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**A computational approach for optimal joint inventory-pricing control in an infinite-horizon periodic-review system.** (English) Zbl 1233.90018

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Summary: This note considers a joint inventory-pricing control problem in an infinite-horizon periodic-review system. Demand in a period is random and depends on the posted price. Besides the holding and shortage costs, the system incurs inventory-replenishment costs that consist of both variable and fixed components. At the beginning of each period, a joint inventory and pricing decision is made. Under the long-run average profit criterion, we show that an optimal policy exists within the class of so-called  $(s, S, p)$  policies. This is established based on our algorithmic development, which also results in an algorithm for finding an optimal  $(s, S, p)$  policy.

Reviewer: [Reviewer \(Berlin\)](#)

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90B05 Inventory, storage, reservoirs

Cited in 4 Documents

**Keywords:**

joint pricing and inventory control; setup cost; price dependent demand; stochastic inventory model

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