing many intermediate goods and exporting capital goods.

How do we understand this change in the GVC context? One statistical approach is to decompose the country's exports by using the international input-output tables. The method is proposed by many literatures, such as Wang et al. (2013) and Koopman et al. (2014). Following the comprehensive matrix calculations, we can identify the export into four major components: domestic value-added (DVA), foreign value-added (FVA), returned domestic value-added (RDV), and pure double counted term (PDC). If we use the method proposed by Wang et al. (2013), we can decompose the exports into 16 components. From these components, we can directly understand how much a country exploits its domestic goods for exports, and how much a country uses foreign intermediate goods for exports.

There are several noticeable changes in ASEAN and India’s GVC structure. First, ASEAN and India's GVC integration has risen. The absolute amounts of DVX and FVA have risen significantly. The value-added in exports from the domestic source (DVX) that are used in third country trade was 50.7 billion USD, and the foreign source (FVA) was 119.5 billion USD in 2007. In 2017, DVX and FVA increased to 184.5 billion USD and 300.8 billion USD, respectively. Also, PDC increased by 2.7 times between 2007 and 2017.

Second, the vertical specialization (VS) structure shows potential evidence of GVC upgrading in ASEAN and India. Vertical specialization structure is composed of detailed foreign usage information in the exports. Foreign value-added in exports can roughly be divided into intermediate usage (FVA_INT) and final usage (FVA_FIN). Both of these values for ASEAN and India increased during 2007-2017. This implies that ASEAN and India not only assemble

the product at the final stages, they also produce intermediate export goods that are used in other countries' production.

Third, the regional value chain has become more prominent in ASEAN and India over the years. The share of the regional value chain in GVC has risen from 22.7% to 25% during 2007-2017.

Fourth, the regional trade matrix of intermediate goods and re-export reveals that regional production hubs are more diversified in ASEAN and India. In 2007, Malaysia served as a hub for intermediate goods and re-exports. In 2017, regional and major exporters (China, Japan, and Korea) had increased their intermediate good exports to Vietnam, Thailand, and India.

To sum up, more diversified countries in ASEAN and India are integrating into a global production network, which has begun to produce more complex products. Then what are the implications for Korea? To maintain its current sourcing position to ASEAN and India, GVC upgrading is highly essential. There are two ways to upgrade along the value chain, which are either moving up or down from the fabrication stage. In general, activities such as product design or R&D, technology (located before the fabrication stage), and marketing, financial services (located behind the fabrication stage) deliver the high value-added. Therefore, policy-makers need to bolster the front stage production activities as well as foster comparative advantages in the service sector. Currently, about one-third of value-added manufacturing exports are sourced from service sectors, and the manufacturing sector will more heavily rely on services from now on. It will be vital to prepare for deeper "servicification" in the manufacturing sector through supportive policies for the service sector in the near future.

Although lowering multilateral tariffs and building better trade facilitation are essential for GVCs, regional support is also important. The business environment is vastly different by each region in ASEAN and India. Even within a country, national and regional policies are often different. Thus, when we approach the GVC policy in ASEAN and India, the approach should be more specific to the regions. KIEP

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