

ASPECTS OF THE EVOLUTION OF THE CONCEPT OF INDUSTRIAL ECONOMY IN THE USA AND ENGLAND

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Rezumat. *Economia industrială reprezintă o ramură a economiei care studiază comportamentul firmelor și piețelor în cadrul unui mediu industrializat. Evoluția conceptului de economie industrială în Statele Unite ale Americii (SUA) și Anglia poate fi înțeleasă prin urmărirea principalelor etape și tendințe. Evoluția acestor concepte reflectă schimbările majore în structura economică, tehnologie și gândirea economică, marcând tranziția de la o economie predominant agrară și manufacturieră la una caracterizată de servicii, tehnologie și globalizare.*

Abstract. *Industrial economics is a branch of economics that studies the behavior of firms and markets in an industrialized environment. The evolution of the concept of industrial economy in the United States of America (USA) and England can be understood by tracing the main stages and trends. The evolution of these concepts reflects major changes in economic structure, technology and economic thinking, marking the transition from a predominantly agrarian and manufacturing economy to one characterized by services, technology and globalization.*

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1. Introduction

The American conception of the industrial economy is based mainly on the principles of market economy and capitalism, and holds that the economy should be market-driven, in which businesses and individuals make production and consumption decisions according to supply and demand, and is characterized of private ownership of resources and free competition between companies. The history of the industrial economy in the United States can be divided into several important stages:

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Pre-industrial period (until the 19th century): The American economy was largely agrarian and based on small farms and local manufacturing, and industries were mainly small and located in rural areas.

Industrial Revolution (beginning in the 19th century): With the development of technology and infrastructure (such as the railway), there was a significant transition to industrial production, and factories began to become engines of the economy and urbanization increased on as people moved to cities to work in industry.

Economic and Industrial Expansion (late 19th and early 20th centuries): It was a period of rapid economic growth and industrial development, known as the "Robust Era". Large corporations such as Standard Oil and US Steel became dominant in key industries.

Economic Crisis and Regulation (1930s): The Great Depression of 1929 led to the adoption of new economic policies. The New Deal, enacted during the presidency of Franklin D. Roosevelt, introduced tighter regulations for markets and industry, as well as social assistance programs.

The postwar period and the economic boom (1940s - 1970s): After World War II, the United States experienced a period of significant economic growth. The industry continued to expand and technological innovations played an important role in the development.

Globalization and Information Technology (1980s - Present): Beginning in the 1980s, technological advancement and globalization have had a significant impact on the American economy. Information and communication technology has become a key sector and the economy has opened up more to international markets.

In general, the American conception of the industrial economy is based on a balance between government intervention and the free operation of the market. Government has a role in regulating markets to prevent monopolies and ensure fair competition, and in promoting social welfare through fiscal and social policies. However, the emphasis is on economic freedom and private property as engines of economic growth and innovation.

2. Marginalist structuralism

Industrial economics research in the US dates back to the 1880s, through the works of AT Hadley: "Railway transportation" (1885), "Interstate Commerce Act" (1887) and "Sherman Anti-Trust Act" (1890). What characterizes AT Hadley's thinking is the German influence. His concept combines two theoretical trends: marginalism and

historicism which constituted two decisive stages in the elaboration of the American legislation in the matter of concentration control.

R. Ekelund created a real theory of cartels, showing his hostility to the railway monopoly and demanding the regulatory intervention of the state. The most debated issues in the works of those times were:

- economic concentration;
- the natural character of monopolies;
- the advantages and disadvantages of setting up trusts;
- the need for public regulation of crimes due to the violation of competition rules.

The formation, in 1885, of the "American Economic Association" was a good opportunity to debate the ideas related to the industrial economy and the problems facing the American industry. The main representatives of this association were JB Clark, R. Ely, JM Clark and T. Veblen.

JB Clark was considered a marginalist theorist, partisan of the free competition regime. In his first work, "Philosophy of wealth" (1885), JB Clark made a severe critique of neoclassical behavioral assumptions. He was a skeptic regarding the free operation of competition. In his later works, JB Clark will return to contempt against marginalist research and will consider that the dominant tendency will not be that of free competition, but of monopoly. He saw competition as the great regulator. The objective was to transform "de facto" monopolies into "powerless"[1] monopolies, i.e. a monopoly subject to virtual competition.

The establishment of virtual competition was achieved by the units of the production system and through the competitive policy promoted by the state. The existence of this competition constitutes, in the end, a barrier to entering a branch. JB Clark sees concentration as a factor of progress if it was controlled by public power.

R. Ely was strongly influenced by the German School, especially by J. Schumpeter. R. Ely's objective was to learn American economists the method of the German School. R. Ely was a "conservative reformer" with many reservations about the economic philosophy of the American liberal system. Starting in 1889, R. Ely became the advocate of public regulation regarding the elimination of abuses of "artificial" monopolies and the state's support of "natural" monopolies, so as to protect the interests of shareholders anonymous companies against potential abuses of power by the management.[2]

One of the most important theoreticians and practitioners in the field of industrial economy was JM Clark. He published "The Economics of overhead costs", in which a series of conceptual innovations are proposed, thus broadening the traditional analysis. The concept of "general costs" is introduced, defined as "costs that are not directly and obviously found on the determined product unit".[3] In other words, these costs cannot be influenced by the increase or decrease production. As production techniques became more and more complex and sophisticated (capital intensive), the share of general costs increased to the detriment of the costs of raw materials, semi-finished products and wages. This tendency was manifested in large companies capable of making large fixed capital investments.

The nature of overhead costs has generated new problems with the traditional approach to competition and prices. So, for example, the idea that diminishing returns to scale would constitute the rule in industry is no longer considered valid. Companies decide on the allocation of general costs to one or the other of the parties production, which causes yields to become constant or increasing. The existence of these costs multiplies the phenomena of invisibility and prevents the representation of their function in the form of a continuous function. Thus, JM Clark noticed that, in the short term, the cost curve corresponds to different degrees of utilization of the production capacities.

Introducing the terms of cost margin and cost areas, the determination of new forms of prices was discussed and competitive behaviors. In some industries, prices can be determined according to the full cost principle and based on average rather than marginal costs. In other industrial branches, on the contrary, the principle of price discrimination is applied, according to which the general costs are attributed to the company's activities that are able to bear these costs and sell the rest of the production, without taking into account the individualized variable costs. This state of work cannot be considered an anomaly, it "has always existed and, far from being considered a violation of the natural economic laws of competition, it can only be considered one of the natural forms of competition". JM Clark presented this state of affairs as an aspect of the price war that can cause the disappearance of firms. Faced with this situation, companies, in order to survive on the market, are forced to sell certain goods at a loss. This mode of operation of the companies and the share of general costs have favored economic concentration, which explains the existence of large companies that hold important capitals. Thus, the market game changed, which transformed the fair and stimulating competition into a "coupe-gorge" competition ("with the soul in the mouth").

As a result of this situation, JM Clark launched the idea of restoring the rules of market operation that allow the equalization of chances different producers and proposed as a necessity a "social control" of the big companies, [4] which have become "enterprises

of public interest". "The Control of Trusts" is another work by JM Clark that stands as evidence of his concerns in the field of industrial economics.

The works of T. Veblen - "Theory of business enterprise" and "Industrial Commission" - propose a study of the genesis of the transformations that led, in the USA, to the emergence of an economic system dominated by concentrated enterprises and try to foreshadow possible future developments. The modern production system is characterized by a contradiction, the production of goods useful to consumers, on the one hand (the productive, social objective), and obtaining the highest possible profit, on the other hand (the practical objective). Firms that are in a monopoly or oligopoly situation, out of the desire to obtain maximum profit, will sell products at higher prices in smaller quantities, even if the collective interest is different.

T. Veblen identified two categories of professions:

- a. industrial, specific to economic agents that use their competence and their skill to produce goods;
- b. pecuniary, specific to the commercial, accounting and management activities of large companies.

In another work, "The engineers and the price system" (1921), T. Veblen took up the same ideas that allowed him to identify two categories of institutions:

- a) technological:
 - technicians;
 - engineers;
 - the execution staff.

The objective: obtaining a large volume of production.

- b) ceremonial:
 - "absentee " owners; [5]
 - managers of industrial units;
 - bankers;
 - business people.

The objective: obtaining maximum profits.

In his last work, "Absentee ownership and business enterprise in recent times" (1923), T. Veblen described what he called "the new order of business" (figure 1).

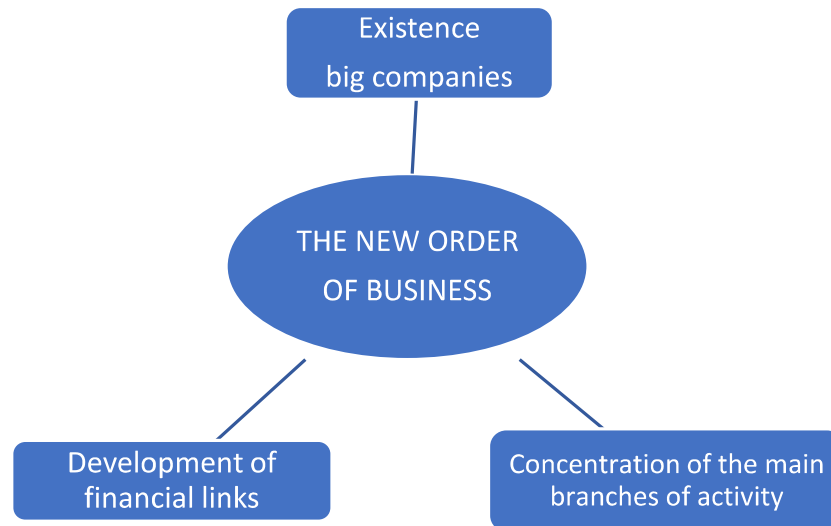


Fig. 1 Characteristics of the new business order

T. Veblen noticed that society changes by becoming one productive society a society of financial interests. The system proposed by T. Veblen is an additional stage in the process of centralization and bureaucratization of the industrial system and amplifies the distortion between the social productive objective and the practical one.

3. Harvard School

School was, in the era, a catalyst for thinking and research in the field of industrial economics. In the 1930s, economists paid special attention to industrial realities and the phenomenon of economic concentration. The Harvard School was marked by three big main moments [6]:

- Institutional approach, before the 1930s (WZ Ripley, A. Berle and G. Means).
- Revolution Chamberlian (E. Chamberlin).
- The outline of industrial economics as an autonomous discipline (E. Mason).

3.1. The institutionalist approach

A group of six specialists, CJ Bullock, EF Gay, WZ Ripley, FJ Sprague, FW Taussig and T. Carver, constituted the "backbone of the strongest department in the country" in the field of industrial economics - the "Department of Economics" of Harvard University.

The most important of them, WZ Ripley, was on the line of continuing the institutionalist trend. In this sense, WZ Ripley capitalized on the American literature dedicated to economic concentration that developed at the end of the 19th century and the beginning of the 20th century. WZ Ripley, along with others specialists - L. Brendeis, H. Metcalf, JB Clark, JM Clark, etc. - paid special attention to the problem of the growing dissociation of control and capital ownership that characterizes large companies. Thus, WZ Ripley's work "Main Street and Wall Street", published in 1927, "prefigured, in many ways, the study carried out by Berle and Means five years later".[7]

A. Berle and G. Means published the work "The Modern Corporation and Private Property", which is considered the genesis of the industrial economy for three reasons:

- a) the work is voluminous and brings a large amount of statistical, legal and financial information regarding the increasing concentration of economic power;
- b) stands out the tendency to separate property and control of the enterprise, thus changing the content property [8]. In this context, the shareholders have a decreasing participation in the management of the enterprise, their responsibilities being smaller and smaller. switch they lose their effective economic power to the benefit of a group of key shareholders or to the benefit of managers;
- c) the new way of economic regulation is highlighted, called by G. Means "collective capitalism", in which competition monopolistic is predominant and which cannot be analyzed as a deviation in relation to perfect and pure competition.

Atomistic approach to the problem of ordering economic agents on the market is abandoned. From this perspective, the new mode of regulation was no longer the exclusive result of the offer on the market. This mode now corresponded to the appearance inter- and intra-enterprise relations. Enterprises were subject to administrative and not commercial control. Prices were no longer flexible, but managed; the markets are no longer free, but controlled. Prices will cease to play the role of market signal, thus gradually leading to the equalization of supply and demand. In such conditions, we speak of the short-term equilibrium.

3.2. Revolution chamberlain

E. Chamberlin wrote "Théorie de la Concurrence Monopolistique" which is "an orientation towards the analysis of market competition"[9]. The source of inspiration for the study is a controversy between C. Pigou and F. Taussig regarding the multiplicity of railway fares:

- C. Pigou: conception based on the monopoly situation and the ability of price discrimination by the railways;
- F. Taussig: conception based on the fact that the railway sector has the ability to differentiate its products, and as a result, to control prices - competitive situation monopolist

E. Chamberlin introduces a new theory of prices, which eliminates the dilemma between pure and perfect competition and monopoly, in the sense that these are no longer exclusive economic categories and leave room for various forms of situations oligopolistic. This theory is supported by the importance that the author gives to advertising in the process of product differentiation and in establishing a competition monopolistic. E. Chamberlin argues his theory by denying the normative superiority of perfect competition over competition monopolistic.

Competition monopolistic, in the author's view, can alone determine growth product diversity and, thus, collective prosperity.

Important for the industrial economy is the fact that E. Chamberlin made the first scientific classification of market structures, based on the degree of concentration of sellers and differentiation of products (figure 2).

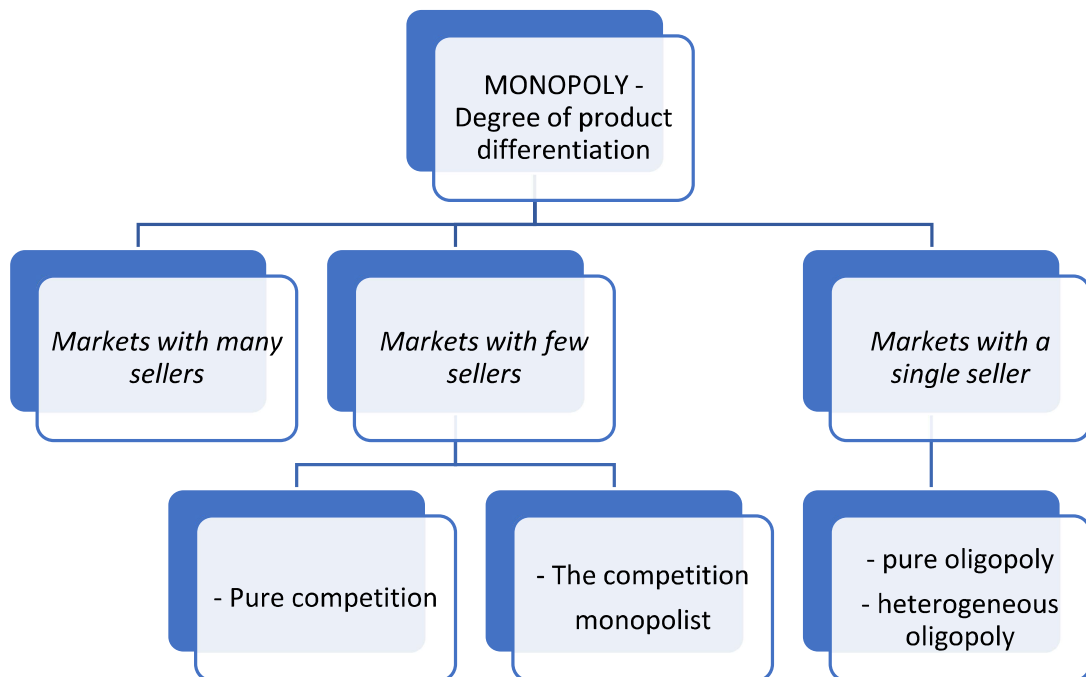


Fig. 2 The types of structures on the market, in the conception of E. Chamberlin [10]

E. Chamberlin added to the number of traditional variables (prices, production costs, quantity produced), which act on the behavior of companies in the competition process, and other variables - the nature of the product and marketing expenses.

Moreover, E. Chamberlin proposed a set of performance criteria that includes the product quality index, as well as the socially optimal total amount of marketing expenses.

E. Mason considered the work of E. Chamberlin, "Theorie de la concurrence monopolistique", one of the rare works that played an essential role in the genesis of the industrial economy.

The criticism brought by E. Mason to E. Chamberlin was that he did not keep the promises made in his approach, in the sense that his logic, although magnificent, has no operational applicability. [11]

3.3. The outline of industrial economics as an autonomous discipline

E. Mason is the author whose work essentially contributed to shaping industrial economics as an autonomous discipline. His main works are: "Economic Concentration and the monopoly problem", "The Harvard department of economics from the beginning to World War II", "Price and production policies of large -scale enterprises" and "Saint-Simonism and the rationalization of industry". E. Mason's thinking is a criticism of theoretical microeconomics and empiricist approaches institutionalists developed in American literature (figure 3).

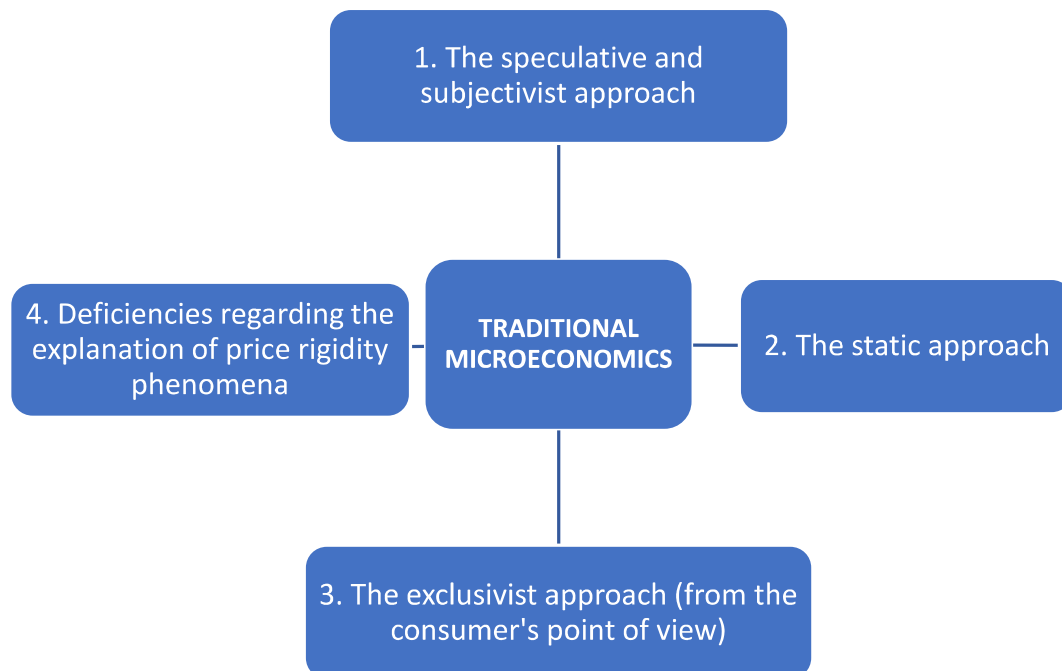


Fig. 3 Characteristics of traditional microeconomics

Traditional microeconomics, in E. Mason's view, are:

1. Traditional microeconomics and oligopoly theory adopts a too speculative and subjectivist approach. An important role is given to the perfectly arbitrary conjunctures that economic agents take into account when establishing their behavior on the market.

2. Traditional microeconomics is based on the static equilibrium model, which proves inefficiency when price policies and production must fit into the overall dynamics of the productive system.
3. Traditional microeconomics adopts a general equilibrium framework taking into account only the consumer's point of view. The manufacturer's point of view must also be taken into account.
4. Traditional microeconomics does not explain price rigidity phenomena and no other forms of competition that do not take price into account.

E. Mason's model is a curious mixture of theory and empiricism. " The theory can become useful by identifying the relevant structural and behavioral variables, but the relationships between the variables would become stable through empirical analysis". For E. Mason, industrial economics is a field of research in which recourse to economic analysis must be combined with the use of statistical or survey data. He admits, however, that this field of research is " swampy, but not without interest".

E. Mason considered that the operationality of the concepts used by the microeconomic theory, to take into account the power and the degree of monopoly, requires the industrial economist to know the shape or the slope of the curves, both the demand curve and the marginal cost curve. E. Mason considered, in this sense, that the relations of industrial market structures and of companies' behavior in the field of price fixing and levels of production, cannot be the object of a general and abstract theory. He agreed to carry out a thorough study and systematically of the differences that allow the operation of distinctions within the set of possible market structures. From this point of view, E. Mason does not give any normative content to the industrial economy and defines it as " study of the structure and functioning markets and as a study of the structure and behavior of companies".[12]

E. Mason's contribution to the definition of the industrial economy consists in the fact that he starts from the idea that " the economic problem is to explain the differences in competitive practices regarding price and production policies and investments, through an examination of market structures and companies' behaviors". It is emphasized that E. Mason does not include the term performance in this definition of the industrial economy. This implies a classification of market structures that allows the ordering of data and numerous and heterogeneous information for the formulation of general market rules regarding the relationship between the structures and behaviors of companies. The criteria that were the basis of the classification of market structures are:

- production processes and between products;
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- situation:
 - the economic nature of the product;
 - the specificity of the process and production costs;
 - the number and size of agents;
 - the importance of entry barriers.
- situation:
 - the number and size of agents;
 - seasonal or longer product cycles;
 - knowledge information by consumers regarding the quality and characteristics of the product.

4. The problem of the industrial economy in England

In the 1930s, in England, the number of works devoted to the object of industrial economy was small. The causes of this situation assume three explanations:

4.1. The state of English industrial structures in the last century.

The English economy, due to its particularities, did not know the phenomenon of concentration. Legislation and English jurisprudence fought any phenomenon that restricted industrial freedom. [13] The factors that contributed to the non-existence of cartels and trusts, at the beginning of the century, in England were:

- the absence of customs that would have limited the possibilities of manifestation and exploitation of rent phenomena within the situations monopolistic and quasi-monopolistic;
- the vicinity of the sea and the absence of a territory constituted as a natural outlet, which would have exposed England to tough competition from other countries.

This explains the low interest in British authors on industrial economics.

4.2. The small number of works intended for the production system and industrial concentration.

For a long time, British authors considered the concentration tendency as a phenomenon foreign to the reality of England and the conception industrial freedom and economic individualism: " belief in free competition blinded the eyes of

individuals and prevented them from seeing things differently than they are. In British industry, cartels and trusts were regarded as mere exceptions due to certain circumstances and conditions considered more or less abnormal. Industrial coalitions were only considered harmful monopolies and never essential structural changes".[14] This explains the intellectual refusal to grant industrial concentration the place it occupied in economic reality.

4.3. The thinking of A. Marshall which was the basis of the works of English authors.

Production studies and industry have signed up in divergent directions:

- a. the production phenomena were analyzed with the help of the deductive method, within the Neo-Marshallian microeconomics and, then, in imperfect competition;
- b. the authors approached the problems of the industry using the inductive method and leaving room for approaching the realities institutional.

The two directions manifested and developed distinctly, until the 1940s, within the British Historical School which emphasized the need to develop, alongside traditional political economy, a complementary discipline called "business economics"[15] - figure 4.

"Business Economics"	
The descriptive element	The active element
Information on industrial and commercial organizations in the country and abroad regarding: <ul style="list-style-type: none"> - natural resources; - the main industries; - transport networks; capital supply; - job offer; - commercial methods used 	Company policy; Making decisions regarding: <ul style="list-style-type: none"> - formation of prices; - location; - finances; - professional and commercial relations.

Fig. 4 The elements of the "Business Economics" discipline

British historical school is progressively losing its importance, while neo- Marshallian analysis gain ground. Due to these conditions, one could not speak of a British industrial economy before the 1930s.

Although we cannot speak of "industrial economy", in the first half of the 20th century, however, it is necessary to highlight two English authors who stood out for their contribution in this field: D. McGregor and J. Hobson.

The first of these is D. McGregor who, in his first work "Industrial combination", addressed the problem of industrial coalitions, for which purpose he was inspired by the ideas of A. Marshall.

D. McGregor addressed the following aspects of industrial coalitions:

- the shapes;
- the causes;
- operation;
- consequences.

He defined coalition as a "method of economic organization by which a common control, more or less complete, is exercised over a certain number of companies that were operating until then or could operate in an autonomous manner".[17]

D. MacGregor built his book in three parts.

The first part was devoted to the way in which industrial coalitions can modify the "power factors competitive ": productive efficiency, risk, bargaining power and company resources. In this context, he analyzed the economies of scale that are the result of the phenomenon of economic concentration.

The second part debates the causes of economic concentration that D. MacGregor divided into subjective causes (motivation to obtain a profit or avoid a loss) and objective causes considered the most important and which refer to real mechanisms of the functioning of coalitions. For example, when forming a trust or cartel, the necessary conditions are: small number, relationships between companies, a certain equality of power and size of the companies, a certain degree of product homogeneity, the existence communication opportunities between the coalition parties. Next, D.

MacGregor carried out an international comparative study of the causes and national forms of coalitions.

The third part is constituted as a correction on the legitimacy and the form of state intervention in the problem of industrial concentration. He rejected any thesis of nationalization of monopolistic enterprises. That is why D. MacGregor supported a limited intervention of the state that was supposed to ensure the legal framework and conditions conducting a fair competition.

The second author we refer to is J. Hobson who, in 1889, in collaboration with A. Mummery, published "The Physiology of Industry". The two authors failed to achieve a concordance between the title of the paper and its content which, in fact, was an economic analysis.

In 1909, J. Hobson published "The Industrial System", which stands out for three aspects regarding the industrial economy:

- a) proposing a typology of enterprises according to their activity sector, their size and its constituent parts;
- b) carrying out a study of different branches of activity and the relationships that are established within the industrial system;
- c) classification of the main industrial sectors and analysis of the degree of concentration.

J. Hobson's conclusion was: "The modern conditions of industrial-capitalist activity have led, in certain dominant branches, to such large and continuous increases in the size of enterprises, which represented a widespread popular view that a general tendency, if not universal, it exists and allows businesses to grow little by little without limit and which will cause the disappearance of small businesses". J. Hobson further states that, however, despite this evidence, "... in several fields of industrial activity, small and medium-sized enterprises continue to exist and even in the branches where large enterprises are dominant, small and medium-sized enterprises sometimes survive".

Conclusions

The evolution of the concept of industrial economics in the USA and England reflects significant changes in economic thinking, theoretical approaches and emphasis on various aspects of markets and firms. [17] Key findings include in the US the development of monopoly theory and anti-competitive practices, the trend towards the

analysis of firm behavior, the influence of game theory and information economics and globalization, and in England they include the industrial revolution and classical theory, the shift to neo-classical economics, the diversification of subjects in contemporary economics and adaptation to economic and technological changes.

In both countries, the industrial economy has evolved to address the new challenges and realities of the economic environment. It now includes issues such as innovation, globalization and sustainability, reflecting the ongoing changes in the global economic landscape.

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