Unemployment expectations: an Agent-based Model with education

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Extended abstract

Understanding the relationship between expectations, rational or irrational as they might be, and individuals behavior is extremely important to understand the way in which individuals take their own decisions: savings, for example, are strongly influenced by expectations and have a strong influence on the real economy.

Given that zero-income probability is one of the most important drivers in saving decision (Carroll 1992), we decided to study the evolution of expectations concerning unemployment, as a function of the educational level of the individual; this may help understanding if education is an important driver of the expectation formation process, and therefore of decision making. In particular we treat expectations diffusion like a "virus", adopting an epidemiological model inspired by another work of Carroll (2003).

We study an index measuring the Italian households unemployment expectations developed by ISTAT (Indagine sulla fiducia dei consumatori) and, under the assumption that individuals may develop an erroneous expectation due to incomplete or imperfect information, we will develop an agent-based model which tries to describe the evolution of expectations. Our agents are boundedly rational in the sense that decisions are rational but based on possibly wrong grounds. We find that educational level is an important driver, with the more educated agents having the expectations closer to what the
Rational Expectations Model would predict. The model fit the data quite well if a fraction of agents are stubbornly pessimists and suggests that education plays an important role in shaping "correct" expectations and saving decisions.

Keywords
Expectations; Unemployment; Agent-Based Modeling

References


