SIMPLE FORECASTING HEURISTICS THAT MAKE US SMART: EVIDENCE FROM DIFFERENT MARKET EXPERIMENTS

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Abstract

In this paper we address the question of how individuals form expectations and invent, reinforce, and update their forecasting rules in a complex world. We do so by fitting a novel, parsimonious and empirically validated genetic algorithm learning model with explicit heterogeneity in expectations to a set of laboratory experiments. Agents use simple linear first order price forecasting rules, adapting them to the complex evolving market environment with a Genetic Algorithm optimization procedure. The novelties are: (1) a parsimonious experimental foundation of individual forecasting behavior; (2) explanation of individual and aggregate behavior in three different experimental settings, (3) improved one- and 50-period ahead forecasting of experiments, and (4) characterization of the mean, median and empirical distribution of forecasting heuristics. The median of the distribution of GA forecasting heuristics can be used in designing or validating simple Heuristic Switching Models. (JEL: C53, C63, C91, D03, D83, D84)