Joon Y. Park

Title of Presentation: Persistency in Time Series of Cross-sectional Distributions

Title of Paper: Persistency in Time Series of Cross-sectional Distributions

Authors:
Yoosoon Chang: Department of Economics, Indiana University
Chang Sik Kim: Department of Economics, Sungkyunkwan University
Joon Y. Park: Department of Economics, Indiana University and Sungkyunkwan University

Abstract:
This paper proposes a new framework to analyze the nonstationarity in the time series of cross sectional distributions. We regard each cross sectional density as a realization of Hilbertian random variable, and use a functional time series model to fit a given time series of cross sectional densities. This allows us to explore various sources of the nonstationarity of such time series. We use the methodology developed in the paper to investigate the cross sectional distributions of individual earnings. We find some clear evidence for the presence of strong persistency in their time series.