Privatization and Social Welfare in an International Mixed Stackelberg Duopoly

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Abstract
Competition between public and private firms exists in a range of industries like telecommunications, electricity, natural gas, airlines industries, as well as services including hospitals, banking and education. Some authors studied mixed oligopolies under Cournot competition (firms move simultaneously) and some others considered Stackelberg models (firms move sequentially). Tomaru [1] analyzed, in a Cournot model, how decision-making upon cost-reducing R&D investment by a domestic public firm is affected by privatization when competing in the domestic market with a foreign firm. He shows that privatization of the domestic public firm lowers productive efficiency and deteriorates domestic social welfare. In this paper, we examine the same question but in a Stackelberg formulation instead of Cournot. The model is a three-stage game. In the first stage, the domestic firm chooses the amount of cost-reducing R&D investment. Then, the firms compete à la Stackelberg. Two cases are considered: (i) The domestic firm is the leader; (ii) The foreign firm is the leader. We show that the results obtained in [1] for Cournot competition are robust in the sense that they are also true when firms move sequentially.

Keywords
Operations research; Game Theory; Stackelberg model; privatization

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Biography
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