Economic and Environmental Consequences of the COVID-19 Pandemic through Foreign Tourists Demand in Japan.

Topic: Regional IO analysis (Chair: Shigemi Kagawa, Kyushu University)
Author: Yusuke Oga
Co-Authors: Shigemi KAGAWA, Tomoaki Yoshizawa

Foreign tourists demand was one trillion (JPY) in 2012 in Japan and thus it has considerably contributed to the Japanese economy. The government estimated that the foreign tourists demand will increase by a factor of 15 from 2012 to 2030. However, the COVID-19 pandemic has contributed to rapidly shrinking the inbound demand since December 2019. On the other hand, it is true that the slowdown of economic activity due to the COVID-19 pandemic reduced CO2 emissions in 2020 and it contributed to climate change mitigation. To the best of our knowledge, the economic loss and the environmental benefits in a country are still poorly understood. In doing it, we propose an environmentally-extended, semi-closed input-output model that incorporates endogenous final consumptions of a nation as well as exogenous final consumptions of the foreign tourists. Based on the analysis framework, we found that the COVID-19 pandemic led to the economic loss of 1260 billion yen and the emission reduction of 16,517 kt-CO2 in 2020 in Japan. Tourism and restaurant business activities had the biggest direct economic loss, whereas they indirectly contributed to considerably reducing CO2 through reducing electricity demand. This study suggests a counter-measure against COVID-19 pandemic. The government should not only give financial support to higher priority industries (i.e., heavily-damaged industries) identified in this study but require them submit a report on how their production activity environmentally improves through the financial support.