

Accepted Manuscript

Identification and estimation of incomplete information games with multiple equilibria

Ruli Xiao

PII: S0304-4076(17)30245-2

DOI: <https://doi.org/10.1016/j.jeconom.2017.12.005>

Reference: ECONOM 4460

To appear in: *Journal of Econometrics*

Received date: 23 March 2015

Revised date: 5 December 2017

Accepted date: 5 December 2017

Please cite this article as: Xiao R., Identification and estimation of incomplete information games with multiple equilibria. *Journal of Econometrics* (2018), <https://doi.org/10.1016/j.jeconom.2017.12.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Identification and Estimation of Incomplete Information Games with Multiple Equilibria*

Ruli Xiao[†]

Indiana University

December 20, 2017

Abstract

In games, the multiplicity of equilibria poses a challenge for identification and estimation. The existing literature typically abstracts from this multiplicity by assuming that the data are generated from a single equilibrium. Instead of imposing such restrictions, this paper provides sufficient conditions to non-parametrically identify payoff primitives in finite action games with incomplete information, while allowing for multiple equilibria. I then propose a two-step estimator and illustrate its finite-sample performances via Monte Carlo simulations. Furthermore, I study the strategic interaction among radio stations when choosing different time slots to air commercials. I indeed find evidence to support the existence of multiple equilibria.

JEL Classification: C14 ,C57

Keywords: Multiple equilibria, discrete games, measurement error models, non-parametric identification, semi-parametric estimation

*I am deeply indebted to Yingyao Hu for his generous support and guidance. I also benefited greatly from the comments of Yuya Sasaki and Richard Spady. I thank the co-editor, two anonymous referees, Andrew Sweeting, Victor Aguirregabiria, Matt Shum, Juan Carlos Escanciano, and seminar participants at JHU and IU for their helpful comments. The usual disclaimer applies.

[†]Department of Economics, Indiana University, 100 S Woodlawn, Bloomington, IN 47405. Email: rulixiao@indiana.edu

Download English Version:

<https://daneshyari.com/en/article/7358025>

Download Persian Version:

<https://daneshyari.com/article/7358025>

[Daneshyari.com](https://daneshyari.com)