

Multiple criteria equilibria in mixed duopolies.

Mármol A.M., Monroy L., Caraballo M.A., Zapata A.

University of Seville.

Abstract

This paper deals with the equilibria of games when the agents have multiple objectives and therefore, their utilities cannot be represented by a single value, but by a vector containing the various dimensions of the utility. Our approach is based on the incorporation into the model of information about the preferences of the agents, together with additional decision rules. This allows us to identify the equilibria according to this preferential information.

The potential application of the theoretical results is shown with an analysis of a mixed oligopoly in which the agents value additional objectives other than their own benefit. These objectives are related to social welfare and to the profit of the industry. The flexibility of our approach provides a general theoretical framework to analyze a wide range of strategic economic models.

Keywords: non-cooperative games, vector-utility, equilibria, preference information, mixed duopoly.