

Productivity Growth, Technological Diffusion and Globalization – Cointegration and Causality

Surajit Sengupta
University of Burdwan, India

Ratan Kumar Ghosal
University of Calcutta, India

Paper Abstract: This paper examines the growth dynamics of the countries Israel and Japan in terms of the growth of per capita real income and the TFP growth for the period from 1980 to 2014 and the role of the technological improvement, globalization, the distance of the countries from the Global Productivity Frontier(GPF) as well as the Global Technology Frontier(GTF) and the financial development of the country concerned to this end. The long run relationship between the above factors coupled with their short run dynamics are estimated by applying time series econometrics to the data base which is basically secondary. It is found that in case of growth of per capita income the factors like financial development, distance of the countries from GTF, and globalization have a strong long-run causality with the growth. Analogously, the same factors along with the factor like the distance of the country from GPF are found to have long run equilibrium relation with the TFP growth of the countries such that in both the cases of growth the short run dynamics of the cooperant factors reveals the correction of deviations of the same from the long-run equilibrium path for both of the two countries. We conclude that the long run performance of the economies during the period from 1980 to 2014 supports the theoretical and empirical (cross-country analysis) findings of the modern endogenous growth theories developed in Schumpeterian growth framework and also the old hypothesis of Gerschenkron.