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Chapter 89

LENIENCY PROGRAMS

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This chapter describes the main features of the U.S. and European regulation of leniency programs, which grant fine reductions or immunity to firms that cooperate in cartel investigations. It proposes a simple theoretical framework to identify the key elements that make leniency programs effective and compares these insights with some empirical evidence based on the U.S. and European experience and with the evolution of the regulations in these jurisdictions.

1. Introduction

A leniency program (LP) defines a set of rules for granting reductions in penalties to firms or individuals involved in cartels, in exchange for discontinuing participation in the practice and for providing active cooperation in the investigation by the enforcement authorities. These programs were first adopted in 1978, and then reformed in 1993, by the Department of Justice in the United States[1] and are now in force in a large set of countries, including many in the European Union (EU).[2]

One of the main areas of concern of antitrust policies today is the prosecution of cartels, and in particular of international cartels. LPs can be viewed as a success story from this perspective, as they have promoted unprecedented effectiveness in discovering and interrupting illegal agreements among firms. The regulations adopted in the different countries share some general features, although some heterogeneity is observed in specific rules. It is therefore important to highlight first the elements common to the main jurisdictions, and then the rules specific to particular jurisdictions. This allows evaluation of the different degrees of success achieved by varying LP schemes.

In parallel with a review of the main LP regulations, this chapter summarizes the main findings of the theoretical literature, which stresses that the details of LPs play an important role in determining their effectiveness in deterring cartels. By cross-checking

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1. For the 1993 reform, see U.S. DEP'T OF JUSTICE, CORPORATE LENIENCY POLICY (1993), *available at* www.usdoj.gov/atr/public/guidelines/0091.pdf.

2. The European Commission adopted a regulation on LPs in 1996, and reformed it in 2002. A later amendment in September 2006 further qualified some points. *See Commission Notice on Immunity from Fines and Reduction of Fines in Cartel Cases*, 2002 O.J. (C 45) 3. In the European Union member states, LPs are in use in Belgium, Cyprus, the Czech Republic, Finland, France, Germany, Hungary, Ireland, Latvia, Lithuania, Luxemburg, the Netherlands, Slovakia, Sweden, and the United Kingdom. Other relevant experiences include Canada and South Korea. On LP regulation in the Organisation for Economic Co-operation and Development countries, see OECD, FIGHTING HARD-CORE CARTELS: HARM, EFFECTIVE SANCTIONS AND LENIENCY PROGRAMMES (2002), *available at* http://www.oecd.org/dataoecd/41/44/1841891.pdf.

the theoretical insights, the actual practices, and their effects, the chapter tries to identify some desirable rules and mechanisms that LPs should employ.

2. A review of the main regulations

This section discusses the main elements that constitute LP regulation, comparing the solutions adopted in the main jurisdictions, principally the United States and the EU. An LP can be interpreted as a selective and conditional discount in penalties, and the more important dimensions over which it must be designed are

1. the time when cooperation starts, and in particular the distinction between reporting before or after a formal investigation has been opened;
2. the time order of reporters, and the distinction between first and later reporters;
3. the role of the reporters in the agreement, namely, ring leaders versus minor partners;
4. the behavior of the reporter during and after the investigation;
5. the amount and design of fine reductions flowing from the above elements; and
6. the degree of discretion of the enforcer in applying the rules.

Moreover, there are some additional elements that depend on general enforcement policy and antitrust law that greatly influence the effectiveness of the LP. First of all, it is important to consider whether the rules in place in a given jurisdiction entail personal or only corporate liability in cartel cases. In the former situation, penalty reductions, including immunity from imprisonment, can be given to individuals as well as to companies. Secondly, the severity of fines that are allowed by the rules and applied by the authorities, in case no cooperation is provided, also play a role, determining the overall saving in penalties that cooperation can bring about. Both elements suggest that the overall framework of fines and liability rules influences the severity of punishment in case of no reporting, making cooperation with the authorities more or less attractive.[3]

Both the U.S. and the EU regulations allow the possibility of granting penalty discounts to firms (or individuals) reporting before or even after a formal investigation has been opened. The amnesty is usually more generous or complete if a company reports when the authority has not yet received any information regarding the illegal activity, but in the United States partial or even full amnesty can be obtained also in case of late reporting, provided that the authority has not yet collected evidence sufficient to convict the companies. In the case of late reporting, the authorities usually require that the information provided be very relevant, allowing substantial improvement in the case for the prosecution.

The first reporter receives a more generous treatment in all LP schemes: in the United States the first firm or individual that comes before the authority receives automatic full amnesty when the case has not yet been opened, and can apply for full

3. In 2004, the U.S. government increased the maximum criminal fine for companies involved in cartel infringements from $10 to $100 million and the maximum imprisonment to 10 years. *See* Makan Delrahim, Antitrust Enforcement Priorities and Efforts Towards International Cooperation at the U.S. Department of Justice, in Taipei, Taiwan (Nov. 15, 2004), http://www.usdoj.gov/atr/public/speeches/208479.htm.

amnesty even if the case is already underway. Immunity from fines can also be given in the EU to the first reporter of an undetected cartel, or where the European Commission has already started an investigation but has not yet gathered enough evidence to establish an violation.[4] Partial reductions are also granted in the EC 2002 regulation to late comers, provided that their marginal contribution ("value added") in assessing the case is very relevant and does not require much additional corroboration. Distinguishing between the first comer and later reporters is a very common feature of LPs also in individual countries' regulations and provides a clear incentive to trigger a race to report once rumors of an investigation start circulating.

Another common feature of most of the regulations relates to the role that the companies applying for leniency have had in the cartel agreement. In order to grant full immunity, the U.S. and the EU regulations require that the applicant has not exerted any coercion on the other companies to force them to join the agreement and has not acted as the promoter and leader in the cartel. Excluding these highly culpable companies from amnesty is not necessarily an efficient choice from the point of view of the implementation of LPs. Indeed, it is to be presumed that in some cases the leading companies are also those that could provide more complete information on the agreement. Fairness considerations are probably the main reason why a different treatment is prescribed for those companies.

In addition to the issues discussed so far, an LP sets strict requirements concerning the behavior of applicants once cooperation has started. First, it is always required that the companies cease their participation in the cartel; moreover, complete and ongoing cooperation in the investigation is needed to qualify for leniency. When the applicant is a company, an LP requires that the company ensures full and complete cooperation of its managers and executives. Moreover, reporting has to be an official corporate act and not just the result of single individuals delivering information to the authority. In the United States, restitution of damages to injured parties is required whenever possible. Making amnesty conditional on the continuous cooperative behavior of the applicant over the entire inquiry seems important as investigations take time and can evolve in ways that are not initially predictable, requiring further information to be collected from the reporters.

In addition to setting forth the conditions that determine the eligibility of applicants and the further requirements on their behavior, an LP must describe how fine reductions vary according to the different cases that can arise. As already mentioned, the maximum level of reduction is full immunity both in the United States and in the EU. While partial reductions can be granted in the United States, the regulation does not spell out explicitly the precise conditions and boundaries of such discounts. The EC regulation, by contrast, defines explicitly several cases of fine reductions: nonimposition (100 percent), for instance for a first comer of an undetected cartel; very substantial (75 to 100 percent) or substantial (50 to 75 percent) reductions, which can be granted to a party offering the proof of the "smoking gun"; and significant reduction (10 to 50 percent) to

4. In the recent amendment of the European regulation in September 2006, immunity in late reporting is explicitly linked also to the contribution of a firm to make the dawn raid inspections more focused and effective.

late comers that provide critical information and do not contest their liability. Narrowing the scope of sanctions, in particular in those jurisdictions where personal liability holds, is another dimension of leniency. Granting immunity to individuals, instead of reducing fines, can be a very effective incentive to obtain cooperation of managers and executives.

It must be said, however, that even a very generous LP cannot exclude civil damages in private suits. Hence, although the fines and penalties of public enforcement can be reduced to zero, the risk of exposure to high damages in private enforcement remains and can reduce the effectiveness of LPs. In the United States, companies applying for leniency often try at the same time to reach a settlement agreement with potential private plaintiffs to avoid treble damages and reduce the burden of private suits. In 2004 the U.S. Congress passed new legislation limiting the potential damages in private lawsuits to single, rather than treble, damages for companies that fully cooperate with the plaintiffs in private lawsuits seeking damages for cartels. The recent amendment of the European regulation in September 2006 set forth a procedure to protect corporate statements given under the leniency notice from discovery in civil damage procedures.

A related issue is the protection of reporters from any retaliation or punishment by the former partners in the cartel; in the pros and cons of reporting, in fact, a company or individual has to evaluate the possible reactions to its choice to cooperate. While it is very difficult to maintain secrecy over the identity of cooperating companies, protecting the identity of individual witnesses may be more feasible.

Finally, a crucial feature of an LP is the predictability of penalty reductions: when applying for leniency, a company forecasts that the case will be closed establishing the existence of illegal conduct; a more certain set of conditions that lead to granting fine reductions helps computing the benefits and costs of reporting. For instance, automatic full immunity if some precisely stated conditions are met offers a clear perspective to a firm. At the other extreme, a wide range of possible fine reductions and fuzzy definitions of eligibility requirements entail a high risk of receiving a substantial fine after having applied for leniency.

The possibility of committing to a predetermined line of policy also depends on the institutional setting of antitrust enforcement as a whole. In the EU the antitrust decisions, including those on leniency, are taken by the European Commission as a whole and not by the Directorate General for Competition, which is the Commission Directorate in charge of antitrust matters. Hence, no formal commitment to fine discounts can be taken by the officers that handle a case. Hopefully, a consistent treatment over time on cases involving leniency might help to create strong expectations in the companies on the application of the LP even in the absence of a formal commitment. Moreover, the 2002 European Commission notice and the recent amendment in September 2006 go in this direction, by reducing as far as possible discretion and granting certain reductions.

3. Self-reporting: Some theoretical insights

Having reviewed the main features of actual LP regulation, this section briefly considers the theoretical analysis of self-reporting and law enforcement, in the tradition

of the law and economics approach. Starting from Becker,[5] the choice to commit an illegal act has been analyzed within the framework of rational choice, comparing the expected benefits and costs. In this approach, enforcement policy is designed in order to deter the frequency of illegal acts and to induce criminals to commit less harmful rather than more harmful acts.

The law and economics literature has also studied the case of self-reporting, considering different cases and environments, and the results obtained are very useful when evaluating the introduction and design of leniency regulation. Thus, this section briefly considers three situations that allow to highlight the different components of LP:

- the case of a violation by an individual causing a one-shot benefit and harm,
- the case of a violation by an individual causing ongoing benefits and harm, and
- the case of a group violation causing ongoing benefits and harm.

The simplest case of an individual committing a crime that produces a one-shot benefit to him and one-shot harms to the society has been addressed by Kaplow and Shavell.[6] Consider an individual that commits an act that gives him a one-shot benefit U^C while causing a one-shot harm h to the society. Individuals differ in their benefit U^C from the act. Given the maximum fine F provided by law and the probability of successful enforcement p, that depends, for instance, on the resources devoted to monitoring and prosecution, an individual will commit the crime if and only if $U^C \geq pF$, i.e., if the expected benefit from the act is larger than the expected fine. In this standard setting, one can consider the introduction of an LP, such that if the individual reports and cooperates in the investigation, he has to align his behavior gaining a utility U^R and receives with certainty a reduced fine R. The choice to commit the crime, and then report or not, depends on the relative gain of the two alternatives: if $U^R - R \geq U^C - pF \geq 0$, the individual will prefer to commit the crime and then report. Since in the one-shot case all the benefits are immediately recouped, the individual does not have to renounce any gain if reporting, i.e., $U^R = U^C$. Then the individual will report after committing a crime if and only if

$$pF \geq R$$

Kaplow and Shavell show that LPs allow improvement in enforcement by saving resources: setting $R = pF$ the enforcer is able to deter the same individuals, with utility lower than the expected fine, but reaches this result by inducing self-reporting and reducing the resources needed to monitor the market and prosecute the offenders. Hence, even in this very simple setting a first virtue of LPs springs out: this regulation permits achievement of the same level of deterrence with lower enforcement costs.

Now consider the case of an act that is committed by a single individual but that produces ongoing benefits (and harms) over time. In this case, the choice of reporting requires abandonment of the illegal conduct with a reduction in the utility, i.e., $U^R < U^C$. The condition to induce reporting now becomes tighter and can be written as

5. *See* Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).
6. *See* Louis Kaplow & Steven Shavell, *Optimal Law Enforcement with Self-Reporting of Behavior*, 102 J. POL. ECON. 583 (1994).

$$pF - (U^C - U^R) \geq R$$

In other words, if reporting requires conduct in compliance with the law, applying for leniency implies a lower penalty but also a loss in utility, which must be compensated with a more generous reduction in fines. The reduced fine R must be lower in the case of ongoing benefits than in the one-shot benefit case. Generous fine discounts are therefore needed in those cases, such as the prosecution of cartels, in which the agents committing a crime receive a stream of benefits (collusive profits) as long as they stick to their illegal conduct. Moreover, more severe fines F in the case of no cooperation and a more effective independent prosecution (high p), allow meeting of the condition above more easily. The possibility of imprisonment, in those jurisdictions where there exists personal liability, makes LPs a very appealing opportunity for managers and executives.

The third step requires moving from crimes committed by individuals to illegal acts that involve many agents, as is the case when firms join a cartel. In this situation, first studied by Motta and Polo,[7] an illegal act (collusion) is committed only if the conditions for coordinated behavior are met. In order to maintain the same notation, $U^C - pF$ is defined as the discounted stream of profits from collusion when the firms join the cartel and do not report its existence to the enforcer. Notice that the firms anticipate the possibility of being prosecuted and fined (with probability p). When firms decide to report, their discounted stream of profits is $U^R - R$, where $U^R < U^C$ due to antitrust compliance. In the case of group crimes, we have to further check that joining the cartel is preferred to deviating (and reporting), getting $U^D - R$. Notice that $U^D > U^R$ because the firm that cheats gets initially higher profits and then, when discovered, receives profits U^R once the cartel collapses and noncollusive (legal) behavior prevails. Summing up, the crime is committed if and only if the cartel is created, i.e., if

$$U^C - pF > U^D - R$$

Once the cartel is formed, reporting follows if $U^R - R \geq U^C - pF$. But since $U^D > U^R$, this latter inequality never holds if the former is met. Therefore, the following result is obtained: if a cartel is formed, then it is better not to report, but instead to wait for discovery by the authorities and collect high collusive profits in the meanwhile. Self-reporting, which can be elicited with sufficiently low fines R when individuals are involved, does not work any more once group crimes are considered.

The intuition of this result is simple: since the precondition for committing a group crime is the creation of a team, all the participants must find it more convenient to behave illegally—according to the cartel agreement (taking into account the expected fines)—rather then cheating by reporting to the authorities and being forced after one period to go back to legal conduct. In this framework, the choice to report and go back immediately to legal conduct must yield fewer gains than deviating from the cartel (and then reporting)—which, in turn, must yield fewer gains than sticking to collusion if the cartel was initially formed.

Since LPs have proven to be very effective in cartel prosecution, one has to understand why this negative result does not always work. As a general argument, if the

7. Michele Motta & Massimo Polo, *Leniency Programs and Cartel Prosecution*, 21 INT'L J. INDUS. ORG. 347 (2003).

probability p of being investigated and convicted is not constant over time but varies, it can be understood why, at some point in time, the cartel is formed (implying $U^C - pF > U^D - R$) but then, if the probability increases up to p', some firm cheats and reports to the authorities (which requires $U^C - p'F < U^D - R$).[8]

Firms' assessments as to the likelihood that they will be investigated and prosecuted (parameter p) can change over time for many different reasons: exogenous information shocks can occur, such that a particular industry at some point finds itself at the center of newspaper inquiries or political debate; or cartel cases in the same industry are discovered in other countries, perhaps suggesting to the national antitrust authority that a closer look is necessary; fired managers and executives start whistle-blowing based on their experience in the cartel, etc. But the first and more general case where the probability of being convicted suddenly increases occurs once the authority starts investigating the industry. At this point, in the interim phase after an investigation is opened but no violation is yet proved, the cartel is put under pressure, as shown in Motta and Polo's 2003 article.

This observation suggests that extending immunity to reporting after a case is opened plays a crucial role in improving the effectiveness of LPs. In the same vein, limiting full immunity to the first reporter can induce earlier revelations. And allowing the possibility of partial reductions in fines to other firms that bring value added to the investigation can fuel the prosecution activity with fresh additional evidence.

With group violations, therefore, the enforcement activity finds a richer ground to intervene: on the one hand, by reducing the expected profits from collusion, and on the other by making the cartel more vulnerable to individual deviations. An interesting perspective is offered in those jurisdictions where personal liability adds to corporate liability for collusive conduct. It already has been observed that, as long as single managers or executives receive a great loss from imprisonment, the fines F for them become very high and induce them to report more frequently. There is an additional effect that can play a role, which has been considered in Aubert, Rey, and Kovacic: in order to prevent their executives from reporting, the companies have to "buy their silence" through higher compensation and benefits, thereby reducing the profits from illegal behavior U^C.[9]

Finally, it has been implicitly assumed that the reduced fines are nonnegative, that is, the authority can at most grant full immunity but cannot reward the reporting firms or individuals. If this assumption is dropped, LPs become more powerful and reporting can be induced more frequently. Spagnolo has shown that maximum deterrence can be reached by granting leniency to the first reporter and rewarding it with the fines collected from the other participants.[10]

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8. *See* Joseph E. Harrington, Jr., Optimal Corporate Leniency Programs (2005), http://www.econ.jhu.edu/People/Harrington/amnesty11-05.pdf.
9. *See* Cécile Aubert, Patrick Rey & William Kovacic, The Impact of Leniency Programs on Cartels (2003), http://idei.fr/doc/by/rey/impact_leniency.pdf.
10. *See* Giancarlo Spagnolo, Divide et Impera: Optimal Deterrence Mechanisms Against Cartels and Organized Crime (2003), http://www.learlab.it/Publications/Divide%20et%20impera.pdf.

Summing up, from the theoretical literature on self-reporting and law enforcement the following conclusions can be drawn:

- LPs save enforcement resources by inducing reporting;
- LPs must be generous to induce reporting;
- maximum reductions in fines should be given to the first reporter, to induce a rush to the authorities;
- full immunity should also be given to first reporters that apply after an investigation is opened;
- personal liability and criminal sanctions make LPs very effective;
- high fines for nonreporting firms and an effective ability to prosecute increase the incentives to report; and
- rewards for reporting companies or individuals would make LPs very effective.

The next section briefly considers the recent experience with LPs in the main jurisdictions.

4. Recent experience with LPs

After the pioneering introduction of LPs in the United States and the very effective reform in 1993, the European Commission approved an LP regulation in 1996 and reformed it in 2002. Moreover, many other countries have adopted similar schemes. What can be drawn from this process is initial, indirect evidence that LPs can improve the effectiveness of prosecution against cartels. However, it is difficult to assess more directly the effects of LPs on enforcement and to determine which characteristics of the regulation play significant roles. Empirical analysis of these questions suffers a serious problem of self-selection: since all the cartels are not observed—only those that are detected—it is hard to identify whether overall deterrence has been improved due to LPs. It is also hard to determine which types of cartels are more likely to be discovered or reported. An increase in the number of cartels successfully prosecuted might be due to an overall increase in the level of collusion in the economy rather than being the consequence of more effective mechanisms of enforcement. However, some insight is gained by comparing the evidence on cartel prosecution in different periods—before and after the introduction or reform of an LP program. When strong differences can be observed between periods, or by controlling for other variables related to incentives to collude, some knowledge may be derived about the impact of LPs on prosecutorial activity.

Keeping these caveats in mind, some recent developments shed light on the usefulness of LPs. The first piece of evidence comes from the reform in U.S. regulation. The 1978 LP involved only leniency for reporting before an investigation had been opened; there were additional restrictions as well, and the authorities had a measure of discretion in granting leniency. This regime proved to be too restrictive and unappealing to companies, and produced an average of one application per year. Extending the application of leniency to late reporters and introducing penalty reductions for individuals were among the main innovations of the very successful reform adopted in 1993. After these changes, an average of 20 applications per year were recorded, half of

which occurred after an investigation had been opened.[11] Based on these data, it would be hard to explain the sharp increase in the rate of applications for leniency as the result of a parallel increase in the number of (undetected and unreported) cartels. Hence, one can conclude that the new regulation adopted in 1993 in the United States was much more effective than the previous one. One cannot, however, assess on a purely empirical ground which of the many innovations adopted played a major role in this result.

The more recent experience in Europe has been studied looking at different effects of the LP regulation[12] by comparing cases in the period between 1990 and 1996, before the adoption of LP regulation, and cartels detected or reported after 1996. First, LPs have helped the authorities to reach a deeper and more complete assessment of collusive agreements. Looking at the level of fines before discounts are applied—a figure that should be correlated with the amount of evidence of collusion collected—after controlling for other determinants of fines, an increase in fines is observed after the adoption of the 1996 regulation. However, the data do not demonstrate that reporting led to a shortening of the time of investigation; although the assessment of facts may be facilitated by reporting, other phases of the process, such as the setting of penalties, require more time. The evidence on the deterrence effect of LPs is much weaker in the analysis of the European experience due to the inability to observe the total number of cartels, including those that are undetected.

Hence, while the empirical evidence allows us to establish certain correlations between LP rules, rate of application, types of applicants, and information collected, the long-run deterrent effect of LPs remains the more difficult element to assess.

5. Conclusion

This review of the LP regulations adopted in the United States and the EU, considered in light of theoretical insights and of evidence coming from enforcement activity, suggests that some crucial features are desirable in an LP:

- the rules adopted should be as predictable and automatic as possible, in order to allow potential applicants accurately to assess the consequences of reporting;
- generous discounts to the first reporter should be given both before and after an investigation has been launched;
- partial fine discounts should also be granted to late applicants when they provide sufficient value added to the investigation;
- when a judicial system involves personal liability in cartel cases, leniency should be extended to individuals as well as to corporations;
- restrictions on private damages' requests should be set for firms that report evidence;

11. *See* Gary S. Spratling, The Corporate Leniency Policy: Answers to Recurring Questions, Remarks at the ABA Antitrust Section, 1998 Spring Meeting (Apr. 1, 1998), *available at* http://www.usdoj.gov/atr/public/speeches/1626.htm.
12. *See* Steffen Brenner, An Empirical Study of the European Corporate Leniency Program (2005), http://www.fep.up.pt/conferences/earie2005/cd_rom/Session%20VII/VII.G/brenner.pdf.

- the identity of reporters should be kept secret as much as possible; and
- rewards, in particular to individuals who report, might be considered.

We are confident that LPs designed according to these rules will become an important instrument of antitrust prosecution against cartels.