

and the core may be empty. It should also be mentioned that there is no convexification effect on aggregation, i.e., the aggregate demand set is not necessarily convex [recall that the Lyapunov theorem fails in infinite dimensional spaces, it is only approximately true and so is the Fatou Lemma, see, for instance, Yannelis (1988, 1990) and Rustichini (1989)]. However, recently Rustichini and Yannelis (1988) have shown that one can still have the convexifying effect on aggregation provided that the economy have 'many more' agents than commodities, i.e., the dimension of the measure space of agents is bigger than the dimension of the commodity space. The concept of dimension has of course to be given a rigorous formulation.

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