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ARTIGO DE PESQUISA

Murray Rothbard´s Monopoly Theory applied to the Brazilian Transport Sector – An overview

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Abstract: The aim of this paper is to deploy the Austrian economic thought on monopoly to an *ex-ante* scenario, seeking other ways of state intervention that could create monopolies, in addition to well-known state concession. Therefore, we sought to identify regulatory costs and their indirect interference in the quantity of companies within industries, that creates a favorable scenario for the emergence of monopolies. Rothbard's (2009) proposition about the condition of the existence of monopolies is correct, but it can be complemented with an analysis of an indirect and unintentional creation of monopolies by the State.

Keywords: Monopoly, Austrian School of Economics, Regulatory abuse.

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La teoría del monopolio de Murray Rothbard aplicada al sector del transporte brasileño: una visión general

Resumo: O objetivo deste artigo é desdobrar o pensamento econômico austríaco sobre o monopólio para um cenário ex-ante, buscando outras formas de intervenção estatal que possam criar monopólios, além da conhecida concessão estatal. Assim, buscou-se identificar os custos regulatórios e sua interferência indireta na quantidade de empresas dentro das indústrias, que cria um cenário favorável para o surgimento de monopólios. A proposição de Rothbard (2009) sobre a condição de existência de monopólios é correta, mas pode ser complementada com a análise de uma criação indireta e não intencional de monopólios pelo Estado.

Palavras-chave: Monopólio, Escola Austríaca de Economia, Abuso regulatório.

A Teoria do Monopólio de Murray Rothbard aplicada ao Setor de Transporte Brasileiro – Uma visão geral

Resumen: El objetivo de este artículo es desplegar el pensamiento económico austriaco sobre el monopolio a un escenario ex-ante, buscando otras formas de intervención estatal que podrían crear monopolios, además de la conocida concesión estatal. Por lo tanto, buscamos identificar los costos regulatorios y su interferencia indirecta en la cantidad de empresas dentro de las industrias, lo que crea un escenario favorable para el surgimiento de monopolios. La proposición de Rothbard (2009) sobre la condición de existencia de los monopolios es correcta, pero puede complementarse con un análisis de una creación indirecta e involuntaria de monopolios por parte del Estado.

Palabras-clave: Monopolio, Escuela Austriaca de Economía, Abuso regulatorio.

Introduction

Austrian economics, as well as mainstream (neoclassical) economics, has been discussing monopoly for several decades. Much has been done on the subject, especially if we consider the contribution that Rothbard (2009) made to what Mises (1949) thought about the perception of this market structure. It is safe to say that, after some evolution in studies in this regard, from the Austrian perspective, monopoly is considered bad only when granted by the government. At the same time, in the mainstream economy, much has been discussed about barriers and market power, with the creation of the Natural Monopoly term as the justification for the use of government intervention actions in some markets.

Mises (1949) was right when he asserted that government interferes negatively in market structures. Rothbard (2009) made a major contribution to the field when he asserted that monopoly is not an issue when it derives from economies of scale and quality of the good that is being offered. However, both the Austrians and the neoclassicals are focused on the analysis from the perspective of the already existing market power or from the perspective of the monopoly price.

We aim to propose a framework that allows us to understand how government can indirectly create monopolies in a bad way. It is, therefore, an *ex-ante* perspective of the creation of monopolies, with government actions causing such externalities.

Therefore, this work will be divided into three parts, in addition to this introduction. In the first part, a bibliographical review on Monopoly in the light of the Austrian School of Economics. In the second part, a better understanding of regulation and abuse of regulatory power. An last, the third part, dedicated to the analysis of the concatenation of the two previous parts, in which the paper's contribution is built.

Competition, Monopoly and Equilibrium

The concepts of competition, monopoly and equilibrium are part of the economist's basic tools. Throughout the 20th century, the "neoclassical paradigm" is the set of economists who, in their analyses, use as fundamental assumptions, according to Dequech (2007):

1. Emphasis on rationality and the use of welfare maximization, measured by units of utility;
2. Emphasis on equilibrium;
3. Denial of the existence of strong types of uncertainty.

This paper does not intend to extend into methodological issues about the neoclassical foundations of analysis and their contraposition with the Austrian ones. For this, see Hülsmann (1999) and Lavoie (2011). However, this distinction is necessary because, as will be seen in a subsequent section, there are substantial differences between the neoclassical view and the view about the topics that give this section its title.

For Arrow (1990) rationality depends on specific conditions, and if these conditions are not observed, it ceases to be verified. Rationality is a necessary and fundamental condition for economic theory itself to exist, this being the most important and basic concept in the conception of the theoretical body of economic science. Rationality allows for an allocative equilibrium, that the economic agent, guided by John Stuart Mill's *Homo economicus* concept, is able to act maximizing his well-being, thus increasing his utility. Other theories can be derived from the rationality principle and, as it turns out, the neoclassical monopoly theory in fact starts from the assumption of rationality and the existence of an equilibrium.

Equilibrium is a concept consistently studied and defended in economic theory in classical works such as Arrow (1974), Debreu (1982) and Von Neumann (1971). Key characteristics of equilibrium in neoclassical economic models are existence and uniqueness, that is, equilibrium exists and is represented by a single point. All the aforementioned authors use mathematical tooling to obtain the equilibrium. Bias, Smith and Jansson (2012), under a behavioral analysis, make a strong defense of the equilibrium assumption. They claim that Rational Choice Theory "is the worst theory after all others." Under the strict Ceteris Paribus foundation, economic agents are rational and act in ways that respond to external (environment), internal (mind) incentives and achieve a higher level of satisfaction.

Uncertainty brings instability to economic models. Unlike risk, which can be measured and calculated probabilistically in Knight's (1964) perspective, uncertainty represents genuine doubt and inability to predict. Therefore, useful economic models should have little or no uncertainty. In a closer look at the concept of uncertainty, its different interpretations and applications in economic theory, Dequech (2011) classifies distinctions into three distinct types: Strong uncertainty and weak uncertainty; substantive and procedural; ambiguous and fundamental. Each of these types takes into account a distinct reality and, in general, the design of economic models should take into account weak uncertainty, as it allows for greater predictability on the part of the economist and greater accuracy in the predictive capacity of the model.

Austrian Perspective

Before addressing the issue of monopoly, it is important to point out some differences between the neoclassical and the Austrian perspectives on market structures and the notion of equilibrium in economic models. The most widely used textbooks for the study of microeconomics such as Mas-Collel, Whinston and Green (1995) and Varian (2006) use static assumptions in the analysis of markets. It is assumed that the supply, demand, marginal revenue and marginal cost curves are known, and the function of whoever manages this reality reproduced in the model boils down to finding the equilibrium point. When dealing with equilibrium in the neoclassical conception in this work, the article by Arrow and Debreu (1954) is used as a reference.

It is important to mention the absence of the entrepreneur figure in neoclassical economics. The supply and demand assumptions seem to be sufficient to find the equilibrium, that is, the efficient allocation will tend to be obtained through a process of trial and error. Some works, such as Bianchi and Henrekson (2005) and Lowrey (2003), try to argue about the absence of the entrepreneur figure in economic models, and reach the conclusion that the introduction of the entrepreneur would disturb the model's foundation, consequently causing a distortion in the intervention and action of sectorial public policies. This gap still exists, and some works try to fill it with the goal of changing the foundations of neoclassical models, introducing fundamentally Austrian characteristics, such as subjectivism, genuine uncertainty, and the absence of a static equilibrium. Bylund (2011) brings a reading of the theory of the firm that summarizes this bridge between the neoclassical models and a construction of the theory of the firm from an Austrian perspective, by conceiving the firm as a kind of incubator for entrepreneurial activity, no longer being divided as a unit responsible for the division of labor but as a product of entrepreneurial activity and responsible for generating innovation in markets.[3]

[3] To see more about the Austrian Theory of the Firm see Bylund (2015).

Monopoly Theory

Much of this modern view of economics comes from Samuelson (1975) and is used as a basis for the analysis of specific industries in the field of Industrial Economics, such as the imperfect competition structure models in Tirole (1988) and in the Economics of Organizations and its study of the internal behavior of firms in Williamson and Winter (1993) and in the analysis of specific assets in Williamson and Masten (1999). It is important to point out Coase's criticism to what he called "Blackboard Economics", that is, the attempt to reproduce what was analyzed in the models in practice. In his words:

> The policy under consideration is one which is implemented on the blackboard. All the information needed is assumed to be available and the teacher plays all the parts. He fixes prices, imposes taxes, and distributes subsidies (on the blackboard) to promote the general welfare. But there is no counterpart to the teacher within the real economic system. (COASE, 1987, p. 19).

It can be noticed the care in Coase's words when pointing out the separation between what is seen on blackboards and the application in practice. The problem when applying the theory present in models and causing distortions in reality can cause what Demsetz (1969) called "Nirvana Fallacy", i.e., assuming that reality will behave as the model predicts and, when observing natural distortions between the ideal and the real, imagining that the model is wrong and changing it. It will be impossible to represent reality reliably without using simplifying assumptions, and these assumptions tend to cause distortions in the observation of reality.

The Austrian critique of the more accepted notion of "competition" is in Hayek (1958:2020), and Kirzner (1997). Hayek criticizes the view of competition as being a game to find the equilibrium point in a market given the supply and demand curves. In this arrangement, there would be no entrepreneurial rivalry and the existence of entrepreneurs is not assumed. There would then be no market economy, only a search, through trial and error, to find prices and quantities considered as "equilibrium". Still in Hayek (2002) there is a methodological criticism of the neoclassical approach, and its reductionist assumptions in the formulation of theories and models:

> It would not be easy to defend macroeconomists against the charge that for 40 or 50 years they have investigated competition primarily under assumptions which, if they were actually true, would make competition completely useless and uninteresting. If anyone actually knew everything that economic theory designated as "data," competition would indeed be a highly wasteful method of securing adjustment to these facts. Hence it is also not surprising that some authors have concluded that we can either completely renounce the market, or that its outcomes are to be considered at most a first step toward creating a social product that we can then manipulate, correct, or redistribute in any way we please. Others, who apparently have taken their notion of competition exclusively from modern textbooks, have concluded that such competition does not exist at all. By contrast, it is useful to recall that wherever we make use of competition, this can only be justified by our not knowing the essential circumstances that determine the behavior of the competitors. (HAYEK, 2002, p. 9).

Monopoly accordingly to the Austrian School of Economics

After the introduction on the differences between Austrians and neoclassicals about the conception of market structures, the analysis of monopoly begins. To deal with this subject, it is important to establish that there is no consensus on monopoly within Austrian School of Economics. There is a very old discussion on the subject though, as noted in Fetter. "The germs of monopoly are in any device whatever, that is used to keep any trader form competitively bidding in accordance with his individual interest as he sees it." (FETTER, 1915, p. 80).

For Block (1977), there are two different views on monopolies within the Austrian School's body of researchers: Mises-Kirzner view and Rothbard view.

Mises pointed out that the discussion about the existence of monopolies should be understood as a temporal existence. This means that these market structures cannot be interpreted as something that antagonizes a competitive market. In fact, monopoly would be a relative state of a market process. "The temporary coexistence of a plurality of prices for the same commodity is the outcome of the fact that the forces making for change are still operating and that a state of equilibrium has not yet been attained." (MISES, 1998, p. 3).

For Mises (1949) monopoly depends on three factors: supply monopoly; market demand inelasticity; and the monopolist figuring out monopoly prices. Based on these assumptions, the perception of maintaining a monopoly would be wrong, as there is no way for entrepreneurs to be omniscient and to practice prices that would be higher than the hypothetical prices of that market in a state of perfect competition. For its effective existence, the prices practiced in monopolies must be advantageous to increase its total net income, up to the limit that the market allows (MISES, 1949). This concept is supported by Kirzner (1973, p. 110): "The owner of the monopolized resource has withheld the use of some of his stock from the market, forcing up the price the market must pay for the smaller remaining quantity."

In this perspective, the sole owner of resources could be able to promote monopoly prices, using the scarcity of that product: withdrawing part of the supply of this good from the market, or restricting production (COSTEA, 2003). However, this restriction on the production of certain goods would mean that capital and labor could be allocated to the production of other goods (MISES, 1981). Thus, Mises and Kirzner's perspective points to the possibility of the existence of monopolies in a competitive market (BLOCK, 1977). The competitiveness of a market does not depend on the number of companies. Bastos (2016, p. 381, free translation) points "to the possibility of a market with one firm, but still competitive – as it would always be at the mercy of the entry of new competitors."

Armentano (1978) points out that Rothbard's (2009) work refines and corrects the definition of monopoly within the Austrian context, defining that "monopoly is a grant of special privilege by the State, reserving a certain area of production to one particular individual or group" (ROTHBARD, 2009, p. 669).

Salerno describes that:

> Rothbard (1993, p. 586-615) thus demonstrated much later on, if it is logically impermissible to use either long-run average cost or the price that comports with the absence of withholding

> of units of an existing stock as the standard for competitive price, then the distinction between a competitive and a monopoly price is illusory on the free market. The theory of monopoly price then can only apply to a situation in which the free-market demand curve facing the seller of a good is coercively distorted and rendered more inelastic by legal barriers to entry imposed by government. (ROTHBARD, 1933, p. 586-615 apud SALERNO, 2003, p. 59).

The way in which monopolies are maintained is through the power of state coercion, which represents strong interventionism and the granting of privileges, thus characterizing a scenario incompatible with the free market (BLOCK, 1977). With state protection, the monopolist is free to charge prices above market prices. Without state protection, this structure can only happen if the monopolist produced in an economy of scale, minimizing costs and consequently practicing market prices.

For Costea (2003, p. 60) "Mises attempts to incorporate the neoclassical concept of monopoly price into the framework of the market process."

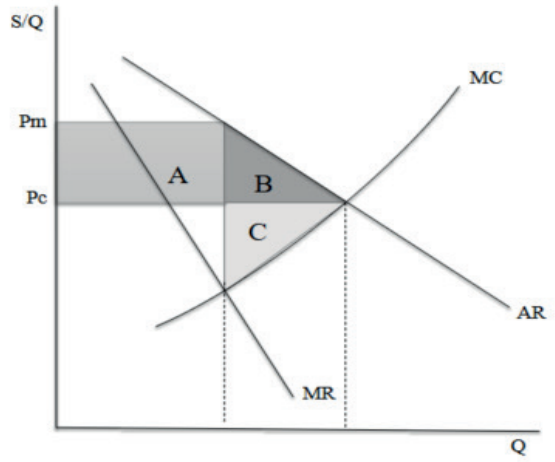
Although Rothbard has formulated a well-accepted theory of monopoly, there are fields that have not yet been well explored. One of the problems with the Austrian perspective of monopoly is the following: some monopolies are bad and resist in the long run, but they are not granted by the government - at least not directly.

It is important to point out that monopoly is recurrently treated in the literature as a market failure, requiring state intervention to correct it. However, it is just the opposite, and "it is absurd that it (the State) applies anti-monopoly policies; in fact, what he must do is, simply, abolish the laws – or rather, the legislations (Thesis) – that established the monopolies" (IORIO, 2013, p. 421, free translation). The mistakes made in the attempt to regulate 'monopolistic' markets transform 'market failures' into 'government failures' which can be defined as: "When decision making for the applicability of solutions normative encounters limitations that incur externalities greater than market failure that economic regulation was justified." (BRASIL, 2020, p. 7, free translation).

Regulation and Regulatory Abuse – An applied example in Brazil

Monopoly regulation, based on the monopoly price, is still very much defended. This leads to a loss of social welfare and dead weight, resulted from the monopoly power, as shown in Figure 1.

Figure 1 – Deadweight due to Monopoly

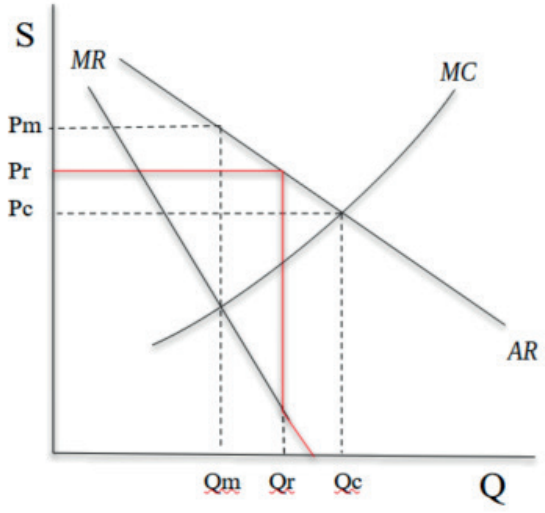


Source: Adapted from Pindyck and Rubinfeld (2010, p. 326).

Dead Weight, represented in Figure 1 by areas B and C, represents the social cost of monopoly power. Rectangle A represents the monopoly gain in restricting the supply in quantity Qm to a price Pm, while the quantity and price of the competitive market are, respectively, Qc and Pc. Thus, in the competitive market, monopoly price will be greater than the marginal cost (MC), assuming that in the competitive market the price is equal to the marginal cost, configuring monopoly power and bringing loss to consumers, who lose A + B, while the monopolist wins A – C.

The solution found to resolve the issues of loss of social welfare is price regulation, with the practice of setting the maximum price by the regulatory agency, as shown in Figure 2.

Figure 2 – Price Regulation



Source: Adapted from Pindyck and Rubinfeld (2010, p. 327).

When the regulatory agency sets a maximum price Pr, the new Marginal Revenue (MR) curve is changed to three segments – Pr to MC horizontally, from MC to MR vertically, and in Qr continues as the original MR. This makes the monopolist increase production to Qr in pursuit of profit maximization. This alternative provokes an increase in consumer surplus, lost when the monopolist produces in quantity Qm.

However, Barbieri highlights the inability of the State to exercise its regulatory function of monopolies,

> In more specific terms, we will highlight two features of microeconomic theory that support the illusion of tamable monopolies by regulation: (i) the belief that the cost curves of static equilibrium theory would have literal real-world counterparts, so they could be empirically estimated and (ii) the belief that these cost curves would be invariant in relation to the market structure, that is, knowledge about the cheapest ways to produce a good would not depend on the existence of a greater or lesser degree of competition. (BARBIERI, 2013, p. 185, free translation).

> In the previous section, we discussed about how the State, in an attempt to resolve market failures, ends up developing government failures, with the regulatory exercise. "Most of the regulatory activity is still under the supervision of the State, and it is even possible to doubt the capabilities of State intervention under the pretext of 'correcting market failures'" (CAVALCANTI, 2020, p. 268, free translation)

When this occurs, the state action is framed as an abuse of regulatory power, which can be understood as presented by Gaban and Domingues (2020, p. 248, free translation): "purpose deviations in the exercise of state powers, as in the case of market regulation, largely result from the confusion or conflict of interests of numerous orders and various factors. When acting with a conflict of interest, public agents end up sacrificing the public or social interest".

According to Paranaiba and Hespanhol (2021) the concept of regulatory abuse was included in the Brazilian legal framework, listing the situations in which such abuse could occur in its items:

I. create market reserve by favoring, in regulation, an economic or professional group, to the detriment of other competitors;
II. write statements that prevent the entry of new national or foreign competitors in the market;
III. require technical specification that is not necessary to achieve the desired end;
IV. write statements that prevent or delay innovation and the adoption of new technologies, processes or business models, except in situations considered by regulation as high risk;
V. increase transaction costs without demonstrating benefits;
VI. create artificial or compulsory demand for a product, service or professional activity, including the use of notary offices, registries or registers;
VII. introduce limits to the free formation of business societies or economic activities;

VIII. restrict the use and exercise of advertising and advertising on an economic sector, except for the cases expressly prohibited by federal law; and

IX. demand, under the pretext of tax registration, requests of another nature in order to mitigate the effects of item I of the caput of art. 3 of this Law. (PARANAIBA; HESPANHOL, 2021, p. 6, free translation).

A systematization of regulatory abuse was implemented with the publication of two Normative Instructions from the Brazilian Ministry of Economy. The two norms converge in the search to identify regulations that may characterize the practice of regulatory abuse, the first being aimed at investigating existing abuses, and the second to establish criteria for analysis regarding regulatory improvement related to the reduction of business costs.

The second standard creates unprecedented parameters for the identification of regulatory costs that may make the environment anticompetitive, as shown in Table 1:

Table 1: Anti-competitive criteria that cause regulatory cost increase

Criteria	**Characteristics**
Regulatory Obligations	Obligation that causes distortion of competition between economic agents; Onerousness of the obligation that represents an economic barrier or harming smaller economic agents or potential entrants; There is no accessibility and isonomy to the means of fulfilling the obligation.
Technical Specifications	The requirement of a technical requirement that burdens the market to the point of limiting competition; The technical requirement that makes a product or service from a wide and global offer unfeasible; The technical requirement that submits Brazilian producers to a more onerous environment than competitors who produce on foreign soil; and The technical requirement that makes the development of disruptive technologies or models that could potentially occur at the margin of regulation unfeasible.
Regulatory Restrictions and Prohibitions	The regulation limits the use of techniques, means or results useful to the market that do not present a proven risk to third parties or have a systemic nature; Regulation makes the free technological development of different competing alternatives unfeasible; and The regulation makes it impossible to offer products or services with free and wide access in developed markets.
Licensing	The regulation does not guarantee equality, transparency and predictability between established economic agents and potential entrants, including for the development of disruptive economic models; Onerousness in complying with licensing, including direct and indirect costs, which represent a barrier to entry or competitive distortion; and Licensing subjects the Brazilian producer to a less competitive environment than its foreign competitors.
Normative Complexity	Regulation is not clear, objective, predictable and isonomic, in order to ensure symmetry of regulatory information between economic agents in the sector; and Regulation is not consolidated, harmonized and integral, in order to guarantee wide accessibility to potential new entrants, including those of foreign origin.

Source: Adapted from Brasil (2021a, p. 17).

We see that "the regulations generate costs for both the public administration and the private sector. These costs can be structured into Direct Financial Costs, Compliance Costs and Costs for Public Administration." (BRASIL, 2021a, p. 18, free translation). The simple cost of keeping up with regulatory requirements can cause regulatory burden. Depending on the amount of regulations and the speed at which these regulations are updated, regulatory costs can be perceived as excessive.

Converging into a new proposition

Both mainstream economics (neoclassicals) and Austrian economics have the discussion on monopolies set on the debate about monopoly power as a 'type' of market failure. Monopoly is also treated from an analysis of the pre-existence of monopoly as an analytical starting point.

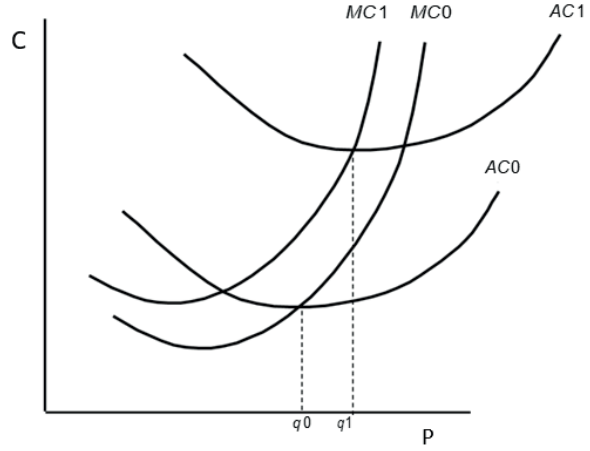
Specifically for the Austrians, the existence of monopolies is based on state intervention that grants the monopolist deliberately to operate in the market, through prohibitions and authorizations. Méra (2010) states that there is no concern among Austrian economists about monetary expenses for sellers, specifically about Rothbard and points out that,

> Rothbard is not very explicit regarding factor pricing under monopolistic conditions. True, he stresses that monopoly price must be understood as a catallactic phenomenon and, as such, a phenomenon which is not independent from the general pricing and resource allocation process. (MÉRA, 2010, p. 54).

Rothbard pointed to more than monopoly as a state concession. It is possible to build a hypothesis that more legal and infralegal rules, like regulatory ones, can prevent the entry of new competitors in this market, raising the regulatory costs for participation in this market, contributing to the emergence of ex-ante monopolies.

Assuming that all regulation incurs costs for the regulated companies, it is possible to conclude that regulatory costs impact long-term marginal and average costs of companies. The impact of these costs can be seen in the changes in input costs in a typical market, without the existence of a monopoly, seen in Figure 3.

Figure 3 – Long-term equilibrium production with input price increase



Source: Adapted from Nicholson and Snyder (2018, p. 290).

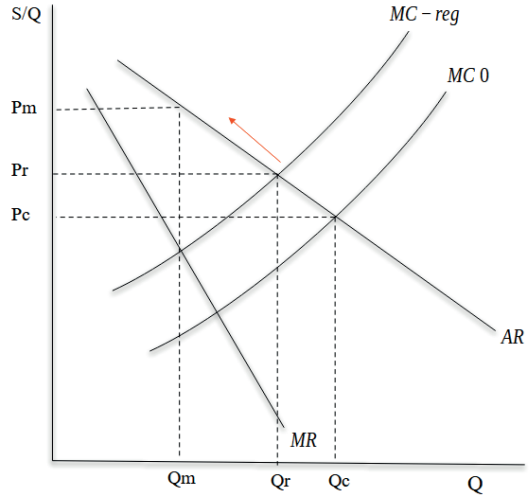
Figure 3 illustrates that rising input prices shift both the average and marginal cost curves upward. The magnitude of this shift will determine whether or not there will be an increase in the optimal level of production of a typical q* company. For Nicholson and Snyder (2018, p. 291, free translation), "if q_1^* ≥ q_0^* the decrease in quantity caused by the increase in market price will certainly decrease the number of companies." If the opposite occurs, that is, q_1^* ≤ q_0^* it will be undetermined to affirm a reduction in the number of companies, as we depend on the magnitude of the displacement of the marginal cost and average cost curves in the long term, and can only affirm that there will be a reduction the optimal size of the company. However, this "will likely result in a decrease in the number of companies when an increase in the price of an input decreases the industry's production" (NICHOLSON; SNYDER, 2018, p. 291).

This phenomenon of reducing the number of companies caused by the increase in costs is also shared by Bylund, when he states that:

> Each investment, even those with anticipated very high profits, becomes riskier due to the added cost. As a consequence, the economy will develop at a much slower pace, and with less value creation there is a greater risk for distortive effects: the number of opportunities that will never be realized—*the unrealized*—increases with the artificial burdens on economic action. (BYLUND, 2016, p. 155).

Thus, the proposal that can be made for a new reading of Figure 2, taking into account the change in costs in Figure 3, is Figure 4. In it, it is noted that the state regulatory action increases marginal costs (from CMg0 for CMg1), making the market possible for only a few companies that manage to remain in the market.

Figure 4 – Proposition



Source: Autors

If only one company manages to survive with the new marginal cost required by the regulations (Cmg1), it will be able to raise its price from Pr to Pm, since the regulatory agency's action eliminated the pre-existing competition.

> Even those Brazilian markets in which there are no state monopolies, or direct regulation of regulatory agencies that create oligopolies, are targets of intervention by taxation, bureaucracy and fiscal benefit, making them difficult to access and remain, and inefficient in the economic process. (SCHOENHERR, 2021, p. 29, free translation).

Thus, we can point out that Rothbard's proposition about the existence of monopolies is correct, but it can be complemented with an analysis of an indirect creation of monopolies. It is not necessarily intentional, but it is independent of the demand elasticity of the market.

Observing the proposition in practice

To point out how this proposition is based on the observable reality, we will take the transport sector in Brazil, specifically the interstate and international road transport of passengers (TRIIP) sector.

Being a country of continental dimensions with 5,568 municipalities, a great potential for road passenger transport is expected. Nevertheless, until 2019, just over 2,000 were attended by the service.

More than the poor services offered to the localities, we can also observe little competition in this sector: 66% of the lines are served by only one company; 26% by only two companies; and only 8% by three or more companies[4].

[4] Data released by the Ministry of Infrastructure and the National Land Transport Agency at the time of Subsidy Taking No. 04/2020.

The current regulation of this sector is given by Decree No. 2.521 of March 20 of 1998 (BRASIL, 1998), which legislate the exploration of interstate and international passenger road transport services through permission and authorization. It determines that the passenger transport service is to be granted via bidding and payment of grants. However, companies interested in providing road transport services may apply to the National Land Transport Agency (ANTT). They will be informed that "the convenience and opportunity for the implementation of new services will be assessed by a market study indicating the possibility of autonomous exploration of the service" (§1 of article 11 of the Decree).

We may observe a market opportunity where there is no road passenger transport service. Yet, in the same Decree, a regulatory restriction appears: companies must provide the service in the "Closed Circuit" modality:

> Closed-circuit: a group of passengers traveling with a common motivation, departing in a vehicle from the place of origin to one or more destinations, and that, after covering the entire itinerary and observing the stay times established in this Resolution, returns to the place of origin in the same vehicle aforementioned (BRASIL, 2015).

In a demonstration against the current regulation, the company BUSER filed a complaint with the Ministry of Economy that Decree 2.521/1998 was promoting the abuse of regulatory power:

> Under the Request, the maintenance of the closed-circuit rule is only justified to maintain the existing market protection regarding collective road passenger transport, which is historically explored by the same companies or economic groups, with a low level of intersectoral competition. (BRASIL, 2021b, p. 28).

In response, the Ministry of Economy, according to the criteria of abuse of regulatory power, replied that Decree 2521/1998, combined with two other resolutions of the Regulatory Agency, had an anti-competitive character, which generates competition distortions and causes:

i. restriction of how the private agent must exercise its activity;
ii. restriction of freedom of choice and contracting by the user of the service;
iii. idleness in the fleet and workforce, with negative effects on efficiency. (BRASIL, 2021b, p. 24).

It is evident that the regulation does not prohibit the activity, as Rothbard's proposition on the existence of monopolies states. Still, a text that creates specifications and rules that increase operating costs makes transport operations and the entry of new competitors unfeasible, considering the collaborative road transport charter system and its applications and technological resources.

Conclusion

The aim of this paper was to point out the possibility of unfolding Austrian thinking on monopoly to an *ex-ante* scenario to envision other forms of state intervention that could create monopolies, in addition to the state concession. Therefore, we sought to identify regulatory costs and their indirect interference in the number of companies in the industry, creating a favorable scenario for the emergence of monopolies.

Rothbard's (2009) proposition about the condition of the existence of monopolies is correct, but it can be complemented with an analysis of an indirect and unintentional creation of monopolies by the State.

Even with the advances in the Brazilian legal framework in identifying abuses of regulatory power, we understand that all regulation leads to increased costs for companies. This favors the emergence of monopolies with the freedom to practice monopoly power, raising prices and causing loss of social welfare for consumers.

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