



# Working Papers

## OPTIMAL PRICING AND ENDOGENOUS HERDING

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CESifo Working Paper No. 727 (9)

May 2002

Category 9: Industrial Organisation

Presented at CESifo Area Conference on Industrial Organisation, April 2002

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ISSN 1617-9595



An electronic version of the paper may be downloaded

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# OPTIMAL PRICING AND ENDOGENOUS HERDING

## Abstract

We consider a monopolist who sells identical objects of common but unknown value in a herding-prone environment. Buyers make their purchasing decisions sequentially, and rely on a private signal as well as previous buyers' actions to infer the common value of the object. The model applies to a variety of cases, such as the introduction of a new product or the sale of licenses to use a patent. We characterize the monopolist's optimal pricing strategy and its implications for the temporal pattern of prices and for herding. The analysis is performed under alternative assumptions about observability of prices. We find that when previous prices are observable, herding may but need not arise. In contrast, herding arises immediately when previous prices are unobservable and the seller's equilibrium strategy is a pure Markov strategy. While the possibility of social learning is present in the first case, it is absent in the second. Finally, we examine the seller's incentive to manipulate the buyers' evaluation of the object when buyers are naive. Using secret discounts the seller successfully interferes with social learning, and herding occurs in finite time.

JEL Classification: D8, D42.

Keywords: herding, informational cascades, optimal pricing.

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