

Why Managers Engage in Price Fixing? An Analytical Framework

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This article analyses the incentives for a manager to engage in a cartel, by mobilizing the framework of the ‘economics of crime’. We apply a cost-benefit analysis, relating to the decision of starting and/or remaining in a cartel, at an individual level, including psychological and behavioural factors. It also examines the various solutions – both at company and public authority level – to limit individual incentives to engage in this type of practice, and the role of public policy, in the broad sense of the term, in preventing these behaviours.

Keywords: antitrust policy, public policy, cartels, criminal antitrust enforcement, leniency, dissuasive fines, whistleblowing, illegal Behaviour, corporate fraud, incentives

1 INTRODUCTION

In the fight against cartels, public authorities in Europe are mainly focused on the prosecution of firms rather than individuals. Such an approach is justified by the fact that shareholders are responsible for the company’s strategic choices, even if these choices have been defined and implemented, by delegation, by managers. In addition, cartel practices primarily benefit shareholders, increasing the company’s profits. Thus, with the exception of United States (and to a lesser extent Ireland and the United Kingdom), cartels are rarely the subject of criminal proceedings against individuals.

However, it cannot be ruled out that managers may obtain a private gain from their cartel participation and therefore that they have a personal incentive to set them up. Far from being only the executors of an illegal practice that they have not decided, they can be its facilitators, or even its initiators.

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Two interesting cases of infringement can be distinguished (Table 1). In the first case, the manager – like a ‘bad apple’ in a healthy company – engages shareholders in a cartel, against their will and without their knowledge. He takes advantage of information asymmetries and imperfect control of his actions to implement a practice that provides him with a private gain. This scenario is problematic for shareholders if they have chosen – out of interest or conviction – not to engage the company in cartel practices: in case of antitrust proceedings, they will be unable to exonerate themselves from their liability, invoking the isolated behaviour of a manager (see in particular the judgment of the CFI Parker ITR and Parker Hannifin *v.* Commission T-146/09 17 May 2013).

In a second case, the interests of shareholders and managers converge to infringe antitrust laws. The formation of an illegal agreement allows shareholders to increase their profits, while managers derive their own gain, whether in terms of remuneration or career progression. The alignment of interest between managers and shareholders creates a convergent incentive, each party having its own motivation.

This article analyses the incentives for a manager to engage in a cartel, by mobilizing the theoretical framework of the ‘economics of crime’. It also examines the various solutions – both at company and public authority level – to limit individual incentives to engage in this type of practice. From a cost-benefit analysis conducted at the individual level, the main contribution of this article is therefore to show that a manager’s incentives to form a cartel are based on specific factors, including a strong behavioural and psychological dimension. In the first section, we will analyse manager’s incentives to engage in a cartel from a cost/benefit perspective. In the second section, we will study the internal and external levers to discipline managers in the sense of greater compliance with antitrust law.

Table 1 Managers and Shareholders’ Incentives to Comply with Antitrust Law

		<i>Managers</i>	
		<i>Comply with antitrust law</i>	<i>Engage in a cartel practice</i>
Shareholders	Comply with antitrust law	Convergence of interest to comply with antitrust law	Conflict of interest (« Bad apple »)
	Engage in a cartel practice	Conflict of interest (« toxic corporate culture »)	Convergence of interest to violate the law, each for its own motivations

2 MANAGER'S INCENTIVES TO ENGAGE IN A CARTEL: A COST/BENEFIT ANALYSIS

Following Becker's¹ pioneering work on the economics of crime, company's decision to enter into a cartel has been modelled as a cost-benefit analysis: a company is encouraged to form a cartel if the illicit gain it anticipates exceeds the expected cost, which depends both on the level of sanction and the probability of being detected and convicted.² This reasoning can be transposed to the individual behaviour of a manager, provided that behavioural and contextual biases are taken into account. This does not mean that a manager makes a precise calculation, but that he balances the different parameters of cost and gain before making his choice.

2.1 INDIVIDUAL COSTS OF PARTICIPATING IN A CARTEL AND THEIR PERCEPTION

2.1[a] *Three Types of Costs*

When considering participating in a cartel, a manager should consider three types of costs (Table 2).

Table 2 Individual Costs of Participating in a Cartel

<i>Type of costs</i>	<i>Practical occurrence</i>
Criminal sanctions against individuals (fines, prison)	Low occurrence of criminal sanctions, except in the case of the United States
Psychological cost related to public stigmatization of cartels or to damages inflicted to others	This cost depends on the degree of cartel's stigmatization in the society and the 'visibility' of the damage induced. Knowledge and stigmatization of cartel practices are rather low, except in the United States
Individual sanctions imposed by the firm (delayed career progression, threat of dismissal)	This cost depends on the degree of commitment of the company's shareholders to comply with antitrust law. It varies according to companies.

¹ G. Becker, *Crime and Punishment: An Economic Approach*, 76 JPE 169, 217 (1968).

² See J. Connor & R. Lande, *Cartels as Rational Business Strategy: Crime Pays*, 24 Cardozo L Rev. 455, 462 (2012).

The first cost to consider is the existence of criminal sanctions against individuals in the jurisdiction where the practice is implemented: the stronger and more stigmatizing they are, the less likely the manager will be to engage in a cartel.

In practice, only the United States has made the clear choice of criminal proceedings against individuals, including prison sentences.³ This policy is based on a legal arsenal that has been strengthened since the 1990s with the 1993s revision of the leniency program, which extends immunity from criminal prosecution to the first company that denounces the cartel, and with the Antitrust Criminal Penalty Enhancement and Reform Act (2004) which increases the maximum penalty for individuals for violations of the Sherman Act up to USD 1 million and ten years' imprisonment. In practice, American courts have also tended to broaden the scope of criminal liability, prosecuting several employees of the same company: in the case of the vitamin cartel, six executives of Hoffmann-La Roche were charged. Moreover, since the vitamin cartel (1999), no less than forty non-US leaders have been extradited and have served prison sentences in the USA. When a cartel affects the American territory, the manager can assess the criminal risk he faces, by referring to the statistics on convictions, available on the website of the American Department of Justice: over the period 2008–2017, 555 individuals were prosecuted for cartel practices and 258 of them (46%) were fined, for a total amount of 21.8 million dollars (Antitrust Division, 2018). The average fine per person was therefore USD 84,600. In addition, of the 555 individuals prosecuted, 262 (or 47%) were given a prison sentence for an average of 615 days (one year and seven months). If we 'monetize' the length of prison according to Connor and Lande's conversion method,⁴ the average cost of a cartel prison sentence would be USD 2.5 million.

Outside the United States, few jurisdictions in the world prosecute individuals, even when they have a dedicated legislative arsenal. Countries such as Ireland (in 1996), the United Kingdom (in 2002) or Australia (in 2009) have introduced criminal sanctions but their effectiveness remains limited in practice. In the United Kingdom, the *Enterprise Act* of 2002 led over the period 2003/2018 to five prison sentences and three disqualifications of executives. Similarly, in France, if Article L. 420–6 of the French Commercial Code has provided for a prison sentence of four years and a fine of 75,000 euros 'for any individual to fraudulently take a personal and decisive part in the design, organization or implementation' of a cartel, it is rarely applied: an average of two criminal sentences per year are

³ See W. Kovacic, *Criminal Enforcement of Competition Law: Implications of US Experience*, 2 *Concurrences*, 33, 40 (2016).

⁴ See *supra* n. 2.

imposed on the basis of this article, in the form of fines or suspended prison sentences, and in the context of broader criminal proceedings, particularly concerning the offence of favoritism.⁵

Secondly, while it is difficult to estimate the psychological cost associated with fraud, the degree of stigmatization of cartels in society can also influence the manager's behaviour. Beyond the legal framework, socio-cultural norms defining what is 'lawful' and 'unlawful' within a community play a key role in the individual's behaviour: it is more difficult to assume a practice that is socially stigmatized as 'immoral'. In this way, citizen's support contributes to the effective implementation of legal rules, particularly in the field of criminal law.⁶ As examined by Whelan⁷ who employs a norms-based approach, cartels can indeed be interpreted as conduct that are morally wrong as they violate the moral norms against stealing, deception and/or cheating.

Surveys on cartel perception conducted in countries such as Australia (2011), the United States, the United Kingdom, Germany, Italy (2014) or France (2018) reveal that a majority of citizens dislike these practices.⁸ Thus, in France, 59% of respondents consider that cartels are harmful (see Combe and Monnier⁹). A similar result can be found in the United States (64%), Italy (68%) and this rate rises to 74% in Great Britain and 72% in Germany. The moral dimension is very present in the assessment of cartels: when asked to compare the cartel with other illegal practices, half of the respondents in France consider cartel practices to be more serious than fraud or scam, and more than half of those questioned consider cartel practices to be as serious or more serious than theft (50% and 6% respectively). In the United States, the United Kingdom and Germany, more than 50% of respondents consider cartel to be a practice equivalent to fraud.

Finally, the manager will take into account any internal costs or sanctions within his company (such as: dismissal, reprimand, etc.). This parameter depends on the degree of commitment of the company's shareholders to comply with rules of law. This commitment goes beyond the mere existence of a compliance program: in their study on the air cargo freight cartel,

⁵ F. Wagner-Von Papp, *Individual Sanctions for Competition Law Infringements: Pros, Cons and Challenges*, 2 *Concurrences*, 14, 23 (2016).

⁶ See C. Beatons-Wells, C. Platania-Phung, *Anti-Cartel Advocacy – How Has the ACCC Fared?*, 33 *SydLawRw.* 735,770 (2011) and J. Andeneas, *The Moral or Educative Influence of Criminal Law*, 27 *JSI* 17, 31 (1971).

⁷ P. Whelan, *Cartel Criminalization and the Challenge of Moral Wrongfulness*, 33 *Oxf. J. Leg. Stud.* 535, 561 (2013).

⁸ See A. Stephan, *Survey of Public Attitudes to Price-Fixing and Cartel Enforcement in Britain Survey of Public Attitudes to Price Fixing in the UK, Germany, Italy and the USA*, CCP W.P. 15, 8 (2015).

⁹ E. Combe & C. Monnier, *Public Opinion on Cartels and Competition Policy in France: Analysis and Implications*, 42 *World Compet.* 335, 354 (2019).

Bergman and Sokol¹⁰ show that compliance programs are considered credible only if they are embodied at the highest level, by the top management. However, a Price Waterhouse Coopers (PWC) questionnaire survey¹¹ shows that compliance and ethics programs very often remain under the responsibility of the compliance officer and not of senior management: in only 17% of cases, company's top managers are directly involved in the dissemination of compliance programs inside the firm.

2.1[b] *Underestimation of Costs by Managers*

When the manager assesses the costs of participating in a cartel, his assessment may be altered by 'psychological biases', which will lead him to underestimate their importance.

First of all, as soon as the illegal practice receives the approval of its hierarchy, the latter will convince the manager that its action is well-founded. Several psychology experiments show that the collective and hierarchical context of decision-making favourably changes the incentive for an individual to engage in an illegal or immoral practice. In particular, Milgram's¹² famous experiment on obedience behaviours can be transposed to cartel situations.¹³

First, the illegality of a practice may be reduced if breaking the law is presented as a 'necessary evil' to achieve a legitimate purpose (make a profit). In the case of a cartel, the manager may be convinced by his superiors that maintaining a high level of profitability requires the use of collusive practices. Thus, Bryan Allison, a participant in the marine tubes cartel, points out that the need to meet profit objectives was a key determinant of his decision to participate in a cartel.¹⁴ In particular, the seriousness of an unlawful behaviour can be reduced if it is presented in a positive way. In the case of cartels, we sometimes even see an inversion of values, such as the motto of the lysine cartel: '(...) *our competitors are our friends; customers our enemies*'. Similarly, the cartel may be justified in the eyes of participants by the need to avoid excessive competition between companies, which

¹⁰ H. Bergman & D. Sokol, *The Air Cargo Cartel: Lessons for Compliance*, in *Anti-Cartel Enforcement in a Contemporary Age – Leniency Religion* (C. Beaton-Wells & C. Tran eds, Oxford, Hart Publishing 2015).

¹¹ PWC, *Global Economic Crime Survey 2016*, <https://www.pwc.com/gx/en/economic-crime-survey/pdf/GlobalEconomicCrimeSurvey2016.pdf>.

¹² S. Milgram, *Behavioral Study of Obedience*, 67 J. Abnorm. Psychol. 371, 378 (1963).

¹³ See M. Stucke, *Am I a Price-Fixer? A Behavioral Economics Analysis of Cartels*, in *Criminalizing Cartels: A Critical Interdisciplinary Study of an International Regulatory Movement* (C. Beaton-Wells C. & A. Ezrachi A. eds, Oxford: Hart Publishing 2011).

¹⁴ M. O'Kane, *Does Prison Work for Cartelists? The View from Behind Bars*, 56 Antitrust Bull. 483, 500 (2011).

would harm product quality or employment, or to restore countervailing power in trade negotiations.

Secondly, the perception of the cartel's illicit nature may be altered by the fact that it is a collective practice, carried out by individuals who perceive themselves as 'peers': they hold similar positions in their respective companies, develop interpersonal knowledge, evolve within the same professional circles and often display the same social status.

Thirdly, the unlawful nature of a cartel can be blurred by managers' poor knowledge of competition law, particularly in small businesses. For example, a Competition and Market Authority (CMA) survey (2018) of 1200 companies revealed that only 25% of them have a good knowledge of competition rules and 16% have never heard of them. In terms of cartels, only 57% of the companies surveyed know that these practices are illegal, and 25% of respondents even think it is legal to discuss prices with competitors during a call for tenders. Nor are managers always familiar with the particularities of competition law: for instance, few managers know that 'passive' participation in a cartel does not exempt the company from liability or that an agreement organized within the framework of a trade union remains illegal.

Fourth, participation in a cartel can be progressive and organized in several stages, from general discussions to pricing meetings. Addiction to the offence is then gradual, which may reduce the perception of its illegality. Initially, the participant may even be invited to meetings whose anti-competitive purpose is not explicit or scheduled, before the content of these meetings is derived. Similarly, the agreement may initially be isolated, affecting a specific client, before becoming generalized to all clients.

Finally, the fact that the damage caused by the cartel is not directly visible to the perpetrators facilitates the adoption of unlawful behaviour, unlike offences targeting specific persons (e.g. snatching). In the case of a cartel, the damage is often diffuse, even indirect: cartel practices develop mainly in intermediate product industries and affect a large number of customers, who sometimes try to pass on the overcharge to their own customers. Bryan Allison, a participant in the marine tube cartel, stated in this regard¹⁵: *'We are a tiny outfit, we are not involved with consumers, who are we hurting? (...) Who cares about us?'*

2.2 INDIVIDUAL BENEFITS OF PARTICIPATING IN A CARTEL AND THEIR PERCEPTION

In most of detected cartels, individuals who participated in the practice held relatively high positions in their company: they were often commercial

¹⁵ See *supra* n. 14.

directors, or even sometimes general managers or CEO. Connor and Lande¹⁶ examine the position of managers convicted of cartel offences in the United States over the period 1990/2008: they find that nearly half of them were presidents or chief executive officers. In the case of France, several cartel cases highlight the participation of high-level executives: thus, in the agreement on hygiene and cleaning products (sentenced in 2014), it was mainly the commercial directors who composed the various negotiating circles. The same is true in France in the case of the laundry cartel (sentenced in 2012) or the trade in steel products (sentenced in 2008). This high-level decision-making does not exclude that meetings with competitors may then be entrusted to managers at a lower hierarchical level, once the principle of the agreement has been validated by the CEO.¹⁷

This high hierarchical positioning implies that manager's remuneration includes a high variable part, linked to the achievement of short-term objectives. For example, the amount of an annual 'bonus' is set in relation to a turnover target, in particular for managers in charge of sales functions. Similarly, 'top management' may be granted stock options, the holding period of which is four to five years before their exercise. Remuneration mechanisms based on performance indicators are likely to encourage individuals to commit fraud, as highlighted by a wealth of empirical literature, mainly focusing on financial and accounting fraud. For example, Goldman and Slezak,¹⁸ Carson¹⁹ show that incentive compensation schemes not only stimulate managers' efforts, but also increase their interest in taking fraudulent actions. Bergstresser and Philippon,²⁰ Denis et al.,²¹ show that the probability of fraud is higher in companies where executive compensation is more closely linked to share value and option ownership.²²

Before entering into a cartel, the manager will compare different strategies for increasing the turnover or profitability of his company. Compared to other legal strategies such as launching innovations or prospecting for new customers, cartel practice has the advantage of being quick to implement: the

¹⁶ See *supra* n. 2.

¹⁷ See on this point J. Harrington, *How Do Cartels Operate?*, 2 Foundations & Trends in Microeconomics 1, 105 (2006).

¹⁸ E. Goldman & S. Slezak, *An Equilibrium Model of Incentive Contracts in the Presence of Information Manipulation*, 80 JFE 603, 626 (2006).

¹⁹ T. Carson, *Self-Interest and Business Ethics: Some Lessons of the Recent Corporate Scandals*, 43 J. Bus. Ethics 389–394 (2003).

²⁰ Bergstresser D. T. Philippon, *CEO Incentives and Earnings Management*, 80 JFE 511, 529 (2006).

²¹ D. Denis, P. Hanouna & A. Sarin, *Is There a Dark Side to Incentive Compensation?* 12 J. Corp. Finan. 467, 488 (2006).

²² For a review on that issue, see P. Fleckinger, T. Lafay & C. Monnier, *Rémunération des dirigeants et risque de fraude d'entreprise*, 64 Revue économique 457, 467 (2013).

increase in turnover and profit results from the immediate imposition of an ‘extra price’ (‘overcharge’) on customers. If production costs between cartel’s members are similar, the cartel also ensures identical relative performance in the same sector, which is often an internal criterion for evaluating a manager’s performance. Similarly, a cartel practice allows managers to smooth performance, avoiding profit fluctuations, and to set it at a level high enough to receive their bonus, without maximizing their effort.²³ Moreover, as Spagnolo²⁴ points out, granting stock options to managers can increase cartel stability: since the exercise of an option is deferred over time and since financial markets instantly integrate any new information, the gain of a ‘deviation’ strategy within the cartel is offset by the fall in the share price, as markets anticipate a price war in retaliation. In the case of a bonus, in principle capped, the incentive to deviate is also low since the gain of the deviation for the company will not be proportionally reflected in the manager’s bonus.

Beyond the perception of his variable remuneration, the manager may want to take risks to outperform his peers internally and progress more quickly within the company or a sector. If the company is not very careful about compliance, a manager will anticipate that his illegal behaviour will not be punished, or even may be ‘rewarded’ by a promotion. For instance, Stephan²⁵ points out that one of British Airways’ senior managers was promoted after his company’s conviction for cartel while he was being prosecuted by the American courts. In a similar vein, Connor and Lande²⁶ analyse the fate of thirty-five people sentenced to prison terms for cartels and show that some of them were still employed by their company. The manager can also rely on external recruitment, given the good operational performance he has achieved. Connor and Lande,²⁷ on the same sample, estimate that at least 25% of managers had changed companies but remained in the same sector.

2.3 THE PROBABILITY OF BEING CAUGHT AND ITS PERCEPTION

After comparing gains and costs, a manager will assess the risk that the cartel will be detected and condemned by antitrust authorities. This probability of detection has

²³ G. Spagnolo, *Managerial Incentives and Collusive Behavior*, 49 *Europ. Econ. Rev.* 1501, 1523 (2005).

²⁴ G. Spagnolo, *Stock-Related Compensation and Product-Market Competition*, 31 *ZAR J. Econ.* 22, 42 (2000).

²⁵ A. Stephan, *The Battle for Hearts and Minds: The Role of the Media in Treating Cartels as Criminal, Criminalizing Cartels: A Critical Interdisciplinary Study of an International Regulatory Movement* 472 (Caron Beaton-Wells & Ariel Ezrachi eds, Oxford: Hart Publishing 2011).

²⁶ See *supra* n. 2.

²⁷ See *supra* n. 2.

fuelled a large empirical literature (see: Connor and Lande,²⁸ Combe and Monnier²⁹), which produces a fairly convergent result: despite different methodologies (surveys, statistical researches), studies conclude that the probability of detection would vary between 10% and 30%. For example, empirical studies based on a ‘life and death process’ model arrive at a converging result, despite different samples: the probability of detecting a cartel would be between 13% and 17% in the American case and around 13% in Europe (Combe and Monnier³⁰).

However, the manager may underestimate the objective probability of being caught, given the existence of two cognitive biases. The first bias is that of ‘availability’: when an event makes a difference or is more visible than others, individuals tends to overestimate its occurrence. In the case of cartels, the small number of cases handled each year by antitrust authorities – between five and ten decisions per year in the case of the European Commission – combined with their low media exposure, can lead the manager to underestimate this probability, or even to consider it to be zero. The second behavioural bias is that of ‘overconfidence’: experimental psychology research shows that an agent, faced with decisions whose outcome is uncertain, tends to underestimate the occurrence of adverse outcomes, thinking that he will do better than others, and to overweight favourable events. This bias is more pronounced when events are perceived as controllable by the agent (Korobkin and Ulen³¹). Wils³² quotes a member of the American Bar Association as saying that ‘most cartel participants think they will not be caught’. In the case of a cartel, the probability of detection is not independent of the ability of the agents to conceal it: it therefore appears in part ‘controllable’. Thus, to the question ‘Were you aware that participating in a cartel was a criminal offence?’, Bryan Allison, convicted of participating in the marine tube cartel, answered (O’Kane³³): ‘Yes, and that people could go to jail. But everyone had an aura of invincibility.’ The experimental study by Damgaard et al.,³⁴ on the incentive for managers to form a cartel leads to a surprising result: participants with a better knowledge of antitrust law are more likely to participate in a cartel than those who do not. This paradoxical result can be explained by the feeling of control conferred by the mastery of a knowledge.

²⁸ See *supra* n. 2.

²⁹ E. Combe et al., *Fines Against Hard Core Cartels in Europe: The Myth of Over Enforcement*, 56 Antitrust Bull. 235, 275 (2011).

³⁰ See *supra* 28.

³¹ R. Korobkin & T. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 Cal. L. Rev. 1051, 1144 (2000).

³² W. Wils, *Efficiency and Justice in European Antitrust Enforcement* (Portland, Oregon, Oxford: Hart Publishing 2008).

³³ See *supra* 13.

³⁴ M. Damgaard, C. Duke, S. Huck & B. Wallace, *The Impact of Competition Interventions on Compliance and Deterrence: A Controlled Economic Experiment*, London Economics for the OFT 81 (2012).

2.4 BALANCING BENEFITS AND COSTS

When comparing the expected costs and benefits of participating in a cartel, the manager is influenced by the temporal effect, his degree of risk aversion and his level of adherence to business ethics (morality).

First, there is a temporal asymmetry between gains and costs of participating in a cartel: gains in terms of promotion and remuneration occur in the short term, while costs appear later, given the delays in detecting and investigating a case by antitrust authorities. The comparison of earnings and costs must therefore include a discount factor: the more the future will be depreciated, the lower the cost resulting from the infringement will be perceived by the manager. Conditional compensation for managers is based on a relatively short time horizon – four years for example for the exercise of stock options – while cartels detected by competition authorities have an average life span of seven years (see: Combe and Monnier³⁵). In addition, as shown in Alawi's³⁶ econometric study, CEOs who participate in a cartel are older than their reference group: it is likely that their career will be over when the cartel is detected and their discount factor is therefore low. Finally, Gonzalez and Schmid³⁷ find that CEOs who participate in a cartel exercise a larger proportion of their stock options during the cartel period (in the short run) than CEOs of similar companies who are not involved in a cartel: the first ones take advantage of the cartel practice to earn a quick gain.

Second, the individual will make his decision based on his degree of risk aversion, which changes the average value of expected gains and costs. The most common assumption in microeconomics is that agents are risk-averse: between two choices that provide the same expectation of earnings, individual always opts for the most certain solution. In terms of fraud, Tan and Yim³⁸ show that an increase in risk aversion logically translates into a lower propensity to commit fraud. But the hypothesis of agents' risk aversion should be challenged, in the light of the experimental study conducted by Damgaard et al.³⁹: the authors show that some managers – in a proportion that is always higher than 10% and can reach more than a quarter – always choose to form a cartel, regardless of the probability of detection and the amount of the fine and

³⁵ See *supra* n. 28 and E. Combe et al., *Les cartels en Europe: une analyse empirique*, 27 *Revue française d'économie* 187–226 (2012).

³⁶ S. Alawi, *Corporate Governance and Cartel Formation*, WP, 2nd Economics & Finance conference, Vienne 36 (2004).

³⁷ T. Gonzalez & M. Schmid, *Corporate Governance and Antitrust Behavior*, WP University of St. Gallen. 25 (2012).

³⁸ F. Tan & A. Yim, *Can Strategic Uncertainty Help Deter Tax Evasion? An Experiment on Auditing Rules*, 40 *J. Econ. Psychol. J. of Econ. Psychol.* 161, 174 (2014).

³⁹ See *supra* n. 33.

overprofit associated with the cartel. This result can be interpreted as the fact that some managers, far from being risk adverse or risk neutral, have a systematic taste for risk and/or illegal activities.

The question is then to know which factors influence the degree of risk aversion/taste. The empirical literature emphasizes that demographic (gender, education, age), socio-economic (income, occupation) and personal (attitude, morality, etc.) attributes can play a role in the commission of offences. For example, according to a PWC study,⁴⁰ managers who engage in fraud within the company are generally middle-aged men with higher education degrees and who already have three to five years' experience. In particular, several empirical studies in finance have shown that women are more risk averse than men. Men and women differ in their investment behaviour, lottery and/or betting situations, hypothetical attitudes, intentions and choices regarding financial risk-taking (for a review of the literature on the subject, see: Boulu-Reshef et al.⁴¹). Van Staveren⁴² reviews the empirical literature on gender differences in behavioural, experimental and neuro-economic domains. She concludes that women tend to do better on average than men in uncertainty, and that their reasoning in complex situations is more contextual than that of men. Such contextual reasoning can thus extend to ethical issues. In the case of cartels, Alawi's⁴³ econometric study shows that the presence of women in the management team significantly reduces the probability that a company will enter or remain in a cartel, compared to a control group composed of similar companies that have not participated in a cartel. The experimental study conducted by Hamaguchi et al.,⁴⁴ concludes that women are more likely than men to end a cartel by denouncing them through a leniency program.

Third, the manager's decision will be influenced by his own degree of adherence to moral values and ethics in business life. The more developed the individual's moral sense, the more cartel practices will be associated with a high subjective cost. Analysing the impact of moral costs on cartel decisions remains poorly developed. In general, the literature on business ethics examines the role of individuals and shows that their personal characteristics are key factors to understand corporate fraud. Zahra et al.,⁴⁵ developed a framework in which

⁴⁰ See *supra* n. 10.

⁴¹ B. Boulu-Reshef & C. Monnier, *Lutte contre les cartels: comment dissuader les têtes brûlées*, 70 *Revue économique*. 931, 943 (2019).

⁴² I. Van Staveren, *The Lehman Sisters Hypothesis*, 38 *Cambridge J. Econ.* 995, 1014 (2014).

⁴³ *Supra* n. 35.

⁴⁴ Y. Hamaguchi & T. Kawagoe. A. Shibata, *Group size effects on cartel formation and the enforcement power of leniency programs*, 27 *Int. J. Ind. Organ.* 145, 165 (2009).

⁴⁵ S. Zahra, R. L. Priem & A. Rasheed, *The Antecedents and Consequences of Top Management Fraud*, 31 *J. Mgmt.* 803, 828 (2005).

individual variables (age, experience, education, gender and self-control) influence the probability of fraud in businesses. Based on a study of press articles on corporate fraud cases, Cohen et al.,⁴⁶ show that managers' personality traits seem to be an important factor in the risk of fraud. Ashforth et al.,⁴⁷ explain that corruption, or on the contrary compliance with the rule of law, can be explained by individual predispositions, including lack of integrity, moral identity self-control and compassion. More specifically, studies have shown that ethical profiles of executives are a determining factor in managerial fraud.⁴⁸ Zona et al.,⁴⁹ show that a complex set of personality/psychological traits of leaders (e. g. lack of moral values) affects ethical and legal behaviour inside companies.

3 INTERNAL AND EXTERNAL LEVERS TO DISCIPLINE MANAGERS

As long as individual costs of participating in a cartel are limited (no criminal sanctions in Europe) or reduced (behavioural bias), while the anticipated gains are high, managers may be encouraged to engage in an cartel. The question then is how to 'discipline' them. Two scenarios can be distinguished.

First of all, if shareholders do not wish to engage their company in a cartel practice – out of interest or conviction – they can mobilize several internal levers such as specific executive compensation schemes, compliance programs or 'risk profiles' detection. But the company's internal tools may not be sufficient, given information asymmetries between managers and shareholders: the intervention of the 'visible hand' of the public authorities then finds its legitimacy, in addition to that of the shareholders.

Secondly, when shareholders and managers have a convergence of interests to infringe antitrust laws, the lack of internal company incentives justifies the implementation of public policies targeting individuals. These policies can be based on various levers, and in particular on the spread of a competitive culture stigmatizing cartels among citizens, or on criminal sanctions against managers.

⁴⁶ J. Cohen, Y. Ding, C. Lesage & H. Stolowy, *Corporate Fraud and Managers' Behavior: Evidence from the Press*, 95 J. Bus. Ethics 271, 315 (2011).

⁴⁷ E. B. Ashforth & V. Anand, *The Normalization of Corruption in Organizations*, 25 Res. in Organizational Behav. 1, 52 (2003).

⁴⁸ See Carson, *supra* n. 19.

⁴⁹ F. Zona, M. Minoha & V. Coda, *Antecedents of Corporate Scandals: CEOs' Personal Traits, Stakeholders' Cohesion, Managerial Fraud, and Imbalanced Corporate Strategy*, 113 J. Bus. Ethics 265, 283 (2013).

3.1 INTERNAL COMPANY SOLUTIONS

In order to discourage managers from engaging in cartel practices, shareholders can implement monitoring and sanction mechanisms as well as a management practices that encourage them to adopt an ethical behaviour (Table 3).

Table 3 Internal Levers Aimed at Disciplining Managers

<i>Lever</i>	<i>Advantages</i>	<i>Limits</i>
Conditionality and reversibility in the payment of bonuses, the exercise of stock options and free shares granted to managers	Maintaining incentive to create value, by lawful means	Determinant influence of managers within compensation setting process
Dismissal clause for misconduct in employment contracts, <i>ex post</i> dismissal (without clause), stagnation or setback in career advancement	Deterrent and stigmatizing effect	High turnover of managers
Reinforcement of compliance programs (frequency of training, surprise internal audit, commitment of senior management)	-Progressive diffusion of a pro-competitive culture within the company -Reduction of cognitive biases (better knowledge of the illegality of the practice and its harmfulness)	Limited effectiveness of compliance programs (essentially informative)
Predictable management (clear compensation rules, promotion, evaluation of managers' performance with regard to the requirement to comply with competition rules)	Reduction of ambiguity in managers' decision-making	Requires a systemic reform that is part of the management and culture of the company
Realistic profitability objectives	Limiting excessive/fraudulent risk-taking to achieve excessive profitability objectives	Requires a systemic reform that is part of shareholder's management and culture

3.1[a] *The Conditionality of Variable Remuneration*

To encourage managers to comply more effectively with competition law, an internal solution is to modify the conditions for granting or exercising variable remuneration. Rather than limiting performance-based remuneration (which can have a positive effect on productivity and risk taking), it is more effective to provide for the bonus or capital gain refund, if the manager has breached competition law. Fleckinger et al.,⁵⁰ show that shareholders can encourage managers to comply with the rules of law, via complex compensation schemes: in order to avoid the pro-collusive effects of performance-based compensation, compensation contracts must include suspensive clauses that consist in withdrawing the right to exercise stock options if collusion is proven.

However, this 'retroactive' solution faces a double challenge. First, aligning diverging interests is costly for shareholders who have to give an annuity to executives in the form of a higher salary. Under these conditions, if some managers are particularly 'amoral', their unlawful behaviour cannot be avoided: as the additional salary compatible with compliance with the law is prohibitive, shareholders will have an interest in tolerating a certain level of illegal practices. Secondly, the determination of remuneration rules could be 'captured' by managers, who control the decision-making process within the company. Conyon⁵¹ studies changes in manager compensation in the United States over the period 1993/2003 and shows that remuneration and management committees have become increasingly independent of shareholders.

3.1[b] *The Threat of Layoff*

While the reform of variable remuneration is crucial to encourage managers to comply with antitrust law, manager's personal interest is not limited to his remuneration alone: the desire to progress faster in his career also comes into play, especially in a context of high turnover of managers between companies. Another option, complementary to that on variable remuneration, is to sanction managers who have infringed competition rules by dismissal or stagnation in their careers advancement. In particular, it could be relevant to include in employment contracts internal sanctions, up to and including dismissal, in the event of an infringement of competition laws. In practice, however, this solution faces a problem of temporality. Indeed, assuming that shareholders want to 'punish' deviant executives by dismissing them, it is not guaranteed that the individuals who initiated the

⁵⁰ See *supra* n. 21.

⁵¹ M. Conyon, *Executive Compensation and Incentives*, 20 Acad. of Mgmt. Perspective 25, 44 (2006).

practice are still employed by the company, given the high turnover rate of executives. For example, Kaplan and Minton⁵² estimate the turnover rate at 15.8% in large American companies over the period 1992–2007, which implies an average duration of less than seven years in management positions. Over the more recent period, from 2000 onwards, this turnover even increased to 16.8%, which implies that managers remain on average less than six years in their positions. If we focus only on CEOs, the duration of office terms is even shorter: according to Schwab and Thomas,⁵³ in 81% of cases it is less than five years, with an average of 3.6 years.

However, the time between the beginning of cartel practices and their detection/condemnation by competition authorities is generally quite long. According to Stephan,⁵⁴ during the period 2008–2010, the time between the beginning of a cartel and its conviction by the Commission ranged from five to ... forty years. Thus, in the case of the car windscreen cartel (2008), the penalty was imposed nine years after the infringement ceased. Similarly, if we consider 111 cartels sentenced by the Commission over the period 1969–2009, their average life span was seven years, before they were detected (Combe and Monnier⁵⁵): if we take into account the time required to investigate a cartel case, the sanction decision will be taken – at best – nine to ten years after the start of the practice.

The manager can therefore anticipate, at the moment he engages in a cartel practice, that he is unlikely to suffer the consequences of his illicit behaviour. The study conducted by Alawi⁵⁶ confirm the existence of a negative relationship between the duration of CEO mandates and the probability of forming a cartel: executives with a short lifespan in the company are more likely to engage in this type of illegal practice. The company's shareholders could also take legal action against the managers, suing them in civil or criminal proceedings for breach of their obligations and seeking compensation. But the ability to pay remains limited, while the demonstration of harm is delicate insofar as the company has benefited from the practice, in the form of increased profits.

3.1[c] *Strengthening Compliance and Internal Audit Programs*

Compliance programs and internal audits are part of a culture of self-regulation and can reduce the cognitive biases identified in the first part, in particular by

⁵² S. Kaplan & B. Minton, *How Has CEO Turnover Changed?* 12 IRF 57, 87 (2012).

⁵³ S. Schwab & R. Thomas, *An Empirical Analysis of CEO Employment Contracts: What Do Top Executives Bargain For?* 63 Wash. & Lee L. Rev. 231, 264 (2006).

⁵⁴ See *supra* n. 24.

⁵⁵ See *supra* n. 28.

⁵⁶ See *supra* n. 35.

preventing the development of values within the company that are contrary to antitrust law. In this respect, the frequency of competition law training and internal audits is a key factor of success, regularly maintaining a ‘competition culture’. However, compliance programs and internal audits alone, while reducing the risk of non-compliance, are not sufficient to deter managers from engaging in anti-competitive practices.⁵⁷

First, in many cases, employees who took an active part in cartels were fully aware of the illegality of their behaviour. In this respect, the lysine or graphite electrode cartels are school cases: in the first case, the cartel members openly mocked the antitrust authorities and the FBI, while in the second case, they continued their practice even though the Commission had opened an investigation. Second, internal audits are not always adapted to the detection of practices that are secret by nature, for which cartel members can deploy a wealth of ingenuity. For example, in the case of graphite electrodes, a complex system of code names was used to mask the identity of companies and individuals involved in the cartel. Third, a compliance program is only truly effective if it is carried and embodied at the highest level of the company. Stephan⁵⁸ shows, however, on the basis of a sample of forty cartels, that sales or marketing managers and sometimes even the general management (vice-president, CEO) were directly involved in setting up a cartel. In this case, the compliance program appears purely ‘cosmetic’, insofar as it is not respected by those who should embody it.

Lastly, the effectiveness of a compliance program depends on the company’s governance structure. Abrantes-Metz and Sokol⁵⁹ show that the complexity of an organization – associated with, for example, a larger size of the company – increases the costs of monitoring agents and thus contributes to encourage illegal behaviours. Gonzalez et al.,⁶⁰ highlight the fact that companies involved in cartels have more ‘busy’ managers (sitting in many management bodies) and that they tend not to change auditors. Compliance programs should therefore provide for a more regular change of auditors, which also generates a cost for the company.

⁵⁷ See A. Stephan, *See No Evil: Cartels and the Limits of Antitrust Compliance Programs*, 31 *Co. Law.* 231, 239. (2010).

⁵⁸ See *supra* n. 24.

⁵⁹ R. Abrantes-Metz & D. Sokol, *Antitrust Corporate Governance and Compliance*, in *The Oxford Handbook of International Antitrust Economics*, vol. 2, 586–618 (R. D. Blair & D. Sokol eds, Oxford Univ. Press 2015).

⁶⁰ T. Gonzales, M. Schmid & D. Yermack, *Smokescreen: How Managers Behave When They Have Something to Hide*, NYU WP FIN-13-002 (2014).

3.1[d] *Changing Corporate Culture and Management Methods*

The type of management implemented within a company can also influence the incentive to defraud. A study by PWC and the London Business School⁶¹ on the promotion of ethical behaviours in the financial services sector shows that management based on a ‘muscular’ and punitive approach to poor performance generates a climate of anxiety among managers, which can lead them to unethical behaviours. Similarly, if shareholders set unsustainable profitability targets, they implicitly invite managers to use fraudulent means to ‘achieve their objectives’.

A borderline case is one in which shareholders deliberately maintain a high degree of ambiguity about the objectives set and the sanctions imposed if these objectives are not achieved. ‘Ambiguity’ results from a situation in which an individual has to make choices but the probabilities of events are difficult to estimate (doubts, imprecisions and/or missing data). This ‘management by ambiguity’ may result from contradictory or incomplete information, which leads to a lack of trust in expectations. Studies in psychology and experimental economics have shown that individuals are more averse to ambiguity than to risk (for a synthesis, see: Camerer and Weber⁶²), as some studies in neuroscience (for literature review, see: Cabantous and Hilton⁶³). For the manager, anxious to receive his bonus or benefit from a promotion, a cartel strategy allows him to reduce ambiguity, by limiting the uncertainty relating to possible events: the cartel provides him with a level of profitability that is fairly predictable, stable over time and comparable to that observed among his cartel competitors. Cartels would thus be more likely to develop in companies for which information on the conditions and rules for granting bonuses and promotions is perceived by managers as incomplete or contradictory.

In order to limit fraudulent behaviour, shareholders must define explicit rules of the game, whether on the objectives to be achieved, the possible means of achieving them or the criteria for compensation and career development of managers (through grid systems, indices, etc.).

In addition, we should also mention, on a subsidiary basis, the possibility for the company to integrate, during recruitment or promotion tests for managers, criteria relating to respect for ethics and risk-taking. Indeed, as shown in the experimental study by Damgaard et al.,⁶⁴ some individuals, who could be

⁶¹ PWC and London Business School, *Stand Out for the Right Reasons*, <http://pwc.blogs.com/files/why-you-cant-scare-bankers-into-doing-the-right-thing.pdf> (2015).

⁶² C. Camerer & M Weber, *Recent Developments in Modeling Preferences: Uncertainty and Ambiguity*, 5 J. Risk Uncertain 325, 370 (1992).

⁶³ L. Cabantous & D. Hilton, *De l'aversion à l'ambiguïté aux attitudes face à l'ambiguïté. Les apports d'une perspective psychologique en économie*, 57 Revue économique. 259, 280 (2006).

⁶⁴ See *supra* n. 33.

described as ‘hotheads’, are insensitive to the values of the detection and sanction parameters and always choose to form a cartel. This raises the question of the *ex ante* identification of these individuals, who have a ‘risk-all’ and passively ‘amoral’ profile. During interviews and hiring tests, where initiative is highly valued, it would be useful to ensure that compliance with the rules is part of a candidate’s evaluation criteria.

4 SOLUTIONS OUTSIDE THE COMPANY

If necessary, internal company solutions may not be sufficient, particularly when there is an alignment of interest between them and shareholders in order to infringe competition law. In these circumstances, public intervention takes on its full meaning: by spreading a ‘culture of competition’ stigmatizing cartels, by resorting to criminal sanctions against individuals (Table 4), public action is ‘complementary’ for that of shareholders.

Table 4 Various External Levers Aimed at Disciplining Manager

<i>Lever</i>	<i>Advantages</i>	<i>Limits</i>
Dissemination of a competitive culture among the population	Building a social norm, stigmatizing cartel practices	<ul style="list-style-type: none"> - Slow construction of a social norm - Low media appetite for antitrust issues
Criminal sanctions in the form of fines against individuals	Principle of equivalence between the manager’s unlawful gain and the fine	<ul style="list-style-type: none"> - Possibility of deferring the fine to shareholders - Low stigmatization effect
Criminal sanctions in the form of prison	Deterrent and stigmatizing effect	<ul style="list-style-type: none"> - Low social acceptability - Cost of proceedings and imprisonment
Manager’s disqualification	<ul style="list-style-type: none"> - Deterrent effect - Social acceptability 	<ul style="list-style-type: none"> - Possibility of compensation of managers by shareholders - Executives age (if near retirement)
Development of whistle-blower programs (with individual remuneration)	Increased detection risk for managers participating in cartels	<ul style="list-style-type: none"> - Low social acceptability of compensation for ‘whistle-blowers’ - Possible internal reprisals within the company

4.1 THE SPREAD OF A COMPETITION CULTURE

According to a PCW study,⁶⁵ 44% of companies surveyed said that unethical attitude is the primary cause of corporate fraud. If managers are to be discouraged from engaging in cartel practices, it is useful to develop a ‘competition culture’, to increase the ‘psychological cost’ of violating competition rules. However, this is a long-term process, as shown by the information campaigns against drink-driving, which have very slowly changed people’s perceptions and behaviours. The development of an ‘anti-cartel culture’ can take place through several channels, not exclusive of each other.

A first channel goes through communication campaigns of public and competition authorities. For instance, in October 2018, the British Competition and Market Authority (CMA) launched a ‘Cracking down on cartels’ campaign on social networks and through a dedicated website ‘Stopcartels’, with educational videos, strong and simple messages for companies and citizens. The CMA campaign specifically targeted high-risk sectors, such as construction or real estate agencies. In order to capture a large audience, it is necessary to target the message on moral values: a survey conducted by the French Competition Authority highlighted the strong moral disapproval of cartels.⁶⁶ Indeed, if 79% of the French consider that these practices are ‘harmful’, it is first of all because they are hidden. The fact that the cartel’s customers pay an ‘extra price’ is not the first reason for disapproval. Similarly, when the French have to compare the cartel with other illegal practices, a majority believe that this practice is as serious, if not more serious, than theft. It is therefore important to communicate on the immorality of the practice rather than on economic impact.

Another way to spread an ‘anti-cartel’ culture is a better media coverage of cartel sanction decisions. A lot of work remains to be done in this area. Indeed, in the case of the United States, Sokol⁶⁷ shows that during the period 1994–2008 cartel decisions gave rise to few press articles, compared to other white collar crimes: on a sample of 815 American newspapers, the number of press articles per cartel case varies between 1 and 3.7, whereas it can exceed 200 in accounting fraud cases. Stephan⁶⁸ explains this low media coverage of cartel cases by the fact that they are collective practices, even though the media are more attracted to ‘white collar crimes’ personalization such as insider trading. In addition, most cartels

⁶⁵ See *supra* n. 10.

⁶⁶ See *supra* n. 8.

⁶⁷ D. Sokol, *Cartels, Corporate Compliance and What Practitioners Really Think About Enforcement*, 78 *Antitrust L.J.* 201, 240 (2012).

⁶⁸ See A. Stephan, *Survey of Public Attitudes to Price-Fixing and Cartel Enforcement in Britain*, 07–12 CCP W. P, 31 (2012).

concern intermediate goods, which do not directly affect consumers and are therefore not of obvious media interest.

Thirdly, policy makers can play a role in the fight against cartels, by putting the issue on their political agenda. Thus, in the Australian case, Beaton-Wells and Haines⁶⁹ analyse how the political class, in the 2000s, successfully transformed a narrow subject – the fight against cartels – into a real social issue, leading in 2009 to a new law criminalizing these practices. The fight against cartels was presented as a measure to protect consumers and promote purchasing power, in a context of liberalization and international openness of the Australian economy. Some policies have also made it a measure to protect small producers from large international cartels.

Fourthly, with regard to the academic training of future managers, a lot remains to be done. Issues related to the ethics of business life, fraud, or accounting and financial corruption are still poorly addressed in management student programs. In France, a recent survey of finance teachers in economics or management shows that the importance given to certain themes (such as financial instability, systemic risk, ethics, etc.) has not changed much since the 2008 financial crisis and that the focus on dysfunctions in the financial system remains narrow. Lastly, competition authorities can play an advocacy role, by disseminating the results of their litigation activities, promoting dialogue and meetings with companies, administrations, political staff and professional organizations. This educational role will be all the more effective if it is regularly fuelled by litigation cases: indeed, sustained and regular detection of cartels helps to reduce the cognitive biases previously studied, and in particular the underestimation of the risk of detection.

4.2 THE IMPLEMENTATION OF EFFECTIVE CRIMINAL SANCTIONS

The public authorities may also introduce sanctions against individuals, besides antitrust sanctions imposed on shareholders. In addition to overcoming the company's inability to pay the 'optimal' fine, criminal sanctions can enhance the attractiveness of leniency programs, where immunity from sanction is extended to criminal proceedings against employees of the first reporting company; they also send a strong signal about the social stigmatization of cartel practices.⁷⁰ Criminal sanctions can mainly take the form of fines or prison sentences. A fine, as long as its legal ceiling is not set at a too low level, has the advantage of establishing a monetary equivalence between the manager's unlawful personal gain derived

⁶⁹ C. Beaton-Wells & F. Haines, *The Australian Conversion: How the Case for Cartel Criminalization Was Made*, 1 New J. Eur. Crim. L. 499, 521 (2010).

⁷⁰ See Wils, *supra* n. 32.

from the cartel (receipt of a bonus, faster promotion) and the sanction: the latter must, at least, confiscate it. But a personal fine has several disadvantages.

Firstly, a personal fine is always transferable to shareholders, explicitly in the employment contract or de facto. Secondly, its stigmatizing effect is low: the manager simply has to make a payment, which removes part of the intrinsic motivation to comply with the law. Thirdly, in practice, the fine limits are set at a relatively low level, compared to the illegal gain that the manager may have made. Thus, in the case of France, Article L. 420–6 limits the maximum fine to 75,000 euros.

Criminal sanctions in the form of prison sentences can remedy the first two disadvantages mentioned above: the prison sentence is directly borne by the individual concerned and has a very strong stigmatizing effect. In particular, Pickett's empirical study⁷¹ shows that people fear closed prison, regardless of the length of the sentence: a six-month prison sentence is almost as dissuasive as an eight-year sentence. The certainty of the prison sentence is therefore more important than its duration. This result can be explained by the fact that individuals who are prone to fraud have a very low discount factor: Mastrobuoni's empirical study shows that incarcerated people have a discount rate of 0.74.⁷²

Nevertheless, even if many countries recognize that cartel criminalization can be useful in deterring cartels, as Whelan⁷³ underlines, the European antitrust criminalization debate has raised a number of difficult issues (he notes for instance that the UK cartel offence was badly drafted in 2002 and that Greece criminalized cartel without paying enough attention to practical measures, the resultant regime is therefore considered to be less than optimal). Whelan provides a detailed account of the various theoretical, legal and practical challenges of cartel criminalization in Europe.

More precisely, sanctions in the form of prison sentences run up against several limits. For instance, one particular limit is related to the high standard of proof. Thus, in the United Kingdom, until 2014, the judge had to prove that cartel participants had acted 'dishonestly'; the dissimulation and secrecy of the practice alone were not sufficient to prove the willingness to act dishonestly. Thus, in the case of the cartel of galvanized steel tanks, the two accused were acquitted for lack of sufficient evidence to demonstrate the existence of 'dishonest' behaviour. Similarly, in France, although the standard of proof is different, it is nevertheless

⁷¹ J. Pickett, *Using Behavioral Economics to Advance Deterrence Research and Improve Crime Policy: Some Illustrative Experiments*, 64 *Crime & Delinq.* 1636–1659 (2018).

⁷² Mastrobuoni, Giovanni & Rivers, David, *Criminal Discount Factors and Deterrence*, SSRN: <https://ssrn.com/abstract=2730969> or <http://dx.doi.org/10.2139/ssrn.2730969> (2016).

⁷³ P. Whelan, *The Criminalization of European Cartel Enforcement: Theoretical, Legal and Practical Challenges* 400 (Oxford University Press, Oxford 2004).

very restrictive: it is not enough for the individual to have been involved in the cartel; the judge must also demonstrate that he took a ‘personal and decisive’ part in the design, organization or implementation of the cartel, and that his intention was fraudulent.⁷⁴ Moreover, prison sentences for cartel practices can suffer from a strong lack of legitimacy among the population: they are considered disproportionate to the practice’s seriousness. The empirical Cartel Project study on the Australian case is instructive in this respect (Beaton-Wells and Haines⁷⁵): researchers show that while 62% of respondents consider cartels to be a ‘dishonest’ practice, only 42% consider them to be treated as criminal practices. Sanctions such as fines on individuals, naming and shaming and disqualification are more popular. Similarly, Stephan⁷⁶ shows that only a minority of respondents support prison sentences: 27% for the United Kingdom; 28% in Germany (Whelan indicates indeed that Germany has failed to consolidate public support for its criminal offence); 26% in Italy; 36% in the United States. In France, the survey conducted by the French Competition Authority shows that only 25% of French people are in favour of prison.⁷⁷

Given the lack of legitimacy of prison sentences and the low effectiveness of criminal fines, ‘incapacitation’ measures may constitute a middle way: an executive or corporate officer who has directly contributed to violating competition rules or who has ‘allowed’ managers to act in full knowledge of the facts may be prohibited from exercising any position of responsibility within a company for a certain period. This is the approach followed by the United Kingdom through the Competition Disqualification Orders, reformed in 2010 and providing for a maximum period of incapacity of fifteen years. There are several arguments in favour of disqualification measures.

The first one is that disqualification negatively affects the leader’s reputation and career prospects, while minimizing costs to the community (no incarceration). Boulu-Reshef and Monnier⁷⁸ experimental study shows that a cartel game in which the sanction takes the form of a temporary exclusion of the player is particularly effective in deterring cartel formation, particularly among individuals at risk.

Moreover, disqualification is more widely accepted by citizens than imprisonment: 48% of respondents in the United Kingdom support it, compared to 11% for prison sentences.⁷⁹ A survey conducted in France by the French Competition

⁷⁴ See Wagner-von Papp, *supra* n. 5.

⁷⁵ See *supra* n. 68.

⁷⁶ See *supra* n. 7.

⁷⁷ See *supra* n. 8.

⁷⁸ See *supra* n. 40.

⁷⁹ See *supra* n. 7.

Authority reveals that 63% of respondents are in favour of a ban on holding a position of responsibility, compared to only 25% in favour of a prison sentence.⁸⁰ Disqualification thus makes it possible to combine strong social acceptability with a deterrent effect.

Thirdly, the scope of disqualification may be broader than that of criminal sanctions: in the United Kingdom, the new 2010 disqualification provisions provide that a director may be prosecuted for failing to report a cartel whose existence he could not reasonably have been unaware of. Finally, it is more difficult for the disqualified person to circumvent the effectiveness of this measure, compared to a personal fine, which can be compensated by the employer.

However, the disqualification procedure also has several limitations. First of all, the disqualification procedure may affect company managers of a high age, close to retirement, thus limiting its effectiveness. Moreover, it is always possible for shareholders to compensate the disqualified executive, for example by granting him a generous remuneration to compensate for the income loss resulting from the forced interruption of his activity. Lastly, it cannot be excluded that disqualification may lead to the exclusion of experienced and efficient managers from the conduct of companies.

4.3 STRENGTHENING WHISTLE-BLOWER PROCEDURES

Most developed countries now have a general legal framework protecting whistle-blowers. These procedures enjoy strong support among the population, insofar as they contribute to the 'moralization' of capitalism. In the case of cartels, a survey on France shows that 66% of French people are in favour of the whistle-blower system. Seventy-six per cent of individuals believe they would report a cartel if they were employed by a large company that participated in this practice, and very few of them (6%) are motivated by a monetary reward. On the other hand, 45% of respondents would only report if they could remain anonymous and 25% would report (unconditionally) because the practice is illegal. Only 16% would not denounce the practice, the vast majority because they would be afraid of losing their jobs. French people are in favour of denouncing these practices on moral grounds (intrinsic motivation) but are not in favour of a monetary reward (extrinsic motivation).

However, Buccirossi and Spagnolo⁸¹ show that rewards have a similar deterrent effect to leniency programs, which involve an increase in transaction costs for

⁸⁰ See *supra* n. 8.

⁸¹ P. Buccirossi & G. Spagnolo, *Corporate Governance and Collusive Behavior*, in *Issues in Competition Law and Policy*, vol. 2, 1219, 1240 (ABA Section of Antitrust Law 2008).

firms involved in cartels. Indeed, a company that participates in a cartel must increase the compensation of employees informed of its company's illegal behaviour, so that they do not report it to the authorities. This system thus improves cartel deterrence by directly increasing the cost of collusion. According to these authors, these devices, if properly designed, have dissuasive effects complementary to those induced by leniency programs (see also Aubert et al.⁸²).

Few countries today have a system for remunerating cartel whistle-blowers. The United States has rejected its implementation, even though this system exists and works for other types of fraud. Since 2008, the United Kingdom has had a whistle-blower remuneration system in place, with a maximum amount of GBP 100,000. However, the collection of this reward is not open to persons who have taken a direct part in the cartel's activity. The CMA has also set up a digital information campaign to promote this program. As a result of this campaign, CMA noted a 30% increase in the number of 'clues' obtained in 2017. South Korea has had a reward system since 2002, which was reformed in 2004 to address the lack of reporting, attributed to cultural barriers, fear of retaliation and low levels of available rewards. Since 2006, this program has been applied eight times in some cases that could not have been detected. In December 2012, the maximum amount of reward was awarded to one informer, an amount of USD 2.8 million.

Based on the experience in South Korea, Stephan⁸³ highlights the two main conditions for an effective whistleblowing policy.

The first one is that reward mechanisms should not exclude individuals directly involved in the practice, as they are often the only possible informants (they hold the evidence relevant to the cartel's conviction) or may have been pressured to participate in the offence.

The second condition is that the reward must be high enough for individuals to have an incentive to report. The whistle-blower is exposed to significant risks and costs: dismissal, reduction in future employability, repercussions on his personal and social life. In order to compensate for these costs and risks, the reward amounts must be very large (USD 4 to USD 5 million in Stephan's hypothetical example).⁸⁴ These sums are all the more justified when the denunciation allows the conviction of a cartel (and the imposition of a fine) that could not have been detected without this whistle-blower procedure.

It is true that whistle-blower compensation policy can have a long-term undesirable effect on business ethics: whistleblowing is no longer guided by an

⁸² C. Aubert, P. Rey & W. Kovavic, *The Impact of Leniency Programs On Cartels*, 24 Int. J. Ind. Organ. 1241–1266 (2006).

⁸³ A. Stephan, *Is the Korean Innovation of Individual Informant Rewards a Viable Cartel Detection Tool?*, 14 CCP WP (2014).

⁸⁴ See *supra* n. 81.

intrinsic ('do not break the law') but extrinsic motivation, based on the lure of profit. However, it seems, in view of the American experience in financial and accounting fraud, that extrinsic motivation does not replace but complements intrinsic motivation: whistle-blowers initially reported the fraud without success to their employer.

5 CONCLUSION

In conclusion, if shareholders want to deter the commission of cartel practices within their company, they can mobilize different levers, such as the terms and conditions of executive remuneration. But internal tools may prove insufficient, given the asymmetry of information, thus justifying intervention by the public authorities. When shareholders and managers display a convergence of interests to violate antitrust laws, it is the lack of internal incentives within the company that mainly justifies the implementation of public policies aimed at individuals.

Thus, in addition to the imposition of dissuasive fines and the strengthening of external detection, competition policy in Europe – in the broadest sense of the term – should also focus on measures specifically aimed at disciplining managers in the sense of greater compliance with antitrust law.

On the one hand, public authorities can help shareholders to put in place more effective internal solutions, such as encouraging companies to adopt better managerial practices, especially when implementing compliance programs: claw back clauses in remuneration contracts, regular renewal of auditors, implementation of specific recruitment and screening systems, and possibly accelerating the increase in the number of women on boards of directors.

On the other hand, public policies can directly influence the incentive for managers to form a cartel, through the imposition of penal sanctions, notably in the form of disqualification. However, it is not enough for a country to have a criminal arsenal for it to be enforced; the cartel must be the subject of a broad consensus within society as to its 'harmful' nature, which is not yet the case in Europe. The first step is to encourage the spread of a culture of competition among the population. After all, information campaigns against drink-driving or smoking have succeeded in changing perceptions and behaviour as much as repressive measures.

Finally, it is worth considering whether it is appropriate to reward managers who respect competition law and help prevent or detect cartels within their companies. The example of South Korea indicates that individual rewards for whistle-blowers associated with a leniency procedure improve the detection of cartels. The aim is thus to move from a punitive policy to an incentive policy targeted at individuals.