Organisation for Economic Co-operation and Development

DAF/COMP/GF/WD(2021)38

Unclassified

English - Or. English

28 November 2021

DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE

Cancels & replaces the same document of 26 November 2021

Global Forum on Competition

ECONOMIC ANALYSIS AND EVIDENCE IN ABUSE CASES – Contribution from Brazil

- Session II -

7 December 2021

This contribution is submitted by Brazil under Session II of the Global Forum on Competition to be held on 6-8 December 2021.

More documentation related to this discussion can be found at: oe.cd/eac.

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JT03486365

Economic analysis and evidence in abuse cases

– Contribution from Brazil[1] –

1. Types of abuse of dominance in the Brazilian Antitrust Policy

1. In Brazil, the Administrative Council for Economic Defense (CADE) investigates and punishes abuses of dominance at the administrative level. Some examples of abuse of dominance are referred in Article 36, Paragraph 2, Items III–XIX of the Brazilian Competition Law (Law 12529/2011)[2]:

> *Article 36. Any practice carried out in any manner, regardless of fault, that produces, or intends to produce, the following effects, regardless of achieving them, is considered an antitrust violation:*
>
> *(...)*
>
> *IV - abuse a dominant position.*
>
> *(3) The following practices, amongst others, insofar as they have been provided for in the head of this Article or in its Items, are considered antitrust violations:*
>
> *(...)*
>
> *III. limit or prevent the entry of new companies into the market;*
>
> *IV. create difficulties for the establishment, operation, or development of a competing company or supplier, purchaser or lender of goods or services;*
>
> *V. prevent competitors' access to input sources, raw material, equipment, technology, or distribution channels;*
>
> *VI. require or grant exclusivity to advertise in means of mass communication;*
>
> *VII. employ deceitful means to cause third parties' prices to fluctuate;*
>
> *VIII. regulate markets for goods or services by negotiating agreements to limit or control research and technological development, the production of goods or provision of services, or to obstruct investments aimed at producing or distributing goods or services;*
>
> *IX. impose upon distributors, retailers, and representatives, any resale prices, discounts, payment terms, minimum or maximum quantities, profit margins, or any other conditions for negotiating with third parties;*

[1] This document was prepared by Ricardo Medeiros de Castro, CADE's Coordinator of Studies on Anticompetitive Conduct, and Marina Haddad Tovolli, CADE's Deputy Chief Economist. It was edited by Ariel Daltrozo Munhoz Menezes and Italo de Medeiros Parente, Translators at the CADE International Unit.

[2] CADE is currently producing a new translation of this law, whose extracts were used in this contribution. An older translation of the entire law is available at < https://www.google.com/search?q=law+12529&rlz=1C5CHFA_enBR944BR944&oq=law+12529&aqs=chrome.0.69i59j69i60.3251j0j4&sourceid=chrome&ie=UTF-8#:~:text=LAW%20N%C2%BA%2012529,br%20%E2%80%BA%20legislacao%20%E2%80%BA%20download>

X. discriminate purchasers or suppliers of goods or services by charging different prices or imposing different conditions for sale or service provision;

XI. refuse to supply goods or services within what is considered normal payment and business practices;

XII. hinder or disrupt the continuity or development of business relations of indefinite duration due to another party's refusal to abide by unjustifiable or anticompetitive terms and conditions;

XIII. destroy, make unusable, or monopolize raw materials, intermediate goods, or final goods, or destroy, make unusable, or hinder the operation of equipment to produce, distribute, or transport these materials or goods;

XIV. take over or prevent the exploitation of industrial or intellectual property rights or technology;

XV. sell merchandise or provide services unreasonably below cost price;

XVI. retain consumer and capital goods, except to ensure that production costs are covered;

XVII. partially or completely cease company activities without proven cause;

XVIII. condition the sale of a good on the purchase of a different good or the use of a specific service, or condition the provision of a service on the use of another service or purchase of a good; and

XIX. abusively exercise or exploit rights related to industrial property, intellectual property, technology, or trademark.

2. Attachment I of CADE's Resolution 20/99[3] provides guidance on the analysis of these antitrust practices[4]. This is a non-exhaustive list of anticompetitive conducts. Part of these conducts will be analyzed in more detail in the following sections.

1.1. Predatory pricing

3. In 2002, the Secretariat of Competition Advocacy and Competitiveness (SEAE) issued Directive 70/2002[5], which presents a "Guideline for economic analysis of the practice of predatory pricing". According to the document, the characterization of predatory pricing entails some necessary conditions: (i) the existence of market power/dominant position of the predator agent; (ii) below-cost pricing to eliminate competitors and discourage the emergence of new ones; (iii) the existence of significant losses for both predator and competitor; and (iv) the expectation of recovering earnings in the future, after the competitor's expulsion of the market. It should be noted that this analysis procedure of predatory pricing is supported by CADE's own jurisprudence (See,

[3] Available in Portuguese at: < http://en.cade.gov.br/cade/assuntos/normas-e-legislacao/resolucao/resolucao-no-20-de-9-de-junho-de-1999.pdf/view#:~:text=Resolu%C3%A7%C3%A3o%20n%C2%BA%2020%2C%20de%209%20de%20junho%20de%201999.pdf>.

[4] IBRAC, a Brazilian private institution that conducts studies on competition, consumption and international trade prepared a guide to analyze these kinds of practices (see, in Portuguese, https://ibrac.org.br/UPLOADS/Eventos/497/IBRAC_-_Guia_de_Condutas_Unilaterais.pdf).

[5] Available in Portuguese at: http://en.cade.gov.br/cade/assuntos/normas-e-legislacao/portarias/portaria70_2002.pdf/view#:~:text=de%20Pre%C3%A7os%20Predat%C3%B3rios.-,Portaria70_2002.pdf,-%E2%80%94%2039%20KB .

for example, Administrative Proceeding nº 08012.000219/2005-02; Preliminary Investigation nº 08012.001817/2008-33 and 08012.003882/2007-12).

4. The most important part of the analysis covers comparing prices and costs of the enterprises under investigation. Both prices and costs can be measured by averages, modes and medians, taking into account their dispersion over certain periods. In addition, prices can refer to products with specific characteristics, eventually directed at consumers in some niches. Such variables (prices and costs) can be evaluated in a seasonally adjusted, deflated or possibly even smoothed way. Antitrust authorities should pay attention to these types of variable transformations, as well as whether or not the price information already reflects promotional discounts and whether in the calculation of average values were included canceled purchases or not.

5. Technical Opinions **27/2015/CGAA1/SGA1/SG/CADE**[6] **and** 28/2018/DEE/CADE present different cost variables that can be used in the comparison with prices, such as:

- marginal costs (MC)[7];
- average variable cost (AVC)[8];
- average avoidable cost (AAC)[9];
- long run average incremental cost (LRAIC)[10] for multiproduct firms when some costs cannot be only attributed to a particular product;[11] or
- average total cost (ATC)[12].

6. Although Attachment I of CADE's Resolution 20/99 and SEAE's Directive 70/2002 have shown a preference for use of average variable cost, in theoretical terms, CADE has repeatedly recognized the possibility of using other cost measures to carry out this type of analysis, especially average avoidable costs[13]. However, CADE has never had the opportunity to choose on the best cost measure to carry out a predatory price analysis, as no accusation to date has successfully demonstrated that the price charged by the investigated party was below any of these cost measures.

[6] Issued within the scope of Administrative Proceeding 08012.009645/2008-46 (CMW Saúde e Tecnologia Importação e Exportação Ltda. vs Support Produtos Nutricionais Ltda., Pronutri Nutrição e Farmacêutica Ltda., Nutrifar Nutrição e Farmacêutica Ltda., Art Médica Comércio e Representações de Produtos Hospitalares Ltda. and Milena Torres Chaves Seabra – ME)

[7] The increase in total cost attributable to producing the last unit actually produced. See ICN's Report on Predatory Pricing, 2008. in http://www.internationalcompetitionnetwork.org/uploads/library/doc354.pdf, verified in March 21, 2014.

[8] A proxy of marginal cost, as suggested in Attachment I of CADE's Resolution n.º 20, published in June, 9th, 1999 and Nº. 70/2002, and in the article of Areeda and Turner (Areeda, P. e Turner, D. Predatory Pricing and Related Practices under Section 2 of the Sherman Act. Harvard Law Review, 88(4): 697-733, 1975).

[9] As suggested by Baumol (Baumol, W. Predation and the Logic of the Average Variable Cost. Journal of Law and Economics 39(1): 49-72, 1996). See, for example, Technical Opinion 2/2020/CGAA3/SGA1/SG/CADE 10/2019/CGAA1/SGA1/SG/CADE).

[10] The sum of the variable and product-specific fixed costs divided by the number of units produced.

[11] See debate on ICN's Report on Predatory Pricing, 2008. Available at http://www.internationalcompetitionnetwork.org/uploads/library/doc354.pdf.

[12] Total cost divided by units produced.

[13] See for example Technical Note **27/2015/CGAA1/SGA1/SG/CADE.**

7. In Preliminary Inquiry 08012.00156612008-97, CADE's former Commissioner Luis Carlos Delorme Prado stated this conduct is extremely rare and that, in CADE, there is no precedent for punishing companies for predatory prices.

8. Attachment I of CADE's Resolution 20/99 also established that when scrutinizing this practice, the actual cost and price oscillation conditions throughout a period of time must be thoroughly examined, to exclude normal seasonal practices or other marketing policies of the company. The strategic behavior must also be examined to assess the objective conditions of subsequent potentially extraordinary gains that are sufficiently high and capable of offsetting the losses resulting from selling below cost.

1.2. Price discrimination, price squeeze or margin squeeze

9. According to Attachment I of CADE's Resolution 20/99:

> *"the manufacturer uses its market power to charge different prices for the same product/service, discriminating between buyers, individually or in groups, so as to appropriate their surpluses and thus earn higher profits. This practice, seen throughout modern economies, is not anticompetitive per se: although it increases a manufacturer's profits, it may not affect consumer welfare since it may not restrict – and may even increase – the volume of market transactions. Specific analyses become particularly important in such cases, especially because of the variety of manners in which price discrimination can occur. In public utility services, price discrimination frequently reflects the presence of consumer groups with contrasting consumption levels as high economies of scale usually make it more efficient to charge less from large-volume buyers. Similarly, when a service's marginal supply substantially increases during certain periods of time – the so-called "peak periods" – fixing differentiated prices is efficient. When a company discriminates between two or more consumer groups with different elasticity demand curves, a careful analysis must be carried out because the impact of such practice on consumer welfare depends on several factors of which the authorities might not have sound information. In certain cases, price discrimination may indicate variants of refusal to sell or tie-in sales, something relatively frequent in regulated sectors open to competition. When a company has partial or total control over an essential network or facility, price discrimination can be used to raise rivals' costs and, consequently, harm free competition."*

10. Despite some uncertainty on the matter (i.e. on the conceptualization of this type of conduct)[14], in Technical Opinion 13/2021/DEE/CADE, the Department of Economic Studies (DEE/CADE) suggested the use of the Equally Efficient Competitor test (EEC test), whenever a competitor on one side of the market is responsible for providing an essential input to the other side of the market. For example, according to that test, a competitive situation would occur if

Competitive situation: $P_1 + \omega \leq P_2$

Abusive situation: $P_1 + \omega > P_2$

$P_1 =$ Wholesale input price (market of origin of the practice)

P_2= Price of the final product to the retail consumer by the vertically integrated incumbent (the practice's target market)

[14] Brazil has not entered, in depth, into the international debate regarding whether to punish this type of conduct as, for example, the United States. [See Pacific Bell Tel. Co. v. linkLine, 555 U.S. 438 (2009)].

ω = Value of the necessary input for production according to the most efficient technique possible (with prices and costs in the same units by volume).

11. Naturally, this example is based on the assumption that, in a situation of abuse, there is a great loss of demand, barriers to entry in the market of origin and an uneven competitive environment, considering it is an essential input supplied in the market of origin of the conduct. Thus, the referred theory of harm concerns the possibility that a dominant firm (that controls an essential input) forecloses the market of origin to leverage its market power through an integrated structure in the target market[15].

1.3. Resale Price Maintenance

12. According to Attachment I of CADE's Resolution 20/99, resale price maintenance (RPM) refers to a situation where

> *"by means of an agreement, manufacturers set a price (minimum, maximum or fixed) to be adopted by their distributors/retailers. In this kind of practice, manufacturers threaten to punish those who fail to comply with the set price. In most cases, it is the practice of fixing minimum prices (or fixed prices adopted as minimum prices) that poses actual anticompetitive risks, due to*
>
> *(1) an easier coordination of actions aimed at price collusion between manufacturers (market of origin), whenever it facilitates monitoring retail prices or hinders the development of fresh and more effective distribution systems by blocking the entry of new and more innovative or aggressive distributors; and*
>
> *(2) unilateral increases in the manufacturer's market power, insofar as the price fix has the effect described above of deterring the entry of new and more competitive distributors. In the specific case of after-sales services, this type of restriction also permits, in principle, the monopolistic exploitation of users after the purchase, since the available alternatives were drastically reduced.*
>
> *As in other vertical restrictions, in assessing the net effects on the market, CADE should consider if the transaction can produce transaction cost savings. As for the fixing of maximum resale prices, the practice may pose anticompetitive risks if the distributors/retailers of the 'target' market have market power and add substantial value to the product/service and, concurrently, the manufacturer has both the will and capacity to eliminate the distributors/retailers from the market."*

13. In February 2013, CADE sanctioned auto-parts manufacturer SKF for setting a minimum resale price[16]. The authority found that resale price maintenance should be deemed illegal unless defendants are able to prove efficiencies.

[15] See Administrative Proceeding 8012.00850112007-91 (DEE, Nota Técnica 004/2013/DEE, 2013).

[16] Administrative Proceeding 08012.001271/2001-44. Defendant: SKF do Brasil Ltda. Rapporteur of the case: Commissioner Cesar Mattos. Adjudication date: 22 February, 2013.

1.4. Exclusive dealings

14. According to Attachment I of CADE's Resolution 20/99:

> *"exclusive dealing arrangements are situations in which distributors buy a certain product or service with exclusivity and are consequently prohibited from selling rivals' products. Their potential anticompetitive effects are (1) the implementation of collusive practices, which tend to result in cartels in the original market, where the agreements are used to divide the* market between substitute products; or (2) the unilateral increase of market power of the company imposing exclusivity through blocking and/or increasing barriers to the entry into distribution (or input supply), which can be a direct result of contractual clauses or an indirect result of rivals' cost raises. Possible benefits of this practice involve, again, transaction cost savings, as it curbs opportunistic practices to protect non-recoverable investment (e.g. trademarks and technology) and specific assets. As always, these benefits should be carefully considered in conducting a final review.

15. As it was pointed out by Martinez (2013)[17]:

16. In recent years, CADE has investigated and imposed sanctions against numerous exclusive arrangements. Exclusive dealings and other contractual provisions can constitute a violation of Article 36 if they lead to the foreclosure of competitors from market access. Most of the cases have involved Unimed, a physicians' cooperative and one of the largest health insurance companies in Brazil. Unimed affiliates contract with local physicians and hospitals for the provision of health care services, and often such providers are prohibited from affiliating with any other health plan. CADE prohibited such exclusivity arrangements in cases where Unimed held a significant market share (usually around 50 per cent). CADE has imposed sanctions on Unimed in more than 70 of these cases and recently settled another 39 investigations on the condition that Unimed terminated the exclusivity clauses. A number of other cases have involved 'radius clauses' imposed by shopping centers on their tenants, forbidding the tenant from locating a store within a specified distance from the mall. CADE concluded that the restraint was unlawful and should be prohibited. The most important exclusive dealing decision was issued by CADE in 2009. The investigation, initiated in 2004, involved a loyalty programme developed by AmBev, Brazil's largest beer producer (with a 70 per cent market share). The programme, named 'To Contigo', awarded points to retailers for purchases of AmBev products, which could then be exchanged for gifts. CADE concluded – based on documents seized during an inspection at AmBev's premises – that the programme was implemented in a way that created incentives for exclusive dealing, foreclosing competitors from accessing the market.

17. In the AmBev case, CADE imposed a fine of BRL 352 million (roughly USD 160 million)[18]. Another interesting case is Souza Cruz vs. Philip Morris[19].

[17] MARTINEZ, Ana Paula. (2013) Abuse of Dominance: The Third Wave of Brazil's Antitrust Enforcement? Competition Law International 9: 169-82. According to https://www.levysalomao.com.br/files/publicacao/anexo/20130905115751_abuse-of-dominance.pdf , retrieved October 25, 2021.

[18] Administrative Proceeding 08012003805/2004-10. Defendant: Companhia de Bebidas das Américas (Ambev). Rapporteur of the case: Commissioner Fernando Furlan. Adjudication date: July 22, 2009. The fine was equivalent to two per cent of the total turnover of the defendant in the year preceding the initiation of the investigations.

[19] Administrative Proceeding 08012.003303/1998-25.

18. From an economic perspective, there has been a debate on how much the market should be closed in order to represent an anticompetitive conduct. On this topic, Steven C. Salop[20] mentioned that:

> *"Some commentators inappropriately focus solely on whether the foreclosure will prevent entrants or small competitors from reaching "minimum efficient scale" (MES), the output level where a firm's average costs bottom out. Others inappropriately limit their concerns solely to whether the foreclosure will prevent rivals from reaching "minimum viable scale" (MVS), the output level where a firm can turn a profit at current prices and thus survive. This narrowing of concerns is artificial and leads to false negatives and underdeterrence. The conditions under which foreclosure can reduce competition are not limited to a failure to achieve MES or MVS. Even if a viable rival is able to reach the MES output level, its costs may be significantly raised by exclusionary conduct if it has to pay more for distribution or other inputs or if it has to use a more costly input or distribution method"*

19. On the other hand, it is hard to say exactly which level of the market can be closed.

1.5. Tying

20. As mentioned by Neto, Saad and Pelussi (2017)[21]:

> *"Law No. 12,529/2011 in its article 36, paragraph 3, XVIII defines tying and bundling as conducts whereby an undertaking conditions the sale of goods or the provision of services to the acquisition or use of another good or service. Such conduct is subject to penalties. Pursuant to Resolution No. 20/1999, competition concerns arise when a dominant firm uses tying and bundling to leverage its dominance into new markets. Precedents show that CADE examines four cumulative requisites to determine whether this kind of conduct amounts to an antitrust infringement: (i) if the tying and the tied goods are two distinct products; (ii) if there is any sort of coercion for the joint purchase of both products or services; (iii) if the seller holds a dominant position in the tying market; and, finally, (iv) if the conduct's efficiencies outweigh the anticompetitive effects. ln recent years, CADE has dismissed many investigations, determining that the conduct did not meet the above-mentioned requisites. ln the CBSS case (2015), for example, CADE assessed tying practices in the meal vouchers market. This investigation was based on a complaint by Sodexo, a meal vouchers company, against major Brazilian banks that were allegedly offering discounts in financial transactions to corporate customers in exchange for hiring CBSS, another local meal vouchers company affiliated to the investigated banks. According to Sodexo's complaint, this practice amounted to an anticompetitive tying arrangement. CADE did not agree with such view. According to CADE, because this was a mixed bundling (ie, consumers were offered the choice of buying the bundled products separately), the coercion criterion would only be met if the price charged for the products purchased separately was 'exorbitantly' higher than the price charged for the bundle, amounting to a de facto inducement. Given that CADE found no evidence that prices charged for the separate and bundled products were so*

[20] SALOP, Steven. (2017) The Raising Rivals' Cost Foreclosure Paradigm, Conditional Pricing Practices, and the Flawed Incremental Price-Cost Test. 81 Antitrust L.J. 371-421.

[21] NETO, Lauro Celidonio Gomes dos Reis Neto; SAAD, Andreia; PELUSSI, Felipe (2017) Brazil. In BOCK, Patrick;REINKER, Kenneth; LITTLE, David R Little. Dominance. London, Law Business Research.

discrepant, it decided that the arrangement did not constitute an antitrust infringement and dismissed the investigation."

21. According to attachment I of CADE's Resolution 20/99:

"Tie-in sales: the supplier of a given product or service conditions its sale on the purchase of another product or service. The main anticompetitive effects of this practice derive from transferring a product's market power to another, which abusively increases profits – to the detriment of buyers and, ultimately, consumers – while forecloses the downstream market (generally, distribution) for actual and potential competitors, thus raising barriers to entry. Tying arrangements may also be used to circumvent regulated industries' limits on return rates and prices as the company is able to increase the total price by forcing a tied product or service into the package. The arrangements may also produce anticompetitive effects on after-sales services. Possible economic efficiencies like to those described above should be evaluated, with emphasis on the possibility of the products in question being complementary products of the system type and/or presenting economies of scope."

1.6. Refusal to deal

22. As explained by Martinez (2013)[22]:

"Attachment I of CADE's Resolution No 20/99 includes refusals to deal as an example of anticompetitive practices. Brazil's antitrust agency acknowledges that, as a general rule, even monopolists may choose their business partners. Under certain circumstances, however, there may be limits on this freedom for a dominant firm to deal with a rival, including in particular refusals to license intellectual property rights. CADE's Resolution No 20/99 considers denial of access to an essential facility as a particular type of refusal to deal. Under CADE's case law, for an infringement to be found:

- access to the facility must be essential to reach customers; and
- replication or duplication of the facility must be impossible or not reasonably feasible."

23. This anticompetitive conduct obviously leads to a series of complex questions, such as, for example, if the antitrust authority understands that a specific structure should be accessed by third parties, what price would be fair for such access? What are the investment incentives that an agent has when knowing that its asset will be mandatorily shared by the Competition Authority? Hence, competition can be affected in a dynamic manner, depending on how a competition authority intervenes in these cases.

24. On the other hand, the theory of harm, certainly, is about the use of a specific essential structure by a dominant agent to forestall competition in subsequent market. In order to prove that there is an anticompetitive abuse of dominant position in this matter, it is important to prove the control of an essential structure; its impossibility of duplication; an unreasonable denial of access; access feasibility of the structure and the absence of unbundling regulation.

[22] MARTINEZ, Ana Paula. (2013) Abuse of Dominance: The Third Wave of Brazil's Antitrust Enforcement? Competition Law International 9: 169-82. Available at https://www.levysalomao.com.br/files/publicacao/anexo/20130905115751_abuse-of-dominance.pdf .

1.7. Other conducts

25. There are several other conducts that CADE analyses, such as sham litigation and abuse of administrative and judicial lawsuits, rebates schemes, abuse of intellectual property, contractual clauses restricting competition [such as preference clauses and most favored nation clause], hoarding, among others. Many of these conducts can be used to market foreclosures and to raise rival costs.

2. Assessing market power in the context of abuse of dominance or monopolization

26. In Brazil, a dominant position is presumed whenever a company or group of companies is able to unilaterally or coordinately change market conditions or when it controls 20% (twenty percent) or more of the relevant market (this percentage may be changed by CADE for specific sectors of the economy, according to article 36, § 2º of Competition Law nº. 12,529/2011). However, it is important to mention that (i) presumption of dominance is not absolute and (ii) market dominance is not illegal per se; what is illegal is the use of its dominant position in order to harm and/or restrict competition.

27. Price-cost margins, diversion ratios and market shares are some measurements CADE employs to help assess market power, and, for this endeavor, economic tools may help to estimate these parameters. In March 2021, the DEE launched the study called "The problematic binary approach to the concept of dominance", analyzing the complex concepts of dominance and market power. In this study, the DEE considers that a simplistic, discrete and binary definition of dominant firms and non-dominant firms actually conceals a great continuum of possibilities, characterized by the same variables that help to frame these concepts. In the document, the DEE stated that the so-called "adequate" market power necessary for a dominant player to be identified as such varies greatly, because it is not possible, in abstract terms, to determine whether an enterprise has market power or not.

28. This uncertainty is due to (1) the possibility to perform, (2) the interest to conclude and (3) the fact that the effects of some anticompetitive practices may vary according to relational aspects, not absolute abstract ones. Depending on how these relations or scenarios are drawn, a company may, at the same time, have substantial market power in certain conditions and not have it in other conditions.

29. Thus, knowing that antitrust law analyzes a number of anticompetitive conducts $C=\{C_1, C_2, C_3, \dots C_n\}$ involving several players $P=\{P_1, P_2, P_3, \dots, P_n\}$ that occur in specific conditions $X=\{X_1, X_2, X_3, \dots X_n\}$, it would be important to determine the relational aspects of such variables {*horizontally*, *vertically* and *diagonally*} and not consider, in a vacuum, the concept of market power as an abstract precondition to every single antitrust punitive enforcement of all anticompetitive practices or structures (one size fits all).

30. Indeed, it is possible to have, inside a specific market, different companies with different diversion ratios, price-cost margins, marketing strategies, products and so on. For example, an enterprise can succeed to exclude from the market its nearest competitor through exclusive contracts with the retail sector (*P_1 excludes P_2 performing the conduct C_1*), where *P_1 and P_2* have very high diversion ratios between themselves in a specific niche of the market with high barriers of entry and low rivalry among all other players of this niche [*X_1 and X_2 Conditions*]. In this case, it is possible that this conduct could generate a great impact if there is a substantial price increase, regardless of how the relevant market is defined in abstract terms or the specific size of the market share that both companies may have.

31. However, the same conduct can be directed to some specific parts or niches of the same relevant market. In a formal example, *P_1 would not have an interest to exclude P_3 performing* the *conduct C_2, knowing, beforehand, that the diversion ration between P_1 and P_3 is almost zero.* Therefore, the interest to perform an anticompetitive practice is a relational concept, since the exclusion of the nearest competitor leads to bigger *payoffs* (in other words, it brings a bigger reward to the company that can succeed in this effort, and it could possibly generate a greater impact in terms of raising prices).

32. It is possible that P_3 rests on a different niche of the market with different conditions (entry barriers, rivalry levels, capacity constraints, among others: m*arket conditions X_3, X_4, X_5*) within the same relevant market. These conditions could interfere not only in the interest but also in the possibility of exclusion of a rival. If that is the case, P_1, with a certain amount of market share, can exclude P_2 but not P_3.

33. Sham litigation or fraud litigation are examples of how the capacity to exclude rivals may be linked to the conduct itself and not necessarily to the market share. Indeed, even the smallest player of a market can bring a judicial or administrative claim and legally exclude all other players (and acquire market power), raising, subsequently, unsurmountable legal market barriers to rivals. In this example, dominance is the outcome of the conduct and not a precondition for its performance.

34. Furthermore, what is considered important and substantial market power to one conduct (C_1) may not be substantial or important to another conduct (C_2). For example, contractual relationships with several retailers in the downstream market could be an important precondition to determine what is right or wrong in terms of exclusive contracts. An enterprise could enforce contractual clauses to delay or constrain the entry of a rival in a specific market through exclusivity agreements with retailers (C_1) (because such enterprise has many contractual relationships). However, this same company may have difficulties to perform predatory pricing (C_2) in the same market, targeting the same competitors, depending on how hard it may be to sacrifice its own profits vis-à-vis how efficient its rivals are in terms of production costs.

35. In some vertical conducts, it is not enough to measure one Lerner index, one market power, looking just at one relevant market. Indeed, to properly analyse the rationale of certain vertical foreclosures, one should simultaneously understand the relationship between the Lerner index of one layer of the market (downstream, for example) with another layer (midstream or upstream, for example).

36. Such measure is not necessary (or even possible) in the case of some kinds of unilateral practices that involve just one relevant market, such as some "predatory pricing" practices, sham litigations, or some practices involving raising rivals' costs. Hence, depending on the conduct or market, the Lerner index can mean different things in terms of preconditions to engage in a conduct.

3. Data limitations in abuse of dominance or monopolization cases

37. As prescribed by law, CADE may request documents, may request the party to appear at CADE and provide testimony or clarifications of specific conducts and investigations, and may also carry out inspections and searches and seizures in companies. If there is a refusal to collaborate with CADE, there may be penalties, as provided for in Law 12.529/2011:

Refusing to provide, omitting, or unjustifiably delaying the presentation of information or documents requested by CADE or the Secretariat for Economic Monitoring constitutes a violation punishable by a daily fine of BRL 5,000, which can be multiplied by up to 20 times if necessary to ensure the effectiveness of the punishment, dependent upon the wrongdoer's economic status.

(1) The amount set for the daily fine mentioned in the head provision of this Article must be included in the document that contains the competent authority's request for information or documents.

(2) The requesting authority is to impose the fine mentioned in the head provision of this Article.

(3) In case of a foreign company, its affiliate, branch, office, or establishment located in Brazil is jointly and severally liable for paying the fine referred to in the head provision of this Article.

Article 41. The unjustified absence of the defendant or third parties, when subpoenaed to testify in the context of an investigation or administrative proceedings, is punishable by a fine of BRL 500 to BRL 15,000 for each absence, imposed according to the their economic status.

Sole paragraph. The fine referred to in the head provision of this Article is levied via a notice of violation issued by the competent authority.

Article 42. Preventing, obstructing, or in other way hindering inspections authorized by the Tribunal, the rapporteur of the case, or the General Superintendence within the context of a preliminary enquiry, administrative investigation, administrative proceedings, or any other procedure leads to a fine of BRL 20,000 to BRL 400,000, according to the wrongdoers economic status, by means of a notice of violation issued by the competent authority.

Article 43. Any individual who misleads or misrepresents information, documents, or statements provided to CADE or the Secretariat for Economic Monitoring is punishable by a fine of BRL 5,000 to BRL 5,000,000, dependent upon the severity of the facts and the wrongdoer's economic status, without prejudice to other applicable legal sanctions.

38. The Department of Economic Studies (DEE) also prepared a Guide explaining how to present information to CADE[23].

39. In addition to the information obtained through direct requests to market agents, CADE uses public databases, often made available by Regulatory Agencies to carry out market analyses. Also, CADE has cooperation agreements with some Regulatory Agencies to obtain confidential information. Besides that, CADE acquires some databases from third parties to carry out analyzes that do not depend on specific instructions, as well as to carry out counter-checking of information.

40. If any party wants to present an econometric opinion directly to CADE, Resolution 4 of May 29, 2012 established some parameters that are desirable to be observed by econometric experts. For example, experts are requested and encouraged to send CADE the primary information or databases used in their analysis as well as programs and codes used in their documents.

[23] See, in Portuguese, https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/guias-do-cade/guia-para-envio-de-dados-ao-dee-do-cade_final_site.pdf.

41. Thus, it is expected that the technical and econometric opinions presented to CADE have:

- a non-technical summary highlighting the main elements of the opinion;
- a presentation of the objective of the opinion and the question, theme and subject at issue;
- reference to work carried out in the area or specific themes. When the method or model used is based on any reference, any changes made by the experts to their original settings must be informed and detailed;
- the expert is expected to present and justify the choices about the explicit or implicit elements of the methodology;
- from the data point of view, the expert is expected to (i) describe and submit in electronic form the raw (original) data, as well as those resulting from manipulation and treatment; (ii) carry out a complete description of the generating and transforming process of the final data considered by the opinion, including the submission of programs and codes; (iii) inform the source and method of obtaining the data used by the collector; and (iv) indicate the level of external audit applied to the data. There must be a complete description (metadata), and the calculated statistics must make explicit their formulas (or names and references if universal in the literature) and their transparent calculation memory. As mentioned above, it is important to provide a detailed description (and submission of routines/programming codes) of the techniques applied to solve data problems and the motivators for their choice;
- when presenting results, the expert must carry out sensitivity analyzes of the results, specification tests, among others.

4. The role of economists when collecting evidence for abuse of dominance or monopolization cases

42. In the Brazilian Criminal Law, a conduct is only punished if it is "typed", that is, explicitly described in Law, contemplating a human, intentional or culpable action. So, there is a need to have a “verb” describing what is the illicit action (or crime) that society wants to avoid. In Antitrust Law, on the other hand, the illicit nature of conducts is analyzed based on the effects that it causes.

43. For example, what separates a legal or illegal tying is related to the probability of generating effects (bad consequences) in the economy. This hermeneutic exercise demands more than a mere imputation of norms to facts, but a causal consideration: an exercise proper to economic thinking. Therefore, there is a need to measure the effects of the conducts, as well as to create models that explain the rational conduct of agents. In this regard, Kenneth Arrow (1974, p. 16) states that “the economist, by training, thinks of himself as one who keeps rationality, as one who attributes rationality to others and as one who prescribes rationality to the social world”.

44. Thus, economic thinking can help formulate cause-and-effect theories and try to empirically measure it. According to Lafontaine and Slade[24], although Authorities might disagree on what is the rightful approach to a vertical restraint, *fortunately*, "world is a laboratory that is constantly offering experiments that can be analyzed by applied researchers". One can use descriptive statistics; Cross–Section; Time–Series; Panel Estimation; natural experiments; event studies and structural analysis in order to understand the effects of vertical restraints.

45. Also, economists can help to measure parameters that are of interest to the debate. For example, it is possible to try to estimate directly the effect in terms of prices a conduct of abuse of dominant position has had on the market, assuming that the exclusion of a rival and the subsequent increase in prices have already occurred. On the other hand, economists can also calculate parameters of:

- the price elasticity of demand;
- the cross-price elasticity of demand;
- the diversion ratio between the products of the company that suffers the exclusionary abuse and the company that performs such abuse;
- the average profit of market player;
- the profit obtained after the practice;
- among others.

46. Economists may try to estimate the Minimum Viable Scale of a market, as a way to assess how much an entrant would need to spend to invest and enter a market profitably. In addition, it is possible to try to simulate how much the alleged efficiencies of certain practices can impact the final price of the products, in order to estimate the net effect of a conduct.

47. It should be highlighted that, for assessing effects in abuse of dominance or monopolization cases, it is possible to use different techniques, such as differences in differences analysis, event studies. Regarding conducts that have not yet occurred, it is possible to use simulations, or even the use of indexes such as VGUPPI. [25] [26]

48. Regarding the selection of sanctions and the undertaking of remedy negotiations, CADE's Guide to Antitrust Remedies makes extensive references to antitrust remedies in mergers. On the other hand, it states that it is possible to apply its guidance to remedies in conduct cases:

> *"Remedies can also be determined unilaterally by the Tribunal of CADE or be established through a Cease and Desist Agreement (TCC in its acronym in Portuguese) in cases of anticompetitive practices under the terms of articles 36 and 38 of Law 12529/2011. Considering the information below, the remedies here mentioned shall concern cases of merger and acquisitions only; although they can be applied to anticompetitive practices."*

[24] Lafontaine, Francine & Slade, Margaret. (2008). Exclusive Contracts and Vertical Restraints: Empirical Evidence and Public Policy1. Handbook of Antitrust Economics.

[25] MORESI, Serge; SALOP, Steven C. vGUPPI: Scoring Unilateral Pricing Incentives in Vertical Mergers. Georgetown Business, Economics and Regulatory Law Research Paper No. 12-022, 2012.

[26] See the public version of the technical note 34/2018/DEE/CADE, in which an empirical analysis of conducts and its effects were done. Available on: https://cdn.cade.gov.br/Portal/centrais-de-conteudo/publicacoes/estudos-economicos/notas-tecnicas/2018/nota-tecnica-n34-processo-administrativo-08012010483201194.pdf.

49. As a rule, the negotiation of remedies is carried out by the Reporting Counselor of the case, and can be negotiated by General Superintendence. On the other hand, CADE's Directors and CADE's General Superintendence may request formal and informal assistance from the Department of Economic Studies (DEE) to debate the adequacy or sufficiency of remedies and, eventually, even negotiate with the parties.

50. As a matter of fact, the DEE, as it is also responsible for conducting competition advocacy analyses, can even make broader suggestions for changing the legislation, regulation or State policies to act in a preventive way against the abuse of dominant position by market agents.

51. It should be noted that, in general terms there is no formal prioritization of cases that must be investigated or analyzed by CADE. Merger cases have a fixed period of analysis, in which most simple cases are decided within 30 days. In CADE, there are more mergers than conduct investigations. In the scope of conduct investigations, there are more cartel cases than investigations of abuses of dominant position. In cartel cases, the evidence is more direct, with no need to demonstrate the effects of the conduct. So, the instruction is simpler. In cases of abuse of dominant position, the economic debate is more intense. Due to the lower incidence and greater analytical difficulty, cases of abuse of dominant position tend to be less frequent in CADE with longer period of investigation and analysis.