HIP or RIP?
Testing the Heterogeneous and Restricted Models of Labor Income Profiles

Dmytro Hryshko*
University of Alberta

Abstract

Idiosyncratic labor income is typically modelled either by a stochastic process featuring the heterogeneous income profile (HIP) or the restricted income profile (RIP). The HIP model assumes that labor income grows deterministically at an unobserved rate and contains a persistent but stationary component, while the RIP model assumes that income contains a random walk, a stationary component, and no unobserved deterministic growth component. I perform a Monte Carlo study simulating income as the sum of a random walk and a persistent component and find that an econometrician who estimates the (misspecified) HIP model will typically find non-zero estimates of the variance of deterministic income growth. I show that if income contains a persistent component, a deterministic household-specific growth term, and a random walk component then all of the components can be identified. Using data on idiosyncratic labor income growth from the Panel Study of Income Dynamics, I reject the HIP model while the RIP model with a permanent component cannot be rejected.

*University of Alberta, Department of Economics, 8-14 HM Tory Building. Edmonton, Alberta, Canada, T6G 2H4. E-mail: dhryshko@ualberta.ca. Phone: 780-4922544. Fax: 780-4923300.