Competition and Market Power in the Italian Marginalists' textbooks

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Abstract

Competition and market power have been pivotal issues in economics. The paper analyses the evolution of these notions in the textbooks and treatises of four well known Italian marginalists: Maffeo Pantaleoni, Vilfredo Pareto, Enrico Barone and Antonio De Viti de Marco. After surveying the late Italian classical economic thought on the subject, the paper investigates: the ideas of competition adopted by these Italian marginalists; the kind of entry barriers analysed by the same authors; and their consideration of potential competition.

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Introduction

In this paper I look into the notions of competition and market power in the handbooks and treatises of the economists belonging to the Italian Marginalist School: Maffeo Pantaleoni, Vilfredo Pareto, Enrico Barone and Antonio De Viti de Marco.

These are, of course, very well-known names, and as Schumpeter reminds us, they took Italy into a leading position in the world[1]. The decision to deal with these economists together derives from the conviction that all four were working on shared objectives. They aimed to contribute something to marginalism, and to spread this paradigm as widely as possible. This conviction is strengthened by the fact that their personal and intellectual relationships were very close. It is enough to recall the very long-standing friendship between De Viti de Marco and Pantaleoni, which went back to 1877 when they were both attending the law faculty of Rome University (Cardini 1991, 584), and studied Jevons' *Theory of Political Economy* together (De Viti de Marco 1925, ed. 1927: 41). As for Pareto and Pantaleoni, we can even speak of parallel lives (Chauvel and Fitoussi 1995). It was Pantaleoni who suggested to Pareto (a civil engineer) that he should turn to political economy, and who introduced him to Walras to advance his candidature as his successor in Losanna[2]. Their links with Enrico Barone were similarly close. Having spent much of his life as an army officer, Barone took up the study of Walras and Marshall and a subsequent career as an economist thanks to the encouragement of Maffeo Pantaleoni and Vilfredo Pareto[3]. 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 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 to Pantaleoni p.445).

The Italian marginalists were the leading figures in many publishing initiatives, among which the reformation in 1890 of the *Giornale degli economisti*. In the hands of some of them, this magazine, became the Italian voice of the new economic science, a journal "in the front line" (Faucci 2000: 224) politically, methodologically and scientifically. It became the most important review in Italy, and one of the most distinguished in the world in the field of pure theory.

[1] Schumpeter 1954, ed. 1976: 855.
[2] Citare.

In this essay I deal with the handbooks published by the four economists, handbooks that were also an effective instrument for the diffusion of the new theories. Not all the handbooks were representative of the overall range of their ideas, for some of which their monographic studies may be considered more significant. Nevertheless, these handbooks, without exception, marked a stage in the history of economic thought. Some of them were quickly translated and were thus available to an English language speaking public.

The essay is structured as follows: after an analysis of the late Italian classical economic thought on competition and market power (§ 1), I examine the handbooks of the four Italian marginalists, to investigate the idea of competition they adopted, the kind of entry barriers they took into account, and their consideration of political competition (§ 2). Finally, the conclusions.

In the whole of this paper I use handbooks and treatises as primary sources.

1. Late classical economic thought

In this section I consider late classical Italian economic thought on competition and market power, to uncover the legacy Italian marginalists inherited.

1.1. *Competition*

The Italian Classical School's idea of competition draws on Smith's conception of the competitive process in a dynamic sense, i.e. the freedom to seek out new opportunities for profit, and to compete to obtain the most advantageous position: "The idea of free competition - writes Fontanelli (1870: 114) - is very simple. It just means an absence of the oppression and binding restrictions which stop citizens from buying and selling freely". The Italian classical economists believed it was the source of all progress: "the immense amount of wealth produced in this century compared to previous centuries is due to … free competition" (Ciccone 1882, I: 68). Considered to be equivalent to a natural law, they believed it was futile to violate "the principle of competition with restrictions of economic freedom" (Ciccone 1882, II: 53).

The main instrument available to entrepreneurs to compete, for the economists belonging to that school, was the adoption of more efficient production techniques. "The producers – wrote for example Marescotti (1878: 71) – found themselves from time to time

[3] Citare.

defeated by other producers: so what did they do? They invented better tools, followed quicker and safer processes." This notion of competition as a process through which innovations are introduced will, as is well known, be developed by Schumpeter (1942).

Though recognising that the firms that first innovated would find themselves in a monopolistic position, classical economists did not see this as a threat to competition: it would only be temporary. In fact, they expected that in a short time a series of imitators would adopt the new productive technologies, and that as a result a rapid spread of innovations to other firms in the industry would take place. In Fontanelli's words (1870: 33): "Slowly but surely the invention spreads, the other producers compete with the innovator, and the price falls back very nearly to the cost of production." This idea is similar to that of contestable markets according to which "even in very concentrated markets, firms will not […] have the power to control price – if entry and exit are costless and can occur very rapidly" (Martin 1994: 223).

Since freedom of entry determines a price equal to the cost of production, it was the belief of the classical economists that the benefits of efficiency were passed on to consumers in the form of lower prices. Virgilio wrote (1867: 74): "Every new discovery brings a shock to some profession … but this does not mean we should forgo the advantages of discoveries, just because someone may be damaged by them." Even more explicitly, Fontanelli (1870: 117) argues: "Competition … takes away … from the individual the improvements he introduces gradually into factories to make of them an inheritance shared by all." Likewise Ciccone (1882, II: 58): "every lowering in price produced by competition [leaves] his competitors somewhat disturbed; but society as a whole benefits." All of this, of course, means that these economists held a very high opinion of competition.

A useful summary of the characteristics of the competition we have outlined so far is in Cossa (1875 and 1881: 35): "Granted to everyone, freedom generates, usually (though not *always*), *competition*, which prevents *artificial monopolies*, and also produces many advantages. The main ones are: 1° *rational distribution* of *producers* in the various industries and in the individual operations, according to their *capacity* and *inclination*; 2° *emulation*, so that everyone competes in *activity*, *diligence* and *savings*; 3° the *inventions*, *discoveries*, *perfecting* and *progress* of every kind, that are thus stimulated, are translated into *lowering of*

prices for the benefit of the public; 4° the abundance, the *good quality* and the *cheapness* of the products; 5° the *equilibrium* between *supply* and *demand*, *production* and *consumption*."

This dynamic vision of competition led the classical Italian economists to consider even the market power generated by strategies blocking entry, such as predatory pricing, to be temporary: "it has sometimes been noticed - Ciccone writes (1882, II: 58) – that strong firms, aiming to remain alone in their domination of the market … have lowered their prices below cost, until their weak competitors … abandoned an industrial sector …: once having the market to themselves … they have raised prices and earned unfair profits." Nevertheless, according to Ciccone in a short time "their great profits stimulate capitalists to make agreements to form other associations of equal strength and power."

Nor was the increase in firm size considered a threat to the development of the competitive process. Many Italian classical economists were indeed in favour of large-scale firms, for they could thus introduce more machinery, which would allow a reduction in the costs of production. The introduction of machinery in turn required the transformation of firms from small domestic workshops into larger modern factories. This was the opinion, for example, of Fontanelli (1870: 96-97, 190), Ciccone (1882, I: 152) and others: "Competition drives entrepreneurs to action on an ever greater scale, since experience shows that producing on a larger scale means notable economies in expenditure" (Virgilio 1867: 61-62). It should be noted that their writings nowhere betray any fear at all that a firm endowed with a large market share may acquire market power and blockade free entry. Ciccone (1882, II: 66), for example, explicitly states: "the remedy is to be found in the very nature of the illness, and has to be looked for in that same liberty that produced the latter." In particular, fear of monopoly is dispersed by the freedom to set up associations of employers and workers. In Virgilio's words (1867: 430-431): "large firms would tend to crush the smaller producers, but association offers the latter a means to resist the powerful competition of the former." With association "there is thus an increase in the productive energy to bring down obstacles that without association would be insurmountable" (Martello 1882: 61); and yet no risks are thereby run to hinder competition: associations - Fontanelli states (1870: 98) - can compete with each other just like the entrepreneurs."

1.2. *Monopoly power*

The economists considered here were aware in some cases of the existence of permanent entry barriers generating monopolistic positions.

The first kind of entry barrier gave rise to so-called "artificial monopolies" made up above all by government licences and patents. There was unanimous condemnation of the system of guilds that "prevented any possible development of industry" (Virgilio 1867: 69). Identifying competition with innovation and free entry, as we have seen, they criticised guilds because they were "a barrier against inventions" (Ciccone 1882, I: 67) and a hindrance to "passing from one industrial sector to another" (Fontanelli 1870: 115). As far as patents went, some economists were opposed to them, considering them to be an obstacle to entry and hence to the incentives fostered by competition. Virgilio (1867: 139) writes that it was thanks to the absence of patents the "inventor is … driven to new improvements, so as not to be caught up with and imitated by his competitors." Those who were in favour of patents, justified themselves by the need to "provide compensation for the inventor's studies, labours and expenses … otherwise one of the most powerful stimuli to invention would be removed" (Fontanelli 1870: 122).

The second kind of barrier to entry the Italian classical economists took into consideration generated what they called "natural monopolies", resulting from the presence of scarce factors (location, talent). They were held to be "deriving from nature and hence indestructible" (Virgilio 1867: 125-126). The monopolistic positions reached on the basis of a unique resource ownership were considered legitimate. Virgilio writes (1867: 103) "there is nothing in natural monopolies in themselves that goes against justice and reason."

The awareness that the obstacles to competition could be of a technological nature, i.e. that they could be generated spontaneously for reasons linked to economies of scale or to network economies, was still uncertain. For example, Fontanelli (1870: 250) put the postal and telegraph services on a par with other companies run by the government for fiscal aims. Whereas Ciccone (1882, I: 142) argued that "in the building of the railways there is the appearance of freedom, but the substance of monopoly, because the importance of the capital needed does not allow of competition."

On the sources of market power, Martello's ideas are of very great interest. Being critical of the classical theory of value based on the cost of production, and indeed following Ferrara's theory of the cost of reproduction, he focuses on those goods whose

price is always greater than the cost of production. He therefore brings out the importance of substitute goods in the determination of monopoly price, thus showing indirectly their function of restricting market power (Martello 1882).

Also of great interest is the idea of Ciccone (1882, II: 55), who picked up Thornton's observation that there can sometimes be an excess number of firms: "Cases do arise, however, where excessive competition raises prices rather than lowering them." In these cases he argues that a greater concentration would be better, since it would lead to a reduction of the average production cost.

As far as the determination of price in a monopoly regime goes, like Virgilio (1867: 117) they all say that: "Monopolies form an exception to the laws that regulate price." Ciccone (1882, II: 60) adds that "monopoly is none other than the faculty to set an arbitrary price on goods, keeping off competitors from production and distribution", without placing the necessary limits given by the market demand function on the discretionary powers of the monopolist.

Every monopolistic profit is considered to be on a par with rent (Martello 1882: 260; Virgilio 1867; 461-462; Ciccone 1882, I: 228). In Marescotti's words:- "where the individual raises himself above others, whether through talent, or for the refinement of his industry even in terms of manual dexterity, or through a discovery […], he gains from the trade of his products, a higher gain than his services, or than the intrinsic value of his labours. He gains a rent […], a value related to the legitimately exercised monopoly" (Marescotti 1853: 44).

As we have seen, in the nineteenth century economists had a clear idea of the competition process based on innovation and freedom of entry. But they had not yet defined all the sources of market power that we know of today.

2. Marginalist Thought

We now turn to what the marginalists thought about competition and monopoly power. I shall examine the four Italian economists one at a time, following the chronological order of publication of their handbooks. I start with Pantaleoni, whose textbook dates from 1889; Pareto's *Cours* of 1896 and *Manuale* of 1906 come second; third is Barone's handbook of 1908; and finally there is De Viti de Marco's *Primi principi di economia finaziaria*, published in 1928, after a long series of lithographic editions.

2.1. *Maffeo Pantaleoni*

We begin with Pantaleoni's *Principii di economia pura* (1889) [trad. Ingl. *Pure Economics* 1898], a work (it should be borne in mind) that the author did not wish to re-publish[4], although he did not repudiate it. Pantaleoni makes use of the term competition here without going very deeply into its meaning[5]. Even in the chapter on monopoly he does not explain the reasons for the presence in the market of just one firm. In effect, following the tradition of most economists who had developed profit maximisation analytical models, he takes the structure of the market as given, without worrying overmuch about defining it: "It is well known - he writes - that the existence of perfect industrial or commercial competition are hypotheses that in economics we commonly have recurse to" (p.9). What interests him in this work is just the determination of the prices that maximise profit in the two different market structures. Going back to Senior[6], he states: "it is clear that any difference between monopoly and free competition, whenever there is one, can only lie in the fact that the monopolist may have an interest in fixing prices different […] from those that it is in the interest of competing sellers to choose" (p. 218). As far as monopoly goes, we can only add that unlike classical economists, Pantaleoni insists on the fact that the monopolistic price cannot be fixed arbitrarily, since the demand curve is a constraint on the monopolist (p. 207).

In the *Principii* we find the explicit consideration of increasing returns to scale: "the supply curve - writes Pantaleoni - … can … be downward-sloping, or else partly downward and partly upward sloping, since there it may happen that an increase of the amount produced, within certain limits, coincides with economies of cost, though when these limits are exceeded they cause increasing costs …" (pp.259-260). As may be seen, Pantaleoni does not even take into consideration the possibility that the increasing returns may generate monopolistic positions, whereas he merely hints at the presence of a minimum in the function of average cost. Pantaleoni deals with market structures again when addressing Walker's theory of rent[7], imagining a market without free entry, with a given number of firms. "If the entrepreneurs are not very numerous and act as one man"

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[4] Pantaleoni did not want a third edition.
[5] He cites Jevons' law of indifference and the definition of Sidgwick and Cairnes in a note.
[6] *Principi* Distribuzione della ricchezza, Monopoli.
[7] Pantaleoni refers to Walker's *Political Economy* (New York, 1883) and *The Source of Business Profits* (1887).

then the situation may be assimilated to monopoly. If, on the other hand, "instead of being few in number, the entrepreneurs are many, and instead of being able to monopolise their services, they compete with each other, clearly the price of their services will fall to the limit where they find it more profitable to do something else" (p.378).

It must be said that the treatment of these subjects in Pantaleoni's manual does do justice to the importance and originality of his contribution, but not to the complexity of his thinking. As Sylos Labini (1995, p.197) rightly says, in his *Principii* Pantaleoni is "to a great extent working within the tradition of static analysis … and from this particular perspective, is not innovative." As Sraffa reminds us (p.214), he was more at home writing monographs, where the treatment of competition, monopoly and cartels was much more articulate[8].

2.2. *Vilfredo Pareto*

In Pareto's *Cours* (1896) the first distinction between competition and monopoly is based on the role of prices in the maximisation of profit: "to establish the maximum conditions – Pareto writes – one differentiates taking prices as given" (§ 46), whereas in monopoly "the trader alone or in agreement with others, devotes himself to manoeuvres aiming to change market prices" (§ 46). As we know, the hypothesis that in competition the firm is a *price taker*[9] also implies that the demand curve it faces is infinitely elastic, that the firm has no market power and that therefore the entrepreneur entirely loses his specific function. Nonetheless, none of these implications is actually expressed by Pareto in the *Cours*, which on the other hand does repeatedly state that "free competition" is only an "extreme state" that "can never be seen in practice." He then stops to examine the profit motive which drives the entry and exit decisions, i.e. the shift of resources from less productive to more productive uses.

As with the classical vision, for Pareto profit is a phenomenon caused by the introduction of innovation, of a temporary character for the most part: "the entrepreneurs who suffer losses - he writes – may be imagined as people attacking a hill occupied by the entrepreneurs who make profits. The latter try to drive back the attackers. To this end they are forced to constantly imagine and strive to find ways to improve their production."

[8] Citare per esempio.

(*Cours* § 718). Similar ideas are to be found in Pareto's *Manuale di economia politica* (1906), where there is the classical idea that resources shift according to the logic of profit and loss, until their return is rendered uniform[10]. Also present is the classical competition dynamic activated by the introduction of innovations which reduce production costs, generating a temporary profit, and followed by the entry of new firms (*Manuale* pp.146-147). In addition there is the process through which savings in costs of innovative firms are transferred in the long term to consumers[11].

Pareto then takes into consideration those situations in which blocked entry generates monopolistic positions. As is well known, he 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 monopoly regime. We shall deal here with his reflections on the causes of market power, that he traces in the *Cours* essentially in the "difficulty, or … impossibility, that exists in transforming saving in certain kinds of capital" (§ 138). He also considers that "capital whose quantity remains virtually constant in a closed market" (*Cours* § 542). The holders of this type of capital, Pareto states, "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 *Manuale*, he deals with the causes of market power listing the various ways entrepreneurs may eliminate competitors: "thanks to the help of the law, or else because they are the only ones to possess certain goods, or because they see off the others through arrogant use of power, through cunning, trickery, or cleverness … Finally, it should be noted that it often happens that several individuals form an association, precisely to give themselves the power to take over the market" (*Manuale* p.119).

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

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[9] The American Moore (1903), a follower of Walras, attributes the paternity of this condition to characterise perfect competition to Pareto.

[10] "Free competition tends to make the net profits of capital that can be produced by savings equal. Savings are evidently transformed into capital that gives greater profit, until the abundance of that capital makes the profit fall to the common level" (p.255).

[11] "In this way the competing firms succeed where they had no intention of going. Each looked only to their own profits, and only thought of their consumers insofar as they could exploit them. And yet, thanks to the succession of adaptations and re-adjustments that competition forced them to make, all that hectic activity of the companies manages to benefit the consumer" (p.232).

start to compete with them, the large stores and co-operative societies." 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." This is essentially a brief passing reference to the concept of increasing returns to scale. In the *Manuale*, 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:- "It was believed that firms were better off the more extensive their production. This idea has given rise to the theory that industry should give priority to setting up just a few large monopolistic firms. The facts do not match up to this theory" (pp.233-234). Pareto then develops a clear-cut theory on the existence of a minimum efficient scale: "It may be admitted … that for every kind of production there is a certain volume for the firm which corresponds to the minimum cost of production" (p.234).

On "combinations" between firms, 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 cartels and trusts. He is in favour of the spontaneous formation of cartels, 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 co-operatives, 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 cartels, trusts and associations is always liable to threat from potential competition. In the *Manuale*, too, Pareto comes back to the subject of trusts: "Trusts have two aims: to give firms the size that corresponds to the minimum cost of production, and either wholly or in part escape from the pressure of free competition." 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 (p.327-328).

2.3. *Enrico Barone*

In the section on the effects of free competition in the *Principi di economia politica* (1908, ed. 1915, pp.28-29), Barone focuses mainly on the final position of the competitive process and on the characteristics of equilibrium, even though elsewhere he does not

neglect consideration of possible difficulties in the transformation of savings into new capital goods (p.58). Writing after Pareto, Barone obviously dwells at length on the effects on social welfare of the various market regimes, and explains the reasons why "monopoly represents a diminution of consumer rent, and a destruction of wealth" (p.22).

As for the causes blocking entry into a market, in addition to the usual legal monopolies, it is worth remembering the cases of unique resource, which Barone dealt with in relation to rent: "Ricardo's theory on land … is applicable to all capital that cannot be reproduced" (p.56). However, the source of market power Barone mainly considers is the one coming from economies of scale. Barone directly faces up to the question of increasing returns to scale in the following terms: "If the cost of the unit of production indefinitely diminishes, to the extent that the quantity of the product increases, it would be advantageous for the production of every good to be concentrated in just one firm" (p.11). He thus examines the industries where the most efficient production is through a monopoly: "And this may happen whenever … there exists … a kind of firm, that at the limit of decreasing costs, its size is sufficient to saturate, at the cost of production, the entire demand of the market" (p.191). In this case, he states, the surviving firm should not be considered a truly monopolistic firm, both for its different effects on social welfare[9], and because the market power in his opinion is only apparent, in that it is subject to the threat of potential competitors (p.192)[10].

Having clearly explained that the average costs curve is U shaped[11], Barone sets out with similar clarity the idea of the minimum efficient scale as follows: "competition tends … to define the size of firms; in other words the quantity produced tends to be shared out between the producing firms at the minimum cost so that each of them may produce the corresponding [quantity] at the limit of the diminishing costs" (p.15). Again with clarity he describes the way the entry of new firms may drive the price down to the minimum average cost: "competition … forces each firm to remain within the limits of the diminishing costs … making, for the part that was produced at rising costs, a new firm

[9] "These single or unique firms … do not represent … a destruction of wealth: the contrary may even be true" (p.192).

[10] "These unique firms, emerging from competition, must always be in fear of the *potential* competition, … of other similar firms that might emerge; this stops them from wholly adopting the procedures of the monopolist" (p.192).

[11] The "curve [of total costs] is always rising; … if it was reduced to a diagram with the *unit* costs of production on the y-axis, it would be diminishing until a certain point and then rising" (p.14).

intervene which does go beyond the limits of the diminishing costs" (p.16). From this derives the consequence (one Barone brings out), that since the optimal quantity offered by every firm, and hence its size, is given by the minimum efficient scale, it is precisely the action of competition which determines the optimum number of firms in equilibrium. Barone then goes on to denounce those cases where the firms are smaller than their minimum efficient scale, and therefore are higher in number than the optimum number: "it happens that, … because competition does not operate sufficiently, this maximum size of firms is not reached – and hence the number of these is not reduced to that minimum – to which corresponds the lowest cost of production" (p.191). In this case Barone says that it be more efficient for fewer firms to produce at less cost.

The excess number of firms operating in the diminishing part of the average costs curve, and hence the chance to exploit further economies of scale, provides Barone with an argument in favour of the extension of firms' size. On this he examines the cartels, and vertical and horizontal integration. Cartels, based only on agreements, Barone judges intrinsically unstable and subject to "a latent state of war even during a peace" (p.212). The reasons for all forms of "combination" he traces to the search, on the part of firms, of the efficient size (p.216). In addition, he carries out an analysis of the determination of the price in the case of large firms, reiterating that their situation is quite different from that of the monopolist[12]. In present-day terms, one could re-define the case Barone examined as relating to a *dominant firm*. He brings out the fact that such a firm may be subject both to international competition and to competition from other smaller firms that produce the same good, as well as to potential competition[13]. In his opinion the price fixed by the dominant firm is below that of both domestic and foreign competition, and below what could "re-awake the potential competition" (p.234)[14].

2.4. *Antonio de Viti de Marco*

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[12] We should remember that in that era only those in possession of a government licence (legal monopoly), or a unique resource (natural monopoly), were considered to be monopolists.

[13] "As for the potential competition, to tell the truth it is lazy and is active intermittently. The struggle to rush into the fray against a vast trust, requires very great capital and is full of risks" (p.234).

[14] The analysis of the determination of the price in this market regime, as also the welfare consideration, are treated by Barone in much greater depth that in our summary.

We now pass on to examining a handbook of public economic[15], which leads us to two considerations. The first is that an explicit treatment on the part of the author of the general theme of competition is not to be found (e.g. a definition of it, or else and exhaustive analysis of its effects). The second is that, precisely because of its nature as a handbook of public economics, it deals both with phenomena that may constitute legal, natural or technological barriers to entry, and with cases of public intervention aimed at correcting market failures deriving from those barriers. In synthesis, in this handbook, although the subjects of competition and market power are present, they are not dealt with as central themes, but functional to other objectives.

I shall leave out of consideration the legal monopolies, whose existence no one had ever doubted, in order to turn to other sources of market power De Viti examined. One passage where there is treatment of the causes of monopolistic power due to the difficulties of entry runs as follows: "There is a series of forces of friction according to which in the firm … prevails fixed capital that is hard to disinvest, or circulating capital of rapid negative investment; according to whether the firm works at rising or diminishing costs; according to whether there are goods of flexible or rigid demand, of fixed or variable returns" (p.155). Monopolistic power due to unique resource ownership is dealt with in a passage on rent, where De Viti obviously considers the more fertile lands, but also "the more capable entrepreneur, … the more intelligent worker, quicker, cleverer and stronger" (p.180).

Of special interest seems to us the treatment of economies of scale as source of market power. De Viti mentions for example the "growing division of labour, through which the producing group sometimes finds itself in a quasi-monopolistic position, and the consuming groups fall into its power" (p.38). The case De Viti examines to illustrate this situation is that of the network of water distribution, with regard to which the consumers "are quite incapable of encouraging any form of competition whatsoever", and "the producer becomes a monopolist *de facto*, for a longer or shorter period of time" (pp.38-39). It is not clear here whether De Viti is considering the economies of specialisation ("division of labour"), or else those deriving from the technology typical of networks. It would seem to be clear, on the other hand, that he is referring to the fact that

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[15] In the parts analysed in this paper there is no difference between the *Primi principi* (1928) and the second edition of the *Principi* (1939). I shall therefore quote from the reprinting of the latter of 1953 [trad. Ingl. *First*

the increasing returns determine an increase in the size of the firm up until monopoly, but that this situation could be threatened by potential competition. Also on other occasions De Viti refers to technological reasons of this kind as the cause of monopolistic regimes. For example, when he deals with whether government intervention in the economic sphere is a good idea, he writes that it is important "to see if the private firm, left to itself, succeeds in creating a monopoly position" (p.45); and again, on the railways: "free competition between railway firms often ended up, and as a rule tends to end up, either with the alliance of the competing companies, or with the fall of the weaker one, [and] so creates a monopolistic position even more secure than before" (p.76). On public utilities De Viti writes: "the expansion of public services as a rule leads to the reduction of production expenses, in that it transforms the state firm from a small firm to a large one, and from a large one to a huge one." He adds that the "same result [is obtained thanks to] industrial progress, that … compete to reduce the cost of production" (p.92).

Conclusions

In this paper I have examined the ideas of competition and market power in the handbooks and treatises of Italian late classical economists and marginalists, and have been able to draw two main conclusions.

1. In the history of the idea of competition, a distinction between competition as a dynamic process and competition as a long-term, zero profit static equilibrium is always stressed (Machovec 1995). It is commonly thought that the Classical economists dealt with the dynamic view of competition, while the marginalists introduced the static notion of perfect competition. One of the conclusions of this paper is that this opinion does not fully correspond to the real situation. As we have seen, the dynamic idea of competition survives in much marginalist thinking[12]. The dynamic process gradually emerges in the treatment reserved by the economists under review here to the difficulties new firms found in entry into a market, to the role of potential competition, to the effect of innovation, to the continual changes in firms' size. At the same time the characteristics of long term competitive equilibrium are specified with

principles of public finance 1936].

[12] The same can be said for American economists of the late nineteenth-century. According to Mary Morgan (1994: 566) they "believed in a continuum of competitive behaviour: between many firms, between few firms, and by monobpolies".

ever greater precision, thanks also to the introduction of new fundamental analytical tools: it is sufficient to mention here the U shaped average cost curves, or the concept of minimum efficient scale.

2. When historians of economics have dealt with market power, they have 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. The second conclusion of this paper is the following: the history of the theory of non-competitive setting 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, as we have been able to realise, Italian marginalists are very important because of the new aspects concerning the kind of barriers to entry they took into consideration (e.g. the increasing returns to scale or the network economies).