THEORIES OF ECONOMIC REGULATION: AN APPROACH ACCORDING TO RICHARD POSNER

TEORIAS DA REGULAÇÃO ECONÔMICA: UMA ABORDAGEM SEGUNDO RICHARD POSNER

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ABSTRACT

The purpose of this paper is to analyze the theories of economic regulation from the standpoint of Richard Posner. The basic assumptions of public interest theory, catch theory and economic theory of regulation were presented. Each theory was analyzed from criticisms and observations made by Richard Posner with the main objective of verifying which of the theories presents a more efficient formulation. For the accomplishment of the work was used bibliographic research using as a method the literature review. The results obtained allow us to affirm that Richard Posner concluded that there is no absolutely efficient and critique-free theory of regulation, but the one that is closest to efficiency is the economic theory of regulation.

Keywords: Theories of regulation. Richard Posner. Efficiency.

RESUMO

O presente artigo tem como finalidade analisar as teorias da regulação econômica sob a ótica de Richard Posner. Foram apresentados os pressupostos básicos da teoria do interesse público, da teoria da captura e da teoria econômica da regulação. Cada teoria foi analisada a partir de críticas e observações realizadas por Richard Posner com o objetivo principal de se verificar qual das teorias apresenta uma formulação mais

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eficiente. Para a realização do trabalho foi utilizada pesquisa bibliográfica utilizando como método a revisão da literatura. Os resultados obtidos permitem afirmar que Richard Posner concluiu que inexiste uma teoria da regulação absolutamente eficiente e livre de críticas, porém a que mais se aproxima da eficiência é a teoria econômica da regulação.

Palavras-Chave: Teorias da regulação. Richard Posner. Eficiência.

1. INTRODUCTION

The State's coercive power stands out as one of its main prerogatives in the face of private initiative. Economic regulation corresponds to the exercise of the state's coercive power through the economic agents in order to discipline the market.

The north american model of regulatory policy was one of the pioneers in the world and its theoretical framework is important not only for understanding the circumstances related to regulation in the United States, but also so that its vast experience in the field of regulation can be transplanted in the brazilian scenario and applied according to the local peculiarities.

Due to the importance of this model not only worldwide, but also in relation to the regulation carried out in Brazil, the present work will use the United States model as a theoretical basis, which is fundamentally based on two theories of regulation, the theory of public interest and the economic theory of regulation.

The analysis axis of both theories will be structured according to the risk derived from the capture of the regulatory agents, which, commonly, is approached by the Economic Analysis of Law as one of the relevant factors in the institutional design of the agencies.

In order to carry out the analysis of these theories of regulation, the work will proceed according to the standpoint of Richard Posner, based on his article published in 1974 entitled "Theories of economic regulation", considered, to this day, as a seminal text for the study of the theme.

Thus, the main objective of the present work is to analyze the theories of regulation, as exposed by Richard Posner, in order to verify what is the formulation that this author presents for a more efficient regulation theory in view of the risk of capture.

In this manner, the functioning of the State's role as a regulatory agent will be explained, addressing the concept of economic regulation and what would be its main objectives and finalities. The following section will present the concept of "capture" and expose its relevance to executing a critical analysis regarding the theories of regulation.

Then the presentation of the main foundations of economic theories will follow, with the fourth section devoted to exposing the assumptions of the public interest theory and the fifth to the economic theory of regulation.

This work will be performed based on a critical analysis grounded on the standpoint of Richard Posner, so that it can be verified, which are the flaws present in the themes approached and which points bring them closer to a more efficient economic regulation. As such, the sixth section will be aimed at addressing one of the main criticisms made by Posner regarding the theories of regulation, namely, the insufficiency of empirical support.

The present study was carried out through bibliographic research, using the method of literature review.

2. THE STATE AS A REGULATORY AGENT

The actions of the State as a regulatory agent is the target of interdisciplinary studies, covering mainly the areas of economics, law and political sciences. This multiplicity of instruments is important for addressing the regulation executed by the State in a broad way, seeking to analyze how economic regulation should take place and how it effectively occurs.

The regulatory activity developed by the governmental power includes primarily three prerogatives, which are: the edition, implementation and inspection of the rules, with the consequent penalties in case of non-compliance. Therefore, the State does not only act passively, it takes an active stance, imposing behaviors on the markets that will be regulated (OLIVEIRA, 2015, p. 137).

The concept of regulation of economic activity can be presented as "a set of indirect forms of intervention by the State on the economic activity as opposed to direct intervention, which is that of the State as an entrepreneur, that is, as an offerer of goods and services in the market " (SAMPAIO, 2013, p.61).

This intervention can happen in several ways, Posner (2004, p. 50) explains that the term economic regulation "refers to all types of taxes and subsidies, as well as to explicit legislative and administrative controls over fees, market entries and other facets of economic activity".

Such regulation will be executed through regulatory agencies, which are defined by Thomas Merrill (1997, p. 1049) as:

The agency is a centralized source of governmental authority that can bring coordinated solutions to social and economic problems throughout its jurisdiction (which in the case of a federal agency, is the entire country). It combines all governmental powers, legislative, executive, and judicial, under one convenient roof. Its leadership is expected to be nonpolitical or at least biparti san. And its staff is expected to have the specialized information and systematic knowledge-in other words, the expertise-to comprehend complex problems and to fashion rational solutions to them³.

This concept of regulatory agencies come from the north american law and comprehends the agency as any entity in the administrative organization that differs from the Executive, Judiciary and Legislative Branches (OLIVEIRA, 2015, p. 141). However, it is imperative to point out that, when imported into Brazil, that the agency model was used in a more restricted manner, with its legal nature explained by Sérgio Guerra (2012, p.118) as:

A agência é uma fonte centralizada de autoridade governamental que pode trazer soluções coordenadas para problemas sociais e econômicos em toda a sua jurisdição (que, no caso de uma agência federal, é o país inteiro). Ele combina todos os poderes governamentais, legislativos, executivos e judiciais, sob o mesmo teto. Espera-se que sua liderança não seja política ou, pelo menos, bipartidária. E espera-se que sua equipe tenha informações especializadas e conhecimentos sistemáticos - em outras palavras, a experiência - para compreender problemas complexos e criar soluções racionais para eles. (Tradução nossa)

The brazilian regulatory agencies are autarchys of special regime, having autonomy from the public power.

This special regime means that specific benefits are granted to the autarchic entity, aiming to increase its autonomy in comparison with the comum autarchys, without the infringement of constitutional precepts that are relevant to these entities of public personality.

The emergence of agencies, both in Brazil and in the United States occurred as a result of the growth of regulation by the State. There is an understanding that intervention in the market is justified with the objective of ensuring balance and removal of harmful practices carried out by economic agents, correcting market failure and ensuring the balance of the regulated system. Monopoly, externalities and asymmetric information can be cited as examples of the main market failures that drive the necessity for state regulation. The removal of market failures aims at achieving an economic balance that will cause private interests to be distanced in favor of maximizing social welfare (CAMPOS, 2008, p.283-284).

Despite the widespread conception that market failures are the main reason for regulation, Posner (2004, p.51) is opposed to this position and claims that after fifteen years of theoretical and empirical research there is no evidence to support this claim and that the dangers of market failures are less and less relevant.

In view of this divergence, the north american regulatory policy was a precursor in presenting theories that address the theme, called theories of economic regulation. George Stigler (2004, p.23) explains that these theories aim to "justify who will receive the benefits and who will bear the burden of regulation, what form the regulation will take and what are its effects on the allocation of resources".

The theories of regulation, therefore, take different approaches due to the possibility that regulatory norms, in fact, are committed not to the improvement of market relations, but to the interests of groups that seek personal favor.

This risk of influence in the process of formulating regulatory norms has been systematically presented in studies of Economic Analysis of Law, as the capture problem that will be addressed in the next section.

3. THE CAPTURE PROBLEM AS AN AXIS FOR CRITICAL ANALYSIS OF THE REGULATORY MODELS

The capture theory becomes the point of intersection between the public interest theory and the economic theory of regulation, which will have topics for their more specific analysis in the present work. It is possible because capture is not a theory of autonomous regulation, but rather a criticism arising from the public interest theory, based on the assumption that regulation would not occur with the aim of achieving a state of welfare, but rather that it would be coming from a process by which pressure groups aim to achieve their own interests.

The Economic Analysis of Law, which has Richard Posner as one of its main exponents, corroborates this perspective, since for this theoretical current individuals are maximizers of their own utilities.

There is also, within the Economic Analysis of Law, a school of thought dedicated to the study of the functioning of the political market called *public choice*, which has as its object the analysis of the State and the behavior of individuals in relation to it, assuming that both in personal and public life economic agents will act rationally in order to maximize their own interests, not being rational to assume a dichotomy of the individual, who on a personal level would act for his own benefit, but when entering public life would withdraw from his personal interests to dedicate himself exclusively to social purposes (TULLOCK; SELDON; BRADY, 2005, p. 141).

In this manner, the analysis made from the *public choice* would make it clear as to why the public interest theory can't possibly be applied, demonstrating that the capture of the agencies would occur primarily due to the need of the captured agency's member and to maximize this agent's utilities instead of giving up possible personal advantages in favor of the public interest.

However, despite expressing relevant criticisms and with antagonistic assumptions towards the public interest theory, the capture theory was also the subject of a reformulation, since, as explained above, it could not be considered a regulation theory.

The capture problem points out that, usually, the regulatory process ends up protecting the interests of individuals or groups that in theory should be regulated, but that in fact are controlling the regulation. Peltzman (2004, p.85) explains that according to the capture theory "the regulation served the interests of the producers, either by creating cartels in industries where they would not exist, or by being unable to control the power of the monopoly".

As such, in addition to the market failures already exposed by the public interest theory, the capture theory also came to show the existence of government failures (SAMPAIO, 2013). This perspective of regulatory policy makes the process of economic regulation even more complex and has resulted in several consequences. In the United States, even the position of the Courts in the face of economic regulation was influenced by the dictates of this theory, when witnessing the conflict between market regulation representing an anti-competitive threat and the meddling in the autonomy of the State (WILEY JR, 1986, p. 728).

The capture theory has several versions, the first of which, the most radical of them, was presented by Marxists and political activists and, according to Posner (2004, p. 57) corresponds to a syllogism in which the big capitalists control institutions, a regulation is an institution, therefore the regulation is controlled by the big capitalists.

Subsequently, a reformulation of the theory proposed by political scientists was presented, highlighting the role of interest groups in legislative and administrative processes. Sanson (2013 p.127) conceptualizes these groups as:

Organisms present not only on the national political scenario but also internationaly, possibly being ephemeral or long lasting, not limited to economic matters (for exemple, the feminist and environmentalist movements), represent a rupture of the partisan monopoly in the formulation of demands before the public bodies, when they use countless resources, through pressure, to influence them in the defense of their own interests.

The interest groups would act to influence both in the legislative process for the formation of regulatory policies and the regulatory agencies themselves in order to serve their personal interests. Therefore, as mentioned earlier, a regulation will not always be an imposition of unilateral interest by the State, since, based on the assumptions of the capture theory said regulation can be carried out due to the interest of the regulated company itself. In this regard, Posner (2004, p.57) explains that:

This theory - which the term "capture" describes particularly well - states that over time, regulatory agencies end up being dominated by the regulated market. This formulation is more specific than that of the general interest groups theory. It highlights a particular interest group - regulated companies - as prevalent in the battle to influence legislation, and it provides for a regular sequence, in which the original purposes of the regulatory program are subsequently obstructed by pressure from interest groups.

However, despite having a more solid foundation than the first version, Posner states that even the reformulation proposed by political scientists is, in several aspects, very similar to some versions of the public interest theory and, there is no theoretical foundation to support it as a theory, which makes it unsatisfactory as a theory of regulation (POSNER, 2004, p. 57).

Posner proposes questioning as to who captures the regulatory agency. The theory just maintains that the regulated agents can capture the agency so that it starts to serve their personal interests, but is it not questioned why this capture cannot be made by consumers? What makes this class not able to capture agencies? It is well known that consumers have as much interest in having their needs met as regulated companies, so Posner questions that there is no way to talk about capture by just one of the agents and remove other possibilities without justifications being given (POSNER, 2004, p. 58).

For a market regulation to exist, it is assumed that there is an inefficiency that justifies this intervention, following this thought, the agency's performance occurs in search of market balance. For the capture theory, the original purpose of regulation is replaced by objectives imposed by interest groups. However, if the regulation made by the agency was established as a result of a market need and in the course of time there was a distortion of its purpose, it is concluded that the market will remain in need of regulation and due to the same inefficiency that was affected by before the existence of the agency (POSNER, 2004, p.57).

In this regard, the acceptance of the capture theory and the understanding that all agencies would not aim at the search for economic regulation that would serve the common interest is as uncompromising as the claim that regulation is always used with the purpose of achieve collective interest. Just as the existence of captured agencies has been demonstrated, Posner (2004, p.57) also states that:

A significant portion of economic regulation serves the interests of small business associations, or non-profit institutions, including dairy producers, pharmacists, barbers, truck drivers and, in particular, workers unions. These forms of regulation are totally inexplicable (and are usually ignored or applauded) in this version of interest groups or capture theory.

However, affirming the existence of economic regulation that serves the interests of consumers and small businessmen is not the same as talking about the capture of the agency by those same groups that do not possess the same amount of resources. Although Posner

questions why this capture is not made by consumers, it is important to highlight two important factors: the first is that the larger the group, the greater the transaction costs become so that they can organize themselves for a particular purpose, the second aspect to be focused on is that the capture occurs as a result of the political and administrative control that the regulated companies have over the agencies, which does not exist regarding the other groups (POSNER, 2004, p. 58).

Posner also questions the fact that economic agents only capture agencies, not using their influence to obtain the creation of an agency in order to reach their personal interests, or even use its influence to achieve its objectives within the scope of the Legislative Branch, which would make the capture of agencies unnecessary, since the laws themselves would be created according to their interests (POSNER, 2004, p. 58).

In addition to stating that none of these questions raised are answered by the capture theory, Posner also proposes the analysis of three sets of evidence, namely: (i) capture is not always necessary, since not all agencies are endowed with integrity and honesty; (ii) it is not uncommon to see situations in which the same agency regulates conflicting markets or interests, that is to say, there are interests of competing groups within the same market; (iii) and finally, the capture theory ignores the various cases in which the interests defended by the agencies are those of consumer groups (POSNER, 2004, p. 58).

These sets of evidence confirm the flaws of the theory and corroborate the claim that capture cannot be considered a theory, since there is no theoretical basis or empirical evidence to support it. However, it can be understood as an important axis that links the public interest theory and the economic theory of regulation, which will be presented respectively in the following topics.

4. PUBLIC INTEREST THEORY

The early works dealing with economic regulation support that the need for regulation came from the existence of market failures. The State should act in an indirect manner to avoid the action of harmful agents and the perpetration of personal interests. In this way, obstacles would be removed so that the market would flow organically and obtain the maximization of social welfare (CAMPOS, 2008, p. 283).

A spread of these ideas became stronger in the United States after the crisis of 1929 and the policies of the *New Deal*. The Regulation was viewed positively as an important tool for overcoming market failures. It was from the 1930s that these currents of thought were consolidated and became known as the public interest theory (SAMPAIO, 2013, p. 44).

The theory received its name because its supporters believed that regulation was primarily intended to serve the public interest, being a response to social concerns and a way of intervening in the market to resolve its shortcomings. There are two main assumptions that structure the public interest theory. The first of them states that the markets are extremely fragile and are willing to act inefficiently. The second assumption, on the other hand, states that the State has an almost negligible cost on making regulation (POSNER, 2004, p. 50).

The fragility of the markets is supported by the assertion that these are the targets of numerous failures, which means that there is an economic inefficiency. The role of regulatory agencies, according to this theory, aims to act by remove these flaws. In this regard, the increase in State intervention through regulation would be directly proportional to the growth in efficiency in the regulated sectors (CAMPOS, 2008, p.284).

Asymmetric information can be pointed out as one of the most relevant market failures. About this failure, Campos (2008, p.287) explains that:

Regarding asymmetric information, it is important to point out that market competition models are based on the assumption of perfect information in which consumers, when making their decision, know everything they need to know about the quality of a product, the price of the competition etc. Such an assumption is not realistic because obtaining information has costs, products can be complex or their effects can only be felt in the long run, or there are unknown side effects.

Asymmetric information means the inequality of information between the poles of the relationship, which may benefit or harm one of the agents. Depending on when this asymmetry is identified, it can be classified as adverse selection or *moral hazard*. Adverse selection occurs when the difference in the degree of information between the agents and the benefit of one of them due to the informational superiority happens before the transaction is executed. As such, the lack of access to ample information drives the agents to often make decisions that at least one of them would not have chosen if access was granted to all the information beforehand. (MACKAAY; ROUSSEAU, 2015, p. 136).

Asymmetric information *ex post* occurs through *moral hazard*, which occurs when the economic agent changes its behavior after having its property protected. In this manner, the most widespread example concerns vehicle insurance, when the agent, after acquiring the insurance, starts to adopt behaviors that increase the risk of an accident occurring. (MACK-AAY; ROUSSEAU, 2015, p. 138).

In view of these market failures and the assumptions already mentioned, namely, the expectation of increased efficiency plus the low cost to be spent by the State, regulation came to be seen as an ideal solution to the economic problems of various sectors.

However, these two assumptions cited as pillars of the theory are contested by Posner (2004, p.51) and he exposes that regulation is not necessarily linked to market failures and that "the concept of government as a free, reliable and effective instrument for changing market behavior has also already been undone".

As previously explained, the theory was named in this manner because regulation is understood as a response to social demands in search of an economy that favors the common interest. It just so happens that the defenders of this theory shied away from explaining what this "common interest" would be to pursue it. Talking about a regulation that aims at social interests ends up becoming empty before a plural society.

The public interest theory has undergone some reformulations, the first of which maintains the belief in the importance and probity of regulatory agencies, but recognizes that they may not achieve the expected efficiency, justifying that the flaw is not found in the structure of the agencies and neither in the way regulation occurs, but in the inefficiency of its employees and managers. In this regard, Posner (2004, p.52) explains that the reformulated theory

holds "that regulatory agencies are created for suitable public purposes, but are poorly managed and, as a result, the objectives are not always achieved".

Posner (2004) continues to maintain its disagreement with the theory and states that the reformulation is not satisfactory due to two reasons. The first one suggests that regulatory inefficiency can be an objective pursued by interest groups that have great influence in the creation of legislation that establishes regulatory policy. This argument assumes that the lack of regulation effectiveness will not always come from the way thing operate within the regulatory agency. The agency's creation guidelines may be lacking and prevents it to perform regulation in order to privilege the public interest.

It is imperative to point out that this is not an error in the formulation of the agency's structure, but rather concerns the favoring of groups that have a strong influence on the political scene. This criticism can be directly related to the capture theory.

In this regard, Stigler (2004) accurately notes that just as regulation can be imposed on an industry, it can also be objectified by it, with the purpose of using economic regulation to achieve its own interests. Therefore, just as an industry can be chosen as an object of regulation, it can also choose regulation as an instrument.

The second reason cited by Posner (2004) reveals that there is insufficient data to affirm that there is maladministration behind the agencies. The agency's efficiency is encouraged due to budget distributions, that is, the better the agency's performance, the greater the amount allocated to it. In addition, the director has an obligation to report to the Executive and Legislative Branches, which means that there is an interest in demonstrating a good performance.

It is not only the leadership of the agencies that benefit from demonstrating their efficiency, the other employees also receive incentives so that their performance is the best it can possibly be. Although their performance does not directly influence their remuneration, employees who are part of the staff of a regulatory agency gain visibility and increase their personal appreciation if they wish to migrate to the private sector, therefore, the efficiency of the agency in which they are a part of is also an objective to be pursued by them, even if it is for the purpose of adding value to themselves.

Posner (2004, p.54) further states that "another objection is that the agency has few incentives to minimize costs because, unlike a private company, it cannot maintain profits from reduced costs", however, this argument cannot support itself either, since countless private sector employees also do not benefit from the increased profit of the companies in which they are part of, however, this does not prove a strong enough incentive for them to start performing their activities inferiorly.

The public interest theory goes through a reformulation in which Posner admits that there is a possibility to consider that regulation really has the public interest as an end, but it is performed unsuccessfully due to some factors (POSNER, 2004, p. 54).

As far as admitting a regulation with an inadequate purpose can go, some obstacles to its efficient realization must be observed. The first of these concerns is the inflation of activities to be performed by the regulatory agencies, which means that even with good intentions, these entities are not successful while performing their activities.

The second aspect that can be addressed as an obstacle to an efficient regulation is the precarious supervision of agencies by the Legislative Branch, as stated Posner (2004, p.55) by revealing that "as the activity of the Legislative increases, one can expect an increasing delegation of work to the agencies and a decreasing control over these agencies".

Therefore, the growth in the activities performed by regulatory agencies, coupled with the precariousness of their inspection by the Legislative, achieving their objectives efficiently becomes impossible, as well-intentioned as the regulation may be.

Thomas Merrill argues that inevitably failures on the part of the Public Administration may occur and that, in these situations, the review of administrative performance by the Judiciary Branch should take place, however, he stresses that the Courts should act with caution when reviewing the agency's performance, since, as a rule, the agencies would be better than the Courts at pursuing the public interest (MERRIL, 1997, p. 1049).

The public interest theory was eminently developed by economists and although its formulation is consistent, the presence of several flaws is clear. Due to the failures pointed out in the public interest theory, explanatory theories were developed that aimed to remedy these flaws.

As explained, the capture theory emerged as the main explanatory theory resulted from the public interest theory shortcomings. Despite its antagonistic precepts, the analysis of risk of capture of regulatory agents can be used even to ratify the applicability of the public interest theory, if it is demonstrated that there is no risk of capture.

However, if the existence of captured agents is proven, as explained above, the capture theory does not have substance to be considered as a regulation theory, in this manner, it was necessary to carry out a theoretical improvement resulting in the theory that will be analyzed in the topic following.

5. ECONOMIC THEORY OF REGULATION

The foundation of the theory was created by George Stigler and published in an article in 1971 called "The theory of economic regulation", however, he did not come up with a name to refer to it. In 1974 Richard Posner published an article dealing with the theories of regulation, among them, the theory created by Stigler, which came to be called by Posner the economic theory of regulation.

On the theory Peltzman (2004) states that:

The most important element of this theory is the analysis of the political behavior based on the parameters of economic analysis. Politicians, like any of us, are seen as maximizers of their own interests. This means that interest groups can influence the results of the regulatory process by providing support financial or otherwise to politicians or regulators (PELTZMAN 2004, p. 81).

Posner states that despite the theory also departing from the unreasonable assumptions of regulation and admitting the possibility of "capture" by interest groups, in addition to

the groups that would be composed by regulated companies, it cannot be confused with the capture theory, since for the author "the economic theory is more accurate and well-finished - more easily comparable and testable with a set of empirical data - than political theory". In this regard, the economic theory of regulation rejects the supposed virtuous and integral purpose of the legislation, admits the possibility of capture by interest groups other than the regulated company and substitutes the term "capture" with a more neutral terminology of "supply and demand" (POSNER 2004, p.59).

The economic theory of regulation is based on two assumptions:

The first is that given the government's coercive power can be used to give valuable benefits to specific individuals or groups, economic regulation - the expression of that power in the economic sphere - can be seen as a product whose allocation is governed by laws of supply and demand. The second idea is that the cartel theory can help us identify supply and demand curves. (POSNER, 2004, p.60)

As already mentioned, the coercive power of the State is one of its greatest assets in relation to the private initiative, it is what makes possible for both the restrictions imposed on regulated companies and the granting of benefits to them.

Stigler (2004) explains that there are four main benefits that the State can grant to an industry, namely: cash subsidies, control over the entry of new competitors into the market, the power over substitute and complementary products (which are those related to the activity developed by the company) and control over pricing (STIGLER, 2004, p. 25).

The cartel theory is used as an example to explain the supply and demand curves by regulation. About this theory Posner (2004, p. 60) explains that "the value of cartelization is greater the less elastic the demand for the product in the market is and the more expensive, or the slower it is to enter that market".

In this regard, Posner (2004, p. 61) believes that the main costs that increase the value of cartelization are transaction costs for sellers to adjust the amounts to be charged and the amount of product that each seller can sell and the costs of imposing the cartel agreement on those agents who are not participating or for those who break the agreement. In countries where cartels are considered an illegal practice, there is still an estimated cost of punishment.

Despite being cited as an example, the occurrence of private cartelization usually meets the need for regulation. This is because when the number of companies is smaller it is considerably easier to constitute a cartel, since the transaction costs and the risks of breaking the agreement also decrease. On the other hand, the inverse occurs when the number of companies increases, in this case making regulation becomes the most viable and least expensive solution. However, like cartelization, the economic theory of regulation points out that regulation in these cases will also have a cost (POSNER, 2004, p.61).

Given the above, the economic theory of regulation can be used to understand the high incidence of protectionist legislation in areas where it would be difficult to carry out private cartelization (POSNER, 2004).

The biggest differential of the economic theory of regulation compared to the public interest theory and even the assumptions of the capture theory, is the inclusion of politics as one of the main factors that influence economic regulation. Regulations would be like goods

offered by politicians, who offer the benefits that only the public power could, as long as the economic agents are willing to bear the price demanded by said politicians (POSNER, 2004, p.63).

In this manner, the theory adopts the precepts of economic rationality to explain that politicians, even if invested in public positions, are individuals who seek to maximize their own interests.

A large part of Posner analysis of the economic theory of regulation is aimed at finding empirical evidence that supports it, however, the author also does not shy away from presenting the flaws found in this body of evidences (POSNER, 2004, p.70).

Therefore, the empirical support presented by the theories of regulation has a prominent role in the analysis made by Posner, which makes a more detailed exposition on the subject necessary.

6. THE INSUFFICIENCY OF EMPIRICAL SUPPORT IN THE THEORIES OF REGULATION

The theories of regulation and the assumptions of regulatory capture have a weakness as a point of intersection, that being, the lack of empirical support. A brief reading of the analysis made by Posner reveals, at various times, his concern about the lack of empirical studies regarding economic regulation, which led the author to conclude that no theory was sufficiently refined to generate accurate hypotheses capable of empirical verification (POSNER, 2004, p. 74).

Over the course of this work, some aspects have already been mentioned in which Posner reveals this insufficient empirical support, however, it becomes necessary to reserve a section for analysis of the theme, since this can be pointed out as a weakness present in all regulatory approaches analyzed by Posner.

However, before entering the field of economic regulation, it should be noted that in the scope of law, in general, there is a shortage of empirical studies. Despite the fact that there is no shared central theory of law, it is a barrier to the verification of hypotheses universally, empirical works have an important role in revealing how human behavior plays out under different legal norms. As such, although it is still scarce, the recognition of its importance has slowly and gradually made empirical work occupy space within legal knowledge (ULEN; COOTER, 2014, p.62-63).

The importance of empirical evidence is ratified in the scope of regulation with the failure to recognize capture as a theory, since, Posner (2004, p. 57) concludes that capture is "a hypothesis devoid of any theoretical basis", which makes the existence of empirical validation techniques unfeasible.

There is no evidence of interaction between regulatory agencies and regulated companies (POSNER, 2004, p.57). The absence of proof of the capture hypothesis, added to the

evidence sets already exposed, which reveal several situations unexplained by the capture theory, demonstrate the insufficiency of the theory.

Regarding the theories of regulation, despite being manifestly recognized as theories, they also reveal themselves with insufficient empirical support.

Some precepts exposed as true by the public interest theory lack empirical evidence, such as, for example, claims that regulatory agencies are poorly managed or that they are less efficient than other organizations (POSNER, 2004, p. 52-53).

One of the factors that made the economic theory of regulation recognized as having the best theoretical basis was its empirical support. In this regard, Posner (2004, p. 67) exemplifies that:

There is a substantial number of case studies - road, air, rail transportation and many other markets - which supports the idea that economic regulation is better explained as a product provided to interest groups than as an expression of social interest with legal efficiency.

However, as explained above, although the economic theory is considered by Posner to be the theory of regulation with the best foundation and support, it is not free from flaws. As such, Posner presents six weaknesses present in the body of empirical evidence that supports the theory (POSNER, 2004, p. 70).

The first flaw argues that most of the evidence is compatible with any version of the interest groups theory. The distinction between the public interest theory and the economic theory of regulation can be easily made, but this distinction is made difficult by comparing it with any theory based on the interest groups theory. In this manner, Posner (2004, p.70) states that:

For these case studies to support the economic theory of regulation, they would have to demonstrate that the characteristics and the circumstances of the interest groups were such that the economic theory would have predicted that they, and not any other groups, would obtain the regulation from which they would benefit.

The second evidence reports that the empirical research is not being executed systematically, that is to say, the cases mentioned as an example of the theory are chosen precisely because of their peculiarities conducive to its application. The studies regarding the theory were performed, eminently, from the analysis of case studies, which were not selected at random, but from their similarities with the precepts defended by the theory. This fragility does not invalidate the studies that have already been made, however, it points to the need for more systematic empirical research (POSNER, 2004, p.70).

The third evidence claims that some regulatory case studies have produced evidence that is difficult to relate to economic theory. It is also noteworthy that the theory does not address the possibility of failures in an attempt at regulation, which inevitably may occur (POSNER, 2004, p.71).

The fourth fault mentioned is due to the fact that the empirical evidence depends heavily on a confident rejection of the justifications of public interest. The economic theory rejects the justification that regulation can be realized for the purpose of obtaining public interest, however, the theory does not explain why this possibility does not exist, it also avoids justify-

ing the reason for creating all of the regulatory legislation according to the economic theory (POSNER, 2004, p. 72).

The difficulty in tracking the effects of economic regulation is the fifth failure presented by Posner, that reveals as a side effect of regulation the difficulty in distinguishing which markets are benefited or harmed due to this state intervention (POSNER, 2004, p. 73).

Finally, in the sixth critic Posner adds that there is no explanation for the rhetoric used by the public interest theory to expose the process of elaborating public policies. The introduction of fraud theories, or more broadly of information costs, suggests a revival of the public interest theory in a way that it can even be tested empirically (POSNER, 2004, p. 73).

From this analysis made by Posner, it is possible to see that most of the weaknesses exposed are subject to adjustment based on a development of the theory. In this regard, an economic theory is sustained not only because of its robust empirical framework, but also because from the verification of its flaws it is possible to propose an improvement of the theory.

7. FINAL CONSIDERATIONS

A brief analysis of the theories of regulation reveals the complexity with which economic regulation developed over the course of a century. The approach from the perspective of economics became only the starting point of the study of regulation, which added interdisciplinary research in areas such as political sciences, law and even behavioral psychology as a necessity.

The purpose of this paper was to explain the public interest theory and the criticisms arising from it, which led to the elaboration of two explanatory theories, in order to expose and propose solutions to the flaws present in the public interest theory.

The capture theory was the most important theory that emerged in opposition to the "problems" of the public interest theory, considering that it opposes the idea of "common good" and that regulation would be carried out with the aim of achieving a public interest. However, although it seems closer to reality than the public interest theory, the capture theory was also the target of criticism, which caused it to undergo a reformulation that resulted in the economic theory of regulation.

However, the importance of capture in terms of economic regulation is notorious, since, even though it does not have the *status* of a regulation theory, the analysis from its perspective is what allows a complete dissection of the other regulatory theories that were addressed in the present work.

Proof of the non-existence of the agencies capture would demonstrate the consistency of the public interest theory, making it so that even if it is found that the capture does not exist, the studies derived from it become indispensable for the analysis of the regulated market.

Just as the verification of the existence of the capture would make the theory that was originally elaborated impossible to apply, considering that for the reasons explained, refine-

ment is essential for it to be configured as a regulatory theory, which occurred from the reconfiguration that gave rise to economic theory of regulation.

The risk of capturing of regulatory agents must be analyzed according to the scenario of each State, since it depends on variable factors such as obviously the market and even politics.

In Brazil, the marked presence of a captured model is directly related to the political and administrative control that interest groups have in the agencies and even in the Legislative Branch. In this scenario, the understanding of how capture takes place and what are the reasons that cause public agents to be captured is fundamental to verify how market and government failures can be solved, enabling more efficient regulation.

In this aspect, the importance of Economic Analysis of Law is well known as a theoretical tool for the application of capture as an axis of analysis.

Despite the search for improvement, all theories are riddled with flaws and the present work uses the approach of Posner (2004) to expose the central points of each theory and the main criticisms that the author addresses to each one of them. However, it was also sought from a specific perspective to demonstrate the importance of the analysis of capture regardless of the theory addressed.

In reality Posner (2004, p. 74) argues that none of the theories of regulation that are the object of the present work have significant empirical support. All of them have not been tested enough to be verified empirically, however, there is no hesitation in stating that among the theories explained, the economic theory of regulation is the one that comes closest to the intended efficiency, because it considers a factor that until now was ignored by other theories, which is the analysis of human behavior and the rationality of individuals.

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