Proceedings 64th ISI World Statistics Congress - Ottawa, Canada

ISBN: 9789073592421





CPS Paper

Analysis of Korean regional economic resilience after COVID 19 pandemic

Author: KISEOK SONG

Coauthors: KISEOK SONG

Submission ID: 513

Reference Number: 513

Presentation File

abstracts/ottawa-2023_8be56b12261336ae80ac97ea8a009243.pdf

Brief Description

This study measured the resilience of the Korean regional economy after the COVID-19 pandemic and analyzed the determinants.

The resilience index, which measures whether the local economy resisted and recovered after an external shock, was measured using employment data in terms of engineering resilience, which has an advantage in quantitative research.

A regression analysis was conducted by applying a spatial analysis model, taking into account that the resilience of the local economy may have a correlation between adjacent regions.

Abstract

This study measured the resilience of the Korean regional economy after the COVID-19 pandemic and analyzed the determinants. The resilience index, which measures whether the local economy resisted and recovered after an external shock, was measured using employment data in terms of engineering resilience, which has an advantage in quantitative research. Spatially, 151 cities and counties in Korea were analyzed, and temporally, employment data from 2019 to 2021 was used.

Whether regional resilience is correlated with adjacent regions was analyzed using Moran's I, and as a result, spatial autocorrelation was confirmed. Therefore, as a result of comparing spatial metric models, it was determined that the spatial error model (SEM) was more suitable than the spatial lag model (SLM).

As a result of spatial regression analysis, the factors that affect regional economic resilience, GRDP, per capita GRDP, financial independence, and whether it is city or county status are found to be statistically significant. Among them, it was confirmed that per capita GRDP and financial independence had a positive effect, while GRDP and city status had a negative effect. Based on these research results, the following policy implications can be considered.

First, in the past, policies to increase the size of the economy in a specific region preferentially for national growth may not be very effective in the current environment where external shocks are frequent. Second, to prepare for an economic shock, local income must be supported, and for this, the local government must improve its financial soundness. Lastly, the local economy itself should be able to transform itself into an industrial structure that is less sensitive to economic shocks, absorbs shocks, and recovers quickly.