Separating Risk Aversion from Psychological Traits in Schooling Decisions

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Abstract:

Using recent waves of the German Socio-Economic Panel (GSOEP), in which both schooling decisions and answers to numerous psychometricquestions are available, we design an econometric model of the individual choice of entering higher education. In this model, we separate the effect of individual specific risk aversion from other individual specific psychological traits (intelligence, motivation, conscientiousness, trust and reciprocity) and family background. To obtain an articulate representation of the decision process, we assume that those individual traits are mapped onto subjective beliefs about the payoff induced by the decision to access higher education, and that those beliefs may be represented by a distribution characterized by a mean and a variance. Because we measure true risk aversion within a context where risk is objectively stated, it is possible to estimate the distribution (parametric) of beliefs about higher-education payoff that can reconcile both measured risk aversion and observed schooling decisions. Psychological traits are extracted from psychometric questions using a factor structure and the model is estimated using simulated maximum likelihood techniques. Preliminary results show that both ex-ante risk and the level of risk aversion have a limited negative impact on the entry into higher education, whereas the probability of entering higher education is affected positively by intelligence and motivation. (joint work with Mathias André, Christian Belzil, Konstantinos Tatsiramos)