

Yannelis, Nicholas C.

On a market equilibrium theorem with an infinite number of commodities. (English)

Zbl 0581.90010

J. Math. Anal. Appl. 108, 595-599 (1985).

The paper contains a proof of a generalization of the Gale-Nikaido-Debreu market equilibrium theorem, which asserts that any market excess demand function, satisfying some standard assumptions, has a zero, which corresponds to an equilibrium. The theorem, originally proved for finite Euclidean spaces, is proved for Hausdorff locally convex linear topological spaces, and thus for equilibrium models with an infinite number of commodities. In the proof a selection theorem for correspondences is used. The result is compared to other work, particularly to *C. D. Aliprantis* and *D. J. Brown* [J. Math. Econ. 11, 189-207 (1983; Zbl 0502.90006)].

Reviewer: [C.Weddepohl](#)

MSC:

[91B50](#) General equilibrium theory
[54C65](#) Selections in general topology

Cited in **2** Reviews
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Keywords:

generalization; Gale-Nikaido-Debreu market equilibrium theorem; Hausdorff locally convex linear topological spaces; infinite number of commodities; selection theorem for correspondences

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