

# CPRC Discussion Paper Series

## Competition Policy Research Center

### Japan Fair Trade Commission

#### An Attempt to Draw Implications about Economic Analysis in Antitrust Cases

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# An Attempt to Draw Implications about Economic Analysis in Antitrust Cases<sup>※</sup>

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## Abstract

The objective of this study is twofold: visualizing how economic analysis is used in antitrust cases and drawing possible implications. To this end, we conduct a survey and descriptively study the responses from the competition agencies in 11 jurisdictions. Our analyses illuminate (i) the usefulness of economic analysis to establish a theory of harm, (ii) the usefulness of economic analysis for examining bid-rigging/cartel cases, (iii) the importance of economic analysis to assess justifications of conducts concerned, and (iv) the necessity of reliable and sufficient data for economic analysis with reasonable counterfactual scenarios.

## 1. Introduction

The importance of economic analysis in antitrust cases has been growing because, in response to the digitalization of the economy, businesses are getting more complicated and sophisticated, and thus, the number of cases the competition agency (hereinafter referred to as "agency" or "agencies") should carefully analyze the effect of parties' conducts on competition or justification of said conducts is increasing. The Japan Fair Trade Commission (hereinafter referred to as "JFTC"), as well as competition agencies in other jurisdictions, has noticed the importance of economic analysis in antitrust cases and has been trying to utilize economic analysis properly and proactively<sup>1</sup>.

The objective of this paper is twofold: visualizing how economic analysis is used in antitrust cases and, by doing so, drawing possible implications. To this end, we

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<sup>1</sup> The JFTC has established the Economic Analysis Office in April 2022.

conducted a questionnaire survey sent to agencies abroad.

Because this study has some features different from related existing studies, Section 2 explains those studies. Section 3 outlines the survey and its results. Based on the analysis of the survey responses, Section 4 discusses some implications. Section 5 concludes.

## 2. Major Feature of this Research

There are already similar survey studies on economic analysis in antitrust cases. For example, Kwoka et al. (2018)<sup>2</sup> is a US case study examining the agency's economic analyses and so on. In addition, Odagiri (2011)<sup>3</sup> studies some Japanese cases and the US cases discussed in the above study, categorizing them by econometric analysis methods. Furthermore, there are three other similar studies, Karlinger et al. (2020)<sup>4</sup>, Drennan et al. (2020)<sup>5</sup>, and Fung et al. (2019)<sup>6</sup>, which focus on the economic analysis used in individual cases.

Compared to those existing similar studies, this study has mainly the following three features:

- 1) it covers economic analysis in not one specific country or region but several countries or regions so that it could take a broader view of the current situation of economic analysis in antitrust cases,
- 2) it focuses on not only the economic analysis the agency carried out (hereinafter referred to as "Active Analysis") but also the analysis carried out by the parties concerned and reviewed by the agency (hereinafter referred to as "Passive Analysis") to see economic analysis from the viewpoint of the parties too, and
- 3) it focuses on the analysis of antitrust cases, both horizontal and non-horizontal, while excluding merger review.

## 3. Questionnaire Survey

### (1) Overview of the Survey Questions, etc.

The questionnaire survey was conducted in July 2021 to get a broad picture of the

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<sup>2</sup> Kwoka et al. (2018) "*The Antitrust Revolution: Economics, Competition, and Policy*"

<sup>3</sup> Odagiri (2011) [Developing Use of Economic Analysis for Competition Policy] Shinka suru keizaigaku no kyousouseisaku heno katsuyou (in Japanese). Kouseitorihiki No. 734, PP2-11

<sup>4</sup> Karlinger, Liliane., et al. (2020) "Recent Developments at DG Competition: 2019/2020" *Review of Industrial Organization* 57, 783-814

<sup>5</sup> Drennan et al. (2020) "The Year in Review: Economics at the Antitrust Division 2019–2020" *Review of Industrial Organization* 57, 815–825

<sup>6</sup> Fung et al. (2019) "Recent Developments at the CMA: 2018–2019" *Review of Industrial Organization* 55, 579–605

current situation on economic analysis in antitrust cases between January 2015 and July 2021. The survey focuses on economic analysis in antitrust cases, such as cartel/bid-rigging cases or unilateral conduct cases but not merger cases. And the word "economic analysis" in the survey means quantitative analysis, such as econometric analysis or data analysis, and qualitative analysis, such as applying economic theory to the case to establish the theory of harm. Also, "economic analysis" in the survey includes Active Analysis and Passive Analysis.

The questionnaire (Appendix 1) was sent to 59 agencies and responded by the agencies in 11 jurisdictions<sup>7</sup>.

## (2) Overview of the Survey Results

The cases responded are in Appendix 2. The total number of cases reported is 94 which includes 28 cartel cases, 22 bid-rigging cases, and 44 unilateral conduct cases.

Table below shows the number of those cases by type of conduct and purposes of economic analysis.

Table: Number of cases where economic analysis was utilized.

	Cartel		Bid Rigging		Unilateral Conduct	
	AA(*1)	PA(*1)	AA	PA	AA	PA
To define the relevant market	2	0	1	0	16	1
To assess the competitive effect (*2)	22	1	16	0	26	3
To assess market power/dominant position	0	0	0	0	14	0
To assess the market situation (*3)	8	0	1	0	5	0
To assess the justification (*4)	4	3	0	4	0	3
Others (*5)	0	0	0	0	1	0
<b>TOTAL (*6)</b>	<b>36</b>	<b>4</b>	<b>18</b>	<b>4</b>	<b>62</b>	<b>5</b>

\*1 "AA" stands for 'Active Analysis'. "PA" stands for 'Passive Analysis'.

\*2 It includes to support/assess theory of harm, competitive harm (e.g. price increase due to alleged conducts) and so on.

\*3 It includes to assess market structure (e.g. concentration, HHI, entry barrier) or price transition of the products concerned and so on.

\*4 It includes to assess pro-competitive effect, efficiency and so on

\*5 It includes to estimate missing data which is necessary for analysis, or to assess appropriate remedy.

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<sup>7</sup> Brazil, the Czech Republic, Colombia, El Salvador, Hong Kong, Malaysia, Mexico, South Africa, Spain, Taiwan and United Kingdom. We sincerely thank the agencies in these jurisdictions for their cooperation.

\*6 Since several analyses were carried out in one case, the total number cannot be equal to the total number of cases (i.e. 94).

### **(3) Overview of the Economic Analysis surveyed**

As shown in the table above, active analysis is conducted more often than passive analysis. Also, active analysis is conducted for every purpose in the table, while almost all passive analysis is conducted for assessing competitive effects and justification. This difference arises from, most likely, the difference in the roles of agencies and parties in antitrust investigation (depending on the legislation concerned, it is the difference in where the burden of proof lies). The agencies need to prove illegal conducts, while the parties need to justify that their conduct is not anticompetitive or produces efficiency.

This subsection overviews the reported economic analysis.

#### **A. Active analysis**

##### **A) To define the relevant market**

The basic method/idea to define the relevant market in many jurisdictions is the SSNIP test (whether a 5 or 10% price increase of the product/service concerned would be profitable for hypothetical monopolists.) regardless of cartel/bid rigging or unilateral conduct cases.

While there exists a case where the agency conducted the SSNIP test fully (for example, in a cartel case in Czech (No.42 in Appendix 2. Hereinafter, the number in the parenthesis corresponds to the number in Appendix 2.)), agencies often use the *idea* of SSNIP test in most of cases (i.e., checking demand/supply substitutability with some data between/among products) and define relevant market considering other qualitative factors too (For example, cartel case in Colombia (No.36), unilateral conduct case in South Africa (No. 74) and in Spain (No.77)).

We can observe various methods to check the substitutability, such as price correlation analysis in unilateral conduct cases in Czech (No.43) and Mexico (No.55). Paroxetine case in the UK (No.90) is worth mentioning here. In this case, the agency conducted detailed qualitative and quantitative analyses to define the product market. One of them is natural event analysis. The product concerned here was antidepressants. The focal product, in this case, was paroxetine, and its closest alternatives were Citalopram, Escitalopram, and Fluoxetine. The agency considered, among other events, the entry of independently sourced generic paroxetine in Q4 2003, as natural events and checked how the events affected actual transaction prices (as opposed to list prices) of the relevant medicines.

Consumer behavior analysis is also used to define the relevant market. In the BGL Holdings case in the UK (No.92), the agency carried out consumer behavior analysis. This is the case concerned with contractual obligations, known as the wide most favored nation clauses, imposed by the price comparison website (hereinafter referred to as "PCW") comparethemarket.com in its agreements with some home insurers. The agency analyzed consumer quote data provided by the Big Four PCWs<sup>8</sup> and 19 home insurance providers to look at the shopping behavior of consumers using PCWs in the period September 2016 to August 2017 and found that the majority of consumers who purchased through the PCW channel did not obtain a quote from a home insurance provider's own website or receive a renewal offer from an existing provider. Based on these findings and others, the agency concluded that direct sales and renewal sales were not in the same market as sales through PCWs.

Note that, other than SSNIP, there is a case where Elzinga Hogarty Test was carried out to define the geographic market, a case on exclusivity practices in the industrial air gases market in Mexico (No.57).

## **B) To assess competitive effects**

The agencies often conducted an economic analysis to assess competitive effects on the market: 22 cases in cartel, 16 cases in bid rigging, and 26 cases in unilateral conduct. The reason is probably that competitive effects become the issues most, and the agency needs to reinforce its proof with economic analysis.

In bid-rigging or cartel cases, it seems that economic analysis was mainly used to analyze if bidding price/bidding pattern or price pattern were suspicious or how much damage the conduct caused.

For example, in cases of bid rigging, in the case in Brazil (No.10), econometric regression (LOGIT and PROBIT models) were applied, evidencing it was very probable that cost estimates in procurement processes involving the investigated firms were higher than those in other procurement processes. In the case of Colombia (No.15), the agency conducted data dispersion analysis and Monte Carlo statistical model analysis (random simulation of variables) (the model was specified using as reference the economic offer submitted by the respective bidders, generating bands using the standard deviation of the data where the model simulated offers for a competitive scenario versus a collusive one) and concluded that the parties were able to effectively modify their award probabilities in the process. In the case of Mexico (No.63), based on the data analysis and information

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<sup>8</sup> Four main PCWs for home insurance products in the UK: CTM, MoneySuperMarket, GoCompare, and Confused. (CMA Case 50505, Decision of the CMA, para 1.21)

contained in the tender documents (bids, reasons for disqualification of bids, prices, abstentions, discounts, allocated areas, etc.), several collusive patterns were identified such as higher frequency of communication between the competitors prior to the award, same prices and/or discounts offered by the competitors, price decreases due to the entrance of new competitors, proportional allocations of the tendered items among the competitors and so on.

In cases of cartels, for example, in the case of Brazil (No.12), the agency used the methodologies of structural models, time series models, and difference in differences (DID) to estimate the harm caused by the cartel. Also, like in the bid rigging case, the agency analyzes to claim that it would not have happened without the cartel. In the case of El Salvador (No.46), the agency carried out the economic nonsense test to prove that the equality of gross prices in the three investigated drugs had no other explanation than being the result of a cartel between two infringer drugstores.

In unilateral conduct cases, economic analysis was used more for purposes other than damage estimation. One of them was to help the investigator to prove illegal conduct. For example, in a predatory pricing case in South Africa (No.73), the agency considered the appropriate cost benchmark for predatory pricing and concluded that the appropriate cost benchmark was average avoidable cost. Another purpose is to establish the theory of harm. Note that economic analysis was carried out to help the agency to establish the theory of harm. In the pay-for-delay case in the UK (No.90), the agency established the theory of harm by analyzing the incentive of the parties concerned. The agency explained that pay-for-delay agreements were mutual benefits for both the originator and generic suppliers showing the following three figures<sup>9</sup>; Figure 6.1 tells the profits of the originator before generic entry, and Figure 6.2 tells that consumers would get benefit from price competition between the originator and the generic suppliers, which does not occur because of the pay-for-delay agreement that brings the result in Figure 6.3, sharing profits among the originator and the generic suppliers by the agreement.

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<sup>9</sup> "Decision of the Competition and Markets Authority Paroxetine-Case CE-9531/11" P245-246



Figure 6.1: The profits of the originator before generic entry

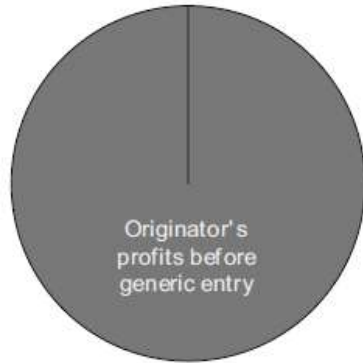


Figure 6.2: Consumer savings after generic entry

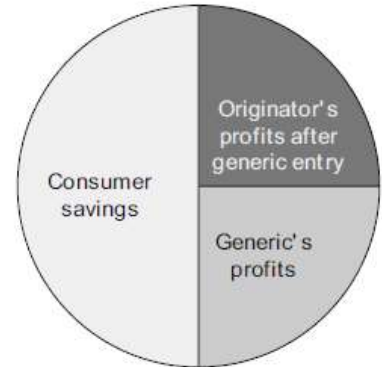


Figure 6.3: Sharing of the consumer savings by the originator and the generic supplier through an agreement with an exclusion payment



### C) To assess market power/dominant position

Active analysis to assess market power or dominant position for the alleged party was found in unilateral conduct cases only. The various factors based on economic theory were considered such as market share (market concentration), markup, and entry barrier (high fixed costs, scale economies, network effects, reputations, etc.).

The agencies usually checked market share/market concentration and combined it with other factors; they assessed the dominant position or market power. In Brazil, there was a case where the agency used the Cournot model<sup>10</sup> to examine the relationship between market concentration and profit margins in the petroleum refining market and conclude that having a high concentration level in the petroleum refining market allowed the company concerned to hold a certain amount of market power (No.3). In the Oracle

<sup>10</sup> At the Cournot equilibrium, the price-cost margins ( $PCM_i$ ) of firm  $i$  is equal to the ratio of its market share ( $s_i$ ) and the price elasticity of demand ( $\eta$ ), i.e.  $PCM_i = \frac{p-MC_i}{p} = \frac{s_i}{\eta}$ .

case in Spain (No.77), the agency analyzed the market share of the main companies in the relevant market and the barriers to entry and expansion. There, the agency analyzed high fixed costs, scale economies, the network effects, switching costs, and the role of reputation for the barriers to entry and expansion. Based on its analysis, such that scale economies in the relevant market may not prevent the expansion of incumbents, etc., it concluded that the company concerned did not have a dominant position in the relevant market.

Cost is another common factor to be checked by the agency. For example, in the case of abuse of dominance case in the certification and laboratory tests market related to the tire industry in Mexico (No.56), the agency found that series prices were closer to marginal cost as the entry of a new firm generated competitive pressure, changing the dynamic of the market and concluded that the company concerned did not exert substantial market power because it was not able to charge high prices upon entry of a new firm into the market.

In some cases, the agency checked the bargaining power of customers to assess market power/dominant position. In Malaysia, the agency considered the bargaining strength of the end users to assess dominance in the case against Dagang Net Technologies Sdn Bhd (hereinafter referred to as "Dagang Net") (No.49). The agency considered that there is insufficient bargaining strength of the end users to exert effective competitive constraint in the relevant market because the end users do not possess the ability to switch to other service providers in the NSW<sup>[11]</sup>-SMK<sup>[12]</sup> system as Dagang Net is the sole service provider and concluded that Dagang Net occupied a dominant position within the meaning of Competition Act.

#### **D) To assess the market situation**

There are many pieces of research on which market conditions are prone to cartel/bid rigging. For example, OECD (2013)<sup>[13]</sup>(p18-19) points out the following factors for cartel/bid rigging, a small number of competitors, high entry barrier, market transparency, the low pace of innovation, symmetry, and commonality of cost, and so on. In cartel/ bid-rigging cases, the main analysis was to check those factors.

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<sup>11</sup> The NSW (National Single Window) is an electronic-based ecosystem that enables Customs related documents and transactions to be transferred electronically between the trading communities and regulatory authorities in Malaysia via a single point of entry (Malaysia Competition Commission Case No.700-2/2/003/2015, Decision of the Competition Commission, para 5, 21).

<sup>12</sup> Sistem Maklumat Kastam (Customes Information System) (Malaysia Competition Commission Case No.700-2/2/003/2015, Decision of the Competition Commission, Para 5)

<sup>13</sup> OECD (2013) "Roundtable on Ex Officio Cartel Investigations and the Use of Screens to Detect Cartels—Background Note by the Secretariat--"

The agencies often check HHI or market shares. Another thing to be checked is the price. In the cartel case in Colombia (No.37), the agency carried out price series analysis (decomposition of price series and variability analysis of series components) and concluded that the price series presented relative stability, and its non-parametric distributions were leptokurtic for the period of analysis, i.e., susceptible on cartels. In the bid-rigging case in Colombia (No.24), the agency found that the market presented a constant and predictable demand and a limited and predictable supply. It claimed this market was prone to collusion.

There are five unilateral conduct cases where economic analysis was carried out to assess the market situation (No.32, 35, 41, 52, 55). One of them is the case of the discriminatory practice in Mexico (No.52). There, the agency estimated the so-called Boone indicator<sup>14</sup> to find whether the high rates of profitability from the Credit Information Systems were a consequence of the market concentration, or efficient and constant innovation in the use of their resource, and concluded that the Boone indicator showed that the profitability of the Credit Information Systems measured in Return on Assets was not strictly related to decreases in the operating costs. Therefore, the high profitability rates were allegedly related to the concentration levels in the market.

## **E) To assess the justification**

Active analyses are conducted to assess the parties' justification defense for the alleged conduct in some cartel cases (No.39, 40, 47, 88).

For example, in the price-fixing cartel for premixed concrete in Taiwan (No.88), the parties concerned (5 companies) claimed that the price increase for ready-mixed concrete reflected increased costs. So the agency analyzed whether the business activity of the parties (5 companies) concerned had economic justification. As a result, the agency denied this claim saying that "the price increases which reflected their costs should have been different due to the amounts of the increases in cost and connotations not being the same for each company. In addition, not only did the price rise exceed their increases in cost, but the 5 companies also issued notices within a short time frame for a price increase of similar amounts beginning on the same date [...] It is not possible to interpret these acts as being independent business activities."<sup>15</sup> This judgment is based on the economic theory of business activities in the competitive market. With other considerations, the agency concluded that the business activity of these 5 companies had no economic

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<sup>14</sup> A measure of competition, calculated as the elasticity of profits to marginal costs. Boone, J., (2008), "A new way to measure competition" *Economic Journal* 118, 1245-1261

<sup>15</sup> FTC Newsletter No.088, August, 2019, page 3

justifications.

## **B. Passive Analysis**

### **A) To assess the competitive effect**

In the cartel case in the sodium carbonate market in Brazil (No.8), the party conducted an econometric analysis that estimated the cost elasticity and the effects of the creation of ANSAC (American Natural Soda Ash Corp.), then suspected export cartel from other countries to Brazil, on the output and the prices to claim that there was no cartel in place. The agency assessed the analysis and found the results sensitive to changes in model specification. The agency also made its own estimations and concluded that the actual effect on prices was unclear.

This kind of analysis in the case of unilateral conduct (exclusive clause) was also reported from Malaysia (No.49). The party projected its future market share (to drop) when a new entry happened in order to claim that there would be no exclusive effect. However, based on other objective data or documents, the agency concluded that the exclusivity clause could have anticompetitive effects in the relevant market.

### **B) To assess the justification**

#### **(A) Cartel**

As known, with regard to cartel/bid rigging cases, justification is not supposed to be allowed in many jurisdictions. Nevertheless, passive analyses to assess justification were found in 7 cases of cartel/bid rigging (No.48, 50, 79, 81, 82, 84, and 85). The analyses depend on legislation structures in those jurisdictions. For example, in Hong Kong, section 1 of the competition law prohibits cartels, but it contains several exclusions on different grounds, one of which is agreement enhancing overall economic efficiency. In the cartel case in the form of floor allocation arrangement and package price arrangement for home decorations in a housing estate in Hong Kong (No.48), the party offered estimations of cost savings that could result from the disputed arrangements as compared to a counterfactual scenario based on the parties' own cost information. For example, the parties claimed that the arrangement reduced labor costs because it enabled them to concentrate work at any one time on flats located on the same floor. The competition tribunal assessed that analysis and concluded that the parties were found not to have satisfied the legal requirements of their efficiency defense.

Another case is the cartel case in Malaysia (No.50), where the member of the national trade association of all licensed direct and reinsurance companies for general insurance participated in the agreement to fix the discount rate for parts trade and a certain

workshop repair labor rates. In Malaysia, section 4 of the competition law prohibits enterprises from participating in an agreement that has, as its object, the prevention, restriction, or distortion concerning the relevant market. However, agreements that satisfy the criteria set out in section 5 of the competition law could claim exemption from section 4. For section 5 to be applied, the pro-competitive effects of the agreement must outweigh its anticompetitive effects. In the case above, the parties submitted the independent economic assessment report, which states that there are pro-competitive benefits arising from the infringing agreement. For example, that report contended that "by establishing standardized terms of repair, the Alleged Agreement was intended in part to reduce the scope for disputes between insurers and repairers, and hence delays in approving the claim before repairs are completed."<sup>16</sup> The agency reviewed those claims and concluded that the causality between benefits and the alleged agreement was not clear.

### **(B) Bid Rigging**

Passive analyses for justification in bid-rigging cases were carried out in 4 cases (No. 79, 81, 82, and 84) in Spain to claim that there was no infringement (lack of effect) or challenge the definition of relevant markets. For example, in the case of bid rigging by LV/MV cable makers (No.81), the parties submitted the economic reports to the agency claiming their innocence by analyzing prices, saying that prices of homogeneous goods tend to converge whether or not bid rigging exists, or saying that the profit during the alleged period decreased compared to previous year's profit, while the number of biddings increased, and so on. The agency considered their arguments insufficient to prove there was no infringement.

Another case is the bid-rigging case on electrical machinery (No.84). There, the parties submitted economic reports to argue that the sanctioned conduct didn't have effects on the market as the behavior of the companies had been as competitive as in other periods and there were no barriers to entry, and so on. The economic reports also challenged the definition of the relevant market and the market share of the companies. The agency assessed them and concluded that their arguments were generally insufficient to prove the lack of effects or the definition of the relevant market.

### **(C) Unilateral Conduct**

Passive analyses for justification were carried out in 3 cases of unilateral conduct in Spain (No.83, 86, 87). In the case where several contracts between TV advertisements

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<sup>16</sup> Malaysia Competition Commission Case No.700-2.1.3.2015, Decision of the Competition Commission, para 340

providers and advertisers or media companies and so on (No.86), the parties analyzed whether the selling system concerned could have exclusionary effects, alleged the impact of the conduct, the incorrect analysis of the effects done in the Statement of Objections, and highlighted the efficiency of the company's conduct. The agency concluded that these reports were insufficient to prove the market's lack of effects.

#### **4. Implications from the survey results**

The survey results above tell us a lot of things, and among them, this paper takes the following four as implications for antitrust practitioners.

- 1) Usefulness of economic analysis to establish "theory of harm"*
- 2) Usefulness of economic analysis for examining bid-rigging/cartel cases*
- 3) Importance of economic analysis to assess justification of conducts concerned*
- 4) Necessity of reliable and sufficient data for economic analysis with reasonable counterfactual scenarios*

##### ***1) Usefulness of economic analysis to establish "theory of harm"***

It is crucial to appropriately establish the theory of harm to investigate cases efficiently and effectively. Since the competition law targets markets or enterprises, it is more rational to utilize economic theory, which is also concerned with markets or enterprises, to establish the theory of harm. As shown in the case of No.90, by utilizing economic analysis (most likely qualitative analysis), the theory of harm would become more logical and rational. Especially in a digital market where the relevant market can be plural, and the effects of conduct concerned can be very complicated, it would be more useful to establish the theory of harm based on economic analysis.

##### ***2) Usefulness of economic analysis for examining bid-rigging/cartel cases***

In cartel and bid rigging cases, the room where economic analysis can be utilized might seem to be limited. But, the survey results showed that economic analysis, especially to assess the competitive effect, has been utilized even in the cartel or bid-rigging cases. Some of the analyses aimed to find whether the same market results were possible even without collusion, implying the use of economic analysis for examining bid-rigging or cartel cases in Japan. It sometimes happens that the direct evidence of cartel/bid rigging does not exist, and the agency needs to prove the existence of cartel/bid-rigging with indirect evidence only. In Japan, when one party exchanged information about a price increase with other parties (but no direct evidence remained that they agreed to raise the price), and thereafter they raised the price at a similar amount, they would be

alleged to conduct a cartel unless there existed any specific situation that they raised their own price individually at their own risk<sup>17</sup>. The survey results implied that economic analysis could be useful to check if the cartel member raised their own price at their own risk, if the same things would happen without collusion, and so on.

### ***3) Importance of economic analysis to assess the justification of conducts concerned***

The survey results show that most passive analyses are to assess justification. Since agencies need to prepare to rebut those analyses, they imply that, henceforth, the economic analysis is important not only to assess the competitive effect and so on but to assess justification.

### ***4) Necessity of reliable and sufficient data for economic analysis with reasonable counterfactual scenarios***

Every year, there are cases constantly where the parties concerned challenge the JFTC's decision to the court (revocation suit). The number of revocation suits filed is three each financial year during FY2017 and 2020 and two in FY2021. This trend may continue, and recently there have been cases where the parties conduct economic analysis and submit their economic report to the court as evidence for their own.

As in Section 3-B-A), in the cartel case in the form of floor allocation arrangement and package price arrangement for home decorations in a housing estate in Hong Kong (No.48), the parties made the efficiency claim at the court, but the court declined their claim with several reasons. One of them was an unreliable "but-for" world. In this case, the parties estimated costs in the but-for world, i.e., competitive world, and compared them with costs under the alleged cartel. The tribunal considered that the but-for world was not reflecting real business practices. Another reason is the unreliability of the data used by the parties. The tribunal concluded that the data the parties used did not reflect the actual costs.

These observations give us an insight into how the agency or parties need to conduct economic analysis for the lawsuits; Economic analysis requires reliable data and a reasonable "but-for" world.

## **5. Conclusion**

The importance of economic analysis in competition policy is increasing. As this

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<sup>17</sup> Decision of Tokyo High Court (Paper Phenolic Copper Clad Laminate Cartel Case), September 25,1995.

trend is expected to continue, we conducted a survey to examine how economic analyses were used in antitrust cases and to draw implications. Appendix 2 includes useful information we could not mention in the paper. Even though we drew only four implications in Section 4, we believe that there is useful information in Appendix 2 for many competition law practitioners.



*Questionnaire on economic analysis in antitrust cases*

JFTC, Japan Fair Trade Commission has noticed that economic analysis in antitrust cases is getting important more and more in this rapidly changing and complicated economy such as digital market. And JFTC is now promoting the use of economic analysis in antitrust cases aggressively. For that, Economic Analysis Team in JFTC (hereinafter referred to “EAT”) is doing research how and when economic analysis was actually utilized abroad. We would appreciate it very much if you would kindly fill out the attached table and send it back to us (Mr. UETSUGI Takahiro, economic analysis member of EAT (<deleted>@jftc.go.jp) and Mr. SHIMOZU Hideyuki, strategist of EAT (<deleted>jftc.go.jp)) by Monday August 16th.

Please note that:

1) The results of the research will be put on CPRC<sup>18</sup>'s website as Discussion Paper. So please provide the non-confidential information only.

2) The word of “antitrust cases” in this questionnaire means competition law violation cases (e.g. cartel case, bid rigging case, abuse of dominant position case, resale price maintenance case, and so on) NOT including merger cases.

3) The word of “economic analysis” in this questionnaire means both econometric analysis (or data analysis) and applying economic theory (e.g. game theory, certain economic model in Industrial Economics, etc.) to the case in order to prove theory of harm. Also, it includes not only the analysis that competition agencies conducted but also the ones that the parties conducted (and the agencies assessed.) in the course of investigation and/or lawsuits.

4) A line in the table attached is for one case (i.e. if your agency has three cases, three s will be filled out) and you can add the line if necessary.

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<sup>18</sup> CPRC stands for Competition Policy Research Center in JFTC. CPRC has the objective to build and improve functional and sustainable cooperative platforms between intellectual resources of outside researchers, practitioners and staff members of JFTC in order to reinforce theoretical foundation on which we apply the Antitrust Law and plan, propose, and evaluate competition policy from medium and long-term perspective as well as to utilize the platform to enforce measures for current issues. Please refer to the following website for the past Discussion Papers of CPRC, <https://www.jftc.go.jp/en/cprc/reports/index.html>.

5) The period subject to the questionnaire is from January 2015 to July 2021 (i.e. we would like you to answer the cases which your agency press released the result during the period above.)

6) We might ask supplement questions after we receive your answer.

If you have any question, please feel free to send Mr. UETSUGI Takahiro, economic analysis member of EAT (<deleted>@[jftc.go.jp](mailto:jftc.go.jp)) and Mr. SHIMOZU Hideyuki, strategist of EAT (<deleted>@[jftc.go.jp](mailto:jftc.go.jp)).

1. Name of your agency: \_\_\_\_\_

2. Contact Person in your agency on the questionnaire

(1) Name: \_\_\_\_\_

(2) E-mail Address: \_\_\_\_\_

3. Please fill out the table below on antitrust cases you utilized economic analysis.

Name of Case	URL of press release which includes outline of the economic analysis	Purpose of the economic analysis	Summary of the economic analysis	Result(s) of the economic analysis
(Example) XYZ Co. Ltd. vs JFTC	<a href="https://www.jftc.go.jp/en/press_releases/yearly-YYYY/MM/nnnnnn.html">https://www.jftc.go.jp/en/press_releases/yearly-YYYY/MM/nnnnnn.html</a>	to define relevant market	price correlation analysis: whether correlation between Goods A and Goods B is significant or not.	Defined market on Goods A only because Goods A and Goods B was uncorrelated.

# Overview of the Survey Results

Appendix 2

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
						Classification	The agency' answer to the questionnaire			
1	Brazil	Case no. 08700.006964/2015-71. Note: the rapporteur of the case mentions a working paper prepared by our Department of Economic Studies (Document no. 0496149)	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/cade-arquiva-investigacao-no-mercado-de-aplicativo-de-transporte-individual-de-passageiros">http://antigo.cade.gov.br/noticias/cade-arquiva-investigacao-no-mercado-de-aplicativo-de-transporte-individual-de-passageiros</a>	Active	To assess the competitive effect	To assess the competitive effects of Uber's market entry on the incumbent market of taxi cab applications.	CADE used a panel data analysis with fixed effects and a sample of 590 municipalities and 36 months (from 2014 to 2016).	It benefited consumers and promoted the entry of new suppliers into the vehicle for hire market. Moreover, the innovations solved some of the sector's market failures, which rendered the sector's regulations obsolete as to entry barriers and pricing freedom.	
2	Brazil	Case no. 08012.011881/2007-41. Department of Economic Studies' Technical Opinion no. 10/2015 (Document no. 0037787).	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/superintendencia-geral-do-cade-conclui-investigacao-sobre-o-consorcio-gemini">http://antigo.cade.gov.br/noticias/superintendencia-geral-do-cade-conclui-investigacao-sobre-o-consorcio-gemini</a>	Active	To assess the competitive effect	To comment on the quantitative methodologies employed by CADE's Department of Economic Studies in research pieces that revealed price discrimination in the market of natural gas, favouring the Gemini Consortium	CADE used a panel data analysis with fixed effects to assess statistically the influence Gemini Consortium exerted on the price changes Petrobras charged gas natural buyers of the state of São Paulo.	The economic studies are robust and consistent and may be considered as quantitative evidence of restrictive vertical practices in the natural gas downstream market.	
3	Brazil	Case no. 08700.002021/2013-15. Department of Economic Studies' Technical Opinion no. 37/2018 (Document no. 0555764).	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/cade-e-petrobras-celebram-acordo-para-venda-de-refinarias-de-petroleo">http://antigo.cade.gov.br/noticias/cade-e-petrobras-celebram-acordo-para-venda-de-refinarias-de-petroleo</a>	Active	To assess market power/dominant position	To study the relationship between the concentration level of the petroleum refining market and the potential abuse of a dominant position.	CADE used the Cournot model to examine the relationship between market concentration and profit margins in the petroleum refining market.	Having a high concentration level in the petroleum refining market allows a company to hold a certain amount of market power.	
4	Brazil	Conect Car/Sem Parar. Case no. 08700.006268/2018-15. Department of Economic Studies' Technical Opinion no. 31 (Document no. 0691295).	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/cade-impoe-medida-preventiva-contra-sem-parar-e-conectcar">http://antigo.cade.gov.br/noticias/cade-impoe-medida-preventiva-contra-sem-parar-e-conectcar</a>	Active	To assess the competitive effect	To assess complaints about a refusal to deal at reasonable prices. Defendants allegedly delayed sharing their antenna, which was, in theory, essential to provide e-commerce payment services for electronic toll collection.	CADE analysed whether the theory of essential facility was applicable.	CADE could not find signs of economic restraints that prevented new entrants at that time, and thus denied the use of the traditional entry barrier theory.	
5	Brazil	Google case. Case no. 08012.010483/2011-94. Department of Economic Studies' Technical Opinion n. 34/2018 (Document no. 0549416).	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/proc-esso-contra-google-no-mercado-de-busca-na-internet-e-arquivado-1">http://antigo.cade.gov.br/noticias/proc-esso-contra-google-no-mercado-de-busca-na-internet-e-arquivado-1</a>	Active	To assess the competitive effect	Based on discussions on the relevant market and Google's dominant position, to verify the existence of the capacity and incentives needed to allow market foreclosure.	We carried out an empirical analysis of the following data: (1) number of times the ad showed on the first page of Google Search results; (2) average placement in Google Search results; (3) internet traffic coming from Google Search; (4) bid price in AdWords auctions of text ads (cost-per-click bids, or CPC bids); and (5) final amount charged by click (actual CPC).	After examining the variables for visibility, traffic, and cost-per-click, studying the issue of search neutrality, and investigating potential algorithmic manipulation, CADE could not find evidence of discriminatory practices against price comparison websites.	
6	Brazil	Iguatemi Shopping Centre. Case no. 08012.006636/1997-43. Department of Economic Studies' Technical Opinion no. 40/2017 (Document no. 0404479).	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/anti-gas/trf1-mantem-decisao-do-cade-que-proibe-iguatemi-de-exigir-clausulas-de-raio">http://antigo.cade.gov.br/noticias/anti-gas/trf1-mantem-decisao-do-cade-que-proibe-iguatemi-de-exigir-clausulas-de-raio</a>	Passive	To assess the competitive effect	To comment on the merits of the expert's report intended to challenge CADE's judgement forbidding the Iguatemi shopping centre, located in São Paulo city, from using radius clauses in its retail leasing agreements.	We employed a model on radius clauses developed by Brühn & Götz (2015).	The use of radius clauses combined with exclusivity clauses in such a densely populated area with high purchasing power posed great anticompetitive risks.	Brühn, Tim and Götz, Georg (2015): Exclusionary practices in two-sided markets: The effect of radius clauses on competition between shopping centers, MAGKS Joint Discussion Paper Series in Economics, No. 18-2015, Philipps-University Marburg, Faculty of Business Administration and Economics, Marburg
7	Brazil	Sabesp case (Sanitation Company of the State of São Paulo). Case no. 08700.011091/2015-18 (Document no. 0288049)	Unilateral Conduct	<a href="http://antigo.cade.gov.br/noticias/cade-condena-cartel-em-licitacao-realizada-pela-sabesp">http://antigo.cade.gov.br/noticias/cade-condena-cartel-em-licitacao-realizada-pela-sabesp</a>	Active	To assess market power/dominant position	To analyse a complaint about price discrimination and margin squeeze carried out by a monopoly in the water supply upstream market.	We employed Abba Lerner's monopoly analysis methodology.	We recommended the investigation should be dismissed as the case lacked evidence to prove the anticompetitive practices.	
8	Brazil	Case of the sodium carbonate market. Case no. 08012.008881/2010-60. Department of Economic Studies' Technical Opinion no. 12 (Document no. 0318928).	Cartel	<a href="http://antigo.cade.gov.br/noticias/superintendencia-geral-recomenda-arquivamento-de-processo-no-mercado-de-carbonato-de-sodio">http://antigo.cade.gov.br/noticias/superintendencia-geral-recomenda-arquivamento-de-processo-no-mercado-de-carbonato-de-sodio</a>	Passive	To assess the competitive effect	To examine Pezco Microanalysis's economic report about ANSAC and the Brazilian sodium carbonate industry, which sought to prove there was no cartel in place.	Econometric analysis conducted with Stata 12 and Eviews 8 that estimated (1) the cost elasticity and (2) the effects on ANSAC's market entry on output and prices.	Results showed to be sensitive to changes in model specification. CADE's Department of Economic Studies also carried out its own estimations, and cost elasticity showed to vary according to the scenario, although remaining less than one. However, depending on the specification, the coefficient for ANSAC's market entry effects on output loses significance and even reverses. As for price estimates, the effect is always negative and remains statistically significant, but the magnitude changes substantially. Thus, the actual effect on prices (in terms of magnitude) is not clear.	

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
						Classification	The agency' answer to the questionnaire			
9	Brazil	Aviation kerosene case. Case no. 08700.001831/2014-27. Department of Economic Studies' Technical Opinion no. 13/2021 (Document no. 0894481).	Unilateral Conduct	<a href="https://www.gov.br/cade/pt-br/assuntos/noticias/cade-abre-processo-contra-distribuidoras-de-querosene-de-aviacao-e-administradora-do-aeroporto-de-guarulhos">https://www.gov.br/cade/pt-br/assuntos/noticias/cade-abre-processo-contra-distribuidoras-de-querosene-de-aviacao-e-administradora-do-aeroporto-de-guarulhos</a>	Active	To assess the competitive effect	To investigate the following claims: (1) Raízen's refused to execute a concession agreement with an entrant distributor, denying access to an area in the primary distribution facility in the surroundings of the Replan refinery, in the city of Paulínia; and(2) the Defendants created artificial barriers to entry and restricted access to the Guarulhos Airport's fuelling infrastructure.	We analyzed whether the "fuel hydrant system" was an essential facility according to the Essential Facility theory, using exercises to simulate new entrants into the kerosene distribution market.	The case lacked evidence to demonstrate conclusively the investigated practices caused, or had the capacity to cause, competitive harm. This statement is true for both claims: (1) Raízen Combustíveis SA's unduly refusal to execute a concession agreement granting an area in the primary distribution facility next to the Replan refinery; and (2) the creation of artificial barriers by companies Air BP Brasil Ltda, BR Distribuidora S.A., Raízen Combustíveis S.A., and the Concessionaire of the Guarulhos International Airport S.A., which together tried to prevent GranPetro from entering into the pool of fuel companies that supply the Guarulhos Airport.	
10	Brazil	Chlorine public procurement case. Case no. 08012.002921/2007-64. Department of Economic Studies' Technical Opinion no. 46/2016 (Document no. 0285137).	Bid Rigging	There is no press release available on CADE's website.	Active	To assess the competitive effect	To carry out an empirical study to detect suspicious collusive behavior amongst competitors in 484 public procurement processes of chlorine purchase in 23 Brazilian states from 1999 to 2012.	Econometric regression: LOGIT and PROBIT models were applied, evidencing it is very probable that cost estimates of procurement processes involving the investigated firms were higher than those of other procurement processes. Kolmogorov-Smirnov test: tenders won by the investigated firms had a different probability distribution of prices than tenders won by other firms.	The empirical analysis evidences collusive behavior in public procurement of chlorine involving the firms Carbocloro and Canexus. The estimates suggest an overprice ranging between 21% and 25%.	
11	Brazil	LPG cartel in the State of Pará. Case no. 08012.002568/2005-51. Department of Economic Studies' Technical Opinion no. 34/2016 (Document no. 0260624).	Cartel	There is no press release available on CADE's website.	Active	To assess the competitive effect	To examine the methodology applied to quantify the competitive damages inflicted by a cartel in the market of liquefied petroleum gas (LPG) distribution in the Brazilian state of Pará.	Three main aspects were considered for the analysis: (1) definition of the group for comparison; (2) definition of the period of the cartel; and (3) means/methods to measure damage: panel data and synthetic control model.	We recommended the use of an average of the prices estimated by different models and/or methods for overcharge calculation used in cartel cases.	
12	Brazil	International case of peroxides. Case no. 08012.007818/2004-68. Department of Economic Studies' Technical Opinion no. 33/2016 (Document no. 0234247).	Cartel	There is no press release available on CADE's website. Note: the case refers to Administrative Proceedings no. 08012.004702/2004-77. A Leniency Agreement (CADE's immunity program) was signed within the case on 6 May 2004. The hearing of the case was held on 9 May 2012. The main proceedings were broken down into Administrative Proceedings no. 08012.007818/2004-68, heard on 16 July 2015, and contains a market study carried out by the Department of Economic Studies.	Active	To assess the competitive effect	To prepare market studies on the market of hydrogen peroxide, upon request of the rapporteur of the case, within the context of Administrative Proceedings no. 08012.007818/2004-68, which concerned a cartel in said market.	To estimate the harm caused by the cartel, we considered three methodologies: (1) structural models; (2) time series models; and (3) difference in differences.	The applied methodologies presented similar results as to overcharge calculation. We estimated the hydrogen peroxide cartel caused damages ranging from BRL 75 million to BRL 151 million.	
13	Brazil	Cement cartel. Case no. 08012.011142/2006-79. Department of Economic Studies' Technical Opinion no. 27/2015 (Document no. 0079470)	Cartel	<a href="http://antigo.cade.gov.br/noticias/cade-mantem-multas-aplicadas-no-cartel-do-cimento">http://antigo.cade.gov.br/noticias/cade-mantem-multas-aplicadas-no-cartel-do-cimento</a>	Active	To consider remedy	To specify how one of the penalties imposed on the cement cartel, i.e. a prohibition on how data is collected and published by business associations, should be done in such a way as to ensure the secrecy of competitive information.	We suggested criteria for aggregating data on the cement market, based on the methodology adopted by the Brazilian Institute of Geography and Statistics (IBGE).	The basic rule should be similar to the one used by the Brazilian Institute of Geography and Statistics (IBGE) in its surveys: published information should be aggregated so as to include data on at least three informing companies, thus preventing their identification. Besides, all entities that publish statistics on the cement market must aggregate data as suggested by CADE.	
14	Brazil	Broadcasting rights case. Case no. 08700.004453/2019-48. Department of Economic Studies' Technical Opinion no. 35/2020 (Document no. SEI 0800736)	Unilateral Conduct	There is no press release available on CADE's website.	Active	To assess the competitive effect	To examine the possible competition effects of Provisional Order no. 984/2020, which establishes that the right to broadcast sports events belongs to the home sporting entity, amending the provisions of Law 9615/2013, which determined the right belonged to both the home and visiting entities.	Economic principles for negotiating sporting rights: (1) analysis of the demand curve of sporting tournaments and (2) the economic effects of collective negotiations of broadcasting rights	Changes in ownership of broadcasting rights, as those brought by Provisional Order no. 984/2020, may have positive effects, mitigating potential anticompetitive conduct. Regulations should prevent undue intervention in private economic activities and refrain from including conditions on how broadcasting rights are sold or sponsorship contracts are made.	
15	Colombia	Galileo, Resolución de Sanción No. 42368 de julio 2021	Bid Rigging	<a href="http://normograma.info/sic/docs/im_siye_0228535_2021.htm">http://normograma.info/sic/docs/im_siye_0228535_2021.htm</a>	Active	To assess the competitive effect	To find a correlation between the bids of the proponents within the selection process, and to determine if the investigated parties could have altered the result of the measure of central tendency, thereby assigning the score of the bid to increasing their probabilities of being awarded the contract.	Data dispersion analysis between unit prices of all bids. Implementation of Monte Carlo mathematical statistical model (random simulation of variables) for 3 and 5 bidders. The model was specified using as reference the economic offer submitted by the respective bidders, generating bands using the standard deviation of the data where the model simulated offers for a competitive scenario versus a collusive one. This simulation allowed the investigator to observe changes in how the probabilities of success were assigned.	In addition to the legal evidence, the Colombian Competition Authority proved that the investigated parties, because their anticompetitive conduct, had the capacity to modify the probabilities of being awarded in the selection process. The investigated parties were able to effectively modify their award probabilities in the process.	

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
						Classification	The agency' answer to the questionnaire			
16	Colombia	Ruta del Sol tramo 2, Resolución de sanción No. 82510 del 28 de diciembre de 2020	Bid Rigging	<a href="https://www.sic.gov.co/sites/default/files/estados/012021/RESOLUCI%C3%93N%2082510%20DEL%2028-12-20%20-%20IMPONE%20SANCICI%C3%93N%20MULTA%20-%20RUTA%20DEL%20SOL%20-%20VERSI%C3%93N%20PUBLICA.pdf">https://www.sic.gov.co/sites/default/files/estados/012021/RESOLUCI%C3%93N%2082510%20DEL%2028-12-20%20-%20IMPONE%20SANCICI%C3%93N%20MULTA%20-%20RUTA%20DEL%20SOL%20-%20VERSI%C3%93N%20PUBLICA.pdf</a> <a href="https://www.sic.gov.co/slider/superindustria-impone-sanciones-por-295-mil-millones-en-contra-de-odebrecht-y-otros-por-violar-el-l%C3%A9gimen-de-libre-competencia-en-la-adjudicaci%C3%B3n-y-ejecuci%C3%B3n-del-contrato-%E2%80%9Cruta-del-sol-tramo-2%E2%80%9D">https://www.sic.gov.co/slider/superindustria-impone-sanciones-por-295-mil-millones-en-contra-de-odebrecht-y-otros-por-violar-el-l%C3%A9gimen-de-libre-competencia-en-la-adjudicaci%C3%B3n-y-ejecuci%C3%B3n-del-contrato-%E2%80%9Cruta-del-sol-tramo-2%E2%80%9D</a>	Active	To assess the competitive effect	To define and identify the bribes during the selection process and during the execution of the infrastructure project. The economic analysis of the bribes allowed to determine whether the infrastructure project was overpriced due to the bribes.	Contextualization of the case, identification of sources of information and data analysis in the framework of accounting audit. "Case analysis" to identify relevant data, which was further individualized and traced.	Identification of transactions related to expenses associated with bribe payments by the investigated parties to public officials.	
17	Colombia	Ferlag, Resolución de sanción No. 12156 del 7 de agosto de 2019	Bid Rigging	<a href="https://www.sic.gov.co/sites/default/files/estados/032020/RESOLUCI%C3%93N%20No.%2012156%20-%2007%20DE%20MAYP%20DE%202019%20-%20IMPONE%20SANCICI%C3%93N%20-%20FERLAG%20-%20P%C3%9ABLICA.pdf">https://www.sic.gov.co/sites/default/files/estados/032020/RESOLUCI%C3%93N%20No.%2012156%20-%2007%20DE%20MAYP%20DE%202019%20-%20IMPONE%20SANCICI%C3%93N%20-%20FERLAG%20-%20P%C3%9ABLICA.pdf</a> <a href="https://www.sic.gov.co/sites/default/files/normatividad/122018/IM_FERLAG.pdf">https://www.sic.gov.co/sites/default/files/normatividad/122018/IM_FERLAG.pdf</a>	Active	To assess the competitive effect	To find similarities between unit prices or identical percentage differences between bids that would help to identify anti-competitive behavior.	Data dispersion analysis between unit prices of all bids.	A pattern was found between the economic offers, supporting the hypothesis of anticompetitive behavior. The Colombian Competition Authority found that from 250, 249 bids had the same price, making it almost impossible for the bids to be independent.	
18	Colombia	Cucunubá, Resolución de sanción No. 3150 del 13 de febrero de 2019	Bid Rigging	<a href="https://www.sic.gov.co/Superindustria-sanciona-por-colusion-a-dos-empresas-en-proceso-de-https://www.sic.gov.co/sites/default/files/files/Proteccion_Competicion/Ordenes_de_Publicaciones/Resoluciones_Sancion/RESOLUCI%C3%93N%203150%20DEL%2013%20-%2002%20-%202019.pdf">https://www.sic.gov.co/Superindustria-sanciona-por-colusion-a-dos-empresas-en-proceso-de-https://www.sic.gov.co/sites/default/files/files/Proteccion_Competicion/Ordenes_de_Publicaciones/Resoluciones_Sancion/RESOLUCI%C3%93N%203150%20DEL%2013%20-%2002%20-%202019.pdf</a> <a href="http://normograma.info/sic/docs/im_siy_0092358_2014.htm">http://normograma.info/sic/docs/im_siy_0092358_2014.htm</a>	Active	To assess the competitive effect	To determine whether the investigated bidders had the capacity to alter their probabilities of being awarded because of an anticompetitive agreement. The Colombian Competition Authority analyzed the advantages of historically symmetrical conditions that determined the public contracting party.	Data dispersion analysis between unit prices of all bids. Implementation of Monte Carlo mathematical statistical model (random simulation of variables) for 3. The model was specified using as reference the economic offer submitted by the respective bidders, generating bands using the standard deviation of the data where the model simulated offers for a competitive scenario versus a collusive one. This simulation allowed the investigator to observe changes in how the probabilities of success were assigned.	In addition to the legal evidence, the Colombian Competition Authority proved that the investigated parties, because their anticompetitive conduct, had the capacity to modify the probabilities of being awarded in the selection process. The investigated parties were able to effectively modify their award probabilities in the process.	
19	Colombia	Mincultura, Resolución de sanción No. 2076 del 31 de enero de 2019	Bid Rigging	<a href="https://www.sic.gov.co/sites/default/files/estados/032020/RESOLUCI%C3%93N%20No.%202076%20-%2031%20DE%20ENERO%20DE%202019%20-%20IMPONE%20SANCICI%C3%93N%20-%20MINCULTURA.pdf">https://www.sic.gov.co/sites/default/files/estados/032020/RESOLUCI%C3%93N%20No.%202076%20-%2031%20DE%20ENERO%20DE%202019%20-%20IMPONE%20SANCICI%C3%93N%20-%20MINCULTURA.pdf</a> <a href="http://normograma.info/sic/docs/im_siy_0032964_2014.htm">http://normograma.info/sic/docs/im_siy_0032964_2014.htm</a>	Active	To assess the competitive effect	To prove statistically why submitting close economic offers had the capacity to alter the result of the measure of central tendency by altering the levels of kurtosis of the distribution, which were called anchoring averages. To determine whether the investigated bidders had the capacity to alter their probabilities of being awarded because of an anticompetitive agreement. The Colombian Competition Authority analyzed the advantages of historically symmetrical conditions that determined the public contracting party.	To identify the percentual dispersion of the economic offers. Simulation of offers in different ranges (high, medium, and low) and calculation of measures of central tendency.	In addition to the legal evidence, the Colombian Competition Authority proved that the investigated parties submitted bids with less than 1% difference between them in several selection processes. Thus, emerged an anchor of averages to increase their probabilities of being awarded to the contract. It was shown that regardless of the range where the offers were simulated (low, medium, or high) if they were very close to each other, with the aim of anchoring the mean (modifying the kurtosis levels of the function), they were effective to carry out the anticompetitive behavior.	
20	Colombia	Cocorná, Resolución de sanción No. 1728 del 29 de enero de 2019	Bid Rigging	<a href="https://www.sic.gov.co/sites/default/files/estados/032020/RESOLUCI%C3%93N%20No.%201728%20-%2029%20DE%20ENERO%20DE%202019%20-%20IMPONE%20SANCICI%C3%93N%20-%20COCORN%C3%81%20-%20P%C3%9ABLICA.pdf">https://www.sic.gov.co/sites/default/files/estados/032020/RESOLUCI%C3%93N%20No.%201728%20-%2029%20DE%20ENERO%20DE%202019%20-%20IMPONE%20SANCICI%C3%93N%20-%20COCORN%C3%81%20-%20P%C3%9ABLICA.pdf</a> <a href="http://normograma.info/sic/docs/im_siy_0081527_2015.htm">http://normograma.info/sic/docs/im_siy_0081527_2015.htm</a>	Active	To assess the competitive effect	To determine whether the investigated bidders had the capacity to alter their probabilities of being awarded because of an anticompetitive agreement. The Colombian Competition Authority analyzed the advantages of historically symmetrical conditions that determined the public contracting party.	Data dispersion analysis between unit prices of the economic offers of all bidders. Implementation of Monte Carlo mathematical statistical model (random simulation of variables) for 5. The model was specified using as reference the economic offer submitted by the respective bidders, generating bands using the standard deviation of the data where the model simulated offers for a competitive scenario versus a collusive one. This simulation allowed the investigator to observe changes in how the probabilities of success were assigned.	It was proven that the investigated parties, through their anticompetitive conduct, had the capacity to modify the probabilities of being awarded in the selection process. The investigated parties were able to effectively modify their award probabilities in the process.	

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
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21	Colombia	Bureau Veritas, Resolución de Sanción No. 41412 del 14 de junio de 2018	Bid Rigging	<a href="https://www.sic.gov.co/por-violar-la-libre-competencia-en-una-licitacion-ante-ecopetrol-superindustria-sanciona-a-bureau-veritas-colombia-y-a-tecnicontrol">https://www.sic.gov.co/por-violar-la-libre-competencia-en-una-licitacion-ante-ecopetrol-superindustria-sanciona-a-bureau-veritas-colombia-y-a-tecnicontrol</a> <a href="https://www.sic.gov.co/sites/default/files/files/Proteccion_Competencia/Ordenes_de_Publicaciones/Resoluciones_Sancion/RESOLUCI%C3%93N%2041412%20DEL%2014-06-2018.pdf">https://www.sic.gov.co/sites/default/files/files/Proteccion_Competencia/Ordenes_de_Publicaciones/Resoluciones_Sancion/RESOLUCI%C3%93N%2041412%20DEL%2014-06-2018.pdf</a> <a href="http://normograma.info/sic/docs/im_siyc_0198976_2013.htm">http://normograma.info/sic/docs/im_siyc_0198976_2013.htm</a>	Active	To assess the competitive effect	To prove statistically why submitting close economic offers had the capacity to alter the result of the measure of central tendency by altering the levels of kurtosis of the distribution, which were called anchoring averages. To determine whether the investigated bidders had the capacity to alter their probabilities of being awarded because of an anticompetitive agreement. The Colombian Competition Authority analyzed the advantages of historically symmetrical conditions that determined the public contracting party.	Simulation of offers in different ranges (high, medium, and low) and calculation of measures of central tendency.	It was evidenced that the investigated parties submitted bids with less than 0.05% difference between them in the selection process. Thus, configuring an anchor of averages with the purpose of increasing their probabilities of being awarded. It was shown that regardless of the range where the offers are simulated (low, medium, or high) if they are presented very close to each other with the aim of anchoring the mean (modifying the kurtosis levels of the function) it is effective to carry out the anticompetitive behavior.	
22	Colombia	ASE, Resolución No. 30415 de mayo de 2021	Bid Rigging	<a href="https://www.sic.gov.co/sites/default/files/files/2021/RESOLUCI%C3%93N%2030415%20DEL%2020-05-2021-%20IMPONE%20SANCION%20C3%93N%20MULTA%20-%20ASE.pdf">https://www.sic.gov.co/sites/default/files/files/2021/RESOLUCI%C3%93N%2030415%20DEL%2020-05-2021-%20IMPONE%20SANCION%20C3%93N%20MULTA%20-%20ASE.pdf</a>	Active	To assess the competitive effect	Determine whether the coordination shown at the time of submitting expressions of interest in abbreviated selection processes represented a restriction to free competition.	Probability analysis based on the use of combinations, which made it possible to determine the likelihood of a coordinated set of bidders to be part of the group of a maximum of 10 participants (a requirement due to the nature of the process) selected by the contracting entity.	The coordination when submitting offers affected free competition, since the principle of an equal opportunity before the law was infringed by artificially increasing the probability of the coordinated agents to be selected in the group chosen by the contracting entity.	
23	Colombia	Invías, Resolución No. 73323 del 18 de noviembre de 2020	Bid Rigging	<a href="https://www.sic.gov.co/sites/default/files/estados/012021/RESOLUCI%C3%93N%2073323%20DEL%2018-11-20%20-%20IMPONE%20SANCION%20C3%93N%20MULTA%20-%20VERSI%C3%93N%20P%C3%9ABLICA%20-%20INVIAS.pdf">https://www.sic.gov.co/sites/default/files/estados/012021/RESOLUCI%C3%93N%2073323%20DEL%2018-11-20%20-%20IMPONE%20SANCION%20C3%93N%20MULTA%20-%20VERSI%C3%93N%20P%C3%9ABLICA%20-%20INVIAS.pdf</a>	Active	To assess the competitive effect	Determine whether the coordination shown increased the probability of the investigated parties to be awarded the selection processes at issue.	Economic analysis aimed at proving that the probability of winning the bid was artificially altered by the investigated parties, based on two elements: first, their previous knowledge of the market, and second, the coordination among them.	The coordination observed in the presentation of bids influenced free competition, since it illegally reduced the probabilities of awarding the bids of the competing bidders in the selection processes.	
24	Colombia	Raciones, Resolución No. 42543 del 29 de julio de 2020	Bid Rigging	<a href="http://normograma.info/sic/docs/pdf/im_siyc_0075588_2019.pdf">http://normograma.info/sic/docs/pdf/im_siyc_0075588_2019.pdf</a>	Active	To assess the market situation	To characterize the ready meals and long-life bakery market, to show that this market was susceptible to collusive behavior.	The Logistics Agency of the Military Forces (ALFM) frequently used the Public Procurement Market (MPC) of the Colombian Mercantile Exchange (BMC) to purchase ready meals and long-life bakery. Between 2011 and the beginning of 2018, this behavior was uninterrupted. On the other hand, in the same period, the offer was concentrated in a reduced number of companies, which coincided with being investigated in this process.	The characteristics evidenced in this market made it highly susceptible to manipulation and conducive to agreements tending to limit free economic competition Specifically, it was demonstrated that this market presented a constant and predictable demand and, in addition, a limited and predictable supply, characteristics that the OECD has considered typical of markets prone to collusion.	
25	Colombia	PAE - FRUTAS, Resolución No. 71584 de 2019	Bid Rigging	<a href="http://normograma.info/sic/docs/pdf/resolucion_superindustria_71584_2019.pdf">http://normograma.info/sic/docs/pdf/resolucion_superindustria_71584_2019.pdf</a>	Active	To define the relevant market	Define the market in a broad sense, not limited exclusively to the public procurement processes under investigation, to illustrate how the market was affected by the anticompetitive conduct found.	The Colombian market has high barriers to access to fruits and vegetables. As a result of these barriers, the prices of these foods are elevated and cannot be afforded by the bulk of the population The objective of this study was to expose how affecting competition in this market could affect consumers.	As mentioned above, it is an illustrative study. The conclusions regarding the violation of the free competition regime were shown by means of multiple evidence exposed in the sanction resolution.	
26	Colombia	Vigilancia I, Resolución de sanción No. 19890 del 24 de abril de 2017	Bid Rigging	<a href="http://normograma.info/sic/docs/r_siyc_19890_2017.htm">http://normograma.info/sic/docs/r_siyc_19890_2017.htm</a>	Active	To assess the competitive effect	Determine whether the coordination shown at the time of submitting expressions of interest in the abbreviated selection processes represented an adverse effect on competition.	Probability analysis to determine the effect of the coordination on the likelihood of those investigated to be part of those pre-selected by the contracting entity.	Coordination when submitting bids affected free competition, because the principle of equality before the law was violated through the artificial increase of the probability of being selected in the group chosen by the contracting entity.	
27	Colombia	Boletería, Resolución de Sanción No. 35072 de 2020	Cartel	<a href="http://normograma.info/sic/docs/r_siyc_35072_2020.htm">http://normograma.info/sic/docs/r_siyc_35072_2020.htm</a>	Active	To assess the competitive effect	To measure the impact of the behavior	The SIC compared ticket prices according to the contract against the prices resulting from the agreement.	The price increase resulted in cost overruns of up to 350% for a consumer interested in the bills. There were exploitative effects on consumers.	
28	Colombia	Cloro Soda, Resolución de sanción No. 71584 de 2019	Cartel	<a href="http://normograma.info/sic/docs/r_siyc_57600_2019.htm">http://normograma.info/sic/docs/r_siyc_57600_2019.htm</a>	Active	*To assess the market situation **To assess the competitive effect	*To determine market concentration **To calculate the transfer of welfare from consumers to producers.	*In both markets (chlorine and caustic soda) the HHI was calculated. **The damage generated by the business cartel in the chlorine market was estimated considering a hypothetical scenario in which prices increase by 10%. For the calculation, the quantities sold during the duration of the cartel were multiplied by 10%.	*Given the average HHI levels over the years in both markets, it was concluded that both markets were highly concentrated. **The result is the benefit extracted from consumers.	

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29	Colombia	La Mesa de precios, Resolución de sanción No. 91153 del 2018	Cartel	<a href="http://normograma.info/sic/docs/r_siy_c_91153_2018.htm">http://normograma.info/sic/docs/r_siy_c_91153_2018.htm</a>	Active	*To assess the market situation **To assess the market situation ***To assess the competitive effect	*To determine the relevance of the conduct **To measure market concentration ***To measure the impact of the conduct	*The percentage of participation of the companies providing the service in the total number of internal gas supply network installations in the municipality was analyzed. **Concentration indexes CR2, CR4, IHH were calculated. ***Percentage of service users by stratum was analyzed.	*98.5% of the installations correspond to the three investigated companies. **The market for the construction and installation of internal networks for gas supply was highly concentrated. ***93% of the users of the service correspond to social strata 1, 2 and 3. These did not have an alternative with financing for the installation of the internal networks, different from the one presented by the cartel.	
30	Colombia	Transporte de carga, Resolución de sanción No. 72158 de 2018	Unilateral Conduct	<a href="http://normograma.info/sic/docs/r_siye_72158_2018.htm">http://normograma.info/sic/docs/r_siye_72158_2018.htm</a>	Active	*To define the relevant market **To assess the competitive effect	*To determine the relevant market **To establish the relationship between the distance of the route and pricing	*The participation of freight transportation modalities in Colombia is calculated. **A difference in percentage terms is calculated between the prices set through the freight table (prices contrary to free competition) and the reference prices set by the Ministry of Transportation.	*It is concluded that the affected market is the market for the transportation of cargo by land (roads). **It is concluded that the prices set in the freight table for shorter distances are higher in percentage terms with respect to the reference prices. On the contrary, for longer distances, the freight table prices were set closer in percentage terms to the reference prices.	
31	Colombia	Agua en bloque, Resolución de sanción No. 14305 del 28 de febrero de 2018	Unilateral Conduct	<a href="http://normograma.info/sic/docs/r_siye_14305_2018.htm">http://normograma.info/sic/docs/r_siye_14305_2018.htm</a>	Active	*To assess market power/dominant position **To assess the competitive effect	*To determine the dominant position. **To conclude the realization of the blockade by the dominant company.	*Market shares are calculated. Market entry barriers are studied ((i) restrictions on the natural availability of the input, (ii) high investment costs, (iii) economies of scale, and (iv) sunk costs). **A graphical comparison is made over time of the pressure on water supply among the different buyers of bulk water from the dominant company.	*It was concluded that the investigated company held a dominant position, due to its market share and the existing barriers. **It was concluded that the pressure of water supply by the dominant company to the obstructed company decreases, which leads to the conclusion that there was an obstruction.	
32	Colombia	Asosubastas, Resolución de Sanción No. 4191 del 10 de febrero de 2017	Unilateral Conduct	<a href="http://normograma.info/sic/docs/r_siye_4191_2017.htm">http://normograma.info/sic/docs/r_siye_4191_2017.htm</a>	Active	*To define the relevant market **To assess the market situation ***To assess the competitive effect ****To assess the competitive effect	*To determine the geographic market **To determine market concentration ***To measure the effect of the conduct ****To determine the significance of the conduct	*The distribution of heads of cattle and cattle farms by department is analyzed. The commercial flow of livestock was analyzed. **The HHI index was calculated. ***The companies that effectively charged the commission between 2011 and 2013 were analyzed. ****The joint participation of the investigated companies in the relevant market was analyzed.	*The geographic market corresponds to the national territory because it is an activity that takes place in 7 departments. Although the product usually comes from the same department, there is a high interdepartmental commercial flow that ratifies the national scope. **The HHI index shows little concentration in the market. ***At least 7 of the companies investigated were found to have charged a reprehensible commission. ****For not having more than 86% of the cattle heads, it is concluded that there was a potential to affect the market.	
33	Colombia	EDS Popayán, Resolución de Sanción No. 26726 del 10 de mayo de 2016	Cartel	<a href="http://normograma.info/sic/docs/r_siy_c_26726_2016.htm">http://normograma.info/sic/docs/r_siy_c_26726_2016.htm</a>	Active	To assess the competitive effect	* To demonstrate a consciously parallel behavior in prices.	* A graphical analysis of the behavior of current prices of ACPM and gasoline was performed. *The behavior of the maximum, minimum and average prices of ACPM and gasoline in similar cities is contrasted with the behavior of the maximum, minimum and average prices of ACPM and gasoline in similar cities.	* It was concluded that there was a parallel behavior in the prices of ACPM and gasoline.	
34	Colombia	Miñeros, Resolución de Sanción No. 10220 de marzo de 2021	Cartel	Informe Motivado SICOMP: <a href="http://normograma.info/sic/docs/im_siy_c_0130744_2020.htm">http://normograma.info/sic/docs/im_siy_c_0130744_2020.htm</a> Páginas 34 a 48 y 168 a 184. Resolución de sanción SICOMP: <a href="http://normograma.info/sic/docs/r_siy_c_10220_2021.htm">http://normograma.info/sic/docs/r_siy_c_10220_2021.htm</a> Páginas 34 a 45 y 179 a 180. -Comunicado de prensa: <a href="https://www.sic.gov.co/slider/superindustria-impuso-multas-por-m%C3%A1s-de-2000-millones-empresas-mineras-de-la-regi%C3%B3n-del-meta-por-cartelizaci%C3%B3n">https://www.sic.gov.co/slider/superindustria-impuso-multas-por-m%C3%A1s-de-2000-millones-empresas-mineras-de-la-regi%C3%B3n-del-meta-por-cartelizaci%C3%B3n</a> .	Active	To assess the market situation To assess the competitive effect	Describe the market affected by the investigated conducts. Verify compliance with the anticompetitive agreements by the investigated parties.	The definition of the value chain for construction materials extracted from riverbeds showed strong barriers to entry and a delimited geographic scope in three municipalities in the department of Meta. The agents participating in the affected market were identified, including mining producers, the association of miners in the area of influence, ECOPETROL as the final demander of the miners' products and services, and ECOPETROL's allied contractors as direct demanders. The size of the affected market and its concentration were found based on the mining titles granted in the area of influence.  The evidence from the leniency program demonstrated the existence of annual price lists agreed by type of material and meeting minutes, in which the market quotas assigned between the miner with the highest participation with 40% and the members of the miners' association with 60% were defined. According to the analysis of prices and invoicing of the investigated parties, these conducts maintained their dynamics in a general and sustained manner during the period between 2012 and February 2016.	There was a high calculated concentration of the affected market which resulted in a HHI of 3.485. The prices charged by the investigated parties were generally in line with the cartel price during the investigated period and the supply quota participation percentages assigned by the association were in line with the turnover of the miners in the area of influence.	



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35	Colombia	Lentes, Resolución de Sanción No. 733722 de 2020	Unilateral Conduct	Informe Motivado SICOMP: <a href="http://normograma.info/sic/docs/im_siy_c_0021490_2019.htm">http://normograma.info/sic/docs/im_siy_c_0021490_2019.htm</a> Páginas 16 a 37 y 111 a 119. Resolución de sanción SICOMP: <a href="http://normograma.info/sic/docs/r_siy_c_73372_2019.htm">http://normograma.info/sic/docs/r_siy_c_73372_2019.htm</a> Páginas 16 a 21 y 99 a 102.  -Comunicado de prensa: <a href="https://www.sic.gov.co/slider/superindustria-sanciona-restricci%C3%B3n-la-libre-competencia-en-la-venta-de-lentes-de-contacto">https://www.sic.gov.co/slider/superindustria-sanciona-restricci%C3%B3n-la-libre-competencia-en-la-venta-de-lentes-de-contacto</a> .	Active	To assess the market situation To assess the competitive effect	Characterize the market affected by the conduct under investigation. Verify the impact on the general welfare due to the anticompetitive conduct.	The definition of the value chain of mass-produced contact lenses showed two types of channels, one traditional or face-to-face and the other non-traditional or through the Internet and virtual platforms. A geographic scope without barriers or national character was also found due to the scope of the non-traditional channel. The agents participating in the affected market were identified, including importers of contact lenses in series, the federation of optometrists of the traditional channel and opticians selling contact lenses over the Internet. The sales invoicing of authorized distributors of serial contact lenses to internet marketers was verified. Soft and toric contact lens prices were analyzed for a sample of traditional channel opticians' shops and an internet marketer between 2015 and 2017.	The conduct affected the free choice of visually impaired consumers regarding the marketing channel for acquiring contact lenses in series. This loss in consumer welfare included not being able to choose aspects offered by the non-traditional channel such as lower prices, brand alternatives and reach or delivery of product in remote geographic areas. In addition, the behavior generated exclusion of agents in the non-traditional or internet sales channel. Even some authorized distributors of contact lenses stopped supplying these agents due to the discrediting conduct deployed by the federation of optometrists of the traditional channel.	
36	Colombia	Azúcar, Resolución No. 80847 del 07 de octubre de 2015	Cartel	Informe Motivado SICOMP: <a href="http://normograma.info/sic/docs/im_siy_c_0057750_2010.htm">http://normograma.info/sic/docs/im_siy_c_0057750_2010.htm</a> Páginas 99 a 125. Resolución de sanción SICOMP: <a href="http://normograma.info/sic/docs/r_siy_c_80847_2015.htm">http://normograma.info/sic/docs/r_siy_c_80847_2015.htm</a> Páginas 29 a 31. -Comunicado de prensa: <a href="https://www.sic.gov.co/noticias/por-cartelizacion-empresarial-para-obstruir-importaciones-superindustria-sanciona-a-ASOCANA-ya-14-empresas-del-sector-azucarero">https://www.sic.gov.co/noticias/por-cartelizacion-empresarial-para-obstruir-importaciones-superindustria-sanciona-a-ASOCANA-ya-14-empresas-del-sector-azucarero</a>	Active	To define the relevant market To assess the competitive effect	Characterize the market affected by the investigated conducts. Verify compliance with the anticompetitive agreements by the investigated parties.	The definition of the sugar value chain showed sugarcane as the main input for its production in Colombia. Given the supply and demand conditions for sugar in Colombia, the affected geographic market was defined with a national scope in terms of domestic marketing, exports, and imports. The Hodrick Prescott filter was used to find the value of production and its trend in the short term. The decision criteria of the Colombian regulation established with the Sugar Price Stabilization Fund and its incidence on the distribution of internal and external markets among sugar mills were analyzed. An analysis was made of the substitutability between sugar and natural sweeteners with respect to the pressure that can be exerted in the face of changes in their price. Distribution channels and sales shares were identified to find the level of market concentration using the Herfindahl-Hirschman, Stenbacka, Kwoka, Líder and CR2 indexes. Finally, Colombia's foreign trade volume was calculated to establish the behavior of exports and imports.	Sugarcane sugar and panela act as complementary goods. There is no direct competitive pressure in the face of price changes. The Sugar Price Stabilization Fund was a mechanism that increased the price paid by the Colombian sugar consumer under the premise of redistributing income between sugar mills that exported and those that sold in the local market. The concentration indexes in the local market showed a HHI of 1.595, which implies a moderately concentrated market. The Líder and CR2 indicators showed that the mills owned by the Ardila-Lule Organization were the market leaders. Exports remained relatively stable between January 2005 and October 2012 and imports had an increasing trend. However, it was evident that Bolivia, one of the main importers, had no participation between 2005 and 2007 and in 2011. This supports the evidence of obstruction of imports through an agreement between Colombian sugar mills and trade associations.	
37	Colombia	Cartel de los pañales para bebé (Baby diapers case)	Cartel	Informe motivado: <a href="http://normograma.info/sic/docs/im_siy_c_0266923_2013.htm">http://normograma.info/sic/docs/im_siy_c_0266923_2013.htm</a> Decisión sancionatoria: <a href="https://www.sic.gov.co/sites/default/files/normatividad/Resolucion_43218_2016.pdf">https://www.sic.gov.co/sites/default/files/normatividad/Resolucion_43218_2016.pdf</a>	Active	To assess the market situation To assess the competitive effect	Description of the relevant market. Identification of incentives for the analysis of the vertical relationship. Presentation of elements on price behavior Approximation to a theoretical estimation of the damage.	Structural analysis of the industry (market shares and trends). Analysis of financial information and evolution of returns on capital. Price series analysis; decomposition of price series and variability analysis of series components.  Projection considering perfect own-price inelasticity of demand and cross-multiplication.	Highly concentrated market with SCOP value in real terms and relatively stable total market volumex Factual reasons were provided to synchronize the logic of economic incentives with the evidentiary documentation that developed the vertical relationship between Tecnoquímicas and Tecnosur. The price series presented relative stability and its non-parametric distributions were leptokurtic for the period of analysis. The damage approximation contextualized the potential impact on household budgets during the execution of the agreement.	
38	Colombia	Cartel de los papeles suaves (Tissue paper case)	Cartel	Informe motivado: <a href="http://normograma.info/sic/docs/im_siy_c_0151027_2014.htm">http://normograma.info/sic/docs/im_siy_c_0151027_2014.htm</a>  Decisión sancionatoria <a href="https://www.sic.gov.co/sites/default/files/estados/022018/RES_31739_DE_2016.pdf">https://www.sic.gov.co/sites/default/files/estados/022018/RES_31739_DE_2016.pdf</a>	Active	To assess the market situation To assess the competitive effect	Description of the relevant market. Descriptive and causal analysis of prices Approximation to a theoretical estimate of the damage.	Structural analysis of the industrial subsector (participation shares and trends) with the following products: toilet paper, napkins, kitchen towels, and hand and face tissues Analysis of the price series; decomposition of the price series; variability analysis of the components of the series and causality analysis estimating VAR models modified by the Toda and Yamamoto method. Projection considering perfect own-price inelasticity of demand and cross-multiplication.	Highly concentrated product markets with relatively stable market shares The price series presented relative stability. Statistical tests allowed inferring that price behavior dynamics were continuous between 2005 and 2013. The damage approximation contextualized the potential impact on household budgets during the implementation of the agreement.	
39	Colombia	Cartel de los cuadernos para escritura (Notebook paper case)	Cartel	Informe motivado: <a href="http://normograma.info/sic/docs/im_siy_c_0151036_2014.htm">http://normograma.info/sic/docs/im_siy_c_0151036_2014.htm</a> Decisión sancionatoria: <a href="https://www.sic.gov.co/sites/default/files/estados/RESOLUCION_54403_CUADERNO.pdf">https://www.sic.gov.co/sites/default/files/estados/RESOLUCION_54403_CUADERNO.pdf</a>	Active	To assess the market situation To assess the justification To assess the competitive effect	Description of the affected market. Analysis of the defense of the investigated parties Approximation to a theoretical estimate of injury.	Structural analysis of the market (market shares and trends). Analysis of market share and price variability by segment. Analysis of dominance indicators.  Projection considering perfect own-price inelasticity of demand and cross-multiplication.	The market had two distinct segments, economic and premium. The economic segment presented high sales volumes and had many suppliers. The premium segment had two large players that controlled the market and had stable market shares. Price series and market shares with relative stability. The simulations using the dominance indicators show indications of the potential to manipulate market conditions when implementing the coordinated strategy. The damage approach contextualized the potential impact on household budgets during the implementation of the agreement.	

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40	Colombia	Cartel del cemento gris Portland (Gray Portland cement case)	Cartel	Informe motivado: <a href="http://normograma.info/sic/docs/im_siy_0116942_2011.htm">http://normograma.info/sic/docs/im_siy_0116942_2011.htm</a> Decisión sancionatoria: <a href="https://www.sic.gov.co/sites/default/files/estados/022018/RES_81391_DE_2017.pdf">https://www.sic.gov.co/sites/default/files/estados/022018/RES_81391_DE_2017.pdf</a>	Active	To assess the market situation To assess the competitive effect To assess the justification	Description of the affected market. Assessment of the incentives of two agents to determine that they did not participate in the agreement. Assessment of the hypothesis of harmonic and coordinated behavior in the agents' prices over time (parallelism). Assessment of the hypothesis of geographic market sharing. Contrast of price committee minutes to detect anomalies. Analysis of the defense of the investigated parties Approach to the logic of incentives about a coordinated strategic behavior in a dynamic horizon. Approximation to a theoretical estimation of the damage.	Structural analysis of the market (market share and trends). Analysis of financial information; technical conditions of optimality (costs, production) and installed capacity. Descriptive price analysis: variability analysis, decomposition of price series. Parametric and non-parametric tests to assess stability, volatility, and independence of geographic market shares. Contrast of price committee minutes and prices reported by the companies Analysis of the temporal evolution of volumes demanded; analysis of installed and idle capacity; review of average energy costs and freight costs for domestic shipments. Causality analysis estimating VAR models modified by Toda and Yamamoto's method. Identification of idle capacity as a strategic variable. Analysis of the historical context of anticompetitive cooperation through the dynamics of a predatory cartel. Use of Harrington's markers to identify signs of anomalous behavior (not consistent with a competitive environment).	Market concentrated in three agents with relatively stable market shares. During the investigation period, the rate at which real sales grew was 50% higher than volume growth Cementos Tequendama and San Marcos were found to have no incentive to participate in the agreement and their strategies differed from those of the other players in the market (cartelists). Time series and price distributions with relative stability. There is no statistical evidence to affirm the existence of a geographic market sharing agreement. Anomalies were found that reinforce the notion of cooperation among market players. None of the defenses of the investigated parties were able to explain the coordinated price increases. The analysis allowed showing elements about the incentives and cooperative strategies exhibited by the economic agents; now, although it is true that these elements do not prove the existence of an agreement, they are added to the plus factors (Posner) and the documentary elements to outline the existence of the agreement. The damage approach contextualized the potential impact on household budgets during the execution of the agreement.	
41	Colombia	Sayco Resolución No. 76278 de 2016	Unilateral Conduct	Informe motivado (p. 14): <a href="http://normograma.info/sic/docs/im_siy_0150526_2011.htm">http://normograma.info/sic/docs/im_siy_0150526_2011.htm</a> . Decisión sancionatoria: n sancionatoria (pp. 11 – 22): <a href="http://normograma.info/sic/docs/r_siy_c_76278_2016.htm">http://normograma.info/sic/docs/r_siy_c_76278_2016.htm</a>	Active	To assess the market situation To define the relevant market To assess market power/dominant position	1. Regulatory analysis 2. Definition of the relevant market in the administration of copyrights in musical works. 3. Definition of the dominant position of the Society of Authors and Composers (Sayco).	1. Regulatory analysis of the management of economic content copyrights. Through individual and collective management. 2. Characterization of Sayco's dominant position: Sayco is the only collective management society for authors' and composers owned public communication rights 3. Description of the services provided by Sayco that are indispensable for the management of certain forms of royalty collection through public communication Barriers to market entry and barriers created by Sayco in the collection of resources derived from authors' rights through collective management.	Sayco has a dominant position in the market for collective management of authors' rights for public communication.	
42	Czech Republic	VIA FAOC outlet center	Cartel	N/A	Active	To define the relevant market	To define relevant market – anticompetitive agreement case	SSNIP test (critical loss analysis) – whether 10% price increase of merchandise in outlet centers would be profitable for hypothetical monopolist	Defined separate relevant market of retail sale of outlet merchandise in outlet centers because actual loss was lower than critical loss and so price increase would be profitable.	
43	Czech Republic	Oil fuel provider (The name of the provider is not specified due to the confidential nature of the information.)	Unilateral Conduct	N/A	Active	To define the relevant market	To define relevant market in abuse of dominant position case	Price correlation analysis: whether correlation between oil fuel without biocomponent and oil fuel with biocomponent B is significant or not.	Defined relevant market includes both goods together because price correlation was significant.	
44	Czech Republic	Czech railways	Unilateral Conduct	<a href="https://www.uohs.cz/en/information-centre/press-releases/competition/2651-the-final-fine-for-the-distortion-of-liberalisation-imposed-on-ceske-drahy-shall-be-almost-czk-275-million.html">https://www.uohs.cz/en/information-centre/press-releases/competition/2651-the-final-fine-for-the-distortion-of-liberalisation-imposed-on-ceske-drahy-shall-be-almost-czk-275-million.html</a>	Active	Others	To estimate missing cost data of dominant competitor in two public tenders on providing passenger rail transport services – abuse of dominant position case	Dominant competitor's costs of period 2007-2009 were estimated through costs of period 2009-2014 by econometric model.	Estimated costs data helped to make an assessment that alleged predatory pricing was applied also in period of missing data.	

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45	El Salvador	Liquefied petroleum gas (LPG) in bulk for industrial and commercial use. Ref. SC-005-O/PI/R-2018	Cartel	<a href="https://www.sc.gob.sv/index.php/proyecto/investigacion-sobre-supuestas-practicas-anticompetitivas-en-el-mercado-de-glp-sc-005-o-pi-r-2018/">https://www.sc.gob.sv/index.php/proyecto/investigacion-sobre-supuestas-practicas-anticompetitivas-en-el-mercado-de-glp-sc-005-o-pi-r-2018/</a>	Active	To assess the market situation To assess the competitive effect	<ol style="list-style-type: none"> <li>To analyze the degree of concentration in the market.</li> <li>To determine whether the local price behavior responded to the international input prices and to identify the degree of association with the invoiced prices</li> <li>To see if there was a structural change in the spread or margin charged on the price of inputs in its international reference.</li> <li>To analyze whether there was a correspondence between local prices and international reference prices, using a time series decomposition analysis.</li> <li>To determine the number of customers which had price increases and the number of gallons that were sold with and without price increases.</li> </ol>	<ol style="list-style-type: none"> <li>Estimation of the Herfindahl – Hirschman Index (HHI), for each of the years from 2013 to 2018.</li> <li>Analysis of price series and Pearson correlation coefficients.</li> <li>Differentials between the average local prices of each individual economic agent and their international reference input price.</li> <li>Time series decomposition analysis and Pearson correlation coefficients.</li> <li>Segmentation of sales prices and delimitation of customers subject to increases</li> </ol>	<ol style="list-style-type: none"> <li>The HHI evidences a highly concentrated market.</li> <li>A similar trend was observed in the historical behaviour of LPG prices of the five market participants. In addition, a positive, almost perfect correlation between competitors' prices was determined.</li> <li>Simultaneous increases in margins were evidenced and a structural change was observed.</li> <li>It was concluded that, for the year 2013, the reference prices could not be considered as statistically explanatory variables of the sales prices.</li> <li>It was determined that 95% of the entire customer base had their sales price increased and only 5% were not increased. In addition, 49% volume of LPG was sold with increase and 51% did not suffer increase, and the magnitude of the increase was estimated.</li> </ol>	
46	El Salvador	SC-020-O/PI/R-2017	Cartel	<a href="https://www.sc.gob.sv/index.php/proyecto/investigacion-de-oficio-sobre-supuestas-practicas-anticompetitivas-en-contra-de-drogueria-americana-y-drogueria-c-imberton-sc-020-o-pi-r-2017/">https://www.sc.gob.sv/index.php/proyecto/investigacion-de-oficio-sobre-supuestas-practicas-anticompetitivas-en-contra-de-drogueria-americana-y-drogueria-c-imberton-sc-020-o-pi-r-2017/</a>	Active	To assess the competitive effect	<ol style="list-style-type: none"> <li>To prove the existence of an agreement to fix the gross prices before the introduction of price regulation.</li> <li>To dismiss the existence of a price-fixing agreement after the introduction of price regulation.</li> </ol>	<ol style="list-style-type: none"> <li>The economic nonsense test was used to analyze and compare, between the 2 infringers, the operational cost and the FOB prices of 3 drugs with their gross prices. In addition, the gross margin was also compared in order to check the differences of both drugstore and the unreasonableness of price equality, since the supplier laboratory did not establish the gross prices or discounts.</li> <li>The economic sense test was used to analyze and compare between the 2 infringers the operational cost and the FOB prices of the 3 drugs: CATAFLAM, DIOVAN and LAMISIL, with their prices. Also, the gross margin was compared in order to verify the differences of both drugstore and the reasonableness of the price's equality since the introduction of price regulation and the suggested price from supplier laboratory.</li> </ol>	<ol style="list-style-type: none"> <li>The economic nonsense test was carried out to prove that the equality of gross prices in the 3 investigated drugs had no other explanation than being the result of an anticompetitive agreement between the 2 infringers drugstores.</li> <li>The same analysis was used to dismiss the existence of the agreement for the net prices since it was found that there was a reasonableness in the equality of both drugstore's prices.</li> </ol>	
47	El Salvador	Prepaid mobile phone services Ref. SC-044-O/PI/R-2016	Cartel	<a href="https://www.sc.gob.sv/index.php/proyecto/investigacion-oficio-supuestas-practicas-anticompetitivas-marco-la-entrada-vigencia-la-ley-contribucion-especial-la-seguridad-ciudadana-convivencia-cesc-sc-044-o-pi-r-2016/">https://www.sc.gob.sv/index.php/proyecto/investigacion-oficio-supuestas-practicas-anticompetitivas-marco-la-entrada-vigencia-la-ley-contribucion-especial-la-seguridad-ciudadana-convivencia-cesc-sc-044-o-pi-r-2016/</a>	Active	To assess the justification To assess the competitive effect	<ol style="list-style-type: none"> <li>In response to the allegations of the Parties, which argued that the values charged in the pre-paid mobile top-up denominations did not constitute prices, but a means of payment for various services.</li> <li>To explain the reasonableness for the simultaneous price increase.</li> <li>To estimate what would have been the behavior of the sales revenues of the Parties in the scenario without CESC and price rounding.</li> </ol>	<ol style="list-style-type: none"> <li>Analysis of the application of nonlinear prices, specifically sequential prices.</li> <li>Calculation methodologies to determine the net value of the service.</li> <li>Time series analysis. Autoregressive vector model (VAR) from which projections of the variable of interest were made.</li> </ol>	<ol style="list-style-type: none"> <li>The designations of pre-paid mobile recharges offered by providers can be classified as prices.</li> <li>It was found that the simultaneous increase in the values of the pre-paid mobile recharge denominations carried out by the Parties had a reasonable explanation since the implementation of the CESC (Special Contribution for Citizen Security). It was determined that the proportion of the increases in the initial denominations correspond, on the one hand, to the 5% rate of the CESC, applied by the Parties, in compliance with their role as agents of withholding the contribution.</li> <li>It was concluded that the CESC would not have had a significant impact on the expected evolution of sales revenues of mobile prepaid top-ups, and that the roundings carried out by the operators by increasing the value of the initial denominations, would also not reflect higher-than-expected revenues.</li> </ol>	
48	Hong Kong	Competition Commission. v. W. Hing Construction Company Limited and Others	Cartel	<a href="https://legalref.judiciary.hk/lrs/common/ju/ju_frame.jsp?DIS=121926&amp;curpage=T">https://legalref.judiciary.hk/lrs/common/ju/ju_frame.jsp?DIS=121926&amp;curpage=T</a>	Passive	To assess the justification	The case relates to a cartel in the form of floor allocation arrangement and package price arrangement for home decorations in a housing estate. The Parties alleged efficiency gains resulting from the arrangements. The Commission assessed these claims.	The Parties offered estimations of cost savings that could result from the disputed arrangements as compared to a counterfactual scenario, based on the Parties' own cost information. The Commission's expert used microeconomics to show that the counterfactual scenario used by the Parties were unrealistic, and showed that in cases where the alleged efficiencies are likely to arise, costs were not lower than comparable cases where such efficiencies are unlikely.	The Parties were found not to have satisfied the legal requirements of their efficiency defense.	

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49	Malaysia	Infringement of Section 10 of the Competition Act 2010 by Dagang Net Technologies Sdn Bhd	Unilateral Conduct	<a href="https://www.mycc.gov.my/sites/default/files/pdf/decision/Decision%20against%20Dagang%20Net%20Technologies%20Sdn%20Bhd%20pursuant%20to%20Section%2040_%20Dated%2028%20February%202021_Public%20Version.pdf">https://www.mycc.gov.my/sites/default/files/pdf/decision/Decision%20against%20Dagang%20Net%20Technologies%20Sdn%20Bhd%20pursuant%20to%20Section%2040_%20Dated%2028%20February%202021_Public%20Version.pdf</a> (page:80-88,97-105)	*Active **Passive	*To assess market power/dominant position **To assess the competitive effect	*Assessment of dominance **Assessment on the exclusivity agreement	<b>*COMPETITIVE CONSTRAINTS</b> Assessed the constraints and other competitive factors faced by Dagang Net Technologies Sdn. Bhd. in the relevant market. This include market share, barriers to entry or expansion and countervailing buyer power. <b>**DATA ANALYSIS</b> Projection from the Target Enterprise in terms of their future market share if uCustoms is introduced (to include more competitors in the market) as compared to the current system. <b>GAME THEORY</b> By capturing the software providers via the exclusivity agreement, Target Enterprise can maintain its dominance in both current system and uCustoms system.	*Dagang Net is a legal monopoly occupying a dominant position within the meaning of section 2 of the Competition Act 2010. There is a high barrier to entry in the relevant market and insufficient bargaining strength of the end users to exert effective competitive constraints in the relevant market.  **Based on the data and documents provided by Target Enterprise, the Commission concludes that the exclusivity clause is capable of having anti-competitive effects in the relevant market.	
50	Malaysia	Infringement of Section 4(2)(a) of the Competition Act 2010 by the General Insurance Association of Malaysia and its 22 members	Cartel	<a href="https://www.mycc.gov.my/sites/default/files/pdf/decision/Public%20Version%20Decision%20PIAM%20%26%2022%20Members_28.2.2021_2.pdf">https://www.mycc.gov.my/sites/default/files/pdf/decision/Public%20Version%20Decision%20PIAM%20%26%2022%20Members_28.2.2021_2.pdf</a> (page: 130-136)	Passive	To assess the justification	Rebuttal of relief of liabilities by the parties (Cartel case)	<b>DATA ANALYSIS</b> Assessed the argument from the parties on the fulfillment for relief of liability under Section 5 of the Competition Act 2010 whereby the parties argued that there are pro-competitive benefits arising from the Infringing Agreement. <b>There are two main arguments put forward by the parties which are as follows:</b> <b>i. Reduction in turnaround time; and</b> <b>ii. Growth of workshops including PARS workshops.</b>	The Commission considers that the Infringing Agreement is not the sole and direct factor that contribute to the reduction in turnaround time and growth of workshops including PARS workshops. In relation to the reduction of turnaround time, the Commission considers that other factors including the existence of Merimen system as a platform for negotiation between individual PARS workshop and the insurers is one of the relevant factors in reducing the turnaround time. On the other hand, the Commission considers the existence of National Automotive Policy 2014 and investment by local car manufacturers in developing domestic automotive industry are among the factors that contribute the growth of workshops including PARS workshops.	
51	Malaysia	Finding of Infringement of Section 10 of the Competition Act 2010 by My E.G. Services Berhad	Unilateral Conduct	<a href="https://www.mycc.gov.my/sites/default/files/pdf/decision/Section-40-Notice-of-Finding-of-an-Infringement-by-My-Services-Berhad.pdf">https://www.mycc.gov.my/sites/default/files/pdf/decision/Section-40-Notice-of-Finding-of-an-Infringement-by-My-Services-Berhad.pdf</a> (page: 63 -66)	Active	To assess the competitive effect	To establish the effect of the abusive conduct by the enterprise.	<b>DATA ANALYSIS</b> Assessed the sales of Target Enterprise as compared to other enterprises during the infringing period.	The sales of the Target Enterprise were increased as compared to its competitors despite the increase in number of foreign workers in Peninsular Malaysia during the infringing period.	
52	Mexico	Discriminatory practices in the market of Credit Information Systems	Unilateral Conduct	<a href="https://www.cofece.mx/wp-content/uploads/2019/02/COFECE-011-2019-English.pdf">https://www.cofece.mx/wp-content/uploads/2019/02/COFECE-011-2019-English.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V290/0/4755437.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V290/0/4755437.pdf</a> (Final resolution in Spanish)	Active	*To assess the market situation **To assess the competitive effect ***To assess the competitive effect	*To define the investigated market **To determine barriers to entry ***To prove the theory of harm	*Boone indicator to find if the high rates of profitability from the Credit Information Systems were a consequence of the market concentration or efficient and constant innovation in the use of their resources **Estimation of the minimum number of credit reports necessary to produce to be an efficient and profitable Credit Information Firm ***Retroactive rebate analysis in credit report prices and estimation of effective prices that the entrant should offer so that buyers prefer to buy its products, instead of the incumbent's products.	*The Boone indicator showed that the profitability of the Credit Information Systems measured in Return on Assets (ROA) was not strictly related to decreases in the operating costs. Therefore, the high profitability rates were allegedly related to the concentration levels in the market. **The results indicated that some competitors do not offer enough credit reports to be profitable. This was caused mainly by the incumbent's refusal to share credit information. ***The results indicated that the entrant should offer negative effective prices (which included discounts greater than 100%) to properly compete with the incumbent. This evidence proves that the prices offered by the incumbent induced a lock-in effect.	
53	Mexico	Unilateral conducts in the market of production and promotion of live events, the operation of live entertainment centers and automated ticket sales	Unilateral Conduct	<a href="https://www.cofece.mx/wp-content/uploads/2018/10/COFECE-046-2018-English.pdf">https://www.cofece.mx/wp-content/uploads/2018/10/COFECE-046-2018-English.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/INVESTIGACIONES/V2633/8/4511785.pdf">https://www.cofece.mx/CFCResoluciones/docs/INVESTIGACIONES/V2633/8/4511785.pdf</a> (Final resolution in Spanish)	Active	To consider remedy	To determine if the commitments (early termination of the investigation) presented by the investigated firm would be enough to eliminate the conduct under investigation.	Market shares were unavailable in the market due to exclusivities. The elements included in the commitments were used to determine if these would open the market sufficiently for there not to be anti-competitive risks and for the competition concerns to be addressed effectively	By eliminating the exclusivity clauses in the majority of their contracts, the investigated firms would open spaces for new participants to compete throughout the value chain	

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54	Mexico	Refusal to deal in the access to the International Airport of Cancun, for taxi transportation.	Unilateral Conduct	<a href="https://www.cofece.mx/wp-content/uploads/2019/09/COFECE-037-2019_Airport_Cancun_ENG.pdf">https://www.cofece.mx/wp-content/uploads/2019/09/COFECE-037-2019_Airport_Cancun_ENG.pdf</a> (Press release in English)  <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V314/1/4904737.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V314/1/4904737.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	*To support the theory of harm **To prove the theory of harm	*Cofece's Investigative Authority developed a relative price analysis to determine if the anticompetitive conduct decreased the efficiency in the related market of transportation services by establishing exclusive advantages in favor of certain transportation firms.  **Incentives assessment, including payments for access between the operator of the International Airport of Cancun and the taxis companies that were already established.	*As a result of the analysis, it became evident that the prices charged by the Airport's transport firms were higher than those paid by the consumer for similar services (such as Uber) or by consumers in other airports traveling similar distances. Hence, it was identified that the conduct decreased the efficiency in the related market of transportation services which was visible in the prices established by transportation firms. **As a result of the analysis, it became evident that the Airport's refusal conduct was supported by the incentive to obtain monopolistic rents from the incumbents, while the incumbents had the incentive to not allow the entry of a new firm, in order to charge monopoly prices for their taxi services. Furthermore, the contract's terms to access to the Airport stated that a percentage of the revenue generated by the incumbents would be part of the fees to be paid to the Airport. Therefore, both the Airport's and the incumbents' incentives were aligned.	
55	Mexico	Refusal to deal in the salt distribution market	Unilateral Conduct	<a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V331/0/5087269.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V331/0/5087269.pdf</a> (Final resolution in Spanish)	Active	*To define the relevant market **To assess the market situation	*To define the relevant market **To determine the existence of barriers to entry into the market	*Price correlation analysis between prices of Salt type A (industrial) and Salt type B (human consumption). **Profitability and revenue analysis was conducted to determine Beta and other risk measures of mining and salt production companies. Theoretically, riskier enterprises face higher credit rates.	*A broad market definition considering that the prices of Salt Type A and Salt Type B were closely correlated. **The analysis indicated that risk measures of mining and salt production companies turned out to be 28% higher than the rest of the economy. Therefore, Salt production was found to be a high-risk activity, with costly access to credit, which, consequently was considered a barrier to entry.	
56	Mexico	Abuse of dominance conducts in the certification and laboratory tests market related to the tire industry	Unilateral Conduct	<a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V3431/0/4864569.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V3431/0/4864569.pdf</a> (Final resolution in Spanish)	Active	To assess market power/dominant position	To prove substantial market power.	Split regression with structural change: first, it was examined whether the pattern of a specified time series section could be different from another section; and second, we examine the entry of a new firm (change in the industrial organization) in order to identify the movements in price, quantities or other variables of the market, to determine if the new firm has had an impact in the market.	The results of the analysis indicated that the incumbent did not exert substantial market power, because it was not able to charge high prices upon entry of a new firm into the market. Also, it was identified that series prices were closer to marginal cost as the entry of a new firm generated competitive pressure, changing the dynamic of the market.	
57	Mexico	Exclusivity practices in the industrial air gases market (nitrogen, oxygen, and argon)	Unilateral Conduct	<a href="https://www.cofece.mx/wp-content/uploads/2018/06/COFECE-025-2018-English.pdf">https://www.cofece.mx/wp-content/uploads/2018/06/COFECE-025-2018-English.pdf</a> (Press release in English)  <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V256/0/4283181.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V256/0/4283181.pdf</a> (Final resolution in Spanish)	Active	*To define the relevant market **To assess the competitive effect	*To define the geographic relevant market **To support the theory of harm.	*Elzinga Hogarty Test: measures the percentage of consumption not produced locally (LIFO) **Minimum Efficient Scale (MES): Estimate of the MES with an econometric model to prove the exclusionary effect that exclusivity contracts had in the relevant markets.	*The analysis helps to define the markets in specific geographic zones. For oxygen and nitrogen markets, four geographic zones were defined; and for the argon market, two geographic zones were defined. In sum, ten relevant markets were defined. **The MES calculation allowed the Authority to conclude that some firm could not have achieved their MES; a reasonable explanation being the exclusivity contracts that most consumers had with the two main firms. The Authority concluded that exclusivity contracts prevented long-term market access for new firms.	
58	Mexico	Discriminatory practices in the market of access to the provision of public taxi services	Unilateral Conduct	<a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V250/1/4167317.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V250/1/4167317.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	To prove the effect of auction design in a public contracts through tenders	Through game theory, it was possible to infer, theoretically, the result of an auction, and evaluate the pro or anticompetitive effects. The auction in the analysis was a multifactorial auction by score. The Authority built a utility function considering certain variables of the tenders (fee, price, zones, times) and other factors, such as demand and supply functions.	The analysis of the utility function of the auction concluded that a minimum fee (that a player should pay to the airport) did not interfere in the behavior of the fees proposed by the players. The bidders took a rational posture and offered a different fee to the minimum fee solicited by the airport (i.e., the minimum fee did not constitute a binding restriction). Each bidder had a private valuation. The authority evaluated four possible scenarios and concluded that a player's exit from the market as a result of a possible operation inefficiency and not the valuation of the minimum fee.	
59	Mexico	Collusion in the market for air passenger transportation	Cartel	<a href="https://www.cofece.mx/wp-content/uploads/2019/04/COFECE-018-2019-English.pdf">https://www.cofece.mx/wp-content/uploads/2019/04/COFECE-018-2019-English.pdf</a> (Press release in English)  <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V299/0/4790610.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V299/0/4790610.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Theory of harm In the final resolution, it was estimated the economic harm caused by the anti-competitive practice in the air transport market.	Cofece's Investigative Authority analyzed the prices before and after the anticompetitive agreement, with this information, the overprice paid by the air transportations passengers was calculated. The overpricing was multiplied by the total number of passengers who used the routes that were affected by the agreement. Three criteria was applied to select the routes which were considered for the harm estimation: 1. Routes with available information to calculate the price increase. 2. Routes with available information on the total number of passengers flown. 3. Routes with positive overprice.	Based on the data analysis, the Commission determined that the practice produced economic harm of 2,008,689,618 million Mexican pesos, and affected 3.62 million passengers.	

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
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60	Mexico	Collusion in the market of production and commercialization of egg	Cartel	<a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V299/0/4797875.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V299/0/4797875.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct. Identify elements that prove the participation of the investigated companies in an egg price-fixing system.	Cofece's investigative Authority developed a data analysis to identify the participation trends of egg producers (competitors) in a system designed to consult the average egg sales prices by State.	Based on the data analysis, the Investigative Authority identified that after an invitation was sent out by the egg producers association, it was an increase in the number of producers entering the system to upload their egg prices. When the association was informed about the anticompetitive effects of the price system to the egg producers, there was a drop in the number of entries to the system.	
61	Mexico	Collusion in public procurement processes in the market for media monitoring services (IO-006-2015)	Bid Rigging	<a href="https://www.cofece.mx/wp-content/uploads/2018/02/COFECE-05-2018-COFECE.pdf">https://www.cofece.mx/wp-content/uploads/2018/02/COFECE-05-2018-COFECE.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V245/14/4064656.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V245/14/4064656.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct.	Cofece's Investigative Authority developed a data analysis that compared the economic proposals submitted by the competitors in the investigated bidding procedures. Based on this analysis, the Authority obtained the monetary differences of the proposals submitted by each competitor.	As a result of the economic analysis, the Authority identified that the competitors coordinated their quotations (amounts) in the bidding procedures, for the contract to be allocated to the company that had been agreed upon in the cartel.	
62	Mexico	Collusion in the market of production, distribution, and commercialization of corn tortilla in state of Jalisco (DE-009-2016)	Cartel	<a href="https://www.cofece.mx/wp-content/uploads/2018/02/COFECE-051-2017.pdf">https://www.cofece.mx/wp-content/uploads/2018/02/COFECE-051-2017.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V239/0/3979935.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V239/0/3979935.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct.	Cofece's Investigative Authority conducted data analysis to compare the average price per kilogram of corn tortilla in the area where the collusive agreement took effect (ZMG) and the national weighted average price from January 2014 to February 2017. This analysis shows that from 2014 to 2017 the average price of corn tortillas in the ZMG remained stable; however, on February 24th, 2016, three days after the celebration of the anticompetitive agreement, a sharp price increase was observed. It is important to mention that this change was not observed at the national level. Also, it was performed a regression analysis using the ordinary least squares method with robust errors, to estimate the price of a kilogram of corn tortilla as a result of the collusive.	Based on the econometric analysis it was determined that the overprice paid for each kilogram of corn tortilla was 0.22 Mexican pesos. Also, it was estimated that the practice lasted 383 days, therefore, the economic harm was 52 million Mexican pesos.	
63	Mexico	Collusion in tenders for services for laboratory tests and blood banks convened by health public institutions.	Bid Rigging	<a href="https://www.cofece.mx/wp-content/uploads/2020/08/COFECE-031-2020_ENG.pdf">https://www.cofece.mx/wp-content/uploads/2020/08/COFECE-031-2020_ENG.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V332/3/5238535.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V332/3/5238535.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct effects. Identification of collusive patterns that show the existence of conduct in different tenders and the cessation of the conduct. Measure the frequency of communications (telephone, meetings, emails, text messages) between bidders before, during, and after the award of each tender.  Theory of harm The effect of the agreements on the prices of laboratory and blood bank services offered in the tenders.	Based on the data analysis and information contained in the tender documents (bids, reasons for disqualification of bids, prices, abstentions, discounts, allocated areas, etc.) several collusive patterns were identified. Some of those were: abstention and disqualification to respect assigned areas of the competitors, segmentation of tendered zones and their conservation over time; higher frequency of communication between the competitors prior to the award; same prices and/or discounts offered by the competitors; price decreases due to the entrance of new competitors; and, proportional allocations of the tendered items among the competitors.	As a result of the economic analysis, a large number of elements (economic and indirect evidence) were added to the direct evidence to prove the conduct with greater certainty  Based on the information and data analyzed, it was possible to estimate the overcharge resultant from the anticompetitive agreement as well damage to the market	
64	Mexico	Collusion in retail gasoline prices in Tijuana and Mexicali, in Baja California (DE-022-2015)	Cartel	<a href="https://www.cofece.mx/wp-content/uploads/2020/09/COFECE-034-2020_ENG.pdf">https://www.cofece.mx/wp-content/uploads/2020/09/COFECE-034-2020_ENG.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V336/0/5295598.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V336/0/5295598.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct effects. Evidence that proved an anticompetitive agreement among gas stations and how it affected the fuel prices paid by consumers.	(1) Cofece's Investigative Authority developed a data analysis on the prices and discounts of every gas station that was part of the anticompetitive agreement. It was identified that the gas stations that participated in the anti-competitive agreement kept gasoline prices at the maximum price determined by the Government, and after some time these stations applied some coordinated discounts to the gasoline's price. (2) Also, the data analysis contributed to identifying that the gasoline stations agreed not to apply the subsidy to gasoline prices established in the regulation, after the liberalization of the energy sector in Mexico.	As a result of the economic analysis, it was found that some elements, which show that firms established agreements to manipulate the price of gasoline to final consumers by: 1) selling at the maximum price established by the Government, 2) offering coordinated discounts and 3) by not applying the subsidy indicated in the regulation.	

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65	Mexico	Collusion in the pharmaceutical market	Cartel	<a href="https://www.cofece.mx/wp-content/uploads/2019/06/COFECE-033-2019-English.pdf">https://www.cofece.mx/wp-content/uploads/2019/06/COFECE-033-2019-English.pdf</a> (Press release in English of the notification of the statement of probable responsibility)	Active	To assess the competitive effect	Conduct and its effects.	A data analysis was performed to identify the increase of prices in medicine as a result of the exchange of information between competitors.	The Authority identified an increase in prices as a result of the anticompetitive agreement between competitors.	
66	Mexico	Collusion in the market of toothbrushes for adults and infants procured by the health sector (IO-005-2016)	Bid Rigging	<a href="https://www.cofece.mx/wp-content/uploads/2019/07/COFECE-034-2019-Eng.pdf">https://www.cofece.mx/wp-content/uploads/2019/07/COFECE-034-2019-Eng.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V335/0/5295522.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V335/0/5295522.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct	The Investigative Authority developed data analysis considering the prices offered by competitors in different tenders' processes. It identified that competitors established a coordination mechanism to manipulate the prices offered in public tenders. This mechanism allowed them to maintain specific shares in the toothbrushes market for several years.	The anti-competitive arrangement allowed the competitors to maintain their shareholdings during the bidding procedures.	
67	Mexico	Collusion in the secondary market for the intermediation of government debt securities (IO-006-2016)	Bid Rigging	<a href="https://www.cofece.mx/wp-content/uploads/2021/02/COFECE-001-2021_English.pdf">https://www.cofece.mx/wp-content/uploads/2021/02/COFECE-001-2021_English.pdf</a> (Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V341/0/5359601.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V341/0/5359601.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Conduct and its execution. The effect of the arrangements on the rates (prices) of the government securities.	Cofece's Investigative Authority analyzed the chats in which traders agreed to manipulate the rates (prices) that they would charge to buy or sell specific government securities (mainly bonds) and to stop trading them at agreed-upon periods of time. Also, data from the transactions that was part of the arrangements was analyzed to identify (i) whether the conduct was executed, and (ii) the specific government securities that were part of the arrangements.	The data analysis provided evidence of the execution of some of the agreements to manipulate the rates (prices) at which government securities were sold or bought.	
68	Mexico	Collusion in the market of production, distribution, and commercialization of tortilla in the municipality of Palenque, in the state of Chiapas (DE-031-2017)	Cartel	<a href="https://www.competitionpolicyinternational.com/mexico-cofece-sanctions-tortillarias-for-price-manipulation-and-market-segmentation/">https://www.competitionpolicyinternational.com/mexico-cofece-sanctions-tortillarias-for-price-manipulation-and-market-segmentation/</a> (CPI's Press release in English) <a href="https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V308/0/4880101.pdf">https://www.cofece.mx/CFCResoluciones/docs/Asuntos%20Juridicos/V308/0/4880101.pdf</a> (Final resolution in Spanish)	Active	To assess the competitive effect	Theory of harm In the final resolution, it was estimated the economic harm caused by the anticompetitive practice in the market of tortillas.	To estimate the overprice paid as a result of the anticompetitive agreements, it was calculated the difference between the price under collusion and the price under competition. It was multiplied by the number of kilograms of tortillas consumed by population and the duration of the agreement.	Based on economic analysis, the Authority estimated damage of 15.7 million Mexican pesos.	
69	South Africa	The Competition Commission vs Hzpc Holland B.V ("Hzpc") And Western Free State Seed Potato Growers (settlement agreement was reached)v	Unilateral Conduct	<a href="https://www.comptrib.co.za/info-library/case-press-releases/potato-seed-growers-granted-access-to-mondial-seed-potato-varietal-wesgrow-customers-no-longer-restricted-from-saving-seed">https://www.comptrib.co.za/info-library/case-press-releases/potato-seed-growers-granted-access-to-mondial-seed-potato-varietal-wesgrow-customers-no-longer-restricted-from-saving-seed</a>  15/01/2020	Active	To define the relevant market	Market Definition	Product market: upstream Demand Side: The Commission used the SNNIP test to investigate whether farmers were likely to switch from Mondial to other potatoes variants to increase by 5-10%. Product's Characteristics Supply Side: From a supply-side perspective, the Commission used a SNNIP test to assess whether would the potato seed grower planting open potato varieties switch if the price of Mondial was to increase 5-10%.	Product market: upstream Demand Side: The evidence of the SNNIP test established that farmers were unlikely to switch to other open variety seeds if the price of Mondial variety seeds was to increase by 5-10%. Product's Characteristics The Commission found that Mondial has distinct characteristics from other open varieties.  From a demand-side perspective, Mondial variety and open varieties are in separate markets Supply Side: The evidence found that the potato seed growers planting open potato varieties would like to switch to produce Mondial, however, they were not able to switch because of the alleged conduct. The Commission concluded that there is no supply substitutability between Mondial and other potato varieties.	
70	South Africa	Babelegi Workwear and Industrial Supplies CC V Competition Commission	Unilateral Conduct	<a href="http://www.compcem.co.za/wp-content/uploads/2020/11/COMPETITION-APPEAL-COURT-CONFIRMS-FACE-MASKS-SUPPLIER-GUILTY-OF-EXCESSIVE-PRICING.pdf">http://www.compcem.co.za/wp-content/uploads/2020/11/COMPETITION-APPEAL-COURT-CONFIRMS-FACE-MASKS-SUPPLIER-GUILTY-OF-EXCESSIVE-PRICING.pdf</a>  18/11/2020	Active	To define the relevant market To assess market power/dominant position	Establish market definition and market power in a crisis	The Commission did not use the SNNIP test. However, the Commission argues that the Covid-19 pandemic has conferred upon Babelegi and Dischem had temporary market power, which has allowed it to exploit consumers and customers, by charging an excessive price for masks.	The Competition Appeal Court (CAC) found that Babelegi, during the complaint period, did not have an increase in costs. It, therefore, concluded that Babelegi was in a position of a "lucky monopolist", having the "power to control its prices and not be concerned that a countervailing power of a competitor..."	

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71	South Africa	Competition Commission And Dis-Chem Pharmacies Ltd Case number: CR008Apr20	Unilateral Conduct	<a href="https://www.compcom.co.za/wp-content/uploads/2020/07/COMPETITION-TRIBUNAL-FINDS-DISCHEM-GUILTY-OF-INFLATING-MASK-PRICES-DURING-COVID-19-DISASTER.pdf">https://www.compcom.co.za/wp-content/uploads/2020/07/COMPETITION-TRIBUNAL-FINDS-DISCHEM-GUILTY-OF-INFLATING-MASK-PRICES-DURING-COVID-19-DISASTER.pdf</a>  7/07/20201	Active	To assess the competitive effect	Excessive price in times of emergency (price gouging)	The Commission investigation established that Babelegi charge the average mark-up for masks in excess of 500%, and its price increases were as high as 987% over the period of 31 January to March 2020. While Dis-chem was found to have charge average mark-ups on three categories of facemask were 261%, 43%, and 25%. Because of the higher mark-up, the Commission alleged that Babelegi and Dischem's conduct amounted to excessive pricing in contravention.	Price gouging is a species of excessive pricing. The Competition Appeal Court acknowledged as such where its stated (at para 2): In a number of jurisdictions, price gouging laws were specifically introduced to prevent excessive pricing and profiteering during a state of emergency such as that caused by the COVID-19 pandemic.	
72	South Africa	Computicket (Pty) Ltd and The Competition Commission Of South Africa Case Number: 170/CAC/Feb19	Unilateral Conduct	<a href="http://www.compcom.co.za/wp-content/uploads/2019/11/COMPETITION-APPEAL-COURT-DISMISSES-COMPUTICKETS-APPEAL_.pdf">http://www.compcom.co.za/wp-content/uploads/2019/11/COMPETITION-APPEAL-COURT-DISMISSES-COMPUTICKETS-APPEAL_.pdf</a> 23/10/ 2019	Active	To assess the competitive effect	Effects-based approach	The economic test for effect-based approach, assess both actual and likely effects on consumers The economic test (i) actual harm to consumer; or (ii) foreclosure Evidence of actual effects The Commission's used Computicket's nominal pricing. The Commission showed that Computicket price increased from 2003 to 2010 from 33% to 100% depending on the ticket prices. No entry / weak entry in the market.	The Tribunal found that Computicket's exclusive agreement with inventory providers was substantial or significant in terms of its foreclosure effects during the period 2005 to 2010 However, the nominal pricing approach was criticized (increased would have been lower had the Commission controlled for inflation in its pricing data ( i.e. real price).	
73	South Africa	Competition Commission and Media 24 Limited	Unilateral Conduct	<a href="https://www.concourt.org.za/index.php/judgement/326-competition-commission-of-south-africa-v-media-24-pty-limited-cct90-18-03-july-2017">https://www.concourt.org.za/index.php/judgement/326-competition-commission-of-south-africa-v-media-24-pty-limited-cct90-18-03-july-2017</a> <a href="https://www.compcom.co.za/wp-content/uploads/2016/01/Commission-cross-appeals-media24-judgment_27-Oct16_Final.pdf">https://www.compcom.co.za/wp-content/uploads/2016/01/Commission-cross-appeals-media24-judgment_27-Oct16_Final.pdf</a> <a href="https://www.comptrib.co.za/case-detail/573203/07/2019">https://www.comptrib.co.za/case-detail/573203/07/2019</a>	Active	To assess the competitive effect	To prove predatory pricing has occurred	The Competition Appeal Court applied William Baumol's approach to predatory pricing[1]	The appropriate cost benchmark for a case of predatory pricing is average avoidable cost ("AAC") under section 8 (c) of the Competition Act[2]	[1] 'Predation and the logic of the average variable cost test' 1996 (39) Journal of the Law and Economics [2] This judgment was confirmed by the Constitutional Court of South Africa
74	South Africa	Competition Commission v Blurock Quarries (Pty) Ltd ("Blurock") and Procon Precast CC ("Procon")	Unilateral Conduct	<a href="https://www.comptrib.co.za/case-detail/8121-(consent-order)-23/03/2018">https://www.comptrib.co.za/case-detail/8121-(consent-order)-23/03/2018</a>	Active	To define the relevant market	To define the product market	The SSNIP test was applied (using price differences) to assess the degree of substitutability between crusher dust and the other possible aggregates in the manufacture of blocks	Crusher dust was found to belong to a distinct market	
75	South Africa	Sasol Chemical Industries Limited v Competition Commission (131/CAC/Jun14) [2015] ZACAC 4; 2015 (5) SA 471 (CAC) (17 June 2015)	Unilateral Conduct	<a href="https://www.saflii.org/za/cases/ZACAC/2015/4.pdf">https://www.saflii.org/za/cases/ZACAC/2015/4.pdf</a> 17/06/2015	Active	To assess the competitive effect	Excessive pricing	Up until 2018, an excessive price was a price which bears no reasonable relation to economic value. The Commission found that Sasol' price of propylene and polypropylene was excessive. The Commission argued that Sasol had special advantage which allows it to sell chemical subsidiary to its subsidiary at a very low price. (used "The internal transfer prices).	CAC decided that the Commission cannot use "internal transfer price" According to CAC where a firm raises the normal price of a product significantly without any corresponding increase in input costs, the CAC suggests this may suggest a prima facie case that the new price is higher than economic value, without having to determine the value precisely.[3] The assessment of economic value should not consider special advantages particular to the firm CAC decided that a proxy for economic value is the firms' actual economic costs (production costs plus a reasonable return) as benchmark. If the price charge for a product exceeds the "economic value" then the assessment shift to whether the price charge is reasonably related to the "economic value". CAC indicated that where price charged is not more than 20% of the economic value the price will not be considered "unreasonable". Reasonableness test was not defined as it depends on the facts of the case. Other assessment for economic value includes · price comparators test · price-cost analysis · profitability	[3] CAC case no. 70/CAC/Apr07, par. 50



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76	South Africa	Competition Commission and Uniplate Group (Pty) Ltd	Unilateral Conduct	<a href="https://www.compcom.co.za/wp-content/uploads/2015/01/Competition-Commission-refers-abuse-of-dominance-complaints-against-Uniplate.pdf">https://www.compcom.co.za/wp-content/uploads/2015/01/Competition-Commission-refers-abuse-of-dominance-complaints-against-Uniplate.pdf</a> 2015/11/30 <a href="https://www.comptrib.co.za/case-detail/6838">https://www.comptrib.co.za/case-detail/6838</a> 2019/6/27	Active	To assess the competitive effect	To demonstrate the anti-competitive effects of exclusive dealing	The characteristics of the South African market for number plates, and of Uniplate's conduct within this market, fit the benchmark model of exclusive dealing.	Competitors of Uniplate in the manufacture of number plate blanks have been foreclosed or unable to gain access to a significant number of embossers	
77	Spain	S/0354/11 Oracle	Unilateral Conduct	<a href="https://www.cnmc.es/expedientes/s035411">https://www.cnmc.es/expedientes/s035411</a>	Active	*To define the relevant market **To assess market power/dominant position	*Define the relevant market. **Assessment of the dominant position in the relevant market.	*We defined the relevant market by looking at the demand and supply-side substitutability. **We analyzed the market share of the main companies in the relevant market and the barriers to entry and expand. As barriers to entry and expand we analyzed the high fixed costs, the scale economies, the network effects and the role of reputation.	*Definition of the relevant market. **The company did not have a dominant position on the relevant market.	
78	Spain	S/0011/19 Transporte cántabro de viajeros	Bid Rigging	<a href="https://www.cnmc.es/expedientes/s001119">https://www.cnmc.es/expedientes/s001119</a>	Active	To assess the competitive effect	To assess the effect of the conduct.	To analyze whether the cartel had an impact on the market. We analyzed the number of offers included in the different tenders and the discount offered in each of them.	The infringement had an important impact on the relevant market as the efficiency of the public funds was undermined.	
79	Spain	S/0519/14 Infraestructuras ferroviarias	Bid Rigging	<a href="https://www.cnmc.es/expedientes/sdc051914">https://www.cnmc.es/expedientes/sdc051914</a>	Passive	To assess the justification	Replay the economic reports prepared by one of the companies whose aim was to analyze whether the company could go alone to a public tender and whether the conduct had any effect in the market.	The economic report analyzed the company's economic and productive capacity to understand whether the company could make an individual offer in a number of tenders. Moreover, to assess the effect of the conduct the economic report analyzed the bargaining power of the company and the discount offered on the public tenders, as well as the estimation of the profits obtained due to the conduct.	The information provided in the economic report and its arguments were not enough to prove that the CNMC's decision was not correct.	
80	Spain	S/DC/0557/15 Nokia	Unilateral Conduct	<a href="https://www.cnmc.es/expedientes/sdc055715">https://www.cnmc.es/expedientes/sdc055715</a>	Active	To assess market power/dominant position	Help in the assessment of the abuse of dominant position.	Assess whether the firm had engaged in margin squeeze by analyzing the accounting data provided by the company.	The CNMC sanctioned the dominant company for abusing its dominant position by engaging in margin squeeze.	
81	Spain	S/DC/0562/15 Cables BT/MT	Bid Rigging	<a href="https://www.cnmc.es/expedientes/sdc056215">https://www.cnmc.es/expedientes/sdc056215</a>	Passive	To assess the justification	Replay the economic reports prepared by the infringing companies.	The economic reports analyzed the prices, the discounts and the net prices of the company to prove their innocence. They did also analyze the effects of the agreements included in the SoO.	In general, the authority considered that their arguments were not enough to prove that there was no infringement.	
82	Spain	S/DC/0565/15 Licitaciones aplicaciones informáticas	Bid Rigging	<a href="https://www.cnmc.es/expedientes/sdc056515">https://www.cnmc.es/expedientes/sdc056515</a>	Passive	To assess the justification	Replay the economic reports prepared by the infringing companies.	The economic reports provided arguments on the reason why various companies had to go together in the public tenders affected by the infringement. Moreover, they analyzed the effects of the conduct by analyzing the number of offers in each public tender and the discounts offered by the companies. They did also analyze the different prices and margins of the companies. Finally, the economic reports challenged the market definition and market shares included on the SoO.	In general, the authority considered that their arguments were not enough to prove that there was no infringement.	
83	Spain	S/DC/0590/16 SGAE vs. DAMA	Unilateral Conduct	<a href="https://www.cnmc.es/expedientes/sdc059016">https://www.cnmc.es/expedientes/sdc059016</a>	Passive	To assess the justification	Replay the economic reports prepared by the infringing companies.	The economic report tried to prove the necessity to manage all the intellectual property rights of their members in order to manage efficiently the protection of those rights, they did so by explaining their management model and the impact of not having the all the intellectual property rights of the authors.	In general, their arguments were not enough to prove the necessity of granting all the property rights to a unique property right management entity.	

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84	Spain	S/DC/0598/16 Electrificación y electromecánica ferroviaria	Bid Rigging	<a href="https://www.cnmc.es/expedientes/sdc059816">https://www.cnmc.es/expedientes/sdc059816</a>	Passive	To assess the justification	Replay the economic reports prepared by the infringing companies.	The economic reports argued that the sanctioned conduct didn't have effects in the market as the behavior of the companies had been competitive as competitive as in other periods and there were no barriers to entry. Moreover, the companies considered that they didn't have the capacity to show alone to the public tenders. Finally, the economic reports challenged the definition of the relevant market and the market share of the companies.	In general, their arguments were not enough to prove the lack of effects nor the definition of the relevant market.	
85	Spain	S/DC/067/17 Tabacos	Cartel	<a href="https://www.cnmc.es/expedientes/sdc060717">https://www.cnmc.es/expedientes/sdc060717</a>	*Passive **Active	*To assess the justification **To assess the competitive effect	*Replay the economic reports prepared by the infringing companies. **Help with the theory of harm.	*The companies provided various economic reports in which they challenged several features of the case: the use of the exchanged information, whether the used counterfactual was correct, the parallelism of prices, the elasticity of the demand, the effect of new products in the market, stability of income and other market characteristics.  **Several companies in the market were exchanging confidential and sensitive information, the Chief Economist team help the investigation team to evaluate the effects of the exchanges so as to elaborate the appropriate theory of harm.	*The economic reports did not provide enough data nor appropriate arguments so as to prove their innocence. **The CNMC sanctioned the companies for exchanging relevant information regarding the Spanish cigarette market.	
86	Spain	S/DC/0617/17 Atresmedia/ Mediaset	Unilateral Conduct	<a href="https://www.cnmc.es/expedientes/sdc061717">https://www.cnmc.es/expedientes/sdc061717</a>	*Passive **Active	*To assess the justification **To assess the competitive effect	*Replay the economic reports prepared by the infringing companies. **Assess the effects of the conduct.	*The first company challenged the definition of the relevant market, the vertical restrictions of the market and the exclusionary evidence included in the SoO. They did also analyze whether the selling system could have exclusionary effects and the impact of the conduct. The second economic report analyzed the competitive behavior of the companies, the effect of the conduct, the incorrect analysis of the effects done in the SoO and highlighted the efficiency of the company's conduct. **The power ratios of the different TV channels were compared in order to assess the effect of the infringement in the market.	*The reports were not enough to prove the lack of effects in the market. **Due to the sanctioned conducts the companies were able to increase the advertisement in the less attractive channels, causing difficulties to independent TV companies to grow.	
87	Spain	S/DC/0626/18 Radares meteorológicos	Unilateral Conduct	<a href="https://www.cnmc.es/expedientes/s062618">https://www.cnmc.es/expedientes/s062618</a>	Passive	To assess the justification	Replay the economic reports prepared by the infringing companies.	The economic report argued that the agreement was not anti-competitive due to the competitive advantages of one of them. They did also analyze the sunk costs of the projects involved in the case and the lack of impact of the conduct as one of the members of the union of the companies was not a relevant company in the market.	In general, their arguments were not enough to prove that the infringement had no effect.	
88	Taiwan	Five Domestic Premixed Concrete Suppliers Violated the Fair Trade Act by Engaging in Price Fixing	Cartel	<a href="https://www.ftc.gov.tw/upload/1080904-2.pdf">https://www.ftc.gov.tw/upload/1080904-2.pdf</a> (Chinese version) <a href="https://www.apecp.org.tw/htdocs/doc/Taipei/Announce/ftnews088.pdf">https://www.apecp.org.tw/htdocs/doc/Taipei/Announce/ftnews088.pdf</a> (English version)	Active	To assess the justification	Analyzing whether the case-related parties involve a cartel in the price increase of premixed concrete	Reviewing various factors, such as market condition, characteristics of the good or service, cost and profit considerations, and economic rationalization of the business conducts, to identify whether the price increase behavior claimed by the case-related parties had economic justification.	The business activity of the 5 domestic premixed concrete suppliers had no economic justification. Reasons include: 1. The 5 companies in question claimed that the increase in prices for premixed concrete reflected increased costs. However, the price increases which reflected their costs should have been different due to the amounts of the increases in cost and connotations not being the same for each company. In addition, not only did the price rise exceed their increases in cost, but the 5 companies also issued notices within a short time frame for a price increase of similar amounts beginning on the same date, showing consistency in appearance. It is not possible to interpret these acts as being independent business activities 2. The 5 companies in question have large scale operations with the advantage of vertical integration in production, but the degree and amount of their price increases for premixed concrete was more than twice that for smaller operators in identical markets, signaling abnormal behavior. 3. The amount of the increase in the price of gravel and the raw material used by the 5 companies, was not yet confirmed, but the companies still released an increase for the price of premixed concrete. In addition, the collective announcement of a change in price allowed mutual monitoring and was able to promote a consensus as well as coordinated actions.	

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
						Classification	The agency' answer to the questionnaire			
89	UK	Hydrocortisone tablets: alleged excessive and unfair pricing, anti-competitive agreements and abusive conduct (50277)	Unilateral Conduct	CMA finds drug companies overcharged NHS - GOV.UK (www.gov.uk) (https://www.gov.uk/government/news/cma-finds-drug-companies-overcharged-nhs)	Active	To define the relevant market To assess market power/dominant position	To define relevant market and to assess Aude Mckenzie's and Actavis UK's dominance for the excessive and unfair pricing abuse.	Not available – the content and results of the economic analysis are not yet publicly available. Public version being prepared	Not available – the content and results of the economic analysis are not yet publicly available. Public version being prepared.	
90	UK	Paroxetine investigation: anti-competitive agreements and conduct	Unilateral Conduct	Press notice: CMA fines pharma companies £45 million - GOV.UK (www.gov.uk) (https://www.gov.uk/government/news/cma-fines-pharma-companies-45-million) Infringement Decision: Paroxetine decision (publishing.service.gov.uk) (https://assets.publishing.service.gov.uk/media/57aaf65be5274a0f6c000054/ce9531-11-paroxetine-decision_.pdf)	Active	To define the relevant market To assess market power/dominant position To assess the competitive effect	<ul style="list-style-type: none"> <li>To define relevant market and to assess GSK's dominance.</li> <li>Applying theory of harm in 'pay-for-delay' to the case.</li> <li>Effects analysis assessing impact of the Agreements on competitive constraints faced by GSK.</li> </ul>	<ul style="list-style-type: none"> <li>Market definition, reviewing whether paroxetine and other SSRIs (antidepressant medicines) were substitutes for one another: qualitative analysis based on characteristics, prescribing guidelines and internal documents, and quantitative natural events analysis observing the impact of generic entry of paroxetine.</li> <li>Dominance: analysis considered market shares, pricing behavior and financial performance, barriers to entry and expansion, and buyer power.</li> <li>Economic analysis sets out the theory of harm in 'pay-for-delay' and its application to the case.</li> <li>Effects analysis -assesses the likely competitive constraints GSK faced as a result of the Agreements, and in the counterfactual.</li> </ul>	<ul style="list-style-type: none"> <li>Market definition: concluded that the relevant market is no wider than the supply of paroxetine in the UK (see Decision section 4D).</li> <li>Dominance: concluded that GSK held a dominance position within the UK paroxetine market at least between January 1998 and November 2003 (see Decision section 4E).</li> <li>Applying theory of harm (see paragraphs 6.1-6.10).</li> <li>Effects analysis: concluded that the likely effect of the Agreements was to restrict competition (see Decision section 7).</li> </ul>	
91	UK	Liothyronine tablets: investigation - anti-competitive conduct	Unilateral Conduct	CMA fines pharma firm over pricing of crucial thyroid drug (https://www.gov.uk/government/news/cma-fines-pharma-firm-over-pricing-of-crucial-thyroid-drug)	Active	To define the relevant market To assess market power/dominant position To assess the competitive effect	Quantitative analysis used to define relevant market and to assess dominance. Also consideration of arguments relating to the significance of models/evidence presented in relation to the assessment of excessive/unfair pricing.	Not available – the content and results of the economic analysis are not yet publicly available. Public version being prepared.	Not available – the content and results of the economic analysis are not yet publicly available. Public version being prepared.	
92	UK	BGL Holdings (and others)	Unilateral Conduct	Price comparison website: use of most favoured nation clauses - GOV.UK (www.gov.uk) (https://www.gov.uk/cma-cases/price-comparison-website-use-of-most-favoured-nation-clauses) Note press release does not contain outline of economic analysis so have provided link to case page which has the Decision which contains the economic analysis	Active/Passive	To define the relevant market To assess the competitive effect	To define the market and assess the effects of the agreements on competition	Excluding routine economic analyses such as application of SSNIP test to define the relevant market, calculation of market shares and assessing the nature of competition the following economic analysis were undertaken: 1. Consumer behavior analysis as part of market definition and to assess the effects on competition 2. An analysis of the impact on prices of promotional deals to assess the effects on competition  Note Decision also contains assessment of various economic analyses undertaken by the party to the investigation including pricing analysis, econometric analyses and a theoretical model	1. Consumer behavior analysis supported the CMA's finding that direct sales and renewal sales not in the same market as sales through price comparison websites. Promotional deals analysis found that promotional deals reduced insurers' prices and improved their rankings on price comparison websites. This supported the CMA's findings that reducing the ability and the incentives of insurers and price comparison websites to engage in promotional deals reduced price competition between insurers and between price comparison websites.	
93	UK	Remicade: alleged abusive discount scheme	Unilateral Conduct	Case page (https://www.gov.uk/cma-cases/pharmaceutical-sector-alleged-discounts-offered-on-a-product) No grounds for action decision (https://assets.publishing.service.gov.uk/media/5c8a353bed915d5c071e1588/Remicade_No_Grounds_For_Action_decision_PDF_A.pdf)	Active	To define the relevant market To assess market power/dominant position To assess the competitive effect	<ul style="list-style-type: none"> <li>To define relevant market and to assess MSD's dominance.</li> <li>To assess whether MSD's conduct was likely to have an effect on competition and was therefore an abuse of a dominant position.</li> </ul>	<ul style="list-style-type: none"> <li>Market definition: reviewing whether Remicade and biosimilar versions of infliximab were substitutes and whether infliximab and other TNF alpha inhibitors were substitutes (whether the relevant market was wider than infliximab). Qualitative analysis based on therapeutic substitutability, product characteristics, mode of administration of the drug and patient and clinician preferences (see section 3.A.II.a of the decision).</li> <li>Dominance: reviewing whether MSD was able to act independently of customers and competitors. Economic analysis based on whether clinical caution acted as a barrier to entry and expansion, MSD's volume and value market shares, and whether there was countervailing buyer power (see section 3.B.II of the decision).</li> <li>Abuse: reviewing whether MSD's discount scheme was likely to produce an exclusionary effect. Economic analysis based on the financial incentives created by MSD's discount scheme and customer attitudes and reactions to using biosimilars (see section 4 of the decision).</li> </ul>	<ul style="list-style-type: none"> <li>Market definition: proceeded on the basis that the market was for the supply of infliximab in England, including both Remicade and biosimilar versions of infliximab (see section 3.A.II of the decision).</li> <li>Dominance: proceeded on the basis that MSD held a dominant position in the relevant market (see section 3.B.II of the decision).</li> </ul> <p>Abuse: MSD's discount scheme was designed to have an exclusionary effect but a number of MSD's assumptions were incorrect and the financial incentive created by MSD's discount scheme was less than how it was designed such that the discount scheme was not likely to produce an exclusionary effect (see section 4 of the decision).</p>	

No.	Country/ Region	Name of Case	Type of Anticompetitive Conducts	URL (as of July 2021) of the Case	Active/Passive	Purpose of the economic analysis		Summary of the economic analysis	Results of the economic analysis	Remarks
						Classification	The agency' answer to the questionnaire			
94	UK	Case 50455 Anti-competitive agreement with respect to fludrocortisone acetate 0.1 mg tablets	Unilateral Conduct	Non-confidential infringement decision: ( <a href="https://www.gov.uk/cma-cases/pharmaceutical-drugs-suspected-anti-competitive-agreements-and-conduct#non-confidential-infringement-decision">https://www.gov.uk/cma-cases/pharmaceutical-drugs-suspected-anti-competitive-agreements-and-conduct#non-confidential-infringement-decision</a> ) Press release announcing infringement decision (no mention of economic analysis): CMA levies fines of £2.3m and secures £8m for NHS in pharma probe - GOV.UK ( <a href="http://www.gov.uk">www.gov.uk</a> ) ( <a href="https://www.gov.uk/government/news/cma-levies-fines-of-23m-and-secures-8m-for-nhs-in-pharma-probe">https://www.gov.uk/government/news/cma-levies-fines-of-23m-and-secures-8m-for-nhs-in-pharma-probe</a> )	Active	1. To define the relevant market 2. To assess market power/dominant position 3. To assess the competitive effect	1. Market definition. 2. Assessment of market power. 3. Effects analysis.	1. Established the closest substitutes to the product that was the focus of the investigation ('Focal Product') followed by determining the scope of products or services that are interchangeable with the Focal Product. Took into account regulation of medicine supply; therapeutic use; pricing; and demand-side considerations. 2. Took into account market share; pricing behavior and financial performance; constraint arising from the risk of potential competition; barriers to entry and expansion; and countervailing buyer power. 3. Considered actual and likely effects of the agreement on the structure of the market compared to the counterfactual; actual effects of the agreement on price; and actual developments observed in the relevant market.	1. Found that the relevant market is the supply of Fludrocortisone Acetate Tablets in the UK, comprising both versions that have been authorized for supply for human use in the UK. 2. Found that the supplier of the relevant products held significant market power throughout the period of the agreement. 3. Found that the agreement affected (or was likely to affect) actual or potential competition to such an extent that, on the relevant market, negative effects on prices, output, innovation or the variety or quality of goods and services can be expected with a reasonable degree of probability.	