

On Continuity of the Equilibrium and Core Correspondences in Economies with Differential Information

by

Ezra Einy¹, Ori Haimanko², Diego Moreno³, and Benyamin Shitovitz⁴

Abstract

We study upper semi-continuity of correspondences of several solution concepts for economies with differential information, with Boylan (1971) topology on agents' information fields.

Radner (1958, 1982) introduced the notion of competitive equilibrium for economies with differential information by requiring agents' trades to be measurable with respect to their respective information fields. We show that in economies for which the (contingent) commodity space is in a class of certain classical Banach spaces, the Radner equilibrium correspondence is upper semi-continuous. For a related ex ante core concept, the private core (Yannelis 1991, Allen 1993), it is shown that the core correspondence may not be upper semi-continuous.

An interim core concept, the coarse core (Wilson 1978), also does not lead to an upper semi-continuous core correspondence.

¹Department of Economics, Ben-Gurion University of the Negev, Beer Sheva 84105, Israel. E-mail: einy@bgumail.bgu.ac.il

²Department of Economics, Ben-Gurion University of the Negev, Beer Sheva 84105, Israel. E-mail: orih@bgumail.bgu.ac.il

³Department of Economics, Universidad Carlos III de Madrid, 28903 Getafe, Spain. E-mail: dmoreno@eco.uc3m.es.

⁴Department of Economics, University of Haifa, Haifa 31905, Israel. E-mail: binya@econ.haifa.ac.il/