

Impacts of Changes in Korea's Global Value Chain (GVC) Participation Structure on Its Exports

Lee, Goodgeon*, Park, Jeongha**, Park, Jin***, Lee, Yun Jeong****

Since the global financial crisis, global trade has been in the doldrums due to a slowdown in global economic growth and to a loosened global value chain. Affected by the sluggish global trade, Korea's exports have been growing very slowly since the global financial crisis. This could also be attributable to changes in Korea's participation structure in global value chains (GVCs), along with global demand factors.

In light of this, this paper looks into GVC changes associated with Korea, using the World Input Output Database recently published by the ADB, and analyzes their impacts on Korean exports. In the wake of the global financial crisis, Korea is assessed to have undergone the following structural changes in terms of its GVC participation.

First, as the proportion of intermediate goods exports including materials and parts increased, Korea's position in GVCs moved upstream.

Second, Korea's GVC participation rate, index of the degree of use of global value chains, due to the spread of global trade protectionism and to the relocation of domestic finished-good production facilities, has declined recently, led by the backward GVC participation rate.

Third, Korea's dependence on China for exports has grown heavily, as seen in the increasing proportion of Korea's intermediate goods exports being processed overseas and consumed or invested in China, and in the growing share of China for Korea's value-added in exports of final goods. Lastly, the role of

Korean companies in providing intermediate goods to Asian regional GVCs has expanded.

To estimate the effects on exports of changes in Korea's GVC participation structure, we break down Korea's annual export growth rate (based on nominal value-added exports) into three factors, including global final demand, changes in GVCs and value-added rates, and calculate each factor's contribution. The analysis shows that since the global financial crisis, the slowdown in Korea's export growth (annual average of 10.4% from 2001 to 2011 → 1.9% from 2012 to 2019) was attributable mostly to the decline in the contribution of global final demand (10.8%p → 1.4%p) in line with an economic downturn in China and other major economies around the world. Changes in GVCs (1.2%p → -0.3%p) also had negative impacts on Korea's exports, as their contribution turned negative after the global financial crisis.

It seems that various factors, such as the spread of trade protectionism, the relocation of exporting company production facilities, the conflict with China over THAAD, and geopolitical risks due to U.S.-China trade conflicts, have weakened GVCs between Korea and other major economies. Structural changes in GVCs are expected to accelerate going forward due to the effects of COVID-19, persistent trade protectionism and technological advancement in line with the Fourth Industrial Revolution. It is a prevalent view that these changes in conditions will lead to a rise in reshoring, more stringent regulations of major export items, and both the localization and globalization of global supply chains, weakening GVCs in the end. In order to effectively handle these structural changes in GVCs, Korea needs to develop new engines of economic growth, enhance the competitiveness of its major export items, and diversify its supply chains for intermediate goods, such as materials and parts, while

minimizing any adverse effects of trade barriers by actively participating in trade agreements within and outside the region.

* Economist, International Trade Research Team, Research Department, Bank of Korea (Tel: +82-2-759-4327, e-mail: goodgeon.lee@bok.or.kr)

** Junior Economist, International Trade Research Team, Research Department, Bank of Korea (Tel: +82-2-759-4192, e-mail: jhapark@bok.or.kr)

*** Junior Economist, International Trade Research Team, Research Department, Bank of Korea (Tel: +82-2-759-4210, e-mail: pj0109@bok.or.kr)

**** Junior Economist, International Trade Research Team, Research Department, Bank of Korea (Tel: +82-2-759-4268, e-mail: yunjeong541@bok.or.kr)

■ We thank Kim, Young ju, team head of International Trade Research Team, Kim, Kyung Keun, Senior Economist on the International Economics Team, and Choi, Moon Jung, Economist on the International Economics Team, for their useful comments regarding the writing of this paper.

■ The contents of this paper represent the personal opinions of the authors and do not necessarily reflect the official views of the Bank of Korea. Any report/citation of this paper should specify the names of the authors.

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