

Executive Summary

Korea's development cooperation has been continuously increasing since joining the OECD DAC in 2010, and so is KOICA's grant aid too. While the development cooperation aid aims to bring economic benefits to developing countries, it also has a significant impact on donor countries' own economies, due to the interdependence of the global economy. Therefore, it would be meaningful to analyze the impact on the donor countries' economies. The main purpose of this study is to further advance the existing ripple effect calculation methodology by developing an ODA-centered industrial input-output table. In addition this study is significantly different from the previous studies that applied each budget category to final demands, by applying the actual expenditure to final demands based on the financial records.

Extensive research was conducted to link the actual ODA expenditure categories with the sub-categories of the input-output table, and to maintain consistency of the linkage one researcher was dedicated to perform. After the process of linking expenditure category and the input-output table, the validity check were made by the experts from the Input Output team at the Bank of Korea. Through this process, the study secured consistency and validity related to the linkage between expenditure categories and the input-output table.

The industrial classification of the 5 sectors of grant aid corresponds to 9 out of 21 industries when linked with the 21 major classifications of the standard industrial classification. All 5 sectors of grant aid are related to the manufacturing industry, and this can be possible since domestic products are purchased and delivered as supports to recipient countries— this can be called the core industry of grant aid. Transportation, and warehouse business, accommodation and restaurant business, and real estate business can be regarded as supporting industries included in grant aid operation. The ODA-centered input-output table is based on the input-output

table of the Bank of Korea, including processes of adjustment of the classification of industries related to grant aid, adjustment of proportion, and data establishment. The linkage table of detailed classification criteria was drawn up centering on 5 fields—health care, education, public administration, technology/energy/environment, and agriculture forestry and fisheries, hence the effects were analyzed.

This study established 2015 and 2019 ODA centered input–output table and analyzed. And the induced coefficients of the ODA sector of the various induced coefficient matrices presented in the input–output analysis were derived and comparisons were made. This would allow to compare the major differences between 2015 and 2019, and examine the impact of the ODA ripple effect and how it has changed over time.

The major changes between 2015 and 2019 was that the induction coefficient of the manufacturing industry increased and that of the service industry decreased. This can be interpreted as an increase in grant aid in the form of domestic manufacturing and delivery to developing countries. The bigger the manufacturing inducement coefficient could also mean that the economic ripple effect of ODA is growing. The most distinctive part is that the induced effect of machinery and equipment increased 5.6 times. This can be explained as the ODA increase in products corresponding to special purpose machines that are produced domestically then delivered to delivered to beneficiary countries, and at the same time, it could also mean the gradual advancement in the needed supports. On the other hand, in the service industry, the professional science and technology service industry is fixed at the first rank.

The value-added inducement coefficient also shows a similar pattern to the production inducement coefficient. Comparing 2019 and 2015, the coefficient for the manufacturing industry increased, and the that for the service industry decreased, in overall, though the professional science and technology service industry in the service industry is fixed at the first rank. And looking at employment, there was a slight decrease compared to 2015, but in 2019, the number of employed was 1,450, and the number of employees was 1,300.

However, comparing the two years cannot reveal any trend in grand aid, but rather shows one side of the many effects to the domestic economy during the course of multi-year country programs.

This study is differentiated from other studies in that it established an ODA centered input-output table and secured the validity of the methodology. Yet the study has its limitations and may require further studies. A more detailed and sophisticated analysis of grant related industries would be required. And, while this study considered it as domestic unless there are clear evidence of consumption location being international, further studies may suggest clearer ways for determining the final consumption location. Also, the study covers years of 2015 and 2019, but time series analysis from 2015 to 2019 would perhaps provide different views on how the ODA is influencing domestic economy.