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English - Or. English

28 November 2020

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

Global Forum on Competition

ECONOMIC ANALYSIS IN MERGER INVESTIGATIONS – Contribution from Portugal

- Session III -

9 December 2020

This contribution is submitted by Portugal under Session III of the Global Forum on Competition to be held on 7-10 December 2020.

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

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JT03469189

Economic Analysis in Merger Investigations

- Contribution from Portugal –

1. Introduction

1. The use of economic analysis plays a central role in the merger control activity of the Portuguese Competition Authority (Autoridade da Concorrência - AdC), since it provides the necessary tools and conceptual framework to analyse the functioning of markets and to assess the likely effect of mergers.
2. Economic expertise has been key in merger analysis, not only in the use of sound quantitative techniques, but also in the assessment of various qualitative aspects of merger review.
3. Sophisticated quantitative techniques have been used in the context of more complex merger cases in Portugal. However, it is important to highlight that results obtained were always complemented with more basic economic analysis and qualitative evidence, so as to have a more robust decision.
4. The present paper describes recent AdC experience regarding the use of economic analysis in merger investigations. We describe below at what stage, and how, economists are involved in merger review, highlighting the importance of economic expertise in quantitative and qualitative analysis. The paper also covers recent merger cases where various sophisticated economic techniques were used, providing in particular the example of one merger case where a consumer survey was key for its competitive assessment.

2. Involvement of economists in AdC merger investigations

5. The AdC's merger Department is composed of lawyers and economists. In most merger cases, at least one lawyer and one economist work in tandem and integrate the case team as from the beginning of the investigation.
6. However, for more complex merger cases, teams are often strengthened by including further economists from the merger department. In addition, in those cases, the AdC's chief economist team may intervene, by giving guidance on analytical methodology and advice on the direction of investigations, therefore ensuring necessary checks-and-balances in order to strengthen the robustness of merger decisions. Moreover, when the review of a merger requires the expertise on a particular sector, such as telecommunications or energy, economists with the required sector expertise may also provide assistance to the case team.
7. Thus, economic expertise is integrated in each case team from the outset and can be reinforced depending on the complexity of the merger case at hand.
8. Economists are involved in every stage of a merger investigation: from the analyses of the information submitted by the parties to the design and preparation of information requests, from the interaction with the parties and third parties during the investigation to the negotiation of remedies.

9. As described below, the AdC occasionally commissions econometric studies to external economic experts in order to supplement the internal economic analysis performed by the case team. Mostly, this occurs with mergers that give rise to serious competitive concerns.

3. Importance and type of economic analysis in AdC merger investigations

10. Quantitative analysis plays a central role in the AdC merger reviews. In simple merger cases, straightforward market structure analysis (based on market shares, the Herfindahl-Hirschman Index and other concentration indexes) together with a general assessment of potential restrictions to competition in the industry (e.g. entry barriers, sector specific regulation) is frequently sufficient for excluding the possibility of anticompetitive effects arising from the merger.

11. However, more complex merger cases demand further analysis, namely a more accurate understanding of the functioning of the markets, which in turn, will be key to address and test possible theories of harm. For that, relevant industry data must be gathered in order to assess a variety of dimensions that, altogether, build up the case's assessment.

12. Economists play an important role at this stage, since they usually identify the type of evidence which should be gathered in order to test different theories of harm using suitable economic tools. Therefore, economists contribute for the design of the information requests to the parties, sector regulators and third parties.

13. In some cases, particular attention is given to relevant market definition, both at the product and geographic level, as it provides for a context and may be a crucial element of the case, while in others, further focus is given to assess the ability of the merging firms to unilaterally increase price or decrease quality in the post-merger scenario.

14. In the context of the exercise of relevant market definition, when assessing whether different products have a degree of substitutability that justifies their inclusion in the same relevant market, the AdC collects, *inter alia*, information on prices and diversion ratios.

15. Moreover, if the definition of the geographic boundaries of the relevant market is at stake, the AdC may also request information on the weight of transportation costs relative to the product's price, as well as the commercial inflows/outflows into or out of the boundaries of the candidate relevant geographic market.

16. The analytical tools employed in merger review by the AdC can go from simple quantitative techniques, such as the use of diversion ratios to assess the degree of differentiation between products, to more complex econometric analysis.

17. The selection of the techniques and empirical methods to be used depends, on the one hand, on the complexity of the case and, on the other hand, on the characteristics of the markets, available data and the balance to be struck between the merit of the case and time constraints.

18. While more sophisticated quantitative techniques have been used in the context of more complex merger cases in Portugal, it is important to highlight that the use of sophisticated tools is implemented after other quantitative and qualitative evidence points to competitive concerns. Hence, there is always the concern of not grounding the decision solely on the results obtained from these more sophisticated techniques, but to complement them with other quantitative and qualitative evidence, so as to have a more robust decision.

19. Qualitative analysis is also important in merger review, since it can provide, amongst other elements, a better understanding of the functioning of the markets. Not only

can it contribute to identify transactions that do not give rise to competitive concerns but, as mentioned before, qualitative evidence might complement the results of more sophisticated economic tools supporting conclusions about whether a merger is likely to significantly harm competition.

20. In the AdC, economists are involved in the analysis not only of quantitative evidence but also of qualitative evidence of merger cases. In the context of merger review, it is noteworthy that a substantive part of the information used in the competitive assessment is obtained by means of information requests. After identifying the relevant information needed, economists work in the design of information requests, which are intended to be as clear and straightforward as possible, to avoid misinterpretation and misreporting of the information required.

21. Furthermore, whenever possible, internal and strategic documents are gathered from firms involved in the merger. These documents often provide useful information about market definition (e.g. on closeness of competition between the parties) and/or possible theories of harm.

4. Practical examples of economic analysis in AdC merger investigations

22. We describe below some recent cases where complex economic analysis played an important role in the competitive assessment.

23. In 2017 the AdC assessed a merger case in the telecom & media sector (Altice/Media Capital, also referred to as MEO/GMC)¹ - a vertical merger between one of the leading providers of pay-TV and multiple play services and the leading provider of audio-visual contents and pay-TV channels.²

24. The main theory of harm was the risk of input foreclosure, whereby certain contents could be denied to the Notifying Party's competitors. The AdC undertook a vertical arithmetic analysis using data provided by the parties, namely diversion ratios (based on historical data) and profit margins in the upstream and downstream segments. It then estimated what would be the minimum level of departure rates (number of competitors' customers switching to the integrated company due to lack of access to foreclosed content) above which the integrated company would have both the ability and incentive to foreclose.

25. In order to estimate departure rates, the AdC undertook a consumer survey to assess how pay-TV customers would react in case the Media Capital's channels were removed from their current provider's line-up. Several scenarios were considered by the AdC in the survey's design - as to the channels being foreclosed and the competitors to which access of the channels was denied - and its implementation was commissioned to an external company. The results from the consumer survey allowed the AdC to quantify, precisely, subscriber departure rates in case channels were withheld by the merged entity.

¹ Case No. Ccent. 35/2017 – Altice/ Media Capital.

² For a more detailed description of the case see: A. Codinha, M. Costa, M. Ribeiro & P. Marques (2018) “*Input foreclosure in telecoms/media vertical mergers: the MEO/GMC case*”, Antitrust Chronicle, August, Vol. 2, <https://www.competitionpolicyinternational.com/wp-content/uploads/2018/>.

26. Furthermore, the survey's results allowed a comparison between the probable departure rate revealed by consumers and the minimum departure rates that would render a total foreclosure strategy profitable for the integrated company. Note that a conservative approach was adopted as to the threshold for considering the departure intention by respondents.

27. Surveys must be carefully designed in order to collect accurate data, which can be challenging due to time constraints of merger investigations. Notwithstanding this particular survey was fundamental for the robustness of the results of the foreclosure analysis, since it enabled to obtain accurate estimates for the key determinants for the relevant payoffs.

28. In the Altice/Media Capital case, the AdC also assessed the possibility of partial input foreclosure and used a Nash bargaining framework (similar to that used by the European Commission in the Liberty Global/Corelio/W&W/De Vijver Media merger and by the U.S. FCC in its investigation of the Comcast/NBCU merger). The AdC found that partial foreclosure was not only a profitable strategy, but was more profitable than total foreclosure and the likeliest outcome of the merger (as the foreclosed parties would be marginally better off being partially foreclosed than totally foreclosed).

29. More sophisticated quantitative techniques were also used in other recent cases, for example in a merger case in the payments systems sector (SIBS/Ativos Unicre)³, where both parties were jointly owned by a large proportion of the banks operating in Portugal. In order to assess the transaction, the AdC, jointly with an external economic consultant, developed a static sub-game perfect Nash equilibrium model of the industry. This model took into consideration several important characteristics related not only to cross-shareholdings, but also to the fact that these are multi-sided markets.

30. After an extensive collection of data from issuers, acquirers and the processor, the AdC estimated the demand functions for payment cards and acquiring services (discrete choice class of econometric models), which were then used to estimate the equilibrium model.

31. Subsequently, the estimated model was used to simulate several counterfactual scenarios and isolate positive and negative effects resulting from the proposed merger e.g., elimination of double marginalisation, effects of cross-shareholdings and change in incentive to foreclose rivals.

32. In the Rubis/Ativos Repsol⁴ merger case, which involved liquefied petroleum gas (LPG) assets in the Madeira and Azores Islands, the AdC estimated upward pricing pressures (UPP), including a sensitivity analysis on UPP estimation parameters such as diversion ratios, margins, efficiencies and prices.

33. In the same case, the AdC also assessed the unilateral effects of the merger through a calibrated equilibrium simulation (with a calibrated antitrust logit model, a partial, static equilibrium oligopoly model, with product differentiation and competition through prices).

³ Case No. Ccent. 37/2016 – SIBS/ Ativos Unicre.

⁴ Case No. Ccent. 39/2017 – Rubis / Ativos Repsol.

5. Conclusions

34. The AdC's experience confirms that economic analysis is a crucial element in merger investigations.

35. Economists are involved across the various stages of the merger review, including in preparing information requests and negotiating remedies.

36. The degree of involvement of economists will depend on the complexity of the cases. In addition, more complex cases may trigger the involvement of the chief economist team and economists with relevant sector expertise.

37. Similarly, depending on its complexity, a merger review will require the use of basic and/or more sophisticated quantitative analysis, as well as the analysis of qualitative evidence. In recent years, the AdC has undertaken a number of merger investigations where more complex economic analysis played an important role in the merger assessment.