1. Introduction

This paper analyses the notions of competition and monopoly power in the writings of two well-known Italian marginalists: Vilfredo Pareto (1848-1923) and Enrico Barone (1859-1924). As everybody knows, Pareto's profound impact on economics is mainly due to the concepts of "Pareto optimality", "cardinal utility", "Pareto's Law" of income distribution, and in general to the refinements of Walras' general equilibrium theory¹. Barone, who became an economist after spending much of his life as an army officer, is known mainly for his independent discovery of the marginal productivity theory, and even more for getting the "socialist calculation" debate started².

Their personal and intellectual relationships were very close. One example among many that testifies to the interweaving of their lives and work can be found in this passage in a letter from Pareto to Maffeo Pantaleoni: "All the theories I have set out are only the germs of theories. Economists, like Barone, who possess knowledge, culture and intelligence, should ... develop these theories, and seek *new* truths" (Pareto 1960: 445). Schumpeter reminds us that starting from the 1890s the economists belonging to the Italian Marginalist School took Italy into a leading position³, so there are good reasons to think that their ideas played an important role not only for Italian economic thought, but also worldwide.

Historians of economics have indeed studied the history of the profit maximisation analytical models in a non-competitive setting, starting from Cournot (1838). Nevertheless they have always neglected the analysis of economists' ideas on the causes of market power. I wish to demonstrate here that the history of the theory of imperfectly competitive markets can be significantly modified if the reconstruction of the way in which the economists of the past described the sources of market power is taken into consideration. From this point of view, marginalists are very important because of the new kind of entry barriers they identified.

2. Vilfredo Pareto

In Pareto's *Cours d'économie politique* (1896-97) the first definition of monopoly is based on the role of prices in the maximization of profit: Pareto solves the profit maximisation analytical problem in a monopolistic regime (following Cournot), and even takes up the treatment of duopoly, though we shall not be dealing with those issues here. Nor shall we get involved in the large number of well-known observations by Pareto on the inefficiencies of the monopolistic regime compared to the competitive one.

We shall deal here with his reflections on the causes of market power, that he traces in the *Cours* essentially to the "difficulty, or ... impossibility, that exists in transforming savings into certain kinds of capital" (§ 138). He also considers that "capital whose quantity remains virtually constant in a closed market" (*Cours* §

¹ Pareto was an engineer before succeeding Walras in Losanna (Kirman 1998).

² See Dooley (1998).

³ Schumpeter (1954, ed. 1976: 855).

542). The holders of this type of capital, Pareto writes, "will enjoy a monopoly ... that in some cases may be absolute. They will therefore be able to secure very considerable gains" (*Cours* § 543).

In the *Manual of Political Economy* (1906), he deals with the causes of market power listing the various ways entrepreneurs may eliminate competitors: "with the assistance of the law, or because he alone possesses certain goods, or because by intrigue, trickery, by his influence or his intelligence, he wards off his competitors ... Finally it must be noted that it often happens that a certain number of individuals join together precisely so that they can dominate the market" (Pareto 1906, ch. 3, § 47, Engl. transl. 1971: 117).

It is worth noting a passage in the *Cours* where Pareto criticises the excess number of small firms in the retail sector, an excess that "explains the easy success of the firms that start to compete with them, the big stores and co-operative societies" (§ 923). Since the retail trade is a sector where "fixed costs are quite important, it follows that the reduction of the coefficients of production depend above all on the increase of the sum of sales" (§ 923). This is essentially a brief passing reference to the concept of increasing returns to scale. In the *Manual*, on the other hand, he goes into the analysis of increasing returns to scale more deeply, given that it was by that time a more widespread phenomenon: "Some have assumed that the greater their output the better off enterprises would be, and this notion has given rise to a theory according to which competition must end up with the establishment of a small number of large monopolies. The facts are not in accord with this theory" (Pareto 1906, ch. 5, § 79, Engl. transl. 1971: 243). Pareto then develops a clear-cut theory on the existence of a minimum efficient scale: "for each type of production, there is a certain size of enterprise which corresponds to the minimum cost of production" (Pareto 1906, ch. 5, § 80, Engl. transl. 1971: p.234).

On collusions, Pareto in the *Cours* writes: "the desire to set up a monopoly is natural for all producers" (§ 799), and explains that this is the reason they try to form combinations and trusts. He is in favour of the spontaneous formation of combination, but is convinced that without the support of government (which he decidedly opposes) these agreements cannot last (*Cours* §§ 905-911). He also looks favourably on consumer cooperatives, which in his opinion "have introduced free competition where it existed only in imperfect form" (*Cours* § 922). He is essentially expressing the idea that the market power that derives from combinations, trusts and other forms of associations is always open to threat from potential competition. In the *Manual*, too, Pareto comes back to the subject of trusts: "Modern syndicates have two principal goals: 1. to give enterprises the size which corresponds to minimum costs of production ... 2. To escape free competition, in whole or in part" (Pareto 1906, ch. 9, § 10, Engl. transl. 1971: 339). Pareto's line of thought is not crystal clear, but he would appear to be in favour of the first of these aims, i.e. to the search for the minimum efficient scale. Whereas he holds the pursuit of the second objective (to escape from competition) to be futile, unless the government intervenes to help out the trusts, thereby harming the consumers (Pareto 1906, ch. 9, §§ 13-15).

3. Enrico Barone