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# Monopoly Power and Competition The Italian Marginalist Perspective

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# Introduction

How have economists of the past explained monopoly power?

Jules Dupuit described some non-institutional sources.

The sources of monopoly power in the Italian marginalists:  
Vilfredo Pareto, Maffeo Pantaleoni, Antonio de Viti de Marco,  
Enrico Barone

Why “marginalist” and not “neoclassical”?

- “neoclassical” is too generic and criticised (Schumpeter, Colander, Aspromourgos)
- “marginalism” was coined in 1914 by Hobson (Howey 1973) for their generation

# Aims of the book

1. contributing to the reconstruction from a historical perspective of the (Italian part of the) theory of the sources of monopoly power, and its relation with that of competition
2. to demonstrate that the Italian marginalists are a specific intellectual tradition, a close-knit group
3. to show how rich and innovative their *theoretical* contribution was
4. to reconstruct the *context* in which their theories were *applied*
5. to disseminate outside Italy their political thought, an essential aspect of their commitment.

# This presentation

- I. The reason for this research on the sources of monopoly power in the HET
- II. Competition (static and dynamic)
- III. Monopoly power (structural and strategical barriers)
- IV. Applications to Reality
- V. Their concept of the State
- VI. Conclusion

# I. The sources of monopoly power in the HET

A gap in historiography on the sources of monopoly power.

As monopoly power is a characteristic of non-competitive markets, I examined four possible fields of enquiry.

- The historiography on:

1. Models of profit maximization in non-competitive markets do not explain why firms are few

*Cournot (1838), Dupuit (1844), Bertrand (1883) Launhardt (1885) Auspitz and Lieben (1889) Edgeworth (1897) Hotelling (1929) Chamberlin (1933) J. Robinson (1933)*

2. Antitrust is not against *all* the sources of monopoly power, but *only* against those deriving from anti-competitive practices

No attention to the sources of monopoly power in the history of these two fields.

# I. The sources of monopoly power in the HET

3. History of competition theories (not focused on monopoly power).  
Economists of the past dealt with:

- exogenous obstacles to competition (imperfect factor mobility, custom, technology)
- endogenous obstacles, i.e. strategies to compete (limited knowledge, agreements, product differentiation)

4. History of Industrial Organization.

Sources of monopoly power = entry barriers. Here is our history.

- There is no historical literature focused on barriers to entry before Bain (1956)
- The literature focused on the origins of Industrial Organization starts from the 1930s.

There is a gap, but there are useful suggestions → good reasons to research further.

# I. The sources of monopoly power in the HET

Where to search in the primary literature? Answers from historiography on competition and on IO (De Jong and Shepherd 2007)

- Not the Classics: they were not worried for monopoly power
  - there are not (non legal) obstacles to competition
  - monopoly power is always under the threat from potential competition
- The Marginalists: they gave many contributions on monopoly power, for two reasons
  - The diffusion of concrete situations in which market power lasted for a long time (a change in reality)
  - The emergence of the notion of perfect competition: strategic behaviour was seen as a monopolistic behaviour, not as a competitive one (a change in theory)

# I. The sources of monopoly power in the HET

- Why the Italian marginalists?
  - Schumpeter (1954): Italian economics “was second to none”
  - Many contributions on the subject in Italy
  - Italian filiations of ideas:
    - Sraffa (imperfect competition)
    - Sylos Labini and Modigliani (new oligopoly)
    - U shaped cost curves → important for market power
- Why *the* four Italian marginalists?
  - Very many good hints from the secondary literature
  - International influence
  - Their deep personal ties



# I. The sources of monopoly power in the HET

**Vilfredo Pareto** (1848-1923)

Paretian optimum

Ordinal utility

Income distribution

Circulation of elites



**Maffeo Pantaleoni** (1857- 1924)

Marginalism to Public Finance (1883)

*Pure Economics* (1889)

Many well known innovative works

**Antonio de Viti de Marco** (1858-1943)

Pure theory of Public Finance (1886)

Models of the state

**Enrico Barone** (1859-1924)

Marginal productivity theory

Socialist calculation (*Ministry*)



## II. The universal force of competition

### Methodology: Statics vs Dynamics

**Barone** (*Sul trattamento di questioni dinamiche*, 1894) uses partial analysis for the adjustment: “provisional” or “approximate” equilibria; the oscillation never converge because of new shocks; other meanings.

**Pareto** (1896-97) and (1906): 1. statics, 2. dynamics as successive equilibria (steps), 3. dynamics as continuous movements (sled) – economic theory cannot deal with it.

**Pantaleoni** (*Di alcuni fenomeni di dinamica economica*, 1909): dynamics “of the first type”: the system goes back to equilibrium; “of the second type”: it does not converge at all (if the structure of the system changes).

# II. The universal force of competition

## Static competition

### Static Competition

conditions for “perfectly” competitive equilibrium  
no market power

**Pantaleoni** (1882): “... *that the competition can be felt instantly, both between industries, which presupposes knowledge of the profits made in the various industries and the possibility of transferring capital from one to another, as well as within each single industry among the many firms engaged in the same activity*”

Free entry and exit, “perfect” information, product homogeneity, instantaneous adjustment.

## II. The universal force of competition

### Static competition

**Barone** (1894 and 1908) identifies perfect competition with the achievement of two outcomes: *“the cost of production equals the prices and the average costs of production are at a minimum”* (also = marginal costs).

**Pareto** (1896-97 and 1906): *“to establish the conditions for maximization one has to differentiate keeping prices constant”*.

**Pareto** to Pierre Boven: *“on peut supprimer le terme concurrence. Partout où vous trouverez ce terme [...] lisez: ‘on suppose que chaque échangeur [...] accepte un certain prix ..., et ne tâche pas de le modifier’”*

# II. The universal force of competition

## Dynamic competition

### Dynamic Competition

1. ***Slow adjustment***, not instantaneous: transition towards competitive equilibrium. Agents have market power, temporarily

**Barone** (1894): imperfect information, trial and error

**Pareto** (1896-97 and 1906): difficult process, firms' forecast and adaptation errors, pursuit curves

All: imperfect factor mobility (“frictions”)

# II. The universal force of competition

## Dynamic competition

**2. *Innovators and imitators:*** monopoly power is created and eliminated.

**Pareto** (1896-97): *“Entrepreneurs that suffer losses can be represented as people laying siege to a hill occupied by entrepreneurs that make profits. The latter try to repel the attackers: to do so they are constantly forced to think up new ways of improving their products”.*

**Pantaleoni** (1900): the ‘*volcanic eruption*’ of an invention starts; then, thanks to the imitation that follows, its benefits slowly extend to the whole world. While this process is going on in one industry, a new eruption takes place in another, and the world is like ‘*a sea in ferment*’ .

# II. The universal force of competition

## Dynamic competition

**Barone** (1908): competition consists above all of the '*substitution of entrepreneurs with lower cost for those that produce with higher cost*'

**3. Disequilibrium:** monopoly power is essential part of the competition process.

**Pantaleoni** (1892): competition is an aspect of the struggle for survival, social selection, a race where the starting positions and the destinations continually change (Spencer).

**De Viti de Marco** (1890) uses it in his political, not in his economic works

**Barone** (1908) “a selection”, “a war”, strategies

## II. The universal force of competition

### Considerations

They felt to be in continuity with the classical conception of dynamic competition.

To give rigour to the classical theories, they used mathematics, so they initially concentrated on the static competitive equilibrium.

But for them it was only a first stage, they wished to mathematise also dynamic competition.

It was impossible, and some of them gave up with economics.

On the question of competition there was not a revolution in content, but only in method.



### III. Monopoly power

Historiography: the issue of monopoly power was very important also in Italy (networks, public utilities, routes, trusts, cartels, syndicates).

**Pantaleoni** (1882) different market structures as “*the colours of the spectrum*”. He wrote: *Some Observations on Syndicates and Associations* (1903)

**Pareto** letter to Cabiati (1908): “*The theory of free competition is only one part of the theory of pure economics*”

**Barone** “*competition is never perfect*”. He wrote: *Monopolies and Syndicates* (1909)

They knew Cournot, Dupuit, etc.

My focus in on barriers to entry.

# III. Monopoly power

## Structural barriers

### Structural barriers

All the causes blocking entry due to structural conditions.

#### ***1. Inelastic input supply***

- **Pantaleoni** (1882): the possession of unique resources (like talents, extraordinary abilities, special machines, natural resources)
- **Pantaleoni** (1889): Cairnes's non-competing groups theory extended to all the input markets with "closed" entry
- **Pantaleoni** (1909): *"Monopolistic equilibrium is pregnant with dynamism ... The only form of monopoly ... is due to superior personal skills"*.

# III. Monopoly power

## Structural barriers

**2. Cost structures:** relation between costs and number of firms in the industry

### *Minimum efficient scale*

**Pareto** (1896-97): “there exists in general a definite *maximum* at which the expansion of enterprises stops under a regime of free competition”

**Pantaleoni** (1898): competition (or ‘selection’,) endogenously determines firms’ efficient size ( ‘typical’ or even ‘optimum’ size)

**Pantaleoni** (1903): syndicates and cartels are justified (vertical integration, “economic complex”)

**Barone** (1908): U shaped average cost curve: competition “*tends to oblige entrepreneurs to remain within the limits of decreasing costs*”.

# III. Monopoly power

## Structural barriers

### *Natural monopoly*

**De Viti de Marco** (1890): “*economy of consumption*” non-rival goods; “*economy of production*” economies of scale; network-externality effect (telephone industry).

**Pareto** (1906) ‘*very frequent phenomenon which occurs when overhead expenses are spread over the output in such a way that the cost per unit of output decreases as output increases – within certain limits, of course*’. There are always limits.

**Pantaleoni** (1909) explains the phenomenon of large-scale firms in terms of dynamic efficiency, and shows that this dynamism makes it impossible to achieve any static equilibrium.

# III. Monopoly power

## Elasticity- Strategic barriers

The inverse relation between the degree of monopoly power and the demand elasticity faced by the firm was clear (customer's loyalty, habits, substitute goods, etc.).

### **Strategic barriers**

Intentionally designed by the incumbents to set the price

**1. Parasitic competition:** industries in which the number of firms is too large (more than optimal), and a greater concentration would lead to a reduction of the average cost of production.

**Pareto** (1896-97), the retail sector vs big stores: increasing returns not exploited due to a cartel protecting inefficient firms.

# III. Monopoly power

## Strategic barriers

**Pareto** (1906): profit attracts entry and it is gradually reduced until it reaches zero owing to the fixed costs

**Barone** (1908) there is '*a faulty pulverisation of firms*', owing to '*habits*' that are hard to eradicate.

**2. Oligopoly:** a few efficient large firms, or aggregate of firms (the “economic complexes”) behaving strategically in order to acquire or maintain their market power.

For all, collusion is easier in concentrated industries.

**Pantaleoni** to Gide (1898) cooperatives are like cartels, closure toward a potential entrant when they reach the MES

# III. Monopoly power

## Strategic barriers

**Pantaleoni** (1900): *‘the entire industrial and commercial world is subdivided into groups which struggle against other groups’*

**Pantaleoni**: Cartels, trusts, mergers and every kind of agreement are useful (efficiency) and don't reduce competition.

**Pareto** (1896-97) initially is in favour of the spontaneous formation of combinations → without the support of government cannot last.

Then **Pareto** (1903): trusts *“present a mixture of good and bad”*: they reduce costs etc., but raise the prices.

**Pareto** (1906) agreements are designed to raise prices.

**Barone** (1908): few “survivors” of selection form cartels or trusts. They are in “a latent state of war even during a peace”.

# III. Monopoly power

## Strategic barriers

**Barone** (1908) shows: when mergers are profitable, the behaviour of two firms with decreasing AC (war or coalition), of a cartel toward a new firm, why potential competition can be lazy. Market power may persist.

**De Viti de Marco** (1896-97): agreements ‘have difficulty enduring, unless some productive force has a natural monopoly’

**De Viti de Marco** (1903) links the development of large coalitions to protectionism, by eliminating the competition of foreign producers.

**De Viti de Marco** (1913) opposes corporations protected by legislation that prevent the entry of new firms.



# III. Monopoly power Considerations

- They followed the Classicals in dealing with entry and exit.
- In their years they identified more entry barriers.
- Mathematics helped them in dealing with cost functions.
- First generation to deal with a few large efficient firms: “new competition” (Morgan).
- The number of firms is not an indicator of monopoly power.
- But for Barone and Pareto monopoly power may persists.
- Pantaleoni and Barone tried to elaborate an economic theory of oligopoly.

# IV. Monopoly power, competition and reality

I analyse here other occasions in which they used their theories of competition and monopoly power to explain, comment on and judge some of the events of their time

gender issues  
the labour market  
socialism  
the Great War

competition is used in a broad sense (also social and political)

## IV. Reality - Gender issue

For **Pantaleoni** competition in its modern form helps women because, unlike previous kinds of struggle, it is not based on physical strength. - Instead, the female influence is anti-selectionist (solidarity).

**Barone** compares the irrational behaviour of crowds to that of the individuals on the lowest rung of the ladder of evolution. Such behaviour “presents the features seen in savages, children, and women”.

**Pareto** has no hesitation in defining feminism “a malady which can only beset a rich people”.

**De Viti de Marco** was in favour of the vote for women and of divorce.

## IV. Reality - Labour

For the labour market they all used the concept of non-competing groups (Cairnes)

**Pantaleoni** considered workers' associations as combinations, always under the pressure of competing workers. As said, the only legitimate source of monopoly power that endures in the economy is skill (genius)

**Pareto** was not opposed to workers' associations and to the right to strike, because he thought they facilitated "the game of free competition".

## IV. Reality - Labour

**Barone** too was in favour of workers' associations, which had their counterpart in great coalitions of firms.

For him strikes speed up the process of adjusting to equilibrium, but wages cannot rise independently from labour productivity.

For **De Viti de Marco** the fall in wages was due to the excess supply of labour created by the protectionist policy. Remedies: free market and free trade.

The danger they all saw was the increasing political strength of the working class.

## IV. Reality - Socialism

The main “fact” to which **Pantaleoni** applied his theory of competition is socialism, against which he fought strenuously all his life.

He accused the socialists of trying to avoid competition in order to maintain their position of power (protection offered to public employees, to bureaucracy).

*“political equality is obtained in practice by destroying all forms of monopoly ... not recognising social levels other than those created by the selection of the fittest in a battle fought on an even footing”*

## IV. Reality - Socialism

**Pantaleoni** (1900) denies that socialism could ever prevail, while **Pareto** (1903) sees it as *“an extremely strong current, that sweeps away everything in its path”*

**Barone** (1908) affirms that the collective optimum in a planned economy can theoretically be achieved, but it does not correspond at all to the Marxist idea of collectivism, since it would show the same economic categories found in the market economy.

However, he reiterates its real impossibility, unless there were *“higher beings, capable of achieving outcomes that are obtained with free competition”*.

## IV. Reality - Socialism

In practice this wouldn't happen in the collectivist regime, because the Ministry would be under political pressure to let *“firms survive that it would be in the interests of society if they disappeared”* .

**De Viti de Marco** denounced the collusion of the socialists with the government intended to extend the state's role in the economy, but he continued to seek the consensus of the masses and to defend the workers.

They were all against socialism.



## IV. Reality - Great War

**Pantaleoni** uses his theory on trusts as a metaphor to explain the possible post-war situation.

At the end of the war the Central Powers would behave like a failing firm that sells below cost, damaging the other firms in the industry.

Just as the latter prefers to come to an agreement, similarly the Allies would have to negotiate to adopt shared defensive measures.

*“International alliances are to an imperialist construction, as a cartel or industrial syndicate is to a trust, or to a complete merger of various anonymous firms into one” (1918)*

## IV. Reality - Great War

For **Barone**, in time of war situations arise that reduce competition: more rigid demand, more limited supply of inputs, greater difficulty importing

it would therefore be better to nationalise the production of those goods so as to do *“what an intelligent minister of production and consumption would do in a collectivist state”*, thus reproducing the outcome of competition.

**De Viti de Marco**'s enemies, also during the war, continued to be *“monopolistic groups”* who want to *“obtain an increase in import duties”*

Importance of free trade between nations in peace.

## IV. Monopoly power, competition and reality - considerations

They applied their theoretical notions of competition and monopoly power to explain different practical issues.

They never accepted economics as a theory without a grasp of facts, and when this seemed to be lacking, some of them abandoned it.

They were all involved in politics: they all tried to be elected in Parliament (two succeeded)

*Giornale degli Economisti* (pure theory, but political militancy)

## V. The concept of the state

- Machiavellian conception of the governments: politicians pursue their own interests.
- They adopted the theory of the circulation of elites: perpetual turnover of the dominant class.
- I see the theory of the circulation of elites as a theory of competition (for political power)
- G. Mosca (1884) first formulation.
- Democracy as competition (Schumpeter 1942)
- Choral construction

## V. The concept of the state

**De Viti de Marco** (1888) models the state: two ideal types of state organization, according to different “participation of the ruled in the government”: the monopolist (absolute) state, and the competitive (democratic) state.

**Pantaleoni** (1892): the dominant class (the little industrial elite) has to promote and defend the social dynamism based on competition.

**Pareto** (1891): *“every single time this minority has held power, its aim has been above all its own good, and it has not worried about anything else”*

## V. The concept of the state

**Pareto**'s law of distribution is the basis for his version of the theory of the circulation of elites (1896-97).

**Barone** (1898): *'the classes that hold the economic power also hold the political power'*.

**Pareto** (1900) the most powerful are the richest. However, they are destined to decline. The ruled have the qualities, the "strength", because of their harsh selection.

**De Viti de Marco** (1903) political battle: an open competition among parties representing the economic interests of different classes. Universal suffrage to threaten the power of oligarchies.

## V. Economic policy

1890 *Giornale degli economisti*: anti-government activists, idealism, political influence, education for social progress.

1918 post-war: different positions on free market, free trade, antitrust policies, regulation, market failures.

**Pantaleoni** (1889) against antitrust and regulation: *“inventions are always the most revolutionary factor in the world”*

**Pareto** lost faith in the possibility of using the theory for economic policy *“a total waste of time”*; the outcome of free market and free trade is not necessarily good (1902-03); skeptical about the effectiveness of law.

## V. Economic policy

**Barone:** a strong central government, not always little, economic welfare is the aim; in favour of the antitrust policy if there are extra-profits; also to correct asymmetrical information, *cream skimming*.

**De Viti de Marco:** leader of Italian anti protectionists, free trade for efficient allocation, but also seen as a way to fight monopolies which uses their power as an instrument of political pressure. For the telephone industry: competitive bidding. *"Municipalisation must be the exception"* (1911).

They all were against bureaucracy and other government failures (Public Choice).



## VI. The Italians, and the others

A group. They influenced and reacted to one another. Sometime it was a cumulative process (dynamics, static competition, structural entry barriers, elites). Sometime they had different views (adjustment, strategic entry barriers, economic policy).

Their intellectual production is a “collective” phenomenon. Typically, Pantaleoni started provocatively, Pareto framed the topic, Barone developed it formally, De Viti de Marco extended it to his field.

The others: Gide, Edgeworth, Wicksteed, Wicksell, Marshall, Launhardt, Auspitz and Lieben, J.B. Clark, Moore, Fisher

# VI. Conclusion

Reconstructing the history of the sources of market power is important.

Historiography says: there is nothing on entry barriers before Bain, but there is a lot of thinking on this notion.

Entry is not considered only in analytical models.

Economists were perfectly aware of all the situations between perfect competition and monopoly also before 1930s.

The idea of monopoly power to investigate the thought of the Italian marginalists has enabled a “different history” to be written.