

Dynamics of wealth distribution in exogenous and endogenous growth models

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In the economic literature there were many attempts to explain the statistical regularities of the shape of overall income/wealth distribution first showed by Pareto (1987) (see Mandelbrot (1960), Shorrocks (1977)) and Champernowne and Cowell (1998) and for a short review Davies and Shorrocks (1999)). As sustained in Davies and Shorrocks (1999) "research has shifted away from a concern with the overall distributional characteristics, focusing instead on the causes of individual differences in wealth holdings". One of the main reasons is the the lack of an economic interpretation of the proposed random process generating the income/wealth distribution. The latter makes this type of models useless both, e.g., to understand the causes of an increase of inequality and to provide some guide to public policy.

Following Stiglitz (1969) in this paper we try to bridge the gap proposing a stochastic income model based on a neoclassical growth model with eterogeneous agents and taxation. We compare the dynamics of income/wealth distribution of two types of growth models. The first is a standard Solovian model, where the saving rate and the source of growth are both exogenous; the second is an AK model, where the saving rate is again exogenous, but capital accumulation is the source of growth. We characterize the long-run income/wealth distribution for both types of models under alternative assumptions on the shape of production function, saving function and fiscal policy. Then we use this result to test which is the best model fitting the observed income distributions of US and Italy. We find that the proposed model can replay the real distributions.

We stress that the paper would represent a first step for a general equilibrium theory of wealth/income distribution; we are aware that our framework neglects many potential crucial variables for the explanation of income/wealth distribution, as agents' age and inheritance, which many empirical contributes show to have a relevant impact.