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Quality and Competition between Public and Private Firms

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Abstract

We study a multistage, quality-then-price game between a public firm and a private firm. The market consists of a set of consumers who have different quality valuations. The public firm aims to maximize social surplus, whereas the private firm maximizes profit. In the first stage, both firms simultaneously choose qualities. In the second stage, both firms simultaneously choose prices. Consumers' quality valuations are drawn from a general distribution. Each firm's unit production cost is an increasing and convex function of quality. There are multiple equilibria. In some, the public firm chooses a low quality, and the private firm chooses a high quality. In others, the opposite is true. We characterize subgame-perfect equilibria. Equilibrium qualities are often inefficient, but under some conditions on consumer valuation distribution, equilibrium qualities are first best. Various policy implications are drawn.

Keywords: price-quality competition, quality, public firm, private firm, mixed oligopoly

JEL Classifications: D4, L1, L2, L3

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