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PRIVATE VS PUBLIC ANTITRUST ENFORCEMENT: EVIDENCE FROM CHILE

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Private vs Public Antitrust Enforcement: Evidence from Chile.

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Abstract

This article measures the impact of the agency responsible for enforcing competition law, in the outcome of antitrust trials in Chile. Using statistics on lawsuits since the inception of the new Competition Tribunal in 2004, we find that the involvement of the public agency increases the probability of obtaining a guilty verdict in an antitrust lawsuit by 40 percentage points. Conditional to the issuance of a verdict, the participation of the prosecutor raises the likelihood of a conviction by 38 percentage points. The results are robust to possible selection bias by the public agency. The prosecutor is inclined to takes part in cases involving sensitive markets and in accusations of collusion. The State-related character of the accused entity, in addition to its size, does not affect the probability of intervention by the prosecutor in a lawsuit.

Keywords: *Antitrust, Public Enforcement, Private Enforcement, Litigation*
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1. Introduction

One of the most debated issues in the execution of competition law is the importance public enforcement must have in relation to private enforcement. In the United States, private parties originate the large majority of legal actions in competition cases, while in Europe enforcement is mainly public. In Chile, the competition system, designed based on a legal format, allows the public agency as well as private entities, to initiate lawsuits against competition infringements.

Our article seeks to measure the impact of the public agency responsible for safeguarding competition in Chile. The Chilean institutional system, given its adversarial format, offers propitious conditions to conduct comparisons in effectiveness between public and private actions in antitrust cases. Sanctions against companies for anticompetitive conducts, as well as prohibitions or obligations imposed on them, must be resolved through trial. Legal proceedings can be initiated either by the public prosecutor in antitrust—*Fiscalía Nacional Económica* (FNE)— or by individuals or firms affected by the actions of third parties. The judicial body that resolves these disputes is a Tribunal specializing in antitrust law, which has no administrative relation whatsoever with the prosecuting entity. Besides the investigative powers conferred to it by law, the FNE does not possess procedural advantages in cases brought before the Tribunal with respect to private parties.

Using statistics on lawsuits filed before the Competition Tribunal -*Tribunal de Defensa de Libre Competencia* (TDLC)- since its inception in 2004 until 2012, we compared the outcome of cases where the FNE participated versus those where it did not. If a lawsuit is filed solely by private parties, the probability of a conviction is 16%. If the prosecutor initiates the lawsuit, or is party thereto, the probability increases to 56%. Considering only those cases where a decision was issued, lawsuits filed by private parties obtain 27% of convictions, versus 64% obtained by the public agency.

The results obtained are not attributable to the selection bias of cases on the part of the FNE. By using instrumental variables to control for self-selection, the probability of a conviction, when the FNE is part in a trial, is even increased

Our estimations support the hypothesis of superiority of public enforcement over private enforcement. According to the explanations provided by the theory, the better results of public enforcement may reside in the superior expertise of the public agency concerning the application of competition principles. This would allow the prosecutor to better defend its cases before the Tribunal. Another possible reason is the strategic use of the cases by private parties—parties may use the case to not only obtain a favorable result. With the information provided, it is not possible to conclude what is the prevailing cause behind this greater effectiveness of public action.

Regarding those factors that influence the FNE's participation in a case, data shows that the prosecutor is most likely to initiate legal actions when the accusation concerns collusion, the affected market is considered "sensitive", and the accused party is not a company listed on the stock exchange. This last variable can be considered as a proxy of the size of the accused company.

The State-related character of the accused party—state owned company, public agency, ministry or municipality—does not influence the FNE's decision of becoming party to a case. As such, we can rule out a capture bias that inhibits the public agency from acting against other entities that are also State-related.

The political implications garnered from the results point toward the strengthening of the public system of prosecution, and not to the instigation of private antitrust litigation, as a better mean to accomplish greater effectiveness from the system for protecting competition in Chile.

The article is structured in the following manner: Chapter 2 covers a review of literature on the comparison between public and private enforcement in antitrust law. The chapter's emphasis is placed on summarizing the different theories that

explain the relative advantages of one type of enforcement over the other. Chapter 3 describes the competition system in Chile in relation to the legal procedure for lawsuits. Chapter 4 describes the data and provides an analysis of factors influencing the probability of the prosecutor's involvement in a case. Chapter 5 considers the impact of the FNE´s participation in a case on the likelihood the accused company will be declared guilty. Chapter 6 presents the conclusions.

2. Theories on Public and Private Enforcement

According to literature, the first difference between public and private enforcement is motive. On antitrust, a company will not only file a lawsuit to halt anticompetitive behavior of which it is a victim, but to also obtain damages for the harm suffered. A public agency will act when it considers that the case constitutes a sufficiently grave violation to competition law. The objectives of private benefit and social welfare, sought respectively by each party, are not always congruent.[3] The differences between them are both in nature and in intensity. In this respect, the possibility of obtaining compensation over the damage suffered, as in the case of treble damages in the United States, is a powerful mechanism for encouraging private enforcement in competition.

The divergence between the objectives of both types of enforcement is manifest if we focus on the dissuasive purpose of the sanctions. A company that has been victim of an anticompetitive action, and whose losses are irrecoverable, would wish to enter into proceedings only if it could obtain compensation for the harm suffered. On the other hand, a public agency will pursue the case given the demonstrative effect of the sanction on anticompetitive actions, and its future dissuasive impact. As pointed out by Segal and Whinston (2005), public enforcement, by focusing more on dissuasion, is forward-looking and, therefore, has a greater commitment to initiate proceedings, including in those cases where competitive damage is irreversible. It is noteworthy that companies also wish to

[3] See Shavell (1997) for an analysis of the divergence between private and social incentive to litigate.

act as forward-looking, by building a reputation of demonstrating an aggressive reaction if they are victims of an anticompetitive act. Notwithstanding, it is likely for the reputation effect to be stronger in public agencies than in companies. To dissuade similar practices in all industries is part of the objective function of the public agency, whereas a company will solely concern itself with preventing actions against it.

Information is another relevant dimension in the comparison between both types of enforcement. Broadly speaking, information means knowledge about the occurrence of anti-competitive actions, the evidence to support the case and the techniques required to assess whether or not the actions are anticompetitive. The literature recognizes that companies, by being players in the market, are better placed to detect anticompetitive practices that affect them. A public agency, that by default supervise all industries, cannot match the ability of firms to identify the competition offenses and should, in most of cases, count with the signals provided by the latter.

On the other hand, public agencies are better equipped to discern whether or not an action is harmful to competition. The assessment of an antitrust violation requires the application of complex economic and legal concepts. According to Segal and Whinston (2006) that knowledge, more scientific than factual, might be better dominated by specialized agencies than by private companies. The specific knowledge will be more relevant on practices subject to the rule of reason than in those actions that are illegal per se. In the former, besides the circumstances of the case, we must assess whether the reported action is harmful to competition, while in per se prohibitions it suffices only to provide the evidence of the case.

The advantage on information about facts and evidence that companies may have over the public agency does not imply that the latter has no its own capacity of investigation. Not always the parties involved in a dispute, voluntarily reveal useful information to judge the case. In an investigation of collusion, the key problem is precisely to have material evidence that demonstrates the occurrence of the agreement between competing firms. A mechanism that induces the firms

involved in a cartel to reveal information is the leniency program. However, a good part of the sanctions for collusion, the evidence is obtained by inspections performed by competition agencies on the premises of accused firms

One of the main risks of private enforcement is the strategic use of lawsuits by companies. The objectives behind the strategic use of law may vary. They pursue to exclude competitors, extract rents or to induce collaborative behavior from them. [4]

The abusive use of litigation as a strategic tool is feasible because, first trials are expensive and second by the possibility of errors of courts when solving the cases. For a defendant, the cost of going to a trial involves not only the expenditures on legal fees, but also the damages for image before consumers or authorities. For instance, a firm that is in process of merging and requires the approval of the authority will not want to have a pending antitrust trial against it. Notice that damages multipliers may exacerbate the strategic use of antitrust law. Although damages amplification is useful to deter anticompetitive conduct, in return it encourages the abusive use of antitrust trials against rivals

McAfee et al (2006) develop a model that compares the two types of enforcement. They exploit the inherent trade-off on private enforcement, between better factual information about anticompetitive actions and the strategic use of antitrust law. The authors find that if the courts resolve with a low level of error, only legitimate suits will be submitted and the conjunction of private and public enforcement provides the superior solution. On the opposite, if the level of accuracy of courts is low, private litigation will add value only if the cost of public enforcement is sufficiently high.

The superiority of public over private enforcement may not be valid due to budget constraints and agency problems. Public agencies usually count with limited

[4] McAfee and Vakkur (2004) identify seven potential strategic uses of antitrust laws. These are: (i) Obtain rents form a successful rival, (ii) change the terms of a contract, (iii) punish uncooperative behavior, (iv) respond to an existing demand, (v) avoid a hostile takeover, (vi) prevent the entry of a rival and (vii) avoid aggressive competition from a company.

resources to accomplish their enforcement task. Litigation is costly as it involves time of the qualified staff of the agency and also it requires the hiring of external studies or consultants. Thus, it is not always possible to prosecute on all causes that worth to do it.

Agency problem is defined as the divergence between the action undertaken by the public agency and the objectives set for it by law. The incongruity between mission and action is caused by the asymmetry of information between the agency and the entities that should monitor its function. Such a problem may lead the authorities of the agency to align their goals with those of the regulated industry or with groups or audiences with a stake in the actions of the enforcement agency. This phenomenon is known as regulatory capture, which is an inherent feebleness of the agencies in charge of supervising industries.

Regulatory capture can be displayed in different ways. The agency may omit to enforce the law in cases where is in the public interest to do so, or it may undertake actions in cases with no competitive risk. Depending on the type of anticompetitive offense, private action can offset both types of biases induced by the non-benevolent behavior of the agency.

We must mention that the capture of an antitrust agency from the supervisees is less likely to occur with respect to agencies that regulate a specific industry. Recall that one explanation of the capture is the phenomenon of the revolving door. Given its generalist nature, antitrust agencies by default oversee all market and therefore the future employment opportunities of its top officials are not tied to a particular industry.

Agency problem is also manifested by the distortions introduced into the authorities' decisions, regarding the allocation of resources between the various tasks that the institution is run. As noted by Tirole (1988) bureaucracies, by the type of functions they perform and the absence of benchmarks, present imperfections for measuring the performance of its authorities.

So, when deciding on which cases to take enforcement actions, the agency may prefer those that are easier to win on courts, instead of focusing on cases that are more harmful to competition. By this biased selection of cases, authorities are able to signal their ability to litigate before those who assess their performance or to the supervised industry. Another possible bias to occur is that the agency pursues cases having a greater public impact in terms of the nature of the involved market or the magnitude of consumers affected, regardless of the merits of the case itself.

Type of anti-competitive violation

The relative advantage of the public enforcement respect to the private one may also depend on the type of competitive offense we are analyzing. Anticompetitive acts that hurt multiple entities –firms or individuals- create externalities in the legal action taken by plaintiffs, which in turn may result in sub-optimal level of private enforcement.

In a lawsuit for abuse of dominant position, where the victim is a single company, private enforcement should be enough. The victim is the residual claimant of most of the effort in court, either to timely stop the illegal action or to obtain compensation.

The opposite case, with strong externalities in enforcement, is collusion among firms that operate in the retail market. The victims are customers whose individual perceived harm is low, but at the aggregate level, the damage due to over-price can be significant. Here, each affected individual will have no incentive to sue in order to obtain compensation, however from the social point of view it would be optimal if legal actions are initiated. Public enforcement would then operate as a public good, benefiting all those affected by the collusion between companies.

Externalities between parts, resulting in sub-optimal private enforcement also occur in cases of abuse of dominant position, where the victims are more than one company. The free-riding problem is further exacerbated if the harmed firms are

small businesses that do not have the funds to meet the costs of a lawsuit against a large company.

Private action will not be enough when the victims, fearing reprisals, are unwilling to publicly accuse a company undertaking abuses against them. This is the case of a dominant firm that owns an essential input and offers it under excessive conditions. Another example is the imposition of exclusivity or tying by a dominant supplier to small retail businesses. In both cases, the client company may fear that the lawsuit damages the commercial relationship between them.

Public enforcement is required even in cases where a dispute between two or more parties ends in a settlement. In principle, if the disputing parties achieve a satisfactory agreement, it would not be justified to keep the trial. However, the fact that parties reach an agreement does not necessarily imply that it complies with the law. It is possible that third parties such as consumers or other firms, not directly involved in the dispute, be injured by the terms of the settlement. For example, a dispute over exclusivity could be solved if the dominant firm transfers some of rents to retailers in exchange for the exclusive sale. While the agreement is satisfactory to the parties directly involved in the lawsuit, it may be exclusionary for potential entrants who wish to sell through retail channels that accept exclusivity. Another example is an interconnection conflict between telecommunications networks, where companies may agree to connect each other, but in a way that lessens competition due to the high interconnection fees agreed by both firms.

3. The Chilean Institutional Competition System

The Chilean antitrust system, at the institutional dimension, presents some singularities with respect to designs observed in the majority of jurisdictions

around the world. Its most particular characteristic is the separation at an institutional level between the functions of prosecution and resolution.[5]

The *Fiscalía Nacional Económica* (FNE) or the National Economic Prosecutor's Office, is the agency responsible for representing the public interest in competition matters. Among its functions are: to act as investigator and prosecutor of infringements to competition, to provide technical reports to the TDLC, and to supervise the compliance of decisions ruled by the latter.

The *Tribunal de Defensa de Libre Competencia* or Tribunal for the Defense of Competition (TDLC) is the legal body that hears and decides first instance cases involving violations to competition. The TDLC is a tribunal specializing in resolving competition disputes, formed by five members: three members must be attorneys and the other two economists. The decisions of the TDLC are appealable before the Supreme Court.

The FNE has no authority to impose sanctions or to order companies, actions or prohibitions in competition matters. Its institutional mission, to protect competition in the markets, is accomplished mainly through the initiation of proceedings, either accusatory or in the form of a consultation, before the TDLC.

The explanation of this particular configuration is found in the legalist tradition of the country, where government measures that affect the autonomy of companies must be resolved through the format of a trial. A similar structure is found in other areas of public action in Chile, as with offenses of a penal character. Here lies the figure of the National Prosecutor, who acts as an investigator and prosecutor, and must defend his or her case before a judge pertaining to another state power.

Third parties, such as companies or individuals, may also file lawsuits before the TDLC for infringements due to anticompetitive practices. Private agents count on the same rights and privileges as the FNE during a trial. The FNE does not,

[5] The South African Republic has a similar institutional structure to the Chilean structure, where the roles of prosecution and sanction are separated.

additionally, have a monopoly over the representation of the public interest. Parties indirectly affected, but with a legitimate interest in a case, as stated by law, may initiate a lawsuit or submit a non-litigious consultation in defense of the public interest.[6]

Private parties being victims of abusive practices may request the TDLC a preliminary or permanent injunction. Moreover, they may ask the Tribunal to impose monetary sanctions to the accused company for infringements to competition law. However, Chile's competition system does not confer plaintiffs the automatic right to receive monetary damages if their claims are accepted by the TDLC. To apply for monetary damages, the harmed party must start a special lawsuit for remedial damages, once the competition system has issued a decision on the merits of the case, and in a court different to that of competition.

Trials for compensation due to harm derived from anticompetitive practices are heard by civil courts and have their own procedures. As opposed to the United States, victims are not entitled to treble damages. Injured parties may opt for compensation as stated in the civil code in cases concerning the responsibility of commercial activities. The magnitude of damages to be claimed is equivalent to the monetary losses caused by the convicted company, without the inclusion of any augmentation factor to the harm suffered.[7]

According to that set forth in the previous section, the Chilean system provides fewer incentives for private parties to file lawsuits than in those jurisdictions where victims have the option of requesting treble damages, as in the case of the United States. In the best of scenarios, the affected party may recover the direct losses caused by the illegal practice inflicted.

In fact, damages trials for infringements to competition have been rather scarce in Chile. Note that to sue for damages in antirust; it is not necessary for the plaintiff to

[6] For example, the association of consumers CONADECUS submitted a consultation to evaluate the merger between airlines LAN and TAM, which triggered the review process by the Tribunal.
[7] The Civil Code uses the concepts of "Emerging Harm and Lost Profits" to estimate the damage caused by third parties in commercial disputes.

have been part of the trial before the competition Tribunal. In this sense, affected parties may free-ride on the public enforcement. Some of them may not become party to a competition case, but they may be part of a trial on damages if a conviction was issued in the competition trial.

4. Description of Data

Data provided on the initiation and conclusion of legal cases, as well as the type of participation by the FNE therein, is extracted from the Competition Tribunal*'s* database on contentious proceedings. The database contains cases heard by the Tribunal since its inception in 2004, until today. There are a total of 195 presented cases, of which 181 have been concluded. Since the Tribunal is a specialized and unique legal body in the country, any lawsuit for infringements to competition must be submitted before it. As a result, the database we use relies on the complete information of trials initiated and concluded at national level.[8]

The possible roles of the FNE before the TDLC in litigious proceedings are the following: (i) Plaintiff, (ii) Intervener, (iii) Independent Claim, (iv) Informer and (v) Omission. In the first case, the FNE is the entity accusing one or more companies of conducting anticompetitive practices; this action is designated as a Complaint. In the second case, the prosecutor is party to a case previously initiated by a private party, supporting the position of the plaintiff. An independent claim is when the FNE intervenes in a case without necessarily taking the side of either party. The FNE acts as informer when it submits an opinion or report at the request of the TDLC concerning a lawsuit filed by a third party. Finally the prosecutor may eventually have no participation whatsoever. The FNE takes on a protagonist's role in the first two cases, given it becomes party to the case, filing charges against the defendants.

[8] In other jurisdictions, with more decentralized judicial systems, cases involving competition matters may be initiated in local civil courts.

Table 1: Lawsuits filed before the Tribunal between 2004 -2012

Year	Total Lawsuits	Participation of the FNE		Type of FNE Involvement	
		Cases	%	Initiates	Party to
2004	47	13	28%	5	8
2005	21	9	43%	7	2
2006	32	5	16%	4	1
2007	18	7	39%	7	0
2008	31	9	29%	8	1
2009	12	6	50%	6	0
2010	15	2	13%	2	0
2011	15	7	47%	7	0
2012	4	1	25%	1	0
Total	**195**	**59**	**30%**	**47**	**12**

Source TDLC Statistics

Statistics show that 76% of cases submitted before the TDLC are initiated by private parties. The prosecutor, in turn, takes on an active role in 30% of the cases, of which 24% are initiated by it, while it is party to 6%, supporting the plaintiff.

Despite the inexistence of an augmentation of damages, private parties have a protagonist's role in competition lawsuits in Chile. In the United States, with its treble damages system, the percentage of cases initiated by private parties is 90%, while in Germany it is approximately 50%.[9]

With regards to the type of anticompetitive abuse, litigations can involve abuse of dominant position or collusion. According to the statistics, the large majority of lawsuits—87%—concern abuse of dominant position. In the cases of collusion, the FNE participates in 85% of those cases. On the other hand, in accusations of abuse of dominant position we can observe an asymmetrical pattern: in 79% of the cases the plaintiffs are exclusively private parties. *A priori*, these figures support the hypothesis of the greater value of public enforcement in cases of collusion than in

[9] See Peyer (2012) for Germany and Hylton (2003) for the U.S.

abuse of dominant position in the market, given the inherent problem of free riding by injured parties for collusive acts.

Table 2: Lawsuits according to Type of Accusation

Type of Accusation	Total Lawsuits		FNE Participation	
	Cases	%	Cases	%
Collusion	26	13%	23	85%
Abuse of Dominant Position	169	87%	36	21%
Total	195	100%	59	30%

The size of companies involved can also influence the decision of the public agency. As discussed in the previous section, small companies suffer from limited resources necessary to follow through with a trial against a large company, which makes the prosecutor´s participation all the more important. As no information is available regarding the size of the company, either in sales or stock value, we will use as a proxy variable of size the presence of the company in the stock exchange. The implicit assumption to justify the use of this variable is that companies listed on the stock exchange are generally larger in size than those that are not.

Table 3: Participation of the FNE According to the Size of the Companies.

Types of Companies Involved	Total Cases		Participation of the FNE	
	Number	%	Number	%
None listed on the Stock Exchange	117	60%	36	31%
Only Defendant listed on the Stock Exchange	60	31%	22	37%
Only Plaintiff listed on the Stock Exchange	8	4%	1	13%
Both listed on the Stock Exchange	10	5%	0	0%
Total	195	100%	59	30%

The FNE has a slight inclination to have a higher participation when the accused company is listed on the stock exchange. When the plaintiff is listed on the exchange, on the other hand, the prosecutor tends to be less participative. It is noteworthy to mention that in the latter case, data only shows the cases where the FNE was party to a lawsuit initiated by a company.

The existence of a bias on the part of the prosecutor by refraining from participating in cases where the defendant is a public institution is plausible. The institution in question could be a Ministry, regulatory agency, public company or municipality. The conjecture is that the FNE refrains from taking part when the accused party is, like itself, a State-related entity. Data shows that the prosecutor is party to 16% of those cases where the defendant is a public institution, compared to 34% where the defendant is not.

Table 4: Participation of the FNE and Public Character of the Defendant

Defendant	Total Cases		Participation of the FNE	
Public Institution	Number	%	Number	%
No	158	81%	53	34%
Yes	37	19%	6	16%
Total	**195**	**100%**	**59**	**30%**

Lastly, we will analyze if the type of market involved influences the interest of the public prosecutor in a case. Table 5 illustrates lawsuits filed separated by industry according to the classification made by the FNE. At the same time, it is determined whether the market is considered sensitive or otherwise. We define a market as sensitive if its products are considered essential goods or they are consumed by the large majority of the population. The markets that are classified as sensitive are: foodstuffs, education, pharmaceutical, personal financial services, social security, retail, health, telecommunications and transport.

The former law on antitrust in Chile formally acknowledged the importance of the affected market. The penal sanction for collusion—existent at the time—increased by one degree of severity if the offense occurred in the sale of essential items or services, such as those corresponding to: foodstuffs, clothing, housing, medicine or healthcare.[10] It is also common for the FNE to explicitly mention the sensitivity of the affected market in both its complaints against companies for anticompetitive actions, and through its press releases.[11] Another reference to classify a service as

[10] Article 1, Decree Law 2760 of 1979.
[11] In the complaint for collusion against various operating bus companies for interurban transport (2011), the FNE argued that the severity of the offense was made more so "*Particularly when [the offense] affects the operation of the market of services essential to the community.*" In an interview

being of high impact is the statistic on complaints filed by clients or consumers before the National Service for the Protection of the Consumer.[12]

Table 5: Lawsuits Initiated According to the Market

Affected Market	Sensitive Sector	Cases		Participation of the FNE		Abuse of Dominant Position
		Number	%	Number	%	%
Foodstuffs	Yes	10	5,1%	3	30%	80%
Sports Goods	No	1	0,5%	0	0%	100%
Beverages	No	3	1,5%	1	33%	100%
Fuels	No	15	7,7%	1	7%	87%
Computers	No	1	0,5%	0	0%	100%
Concessions	No	11	5,6%	2	18%	100%
Editorial	No	4	2,1%	0	0%	100%
Education	Yes	3	1,5%	1	33%	100%
Electronics	No	4	2,1%	0	0%	100%
Electrical	No	9	4,6%	2	22%	100%
Entertainment	No	2	1,0%	2	100%	100%
Pharmaceutical	Yes	15	7,7%	3	20%	93%
Financial	Yes	6	3,1%	4	67%	83%
Lottery	No	1	0,5%	0	0%	100%
Toys	No	1	0,5%	0	0%	100%
Construction materials	No	4	2,1%	1	25%	75%
Water Utilities	No	2	1,0%	1	50%	100%
Others	No	17	8,7%	4	24%	82%
Ports	No	6	3,1%	2	33%	83%
Social Security	Yes	2	1,0%	1	50%	50%
Waste management	No	10	5,1%	4	40%	100%
Retail	Yes	12	6,2%	4	33%	92%
Clothing and footwear	No	2	1,0%	0	0%	100%
Health	Yes	4	2,1%	3	75%	50%
Tobacco	No	2	1,0%	1	50%	100%
Telecommunications	Yes	27	13,8%	8	30%	96%
Transport	Yes	17	8,7%	10	59%	50%
Motor Vehicles.	No	4	2,1%	1	25%	50%
Total		**195**	**100%**	**59**	**30%**	**87%**

Source: Compilation based on the TDLC's database.

Aggregating the data and classifying it between sensitive and non-sensitive markets, we can observe that, in effect, the prosecutor tends to focus on industries considered as sensitive. The public agency acts as party to 39% of those cases

granted to the newspaper *Estrategia*, the highest authority of the public prosecutor, Felipe Irarrázabal stated that, after the Supreme Court's ruling in the case of collusion between certain pharmacies, "*it is necessary to monitor markets as sensitive and of as such a high impact as the laboratory and pharmacy sectors*." September 11, 2012.

[12] According to data provided by the agency, the first four services with most complaints are: Financial services, department stores, telecommunications and transport.

involving markets deemed sensitive, while it only participates in 22% of those cases that affect the remaining markets.

So far, the bivariate analysis may present biases of omitted variables. For example, the lower participation of the prosecutor in cases where the defendant is a public organism may be explained because these cases, for their most part, concern abuse of dominant of position, and not because the FNE refrained from acting against another State-related entity.

In Table 6 we present a multivariate model of the factors behind the *prosecutor's* participation. Our dependent variable Y, may take two values: Y=1 where the FNE participates in a case, and Y=0 if it does not. As the variable of interest is dichotomous, we estimate a non-linear probability Probit model. For this purpose, we assume the existence of a latent variable, Y*, that represents the utility for the prosecutor to participate in a case. When the latent variable surpasses a threshold, the discrete variable Y takes the value of 1, and if it does not, it takes the value of 0. The latent variable depends on the aforementioned set of explicative variables (X): sensitive market, defendant is a public body, plaintiff is a company listed on the stock exchange, defendant is a company listed on the stock exchange, and the lawsuit is for collusion.

$$Y_i = \begin{cases} 1 \text{ si } Y^* > 0 \Leftrightarrow X_i\beta + \varepsilon_i > 0 \\ 0 \text{ si } Y^* < 0 \Leftrightarrow X_i\beta + \varepsilon_i < 0 \end{cases}$$

Where we assume that ε_i is distributed as a normal distribution with mean 0 and variance 1.

Table 6 illustrates the results of the three Probit estimates. The first column uses the aforementioned explicative variables, save the variable related to the type of process (abuse of dominant position or collusion). The results indicate that it is more likely for the FNE to become party to a case when it involves a sensitive market (significance at 1%), the defendant is not a Public Body (significance only at 10%) and the plaintiff is not listed on the stock exchange (significance at 1%). No difference is found when the defending company is or not listed on the stock

exchange. If the case is related to a sensitive market, the prosecutor's participation increases to 17%, considering the remaining variables at their mean values.[13]

The size of the company filing the lawsuit is relevant to the FNE. The public agency tends to participate more when the case involves smaller companies, with a very significant effect. When the plaintiff is a company listed on the stock exchange, the likelihood for the FNE to participate drops 28%. This result supports the hypothesis that the FNE concentrates its efforts in cases where the affected parties of anticompetitive practices are companies of a smaller size with, most likely, less resources and expertise to face antitrust litigation. On the other hand, the size of the defending company has no relevance whatsoever in the FNE's decision to become party to or initiate a case.

Regression (2) rebuilds the exercise of regression (1), but restricting the sample to the 181 concluded cases. The results are qualitatively similar. In column (3), the regression includes the type of accusation filed. The results for all variables are maintained, except the variable where the defendant is not a public entity. This is explained because lawsuits filed against public institutions correspond to abuses of dominant position—cases where the FNE tends to participate less. Finally, the type of accusation has a high degree of impact on the presence of the FNE in a trial, which either initiates the case or becomes party thereto. In cases of collusion, the probability that the prosecutor will participate increases to 67%.

[13] The marginal effect of variables Xi in $E(Yi=1|Xi)=f(X\beta)\ \beta i$.

Table 6: Multivariate analysis of factors that influence the prosecutor´s participation.

Dependent Variable: FNE becomes Party to a Case			
	1	2	3
Sensitive Market	0.515	0.505	0.434
	[0.198]***	[0.207]**	[0.218]**
Accused Party is a Public Entity	-0.511	-0.422	-0.089
	[0.288]*	[0.293]	[0.300]
Plaintiff is a Company Listed on the Stock Exchange	-1.283	-1.254	-1.482
	[0.497]***	[0.500]**	[0.384]***
Defendant is a Company Listed on the Stock Exchange	-0.047	0.01	0.235
	[0.215]	[0.224]	[0.240]
Lawsuit is for Collusion			-1.984
			[0.378]***
Constant	-0.607	-0.667	0.973
	[0.172]***	[0.183]***	[0.373]***
Observations	195	181	195

Note: Robust standard errors. * Significance at 10%; ** significance at 5%*** significance at 1%

5. Efficiency of Public Enforcement

In this section we measure the impact of the public agency's participation on the outcome of antitrust lawsuits. For this purpose, we shall begin by analyzing the result of proceedings initiated before the Competition Tribunal and resolved since its inception in 2004.

Lawsuits filed before the TDLC may conclude with a: (i) Decision, (ii) Conciliation, (iii) Withdrawal, or (iv) Filing as record. In the event of a decision, the TDLC resolves with respect to the lawsuit filed, indicating if the accused party is guilty or not, issuing a conviction or acquittal, and the sanction to be imposed. In the case of conciliation, the parties involved in a case—defendants and plaintiffs—settle, withdrawing the lawsuit. In the case of a withdrawal, the plaintiff terminates the

lawsuit without requiring an agreement between the parties. Finally, in the case of a filing on record, the TDLC closes the case due to its abandonment by the plaintiff or because it was not admitted by the Tribunal.

Since 2004, 181 lawsuits have been resolved before the Competition Tribunal. The FNE has participated in 52 of them either through a complaint or by becoming party to the trial. As observed in Table 7, 22% of the lawsuits filed end in withdrawal (5%) or filed on record (17%). In those cases where the prosecutor is involved, 4% of these are filed or withdrawn, while in those cases where the FNE is not involved, said percentage of filed or withdrawn cases is 29%.

Cases that conclude in conciliation represent 12% of resolved cases. This percentage is similar in those cases where the FNE participates (10%) or not (12%). Finally, two thirds of the total amount of cases concluded with a decision issued by the TDLC. When the prosecutor participates in a trial, 87% of the cases end with a decision—either a conviction or acquittal. If the FNE does not participate, that percentage is at 58%.

Table 7: Conclusion of Cases Filed before the TDLC

Conclusion of case	Total Cases		Participation of the FNE			
	Cases	%	Yes	%	No	%
Withdrawal	9	5%	0	0%	9	7%
File on record	31	17%	2	4%	29	22%
Conciliation	21	12%	5	10%	16	12%
Acquittal	71	39%	16	31%	55	43%
Conviction	49	27%	29	56%	20	16%
Sub-total decisions	120	66%	45	87%	75	58%
Total	**181**	**100%**	**52**	**100%**	**129**	**100%**

By focusing on the type of decisions issued by the Tribunal, evidence shows that more than half of those cases where the prosecutor takes part—56%—end in a conviction. If the public agency does not participate, the percentage of convictions drops to 16%. The probability of obtaining a conviction, conditional to the trial

concluding with a decision, is 26.7% if the plaintiffs are private parties. If the FNE is party to the case, the percentage of condemnatory sentences rises to 64.4%.

The results in Table 7 are a first indication of the greater effectiveness the public agency has in obtaining convicting decisions, with respect to private parties. The minor fraction of cases that conclude with a decision when the FNE does not participate can be explained by the ignorance of private parties in matters relating to competition. For example the types of anticompetitive actions heard by the TDLC, or if the reported acts have sufficient merit to obtain a conviction. The difference may also reflect a strategic use of the cases by companies, as explained in section two of this article.

A similar reasoning can explain the higher fraction of convictions that achieves the prosecutor vis a vis the private parties. A greater expertise and knowledge of the FNE allow it to structure the same set of evidence in a better way in order to prove the accused party guilty.

To conduct a multivariate analysis of the effect of the FNE on the outcome of proceedings, we assume that lawsuits that concluded as withdrawn, filed on record or in acquittal, favor the defendant in detriment of the plaintiff's position. Regarding those trials that end in conciliation, the database does not provide a classification with respect as to whether these concluded in favor or not of the plaintiff, nor do we have information on what was settled between them. As such, we do not label a conciliatory outcome as favorable to either party in a dispute. For thoroughness, in some estimates we have restricted the results solely to those cases that concluded with a decision.

The dependent variable, a favorable result for the plaintiff, is dichotomous and equal to Y=1 in the case of a favorable decision for the plaintiff, and equal to Y=0 in the case of a favorable decision for the defendant, withdrawal or filing on record. To estimate the impact of the FNE on the outcome of cases we used a non-linear probability Probit model.

We assume there is a latent variable Y*, representing the evidence and strength of the case submitted before the Tribunal. When the latent variable surpasses a threshold, the discreet variable Y takes the value of 1, and if it does not surpass said level, it takes the value of 0. The latent variable depends on a combination of explicative factors, including our variable of interest, the prosecutor's participation.

Table 8 reports our main results. Column (1) only controls for the FNE participation. The prosecutor's involvement significantly increases the probability of a favorable outcome for the plaintiff. The point estimated is 1.2 and significant at 1%. It implies that the FNE increases by 40% the probability of a successful lawsuit. Column (2) controls by the type of case in question. This variable is equal to 1 when it involves a case for collusion and 0 if it concerns abuse of dominant position.[14] The point estimated for the prosecutor´s participation is not affected by this control.[15] Column (3) limits the sample to lawsuits with a Tribunal's decision. The coefficient that accompanies the FNE's involvement does not change.

The evidence until now is non-conclusive with respect to the effect the FNE has on the outcome of cases. As previously mentioned, these results can only reflect a strategy for the selection of cases the prosecutor decides to take and not its efficiency in founding and defending the case before the Tribunal. When deciding which cases to take, the public agency may prioritize those easier to win. In this scenario, our variable of the FNE's participation not only captures the effect of the prosecutor on the outcome of cases, but also the strength of the initial convicting evidence for each case.

To elude this self-selection bias, we use an instrumental variable. We employ three instrument for the FNE´s participation: i) whether the case involves a sensitive

[14] As set forth in section two, in cases involving collusion it is less probable for the affected parties to present lawsuits. On the other hand, it can be expected for the Tribunal to react differently in an accusation of collusion than in one of abusive practices, due to previous case law. In the first, evidence is mainly formal, while in the second, the economic reasoning plays an important role as the ruling is based more on what is known as the rule of reason.

[15] In a regression, not included in the article, we control both by the type of case and if the plaintiff is a State-owned entity. The results do not change.

sector, ii) if the defendant is a company listed on the stock exchange and iii) whether the plaintiff is a company listed on the stock exchange. None of these variables should be correlated with the initial convicting evidence nor with the resolution adopted by the Tribunal, beyond the FNE's involvement in the case.

Columns (4) to (9) present our probabilistic model with instrumental variables. By instrumentalizing the prosecutor´s participation with the three instruments mentioned in the previous paragraph, column (4), the impact of the FNE on the probability of obtaining a conviction does not drop with respect to the non-instrumentalized estimate, column (1). On the contrary, the estimate point is greater, illustrating that the FNE does not select those cases easier to win, in terms of evidence and arguments. The null hypothesis that all instruments are equal to zero is rejected at 1 percent of confidence level.

Columns (5) and (6) present estimates using only two instruments at a time. In view that the prosecutor has declared that one of its criteria for selecting those cases in which it becomes involved is if the lawsuit affects a sensitive sector of the economy, column (7) illustrates the FNE impact using only as an instrument our dichotomous sensitive sector variable. The coefficient of the sensitive sector variable is significant at 5% in the first stage of estimation. In all cases the estimated impact of the FNE on the probability of obtaining a conviction is higher than in the non-instrumentalized case. Lastly, columns (8) and (9) re-estimate equations (4) and (7), restricting the sample to those cases concluding with a Tribunal's decision. As observed, the results do not vary.

Table 8:

Dependent Variable: Favorable Result for the Plaintiff (Convicting sentence)	1	2	3	4	5	6	7	8	9
FNE is Party to the Case (Exploited)	1.23	1.23	1.18	2.68	2.69	2.69	2.70	2.60	2.63
	[0.232]***	[0.258]***	[0.259]***	[0.261]***	[0.279]***	[0.257]***	[0.286]***	[0.272]***	[0.290]***
First Stage (Dep. Var.: FNE is Party to the Case)									
Sensitive Market				0.16	0.14	0.16	0.15	0.16	0.14
				[0.060]***	[0.062]**	[0.063]**	[0.066]**	[0.064]**	[0.069]**
Defendant is Company Listed on the Exchange				0.06	0.05			0.05	
				[0.054]	[0.053]			[0.055]	
Plaintiff is Company Listed on the Exchange				-0.25		-0.24		-0.27	
				[0.071]***		[0.067]***		[0.080]***	
Lawsuit is for Collusion		-0.02	-0.02	-1.19	-1.22	-1.21	-1.23	-1.14	-1.19
		[0.337]	[0.337]	[0.409]***	[0.447]***	[0.415]***	[0.464]***	[0.410]***	[0.460]***
Constant	-0.93	-0.94	-0.89	-2.20	-2.22	-2.21	-2.23	-2.13	-2.17
	[0.139]***	[0.352]***	[0.352]**	[0.334]***	[0.349]***	[0.333]***	[0.355]***	[0.342]***	[0.357]***
Observations	160	160	151	160	160	160	160	151	151
Sample			Only cases with decisions					Only cases with decisions	

Robust standard errors. * significance at al 10%; ** significance at 5%; *** significance at 1%.

6. Conclusions

The purpose of the article is to measure the effectiveness of the public agency with respect to the actions of private parties in cases concerning infringements to competition law in Chile. The Chilean institutional system on antitrust offers favorable conditions to conduct these types of comparisons.

Using the statistics of cases submitted before the Competition Tribunal, during its eight years of existence, we compared the outcome of those cases where the FNE participates versus those where it does not. If only private parties file the lawsuit, the probability of a conviction is 16%. If the prosecutor initiates the case, or becomes party thereto, that probability increases to 56%. Considering only those cases concluding with a decision, the lawsuits of private parties obtain 27% of the convictions, versus 64% obtained by the public agency. This result remains valid if we apply instrumental variables to control possible selection bias on the part of the public agency with respect to the type of cases in which it decides to participate.

Our estimates support the superiority of public enforcement over private enforcement. According to the explanations provided by the theory, the better result of public enforcement may reside in the greater capacity the public agency has in applying competition principles, which allows it to better defend its cases before the Tribunal. Another possible reason may be the strategic use by private parties of cases in such a way that the motive of their lawsuits is to not solely obtain a favorable outcome. With the information provided, it is not possible to conclude what is the prevailing cause of this greater effectiveness on the part of the public agency.

The results obtained suggest that to achieve a greater effectiveness from competition policy, it is preferable to strengthen public prosecution as opposed to inducing a larger protagonist's role, through litigation, by private parties. In the event the public prosecutor rations the cases in which it becomes involved for budgetary reasons, alleviating the constraint on resources would be beneficial. On

the other hand, introducing damages and compensation schemes that augment harm suffered by parties for anticompetitive practices does not seem advisable, given the low number of cases initiated by private parties that conclude with a conviction.

The article also looks for the factors influencing the prosecutor´s involvement in a case. Results show that there is a greater probability for the public agency to initiate legal actions when the case concerns collusion, the affected market is considered sensitive or of high impact, and the accused party is not a company listed on the stock exchange. This last variable may be considered a proxy of the size of the accused company.

The state-related character of the accused party—a state owned company, public agency, Ministry or municipality—does not affect the prosecutor´s decision to become party to a case. As such, we can dismiss a capture bias that inhibits the public agency from acting against other governmental entities.

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