## 3. Market power for Maffeo Pantaleoni

Antonio de Viti de Marco and Maffeo Pantaleoni (1857-1924) were very close friends. In 1898 forty-year-old De Viti de Marco dedicated one of his books to his contemporary Pantaleoni in "memory of the years our lives were so closely interwoven both personally and in the habits of scientific practice" (De Viti de Marco 1898).

Pantaleoni is credited to be the first who applied marginalist analysis to public finance. He did it in 1883 (Pantaleoni 1883), before Emil Sax (1884) and before De Viti de Marco (1888)[10]. Piero Sraffa (1924: 650) reminds us that: "The fame of Pantaleoni as an economist abroad is based mainly on his *Pure Economics* (published in 1889 and translated into English in 1898)".

Pantaleoni deals with the sources of monopoly power in many works. In his first book (Pantaleoni 1882), on the theory of the shifting of taxes, he examines the effects of taxation in different market structures. It seems very interesting to me that, in Pantaleoni's analysis, the investigation of the sources of market power is strictly connected to the notion which held the pivotal position in economics, i.e. the theory of value. Following J.S. Mill's version of the classical theory of value, Pantaleoni in his book states that the value of a commodity is determined by the cost of production, provided that its technology is characterized by constant costs, and that it is produced in a perfectly competitive market. This theory leads Pantaleoni to examine all the circumstances in which perfect competition cannot be realized. The section of Pantaleoni's book which is relevant to my analysis here is the one dedicated to "commodities which can be produced *ad libitum* under perfect competition" (1882: 77). In fact it is there that he examines the nature of entry barriers.

To sum up Pantaleoni's analysis (1882: 85-90), we can say that in his view obstacles to competition come from: a) the ownership of unique resources (like talents, extraordinary abilities of the entrepreneur, special machines, natural resources), b) the lack of information about extra-profits obtained in some industries, c) impediments to a rapid adjustment of market supply to increases in demand. He also analyses some aspects of the location theory, although very superficially. Considering transportation costs as a part of the costs of production, he claims that the firms that are closer to the market have a monopoly due to their location. At the same time he mentions the customers' loyalty to firms which are located at a longer distance from the market. Moreover, briefly citing Senior's *Political economy* and J.B. Say's *Traité*, he states: "competition can be excluded in many other ways". He concludes his analysis with the consideration that, whatever be its source, extra-profit is the main signal of the existence of monopoly power.

From the conference entitled *The XXth century according to an individualist* (1900) it clearly emerges from it that for Pantaleoni competition is a dynamic process, as it was for classical economists (and, as we have seen, for De Viti de Marco as well). It consists in the following well known chain of effects: innovation in a firm generates extra-profits, which are an incentive for competitors to enter the market; the rise in demand of new inputs leads to extra-profits in the markets of inputs, and again to a process of entry into the market; the diffusion of innovation is followed by a decrease in prices and by the elimination of extra-profits (Pantaleoni 1900 ed. 1925: 272-273). According to Pantaleoni, the purpose of improving the effectiveness

[10] Pantaleoni's work was translated into English and published in Musgrave and Peacock (1967).

with which a given set of inputs are used to produce outputs[11] can be accomplished not only by innovation, but also by widening the dimensions of firms, through mergers, trusts, and every kind of agreement between firms. In Pantaleoni's view, efficiency is the only explanation for firm conduct.

A similar idea is expressed in his work on trusts and cartels (Pantaleoni 1909) where Pantaleoni distinguishes between what we now call horizontal and vertical integration. His paper is intended to demonstrate that while horizontal integration can indeed be a source of market power, vertical integration is only a way to improve x-efficiency. Moreover, he states that competition (or "selection", as Pantaleoni often calls it) endogenously determines the efficient level of vertical integration. Therefore, he is against what he considers "the persecution" of trusts made by American laws (Pantaleoni 1909 ed. 1925: 299).

It's interesting to notice that in his description of the competition process, entry always remains free: Pantaleoni does not even consider the existence of strategical or technical entry barriers. As far as economies of scale are concerned, he is aware that some industries can produce at decreasing costs, but he seems to believe that the minimum efficient scale cannot be but a low proportion of the total market demand. In his words: "if the industry is subject to the law of decreasing costs, all those who don't produce at the minimum cost will be eliminated, and there couldn't be extra-profits". Moreover he explicitly says that "potential competition […] is always a way to brake prices". With this idea in mind, it's not a surprise that he was against antitrust laws, which he considers a useless Government intervention in the economic sphere.

We can see that Pantaleoni is not worried that collusions reduce the number of firms in the market, widening their market shares. This view seems to be similar to that of the Chicago school.

## Conclusions

De Viti de Marco and Pantaleoni were "militant marginalists", they both introduced marginalism into Italy. In this paper we have pointed out that for them competition was a dynamic process, as it was for the Classical school, even though they were marginalists.

The distinction between competition as a dynamic process and competition as a long -run, zero-profit equilibrium is always stressed in the works on the history of the idea of perfect competition (for example George Stigler 1957, Machovec 1995). It is common opinion that the Classical economists and Alfred Marshall dealt with the dynamic view of competition, while Cournot, Jevons and Edgeworth introduced the static notion of competitive equilibrium.

I don't think that this distinction is relevant for the purpose of my research. My topic is not the history of the notion of competition, it is that of the notion of market power. Market power is caused by barriers to entry. Freedom of entry is one of the four characteristics of a competitive market as it is described in the standard microeconomics textbooks. At the same time, entry is a dynamic, not a static concept. Hence, entry barriers are the cause of market power both in the static view of competition, as well as in the dynamic view of competition. For this reason, and as far as entry barriers are concerned, I don't see any distinction between

[11] Italian economists, from the Classics to the Marginalists, called the purpose of improving x-efficiency "the law of the minimum means".