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ESTIMATION OF STRUCTURAL MODELS USING EXPERIMENTAL DATA FROM THE LAB AND THE FIELD

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Estimation of Structural Models Using Experimental Data From the Lab and the Field

Elements in Behavioural and Experimental Economics

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Abstract: Behavioral economics provides a rich set of explicit models of nonclassical preferences and belief formation that can be used to estimate structural models of decision-making. At the same time, experimental approaches allow the researcher to exogenously vary components of the decision-making environment. The synergies between behavioral and experimental economics provide a natural setting for the estimation of structural models. This Element will cover examples supporting the following arguments: (1) experimental data allow the researcher to estimate structural models under weaker assumptions and can simplify their estimation, (2) many popular models in behavioral economics can be estimated without any programming skills using existing software, (3) experimental methods are useful to validate structural models. This Element aims to facilitate adoption of structural modeling by providing Stata codes to replicate some of the empirical illustrations that are presented. Examples covered include estimation of outcome-based preferences, belief-dependent preferences, and risk preferences.

Keywords: experimental data, structural models, behavioral economics, data analysis, microeconometrics

JEL classifications: C93, D63, D84

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