



ELSEVIER

Journal of Mathematical Economics 33 (2000) 449–461

JOURNAL OF
Mathematical
ECONOMICS

www.elsevier.com/locate/jmateco

Characterization of an extended Walrasian concept for open economies

Bernd Korthues *

Institute of Mathematical Economics (IMW), University of Bielefeld, Postfach 10 01 31, D-33501 Bielefeld, Germany

Received 12 May 1997; received in revised form 26 May 1999; accepted 17 June 1999

Abstract

The consistency axiom, which is quite prominent in the framework of concepts of cooperative games, can be used to characterize concepts for economies as well. Dagan [Dagan, N., 1996b. Consistency and the Walrasian allocations correspondence. A revised version of Economics Working Paper No. 151, Universitat Pompeu Fabra, Barcelona, Spain.] and van den Nouweland et al. [van den Nouweland, A., Peleg, B., Tijs, S., 1996. Axiomatic characterization of the Walras correspondence for generalized economies. *Journal of Mathematical Economics* 25, 355–372.] used the setting of open economies to give axiomatic characterizations of an extension of the Walras correspondence. Here, we will characterize the proportional Walrasian concept, an extension which was proposed by Thomson [Thomson, W., 1992. Consistency in exchange economies. Mimeo, Department of Economics, University of Rochester, Rochester, NY.] and which is non-empty on a much bigger class of open economies. Apart from consistency properties and other frequently used axioms, we also employ an axiom on distribution. © 2000 Elsevier Science S.A. All rights reserved.

JEL classification: D51

Keywords: Exchange economy; Walras allocation; Axiomatic characterization; Consistency

* Tel.: +49-2831-972758; E-mail: bernd.korthues@dresdner-bank.com

1. Introduction

It has recently been shown, that the idea of consistency can be transferred appropriately from a game-theoretical setting to economies. A concept Φ , i.e., a set-valued function from economies to allocations, is called consistent, if — roughly speaking — any projection of a Φ -outcome for an economy is also a Φ -outcome for the corresponding reduced economy. Of course, the notion of consistency strongly depends on how economies are reduced.

Dagan (1996b) and van den Nouweland et al. (1996) use open economies as a framework and obtain reduced economies by simply reducing the set of agents and modifying the net trade vector with the outside world. The corresponding notion of consistency could be called consistency without recontracting possibilities.

A different approach was made by Serrano and Volij (1996), who chose the setting of economies with production possibility sets to develop — inspired by Dagan (1996a) — their notion of consistency with recontracting possibilities, which appears to be very close to game-theoretical approaches to consistency. By the choice of their setting, the authors are able to take production into consideration. However, their approach does not lead to an axiomatic characterization of the behaviour of firms, since production is introduced without mentioning firms, shares or shareholders.

Dagan (1996b) and van den Nouweland et al. (1996), respectively, were able to characterize an extension of the Walras correspondence to open economies. Both characterizations include the axioms of consistency and converse consistency. However, the chosen extension of the Walras correspondence to open economies appears to be too small, since it is empty-valued on a large class of open economies. Here, we will consider the (larger) proportional Walrasian concept (Thomson, 1992). A characterization of a similar concept, the equal sharing Walrasian concept, can be found in the work of Korthues (1996b).

For the axiomatic characterization, we will consider the notion of consistent extensions, which was introduced by Thomson in a general setting (Thomson, 1996) and for economies without private endowments (Thomson, 1994). Our concept shows to be a minimal non-empty consistent extensions (MNCEs) of the empty concept. In addition to consistency, we will use a variant of converse consistency called symmetrized converse consistency. Moreover, it is not surprising that we also need an axiom on distribution. This is because the considered concepts not only have to reallocate private initial endowments but also have to distribute the net trade vector among the agents of the economy and therefore implicitly have to solve distribution problems.

2. Open economies and concepts

A (generalized or open) economy E is a tuple $((\omega_i)_{i \in N}, (\succeq_i)_{i \in N}, T)$. Here, $N = \{1, \dots, n\}$ is the set of agents of the economy, who are represented by their

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات