Imperfect Information and Market Organization*

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This special issue of the *EER* gathers a series of articles illustrating the role of information in the organization of markets operating in a non-competitive setting. In particular, uncertainty and information asymmetries affect the process of price formation. It allows firms to manipulate price search of demanders to their own advantage. Asymmetric information also gives rise to particular institutional set-ups such as those characterizing insurance markets, credit markets, systems of patents and licences, which are designed to cope with specific situations or to induce the adequate incentives. Finally, in dynamic models, informational issues might be drastically changed by introducing the possibility of commitment over some length of time.

The paper by Gabszewicz and Garella studies the problems of price formation in a spatial market when consumers do not have the full information on prices. Consumers know the distribution of prices but do not know which firm quotes which price. The authors study the problems of the existence of a price equilibrium; they show that whenever a price equilibrium exists it displays price dispersion. They also show that, if firms anticipate the consequences of their location choice on subsequent price competition, firms get as close as possible to each other.

The papers by Dionne and Lasserre and Henriet and Rochet are both related to the insurance market. Dionne and Lasserre study how multi-period insurance contracts can provide an adequate incentive for the insureds to reveal, ex ante, the true risk which they represent. Time is used as a sorting device by a monopolist facing a family of insureds falling in different classes. The existence of an equilibrium à la Radner in the game between the insurer and the insureds is established. It is also shown that the strategy used by the monopolist at this equilibrium yields

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risk revelation on the part of insureds if the game lasts for a sufficiently large number of periods. Henriet and Rochet use simple theoretical models to analyze new tendencies observed in the operations of insurance markets of several countries: the development of professional incentives, the growing complexity of tariffs and the proliferation of product differentiation.

The paper by H. Bester is concerned with the credit market, which shares many features with the insurance market, like problems of adverse selection and moral hazard. The role of collateral as a self selection and incentive mechanism is examined; the possibility of credit rationing – a common feature in the credit market – is also studied.

The paper by Laffont and Tirole is a simplified version (i.e., the two-type case) of a previous work of the authors analyzing the design of optimal contracts between a 'regulator' and a firm when there is asymmetric information: each period, the firm chooses a level of effort which is not observed by the regulator. Similarly, while the firm's efficiency is known to the firm, it is not to the regulator. A dynamic incentive scheme consists of a transfer to the firm by the regulator. The authors show that, under non-commitment of the regulator over time, the possible set of 'continuation equilibria' is richer, in this dynamic setting, because incentive constraints can be binding for both types. Moreover any of the four kinds of equilibria can be optimal.

S. Muto analyzes the problem of relicensing and patent protection. More precisely, he examines whether an innovator has an incentive of licensing a concealable innovation when a patent protection is absent. Then he analyzes the effect of patent protection on the profits of the innovator and on the consumers' welfare.

Finally, Maskin and Tirole present a duopoly model where firms, which are quantity setters, move sequentially. Firms maximize in discrete time the present discounted value of its profits. The model is Markovian: at each date the strategy of a firm is assumed to depend only on the state of the system, namely the other firm's current action. This leads to the notion of an equilibrium in terms of 'dynamic' reaction functions. The model is solved for quadratic payoffs. For that case, it is shown that the infinite horizon solution is the limit when horizon lengthens of a finite horizon equilibrium.

We hope that this special issue offers a panoramic view of the problems raised by imperfect information in the organization of markets, and also some significant attempts of current research to solve these problems.