

**SUBOPTIMAL LIABILITY IN COOPERATIVE
SUPERGAMES AND RESILIENT OFFICIAL
CARTELS IN BRAZIL**

RESPONSABILIDAD SUBÓPTIMA EN SUPERJUEGOS
COOPERATIVOS Y CARTELES OFICIALES
RESILIENTES EN BRASIL

ARTÍCULO INÉDITO DE INVESTIGACIÓN

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Abstract

Since 2013, when CADE changed its anti-cartel policy to boost cease-and-desist agreements, the number of immunity agreements has remained stable whereas cease-and-desist agreements have skyrocketed. Using three approaches — legal framework, game theory and economic analysis of the law —, this paper assesses how the characteristics of resilient official cartels, that is, collusion organized and sustained inside the state, make CADE's new anti-cartel policy inappropriate to fight them. We argue that by prioritizing cease-and-desist agreements CADE has increased the payoffs of cartels, lowered detection mechanisms and increased underdeterrence, turning the option to stay inside the official cartel into the dominant strategy.

Keywords: leniency, cease-and-desist, deterrence, detection, enforcement, Car Wash Operation, cartel

Resumen

Desde 2013, cuando CADE cambió su política anti-cárteles para impulsar los acuerdos de cese y desista, el número de acuerdos de inmunidad se ha mantenido estable mientras que los acuerdos de cese y desista se han disparado. Utilizando tres enfoques (marco legal, teoría de juegos y análisis económico de la ley), este texto evalúa cómo las características de los cárteles oficiales resilientes, es decir, la colusión organizada y sostenida dentro del estado, hacen que la nueva política anti-cartel del CADE sea inadecuada para combatirlos. Argumentamos que al dar prioridad a los acuerdos de cese y desista, el CADE ha aumentado los pagos de los cárteles, reducido los mecanismos de detección y aumentado la falta de control, haciendo de la opción de permanecer dentro del cartel oficial la estrategia dominante.

Palabras clave: indulgencia, cese y desista, disuasión, detección, aplicación, operación autolavado, cartel

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I. Incentives behind cooperative supergames

In game theory, the prospects of interaction between two or more persons are key to define how they will behave in relation to each other and comply with what has been agreed.¹ The equilibrium strategy of a game can be cooperative, or non-cooperative, depending on whether the players have proper incentives to match their strategies looking for a better mutual outcome.² Players play cooperatively if the payoffs are higher than by playing non-cooperatively. The likelihood of repeated interaction plays a central role in creating, increasing or depleting the incentives to betray or align strategies.

When the parties have no reason to believe that they will benefit from future interaction, the incentives to betray and increase profits are rampant. Conversely, when the parties are aware that they need to interact for longer periods to succeed or when retaliation from the betrayed party is credible, the incentives to cooperate are high.

In simultaneous single-stage games, the players make their moves having in consideration the best possible outcome for them alone, minding the possible strategies of the opponents. Simultaneous non-repeated games by nature tend to favor non-cooperative strategies: If the parties have nothing to gain from their opponent in future interactions, they have no reason to compromise to their own detriment. In other words, the parties will only cooperate if collaboration leads to the most beneficial outcome for each of them separately.³ This rationale is only partially applicable to single-stage sequential games: Because sequential games allow competitors to take into account the behavior of first movers, it is easier to coordinate decisions and potentially avoid the worst outcomes, as long as the cooperative outcome works better for the first-mover than the non-cooperative one.

In opposition to single-stage games, continued interaction demands that steps taken by each player consider subsequent behaviors of their peers.⁴ The longer the potential relationship, the harder it is to predict the long-term (n-stage) behavior of the opponent or the degree of dependence between them, creating uncertainties that may lead to betrayal

¹ There is a handful of good textbooks for basic concepts on game theory. See chapter 8 of Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions* (Mason, Ohio: South-Western Cengage Learning, 2012).

² James W. Friedman, "A Non-cooperative Equilibrium for Supergames," *The Review of Economic Studies* 38, no. 1 (1971): 1–12.

³ As Friedman (1979, 1) defines it, "[a] game is said to be 'non-cooperative' if it is not possible for the players to form coalitions or make agreements."

⁴ Walter Nicholson and Christopher Snyder, *Microeconomic Theory: Basic Principles and Extensions* (Mason, Ohio: South-Western Cengage Learning, 2012), 255.

along the way.⁵ A party is moved by the impetus of deviant behaviors when betrayal is the dominant strategy for their counterparts,⁶ even when they would be better off if all of them complied with the agreement. The incentives to betray are also significant in asymmetrical agreements, where one of the parties would profit a lot more than their counterpart. In such cases, the least-favored of them will have strong incentives to deviate if they believe that, by deviating, they can appropriate the extraordinary gains of the most-favored party. Because the most-favored party has much more to lose from the termination of the agreement, both parties know *ex ante* that it will have much less incentives to deviate.

However, if the penalties for deviation are high enough and detection mechanisms are dependable, the incentives for deviant behaviors can be neutralized and the robustness of the cooperative equilibrium, increased.⁷ Previous interactions can also reduce asymmetries of information and bring more certainty to the relationship:⁸ If previous interactions show that the partners are reliable, the parties will tend to bet in long-term instead of short-term gains, insofar as lengthier agreements translate into mutual higher payoffs. If both elements are present — past interaction among the same corporate groups and a credible threat that only members of the agreement can survive or thrive on the market —, the payoffs of cooperation are maximal.

Because the prospects of discontinuation of a relationship influence the decision to cooperate or not,⁹ licit covenants — like *legal* covenants not to compete — depend heavily on court enforcement to sustain a long-term cooperative outcome. Likewise, agreements that are not enforceable in a court of law, like *illegal* covenants not to compete — including cartels —, depend heavily on supervision mechanisms facilitated by intermediaries like attorneys (with legally assigned privilege of information) or trade associations (with legal access to business sensitive information) and on exemplary punishment for deviant behavior.¹⁰

⁵ Nicholson and Snyder (2012, 265–66) put it this way: “The crucial issue with an infinitely repeated game is not that it goes on forever but that its end is indeterminate. [...] Players can sustain cooperation in infinitely repeated games by using *trigger strategies*: players continue cooperating unless someone has deviated from cooperation, and this deviation triggers some sort of punishment.”

⁶ As defined in Nicholson and Snyder (2012, 212), “[a] strategy that is a best response to any strategy the other players might choose is called a dominant strategy.”

⁷ Please refer to Friedman (1971) and his definition of temptation.

⁸ Nicholson and Snyder, *Microeconomic Theory*, 268.

⁹ *Ibid*, 263.

¹⁰ Marc Ivaldi et al., “The Economics of Tacit Collusion,” IDEI working paper 186, Final Report for DG Competition, European Commission, 2003.

Last but not least, relationships between market players are more resilient the more they need to interact between them,¹¹ be it — as we have just seen — in terms of expected longevity or in relation to the spectrum of products. Cross-market interactions can raise not only the chances of punishment of deviant behavior, but also provide further rewards for the parties involved.¹² In this sense, market players who interact with each other in different (conglomerate) markets, even when non-repeated games prevail in each separate market, are subject to a larger spectrum of cross-market opportunities of retaliation. At the same time, cross-market interaction can offer opportunities for broader cooperation and higher gains at the expense of the firms that are not part of the cartel.

2. Rewards behind low deterrence levels

The level of deterrence on any specific market is also a determinant of how the parties behave in an agreement. Deterrence levels depend on the degree of detection and the amount of fines. But it also depends on how strong is the threat of retaliation for betraying the cartel.¹³

Cartel members have to take into consideration at least two conflicting forces when deciding whether to stay in the cartel or to betray it. The first force is the threat of punishment for betrayal. Strong cartels rely on credible threats varying from price squeezes, predation and other economic mechanisms to physical assault and acts of vandalism. Legal enforcement is the opposing force: Whereas the threat of punishment is an internal factor forcing the parties to stay inside the cartel, legal enforcement is an external factor persuading the parties to cease the agreement. Compliance with the law varies according to the levels of detection and to the expected fines.¹⁴

¹¹ See *supra* note 8, 260.

¹² So says Ivaldi (2003): “Multi-market contact: collusion is easier to achieve when the same competitors are present in several markets. Multi-market contact is thus relevant to assess the plausibility of collusion; in addition, a merger can increase significantly the number of markets on which the same firms are competing, in which case it may reinforce the possibility of collusion.”

¹³ For general considerations on law and economics, we recommend chapters 10–11 of A. Mitchell Polinsky, *An Introduction to Law and Economics* (New York: Aspen Publishers, 2011), chapters 20–23 of Steven Shavell, *Foundations of Economic Analysis of Law*, (Cambridge, Mass: Belknap Press, 2004).

¹⁴ Roberto D. Taufick, Angelo J. M. Duarte, and João M. P. de Mello, “Quantificação da Vantagem Auferida em Cartéis: uma referência para as multas do órgão de enforcement em defesa da concorrência,” in *A revolução do antitruste no Brasil*, ed. César Mattos, vol. 3 (São Paulo: Singular, 2018), 129–148.

Detection is the ability of the state (or of a third party it delegated law enforcement to) to have knowledge of legal offenses. It can happen by means of investigative tools — where by the state alone tracks down illegal behaviors — or by means of notifications coming from harmed consumers, suppliers or distributors or from members of the cartel who want to come forward and blow the whistle. The stronger the rewards are for those who dare to notify, the better should be the data collected from those who cooperate and the lower the number of cartel settlements needed to obtain the relevant data. The deeper the cooperation, the lower the investments and the time that the state should devote to enforce the law.¹⁵

Low levels of detection are intuitively associated with the perception that offenses are not punished and therefore that the law is not enforced. If the combination of investigative tools and reward programs is not strong enough, the number of successful investigations and whistleblowers that will reach the public authorities is low and so is the likelihood that offenders will one day be punished.

But it is possible that even when detection is low the levels of enforcement remain high, or that even when detection is high the levels of enforcement remain low.

The first situation, when detection is low but the levels of enforcement remain high, will happen if the expected fines are high. Expected fines are the calibration of the fines according to detection levels.¹⁶ According to law and economics theorists, persons would have no incentives to commit crimes if the fines were set at the level of the benefits that the offender would derive from their act.¹⁷ Because one cannot measure personal utility with sufficient precision, the economic gains extracted from an offense can serve as a proxy of the optimal level of liability.¹⁸

¹⁵ Ibid.

¹⁶ Polinsky, *Introduction to Law and Economics*. Please also refer to Shavell, *Economic Analysis of Law*.

¹⁷ Gary S. Becker, “Crime and Punishment: An Economic Approach,” *Journal of Political Economy* 76, no. 2 (1968): 169–217.

¹⁸ Roberto D. Taufick, “Cartéis Resilientes e Delação Múltipla no Brasil,” in *A revolução antitruste no Brasil*, ed. César Mattos, vol. 3 (São Paulo: Singular, 2018), 289–316.

However, because detection is not full, market players tend to underestimate the fines.¹⁹ The lower the level of detection, the lower is the expectation that the offender will be eventually punished. The state could remedy this problem by raising the amount of fines — up to the wealth of the offender, if needed — as detection levels shrink. As a last recourse, offenders could even be incapacitated (imprisoned) if it is worth the costs.²⁰ Insofar as the offenders are usually risk-averse or risk-neutral, the applications of the calibration proposed by Becker should lead to higher compliance with the law.

Because the risk-neutral takes risk according to the trade-offs between compliance and level of fines, the Becker solution lowers the incentives for noncompliance by changing the fines according to the detection levels. This would eventually lead to a situation where the potential offender would have to decide whether to build a fortune infringing the law but risking to lose all the wealth and going to jail. In the case of the risk-neutral, the appropriate level of fines would be $f = g/p$, where f stands for fines, g for gains and p for probability of detection.²¹

For the risk-averse, the calibration of the fine could be softer and vary according to the degree of aversion to the risk.²² Individuals and small businesses are usually risk-averse, whereas corporations tend to be risk-neutral.²³ That variation also happens among individuals: managers and officers holding executive positions in big corporations can be more exposed to substantial fines than ordinary employees, so the expected fines for that group could be higher.²⁴

The second situation, when detection is high but the levels of enforcement remain low, takes place whenever the sanctions are not high enough. In this case, even being aware that every cartel member would eventually be sanctioned, market players would have no incentive to comply with the law if the expected fine would be lower than the expected gains

¹⁹ See *supra* note 17.

²⁰ Because the costs of full enforcement are overwhelming, Becker (1968) claimed that a certain level of underdeterrence is always welcome.

²¹ See *supra* note 17.

²² *Ibid.*

²³ See *supra* note 14.

²⁴ Under extraordinary circumstances, employees will be judgment-proof and there will be no economic incentives applied directly to them to ensure compliance. In such cases, the incentives should lie on the employer, who should be liable for failing to oversee the activities of the company. See Polinsky, *Introduction to Law and Economics*, chapter 15.

from the cartel.²⁵ That would happen, for instance, if the authorities fixed the ceiling of fines as a percentage (p) of the cartel gains, $p < 1$. That could also be the case of fines that are set as a flat amount that could be easily surpassed in sector-specific collusions.

3. Agreements between private undertakings

In antitrust law, cartels are conspiracies²⁶ or agreements between independent undertakings²⁷ to restrict output, raise prices or somehow alter the balance of power on the playfield, harming competition and lowering the welfare of consumers.²⁸ After extensive experience, the treatment that competition authorities have dedicated to some agreements between undertakings has progressively departed from the harder discipline of cartels due to verified efficiencies, retail price maintenance (RPM) and maximum prices being the most remarkable examples of this shift.²⁹ On the other hand, even though the most common cartels identified by enforcers are horizontal, it is no longer possible to deny that they can be vertical and that vertical cartels have been sued for over half a century.³⁰

Legislators and courts have progressively reckoned that what matters after all is not the market relationship between cartelists, but the harm that the cartels may cause upon society.³¹

²⁵ See *supra* note 17.

²⁶ Sherman Act of 1890, 26 Stat. 209, § 1 (1890).

²⁷ Treaty on the Functioning of the European Union (“TFEU”), article 101.1 (2008).

²⁸ Roberto D. Taufick, *Introdução ao Direito da Concorrência* (Brasília: Seac/Esaf, 2014) and Roberto D. Taufick, *Nova lei antitruste brasileira: avaliação crítica, jurisprudência, doutrina e estudo comparado*, 2nd ed. (São Paulo: Almedina, 2017).

²⁹ Einer Elhauge and Damien Geradin, *Global Competition Law and Economics* (London: Hart Publishing, 2007), Chapter 5 and Einer Elhauge, *United States Antitrust Law and Economics* (New York: Foundation Press/Thompson Reuters, 2011), Chapter 5.

³⁰ Since *Consten SaRL and Grundig GmbH v Commission of the European Economic Community*, Case 54/64 (1966), in the European Union.

³¹ From *United States of America v. Apple Inc., et al.*, 12 Civ. 2862 (DLC),

The dissent fails to apprehend that the Sherman Act outlaws agreements that unreasonably restrain trade and therefore requires evaluating the nature of the restraint, rather than the identity of each party who joins in to impose it, in determining whether the per se rule is properly invoked. Finally (and most fundamentally) the dissent’s conclusion rests on an erroneous premise: that one who organizes a horizontal price-fixing conspiracy — the ‘supreme evil of antitrust,’ *Verizon Commc’ns Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004) — among those competing at a different level of the market has somehow done less damage to competition than its co-conspirators.

As a consequence, both horizontal and vertical agreements³² on price and output have been classified as hardcore cartels and regarded as *per se* illegal³³ or as restrictions by object³⁴ by some of the most advanced jurisdictions in Competition Law. In the case of vertical agreements, this is especially true where vertical conspiracies have been used as a means to achieve horizontal agreements on price and output.³⁵ As a matter of fact, courts, even

³² According to Richard Whish, *Competition Law* (Oxford: Oxford University Press, 2009), 107–109,

In a number of vertical cases the Commission has held that conduct which at first sight appeared to be unilateral fell within Article 81(1) as an agreement or a concerted practice; these were cases in which the Commission was concerned either that exports from one Member State to another were being inhibited or that resale prices were being maintained.” And Again: “These cases clearly demonstrated the considerable risks borne by suppliers that attempt to control the resale activities of their distributors; however, the *Bayer* case discussed in the next section demonstrated that the Commission will be successful on appeal before the Community Courts only where it can adduce convincing evidence of a meeting of minds between a supplier and its distributor(s).

³³ As originally construed by the Supreme Court of the United States (SCOTUS). Please refer to Robert H. Bork, “The Rule of Reason and the Per Se Concept: Price Fixing and Market Division, Part II,” *Yale Law Journal* 75 (1966): 377–373.

³⁴ See *supra* note 27.

³⁵ Quoting the majority opinion in *United States of America v. Apple Inc., et al.*, 12 Civ. 2862 (DLC):

“The dissent’s second error is to assume, in effect, that Apple was entitled to enter the ebook retail market on its own terms, even if these terms could be achieved only via its orchestration of and entry into a price-fixing agreement with the Publisher Defendants. The dissent tells a story of Apple organizing this price-fixing conspiracy to rescue ebook retailers from a monopolist with insurmountable retail power. But this tale is not spun from any factual findings of the district court. And the dissent’s armchair analysis wrongly treats the number of ebook retailers at any moment in the emergence of a new and transformative technology for book distribution as the sine qua non of competition in the market for trade ebooks.

More fundamentally, the dissent’s theory — that the presence of a strong competitor justifies a horizontal price-fixing conspiracy — endorses a concept of marketplace vigilantism that is wholly foreign to the antitrust laws. By organizing a price-fixing conspiracy, Apple found an easy path to opening its iBookstore, but it did so by ensuring that market-wide ebook prices would rise to a level that it, and the Publisher Defendants, had jointly agreed upon. Plainly, competition is not served by permitting a market entrant to eliminate price competition as a condition of entry, and it is cold comfort to consumers that they gained a new ebook retailer at the expense of passing control over all ebook prices to a cartel of book publishers — publishers who, with Apple’s help, collectively

in the EU,³⁶ have found weaker cases or expressed concerns in identifying restraints by object (or *per se* illegality) where vertical agreements alone existed. The stricter treatment applied to horizontal cartels usually relies on the exceptional nature of legal agreements

agreed on a new pricing model precisely to raise the price of ebooks and thus protect their profit margins and their very existence in the marketplace in the face of the admittedly strong headwinds created by the new technology. [...]

Because this conspiracy consisted of a group of competitors — the Publisher Defendants — assembled by Apple to increase prices, it constituted a ‘horizontal price-fixing conspiracy’ and was a *per se* violation of the Sherman Act. *Id.* at 694. [...]

We need not worry about the possibility that Leegin covertly changed the law governing hub-and-spoke conspiracies, however, because the passage relied upon by the dissent is entirely consistent with holding the ‘hub’ in such a conspiracy liable for the horizontal agreement that it joins. A horizontal conspiracy can use vertical agreements to facilitate coordination without the other parties to those agreements knowing about, or agreeing to, the horizontal conspiracy’s goals. For example, a cartel of manufacturers could ensure compliance with a scheme to fix prices by having every member ‘require its dealers to adhere to specified resale prices.’ VIII Areeda & Hovenkamp, *supra*, ¶ 1606b. Because it may be difficult to distinguish such facilitating practices from procompetitive vertical resale price agreements, the quoted passage from Leegin notes that those ‘vertical agreement[s] [...] would need to be held unlawful under the rule of reason.’ 551 U.S. at 893. But there is no such possibility for confusion in the hub-and-spoke context, where the vertical organizer has not only committed to vertical agreements, but has also agreed to participate in the horizontal conspiracy. In that situation, the court need not consider whether the vertical agreements restrained trade because all participants agreed to the horizontal restraint, which is ‘and ought to be, *per se* unlawful.’ *Id.*

In short, the relevant ‘agreement in restraint of trade’ in this case is the price-fixing conspiracy identified by the district court, not Apple’s vertical contracts with the Publisher Defendants. How the law might treat Apple’s vertical agreements in the absence of a finding that Apple agreed to create the horizontal restraint is irrelevant. Instead, the question is whether the vertical organizer of a horizontal conspiracy designed to raise prices has agreed to a restraint that is any less anticompetitive than its co-conspirators, and can therefore escape *per se* liability. We think not. Even in light of this conclusion, however, we must address two additional arguments that Apple raises against application of the *per se* rule.”

According to Whish (2009, 97): “In several decisions, particularly in the context of distribution systems, conduct which appeared to be unilateral has been held to be sufficiently consensual to fall within Article 81(1), although the Commission has lost some of the cases on appeal.” And again (p. 108): “Several of these decisions were upheld on appeal by the Community Courts; however, in a number of cases, beginning with *Bayer AG/Adalat* in 1996, findings of the Commission that were agreements between a supplier and its distributors have been annulled on appeal.”

between competing undertakings and on the fact that horizontal agreements usually end up in recurring discussions involving price fixing.³⁷

Because the central feature of cartels is undeniably the converging interaction between undertakings to circumvent competition on the merits, the fact that some agreements depend heavily on the job of intermediaries to be sustainable is not relevant for the classification of a conspiracy as a cartel. Actually, insofar as intermediaries are ancillary to the agreement and the conspiracy itself ultimately depends exclusively on the meeting of the minds of the undertakings, a cartel would still be a cartel between private undertakings in the cases where public officials illegally act as intermediaries that facilitate collusion between bidders. This is an important form of conclusion to bear in mind for the rest of the article.³⁸

4. Hub-and-spoke cartels facilitated by government officials

Recurring cartels between the same players fit in the concept of supergames or repeated games. As Friedman (1971) defines it, a “supergame” describes the playing of an infinite sequence of ‘ordinary games’ over time.” Long-lasting relationships as such are rarely observed though: Once a member betrays the cartel, the instability of future agreements is such that seldom will the same market players spend resources trying to fix it.³⁹

But if the payoffs are high enough, sophisticated retaliation and supervision mechanisms can be designed in order to bring stability to chaos. The use of quasi-omniscient intermediaries can bridge the gap between ordinary and sophisticated cartels: As mentioned, the creation of trade associations and the sharing of common lawyers between competitors can raise a cloak of legality that helps sustain a successful exchange of information on price, output and other variables of significant strategic value.⁴⁰

³⁷ As noted by Whish (2009), concerns with horizontal agreements have been expressed as early as 1776 by Adam Smith, according to whom “[p]eople of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.” Also, in *United States of America v. Apple Inc., et al.*, 12 Civ. 2862 (DLC): “As noted, the Supreme Court has for nearly 100 years held that horizontal collusion to raise prices is the “archetypal example” of a per se unlawful restraint of trade. *Catalano*, 446 U.S. at 647.”

³⁸ See *supra* note 18.

³⁹ See *supra* note 28.

⁴⁰ Taufick’s (2017) commentaries to articles 1 and 36, §3^o, II.

Yet, there is one specific arrangement fit to countries with weaker institutions⁴¹ that replicates those very conditions — stability, symmetry of information, ability to retaliate, cloak of legality — but which does not follow the old formula of *private players using private facilitators to collude*. It is a hub-and-spoke⁴² arrangement facilitated — usually also architected — inside the government by groups of persons who have perpetuated the alternation of political power among them and institutionalized collusion and capture by misemploying laws and regulations.⁴³

The perpetuation of political power is not unheard-of in countries with weak institutions and it usually owes its existence to at least one out of the following four reasons: Undemocratic regimes; historical (but superficial) bipartisanship; electoral fraud; or political financing flowing from a persisting interest group.⁴⁴ Because cartels sustained inside the state are safeguarded by consistent nationalist, chauvinist or protectionist trade policies as well as by laws and regulations carried out by captured governments throughout decades, they can only survive insofar as they are either imposed by top-down decisions in autocratic regimes or institutionalized and absorbed by society in democratic countries, where citizens progressively embrace and legitimize them.⁴⁵

However, under certain circumstances, they can be the outcome of both: The institutional framework and economic protectionism may have been put in place by an autocratic regime and later perpetuated under a democratic regime. That may actually be the case for countries like Brazil. This paper addresses the cooperative supergame between national champions fostered by corrupt governments in Brazil and how the recent anti-cartel policy implemented by the country's competition enforcement agency — the Council for Economic Defense (CADE) —, instead of dismantling it, may have helped perpetuate collusion sponsored by the state.

⁴¹ Douglass C. North, *Institutions, institutional change, and economic performance* (Cambridge: Cambridge University Press, 1990).

⁴² As defined in *Interstate Circuit, Inc. v. United States* 306 U.S. 208 (1939) and in *Kotteakos v. United States* 328 U.S. 750 (1946).

⁴³ For the relationship between governments and national champions in Brazil, please refer to Sérgio G. Lazzarini, *Capitalismo de Laços — os donos do Brasil e suas conexões* (São Paulo: Campus Elsevier, 2010) and to Sérgio G. Lazzarini and Aldo Musacchio, *Reinventing state capitalism — Leviathan in Business, Brazil and Beyond* (Boston, Mass.: Harvard University Press, 2014).

⁴⁴ *Ibid.*

⁴⁵ See *supra* note 18.

For the purpose of this paper, we are not interested in an accurate sociological definition of whether the state itself can be placed at the vertex of a hub-and-spoke cartel or if it would be more accurate to use *government* or *government officials* instead. Our only concern is to explain how the cloaks of legality and legitimacy can work for the stability and longevity of collusive agreements sustained with institutional help and how what we call state or official cartels differ from other kinds of collusive agreements based on their resilience.

Bearing in mind what has been discussed so far, this paper focuses on three approaches—legal framework, game theory and economic analysis of the law—to assess CADE’s recent anti-cartel policy. Our focus lies in the legal screening of CADE’s anti-cartel policy implemented in the aftermath of the enactment of Brazil’s 2011 Competition Law. We are interested in showing how the characteristics of resilient official cartels make CADE’s new anti-cartel policy inappropriate to fight them.

5. Resilience in official cartels

Official cartel arrangements have proved to endure decades in Brazil. After years of smooth operation, they are finally coming out from the shadows after the so-called Car Wash Operation, organized and implemented by the joint efforts of both the Federal Prosecution Service (MPF) and the Federal Police (PF).⁴⁶ The pervasive state has occupied the epicenter of a resilient cartel involving national trusts that it has subsidized by means of a development bank and protected from competition by overtaxing foreign goods and services.⁴⁷ At the same time, the state has been there, like any facilitator in a well-succeeded cartel, to oversee and ready to retaliate deviations in order to preserve the anticompetitive covenant.⁴⁸

The infiltration of groups of interest in the government, cronyism and the perpetuation of the same group of people in power; strong influence of the government in the decisions of the major national corporations (known as state capitalism), as well as market foreclosure (expressed by means of economic paternalism and nationalism) are features that have created a unique background for the emergence and the preservation of a cartel organized inside the state.⁴⁹ Together, those three elements—private capture, strong state capitalism and protectionism—have consistently vested the appropriation of public goods with the

⁴⁶ Ibid.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ The perfect scenario for the facilitation of the cartel is described by Lazzarini (2010) and by Lazzarini and Musacchio (2014).

promise of their own protection. Nothing has therefore served the institutionalization and the longevity of the appropriation of the state by private groups more effectively than the cloaks of legality and legitimacy assimilated by those three paternalistic concepts.

Statutes like the Law of Public Bids⁵⁰ and their interpretation by public officials and public attorneys have helped insulate national champions from competition, particularly in public bids involving major works of engineering. By perpetuating the idea that international bids were the exception, not the rule, and that the state could not bear the risks of having major services run by new entrants, both have virtually eliminated the entry of foreign competitors and fringe competition from Brazilian newcomers, avoiding the market contestability that could have annihilated the cartel in the first place.⁵¹

On top of that, there is a historical misperception by the population in general that the good state is the paternalistic state and that both laws and actions that protect national firms from foreign capital raise general welfare.⁵² This cloak of legitimacy has been created by priorities set by the government, especially by raising tariffs on imports and by offering subsidized financing to national champions as a way to foster the *El dorado* of the autonomous development of the state.⁵³ Again, by shutting foreign groups out of the local economy by offering subsidized interests and special conditions to the largest national economic groups, and by prioritizing established firms over new entrants in public bids, the state has created a long-lasting policy of national champions that virtually eliminated entry and fringe competition, avoiding the market contestability that could have extirpated the cartel.⁵⁴

At the same time, the state has created a symbiotic relationship with major Brazilian corporations.⁵⁵ This symbiosis has depended on the exchange of public subsidies and bid

⁵⁰ Law 8666/1993.

⁵¹ The mainstream interpretation is confronted by Thiago Marrara and Carolina Silva Campos, “Licitações internacionais: regime jurídico e óbices à abertura do mercado público brasileiro a empresas estrangeiras,” *Revista de Direito Administrativo* 275 (2017): 155–187.

⁵² See *supra* note 18.

⁵³ Several opinions on foreign trade of former Secretariat of Economic Affairs (Seae), now Secretariat for Productivity and Competition Advocacy (Seprac), both from Brazil’s Ministry of Finance, openly criticize high trade barriers and their effect on internal prices and competition. The extensive work of Seprac — the competition advocacy unit of Brazil’s Competition Policy System — can be accessed on <http://www.fazenda.gov.br/orgaos/seprac>.

⁵⁴ See *supra* note 43.

⁵⁵ See *supra* note 43.

riggings orchestrated by the state for the allegiance offered by the corporations, be it by means of strategic alliances in risky public policies, be it by means of financial support in political campaigns to perpetuate the same group of people in power.⁵⁶

Cartels managed by the state are resilient because the state's pervasive power and its ability to control enforcement bind its members together. Be it in Congress, in bargain agreements entered into by government agents, or even in the courts, the incentives to betray the cartel are much lower because the state is a source of stable power and the ultimate source of law enforcement.

The more the cartel is institutionalized and legitimized inside the state — be it by corrupt officers or by common public servants in the government, in the courts or in the legislature who believe they are ordinarily complying with regular rules —, the harder it will be for society and for extraordinarily strong institutions surviving inside the state to raise awareness and eventually prevail. In spite of that, dismantling resilient cartels is a hard job that can only be achieved by strong institutions that extraordinarily survive in countries of low institutional level, whose persistence may eventually unveil the cloak of legality and the cloak of legitimacy that protect the corrupt acts.

Unfortunately, even when strong institutions succeed in taking the resilient cartel to trial, there are winning strategies that the state, sitting on the vertex of the cartel, can put in place to preserve it.

Because sudden changes in the law and mock trials are clear signs of manipulation of power that could dismantle both the cloak of legality and the cloak of legitimacy that have sustained official cartels over the decades, (corrupt) democracies are subject to more subtle tools to game the system and shield the cartel from doom. The terms and the flexibility of cease-and-desist agreements and the secrecy involving their negotiations then come into play as the subtle and clever alternative needed to: (i) offer case immunity or substantial reductions in the fines applicable to corporate officers and corporations alike, (ii) shield cartel members against private enforcement and (iii) maintain the cartel operational after or even during the investigations — all under the cloaks of legality and legitimacy.⁵⁷ Due to their substantial penalty discounts, absence of a guilty plea (that limits private enforcement and its use in criminal lawsuits) and unlimited signors, and owing to the stability that the state brings to the official cartels, cease-and-desist agreements

⁵⁶ See *supra* notes 18 and 43. Also refer to the Car Wash Operation files, available on the webpage of the Federal Prosecution Service (MPF): <http://www.mpf.mp.br/para-o-cidadao/caso-la-va-jato>.

⁵⁷ See *supra* note 18.

bring low incentives for effective collaboration with antitrust authorities and become instrumental to the replication of the bid rigging rotation system, whereby the cartel can assign where on the marker system⁵⁸ line of each offense each cartel member must stand.⁵⁹

Cease-and-desist agreements share characteristics that turn the option to *stay inside the official cartel* into the dominant strategy in supergames, the only condition being that the legal system and the public policies that sustained the cloaks of legality and legitimacy do not suffer substantial changes. If said condition is fulfilled, cartel members will have reasons to believe that the institutional incentives to stay inside the cartel will remain the same.

Statutes are prone to changes. If official cartels could not afford unsubstantial changes in the law, they would be doomed to constant failure and resilience would not be their most appealing characteristic. The only changes that official cartels cannot afford in the legal system in order to sustain resiliency are the critical eliminations of: (i) a strong state capitalism; and (ii) market foreclosure as a credible threat. Once a pervasive state sustains its prerogative to reserve the market for the members of the official cartel, cartel members have solid reasons to fear that the state will lock them out of official deals (including bid-riggings) if they deviate from the agreement.⁶⁰

By promoting deals that pay off the cartel, while insulating the legal system and the legal opinions from major changes, the government delivers the misleading message that the law has been enforced while, in fact, institutionalized under-deterrence has preserved the appropriate conditions for the perpetuation of the resilient cartel.

6. Government facilitation and stability in cooperative supergames

One question can always be raised: If bargain agreements have been praised by countries with strong institutions, what would make them so unfit to fight resilient cartels in Brazil? Are they not a proven useful tool to get more information from the offender, help redress the offenses and punish the offenders?

Not in the case of resilient official cartels, at least. Official cartels are subject to a different subset of incentives and to a different level of stability that turn multiple agreements and substantial penalty discounts inappropriate.⁶¹

⁵⁸ A marker system keeps record of the order of the filings to get a leniency deal.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Ibid.

When a cartel is facilitated by the state itself, there is an inextricable guarantee of stability and continuity that leads to a cooperative repeated game: Even if the cartel is caught, the state will have in hand multiple alternatives to keep it functional, including the credible threat that each cartel member will be better-off if each one of them does not cease to cooperate and will therefore benefit in the long run from penalty reductions, large contracts and special financing conditions.⁶²

Actually, as explained before, the degree of institutionalization that exists in official collusion turns the option to *stay in the official cartel* into the dominant strategy in supergames. As such, the members of the cartel will only come forward if there is overwhelming evidence that: (i), the *status quo* has been subject to critical changes that eliminated both the cloak of legality and the cloak of legitimacy that ultimately sustained collusion; and (ii), that the official cartel will come to an end and hence they will not be able to sustain or resume the symbiotic relationship with the state.

When it comes to resilient official cartels, the threat of law enforcement and cartel dismantling only exists if fines are set well above the level of the gains,⁶³ if they take into account the likelihood of detection of the offenses and if cartel members are only exceptionally allowed to get full immunity or substantial penalty deductions. That would be the case of single leniency systems.

In single leniency systems, only one offender can get immunity or fine reduction, but only if the offender cooperates fully and effectively.⁶⁴ If, excepting the one who qualifies for leniency, the offenders are subject to optimal liability, the incentives to come forward are overwhelming. Because all the remaining offenders will be severely punished for decades of offenses, most groups will have to change control, shut down or be brutally reduced in size to survive, disrupting the cartel and imposing on the government officials high costs to find new partners.

The same does not apply to a system that allows multiple agreements, especially when the parties have *ex ante* guarantees that they can orchestrate and share how each one of them will benefit from those agreements. If the parties know in advance that all of them can get

⁶² Ibid.

⁶³ Becker (1968). Please also refer to *expected fines* in Polinsky (2011), especially chapters 10–11, and Shavell (2004), chapters 20–23.

⁶⁴ Eduardo M. Gaban and Julian O. Domingues, *Direito antitruste* (São Paulo: Saraiva, 2012); Ana P. Martinez, *Repressão a Cartéis: Interface entre Direito Administrativo e Direito Penal* (São Paulo: Singular, 2013); Thiago A. Marrara, *Sistema brasileiro de defesa da concorrência: organização, processos e acordos administrativos: de acordo com o código de processo civil de 2015* (São Paulo: Atlas, 2015); also refer to Whish (2009), Taufick (2017) and Taufick (2018).

substantial discounts and that those discounts can be well distributed inside the cartel, there is no reason to believe that the members of the cartel will be sufficiently punished, especially if the amount that all the offenders agreed to pay is set well below the level of gains earned with the offense. This can be facilitated by the low accountability of public officials and low levels of transparency in the negotiations and obligations designed in full immunity, general leniency and cease-and-desist agreements alike.⁶⁵

On top of that, when the members of the cartel have *ex ante* guarantees that all of them will receive a substantial degree of fine deduction that can be equally or fairly distributed among the members of the cartel, the incentives for collaboration are minimal. As a consequence, the prevalence of multiple cartel settlements per case can be a good sign of bad incentives for full collaboration by each cartel member individually. When collaboration is low, detection levels also drop and enforcement costs skyrocket.⁶⁶

Because allegiance to the resilient official cartel pays-off in the long run, the incentives to come forward first and sign immunity agreements are weak. Moreover insofar as leniency requires a guilty plea — which cease-and-desist agreements do not —, cease-and-desist agreements can sometimes (particularly in countries where private and criminal enforcements are high) prove to be, alone, the best available alternative for cartel members.⁶⁷

Of course, resilient cartels involving trusts would not predominate across different sectors if the markets were open and the economy free in the first place. Under such a scenario, we would probably not be talking about game theory, because *ex ante* competition for the market would exist and hence it would be contestable. But because the resilient cartels that this paper describes have at their vertex the captured state itself, that is, the only player that can give up paternalistic protection to national champions, market contestability will not become a credible threat until the resilient cartel and the settlements that legitimize them lose the cloaks of legality and legitimacy.

7. Redesigned cease-and-desist agreements and CADE's new anti-cartel policy

Cease-and-desist agreements are covenants whereby offenders commit to halt harmful behaviors and compensate society for damages to public goods.⁶⁸ Since their inception in 1985, after the enactment of Law 7347/1985, which empowered public prosecutors to

⁶⁵ See *supra* note 18.

⁶⁶ See *supra* note 17 and 18.

⁶⁷ Marrara (2015); Taufick (2017); Taufick (2018).

⁶⁸ Gaban and Domingues (2012); Marrara (2015); Taufick (2017); Taufick (2018).

seek compensation for collective damages and for harms to public goods, they have been widely used to stop damages to the environment and to consumers alike.

Public prosecutors have also used this tool to address one specific kind of harm: Damages that would arise from the alignment of prices between gas stations. In such cases, public prosecutors have used cease-and-desist agreements to eliminate rises in prices for a limited period of time. Because price alignment is not a conclusive evidence of a cartel and insofar as the elimination of price increases can be detrimental to consumers when the margins of the reseller are too low, the use of cease-and-desist agreements by public prosecutors in order to fight cartels has been overly criticized by antitrust experts and public authorities alike.⁶⁹

Shortly after the enactment of Law 7347/1985 and the empowering of public prosecutors to enter into cease-and-desist agreements (with perpetrators of offenses to public goods and to groups of citizens), federal laws and presidential decrees included cease-and-desist agreements inside the jurisdiction of competition authorities.⁷⁰ This happened briefly in 1986 and again in 1991, with no immediate effect though.⁷¹ Insofar as legal loopholes left competition authorities uncomfortable to substitute behavioral commitments and compensation of victims for legal fines, it was only after the enactment of a new Competition Law (Law 8884/1994), and ten years after cease-and-desist agreements were first used in the European Union, that a Brazilian competition agency received clear authorization to enforce them.⁷²

As clarified by Congress,⁷³ cease-and-desist agreements carried at their core a clear trade-off: Clearing offenders who desisted from harmful anticompetitive behavior. That said,

⁶⁹ Concerns about the number of frivolous anti-cartel lawsuits and notifications involving gas stations instigated former Secretariat of Economic Law (SDE, whose functions have been incorporated by CADE's General Superintendence) and the National Agency of Petroleum, Natural Gas and Biofuels (ANP) to issue a brochure to public attorneys and consumer protection entities that emphasized the existing cooperation between both agencies in the pursuit of cartels in this field and explained how to correctly categorize a cartel. The document can be found on ANP's website, http://www.anp.gov.br/images/Precos/Precos_e_Defesa/cartilha_defesa_concorrancia.pdf.

⁷⁰ Marrara, *Sistema brasileiro de defesa da concorrência*.

⁷¹ *Ibid.*

⁷² *Ibid.*

⁷³ EM 184/1993, introduced by Bill of Law 3712-A/1993, and ultimately voted by Congress to become Brazil's 1994 Competition Law.

cease-and-desist agreements have always admitted that competition authorities applied secondary obligations, as expressly authorized by the laws that incorporated them.

One can easily identify that, since its inception in the Competition Law, cease-and-desist agreements carry the same pattern that made them a successful tool for public prosecutors to fight harms to the environment and to the consumers. Both incorporated as a main goal to *cease* the harmful behavior and left room for the *compensation* for collective damages and for damages to public goods.⁷⁴ Since 2000 both coexisted with leniency: A different set of arrangements that focused on *collaboration* as a tool to *identify* and *punish* authors of major criminal offenses instead.

In 2000, leniency was introduced in the Competition Law as amended by Law 10149. Only the investigative agency in Brazil (the Ministry of Justice's Secretariat of Economic Law), not the Council for Economic Defense (CADE, the competition tribunal), had jurisdiction to enter into leniency agreements. In order to strengthen leniency, Congress determined that cease-and-desist agreements could no longer be used in cartel settlements.

Brazil's leniency program offered immunity or a substantial reduction (from 1/3rd to 2/3rds) in the fines of one and only one individual or corporation (the first applicant) who, besides not acting as a cartel leader, effectively collaborated with the investigations and identified the other members of the cartel. To qualify for full immunity, the applicant should also notify the authorities of a crime they were not aware of. On top of that, applicants should plea guilty and desist from the harmful behavior. Corporate leniency was also extended to all the managers, directors and companies belonging to the same group who signed the same agreement.

Tailored after the American experience, Brazil's Competition Law also incorporated the so-called leniency plus. In leniency plus, the applicant who failed to comply with all the requirements to qualify for full immunity (or full leniency) or for a partial leniency deduction of up to two-thirds of the fines for offense A could still be granted a deduction of up to one-third of the fines for offense A if and only if at the same time they qualified for full immunity for offense B. There has been no legal limitation to the number of leniency plus agreements signed in each case.

In 2007, Law 11482 amended the 1994 Competition Law to resume the application of cease-and-desist agreements to cartel settlements. In order to do so, Congress demanded that

⁷⁴ For the detailed story portrayed below, please refer to Taufick (2017) and to Commissioner Luiz Carlos Prado's opinion in Petition 08700.005281/2007-96, involving Alcan Embalagens do Brasil Ltda. and Marco Antonio Ferraroli dos Santos.

the offender paid an amount that should be no less than the minimum fines set forth in the Competition Law: *According to the Competition Law, fines should not be set, among other things, below the gains of the offender.*

Law 11,482 also assigned CADE jurisdiction to set complementary rules regarding the requisites, timing and conditions to enter into cease-and-desist agreements. Using its new legal prerogative, CADE determined that cease-and-desist agreements would require a guilty plea from the applicants whenever a leniency agreement was already taking place. In every other situation, CADE would have the authority to decide whether to demand or not a confession of guilt.

In 2011 Congress enacted the new Competition Law, Law 12,529/2011, that concentrated in CADE all the power to investigate and to administratively decide a case. The new law preserved the exclusive jurisdiction of the investigative body — now CADE’s General Superintendence — to enter into leniency agreements and the prerogative of the new Administrative Court to give the final word concerning cease-and-desist agreements. Law 12,529/2011 also eliminated the restriction that prevented cartel leaders from entering into leniency agreements. All the rest remained the same.

In the aftermath of the enactment of the new law, CADE’s Administrative Court took an unprecedented decision: CADE’s new Internal Regulation now demanded that any cease-and-desist agreement in cartel settlements should include a recognition of participation in the investigated conduct; but no guilty plea would be required in any case thenceforth. No other change was, however, more significant than the amendments incorporated in CADE’s Resolution 5/2013. Resolution 5 changed the nature of cease-and-desist agreements, turning them into collaboration agreements. By incorporating characteristics inherent to leniency agreements, Resolution 5 required from the applicant effective collaboration with the investigations and granted substantial discounts in the amount of the fines that *resulted in monetary sanctions below the gains earned by the offender — with disregard for the minimum fines set forth by the Competition Law.* Resolution 5 was enacted a few months before the Car Wash Operation, triggered in 2009, was boosted.⁷⁵

Also, because Congress enacted a law that offers a system of one leniency only, based on the belief that the incentives to come forward were greater than under a system of multiple leniency agreements or similarly attractive plea bargain agreements, CADE lacked authority to create a new leniency system that offered more to cartel members as a group and thus increased incentives for the perpetuation of supergames.

⁷⁵ Ministério Público Federal, “Caso Lava Jato,” accessed January 20, 2018, <http://www.mpf.mp.br/para-o-cidadao/caso-lava-jato/atuacao-na-1a-instancia/investigacao/historico>.

Even though it is not in the purpose of this paper to generally discuss the pros and cons of single and multiple leniency programs, we inevitably come to the conclusion that the shift from a single leniency program to a multiple leniency program was introduced against the law (*contra legem*) and that the substantial discounts set by Resolution 5 explicitly offend the Competition Law. Also, besides the claim that CADE's new anti-cartel program offends the law, this paper also reaches the conclusion that, based on the economic incentives discussed along this paper, single leniency is a superior solution to fight resilient official cartels.

Finally, one could argue that the cease-and-desist agreements designed by the law — which only required that the offender ceased the offense and, in the case of cartels, also paid a compensation — were much more lenient than the one that CADE designed on its own, where cooperation was also required. This is, however, a common mistake coming from those who do not understand that it has never been the purpose of cease-and-desist agreements to replace or displace leniency as an instrument that forgives one offender as a necessary measure to get all the others.

Cease-and-desist agreements were not originally designed for major offenses like cartels, where leniency was more adequate. They were basically a tool to address first time offenders in need of guidance (competition advocacy).⁷⁶ Even after the incorporation of cease-and-desist agreements in cartel settlements, they had as their main purpose to cease the offense, redress the harm and compensate the victims by means of ancillary obligations.⁷⁷ In other words, it was the appropriate means to be used whenever the gains earned with the offense were much less important than redressing the harm or enlightening the market players of the benefits of competition.

8. Suboptimal, illegal (and misperceived as too high) fines in cease-and-desist agreements

In May 2016, CADE's General Superintendence issued a new cease-and-desist negotiation model. *The Guidelines: Cease-and-Desist Agreement for Cartel Cases* highlight the main requisites for a successful application according to the new discipline of cease-and-desist agreements established by Resolution 5. As its most important feature, the first section of the guidelines highlights how to provide substantial collaboration during the investigations.⁷⁸

⁷⁶ Please refer to Taufick (2017) and to Commissioner Luiz Carlos Prado's opinion in Petition 08700.005281/2007-96, involving Alcan Embalagens do Brasil Ltda. and Marco Antonio Ferraroli dos Santos.

⁷⁷ Gaban and Domingues (2012); Marrara (2015); Taufick (2017); Taufick (2018).

⁷⁸ The use of substantial discounts in cease-and-desist agreements seems to be inspired by Martinez's doctoral thesis, which she later developed into her book (Martinez 2013).

The second section of the guidelines explains in detail how substantial the discount on the fines can be. While the relevance of section I lies in the change of nature of the cease-and-desist agreements, its emphasis now lying in collaboration, it is in section II that both the clearest confrontation of the rule with the Competition Law and the greatest flaw of Brazil's new anti-cartel policy make appearance.

The most important issue to be aware of is that, as explained in the following paragraphs, the breadth of the discounts is both suboptimal and illegal by nature.

According to Articles 227(i)–(iii) and 228 of CADE's Internal Rules, as amended by Resolution 20/2017, and pursuant to the *Guidelines: Cease and Desist Agreement for Cartel Cases*, the discounts vary from 30–50% (first applicant), 25–40% (second applicant), 25% (following applicants) to a floor of 15% (for late applications) of the expected fines. Both documents also specify that the expected fines are those that, except for the cease-and-desist agreement, would be applied by the Tribunal and that it is over that value that the discounts happen: “Thus, CADE clarifies that, as a rule, the systematic calculation of the expected fine is the following: definition of the calculation basis/turnover (II.2.1.1), update of the calculation basis/turnover (II.2.1.2), *application of the percentage of the calculation basis for the expected fine* (II.2.1.3). *Lastly*, for the calculation of pecuniary contribution of TCCs, *the discount is applied* (II.2.1.4).”⁷⁹

Yet, according to Article 85, §2º, *in fine* of the Competition Law, the amount to be paid by the private parties that enter into cease-and-desist agreements cannot be lower than the gains obtained by the offender. As clarified in CADE's guidelines:⁸⁰

In turn, for the purpose of calculating the pecuniary contribution in cartel cases and in cases of influence of uniform commercial practice, the Law determines that *the value must not be lower than the minimum value of the fines, indicated in Article 37, which determines, in verbis:*

Art. 37. A violation of the economic order subjects the ones responsible to the following penalties:

I—in the case of a company, a fine of one tenth percent (0.1%) to twenty percent (20%) of the gross sales of the company, group or conglomerate, in the last fiscal year before the establishment of the administrative proceeding, in the field of the business activity in which the violation occurred, *which will never be less than the advantage obtained, when the estimation thereof is possible.*

⁷⁹ General Superintendence of CADE, *Guidelines: Cease and Desist Agreements for cartel cases* (Brasilia: Ministry of Justice), 28–29.

⁸⁰ *Ibid.*, 22.

And again: “In order to quantify the pecuniary contribution, the expected fine for the company must be calculated (Article 187 of the RICADE), and *it must not be lower than the advantage obtained from participating in a cartel, when such advantage can be estimated* (Article 37, sub-paragraph I of Law n° 12.529/2011). *Whenever possible, the advantage obtained must be calculated.*”⁸¹

As the application of a simple mathematical operation can show, the problem with the discount model is that whenever the amount of what CADE defines as *expected fines* is already the minimum defined by the law or when the discount applied is large enough, the sum of money to be paid by the applicants according to a cease-and-desist agreement will be suboptimal (lower than the gains) and less than the floor established by the law.

Strangely enough, the guidelines clarify how the Internal Rules eventually conflict with the Competition Law: “It is important to note that, in order to attract companies to adhere to this kind of agreements, the amount of the contribution should be lower than the fine, but *not necessarily lower than the advantage obtained.*”⁸²

In other words, if the amount to be paid by the offender is *not necessarily* lower than the gains from the cartel, the guidelines *explicitly acknowledge* that the amount to be paid under cease-and-desist agreements might end up *lower* than the gains from the cartel obtained by the offender. Actually, as mentioned before, due to the volume of discounts offered in cease-and-desist agreements, the amount to be paid by the offender will almost always be lower than the gains from the cartel obtained by the offender.

The level of the discounts explained by the guidelines leads not only to fines that are lower than the gains obtained from the harmful conduct, but also lower than the parameters set forth in Articles 37(i)–(iii) of the Competition Law. Not only are the *pecuniary contributions* set below the optimal liability, but also against the Competition Law.

The statutory floor to the fines is actually a first legal impediment to treat cease-and-desist agreements like leniency: In leniency, the discounts in the amount of the fines can lead to sanctions that are much lower than the expected fines. From the legal perspective, this is acceptable because leniency agreements are immunity agreements: There can be full immunity and lower levels of immunity (under partial leniency and leniency plus), depending on the degree of collaboration.

⁸¹ Ibid., 25.

⁸² Ibid.

From the perspective of incentives, immunity should be given with parsimony as a means to get evidence against the other cartelists and in order for it not to become general indulgence. If, for a certain price, everyone is certain of full or substantial forgiveness and is willing to pay for said forgiveness accordingly (because it costs less than the benefit it creates to the offender); if collaboration with the authorities should take into consideration the eagerness of the other members of the cartel to come forward, too, in relation to other antitrust offenses; and if the cartel stands very good chances of surviving the investigations, then, according to what we have discussed so far in game theory, there is no reason to believe that Resolution 5 will increase effective collaboration.

At the same time, the (absolute) large amounts of money that CADE has collected from the cartels, however insufficient to deter collusion, have created the misperception of substantial deterrence whereas, in fact, the amounts collected in cease-and-desist agreements have been consistently reported by dissenting opinions⁸³ as being relatively low compared to the gains extracted from the cartels. The cloak of legality raised by pseudo-deterrence helps the cartels pay off, contributes to the resilience of the agreement and has helped build the misperception that deterrence is high because, in absolute terms (but not as a share of the gains earned from the offense), the amounts collected are high.

9. Double-dip and underdeterrence

This paper has claimed that substantial discounts offered by the cease-and-desist agreements under Brazil's anti-cartel program create problems with incentives. As mentioned above, discounts vary from 30–50% (first applicant), 25–40% (second applicant), 25% (following applicants) to a floor of 15% (for late comers) *of the expected fines*.

But CADE went further and made it possible to combine the benefits of cease-and-desist agreements with those of leniency plus agreements. According to the *Guidelines: Cease and Desist Agreement for Cartel Cases*,

If the signatory of a new Leniency Agreement in a second cartel decides to sign a TCC related to a cartel that is already under investigation and where Leniency Agreements are not available, the benefits of the Leniency Plus and of the TCC may be combined, at CADE's discretion.

Both discounts are applied subsequently (i.e., first the Leniency Plus and then the TCC discount) and non-cumulatively (i.e., the sum of both discounts). Cumulative application could result in excessive benefit for the company and/or individual that practiced cartel in several markets, with possible reduction of the dissuasive effect

⁸³ Commissioners Schmidt and Resende.

of the conduct, which could also discourage the presentation of new Leniency proposals, since TCCs would entail greater benefits.

The subsequent application of discounts (i.e., first the Leniency Plus Agreement and then the TCC discount) is based on interpretation of the laws, since Leniency Plus discounts fall upon the applicable penalty in general terms, whereas the TCC discount falls upon the expected fine, in the concrete case. Moreover, it maintains the consistency between the maximum discounts in Leniency Plus Agreement and TCC, vis-à-vis the hypothesis of partial Leniency. Furthermore, the subsequent application of the additional discount pursuant to the Leniency Plus Agreement is not significantly different from CADE's experience in TCC negotiations, but adequately benefits Proponents that cooperate in both investigations.

Given that a TCC negotiation considers discount bands, the subsequent application of Leniency Plus Agreements with TCC at SG/CADE, can result in the following total discount bands on the expected fine:

- (i) In the case of first TCC proponent: from 53,33% to 66,67%;
- (ii) In the case of second TCC proponent: from 50% to 60%;
- (iii) For the other TCC proponents: up to 50%. ⁸⁴

Because Resolution 5 altered the incentives to sign cease-and-desist agreements alone, the very Resolution 5 tried to balance those incentives with a more attractive leniency program. CADE did so by tying leniency plus and cease-and-desist agreements and by offering major discounts for the same amount of information that leniency plus or cease-and-desist agreements alone already collected. In other words, CADE would now allow that n market players entered into both a leniency agreement and a cease-and-desist agreement in the same case in order to collect the same piece of information, therefore getting the same quantum of data in exchange for greater discounts ("i.e., first the Leniency Plus Agreement and then the TCC discount," as explained in the *Guidelines*).

The legality of this new application of cease-and-desist agreements is, to say the least, controversial. First, because the goal of leniency plus — creating incentives for relevant cooperation also in the case where the private party does not qualify for immunity — should be achieved using the rewards that Congress established: a reduction of $1/3$ in the fines. CADE has no legal authority to increase the reward by itself.⁸⁵ By doing so, the first signor of a leniency plus agreement will receive full immunity for the first case and a

⁸⁴ CADE, *Guidelines*, 32–33.

⁸⁵ Under Roman-German regimes, Administrative Law, being a part of Public Law, is governed by the principle of strict legality.

discount for the second case that may lead to the discount received by the whistleblower in a partial leniency agreement (a reduction of 2/3rds of the fines). This situation offends the Competition Law and the incentives it offers to timely collaboration, because unlike the beneficiary of a partial leniency agreement, the first signor of a leniency plus agreement was not the first to blow the whistle and offer useful collaboration (in relation to the offense it will not receive full immunity for). In other words, Resolution 5 lowers the incentives to come forward and be the first to blow the whistle in both cases.

Second, what the regulation does here is increase the rewards without demanding more from the private parties in a win-lose strategy. Because after Resolution 5 the goals of leniency plus are the same as the goals of cease-and-desist agreements, CADE could only have offered to the private parties the possibility of signing either a leniency plus or a cease-and-desist agreement, never both of them. This conclusion is straightforward because after Resolution 5 both leniency and cease-and-desist agreements have converged in objectives, aiming at getting collaboration in exchange for a certain level of immunity. Clearly, the law did not expressly forbid said spurious combination from the beginning because: One, they have been conceived of as alternative and self-sufficient means to end the investigations, meaning that the enforcement of both of them would be excessive; two, pursuant to the law the amount of money paid in cease-and-desist agreements has compensatory nature (compensates damages) and cannot by any means be interpreted as a punitive fine (which, in a world of perfect detection, would match the gains earned with the offense⁸⁶); three, even if the nature of cease-and-desist agreements was punitive, cease-and-desist and leniency agreements cannot offer subsequent discounts for the same cause, especially because the law already requires that the applicant cooperate fully under leniency, meaning that the option of *further cooperation as complemented after signed cease-and-desist agreement* should not be available.

Third, in resilient cartels architected by captured governments, collusion (involving the same corporations) affects multiple bid-riggings, possibly in multiple sectors. Therefore, if the public authorities have already received information that will inevitably lead them to uncover the remaining operations, its members can arrange cease-and-desist, leniency and leniency plus coupled with cease-and-desist agreements in a way that the minimum discount any one of them will receive in each individual case will be no less than 50% over the expected fine. As we will see in the next section, this *damage control* strategy may have been used during the Car Wash Operation.

⁸⁶ Paradoxically, the law sets forth that the compensation in cease-and-desist agreements should be no less than the *gains* from the offense, a comparison that is not adequate: Due to its compensatory nature, the value paid by the applicant in a cease-and-desist agreement should be no lower than the *damages* (not the gains) from the investigated behavior instead.

10. The statistics of underdeterrence under the new anti-cartel policy

This paper has argued that CADE has not shown commitment to set fines at the appropriate level (gains of the cartel, in a world of perfect detection): Because the discounts in the fines have exceeded what the law sets forth (be it in cease-and-desist agreements alone, be it in cease-and-desist coupled with leniency plus agreements), it became more profitable for a well-architected cartel to combine strategies that share the costs of legal enforcement between all the members.

In the pursuit of figures that could explain how CADE's new anti-cartel policy changed the incentives to collaborate with public authorities, we have first tried to isolate how corporations involved in resilient cartels inside the government have behaved after Resolution 5.

The first objection in the data that CADE provided is that every Car Wash Operation case (the most emphatic example of a resilient official cartel after Resolution 5 was enacted) was still being handled by CADE's General Superintendence at the time that I requested access to information, meaning that the numbers I have been given are quite preliminary. This piece of information was highlighted by CADE itself in its reply.⁸⁷ The second objection lies in the fact that, because leniency agreements should be given priority treatment insofar as the leniency petitioner should be the first to provide relevant information on the anticompetitive behavior, and insofar as CADE is still negotiating leniency agreements at the General Superintendence, the high season for cease-and-desist agreements has not arrived yet. That understanding was corroborated by CADE's staff, who stressed that leniency plus coupled with cease-and-desist pleas are still under consideration.⁸⁸ That notwithstanding, the partial numbers offered by CADE already offer a useful tool to understand how Resolution 5/2013 altered the overall and the *per case* volume of cartel settlements signed with CADE.

According to Figure 1, the first leniency plus agreement entered into by CADE dates back to 2015 and the overall number of leniency plus agreements reaches 16 cases over the last 3 years. However, also according to CADE,⁸⁹ 9 out of 16 — roughly 56% — leniency plus agreements entered into by CADE already received the increased discounts introduced by Resolution 5 in 2013, whereby leniency plus and cease-and-desist discounts are combined. Other increases are still under negotiation.⁹⁰

⁸⁷ Access to information — e-SIC — plea 08850.000702/2018-21.

⁸⁸ Ibid.

⁸⁹ Appeal answer in plea 08850.000555/2018-90 (access to information).

⁹⁰ Answers to plea 08850.000702/2018-21 and to plea 08850.000698/2018-00 (access to information).

Figure 1: Leniency and Leniency Plus Agreements (2003–2017). (CADE, “Cade em números,” accessed March 14, 2018. Updated versions of the chart may be found on <http://en.cade.gov.br/topics/leniency-program>.)

Leniency Agreements, Addendums and Leniency Plus celebrated in Brazil

Total: 72 + 22 + 16 = 110

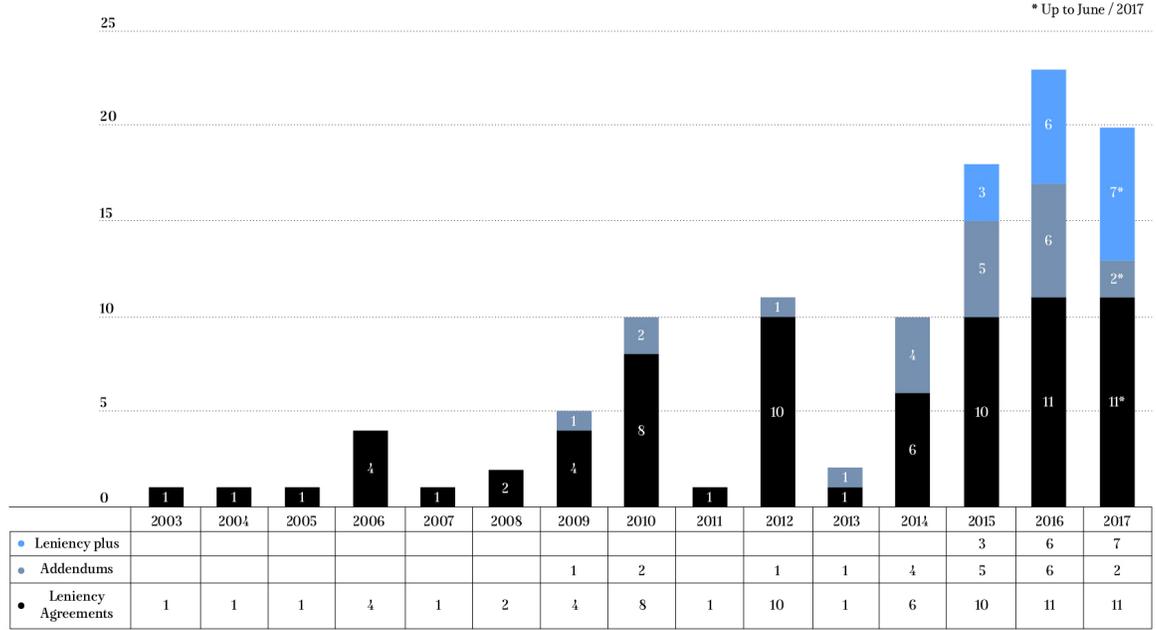


Figure 2. Leniency Agreements under the Car Wash Operation

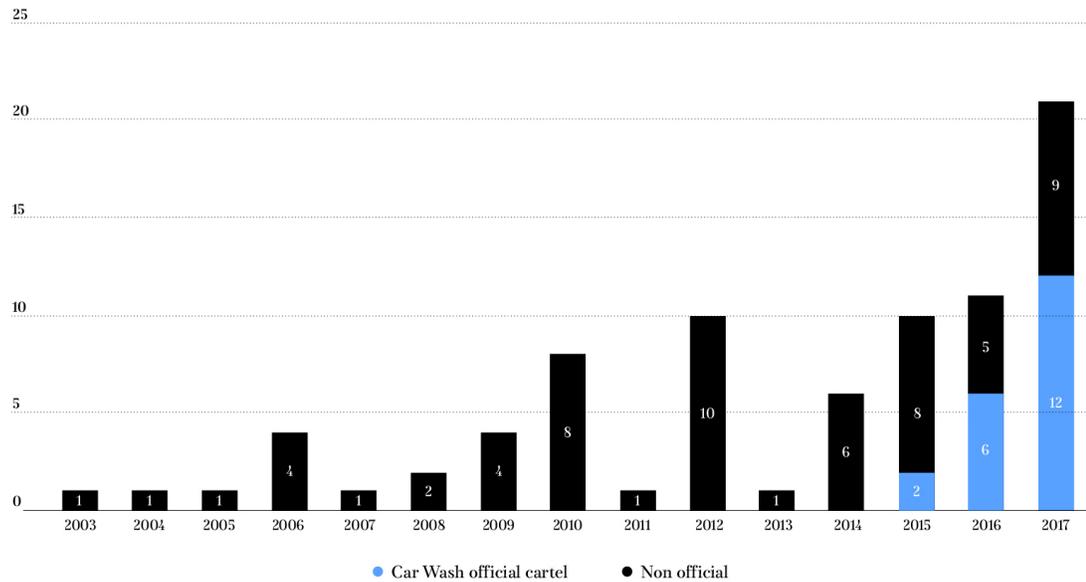


Figure 2 shows that 20 leniency agreements have been entered into under the Car Wash Operation. From Figure 3 below it is possible to determine that 19 out of those 20 leniency agreements carried immunity agreements, meaning that the public authorities did not know about the existence of the cartel before the whistle was blown.

Figure 3. Cartel settlements in the Car Wash Operation (2015 - 2017)

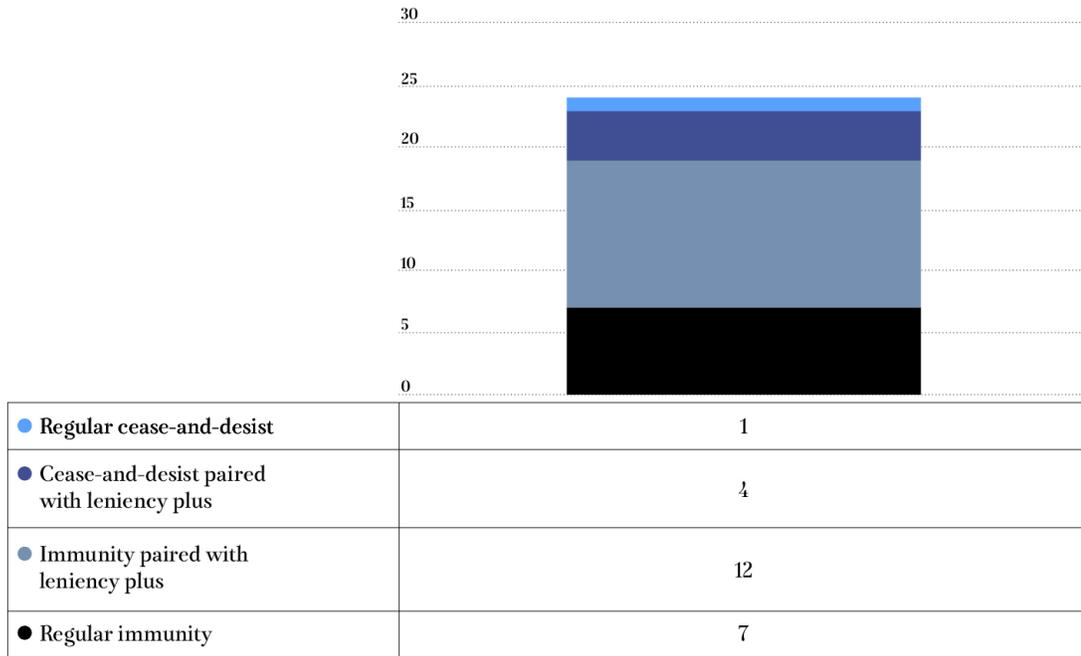


Figure 3 also shows that so far, 12 out of the 19 (roughly 63%) immunity agreements have been paired with leniency plus agreements and that 4 out of the 12 (roughly 33%) leniency plus agreements have been paired with cease-and-desist agreements. As mentioned before, these numbers are still preliminary.

As already explained, the number of cease-and-desist agreements entered into so far is not representative of the deals that CADE has made since the enactment of Resolution 5 in 2013, insofar as cease-and-desist filings are still under negotiation in the General Superintendence. Figure 4 below shows how the number of general cease-and-desist agreements (involving not only official cartels) has escalated after CADE turned cease-and-desist agreements into collaboration covenants in 2013.

Figure 4. Cease-and-Desist Agreements (2012-2017)

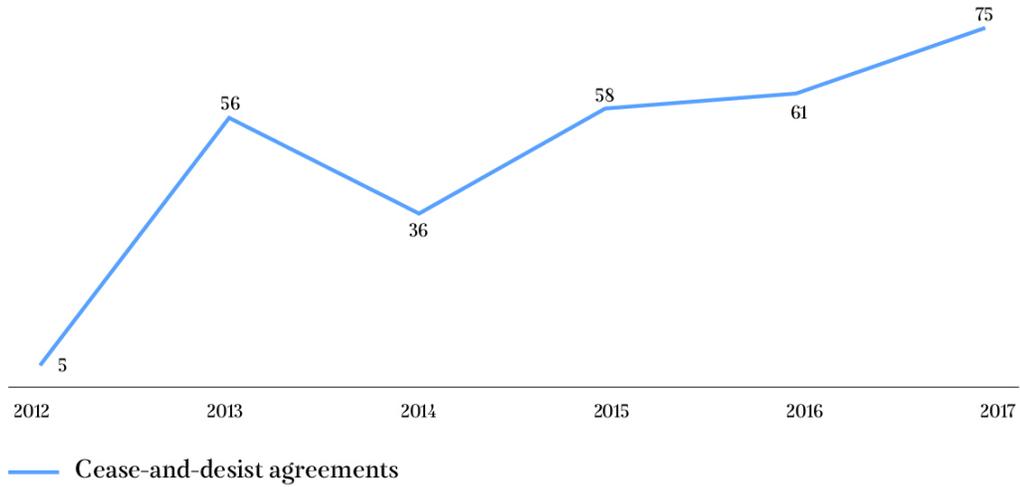
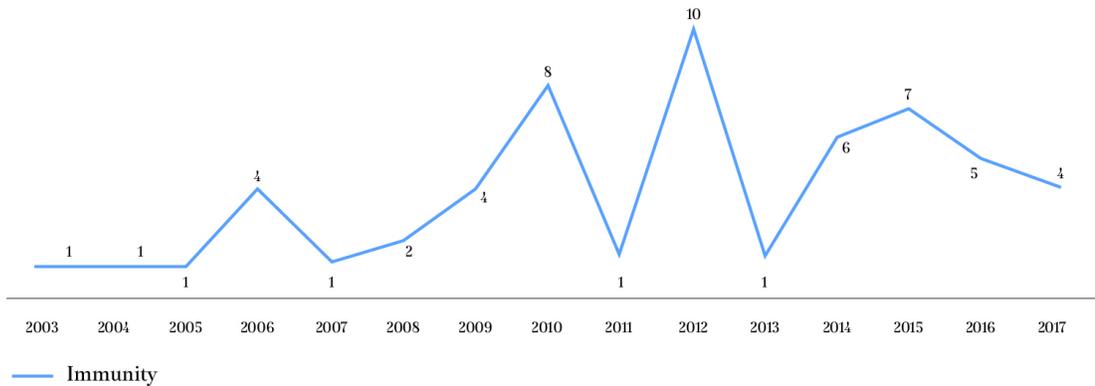


Figure 5 below shows immunity under a different perspective, based only on the number of leniency agreements that are not paired with leniency plus agreements. We reached those numbers by subtracting each leniency plus agreement that has been registered from the total number of leniency agreements. Figure 5 also shows that the number of leniency agreements that are not paired with leniency plus remains at the same levels as before Resolution 5, bringing evidence that, excepting unprecedented attractive discounts to deliver information under cease-and-desist agreements and the unlimited number of attractive cartel settlements that are now allowed in each case, the incentives to blow the whistle have not been increased by Resolution 5.

Figure 5. Immunity agreements alone



According to Figure 5, until June 2017 the number of leniency agreements signed that year that are not paired with leniency plus covenants was only 4. According to figures that CADE makes available only on the Portuguese version of its website,⁹¹ from June to December 2017, 10 more leniency agreements have been signed, but no leniency plus agreement, leading to a historical high of 14. However, as mentioned before, CADE is still negotiating leniency plus and cease-and-desist agreements in those very cases. This is the reason why the historical high of 14 seems to be overrated. Because negotiations of cartel settlements are a continuum that starts with leniency agreements and proceeds with the assessment of leniency plus and then cease-and-desist applications, it is not possible to look at the number of immunity agreements already signed and know exactly how many of them will not be coupled by leniency plus and cease-and-desist agreements.

Evidence shows that after Resolution 5 not only did CADE celebrate its first leniency plus agreements, but also that most immunity agreements are now accompanied by leniency plus agreements.⁹² For the purpose of this paper, Figures 1–5 show that the use of leniency agreements alone to deter cartels is decreasing (in relative terms) as the use of cease-and-desist agreements, leniency plus and leniency plus coupled with cease-and-desist agreements is escalating. The possibility to enter into cartel settlements with multiple market players — including every single cartel member — in each case as well as the granting of multiple sequential discounts for each applicant in each case — derived from immunity, leniency plus and cease-and-desist agreements — lead to significant discounts in the amounts of fines of each applicant and to general underdeterrence, perverting the incentives system originally designed in leniency.

The new cartel policy shows a clear predisposition of the public authorities to offer immunity and to enter into multiple cartel agreements without full cooperation from the private parties in the same case. It also lowers the incentives for early defection: irrespectively of when one comes forward, one will be sure to have access to significant discounts, erasing the incentives to be the first to come forward. The contours of this reality, already present in ordinary cartel cases, seem to be present also in the fight against official cartels, thus creating incentives for the resilience of collusion.

⁹¹ CADE, “Programa de Leniência,” accessed September 13, 2018, <http://www.cade.gov.br/assuntos/programa-de-leniencia>.

⁹² Please refer to Figure 3 above.

This understanding seem to be corroborated by a clarification offered by phone by CADE's General Superintendence.⁹³ According to said clarification, the grant of leniency plus discounts by CADE has been automatized: At any time one is granted immunity in one case and is also a defendant in another case, CADE automatically applies leniency plus to the other case,⁹⁴ eliminating the trade-off between collaboration and discount in the penalty that characterizes leniency agreements. It also contradicts CADE's guidelines on its leniency programs, where one reads:

If, for example, company Alfa is investigated for anticompetitive conduct in market A and negotiation of a Leniency Agreement is not available (see question 37, above), it can report to the SG/CADE another collective antitrust violation in market B, of which the SG/CADE had no prior knowledge (see question 19, above), and obtain, in addition to all the benefits of the Leniency Agreement in relation to market B (see question 18, above), a reduction of one-third of the applicable penalty in market A under investigation, *as long as it cooperates with the investigations*.

Hence, with regard to the new violation reported (New Leniency Agreement), once the legal requirements have been met (see question 12, above), the leniency applicant will receive all the benefits of the Leniency Agreement (art. 86, paragraph 1, and art. 86, paragraph 4, I and II, of Law No. 12.529/2011). With regard to the violation already under investigation by the SG/CADE (proceeding with the Original Leniency Agreement), *the leniency applicant may benefit from reduction of one-third of the applicable penalty (leniency plus), to the extent it cooperates with the investigations*.⁹⁵

⁹³ I received the call from the chief of staff a week before I was offered the answers to pleas 08850.000702/2018-21 and 08850.000698/2018-00.

⁹⁴ According to the call described in the previous footnote, the automation had implications in the way that statistics associated with leniency plus are now presented to the public: Instead of showing the number of leniency plus agreements signed (meaning that $n \leq 1$, where n stands for the number of leniency plus agreements signed), CADE started to show the number of leniency plus filings (meaning that $n = 1$, where n stands for the number of leniency plus agreements signed). Please refer to the figure "Acordos de Leniência Assinados e Aditivos" ("Leniency Agreements Signed and Addenda") in the Portuguese version of CADE's website, accessed July 22, 2018, <http://www.cade.gov.br/assuntos/programa-de-leniencia>. Also check the apparent contradiction that someone unaware of CADE's new understanding would find by confronting the title of the figure ("Agreements Signed") to the description associated with leniency plus agreements ("leniency plus filings").

⁹⁵ CADE, *Guidelines*, 56.

In this context, we believe that the increase in the number of immunity agreements that have been signed, paired with leniency plus and cease-and-desist agreements, is consistent with our understanding that Resolution 5 created incentives for the allocation of immunities and discounts among the members of the cartel. It is also consistent with the perception that cartel members, anticipating that the dismantling of new cartels by the Car Wash Operation was near, decided to come forward in an organized fashion and distribute the immunities and discounts among themselves, investing their remaining resources in influencing decision-makers to alleviate the fines. If CADE's anti-cartel policy was effective, the threat caused by the Car Wash Operation should have been enough to cause cartel members to blow the whistle under immunity agreements alone and turn leniency plus and cease-and-desist agreements — at least at the rate that CADE has been signing — unnecessary.

II. Final remarks

Because of the de facto low levels of coerciveness of the Antitrust Law as applied by CADE, proper deterrence depends on the joint application of fines and incapacitation penalties set forth in other legal statutes, like the Anticorruption Law (Law 12846/2013), the Public Damages Law (Law 7347/1985), and the Law of Crimes against the Economic System (Law 8137/1990), something that only exceptionally happens in a country with low levels of antitrust culture where the state plays a central role in designing, intermediating and sustaining resilient cartels.⁹⁶ It means that, as a general rule, antitrust offenses like cartels are severely underdeterred in Brazil:⁹⁷ Seldom are anticompetitive behaviors detected in Brazil and when they are, the sum of the fines is set below the level of gains and does not take into account detection levels.

In order to achieve and sustain optimal deterrence, it is legitimate that public authorities resort to cartel settlements, as these lower both administrative and judicial costs for the authority and for the defendants alike.⁹⁸ They also help increase detection and deterrence when they create the appropriate incentives for effective collaboration. Collaboration is effective, among other things, when the punishment of one offender is sacrificed as a

⁹⁶ See *supra* note 18.

⁹⁷ According to the Commission of the European Communities, "Commission Staff Working Document accompanying the White Paper on Damages actions for breach of the EC antitrust rules," SEC (2008), 405, even in the most advanced competition systems, like the European Union, the levels of detection are assumed as a number between 10-20% for hardcore cartels.

⁹⁸ Taufick, *Nova lei antitruste brasileira*.

trade-off to collect enough information on the other cartel members. Cartel settlements are also relevant when deterrence is achieved by means of compensation of the victims, or when the public authority opts to do competition advocacy in gray zones.

But as evidence shows in this article, when the rules create a market for indulgences by making it possible for offenders to come clean after paying an amount that stays significantly below the level of gains; and when little collaboration is asked in return for significant fine discounts, then the incentives to blow the whistle and to increase detection are low. When no one coming forward offers substantial collaboration or when it takes much longer to come forward — probably when the cartel is about to be identified by public authorities —, there is an inevitable increase in the costs to pursue offenses.

As this article also claims, incentives not to come forward are stronger in official resilient cartels, particularly in closed economies and paternalistic regimes. There, market players can be sure that deviation from the cartel will be severely punished with market foreclosure by the government, which controls input and output flow. Without subsidized public financing, without access to public procurement and subject to anticompetitive regulation, the player cannot stand alone in those countries and belonging to the cartel is but a means to survive.

The strategy to remain quiet and only come forward when detection and enforcement are certain prevails (i) since the offenders know in advance that they do not need to defect early to get good deals; (ii) because they are aware that they can turn themselves in anytime and get a good bargain; (iii) insofar as they know that betraying a cartel is not a good deal in the long run because they will depend on deep government ties to thrive; (iv) because the broad involvement of government officials in a paternalistic state increases the odds that cartel members will be underdeterred and because offenders know that the level of detection is low.

Since 2013, when CADE changed its anti-cartel policy, the number of cartel settlements has skyrocketed.⁹⁹ The change coincided with the growth of the Car Wash Operation, happening at a time when concerns with the survival of national champions were rampant, including changes in the Corruption Law by means of an Executive Order (MP 703/2015).¹⁰⁰ In our view, the change in CADE's anti-cartel program may help sustain the official cartels that the Car Wash Operation has so hardly tried to dismantle.

⁹⁹ Please refer to Figure 4.

¹⁰⁰ Taufick (2017); Taufick (2018).

The purpose of this work is to offer a critical view on the alleged deterrence created by CADE's new anti-cartel program, be it by showing problems with its incentives or by explaining how CADE has frontally confronted the Competition Law and therefore the level of deterrence chosen by Congress. ■

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