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Barriers to Competition

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INTRODUCTION

This book is part of a long established sub-discipline of economics, the history of the development of economic ideas and tries to show how the importance of non competitive behaviour of the firms that are analysed through economic models by American researchers, the Federal Trade Commission and the universities, and what economical analysts of Europe should learn about a stimulating American controversy.

The Sherman Law has been in force in the United States since 1890, the main goal of this Law is to outlaw every contract, combination or conspiracy in restraint of trade, as well as to protect industrial markets from monopolization and treat violations of it as crimes. The American Congress gave the federal courts adequate power to distinguish between fair cooperation and illegal agreements. The American courts interpret Section 5 as applicable to anything that is a Sherman Act or Clayton Act violation. The Federal Trade Commission also applies Section 5 to consumer protection issues, such as misleading advertising and fraud.

In the twentieth century no thought on competition had the same meaning for any particular group. Economists and Lawyers speak different languages, and meeting points in the realm of antitrust during the past century have been few. Industrial Organization tried to offer worthwhile tools to judges, courts, defendants and plaintiffs, but there it is necessary to build bridges. At the end of the nineteenth century courts used to work in business jurisprudence, but in the 1950s the traditional custom changed; as did business experts and their reports about what should be defined as competitive and what should be not defined as fair competition. Federal Trade Commission and several academics from faculties of Law and Economics promoted the change.

The Clayton Act and the Federal Trade Commission Act are in force since 1914. The collapse of the American economy in 1929 set the question of the coordination between government and industry. A closed relationship became a special influence on the National Industrial Recovery and other planning experiments of the early New Deal. Within this comfortable new timeframe, antitrust policy receded until the fifties. Supreme Court decisions at this moment which affected to cooperation between firms was fairly lax, for instance, the Court in *Board of Trade of the City of Chicago versus United States* (246 U.S. 231 [1918]) upheld limits that a commodities exchange placed on prices of after-hours trading, saying: 'the restraints should be evaluated through a comprehensive inquiry into their history, purpose, and effect'.[1] In 1920 the Supreme Court of the United States slighted evidence of outright collusion and exonerated the nation's leading steel producer on monopolization charges. In the trial *United States* v. *United States Steel Corp* (251 U.S. 417[1920]) the court credited testimony by the firm's rivals, which let them prosper under a *price umbrella* (thirty years early than Stigler's economic model). The company kept 80 per cent of market share in 1910, (forty years early than Bain considered concentration as a barrier to entry) and 40 per cent in 1920; the court was convinced that market power was eroded by competitors (forty years early than dynamic limit price theory was written). It was to wait until 1925 to fund an economist cited for the Supreme Court, in order to work in an antitrust decision; his name was Harlan Fiske Stone. The influence of economists in antitrust agencies increased during the second half of the past century, and now it is usual to find an economic perspective in law schools, and in extensive and explicit judicial reliance on economic theory.

The consequences of court sentences mean economic cost to the companies. Whenever the behaviour of a firm is considered unfair, the American antitrust, through the Department of Justice but not the (Federal Trade Commission), can impose three types of sanctions: criminal penalties, equitable relief, and monetary damage. Criminal penalties are imposed only for overt price fixing, and it are not relevant for horizontal merger enforcement. Equitable relief entails undoing a wrong that has occurred, or preventing future harm (all antitrust remedies in horizontal merger cases involve equitable relief). It is important to notice that 'The result of such a proceeding, should the plaintiff prevail, is a court issued decree'.[2]

The main argument against regulation was written by Dennis Carlton, he said: 'Antitrust is designed to let markets work when they can work. Regulation is specific, setting rules for prices and quantities'.[3] This is a very important issue, because antitrust is not a kind of regulation, neither is it a complement; under the lens of antitrust: 'Regulation, even well-intentioned, can wind up leading to inefficiencies as regulators set policies designed to please various interest groups'.[4] The other difference is that antitrust is administrated by judges, not by politicians; usually American judges: 'Not beholden to special interests and when guided by economic reasoning, has shown itself to be a valuable tool to promote efficiency'.[5]

In order to illustrate the difference between antitrust and regulation we should consider the 1980s when the political climate in the United States in which economic liberalism predominated hindered the majority of the goals of market control. Antitrust follows the Structure-Conduct-Performance model drawn up in 1984's Guidelines. Antitrust is not regulation even if it gives that impression sometimes; the antitrust authorities followed the mergers and the outlaw agreements between firms, it is not adequate to maintain that they pursued new regulations laws. The field of battle is quite different; antitrust is played out in courts whereas regulation rules are a parliamentary issue. The untoward behaviour of a firm is reported by a competitor and both parties will be defended; attorneys and litigates will be advised by experts; frequently academic professors. It is for this reason that antitrust and deregulation can coexist without problems.

Putting Theory into Practice

Since 1890, the Sherman Law, using antitrust agencies (mainly the Federal Trade Commission), tries to protect customer interests and the free market in order to guarantee equal conditions to the market's agents. Since 1992 the name of the American antitrust regulator has been Agency. To achieve thier goal Agency pursuits every agreement that restricts free trade and competition between firms, mainly cartels and market share; it bans the abusive behaviour of a dominant firm in its market, control of price, tying prices or predatory pricing and so on; also it pays attention to every business activity that could potentially be considered anti-competitive.

The antitrust analysis include two types of rules: the shrinking per se rule and the empty rule of reason using denomination made by Frank Easterbrook; the first responds to the cost, particularly high costs: information and litigation; until 1974 'tying arrangements, boycotts, territorial allocations, and resale price maintenance were unlawful per se'.[6] In the same vein, Mason wrote about the difference between per se and the rule of reason, he said that: 'Is essentially a difference in the detail required of the model in order to permit an inference concerning effects'.[7] The application of per se rules is 'cheap and quick method of enforcing the law',[8] while the rule of reason involves cases, reports and a lot of money. If it is necessary to change to the second rule and then infer economic effects in markets and companies, antitrust must bargain between efficiency and power and the conclusion must be accurate and pertinent, Mason said: 'If efficiency were not a desideratum, along with limitation of market power, no rule of reason would be necessary'.[9]

Several changes happened during the 70s in the field of antitrust, mainly understanding the economic consequences of the practices concerned, antitrust came to follow the second rule: 'We cannot condemn so quickly anymore. What we do not condemn, we must study. The approved method of study is the Rule of Reason'.[10] Rule of Reason could be considered an old controversy in philosophy; economics as a science has to accept a humble achievement; using sophisticated regression analysis and trying to keep away other non-connected effects, economists are able to offer a rule of thumb. Keeping in mind that judges and courts used to refuse economic arguments, the Rule of Reason should be used as guidelines in order to take decisions. In its 2000 guidelines, the Department of Justice assumed that given the great variety of competitor collaborations, Rule of Reason analysis entailed a flexible inquiry and varies in focus and detail depending on the nature of the agreement and market circumstances. Focusing special attention on agreements of a type that always or almost always tends to raise prices or reduce output is *per se* illegal.

Despite the first goal of antitrust, which was created by John Bates Clark in 1914, being to protect the welfare of customers, in practice welfare economics never enjoyed a preferential place among economics' disciplines. Donald Turner pointed out that: 'Economic welfare is significantly served by maintaining a good market for capital assets'.[11] Turner wrote a controversial article in 1965, within eighty-two pages he classified almost every topic concerning antitrust. The debate over his argument in this article still survives. He began his proposal by shedding light on the evidence of concentration of assets in the hands of the largest American business firms, within the most important industries, and describing possible consequences of this behaviour. It is convenient to highlight *predatory pricing* defined as: 'Selling at a lower price than customary profit maximizing considerations would dictate, for the purpose of driving equally or more efficient competitors out of all or the greater part of the market'.[12] In order to expel rivals in the market, his definition of anticompetitive required the existence of high barriers to entry; typically, losses due to a predator add to the resistance of highly established companies, and must cause non-probable performance in firms. It seems better to look at the market structure and its survival over the time. It is interesting to bear in mind that: 'The horizontal merger increases concentration in the market; the conglomerate does not'.[13] Turner said that the likelihood, in a structured industry, of deterrence of entry grows as the number of companies declines, 'Nevertheless, it is virtually impossible to estimate the probabilities of significant adverse effects upon entry'.[14] The cornerstone of Turner's thought was the possibility of giving a rule worthwhile to antimerger policy. He describes three necessary conditions for prohibiting merger:

> 1. - The market concerned must be an oligopoly market: the number of actual sellers must be sufficiently small for them to be able collectively, though not necessarily collusively, to maintain price above competitive levels.
> 2. - The merging firm at the edge of the market must be recognized by those in the market as the most likely entrant or one of a very few likely entrants, with barriers to entry by new companies or by other established firms being significantly higher.

> 3. - The barrier to entry by the firm in questions must not be so high that the price it must expect to obtain before it would come in is above the price that would maximize the profits of the existing sellers.[15]

Turner could be considered main promoter of guidelines, along with John Bates Clark and Edward Mason; Turner wrote that: 'Antitrust law does not seek directly to compel competition, but rather proceeds negatively by prohibiting certain anticompetitive course of conduct. A firm is free to go out of business and thus eliminate its competitive influence in the market'.[16] Chapters 2, 5 and 6 of this book included a detailed consideration of Guidelines. American antitrust pursuits are boxed in guidelines, including the natural limits of a box when there is handling of particular and peculiar business behaviour. As researchers, we keeping in mind that the line which separates barriers to entry and strategic behaviour is thin and diffuse.

In 1968 the antitrust regulator published the first Merger Guidelines as the regulatory framework within which firms must work. These Guidelines established as their purpose the prevention of the elimination of any company likely to have been a substantial competitive influence in a market, and prevention of subsequent behaviour to obtain a position of dominance in a market. The Guidelines prevent increases of market concentration and established mechanisms to deconcetration.

In order to demonstrate possibilities of unfair competition, such as agreement to share the market through market power, the antitrust regulator undertook to analyse the market of a specific product within the Structure-Conduct-Performance framework, the first consequence should be an overprice in the market higher than the competitive price (or benchmark/shadow price), the other possibility should be an increase of this market price not susceptible to explanation by increase of cost. The Structure-Conduct-Performance paradigm named this price the limit price and defined it as a non-equilibrium price because it included extra profits due to rents generated by market control. The majority of theoretical analyses use Cournot models where two firms share market output and the price is the dependent variable of this share.

The way to exercise market power is to erect barriers to entry, otherwise any rival could be incumbent, attracted by high price and erode extra profits, technically this situation should be happens in the long run, when barriers to entry must be disappearing as every market failure. In the short run, antitrust regulator guards barriers to entry because there is the main way to exercise market power within any kind of market.

The methodological analysis of S-C-P included primarily an accurate knowledge of conditions of supply and demand, market structure, conduct of incumbents in the market and performance in efficiency and welfare.

Defining conditions of supply as:

- Raw materials and their property rights, legislation (domestic or otherwise) concerning the extraction of raw materials.
- Technology and its property rights, legislation and patents.
- Business position in the market, possibilities of survival, and so on.

Defining conditions of demand as:

- Price elasticity of demand measures the sensitivity of quantity demanded by changes in price. Higher price elasticity of demand implies a lot of substitutes.
- Rate of growth of demand, as the higher the growth the more likelihood of rivals entering the market.
- Substitute products, more substitutes allow less market power.
- Marketing type, or selling strategy.
- Purchase method, mainly if the purchase allows customization.

Defining market **structure** as:

- Number of sellers and buyers. As many as possible results in a more competitive market.
- Product differentiation. As many product branches or types of product result in less likelihood of exercise market power by the main companies within a market.
- Cost structure. More sunken costs should be considered as a mechanism of deterrence of rivals.
- Vertical integration. This variable has relevance to the kind of contracts that the companies signed with providers and delivers. The increase of vertical integration in an industry should be considered as a mechanism to keep market power.
- Barriers to entry. Higher barriers of every kind mean that rivals have difficulty entering a market.

Defining firms' **conduct** in their markets in relation with its market structure:

- Pricing behaviour. Rising prices alert the authorities.
- Product strategy. Defined as the way that the company makes and sells its outputs.
- Research and innovation defined as cost supports by the firms.
- Legal tactics. Understanding mainly as capture of state.

The main variables to analyse the firms' **performance** within its market structure are below and all of them rise as competitiveness market improves:

- Production and allocative efficiency
- Progress
- Full employment

- Equity

All of the variables established by Structure-Conduct-Performance in order to test workable competition within the markets are relevant but quite difficult to measure. Also the discrimination by relevance in the analysis became problematic. Some researchers pointed out the difficulty of making a perfect definition of them. But when we are out of the academic field and a scientific economic advantage is used in the real world, for example in a Judge for injuries suffered by a company because the abuse of the dominant position in a market by incumbents, the economy as science must to give tools to help courts. Economic science employs the price as first variable capable to measure the problems in a market. The limit price theory developed by Bain-Sylos Labini-Modigliani at the end of the 1950s allows us to demonstrate when a market is not working in a fair way; at the same time, this economic proposal respects the traditional economic theory. In other words, the limit price theory lacks methodological problems and is a worthwhile tool to lawyers.

In 1984 new Guidelines were published, which are included in Chapter 5, 'Barriers to Entry, the 1980s', keeping in mind that there were defined as consequence as the theoretical analysis of the 70s. 1984 Guidelines defined relevant market as a product of a type and a geographic area in which it is sold by a hypothetical, profit maximizing firm, not subject to price regulation. When companies playing in a market achieve a significant market power, this conduct justifies government intervention. *The Test of Small but Significant and Non-Transitory Increase in Price* is used to define the relevant market in a consistent way. In 1992 the Agency established that this test should be less than 5 per cent in order to keep in an acceptable limit of increase. Critics with Agency said this 5 per cent is not based directly on any explicit model of competition and welfare effects.

The test of small but significant and nontransitory increase in price explained both market characteristics: the likelihood of entry of a rival in this market and the existence of barriers to entry. Since 1975 economic science developed models which measure the likelihood of entry in a market, and since 1984 this theoretical analysis has begun to be considered in antitrust policy. It was necessary to wait until 1992 until the Agencies established how this issue ought to be analysed. Three topics deserve consideration: timelines, likelihood and sufficiency. The timeline was established as two years, because this is a reasonable time in which to enter a market. Likelihood was measured as the minimum viable scale of production in a market, and this must be minor that the average annual level of sales at the premerger entry (or likely sales opportunities available to entrants). Sufficiency is considered as the tangible or intangible assets required for entry. This third point refers to the sunken costs, and a lot of literature has been published about this topic and is the natural evolution of the use of capacity by the incumbents within an industry as barrier to entry and in narrow relationship with economies of scale in the production.

The second relevant point in the 1984 Guidelines was the use of Herfindahl-Hirschman Index of market concentration, calculated by summing the squares of the individual market shares of all the firms included in the market. Since 1992 this index established that 35 per cent is a significant market share in a market able to exercise market power. That means that the companies are interested in raising price and reducing joint output below the sum of their premerger outputs because the lost markups on the foregone sales may be outweighed by the resulting price increase on the merged base of sales.

The 2000 Guidelines included the concept of competitor collaboration: the Agency follows up every illegal agreement among competitors to fix prices or output, share markets and so forth. As the 1984 guidelines included *relevant evidence* the 2000 guidelines included *relevant agreement* both concepts integrated wide-ranging definitions which allow to courts and judges a discretionary use of this concept.

The Book's Structure

This book has six chapters with the intention of shedding light on the economic theory of competition and the political consequences of these improvements, identified as guidelines. Only at the end of the twentieth century is the inclusion of guidelines debate being considered, due to the fact that their theoretical support began a controversy in economic theory, since the point of view of economic thought is a closed circle.

The first part of each chapter in this book exposes the economic theory of competition and the controversy generated as every scientific development. In order to simplify the analysis we classify barriers to entry as belonging to three main types: excess of capacity, industrial concentration and advertising, keeping another epigraph to entry models. During this research, excess of capacity has evolved through the analysis of economies of scale and sunken costs; Industrial concentration since the 80s included the analysis of market power while advertising was a conclusive barrier to entry in the 80s, losing relevance because it evolved into adverse selection models, which are out of the field of the present research. Chapters 2, 5 and 6 included also the use of this economic theory in the drawing up of Guidelines to firms in the United States. The fifth and sixth chapters also debate Guidelines the themselves.

Chapter 1 of this book tries to put in order the competition theories from 1900 to 1956, the year of the publication of *Barriers to New Competition,* the book considered as the inflexion point in the research of non-competitive markets. Perhaps Bain's book could be considered only as the recognition of the old proposals made by Edward Chamberlin in his *The Theory of Monopolistic Competition* as economic tools. Either way this book has the honour of being the origin of the theory of the firm. We consider writing about the ways in which a firm could be included in the old price theory to be interesting. Following this object we take account of several contributions made during the 40s, some of them coming from American Universities and others from the main British Universities. Once every new contribution has been put in order, a group of economists will be considered as the precursors of the theory of firm. Meanwhile the majority of them were changing the old Marginalism and questioning its assumptions. At the same time, behaviourism is making its way as a new branch of economic theory, despite having been present since the beginning. We then follow the behaviourist school until the end of the century because we don't pay attention to their contributions any further. The intent is not to undervalue their role in economy as a science, rather that evaluating behaviourist contributions any further is beyond the scope of this book.

The next paragraph analyses the debate about antitrust control developed at the beginning of the century and centred in the main contributions made by John Bates Clark, Donald Wallace and Edward Mason; both changed the American view of competition and both are the pioneers of pursuing antitrust through guidelines and both attained enough political influence to change the rules. Without the political influence exhibited, principally by Clark, it is possible that the controversy of workable competition would still be dormant.

With regard to industrial organization theory during the first forty years of the twentieth century, the main controversy between lawyers and economists was that according to lawyers, the market share for a single firm should be considered as the firm's market power; for economists the market share is important in relation to the influences of price and market structure. At the end of the 1930s intellectual strength was relevant from Chicago University, Frank Knight, and later George Stigler. They are the champions of free markets and their main idea, that firms' competition is preferable to government regulation, had wide repercussions in both policy makers and academics. Litigants and courts spent more time and money in order to identify main variables and correlations to prove illegal behaviour on the part of a litigant, whereas the controversy between Stigler and Bain produces several papers and articles, and plenty of disagreements along with many intellectual acchievements.

The last pages of the chapter expose the origins of two barriers to entry: excess of capacity and advertising; both are old economic ideas still being developed now. We considered it useful to know the sources of every economic idea developed in this book, into the twentieth century.

Chapter 2 seeks to show how barriers to entry become an important issue in economics. We hope to show how between 1956 and 1970 this idea received more and more attention on the part of economists, sometimes this process takes the form of healthy and occasionally hectic debates, interspersed with periods of neglect. Overall however, the idea survived and flourished.

The first point at issue is whether limit price theory constituted an adequate framework within which to analyse the existence of a barrier to entry during the first twenty years of the debate. I shall begin with an analysis of Joe Bain's early book and articles written before 1970. In this first book, ***Barriers to New Competition*** (1956), Bain draws up a new classification of barriers to entry. Bain described and analysed different ways used by firms in order to prevent new competitors entering the market. The classifications included economies of scale, brand identity and capital requirements, as well as access to distribution, access to necessary inputs, switching costs, proprietary learning curves, proprietary product differences, government policy, expected retaliation, and so forth.

In order to develop his idea Bain followed three steps. The first step was to clarify the definition of barriers to entry. The second step was to demonstrate how barriers work; Bain's objective was to describe how firms behave within their own market. The third step in Bain's theoretical model was the study of market power. Following the order described above the second step involved developing a successful way of measuring conditions of entry; According to Bain they may be conveniently evaluated in the following terms for limit price theory. This evaluation involves determining the relevant gap between price and minimal cost at which entry may be deterred. The issue should be to establish whether this gap is a successful measure of the existence of a barrier to entry.

Chapter 2 has been written following Bain's work, Sylos Labini's proposals and the contribution of Modigliani. I shall set out the theoretical framework, where the idea of the existence of barriers to entry into an industry is first defined. This model is ultimately derived from a Marshallian partial equilibrium. The chapter then follows the success of the idea of barriers to entry through several key articles published during the period 1956–70, most of which attempt to prove the existence of these barriers using empirical evidence.

The most important political consequence of this theoretical framework of analysis were the 1968 Guidelines, which represented a version this way of thinking. Trying to help courts in antitrust trials the Department of Justice, particularly the antitrust division and the Federal Trade Commission, and with Donald Turner as heard, in 1968 a pack of rules, known as the Guidelines, was published. Since this time, judges, courts, attorneys and lawyers have been handling a cluster of norms with the unique goal of reaching a workable competition in the American markets. Guidelines are not a strict rules but a general mark of actuation, useful to be aware of non-workable competition in any market. Turner's theory agrees with limit price theory, in his words:

> 'The existence of the potential entrant will tend to cause existing sellers to charge a lower price than they otherwise would only if they believe that their current prices will influence the potential entrant's estimation of what the post-entry price and other market conditions are likely to be'.[17]

A higher price could become possible because of the elimination of rivals, but proof, in a judicial sense, is only possible with the analysis of cases. Three years before the implementation of the Guidelines Turner wrote: 'I believe that the courts should demand of Congress that it translate any further directive into something more formidable than sonorous phrases in the pages of the Congressional Record'.[18] In this book we demonstrate that not much has changed; during fifty years change have been restricted to perfection of these Guidelines.

Chapter 3 reviews the controversy between the Harvard School and the Chicago School. In the academic world, perhaps, the importance of the debate on barriers of entry is that it makes up another field of disagreement between those economists brought up in one tradition, and those associated with the other. For Chicago, long-term price equilibrium within markets will ultimately offset the effects of barriers to entry, whereas, according to the Harvard School, the analysis of these barriers remains relevant even in the short term. One of the most stimulating methodological debates within the field of Industrial Organization took place precisely between these two schools of thought, whose main protagonists were Joe Bain and George Stigler. Despite Joe Bain having created the old definition of barriers to entry, the most diffused definition was created by George Stigler in 1968, who defined 'Entry barriers as a cost of producing which must be borne by a firm which seeks to enter an industry but is not borne by firms already in the industry'.[19] Also it means a cost advantage that an incumbent firm enjoys compared to entrants. With such an advantage, the incumbent firm can permanently raise its prices above its costs and thereby earn an extra-competitive return.

Within this controversy, the main authors of the Chicago School always preferred models taken from microeconomics assuming that firms behave within a price system, but not their managements. Thus, according to them, the system works well, resources are allocated efficiently and, in the long run, barriers to entry disappear. Only with imperfect information is risk relevant in the theoretical model. In the Chicago School framework, economic barriers to entry should disappear in the long run, because within a general equilibrium model, they are analysed as market frictions. Institutional barriers to entry, mainly due to the behaviour of lobbies, could survive; in this case, neoclassical economic theory doesn't have the tools to explain how a barrier to entry works.

While the Harvard tradition notes that of barriers to entry make up the point of intersection between microeconomics and business studies, since some barriers might be considered as purely strategic behaviour, the line which separates profit seeking from rent seeking becomes extremely blurred. In business terms, the firm needs to know when there are barriers to entry, because in the majority of developed countries, the proof of the existence of a barrier to entry will lead to a legal judgment and the economic penalization of the firm guilty of such behaviour. Bain considered the need to understand the structure of the specific industry being studied in order to understand its behaviour and set out a theory of how firms perform, since each firm seeks to maintain the status-quo. Actually, Joe Bain has used the rule *per se*, widely disseminated by lawyers which explains how consequences of actions could be determined using logic.

Whereas the Chicago School, with Stigler as its top representative author, developed complex economic models for arguing the benefits of free markets, because of the perfect allocation of resources and fair prices caused by a perfect demand–supply equilibrium. The Harvard School had Joe Bain as its visible head, despite his having worked at Berkeley. Bain believed in imperfect markets, and developed the concept of *barrier to entry* in order to arguing how firms work into their own industries. Therefore barriers to entry as an economic idea was born in 1956. It has survived until today, having switched the bases paradigm from limit price theory to game theory, controversy, however, is far from over. The point was, and still is, to set out a body of empirical data which would demonstrate the existence of barriers to new entrants in an industry. If this can be shown, it would prompt changes in the legal framework or improve the information which allows to courts to dispense justice.

Chapter 4 could be understood as the academics' response to the 1968 Guidelines. As the third chapter shows, the debate about non-competitive market behaviour is open, even now, but during the 70s and 80s the fight was tough. In the cornerstone of this fight are barriers to entry. In order to follow a logical method of analysis, we recognize three groups of entry barriers: excess of capacity, industrial concentration and advertising, devoting a separate paragraph to entry models.

The use of installed capacity in an industry as a barrier to entry, mainly its excess, should be considered as the first entry barrier. Defined as overinvestment in capacity in order to increase the production of the industry in the short term, once the production raise had as consequence that price low, which at the same time, disincentive entry of rivals; the difference between the pre-entry price and the post-entry price after the output incumbents increases don't seem conducive to the entry of new companies to the industry. Several articles were written to demonstrate how this barrier works using empirical evidence. Michael Spence,