

A couple of comments are in order. Note that at a first glance, assumption (3.2) seems quite strong. In particular, traditionally the consumption sets are bounded from below *only*. However, in economies with a continuum of agents and commodities it has been shown by Zame (1987) that without the upper bound on the consumption sets, an equilibrium may not exist. Hence, if positive results need to be obtained the bound on the consumption sets must be imposed. Of course, once the bound on the consumption sets is imposed we are automatically in a world of either weakly compact or weak* compact consumption sets. For instance if the commodity space in any ordered (reflexive) Banach space and the consumption sets are norm bounded and (weakly) weak* closed, we can directly conclude by virtue of Alaoglu's Theorem [see Dunford-Schwartz (1966)] that the consumption sets are (weakly) weak* compact.

The weak compactness of consumption sets is needed to ensure that the set of all feasible allocations, i.e., $F = \{x \in S_X^1 : \int_T x(t)d\mu(t) \leq \int_T e(t)d\mu(t)\}$ is weakly compact. In particular, under assumption (3.2) it follows from Diestel's Theorem that S_X^1 is weakly compact and from this we can conclude that F is weakly compact as well. Notice that in economies with finitely (or even countably) many agents and infinitely many commodities the set of feasible allocations belongs to an order interval. Since order intervals are typically compact in the "compatible" topology that the commodity space is endowed with, the set of feasible allocations is always compact in the "compatible" topology. For instance if E is an ordered (reflexive) Banach space endowed with the (weak) weak* topology, one can easily see that order intervals are norm bounded and (weakly) weak* closed, hence, by Alaoglu's Theorem (weakly) weak* compact.

Since with a continuum of agents F does not belong to an order interval such an argument cannot be followed. However, one can replace assumption (3.2) by the fact that the set of all feasible allocations, i.e., F , is weakly compact. The proof of the Main Theorem remains unchanged in this case.

It is worth noting that even with a finite dimensional commodity space and a continuum of agents the set of all feasible allocations F is not compact in any topology. Nevertheless the use of the Fatou Lemma in several dimensions enables one to dispense with the bound on the con-