Income Distribution, Household Heterogeneity and Consumption Insurance in the UK: A Mixture Model Approach

Gabriele Amorosi (University of Hull Business School)

Abstract: This paper uses data from the FES to examine the changing joint distribution of income and consumption from 1968 to 1999. The analysis is given structure by the assumption that households are of three possible types. Within each type there is no permanent heterogeneity but some may have higher current income due to idiosyncratic shocks. This simple idea allows us to estimate the mean income of each group and its variance. This variance will be the variance of the temporary shock. With the further assumption that macro shocks are the same for each group of households, we can then predict the distribution of consumption and the relationship between income and consumption according to the life- cycle model (where current consumption is only a function of permanent income). These predictions are then compared against the data and against the predictions of a "no smoothing" extreme where households simply consume out of current income. Our results are as follows. Firstly, the income estimates illustrate quite starkly the idea of polarisation, the middle income groups are shown to be declining in mass and in relative income. Secondly, neither extreme model fits the data exactly, but the fit of the life-cycle model with 3 types of heterogeneity seems to improve over time; this gives further support to the idea that part of the increase in inequality is due to risk – not to permanent differences – and that capital markets appear to be improving households' insurance mechanism against it.