

22 December 2014

# Competition Policy Applied to Information Exchanges between Competitors in the EU: Proceedings of the Spanish Competition Authority in a Recent Case

By **Pedro Posada De La Concha** and **Sergio García De Frutos**<sup>1</sup>

## Abstract

*Unlike explicit cartel agreements, the exchange of commercially sensitive information between competitors is a very complex and controversial subject within European competition law. This is largely because this type of practice can produce not only anticompetitive but also procompetitive effects. Thus, a thorough assessment of its restrictive nature on competition requires a case-by-case examination of the characteristics of the market, the nature of the information and the manner in which it is exchanged within the specific market context, as well as its potential beneficial effects. In addition, any claim on the existence of a negative harmful impact on the market should be tested against empirical evidence. The recent experience in Spain does not suggest that the Competition Authority always conducts such an analysis or follows an appropriate methodology, since they have merely identified a set of factors characterizing the exchanges in order to reach its conclusions, without considering the specific market circumstances or analyzing the empirical evidence. This lack of rigor can generate unfair decisions and create legal uncertainty, discouraging firms from engaging in information exchanges that may be potentially beneficial for consumers and for the market overall.*

## Introduction

In recent years, the Spanish Competition Authority (CNMC)<sup>2</sup> has conducted a series of investigations regarding potentially anticompetitive practices which involve the exchange of commercially sensitive information between competitors.<sup>3</sup> Most of these cases concern allegations of price fixing and/or market-sharing agreements, in which the existence of information exchanges between competitors played the key role in the investigation.

Among these investigations, case S/0404/12 (“AENA Commercial Services”)<sup>4</sup> stands out. In this case, the Spanish Authority’s investigation focused on the information exchange practice as an independent violation of antitrust rules, i.e., as an autonomous infringement of Article 1 of the Spanish Competition Law (or Article 101 of the Treaty on the Functioning of the European Union—TFEU), and not as an ancillary conduct of a cartel or an explicit agreement.<sup>5</sup> The CNMC concluded that the exchange of commercially sensitive information between car rental companies in several airports in Spain did constitute a violation of antitrust law.

The exchange of commercially sensitive information between competitors as a breach of antitrust rules, has been extensively examined within the competition law framework, both from an economic and from a legal perspective. Competition agencies, such as the European Commission (EC), have published guidelines to help assess whether a given information exchange is compatible with competition law.<sup>6</sup> Additionally, the economic literature has identified a number of factors that should be considered in order to analyze the likelihood of firms reaching a collusive outcome in the market, which could result in anticompetitive effects.

Nonetheless, the exchange of information between rival firms remains a complex and controversial subject. With the exception of certain situations,<sup>7</sup> neither Spanish law nor the EC regulations regarding horizontal agreements specify which types of information exchanges must be prosecuted. Moreover, there are currently no directly applicable rules to determine whether a particular information exchange will result in beneficial or harmful effects on competition. To a large extent, this is because such conduct can bring about anticompetitive effects (facilitating coordination of rival firms, which constrains effective competition), but also procompetitive effects (which can improve efficiency and benefit consumers), therefore hindering an adequate assessment of the net effect of such practices.

As a result, an examination of cases involving this type of conduct requires a detailed economic analysis of the information exchanged and the manner in which the exchange has taken place. The assessment of its potential effects, both procompetitive and restrictive, should consider the specific circumstances of the market. It is also crucial to analyze the empirical evidence in order to establish the actual impact of the conduct (i.e., which of the two opposite effects dominates). In other words, competition authorities need to be particularly careful when assessing these cases in order to avoid unfair decisions and/or the creation of legal uncertainty, which may discourage companies from undertaking potentially efficient and procompetitive information exchanges.

Yet, the recent experience in Spain shows that the Competition Authority has not always conducted rigorous analyses nor employed appropriate methodologies, omitting the assessment of certain key features, which resulted in biased final decisions.

This paper examines the economic analytical framework developed in the EU to identify those elements and factors that are relevant for the assessment of information exchanges, and which were not considered by the CNMC, particularly in the investigation of case S/0404/12.

In order for competition authorities to conduct an objective and rigorous assessment of information exchanges, they must analyze the actual effects that such an exchange may have caused, and examine the specific manner in which the exchange may have facilitated a collusive agreement or could facilitate it in the future. Additionally, the procompetitive effects that could be brought about by these practices should also be examined. Performing thorough and appropriate analyses will help prevent excessive intervention that could discourage practices that are potentially beneficial for consumers.

## Analytical framework

The current economic and legal framework for the assessment of exchanges of commercially sensitive information between competitors in the EU suggests that a case-by-case analysis should be performed, taking into account a series of factors, such as the type of information exchanged, the manner in which it was shared, the features of the market, and its particular economic context.

As discussed earlier, this approach is necessary as information exchanges can be beneficial for consumers and the market overall.<sup>8</sup> However they may also lead to restrictive effects on competition, resulting in certain market conditions that would be detrimental for consumers. This is particularly relevant when information exchanges generate or increase the likelihood of companies aligning their commercial strategies, giving rise to a tacit/implicit collusive market outcome.<sup>9</sup>

Nonetheless, collusive outcomes are hard to reach and to sustain over time, as they produce market conditions that are inherently unstable. This is because once the competing firms have reached an agreement (e.g., set higher prices), each firm has an incentive to deviate in order to become a more appealing option for consumers and capture a larger share of the market.

Thus, a collusive agreement can only be sustained over time if a retaliation mechanism is designed to discipline companies that deviate from the agreement. For instance, the other participants may launch an intense price war in order to reduce the disloyal companies' profits and discourage their deviation.

According to the economic literature, the EC guidelines on this subject, and the relevant case law,<sup>10</sup> a number of conditions must be held for a collusive agreement between competitors to be sustained:

- a. The terms of the agreement must be beneficial for all participants;
- b. The current and/or potential competitors outside the collusive agreement must not be able to erode the supra-competitive profits;
- c. It must be possible to detect deviations from the terms of the agreement; and,
- d. A retaliation mechanism must be in place to punish companies that deviate from the agreement.

Similarly, the economic literature and the EC guidelines indicate that the conditions listed above are more likely to be satisfied when markets are transparent and stable (e.g., comprising high entry barriers, no major innovations, and a relatively constant demand); when simple, homogeneous products are commercialized; and when there is a low number of competitors in the market, with symmetric structures and structural links (such as cross-ownership relationships). In addition, a market is more prone to collusion when there is no countervailing buyer power, and when firms interact frequently and in other markets.<sup>11</sup>

Insofar as the information exchange facilitates the creation of or strengthens one of these factors, the likelihood of reaching a collusive agreement will rise.

Thus, whether a given information exchange between competitors is contrary to competition will depend both on the pre-existing market situation as well as on the manner in which the exchange alters this situation. This, in turn, depends on the nature of the information and on how specifically it is exchanged.

Therefore, to assess whether such practice may be anticompetitive, and once the market characteristics have been studied and the initial likelihood of collusion assessed, it will be important to analyze the impact of the information exchange on these initial conditions.<sup>12</sup> In this respect, and also in line with the EC guidelines, the following factors and features should be considered:

- **The nature of the information.** If the information is disaggregated and relates to future intentions about “strategic variables” of competition, such as prices or production capacity, it must be almost always censurable, and is –essentially– the only instance that should be regarded as an infringement “*by object*.”<sup>13</sup> Nevertheless, whether a given variable is considered as “strategic” depends on which one is the variable of competition in the market. Thus, it is necessary to assess the specific economic context.<sup>14</sup> On the other hand, the exchange of statistical information that allows companies to identify the general level of demand, the level of market production, or their competitors’ costs, may be beneficial for consumers.
- **Market coverage.** For an information exchange to have restrictive effects on competition, the firms involved in the exchange must cover a large enough share of the reference market.<sup>15</sup> Nonetheless, the degree of coverage that is sufficient to restrict competition depends on the market’s competition conditions.<sup>16</sup>
- **The level of detail of the information.** The more detailed the information, the easier it will be for firms to predict the future conduct of their competitors, and adjust their strategies accordingly. However, there is no general rule that specifies the minimum level of aggregation required for an exchange to be lawful; again, this depends on the specific circumstances of each market. Therefore, even information that appears to be fully disaggregated (in the sense that it refers to each individual company) might not affect competition if it includes different services subject to different commercial strategies.<sup>17</sup>

- **The age and reference period of the exchanged information.** Generally, the exchange of historic data does not facilitate collusion as it does not contribute to a timely detection of disloyal firms that deviate from the agreement. In contrast, information regarding future intentions represents a greater risk as it allows companies to reach a reference point in terms of the price to be set or the market to be shared.<sup>18</sup>
- **The frequency of the exchange.** Frequent data exchanges permit companies to better and more quickly adapt their commercial policies to their competitors' strategies. Moreover, for a collusive outcome to be sustained, the punishment for deviations from the agreement ought to be credible and effective. Therefore, the detection of deviations must be timely in order to limit the extra profits obtained by the disloyal firm. Again, the frequency of the information exchange necessary to reach a collusive outcome also depends on the nature, age, and the disaggregation level of the data.<sup>19</sup>
- **The information is publicly available.** Generally, the exchange of information that is public, or that rivals can access by other means, should not be considered as a violation of competition rules.
- **The information is verifiable.** When the information obtained from competitors cannot be verified, there is the risk that it might simply be "*cheap talk*," i.e., that the information exchanged is not correct. In this situation, it may not be possible to detect deviations from the terms of the agreement which, in turn, would impede the sustainability of the collusive equilibrium.

In summary, to conclude that an information exchange in a given market can facilitate coordination and may restrict competition on the market, the following should be proven:

1. **The market is such that tacit collusion is feasible,** i.e., it displays the characteristics of a market prone to collusion.
2. **The nature of the exchange creates or strengthens these factors,** in particular because it increases market transparency, therefore facilitating an agreement on the coordination terms, the monitoring of the agreement, and retaliation against disloyal companies. This is shown by performing a case-by-case assessment where the nature of the information is analyzed in the context defined by the specific market characteristics, such as the companies' features and those of the products and consumers.

Generally, the likelihood of collusion increases when the information exchanged is disaggregated and individualized, when it is private, and when it is related to future intentions regarding strategic competition variables.

However, it should be borne in mind that even an information exchange of future intentions regarding strategic competitive variables may also generate procompetitive effects, especially when the information is also revealed to consumers.<sup>20</sup> This potential dichotomy calls for an empirical analysis of the effects observed in the market.

As a result, it will also be necessary to show that:

**3. There are no procompetitive effects that offset the potential restrictive effects.**

For example, the information exchange may resolve information asymmetries that generated inefficiencies. It may reduce search costs for consumers and market uncertainty (regarding the evolution of supply, demand, production costs, etc.) in such a way that firms are able to define better strategies (e.g., investment plans).

In fact, information exchanges regarding future pricing intentions may have, in some instances, procompetitive effects. For example, when a company that was offering its products (or had planned to offer them) at a given price decides to reduce prices after finding out that its competitors are setting lower prices (or planning to set lower prices) than it had previously expected. In other words, even in an extreme scenario in which information about future pricing intentions is exchanged, the final effect could still enhance competition in the market.<sup>21</sup>

**4. The empirical evidence indicates that the exchange has caused restrictive effects on the market** and that consumers have been harmed. In this respect, it is necessary to perform a profound analysis of the market data and other relevant available information.<sup>22</sup>

## Case S/0404/12 (AENA Commercial Services)

In case S/0404/12, CNMC concluded that there had been an infringement of competition law, which involved the exchange of commercially sensitive information between car rental companies in several airports in Spain. The conduct in question consisted of the distribution by AENA,<sup>23</sup> of monthly and “disaggregated” information regarding total revenue and the number of rental contracts, among the concessionaire companies at each airport.

The CNMC’s decision in this case contains very few elements of economic analysis, such as those described in this paper, or justification of the conclusions regarding the effects of the exchange of information and its restrictive nature on competition. The few claims expressed in this regard establish that:

*“Exchanges of commercially sensitive information not only had the ability to reduce independence in the decision-making process of the car rental companies accused, eliminating uncertainty and restricting competition, but also this practice among concessionaries in almost all airports in Spain (...) enabled them to reduce or suppress the degree of uncertainty about the competitive functioning of the affected market, leading to a collusive outcome,”*

and that:

*“The purpose of the exchange of commercially sensitive information was to have access to specific knowledge on the market shares of all car rental companies accused and their evolution over time on a monthly basis, thanks to the exchange of disaggregated information on sales data and number of contracts signed every month, in almost all Spanish airports.”*

In addition, the decision pointed out that:

*"Regardless of the type and nature of the information exchanged between the accused companies, the high frequency (monthly) and the age of the data (one month), the predominance of car rental companies with the highest market shares in the sector is corroborated."*<sup>24</sup>

The CNMC's assessment suffers from several limitations, in particular:

- a. It did not carry out an analysis of the relevant factors to determine whether or not this is a market prone to collusion;
- b. It did not analyze the specific characteristics of the information exchange within the context of the market in which it took place. Although it is true that references to some of these factors (such as the frequency of the exchange, the level of detail and the age of the data) and their potential general effects are made, it is never assessed whether these factors could really have an impact on this market; and,
- c. Despite the claims on the existence of anticompetitive effects on the market, no empirical evidence to support these assertions was provided.

Each of these three limitations is discussed in the following sections.

### **The car rental sector is not a market prone to collusion**

An important aspect that the CNMC omits during its assessment is the fact that the car rental sector is not a market prone to collusion, since it would be extremely difficult to reach an implicit agreement between the competitors leading to a collusive result in the market that could be sustained over time. This is mainly because:

- a. It would be very difficult to agree on a set of terms and conditions beneficial to all companies, because the market is not transparent in the corporate and intermediary segments, the interaction between competitors is not frequent for these two segments, and companies are numerous and asymmetric. Also, the degree of product differentiation is very high, with multiple dimensions of competition, such as quality, range of vehicles, fleet capacity, etc., as well as the existence of numerous features and contractual conditions that would hinder collusion. Moreover, the market is subject to an intense degree of strategic innovation<sup>25</sup> and there are no structural links between the firms that would help them align their incentives.
- b. If other firms or potential competitors observed very high prices, they would try to benefit from it by expanding or entering the market (due to the low barriers to entry), thus eroding the benefits of coordination.

- c. It would not be possible to monitor the behavior of the companies and detect possible deviations from the agreements, a necessary condition to sustain collusion, due to opacity in some market segments (in particular, corporate and leisure through intermediaries) and the many variables affecting prices. In addition, the large variability of demand (particularly in the leisure segment, which is seasonal) would hinder an agreement on the terms of coordination and the task of detecting disloyal firms.
- d. There is not a credible retaliation mechanism against disloyal firms since, for example, there are asymmetries of capacity that would hinder the punishments, and the lack of multi-market contacts would reduce their effectiveness.

### **The information exchange did not facilitate collusion**

The CNMC does not explain why the exchange of data on market shares (or revenues, or number of contracts) made it possible to reduce competition in this market. In the car rental sector, the strategic competition variable is not the market share but the price.<sup>26</sup> In fact, due to the significant level of product differentiation, and continuous price variation in the leisure segment, monthly market shares do not provide sufficient information to sustain a collusive agreement, since they do not enable firms to detect possible deviations.

In addition, the information exchanged was of little use, as it only referred to a fraction of competitors (or sales) in the relevant market, as defined by the CNMC which considered it nationwide.<sup>27</sup> Also, many other companies operating at airports (particularly in their vicinities) did not receive the information.

Furthermore, data on market shares were aggregated so that it was impossible to distinguish between the different market segments (leisure, corporate, intermediaries) and all the variables affecting the price of the service, such as the type of customer, the sales channel, the rental period, the insurance coverage, etc.

Also, the CNMC does not take into account that the prices of competitors for the leisure segment are publicly available on their websites or through online search engines. And, as noted above, although the terms and conditions in the corporate and intermediary segments are more opaque, the information provided by AENA did not allow distinguishing these segments in particular.

Another characteristic of the information that was not analyzed properly was the frequency of the exchange. The CNMC considers that a monthly frequency was very high, despite the fact that prices in this market, at least in the case of leisure customers, are updated several times a day, that the average contract duration is one week, and that the competitive interaction among firms is very frequent. Moreover, in the case of corporate customers, the terms and conditions are fixed for very long periods of time (one or two years), so that the sharing of monthly information would be irrelevant.



Similarly, the CNMC highlights the age of the data (one month), but without assessing the economic context of the market. As noted above, whether the data exchange is considered historical or current depends fundamentally on the circumstances of the market in question, in particular on the frequency with which prices are negotiated or the stability of the demand. In this case, specifically in the leisure customer segment, price variations are continuous and demand is characterized by its seasonality, so that even relatively recent information would be useless.

Finally, and regarding the analysis of the information exchanged, the CNMC makes two mistakes, in our opinion:

*It establishes the wrong causal relationship between uncertainty, independence in decision making, and restriction on competition*

In particular, the CNMC states that the exchanges of information had the ability to reduce the independence in the decision making process of the firms as they eliminated or reduced uncertainty, thereby restricting competition and leading to a collusive outcome.

From the standpoint of economic analysis, reducing uncertainty should not be considered as restrictive per se, as it may lead to significant procompetitive effects. The existence of uncertainty is not a necessary condition for a market to be competitive; on the contrary, it can lead to inefficiencies hindering effective competition. In fact, one of the main requirements for the model of “perfect competition” is the access to equally “perfect” information by all market agents.

In this sense, the CNMC seems to rely on a very literal interpretation of what should be understood as “independent decisions.” This does not mean that companies should make decisions without considering any information about their rivals. If this were the case, a company subject to significant competition should not take into account the information that there are other competitors in the market and the prices fixed by these competitors, which makes no sense.

In reality, it is difficult to observe a single case of a firm taking completely independent decisions (i.e., ignoring its rivals). This view is shared by European case law, which recognizes that while it is true that competition law requires autonomy in the decision making process of the firms, it does not exclude the right of economic operators to adapt themselves to the observed or anticipated behavior of their competitors,<sup>28</sup> about which they, evidently, need information.<sup>29</sup>

Therefore, although competition authorities often oppose artificial contacts or information exchanges between rival companies, to the extent that this may cause a change in behavior, from the economic point of view this could be counterproductive as that additional information could lead the firms to act more competitively. Thus, before taking an overly formalistic position, it is essential that regulators assess whether there is indeed a risk that anticompetitive effects would arise in the market, through the application of rigorous economic analysis, in line with what has been described in this paper.

Otherwise, as it has happened in this case, the authorities may end up punishing a practice that could have had positive (or null) effects on the market, with the simple argument that the "independent decisions" of the companies would have been altered.

*It does not demonstrate that the objective of the information exchange was anticompetitive*

Another important aspect that should be mentioned about the information exchange is its intent or purpose. The judgment of the European Court of Justice in the case of T-Mobile<sup>30</sup> has highlighted the importance of the objectives of a given exchange of information to determine its status as anticompetitive, especially when it involves a possible infringement by object. Similarly, in the US, an important element to conclude that an exchange of information is illegal is to demonstrate that there is a "wrongful intent."<sup>31</sup>

In this case, the CNMC did not prove that the purpose of the information exchange was anticompetitive, as it did not rule out the alternative explanations claimed by the companies, such as the fact that the information should be exchanged to ensure transparency regarding the payment of fees and the allocation of parking slots for the various concessionaire car rental companies at each airport.

Finally, regarding the possible classification of the information exchange as an infringement *by object*, it is worth highlighting a recent ruling by the European Court of Justice on case C-67/13 P, *Groupement des cartes bancaires (CB)*, in which it was concluded that the General Court had not correctly confirmed the restriction of competition *by object* indicated in the EC decision. Specifically, the Court states that in order to conclude that a certain practice is restrictive *by object* it must be shown that it "reveals a sufficient degree of harm to competition." Additionally, the Court identifies a number of factors that should be assessed in relation to this type of conduct, in line with its case law, such as:

*"...the content of its provisions, its objectives, and the economic and legal context of which it forms a part. When determining that context, it is also necessary to take into consideration the nature of the goods or services affected, as well as the real conditions of the functioning and structure of the market or markets in question..."*<sup>32</sup>

As we have argued throughout this paper, essentially every information exchange (including those involving future pricing—or other strategic competition variables—intentions) can potentially generate procompetitive effects, depending on the specific context and circumstances of the market. In this sense, the recent European Court of Justice ruling teaches two important lessons that are relevant to the case at hand:

1. Even in a potential infringement of competition law *by object*, the decision of the competition authority must involve, as a preliminary step, a thorough analysis of the facts of the case, including an assessment of the objectives of the conduct, the context, and the functioning of the market; therefore this rule cannot be used as an excuse to refrain from carrying out an in-depth economic analysis. That is to say, competition authorities should abandon the (ab)use of simplistic and formalistic rules, and instead devote more resources to the analysis of the effects; and,

2. It must be shown that the agreement “*reveals a sufficient degree of harm to competition,*” which essentially prevents any agreement with potential pro-competitive effects to fall within this category. Indeed, this assertion suggests that the *by object* rule should be confined to those agreements that can only lead (or are exceedingly likely to lead) to direct anticompetitive effects, such as an explicit price-fixing or market sharing agreement by a cartel, as we pointed out above.

### **There were not effects on the market**

Finally, although the CNMC states in its decision that anticompetitive effects took place because the information exchanges led to a collusive outcome, this statement was not corroborated with any empirical evidence.

The analysis of relevant economic indicators shows a high level of competition in the market during the relevant period, at each airport. For example, the variability of market shares and the lack of parallelism in prices and average revenue per contract were common factors during the period of the information exchange, contrary to what would be expected in a colluded market. In addition, a significant level of entry and exit of competitors and a high degree of innovation was observed, which would have prevented any attempt at effective coordination. Furthermore, the profitability of most companies with concessions at Spanish airports during this time period was very low or even negative, which does not seem very consistent with the existence of any coordinated behavior or a collusive outcome.

## **Conclusion**

The assessment of information exchanges between competitors as a possible infringement of competition law cannot be limited to a mere identification of factors that characterize these exchanges. It is necessary to jointly analyze the market context in which the practice takes place in order to assess whether the market is prone to collusion and the specific effects of each of the factors on the probability of reaching a collusive outcome. Additionally, any statement about the existence of effects on the market should be based on a rigorous empirical analysis that demonstrates that the relevant economic indicators point at the lack of effective competition.

Due to the increasing activity of monitoring and detection of cartels by competition authorities (e.g., following the implementation of leniency programs and the particularly adverse economic environment in many countries), many more cases in which the relevant behaviors under investigation turn out to be the exchange of commercially sensitive information between competitors are expected.<sup>33</sup> It is therefore essential that the analysis used during the investigation enables competition authorities to distinguish and punish only those cases where the reduction of effective competition in the market is sought, or where anticompetitive effects on competition are actually observed, so that actions that could generate procompetitive effects for consumers and businesses, or simply that do not have any potential to restrict competition, are not penalized.

## Bibliography and References

Bennett, M. and Collins, P. (2010), "The Law and Economics of Information Sharing: The Good, the Bad and the Ugly," *European Competition Journal* 6, no. 2, pp. 311-337.

Caffarra, C. and Kühn, K.-U. (2006), "The Cost of Simplistic Rules for Assessing Information Exchange: The Italian Jet Fuel Decision," in: "The Pros and Cons of Information Sharing," Swedish Competition Authority, pp 131-177.

European Commission (2011), "Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements," Official Journal of the European Union, 2011/C 11/01.

Davies, S., Olczak, M. and Coles, H. (2011), "Tacit collusion, firm asymmetries and numbers: Evidence from EC merger cases," *International Journal of Industrial Organization* 29, Issue 2, pp 221-231.

Grout, P. A. and Sonderegger, S. (2005), "Predicting Cartels," A report prepared for the Office of Fair Trading, OFT773.

Grout, P. A. and Sonderegger, S. (2007), "Structural Approaches to Cartel Detection." *European Competition Law Annual 2006: Enforcement of Prohibition of Cartels*, C.-D. Ehlermann y I. Atanasiu, eds., Hart Publishing.

Harrington, J. E. (2007), "Behavioral Screening and the Detection of Cartels," *European Competition Law Annual 2006: Enforcement of Prohibition of Cartels*, C.-D. Ehlermann y I. Atanasiu, eds., Hart Publishing.

Harrington, J. E. (2008), "Detecting Cartels," *Handbook of Antitrust Economics*, P. Buccirossi, ed., The MIT Press.

Ivaldi, M., Jullien, B., Rey P., Seabright P. and Tirole J. (2003), "The Economics of Tacit Collusion," IDEI Toulouse, Final Report for DG Competition, European Commission.

OECD (2010), "Information Exchanges Between Competitors under Competition Law." OECD Policy Roundtables, DAF/COMP(2010)37.

Rosch, J. T. (2011), "Antitrust Issues Related to Benchmarking and Other Information Exchanges," Federal Trade Commission.

Salant, S. W., Switzer, S. and Reynolds R. J. (1983), "Losses from Horizontal Merger: The Effects of an Exogenous Change in Industry Structure on Cournot-Nash Equilibrium," *The Quarterly Journal of Economics* 98, no. 2, pp 185-199.

Tirole, J. (1988), *The Theory of Industrial Organization*, MIT Press.

## Notes

- <sup>1</sup> NERA Economic Consulting, Madrid and San Francisco.
- <sup>2</sup> “Comisión Nacional de los Mercados y la Competencia.”
- <sup>3</sup> For instance, see, among others:
  - Case S/0280/10 (“SUZUKI-HONDA”), in which the CNMC concluded that a concerted practice had taken place, consisting in a bilateral exchange of commercially sensitive information between the firms Honda and Suzuki, regarding prices and wholesale margins of motorcycles.
  - Case S/0425/12 (“INDUSTRIAS LACTEAS 2”), against several companies from the dairy industry, due to the exchange of information and/or agreements on market sharing and fixing of commercial terms and conditions, in the market for the provision of raw cow milk.
  - Case S/0453/12 (“RODAMIENTOS FERROVIARIOS”), against several manufacturers of bearings for railway vehicles, as a result of the suspicion of a potential anticompetitive conduct consisting in the adoption of agreements of market sharing, price fixing, and exchange of commercially sensitive information.
  - Case S/0474/13 (“PRECIOS COMBUSTIBLES AUTOMOCIÓN”), against Repsol, Cepsa, BP and other operators, due to a potential anticompetitive conduct entailing the coordination between operators of oil products regarding prices, customers and commercial terms, and the exchange of commercially sensitive information, in the automotive fuel distribution sector.
  - Seven inquiries, launched in September 2013, for potential anticompetitive practices involving the fixing of prices and other commercial terms and conditions, and the exchange of commercially sensitive information, in the markets for the manufacturing and distribution of motor vehicles.
- <sup>4</sup> The authors of this paper were retained as economic consultants in this case.
- <sup>5</sup> Nonetheless, it is worth pointing out that the Board of the CNMC acknowledged in its final decision that this case should have been investigated together with Case S/0380/11 (“COCHES DE ALQUILER”), as it determined that the conduct and infringements in both cases were part of a single act; however, it ended up fining several firms solely due to the practice of exchange of commercially sensitive information.
- <sup>6</sup> See for instance European Commission (2011).
- <sup>7</sup> As explained in more detail below.
- <sup>8</sup> For instance, the increase in transparency may lower consumers’ search costs, as it allows customers to make more informed selections between the different products, resulting in more intense competition. Transparency may also benefit the competitive process, as it permits a more profound knowledge of the market functioning, which facilitates the accomplishment by firms of more effective and efficient commercial strategies. Increased transparency also benefits new entrants, which can enter the market competing more fiercely. Additionally, the improved flow of information allows firms to conduct benchmarking analyses against their competitors (e.g., regarding production costs) and to better understand the market structure and trends. In turn, they are able to adjust their commercial strategies (e.g., investment plans), becoming more competitive in the marketplace. Information exchanges can be particularly beneficial in certain industries, such as the insurance sector and credit markets, where knowledge about data regarding customer characteristics or past claimants allows firms to design more suitable conditions and products, and to offer them to the best customers, improving their risk management. For further details, please see European Commission (2011) and Bennett and Collins (2010).
- <sup>9</sup> See, for example, Ivaldi *et al* (2003).
- <sup>10</sup> In this respect the merger between Airtours and First Choice, for instance, set a precedent as the Court of First Instance revoked the Commission’s decision. The EC had decided to block the merger between these two firms due to the possibility that it would bring about coordinated effects (tacit or implicit collusion). However, the Court determined that, in order to conclude that coordinated effects will arise, certain conditions had to be proven.
- <sup>11</sup> **Market transparency** may facilitate a common understanding with regard to the terms of coordination (for example, by identifying a focal point), and ease the detection of possible deviations from the agreement.

High market **concentration** also simplifies coordination, as it encompasses a lower number of firms and each one of them captures a larger share of the supra-competitive profits. Recent work has shown that tacit collusion is a rather rare episode and tends to affect primarily markets with only two companies that are relatively symmetric. For example, Davies *et al* (2011) reached such conclusions based on empirical evidence from 62 cases of possible coordinated effects (or tacit collusion), in the context of the assessment of 2,425 mergers during years 1990-2004.

Additionally, competitors that are **symmetric** (in terms of market shares, cost structures, product ranges, production capacities, etc.) have more aligned incentives, which facilitate an implicit agreement regarding the collusive variable. For instance, if market shares are asymmetric, then the smaller firms will have greater incentive to deviate from the equilibrium, as they can potentially obtain a significantly larger share by doing so. The paper by Davies *et al* (2011) also presents empirical evidence showing that tacit collusion arises primarily among symmetric firms.

On the other hand, greater market **complexity** (e.g., in terms of product differentiation) hinders a common understanding about the terms of coordination as it requires a greater degree of information exchanged. According to the review of the cartels detected by the EC since 1990, performed by Grout and Sonderegger (2005), most of them took place in markets where products were somewhat homogeneous.

Moreover, **the instability of supply and demand** also complicates the determination of the terms of the collusive agreement. First, an unstable demand hinders the detection of deviations from the agreement, requiring greater coordination and monitoring. The instability of supply may be due to the importance of innovation in the market. In this respect, Grout and Sonderegger (2005) point out that R&D expenditures tend to be lower than average in those industries where the EC detected the existence of cartels. Instability of supply may also be due to low entry barriers or to a large countervailing buyer power.

Finally, there are other factors that might facilitate collusion such as the **frequent interaction** of firms in the market (which allows for a quick detection of deviations), **multi-market contacts**, and the existence of **structural links** (which align incentives and reduce the asymmetries between prospective members of the agreement).

For further details regarding the effect of each of these factors see, for instance, Grout and Sonderegger (2005), Grout and Sonderegger (2007), Tirole (1988) and European Commission (2011).

- 12 For instance, Caffarra and Kühn (2006) suggest that, during the investigation of an information exchange, it is necessary to analyze the specific manner in which collusion may arise in the market, and what information would help companies to reach a collusive outcome.
- 13 Nonetheless, some articles such as OECD (2010) have pointed out that not every information exchange about future changes of strategic variables is necessarily harmful (for instance, if the market in question is not prone to collusion or if there exist other relevant competition variables). In this respect, it has even been claimed that only those information exchanges that are part of the strategy of an explicit cartel should be considered as infringements *by object*. Further below in this paper we refer to another example where the exchange of information regarding expected future prices can actually lead to procompetitive effects.
- 14 For instance, the exchange of data regarding quantities or market shares would not be strategic in a market in which the variable of competition is the price and there is product differentiation. Similarly, the exchange of information regarding lists of clients could not be strategic either if it is not possible to allocate clients, for example because they cannot be identified.
- 15 Otherwise, the companies that do not participate in such practice could hinder any anticompetitive behavior of the companies involved in the exchange, for example, by setting prices below the agreed level.
- 16 For example, in an extreme case of Bertrand competition (in prices), with homogeneous goods and no capacity constraints, for coordination to exist and be sustained it would be required that all competitors take part in the agreement. The necessary degree of coverage is lower if there is Cournot competition (setting quantities), with homogeneous goods, where it suffices that around 80% of the market participates in the agreement for collusion to be sustainable (this result was first found by Salant *et al* (1983)). Another example that can be highlighted is the case of competition with differentiated products, where the share of participation that is necessary may sometimes be even lower, depending on the circumstances of each market; in this case, although the collusive outcome results in a lower profit increase (as each company already has some market power for its own differentiated product), the incentives to deviate are also lower as a deviating company cannot steal all customers from other competitors, also due to the product differentiation.
- 17 For instance, if the information exchanged aggregates and does not distinguish between multiple customer segments subject to different offers in terms of price and service features, then it will be very difficult to correctly detect prospective deviations or to exert a particular punishment to a disloyal firm.
- 18 In order to assess whether the information exchange can be described as historic, the specific competitive circumstances of the market must be considered. For example, in industries where demand is very stable, future actions by competitors may be more easily anticipated based on their past actions. Similarly, whether information is historic or not will also depend on the frequency of price renegotiations: the data would be considered historic if it is several times older than the average duration of contracts or the period of time between two price renegotiations. Thus, in markets where, for example, concession contracts are offered every one or two years, information that is one or two years old may still be very relevant. In contrast, if tenders are arranged one or twice a week, then information that is one or two months old would be of little use in order to agree on bidding terms for the next tender, or to detect deviations.
- 19 For instance, even though information that is exchanged on a monthly basis reflects, in principle, great frequency, it may not be such if in the market of interest price changes take place on an hourly or daily basis, as in this case even monthly information would not allow firms to monitor effectively the evolution of prices.
- 20 In this respect, it has been suggested (see, for instance, Bennett and Collins (2010)), that public announcements by firms (i.e., providing information to both their rivals and consumers), even if they involve individualized information regarding their future pricing intentions, should not necessarily be deemed as infringements *by object*, as they can result in procompetitive effects that should be carefully analyzed.
- 21 A very illustrative example in this respect is the investigation by the Spanish Competition Authority regarding the matter of rounding up of mobile phone tariffs ("*redondeo de tarifas de móviles*"), for which a final decision was reached in 2009. The Agency investigated Movistar, Vodafone, and Orange for a potential collusive agreement, facilitated by an announcement that anticipated new tariffs. Specifically, Movistar was first to announce a new tariff, increasing the call set-up charge up to €0.15; this was subsequently mimicked by Vodafone and Orange. Nevertheless, the CNMC concluded that the existence of unlawful practices had not been proven, and pointed out as a relevant fact that Vodafone and Orange, after Movistar's price announcement, decided to set lower tariffs than what they had planned prior to Movistar's announcement. In other words, the early price announcement resulted in lower charges than the ones that would have been set otherwise, therefore generating a procompetitive effect.
- 22 Even though the detection and punishment of collusive practices is one of the most important functions of antitrust authorities, the task of demonstrating the existence of an agreement (particularly when it is implicit) that may have had effects on the market, based on empirical evidence, is not straightforward. Nonetheless, there is a general consensus regarding the relevant economic indicators that should be analyzed in order to determine whether a market is competitive or, on the contrary, if there are signs of a collusive agreement between competitors that may have affected the market variables (on this subject, see for example, the works by Harrington (2007) and Harrington (2008)). Among such indicators, the following are worth mentioning: the stability of market shares, price parallelism and convergence (as long as this is not due to exogenous factors such as the cost of a common input or the evolution of demand), the frequency of market entry and exit, the profit margins, and the degree of innovation. Additionally, any other element suggesting significant customer switching between competitors may be relevant evidence for this assessment. Anecdotal evidence regarding companies' aggressive commercial policies (for example through the application of discounts and offers) would also represent solid evidence of fierce competition taking place in the market.
- 23 AENA is the administrator in charge of the management and operation of most airports in Spain.

- <sup>24</sup> Pages 10 and 11 of the CNMC's decision in Case S/0404/12 (own translation).
- <sup>25</sup> Innovation in the car rental sector is mainly reflected in the rental and management procedures (e.g. via the Internet), the marketing initiatives (such as promotions, discounts, and loyalty programs), the launch of new products (such as the bundling of services), as well as in its sales channels, etc.
- <sup>26</sup> That is, the firms do not decide how many "rental contracts" they will sell but, essentially, at which prices they will offer the service. In the longer term, it is possible that a strategic variable is the fleet capacity. Nonetheless, the information exchanged did not contain data about the intentions on capacity, neither future nor present.
- <sup>27</sup> In Spain, there are about 2,000 firms operating in the car rental sector, of which only 20 had concessions at Spanish airports, so that the coverage of the information exchanged only reached about 1 percent of the firms. Such a low coverage prevents the exchange of information from generating restrictive effects on competition.
- <sup>28</sup> For example, in the well-known case of Wood Pulp, the European Court of Justice stated that the producers were free to make decisions taking into account the expected behavior of their competitors.
- <sup>29</sup> That is, strictly speaking, the competition authorities would not prosecute tacit collusion leading to a collusive outcome on the market, as long as the companies have not triggered (let us say, artificially) a contact or information exchange that could have facilitated coordination. For example, in the Wood Pulp case, the Court determined that "parallel behavior" constituted evidence of a concerted practice only when there is not an alternative plausible explanation for such behavior (for example, because the market does not have the characteristics that would make it prone to tacit collusion, and which would explain such price parallelism). From an economic perspective, however, the effect on the market can be equally harmful.
- <sup>30</sup> Case C-8/08 T-Mobile Netherlands BV and Others v Raad van bestuur van de Nederlandse Mededingingsautoriteit.
- <sup>31</sup> In this regard, see, for instance, Rosch (2011).
- <sup>32</sup> Paragraph 53 of the European Court of Justice ruling in case C-67/13 P (*Groupement des Cartes Bancaires*).
- <sup>33</sup> For instance, the OECD states that the trend is towards a less clear and explicit cooperation: *"This is ever more important in the context of the steadily increasing anti-cartel enforcement activity, as a result of which fully-fledged explicit cartel agreements are giving way to looser and more insidious ways of collusive cooperation among competitors"* OECD (2010), page 9.

## About NERA

NERA Economic Consulting ([www.nera.com](http://www.nera.com)) is a global firm of experts dedicated to applying economic, finance, and quantitative principles to complex business and legal challenges. For over half a century, NERA's economists have been creating strategies, studies, reports, expert testimony, and policy recommendations for government authorities and the world's leading law firms and corporations. With its main office in New York City, NERA serves clients from more than 25 offices across North America, Europe, and Asia Pacific.

## About NERA's Antitrust and Competition Practice

NERA economists employ economic theory and quantitative methods, grounded in a thorough understanding of the market, to provide a full range of theoretical and empirical economic analysis and testimony in matters involving mergers and acquisitions, antitrust litigation, and competition policy. We analyze the entire range of economic issues that arise in antitrust cases, including market definition, market dynamics, entry conditions, pricing, single firm conduct, agreements, and profitability. NERA's experts assess and, when appropriate, testify to the economic merits of allegations of anticompetitive mergers and acquisitions, foreclosure and exclusionary conduct (e.g., tying, bundling, and refusals to deal), horizontal and vertical restraints, monopolization and abuse of dominant position, and collusion. NERA's experts also have extensive experience estimating damages in antitrust matters, as well as assessing the appropriateness of class certification.

Clients value our reputation for objectivity, which is based on our expertise and insights from backgrounds in academia, business, and enforcement agencies, and our decades of experience working closely with antitrust and competition authorities around the world. Our experts are committed to a disciplined approach to economic analysis that produces unbiased, clear, and defensible findings. We understand the high stakes involved in our assignments and we take extraordinary measures to ensure our work is robust.

## Contact

For further information and questions, please contact the author:

### **Pedro Posada de la Concha**

Senior Consultant/Principal

+34 91 212 64 00

[pedro.posada@nera.com](mailto:pedro.posada@nera.com)