Partial Identification: Theory and Applications

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This advanced topic challenges current practice in applied econometrics while preserving most of the common reasoning. The importance of the standard notion of point identification as it is exposed in standard econometric textbooks has indeed been questioned for the last twenty years by Manski and co-authors (2003, see reference list below) and many other scholars. The general reasoning that leads to partial identification is the notion of incompleteness of data or models. First, the data may be incomplete because of censorship mechanisms, the use of two different databases or the existence of two exclusive states of treatment for instance. Structural models can be incomplete if they do not specify unambiguous solutions. Data analysis can still be conducted by examining all acceptable assumptions that lead to complete the data and model and by constructing the identified set of all values of identified parameters to which each of these assumptions lead.

The acceptability of an hypothesis depend on the applications and these assumptions refer to sets (e.g. a probability of equilibrium selection belongs to the interval [0,1], or censored values are bounded) or are functional (monotonicity, concavity etc.). The identifying power of different assumptions may be compared in terms of the size of the set which is identified. This requires developing new techniques for identification, estimation, and inference.

We will present landmark articles and discuss their backbones so as to understand the deep logic and attractiveness of the methods.

Part I: Presentation

1. Incompleteness of models or data
2. Interval censoring: a simple example
3. Entry games

Part II: Estimation and inference

1. Uniformity and point or set coverage
2. Convexity arguments
3. General estimation methods

Part III: Applications

1. Selection models
2. Structural models
3. Treatment effects

Recommended Surveys:

Other references

Identification: Seminal papers


Identification: Recent papers


Estimation using convex arguments


**Estimation: general methods**


**Applications**


