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USING MARKET STUDIES TO TACKLE EMERGING COMPETITION ISSUES – Contribution from Brazil

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Using market studies to tackle emerging competition issues

- Contribution from Brazil¹ -

1. Market studies carried out by the Brazilian Competition Authority, the Administrative Council for Economic Defense (CADE)

1. CADE carries out several competition advocacy actions: signs cooperation agreements with regulatory agencies; participates in working groups that involve different government bodies to implement or change regulatory policies or standards; works with the Brazilian Congress and other legislative bodies, supporting the drafting of laws and amendments; participates in public consultation processes carried out by regulatory agencies to alter regulatory standards; and prepares market studies.

2. A determining factor in choosing the form of action is the time available to discuss the subject and the opportunity to work with other governmental agencies that are directly involved with the problems identified. The main advantages of market studies are the possibility of looking at different aspects of a market in-depth and identifying issues that limit competition among companies. Limiting factors that influence market research are the time and resources involved, which can affect the quality of analyses and, mainly, lessen their chances of producing the desired effects in a timely manner.

3. CADE considers market studies useful and adequate to tackle emerging issues related to competition defense whenever they can be done in a timely manner, that is, when economic agents have time to share and discuss the results, effectively contributing toward the desired changes. Other important influencing factors are the availability of information and data about the affected markets, and the possibility of interacting with economic agents in a positive manner.

4. The Department of Economic Studies (DEE) regularly carries out different market studies which are subsequently published, according to their purpose, in one of the following three different formats:

1.1. *Cadernos do Cade* – A series of studies, encompassing reviews of CADE’s decisions, aimed at consolidating, systematizing, and disseminating CADE’s case law related to specific markets, considering their economic and competitive singularities.

5. CADE’s decisions are structured and published, increasing public awareness on the positions adopted by the agency. The reviews contribute to generate technical and practical knowledge and increase academic production on subjects related to competition defense.

6. They usually consist of two parts: the first presents a broad overview of the sector, including statistical data, main players, relevant regulations, relevant market structure factors, and the competitive strategies of companies (such as degree of integration of the production chain, intellectual property rights, impact of the digital economy on the sector,

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etc.). The second part reviews CADE's analyses and decisions on mergers, acquisitions, and investigations of anticompetitive conduct in the markets.

7. The market studies carried out in the past six years encompass sectors such as retail gasoline, healthcare, education, air and maritime transportation, ports, cement, payment methods, and agricultural inputs. Despite the diversity of sectors, common patterns emerge in the analyses.

8. These studies are widely used both internally, by CADE's technical staff, and externally, by representatives of companies involved in cases within CADE's competence, other government agencies, the press, and academic researchers.

9. The markets to be investigated are selected by the Department of Economic Studies, with both the General Superintendence and the Tribunal. As of 2021, the studies already published will be periodically reviewed and updated.

1.2. Technical Opinions – studies carried out by the DEE to support CADE's position on emerging issues that might have competitive effects on certain markets. These competition advocacy instruments are extensively used by the authority. The topics addressed include regulatory changes, structural modifications in the markets, and the emergence of new markets or economic activities that are likely to significantly alter the competitive conditions in a given market.

10. The DEE prepared a market study in 2018, for example, to analyze the structure of the Brazilian refining market, focusing on the divestments proposed by Petrobrás. With respect to competition advocacy, it suggested how this proposal could be improved to address competitive matters.

11. In 2019, the DEE published a study on slot allocation in Brazilian airports and possible market scenarios after Avianca ceased its operations (for further information see section 2.2).

1.3. Working Papers – economic studies related to CADE's activities aimed at improving merger review and promote competition advocacy in the public and private sectors. They also give visibility to the work carried out by CADE's technical personnel.

12. Working Papers can be produced either internally by the Department of Economic Studies or by external consultants (who are selected by the DEE and work under its supervision). Market studies prepared by external consultants assist CADE with specific projects aimed at thoroughly understanding a market or developing certain analysis techniques and methodologies. As part of their duties, these external experts must also train CADE's staff on the work they developed and run seminars to present their research (methodology and results) to the external public.

13. A few examples:

- Working Paper 02/2015 – Cement Inputs Market: Structural Aspects And Empirical Exercise – this Working Paper describes the supply chain of cement and concrete, analyzing structural aspects that may influence free competition in the sector;
- Working Paper 03/2019 – Ex Post Merger Review: The Sadia-Perdigão Case – evaluates the competitive impact of the merger between Sadia and Perdigão

(which created BRF Brasil Foods) in the Brazilian frozen food market from 2008 to 2013;

- Working Document 03/2020 – Willingness-to-Pay Models Applied to the Study on Competition in the Health Insurance Market – it analyzes hedonic-pricing and willingness-to-pay (WTP) models applied to the study on (i) market power wield by healthcare providers; and (ii) the influence of healthcare provider networks in the competition among market players.

2. Experiences of using market studies to tackle emerging competition issues

14. The Brazilian economy has undergone important changes, through efforts to improve the business environment and eliminate any excess regulatory standards in different sectors. For instance, regulatory agencies have developed agendas to review their standards, which often impact competition so as to deserve CADE's attention. As important sectors of the economy underwent structural changes, CADE prepared comprehensive analyses that investigated regulations and explored scenarios to assess their possible effects.

15. One of these sectors is air transportation: one of its largest companies went bankrupt, prompting CADE to prepare a study on regulations and possible scenarios for the reallocation of slots in the main airports in Brazil. Another example: the refining industry, which is going through a major transformation after a decision prompted the sale of several assets of the state-owned company Petrobras, which used to hold a dominant position (if not a monopoly) in several stages of the oil and gas production chain (production, distribution, transportation, refining, etc.). New forms of business derived from the digital economy and the sharing economy have also required the Department of Economic Studies to conduct studies.

16. This section summarizes two interesting market studies recently carried out by the DEE. The first one is a study called *Competition Effects Of The Sharing Economy In Brazil: Has Uber's Entry Affected The Cab-Hailing App Market From 2014 To 2016?* Which was initially published by the DEE as a Working Paper² and later in the Journal of Competition Law & Economics.³

17. The second market study, prepared and published by the DEE in 2019, investigated the conditions for slot allocation at Brazilian airports and the possible effects of reallocating Avianca's slots under different scenarios.

2.1. Market study on the sharing economy

18. The rise of the sharing economy and the emergence of P2P platforms have brought significant changes to the competitive environment of several traditional economic sectors. In this context, many ridesharing apps, such as Uber and Cabify, began to operate in Brazil, generating structural changes in the competitive environment of the private transportation sector and, consequently, reactions from incumbent industry of cab-hailing apps.

² Working Paper 01/2018. Available at http://en.cade.gov.br/topics/about-us/dee/working-paper-uber_01-2018.pdf

³ Guilherme Mendes Resende & Ricardo Carvalho de Andrade Lima, 2018. "Evaluating The Competition Effects of Uber's Entry Into The Brazilian Incumbent Cab-Hailing App Segment," Journal of Competition Law and Economics, Oxford University Press, vol. 14(4), pages 608-637.

Therefore, in 2016, CADE decided to study how Uber's arrival impacted the incumbent cab-hailing app segment in Brazil over the period of 2014 to 2016.

19. The purpose of the study was to contribute to the discussions on a new federal law that was being draft since Uber's arrival in Brazil. This law intended to regulate the cab-hailing app segment. So, the market study investigated the impacts of Uber's entry on the number of rides conducted by cab-hailing apps and their prices in Brazil. The study innovated by generating important insights for a better comprehension of Uber's competitive effects.

20. First, it used a new database containing private information from companies operating in Brazil. The data were requested directly from the companies by the Brazilian antitrust authority. In addition to the data obtained from the ridesharing apps, the study also used several control variables such as population size, car stock, and the average wage of employees. These data were used in a Difference-in-Differences approach that took advantage of Uber's different times of entrance in different cities. With this approach, it was possible to measure the elasticity of the number of taxi rides in relation to the number of Uber rides, as well as to verify whether the competitive effect of the ridesharing app on incumbent cab-hailing apps tends to increase or decrease over time.

21. Using a panel data and a dataset covering 590 municipalities and 36 months, from 2014 to 2016, the study observed that Uber's entry generated, on average, a reduction of 56.8% in the number of cab-hailing app rides in cities where the platform started operating. Additionally, the authors verified that a 1% increase in the number of Uber rides represented a 0.09% reduction in the number of cab-hailing app rides. This set of evidence, together with a description of the dynamics of the number of ridesharing apps, suggests that, in addition to conquering users from other types of transportation, Uber also competes with cab-hailing app services, attracting some of their users. Moreover, for all 590 municipalities, on average, the taxi segment did not react to the increased competition by offering discounts on the final price of rides.

22. By investigating the competitive impacts of Uber, considering only Brazilian capitals, the magnitude of Uber's entry falls to -36.9%, indicating that the competitive effect tends to be lower (in percentage terms) in cities where the market is larger. In addition, by comparing the markets of the capitals of the North and Northeast regions and the capitals of the South, Southeast, and Central West regions, the study showed that there is an important spatial heterogeneity in Uber's competitive effects. This may be explained, to some extent, by the moment Uber arrived in these regions. A late entry of the app was observed (between March 2016 and December 2016) in the capitals in the North and Northeast regions. On the other hand, when considering the capitals in the South, Southeast, and Central West regions, the authors verified that Uber started entering these markets around May 2014.

23. Thus, it is possible to compare the results caused by recent entries (which happened in the past year) against entries that occurred more than two years ago. When only capitals in the South, Southeast, and Central West regions are examined, the effect of Uber on cab-hailing app rides is weaker (a reduction of 26.1%) than in comparison to the results found for the capitals of the North and Northeast regions (a reduction of 42.7%).

24. This indicates that Uber's entry in a city might have a strong initial effect, reducing substantially the number of cab-hailing app rides, but there is a gradual recovery in the number of rides over time. The results suggest that, in the capitals in the South, Southeast, and Central West regions, Uber's entry reduced taxi-app fares (a reduction of 12.1%). This indicates that the cab-hailing apps reacted by offering discounts on their fares after a longer

period of exposure to a more competitive environment. There seems to be an increasing rivalry between the two types of apps. It is observed that Uber's entry causes a reduction in the number of cab-hailing app rides, to which there is a reaction in the form of price reductions, and, finally, there is usually a recovery in the number of cab-hailing app rides.

25. These results were important to shed light on the discussion related to Federal Law 13640, which was enacted in 2018 and regulated the ridesharing market (i.e. Uber-like applications). The law introduced light regulation, such as safety rules, and did not impose major regulatory barriers to entry or restrictions on the prices practiced. However, it gave cities exclusive jurisdiction to regulate and inspect the service. Since 2016, these regulations were already being put in place in some cities, but with the enactment of the new law, they are expected to proliferate across the country.

26. The market study prepared by the DEE was aimed at corroborating the view that the light regulation imposed on the apps at the local and federal levels was appropriate and did not over-regulate the sector — which could result in a significant restriction in the supply of available cars and in a increase in fare prices, with deleterious effects on consumer well-being.

27. Finally, in order to bring more benefits to consumers in terms of innovative services, improved quality and safety, lower prices, and variety of options, the study argues that it is necessary to increase the debate toward a gradual deregulation of taxi services, especially regarding barriers to entry and pricing freedom.

2.2. Slots allocation in Brazilian airports

28. In 2019, in view of the imminent bankruptcy of the airline company Avianca, one of the four largest airlines in Brazil, CADE's Department of Economic Studies carried out a market study on the allocation of airport slots in Brazil and possible competition effects of having Avianca's slots reallocated to the main airlines in the country — Gol and Latam. The study was aimed at answering the following questions:

1. What is the state of current regulations on slot allocation?
2. Is it possible for such regulations to increase market concentration and market power in some situations, and what would be the expected market effects in the event of greater concentration?
3. Is there an alternative way to regulate slot allocation while taking into account its competitive impacts?

29. The study presented an extensive, in-depth review of slot allocation rules; used databases of passenger transportation and slot allocation from nine of the main Brazilian airports; carried out simulations of the effects of reallocating Avianca's slots according to five scenarios, ranging from simply sharing Avianca's slots equally among the main remaining companies in the market to the different possibilities involved in having a new entrant in the sector. Such analyses also considered the level of operation of the airports according to the day of the week and time of the day.

30. At the end, the study presented the following results:

- in the event of Avianca's bankruptcy, should there be no change in the current rules, there will be extremely harmful effects on the competitive environment, derived from the distribution of Avianca's slots to incumbent companies;
- such effects will be acute and pronounced at the Congonhas airport (São Paulo), where there is no space for new entrant;

- regarding the status of regulations on slot allocation, the DEE considered ANAC's Resolution 338/2014 was flexible, as it makes it possible to redefine the parameters for airport coordination individually for each airport, which allows them to change the definition of new entrant and the percentage of slots allocated to these entrants. On the other hand, the resolution presents default parameter values that are not consistent with the defense of competition. This is because, under the current rules, should coordinated airports use their capacity more intensively, the incumbents' position will quite possibly be reinforced.⁴
- For the reasons mentioned in that document, the DEE concluded that, even though Resolution 338/2014 was altered considerably, there is still a need for additional change such as:
 - making the definition of new entrant in the Congonhas airport more flexible; and
 - altering the percentage of slots allocated to new entrants.

31. Additionally, the study observed more airports should be built in order to solve structural problems in a more lasting manner, as changing slot coordination rules does not eliminate the need for rethinking airport infrastructure. However, the suggestions for having more flexible parameters which was proposed in the study are relevant to the Brazilian competitive landscape in the current context.

3. Final Remarks

32. Market studies are important tools to gain detailed knowledge of certain markets and explore how certain structural or regulatory changes will impact those markets. They can be effective competition advocacy instruments as they can serve as a basis for the exchange of information between the competition authority and other economic agents such as companies, consumer associations, and regulatory agencies.

33. CADE considers market studies important and effective tools to address competitive issues related to mergers, as they allow for deep and comprehensive analyses of many aspects of a market, as well as forecasts, and more accurate policy recommendations.

34. However, market studies require resources, information, and time to be prepared. Therefore, their use to face emerging competitive issues is somehow limited, mainly as far as timing is concerned, because, in order for it to actually help solve a problem, one has to be fairly certain the study will be produced in time.

35. Some strategies that may help conducting this kind of research at CADE include improving the monitoring of possible emerging issues that may impact the competitive environment; carrying out studies with greater depth and timeliness; and producing studies in association with other governmental bodies, such as regulatory agencies.

⁴ ANAC is a regulatory agency established to regulate and inspect civil aviation activities, aeronautics, and airport infrastructure in Brazil.

Appendix

CADE/DEE Working Papers

Number	Year	Title
1	2009	Demand Analysis
1	2010	Delimitation of Relevant Markets
1	2014	Competition Indicators
1	2015	The Market of Individual Transport of Passengers: Regulation, Externalities and Urban Balance
2	2015	Cement Inputs Market: Structural Aspects and Empirical Exercise
3	2015	Post Entry Rivalry: The Immediate Impact of Uber's App on Taxi Rides
1	2016	Identification of the Relevant Geographic Market for Hospitals in Brazil
2	2016	Optimal Cartel Prevention: The Peroxide Case in Brazil
1	2017	Antidumping and Competition in Brazil: An Empirical Evaluation
2	2017	Competition Indicators: Conceptual Discussion and Empirical Tests
3	2017	Cooperation for Innovation: The Role of Antitrust and Public Policies in Different Countries
1	2018	Competition Effects of the Sharing Economy in Brazil: Has Uber's Entry Affected the Cab-Hailing App Market from 2014 to 2016?
2	2018	Evaluation of Competition Policy: Estimation of Damages in the Gas Station Cartel in Londrina.
1	2019	Measuring the Benefits of Fighting Cartels: The Case of the Crushed-Stone Cartel
2	2019	Probability of Investigation and the Application of Anti-Dumping Measures in The Brazilian Industry: Effects on Competition
3	2019	Ex Post Merger Review: The Sadia-Perdigão Case
4	2019	Measuring the Benefits of Fighting Cartels: The Case of the Fuel Cartel in the Federal District
5	2019	Using the Moran's I to Detect Bid Rigging in Brazilian Procurement Auctions
1	2020	Measurement of the Expected Benefits of CADE's Performance In 2018
2	2020	Antitrust Remedies In CADE: Case Law Analysis
3	2020	Willingness-To-Pay Models applied to the Study of Competition in the Health Insurance Sector
4	2020	International Benchmarking for Antitrust Penalty calculation
5	2020	Competition in Digital Markets: A Review of Specialized Reports

Source: DEE – studies published until August 31, 2020.

Cadernos do Cade

Volume	Year	Title
1	2014	Gasoline Retail
2	2015	Market of Supplementary Health: Conducts
3	2016	Mergers and Acquisitions in the Higher Education Services Market
4	2017	Port Services Market
5	2017	Passenger and Cargo Air Transport Market
6	2018	Mergers and Acquisitions in the Health Insurance, Hospital, and Diagnostic Medicine Markets
7	2018	Container Shipping Market
8	2019	Cement Market in Brazil
9	2019	Payment Instruments Market
10	2020	Agricultural Inputs Market

Source: DEE – studies published until August 31, 2020.