Panel Co-integration Analysis of the Short-Run and Long-Run Relationships for a Multi-Country Mortality Index

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Abstract

This paper attempts to find the short-run and long-run relationships for the mortality rates across countries. Due to the short time spans of the mortality data sets, traditional co-integration analysis may weaken the power of the unit root test, the co-integration test and causality test, and distort the results. To overcome the problem, we adopt the panel co-integration analysis to examine the co-movement and the causality relationship for the morality rates in different countries. The panel co-integration analysis is carried out using the five countries of France, England, USA, Italy and Switzerland. Based on the mortality experience from the period from 1970 to 2007, our results show a bi-direction of short-run causality and long-run equilibrium in these five countries.