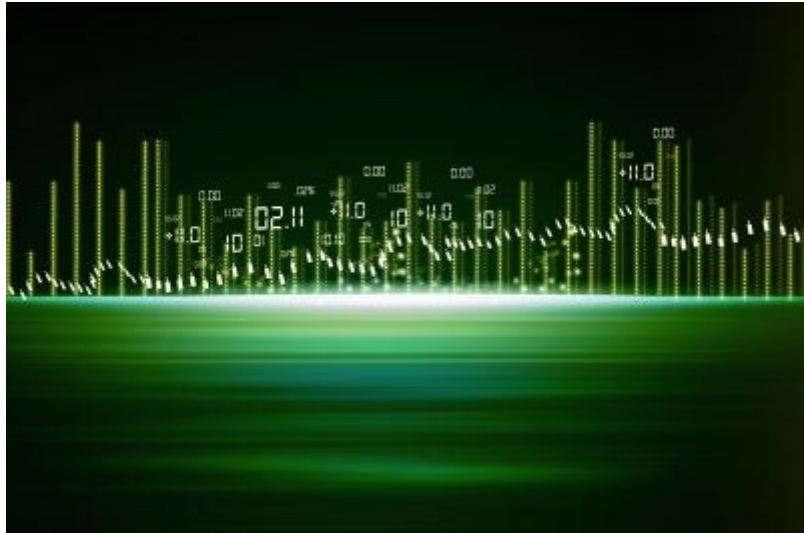


CENTRE FOR LAW, ECONOMICS & SOCIETY
UCL FACULTY OF LAWS

**An Optimal and Just Financial Penalties System for Infringements of Competition Law: a
Comparative Analysis**



Report by

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I. Executive summary

The report first examines optimal financial penalties from an economic perspective and the emphasis it puts on deterrence. We also examine the limits to the optimal enforcement theory employed by economists to design effective sanctions, in particular the principle of proportionality and the need for the penalty to be related to the harm caused and the wrong committed, as the legal system should also integrate corrective justice concerns. The first part of the report also examines the tension between over-enforcement and under-enforcement and that between a more effects-based approach that would rely on economic methodologies and a case by case analysis to provide an accurate estimate of the harm caused by the anticompetitive conduct and the use of proxies of percentages of the volume of commerce or the affected sales, which reduce the administrative costs of the authorities in designing appropriate sanctions.

An approach that would emphasize corrective justice and the principle of proportionality may insist in setting the fine at a level corresponding to the harm caused by the anticompetitive conduct, including the need to take into account general and specific deterrence purposes relating to the specific conduct undertaken by the parties. Hence, in view of the objective of deterrence, one may not expect an exact correlation between the harm and the penalty. Such an effects-based approach to fine setting will not rely, in general, on presumptions and proxies based on affected sales or volumes of commerce. According to economic theory, fines should be at least equal to the expected illegally earned profits divided by the probability to be caught, hence they should relate to expected profits originating from the violation and not to the profits actually gained that may be higher or lower than those expected at decision-making time, should the fines be paid after the period of infringement.

However, expected profits are not observable and cannot be computed in each individual case. A full-effects based approach may be unattainable in practice in view of the great diversity of market configurations. At most, competition authorities may estimate the actual extra profits generated by the cartel if they possess the relevant information or the damages caused by it (second best effects-based approach). A more formalistic approach, relying on presumptions or proxies, such as a percentage of the affected sales or volumes of commerce, could at first sight appear to be incompatible with the principle of proportionality and corrective justice which, in an extreme formulation, would require a case-by-case quantification of expected gains. That said, one should take into account the costs of computing/estimating the expected or actual profits of an anticompetitive practice, or the damage caused by it. These costs may reduce the administrability of more effects-based approaches in setting financial penalties, in particular for fines of modest amount. High administrability costs may render the burden to the prosecutor, and indirectly to the

tax payer, disproportional, in comparison to the level of fines requested. Hence, recourse to some presumptions or proxies (and inevitably some degree of formalism) that would reduce the costs of estimating the fines may be necessary in instances where these administrative costs would cover an important part of the amount of the fine imposed. It may make sense to use these methods, if expensive or time consuming, only for fines of a significant amount. Where competition authorities are to estimate actual profits or harm caused, the authority should be granted a wide margin of discretion to take account of the unavoidable uncertainty in determining the counterfactual development that would have resulted in the absence of the infringement. Given that it is the infringer that alters the course of events, it should be the infringer that bears the burden of the uncertainty about the counterfactual development created by its actions.

An intermediary approach will use a measure of expected profits as the starting point for the analysis. Some authors have put forward a structured effects-based approach, suggesting as the starting point for setting the fine a range of the percentage of the value of sales to which the infringement relates, on the basis of some prior analysis of the profitability condition derivable from the perspective of an infringer of competition law. This would look to factors such as the value of the Lerner index, the likely detection rate of the infringement, and other economic parameters influencing gravity of the infringement (more on this intermediary approach at Section II (I)).

The next section of the report examines the thorny issue of the harm caused by one of the most egregious anticompetitive practices, cartels, and the methods that have been put forward by economists and employed in various legal systems to estimate that harm.

The report then examines the current legal framework in Chile before making recommendations for reform.

The suggestions put forward by the report rely on a detailed comparative analysis of the approach followed by five major jurisdictions, in terms of the size of their economy and their influence in the diffusion of competition law around the world: the European Union, the United States, Germany, the United Kingdom and France. We examine the historical background and current controversies of each of these different systems, before proceeding to a comparative analysis of their position with regard to the main aspects usually covered by Guidelines on setting financial penalties for infringements of competition law.

In the related complementary report *Judicial Scrutiny of Financial Penalties: A Comparative Perspective*, we turn to analyse the role of the different actors in the fine-setting process, in particular the judiciary, in order to examine how the publication of guidelines on setting fines may affect their interaction. We focus on the judicial scrutiny exercised over the decisions imposing a fine

and its estimate by competition authorities or sentencing judges (in the case of prosecutorial systems, such as the US and Chile). We conclude that publishing sentencing guidelines will enable FNE to send a strong message to potential cartelists and other competition law infringers that anti-competitive conduct will not be tolerated and might give rise to substantial financial penalties. Following the findings of the report on the impact of fining guidelines on the policy-making and executing discretion of competition authorities, we consider that the publication of such guidelines will not affect the ability of FNE to request high financial penalties in actions brought against infringers in front of the Competition Tribunal (TDLC). It may also have the advantage of streamlining appellate scrutiny of the fines so as to accommodate the prosecutorial discretion of FNE and the fact that fines are set by an independent and specialised trial judge with the necessary expertise as to integrate optimal deterrence. In our view, the structure of the Chilean enforcement system offers advantages as to the individualization of sanctions, so that they are reasonably related to culpability and thus proportional.

We agree that effective deterrence depends, in part on the uniformity and predictability of serious and swift punishment and we recognize that when drafting sentencing guidelines, a compromise should be made between two competing goals of a sentencing system: uniformity and proportionality. The publication of guidelines will need to accommodate the aim of uniformity and general deterrence, without however compromising the need for flexibility and individualized assessment based on the facts of particular cases, inherent in the principle of proportionality. This aim can be achieved in the context of Guidelines, in view of the numerous parameters individualizing the sanction (linking it to the harm/overcharge) and the need to account for specific deterrence.

The publication of guidelines will certainly not bind the TDLC, although it will certainly inform its decision-making process, as the experience of the Sentencing Guidelines in the US shows with trial judges employing the Sentencing Guidelines as an initial benchmark, even if these are not mandatory. The publication of guidelines will also help put emphasis on the goal of deterrence and the need for optimal sanctions against anticompetitive conduct, in particular in view of the judicial scrutiny of the Supreme Court. The Supreme Court should, in our view, accommodate the need for both general and specific deterrence, in view of the nefarious effects of cartel activity and, more generally anticompetitive conduct, to the whole economy and the consumers.

We conclude that the design of the sentencing guidelines should include the following three steps:

1. Determination of the basic amount of the fine:
 - a. The FNE should be offered the choice between three options, among which it may choose the one leading to the greatest financial penalty:

- I. Estimate¹ the excess illegal gains from the offense² (that is 100% of the overcharge), **or**
 - II. Estimate³ the pecuniary losses to persons other than the defendant (100% of these losses) to the extent the loss was caused intentionally, knowingly, or recklessly, **or**
 - III. If the above options would unduly complicate or prolong the sentencing process, or would not reflect the harm caused by the anticompetitive conduct if this harm may not be quantified in the form of pecuniary losses, use a proxy based on a percentage of affected sales or volume of commerce (on the basis of e.g. 10-15% as an overcharge estimate: e.g. in the EU the starting point is 30% of affected sales)
- b. Apply a multiplier equal to the inverse of the estimated detection probability (e.g. 6 if the detection probability is estimated as 1/6).⁴
 - c. In order to take duration into account, the base fine should be multiplied by the number of years of participation in the infringement.
 - d. Where the fine so calculated exceeds the statutory maximum of 30,000 [UTA] Annual Tax Units, it should be possible to apply a higher fine disgorging the gains where the gains actually made can be calculated.

¹ An approximate calculation should suffice, allowing to make a reasonable estimate of the probable amount. In contrast to damages cases or restitution claims, the deterrent and punitive function of damages may accord with a less precise calculation, as long as this is not speculation or guesswork, the defendant having being found to infringe competition law. Hence, she should bear the risks of any doubt on the exact amount of gains.

² This refers to the total gross gain from the anticompetitive conduct, including the gross gain to the defendants and other participants in the anticompetitive conduct. Some authors have put forward a structured effects-based approach involving the estimation of expected profits from the anticompetitive conduct, on the basis of some percentage range of the values of sales to which the infringement relates [see, Heimler, A. and Mehta, K. (2012) "Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence", *World Competition* 35 (1), 103–119]. This will require competition authorities to take into account the value of the Lerner index, or the change in the value of the Lerner index or the probability of detection as a starting point for such calculation, the defendant being able to challenge the figure put forward by the authority as not being accurate.

³ An approximate calculation should suffice, allowing to make a reasonable estimate of the probable amount. In contrast to damages cases or restitution claims, the deterrent and punitive function of damages may accord with a less precise calculation, as long as this is not speculation or guesswork, the defendant having being found to infringe competition law. Hence, she should bear the risks of any doubt on the exact amount of losses.

⁴ Cf. section II.B of this report.

2. Adjustments to the basic amount⁵

- a. Aggravating circumstances (upward adjustment)
 - i. Repeat offenders⁶
 - ii. Refusal to cooperate
 - iii. Role of leader in the infringement
- b. Mitigating circumstances (downward adjustment)
 - i. Sufficient cooperation with authority
 - ii. Limited involvement in the infringement
- c. Application for leniency (downward adjustment or full immunity)
- d. Inability to pay – bankruptcy considerations (downward adjustment)
- e. Adjustment according to the legal maximum: it is suggested to replace the legal maximum of 30,000 [UTA] Annual Tax Units, which might lead to under-deterrence with a percentage of the worldwide turnover of the infringing undertakings, for instance, a percentage of 10%, as it is the case in the EU, UK, Germany and France. It is suggested for this percentage to operate as a maximum fine, not a cap (see our discussion of the debate in Germany). However, it is suggested that a better way forward would be remove the statutory maximum, or as a second best, render it operational only if the FNE makes use of proxies, such as 30% of the affected sales, in order to define the base fine, instead of estimating the excess illegal gains. Hence, the FNE should be free to request fines that are higher than the statutory maximum of 30,000 UTA, and for the TDLC to award them, if the FNE opts instead to put forward an estimation of the excess illegal gains (as is the case in Germany).

3. Additional issues

⁵Adjustments to the basic amount are proposed on the basis of the structure outlined in the current EU Guidelines (2006).

⁶The current EU Commission's practice is to increase a fine by 50% -100% where the undertaking has been found to have been previously involved in one or more similar infringements.

- a. Public antitrust enforcement should be accompanied by the possibility of private actions for damages.
- b. Corporate fines should be combined with individual fines as well as imprisonment.

II. The Challenge of an Optimal Competition law Enforcement: Designing Appropriate Sanctions and Incentives

A. The function of competition law enforcement

Law enforcement pursues various objectives: compensation, restitution, punishment and prophylaxis (prevention). Competition law is not an exception. Its principal aim is to restore competition in the market. However, this objective may be conceived broadly as including first the ‘micro’ goals of putting the specific infringement to an end, compensating the victims,⁷ and curing the particular problem as to competition, but also the ‘macro’ goal of putting incentives in place ‘so as to minimize the recurrence of just such anticompetitive conduct’ (preventive remedies or deterrence). Different remedial tools and sanctions may perform these various overlapping functions⁸.

Looking more specifically to these ‘micro-goals’, remedies seek generally to restore the plaintiff’s rightful position, that is, the position that the plaintiff would have occupied if the defendant had never violated the law or to restore the defendants to the defendant’s rightful position, that is, the position that the defendant would have occupied absent the violation. Following the imposition of a remedy, the infringer will be asked to commit negative acts (a requirement not to act in a certain way) and/or positive acts (a requirement to act in a certain way). Curing the competition law ‘wrong’ committed or providing recovery may also take the form of restitution (which involves gain-based recovery) and/or compensation (which involves loss-based recovery). Restitution and compensation may thus be considered as the two facets of the ‘curing’ function of the remedial process, as opposed to the punishing and prophylactic one. These remedies may be either administrative, in the context of administrative law enforcement, or civil law remedies imposed by the courts. Monetary penalties, such as fines, may also be conceived of as a substitutionary remedy compensating the ‘general public’ for the distortion of the competitive process. The remedy of disgorging illegal profits is not available, as such, in most competition law regimes.⁹ As fines are generally assessed with

⁷ Taking illegal gains away from the law violators and ‘restore those monies to the victims’ constitutes a principal goal of competition law remedies. Pitofsky, R. (2002), “Antitrust at the Turn of the Twenty-First Century: The Matter of Remedies”, *Georgetown Law Journal* 91, 169- 170.

⁸ For a detailed analysis of the remedial function of competition law, see Lianos, I. (2012), “Competition law remedies: in search of a theory”, in Lianos, I. and Sokol, D. (Eds.), *The Global Limits of Competition Law* (Stanford University Press) 177-204; Lianos, I. (2013) “Competition law remedies in Europe: Which Limits for Remedial Discretion?”, in Lianos, I., & Geradin, D. (Eds.), *Handbook in EU Competition Law* (Edward Elgar: Cheltenham), 362-455.

⁹ Although it remains available in some. See, for instance, in Germany, where the FCO may skim-off economic benefits related to the infringement. This is possible both for proceedings concerning administrative fines (Section 81(4), (5) GWB post-2005 or Section 81(2) GWB pre-2005 with § 17(4) of the Act on

reference to the value of sales to which the infringement directly or indirectly relates in the relevant geographic market in the EU and the degree of gravity of the infringement multiplied by the number of years of the infringement, they may also be considered as exercising a partial and implicit disgorgement function. One could finally list measures that are accessory to the principal curative remedies because they facilitate their enforcement, such as interim measures (which aim to ensure interim relief) and periodic penalties (in order to compel the infringers to comply with the prohibition and/or the positive requirements-injunctions imposed).

The punishment of the competition law infringer is certainly an objective pursued by competition law enforcement. Punishment is certainly the main function of fines/penalties imposed in various jurisdictions for the infringement of competition law, in view of the ‘aggravating’ circumstances taken into account in their calculation for recidivists, instigators or leaders of competition law infringements and undertakings obstructing investigations in most competition law systems, as well as the specific ‘increase for deterrence’ that some jurisdictions, such as the Commission may impose to infringers. The explicit acknowledgment in the European Commission’s Guidelines on the methods of setting fines that it will increase the fine ‘in order to exceed the amount of gains improperly made as a result of the infringement where it is possible to estimate that amount’¹⁰, or the possibility to impose a fine up to twice the pecuniary gain or twice the pecuniary loss attributable to the alleged cartel activities (for the entire cartel), including all its members, rather than in relation to the specific defendant, according to the US alternative Sentencing Guidelines illustrate the point.¹¹ In addition, some competition law systems put in place criminal or individual sanctions¹². Civil remedies through private enforcement aiming to punish may include punitive or exemplary damages¹³.

Administrative Offences (OWiG)) applying to cartels, and for administrative proceedings for non-cartel activity (which are dealt with under section 34 GWB). The economic benefits to be disgorged not only encompass the net revenue generated because of the infraction, but also (the monetary value of) any other benefits such as the improvement of an undertaking’s market position. In the United States, see Elhauge, E. (2009) “Disgorgement as an Antitrust Remedy”, *Antitrust Law Journal* 76, 79-95.

¹⁰ European Commission, Guidelines on the method of setting fines imposed pursuant to Article 23(2) of Regulation No 1/2003, [2006] OJ C 210/2, paras 30–31. See also § 81(5) GWB with § 17(4) of the German Act on Administrative Offences (OWiG).

¹¹ Sentencing Reform Act, 18 U.S.C. § 3571(d) applied in appropriate cases involving cartel related activity.

¹² See, in the UK the cartel offence providing additional deterrence in the form of individual sanctions, criminal and civil courts having the power to impose disqualification orders on directors of undertakings and up to five years imprisonment. In the US, the use of imprisonment and individual sanctions is extensive.

¹³ In the US, treble damages are in principle available in antitrust cases. In the UK, exemplary damages are in theory available for infringements of the competition rules when it is necessary to punish the infringer but their award is discretionary and the courts must exercise their discretion with caution: *Devenish Nutrition Limited and others v Sanofi-Aventis SA and others* [2007] EWHC 2394 (Ch)., *Albion Water Limited v Dŵr*

Competition law enforcement may also have a prophylactic (preventive) aim. It seeks to ensure that there remain no practices likely to result in distortions of competition and infringements in the future. The preventive function is fulfilled in a different way than for the curative and punitive ones, which may also indirectly affect the incentives of market actors to act in a specific way in the future. First, preventive competition law enforcement remedies/sanctions aim directly at specific or general deterrence. Specific deterrence can be defined as the impact of the remedy or penalty on the incentives of those apprehended (the infringers) to adopt similar illegal behaviour in the future. General deterrence focuses on the public at large. Second, competition law remedies may have a pure prophylactic function. Prophylactic remedies can be distinguished from specific deterrence as they affect the ability (and not the incentive) of the infringers to commit equivalent anti-competitive practices in the future by focusing on specific facilitators of potential infringements. These are not illegal practices in themselves, but in the specific circumstances of the case, they may facilitate illegal conduct. By prohibiting these practices, the decision-maker's objective is not to deter the potential infringers from adopting such conduct, as this is not illegal, but to reduce their ability to commit illegal practices.

Specific deterrence is certainly a difficult venture that requires from the courts an inherently uncertain prognostic exercise linked to a counterfactual and some prospective analysis of the situation in the market with and without the specific competition law violations. This is particularly true in complex and dynamically evolving markets, where static models cannot easily predict the various incentives of the different market actors in the future. Specific deterrence may be achieved with administrative remedies, such as declaratory relief, positive injunctions (forward-looking structural and behavioural remedies aiming not only to cure the competition law wrong but also to design the market interactions in such a way that the problem does not occur again in the future), civil mandatory injunctions and restitutionary damages. General deterrence may be achieved with a wider array of measures, such as fines, restitutionary and punitive damages and harsh (in the sense of imposing an important burden to the infringer) mandatory remedies (in particular structural remedies or heavy-handed behavioural remedies). The following table summarizes the classification of competition law remedies/sanctions according to their function.

Table 1: Functions of competition law enforcement and its tools

Function of competition law enforcement and	Curing	Punishing	Preventing

Cymru Cyfyngedig [2011] CAT 18, *2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Limited* [2012] CAT 19.

its tools			
Administrative process	<ul style="list-style-type: none"> • Termination of the infringement • Behavioural remedies • Structural remedies • Fines (to a certain extent) • Accessory remedies • Declaratory relief • Prohibitory injunctions • Mandatory injunctions • Compensatory damages • Restitutionary damages 	<ul style="list-style-type: none"> • Fines • Exemplary (punitive damages) • Criminal and individual sanctions 	<p>SPECIFIC DETERRENCE</p> <ul style="list-style-type: none"> • Fines • Criminal and individual sanctions • Termination of the infringement • Forward looking structural and behavioural remedies • Mandatory injunctions • Restitutionary damages • Exemplary (punitive) damages <p>GENERAL DETERRENCE</p> <ul style="list-style-type: none"> • Fines • Criminal and individual sanctions • Structural remedies • Heavy-handed long duration behavioural remedies • Restitutionary damages • Exemplary (punitive) damages • Harsh mandatory injunctions <p>PROPHYLACTIC REMEDIES</p>

It follows that the main purposes of fines/penalties is (i) to punish the competition law infringer and (ii) to ensure deterrence. Punishment exercise a retributive function, broadly perceived, as it aims to punish the violation of the moral rights of the communities affected by the competition law infringement and constitutes a ritual of justice. Yet, competition law authorities around the world prefer fines/penalties principally for deterrence purposes. We will examine how optimal deterrence may be achieved and how effective one may judge a competition law enforcement system is.

B. An effective competition law enforcement system: optimal enforcement theory and the aim of deterrence

The assumption which underlies the economic approach to sanction is the same as the assumption which underlies the economic model of competition: firms are rational profit maximizers and they will engage in an illegal practice if their expected benefits of such practices are sufficiently large compared to their expected costs.

Entering a cartel agreement is tempting for firms in an industry because if the cartel is successful the increase in profits for the participants may come from two sources. First, the participants will be able to increase their price because of the reduced competition; second the participants may also enjoy efficiency benefits due to the reduced competition (for example if they are able to buy equipment allowing them to have lower costs and that they would not have bought had they not known that they were going get certain shares of the market). Therefore the gains from the illicit practice may be larger than the surcharge imposed on consumers. Thirdly, cartels may exercise distortive effect on price signals (with possible inefficiencies in a dynamic perspective because of investments in the wrong market; rent-seeking or rent-preservation practices).

However, there are two sorts of costs for consumers associated with a cartel. First consumers who keep on buying the product will now have to pay more for each unit because of the price increase by the cartel members. This is often called the surcharge attributable to the cartel. In addition, some consumers are likely to reduce their purchase of the good because of the increase in its price and those consumers will lose the benefit that they would have enjoyed from consuming these units that they do not consume anymore. This is called the deadweight loss.

If we consider the welfare of society (that is of consumers and producers), the loss due to the cartel is only the deadweight loss since the surcharge, which is a cost to consumers, is also a profit to producers and those two elements cancel each other out.

If the cartel allows the cartel members to improve their efficiency (which is fairly unlikely), the net loss to society from a cartel would be the deadweight loss minus the efficiency gain for the cartelists.

The goal of law enforcement is to reduce the number of violations of the law. This is achieved by catching at least some violators and punishing them, thus increasing the *ex post* cost of the violation for these violators and reducing the expected profitability of such violations for would-be violators. The increase in the costs for some violators due to law enforcement and therefore the decrease in the *ex-ante* profitability of the violations for would-be violators will, in principle, reduce the number of violations by discouraging at least some would-be violators. For example, firms in an industry would contemplate engaging in a cartel activity because such a cartel, if successful, would allow them to increase their price and their profits. However If the would-be cartelists face a risk of getting caught and sanctioned, the expected benefit of their cartel activity may be less than the profit they will benefit from due to the increase in their price. If the sanction they can expect is sufficiently large and if the probability of their getting caught is sufficiently high, they may be discouraged from cartelizing the industry.

Law enforcement which results in fewer violations thus reduces the cost to society of those violations. But law enforcement is itself costly since society has to pay the competition law authorities and the courts for their law enforcement activity. The more intense the law enforcement effort is, the fewer violations there will be but the higher is the cost of law enforcement. Conversely, the less intense law enforcement is, the lower is the cost to society of law enforcement but the higher is the social cost of violations, since there will be more violations if there is less law enforcement.

Thus society has to decide how much law enforcement it wants to choose. From an economic point of view, the optimal amount of law enforcement will depend on the respective cost of violations to society and the social cost of enforcement. For example, it would not make sense for society to spend an enormous amount on law enforcement in order to reduce the amount of certain violations, if the avoided violations only impose a very small cost on society.

To figure out what level of enforcement would reflect the best possible use of our resources (what economists call the optimal amount of enforcement), the deterrence approach to law enforcement suggests that what we want is to minimize the sum of the costs of violations to society that take place plus the cost of law enforcement activities (which discourage some other violations from taking place). In other words we want to keep increasing our cost of law enforcement activities as long as the additional benefit to society due to the decrease in the number of violation is larger than the additional cost on law enforcement.

To make it simple, economists assume that what society chooses is the proportion of violators caught or the probability of violators being caught (often denoted by p) and the severity of the sanction if they are caught (often denoted by f). For example, everything else equal, if the budget of the competition authority or the courts is increased, this will allow these bodies to investigate more cases and this will increase the proportion of violators found guilty. Similarly, everything else equal, if a law is passed which increases the ceiling on sanctions (for example raising the ceiling from 10% of the turnover of firms to, say, 15%), this will allow competition authorities and courts to increase the amount of the fines they impose at least in some cases and will discourage some more cartels.

There are two possible approaches to choosing p and f .

If one believes that cartels inflict harm on consumers (in terms of surcharge and in terms of deadweight loss) but may in certain cases also lead to a lowering of the cost of production or distribution for the cartel members (therefore may also have a productive efficiency benefit), the right approach is to set the sanction at a level which is larger than the total consumer loss divided by the probability of the cartel being caught and sanctioned. In that case the expected gain from the cartel will be negative except if the efficiency gain is larger than the deadweight loss. For example imagine that a cartel impose a surcharge of 10 per unit sold and that, at the cartel price, there are 100 units sold. In that case, the total surcharge imposed by the cartel members will be 1000. Assume also that the consumer surplus lost for consumers who have given up or reduced their consumption (the deadweight loss) is equal to 500 and that the violators have a 20% chance of being caught. Our rule says that the sanction in such a case should be larger than $1500/.20 = 7500$. If the cartel members face a sanction which is just equal to 7500 if caught, they have an 80% chance of not being caught (and increasing their profits by 1000) and a 20% chance of being sanctioned (in which case they make 1000 of extra profit but they have to pay a sanction of 7500). Hence, their expected profit if they consider entering into a cartel is: $(1000 \times .8 - 6500 \times .20) = -500$. They can expect (on average) to lose an amount of money which is precisely the amount of the deadweight loss they impose on consumers. If they are risk neutral (and if they know the probability of being caught and the sanction they will get if they are caught), they will refrain from entering a cartel except if the efficiency gains they can have because of the cartel is larger than the net cost they inflict on consumers (except if there is a net benefit for society).

A second approach is the deterrence approach. In this approach we assume that cartels always impose a cost on consumers (in terms of surcharge and deadweight loss) and are never a source of efficiency benefits for the cartelists. In that case we do not have to bother with the deadweight loss to consumers (which is exceedingly difficult to compute in any case). We want to deter all cartels since they all impose a cost on society (the overcharge plus the deadweight loss). Cartels will be deterred if the sanction is larger than the overcharge divided by the probability of sanction (in our

example if the sanction is larger than $1000/.20=5,000$). If the firms consider entering into a cartel agreement they will anticipate that they will have an 80% chance of making 1000 and they will have a 20% chance of making 1000 but having a sanction of 5000. Thus they will anticipate that their expected profit will be: $1000 \times .8 + .2 (1000 - 5000) = 0$. If the sanction is larger than 5000 the expected profit from cartelisation is negative and no (risk neutral) firm will enter into a cartel agreement. This means, in other words, that for law enforcement to deter cartels, violators should expect that crime “does not pay”.

In line with the previous analysis, in Becker (1968) it is concluded that the optimal fine should be a multiple of the offender's benefits from crime and negatively related to the probability of detection. Also, an OECD report (2002) stresses that “effective sanctions against cartels should take into account not only the amount of gain realized by the cartel but also the probability that any cartel will be detected and prosecuted. Because not all cartels are detected, the financial sanction against one that is detected should exceed the gain actually realized by the cartel.

As was mentioned previously, the deterrence approach assumes that the antitrust violations considered (cartels) always impose a cost for society (ie. they are *per se*/egregious violations of the competition law). If, on the contrary, cartels may be good for society in some cases (ie. If one follows a rule of reason approach for cartels) then the deterrence rule may discourage some cartels that are efficient (ie. cartels which have efficiency benefits that are several times larger than the overcharge they inflict on consumers). As it has been pointed out by some commentators, “(f)ines that are higher than the harm caused by a particular type of conduct may discourage firms to engage in conduct, which increases total surplus¹⁴. For instance, Posner (1976) mentions the possibility of firms spending large amounts on advertising that neither serves to inform consumers better nor improves the product¹⁵. If firms could be convinced to limit their advertising expenditure, costs would fall. By cooperating in advertising or research, or by merely sharing important information, a cartel may be able to reduce costs. In order to sustain these gains, Sproul (1993) points out that horizontal price-fixing may serve the purpose of preventing firms from competing away the benefits that induce firms to cooperate to generate these cost savings¹⁶. Finally, Martin (1999) shows that joint profit maximisation requires output to be distributed among firms so that marginal costs are the same for

¹⁴ Wehmh rner, N. (2005) “Optimal Fining Policies”, *Remedies and Sanctions in Competition Policy Conference*, Amsterdam Centre for Law and Economics, February 2005.

¹⁵ Posner, R.A. *Antitrust law: An Economic Perspective*, University of Chicago Press, Chicago, 1976) cited by Nonthika Wehmh rner (2005).

¹⁶ Sproul, M.F. (1993) “Antitrust and Prices”, *Journal of Political Economy*, 101(4) 741-755 cited by Wehmh rner, N. (2005).

all firms¹⁷. To the extent that the high-cost firm reduces its output and accepts a lower market share, the units produced at a lower cost represent an efficiency gain.

However, most competition authorities throughout the world consider that cartels are violations *per se* (or by object) of competition laws and that the economic approach to deterrence is applicable to cartel sanctioning. Typical of this position is Werden's (2009) approach: "Cartel activity robs consumers and other market participants of the tangible blessings of competition. Cartel activity is never efficient or otherwise socially desirable; cartel participants can never gain more than the public loses. Cartel activity, therefore, is not like tortious conduct, which is redressed with a liability rule focusing on the harm to victims and providing the incentive to take due care. Like other property crimes, cartel activity should be prohibited rather than merely taxed. As Judge Richard Posner explained of criminal sanctions generally, they "are not really prices designed to ration the activity; the purpose so far as possible is to extirpate it."¹⁸

It should be noted at this point that the sanctions referred to in the economic literature should be understood as the total sanctions that could be inflicted as a result of a violation. As we explained in the previous section, the sanctions for anticompetitive behaviour could be administrative and/or criminal and/or civil and/or individual/personal. What counts in the theory of deterrence is the *total* cost imposed on the violator. Thus economists consider that civil remedies, such as damages, for example, may have a deterrent effect (even if their legal aim is to compensate victims rather than to punish violators) because they may increase the cost faced by violators if they are found out.

The discussion which follows is focused on sanctions imposed on competition law violators in proceedings resulting from competition law enforcement efforts initiated by competition authorities because these sanctions are often much more important than civil sanctions or criminal sanctions (which, with the exception of the US, are rarely imposed in other jurisdictions and in any case are not available in Chile). But, if in a jurisdiction there is a very active civil enforcement the reasoning should be adjusted to take into consideration the combination of civil and other sanctions. As Enrico Leonardo Camilli argues: "the coherence of the entire sanctioning system is of paramount importance, since all the elements are closely interrelated, and the change of one parameter is likely to have effect on all the setting. For that reason matters like the private damages and the standing to claim them, the international or domestic feature of the infringement, the type and quantity of

¹⁷ Martin, S. (1999) *Industrial Economics*, Prentice Hall, New Jersey.

¹⁸ Werden, G. J. (2009) "Sanctioning Cartel Activity: Let the Punishment Fit the Crime", *European Competition Journal* 5(1); 19-36.

investigative tool, the availability of criminal sanctions are to be taken into account when the question on the optimal fine is addressed”¹⁹.

This analysis may be at odds with some legal practice. For instance, the Court of Justice of the European Union (CJEU) has held that it is not necessary, for the purposes of assessing whether the administrative sanction is effective, proportionate and dissuasive, to take account of the possibility and/or the level of a criminal sanction which may subsequently be imposed²⁰. However, examples taking a different approach also exist. In *Devenish Nutrition Ltd v Sanofi-Aventis SA* (hereinafter *Devenish*) the English High Court had the opportunity to examine the interaction between fines and exemplary damages finding that there were some cumulative factors that made the award of exemplary damages inadequate in this case: first, there was no way of limiting the exemplary damages to avoid the danger of double counting, second, there was also the serious problem of assessing the damages, in particular the fact that the claimants were only part of the class affected by the wrongful conduct, and finally, the large scale of the fines imposed by the European Commission, which made the need for punitive damages less compelling in this case²¹.

In many countries competition laws only indicate the maximum sanction that could be imposed on violators rather than a precise (mandatory) level of sanctions. This means that competition authorities and courts have the ability to decide (within limits) the amount of sanctions they impose in particular cases. Similarly many competition authorities have some discretion when it comes to allocating their resources to the initiation of investigations even though the law may impose some constraints on them. Thus the policies followed by both the competition authorities and the courts (either as reviewers or as triers of facts) in their law enforcement activities contribute to the choice of p and f .

More formalized summary of the economics of sanctions

In general, a penalty system consists of a probability of detection and a fine. In case of violations of antitrust law, these two parameters are called the rate of law enforcement by the antitrust authority (denoted by p) and the penalty imposed on the firm for price-fixing activities and participation in the cartel (denoted by F). Further the penalty imposed can be characterized as a product of the penalty base and the penalty rate (denoted further in our recommendations at part VII by k).

¹⁹ Camilli, E.L. (2006) “Optimal Fines in Cartel Cases and the Actual EC Fining Policy” *World Competition: Law & Economics Review*, 29, 575-605.

²⁰ Case C-45/08, *Spector Photo Group NV and Chris Van Raemdonck v Commissie voor het Bank, Financie- en Assurantiewezen (CBFA)*, [2009] ECR I-12073, para. 77.

²¹ *Devenish Nutrition Ltd v Sanofi-Aventis SA* [2007] EWHC 2394 (Ch).

To illustrate the economic definition of the harm from cartels, we refer to a simple diagram shown in Figure 1²².

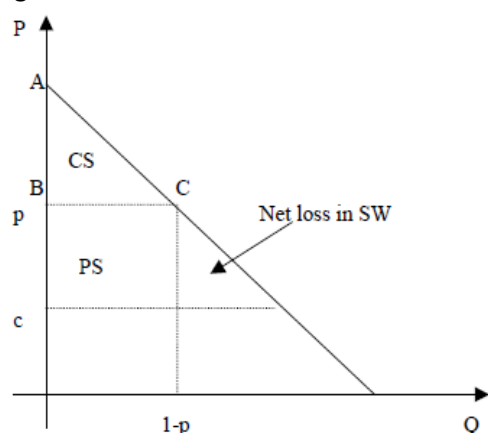


Figure 1: Negative effects of price-fixing on Consumer Surplus (CS) and Social Welfare (SW)

The increase in prices above the competitive price c , induced by a cartel, leads to an increase in profits for the firm (π) above competitive level that is denoted by PS (Producer Surplus) in the Figure 1. However, at the same time there are social costs imposed by this change in prices. These social costs are represented by the area of the triangle marked as "Net loss in SW" (Net loss in Total Social Welfare). There is obvious damage to the consumers, since they lose part of the consumer surplus as a consequence of the price-fixing activities of the firm. In addition, there is a clear reduction in total welfare, since due to the increase in price above competitive level the reduction of the consumer surplus exceeds the increase in producer surplus. Hence, the net effect is always negative and it is necessary to block the cartel in order to reduce this damage.

Hence, ideally the optimal fine should extract the entire benefit the firm derives from collusion (i.e. the entire excess illegal gains $\pi=PS$) in order to block the antitrust violation and also, if feasible, compensate for the damage caused to the consumers, which is higher than illegal gains and is given by the sum of PS and Net loss in SW in Figure 1. In addition, in Becker (1968) it is concluded that the optimal fine should be a multiple of the offender's benefits from crime and negatively related to the probability of detection (denoted by p). Also, an OECD report (2002) stresses that "effective sanctions against cartels should take into account not only the amount of gain realized by the cartel but also the probability that any cartel will be detected and prosecuted. Because not all cartels are detected, the financial sanction against one that is detected should exceed the gain actually realized by the cartel.

²²The figure is constructed for the linear demand and constant marginal cost case.

It follows from the previous developments that in the economic model of deterrence the sanctions imposed on violators which are caught must be larger than their gains from the violation as long as the probability of catching them is less than 100%.

A number of economists have tried to estimate the level of fines that cartelists should pay if fining policy met the criteria of deterrence and most have come up with a large numbers given the importance of the cost imposed on society by cartels and the relatively low probability of catching violators. It has been estimated in several empirical studies²³ that as few as one in six or seven cartels are detected and prosecuted, implying the probability of detection roughly between 0.14 and 0.17. Indeed, Bryant and Eckard consider this to indicate the *maximum* probability, given that their sample consisted entirely of those cartels that were actually detected. It is possible that those cartels that remain undetected are systematically better at concealing their cartel, so that the overall probability of detection may actually be considerably lower than one in six or seven cartels. This implies a multiple of at least six. For example, according to Werden and Simon (1987)²⁴, firms would need assets six times higher than annual sales to pay the deterrent fine. This means that most firms would be unable to pay the deterrent fine and would go bankrupt if they had to. Bankrupting firms which have participated in a cartel may entail large social costs. As a consequence, the authors conclude that most price fixers should go to prison rather than having their firm pay the deterrent fine. Craycraft and Gallo (1997)²⁵ analyze the effect of the firm's ability to pay the fine levied and find that all firms in their sample of 262 price-fixing firms between 1955 and 1993 were able to pay the actual fine imposed. However, only 47, or 18% of the sampled firms would have been able to pay the deterrent fine. Finally, Combe and Monnier (2007), under rather conservative assumptions, calculated the optimal sanction as being 6.6 times higher than the loss of consumer surplus, that is, for a five year cartel this represents more than 300% of the turnover²⁶.

It is worth noting that some of these studies were undertaken before leniency programs were established. Because of the existence of the leniency program one can hope that the probability of detecting cartels has increased significantly which means that the optimal amount of fines for cartel offenders is now lower than it used to be (see part III of this report for more recent evaluations).

²³See, for example, Bryant, P.G., and Eckard, E.W. (1991) "Price Fixing: The Probability of Getting Caught," *The Review of Economics and Statistics* 73, 531-536.

²⁴Werden, G. and Simon, M. (1987) "Why Price Fixers Should Go to Prison," *The Antitrust Bulletin* 32, 917-937.

²⁵Craycraft, J. L., Craycraft C. and Gallo, J. C. (1997), "Antitrust Sanctions and a Firm's Ability to Pay" *Review of Industrial Organization* 12, 171-183.

²⁶Combe, E. and C. Monnier (2007), "Cartel Profiles in the European Union", *Concurrences* N° 3-2007, 181-189.

The fact that crime does not pay does not mean that there will be no violations. Some risk-seekers may still want to engage into violations on the off-chance that they might escape punishment (just like the fact that the expected gain from buying a lottery ticket is negative does not deter some people from buying lottery tickets but discourages risk averse people from doing so). But the number of violations will definitely be smaller than it would have been if the level of sanctions had been such that “crime pays”.

There are three major implications of this analysis for competition law enforcers and courts. The first implication is that, from an economic point of view, a repressive law against cartels should be enforced in such a way as to deter would-be violators from engaging in the prohibited practice. The second implication is that firms will not be deterred from engaging in cartels and other anticompetitive activity if “crime pays”. The third implication is that for crime not to pay, sanctions have to be sufficiently high. They have to be a multiple of the profits that the violators derive from their illegal practices, if the probability of detecting and sanctioning the violators is less than one hundred per cent. And they should be all the higher that the probability of detection and sanction is low.

This approach suggest that sanctions should be based on the quantity of the harm done by a prohibited practice rather than on the “quality” of the category of the practice. Yet, this more effects-based analysis of individual sanctions may not be practically achievable, hence as a second best a competition law regime may focus on the definition of the categories of practices for which a presumption of harm, for instance taking into account aggravating circumstances, or of no harm, with the consideration of mitigating circumstances, is established.

C. The limits of the economic approach to sanctions

The economic approach which we have previously discussed, assumes that the goal of sanctions is to deter would be violators. However, from a legal standpoint, sanctions could pursue a number of other goals such as retribution, incapacitation, rehabilitation etc. Usually laws, and competition law is no exception, do not clearly specify what the goal of law enforcement is supposed to be. These goals are not necessarily in conflict with the goal of deterrence pursued by the economic approach. Yet, there might be some tension between the expansive approach to sanctions advanced by the proponents of the deterrence model and legal concerns about proportionality and correlativity in the relation between the harm caused and the penalty imposed. Indeed, most lawyers would adhere to the principle that the sanction should fit the crime.

The deterrence model and more generally optimal enforcement theory shares with economic efficiency theory the belief that the aim of the legal system is to promote wealth maximization. This

objective should transcend both the liability and the remedial stages.²⁷ This duty to act in conformity to the principle of wealth maximization may potentially confer an important discretion to competition authorities, as it would be possible to impose penalties that would achieve optimal deterrence from a wealth maximization perspective, without these penalties being necessary from a corrective justice perspective. This may be in opposition to the principle of proportionality and corrective justice.

In an economic efficiency inspired legal framework for protective rules, it would also be theoretically possible not to adopt a penalty, if its effect would be to jeopardise would-be efficient activity by creating over-deterrence, even if the activity in question is legally prohibited. For instance, leniency literature has recognized early on that cartels have an internal stability problem, which could be exploited to achieve deterrence at lower levels of sanction, or even without any need to impose penalties²⁸. Leniency programmes, when well administered, may increase the probability of detection, by undermining trust among members of the cartel and rewarding whistle-blowers, in view of the fact that usually the best source of information on secret cartel activity are companies and individuals involved in the commitment of the antitrust violation themselves²⁹. As it has been documented by the literature, the presence of leniency programmes alters the deterrence effect of penalties and results in the substantial decrease of financial penalties necessary to achieve deterrence³⁰.

Deterrence theory also views penalties as mainly a deterrent device directed against potential offenders with the view to ensure that the offender (specific deterrence), but also any other

²⁷ See, for instance, Posner, R.A. (1981), "The Concept of Corrective Justice in Recent Theories of Tort Law", *Journal of Legal Studies* 10, 187–206, 201 (noting that 'in [the economic theory of law], laws is a means of bringing about an efficient [in the sense of wealth maximizing] allocation of resources by correcting externalities and other distortions in the market's allocation of resources. The idea of rectification in the Aristotelian sense is implicit in this theory'.

²⁸ Stigler, G.J. (1964) A Theory of Oligopoly", *Journal of Political Economy* 72, 44-61; Motta, M. and Polo, M. (2003) "Leniency programs and cartel prosecution," *International Journal of Industrial Organization*, 21(3),347-379; Spagnolo, G. (2004) "Optimal leniency programs," CEPR Discussion paper series, working paper number 4840, (revised 2008).

²⁹ The Office of Fair Trading (OFT), "An assessment of discretionary penalties regimes" (London Economics, 2009).

³⁰ Buccirosi, P. and Spagnolo, G. (2007) "Optimal Fines in the Era of Whistleblowers - Should Price Fixers Still Go to Prison?" in Goshal, V. and Stennek, J. (Eds.) *The Political Economy of Antitrust*, Elsevier: Amsterdam.

potential offender (general deterrence), would be given sufficient disincentive to be discouraged to engage in this harmful activity in the future.³¹

1. Designing a system of deterrent sanctions and remedies

In order to achieve deterrence, policy makers may act on the following fronts:

- (i) increase the level of fines or sanctions and alter their form so as to increase deterrence;
- (ii) increase enforcement expenditures and hence the probability of detection;
- (iii) impose a liability rule that would maximize social welfare.

It is well accepted that penalties should be sufficient to induce offenders to internalize the full social costs of their behaviour (the internalization thesis). This assumes that if there is perfect detection and no social cost of imposing punishment, the optimal sanction will be equal to the net social (efficiency) loss post violation, compared to the situation prior to the violation.³² The penalty should thus be equal to the net harm to everyone but the offender.³³ For cartels, the optimal penalty is equal to the deadweight welfare loss plus the wealth transfer to the cartel from purchasers (i.e. the sum of PS and Net Loss in SW in Figure 1). This penalty only deters those instances of the offense in which the deadweight welfare loss exceeds any savings in production costs to the cartel. Accordingly, if the enforcement costs are positive and the probabilities of detection and punishment are less than perfect, optimal penalties should, according to the optimal deterrence model, exceed the social (efficiency) cost of the violation so as to correspond to the efficiency loss caused. The minimum punishment for deterrence to work will be equal to the expected gain from the violation (including interest) multiplied by the inverse of the probability of the punishment being effectively imposed. The idea behind is that the penalty must be sufficient to render the expected value of the violation equal to zero. By imposing this cost, the offence will be deterred. The internalization approach limits theoretically the discretion of the authorities to impose penalties, if it will lead to a less satisfactory, from an efficiency perspective, equilibrium than that existing prior to the violation.

³¹ The issue is more complicated in competition law (as in all areas of commercial law) as one should also examine the question of the efficient allocation or mix of deterrence between the corporation and individuals acting on its behalf.

³² Becker, G.S. (1968), "Crime and Punishment: an Economic Approach", *Journal of Political Economy* 76, 169–217.

³³ Landes, W. M. (1983), "Optimal Sanctions for Antitrust Violations", *University of Chicago Law Review* 50, 652, 656.

At the same time, if the aim is to ensure that the offender will be given sufficient disincentive to be discouraged from engaging in the activity in the future, the expected value of the violation would be negative (pure deterrence thesis). In this case, it would make sense to include all possible losses, including those of the competitors of the offender that were, for example, foreclosed from the market, as a result of the exclusionary practices usually following the creation of a cartel, for the long term effects persisting after the practice has been terminated, or those of upstream suppliers for lost sales, which, as Hovenkamp observes, are ‘potentially unlimited’ losses.³⁴ Of course, increased sanctions and excessive penalties may also deter efficient conduct and generate overinvestment in compliance, which might be inefficient. However, for the tenants of the pure deterrence thesis, that should not be a major issue, because of the future consequence of deterring harmful conduct (and therefore its future positive wealth maximization effects).³⁵ Yet, even if one takes the pure deterrence view, there might still be a problem such as over-deterrence or over-enforcement. The marginal cost of sanctions must not be larger than the marginal revenues of sanctions. If sanctions have a cost to society and if the cost is a function of the amount of the sanction (the costs of collecting of the sanction or those of keeping people in prison, for criminal sanctions) then there can be such a thing as over-enforcement even in the pure deterrence model.

2. Are these deterrence-focused perspectives compatible with the legal approach focusing on justice and the principle of proportionality?

One may argue that deterrence constitutes an inherent principle to corrective justice. One could distinguish between two forms of deterrence: deterrence as wealth maximization and deterrence as a moral requirement for corrective justice to work effectively. As Gardner forcefully explains, there is a distinction to be made between the moral content of corrective justice and the legal principle of corrective justice:

“[the legal principle of corrective justice] is supposed to be efficient at securing that people conform to certain [...] moral norm of corrective justice [...] As well as correcting torts that have already been committed, this legal principle is apt systematically to deter the commission of torts that have not yet been committed”.³⁶

Deterrence has a role to play even for those valuing only the moral principle of corrective justice and rejecting efficiency as a normative value (deterrence-based corrective justice approach). Preventive

³⁴ Hovenkamp, H. (1989) “Antitrust’s Protected Classes” *Michigan Law Review* 88, 1–48.

³⁵ Wils, W.P.J. (2006), “Optimal Antitrust Fines: Theory and Practice” *World Competition* 29, 183.

³⁶ Gardner, J. (2011), “What is Tort Law For? Part 1. The Place of Corrective Justice” *Law and Philosophy* 30, 1, 26 and 29.

sanctions have long been a feature of the legal system in most civil law systems, in view of the importance deterrence has as an objective of corrective justice.

Some legal experts, such as Justice Scalia in the United States, hold the view that the proportionality principle is an inherently retributivist concept, which is incompatible with consequentialist goals of punishment (such as the goal of deterrence). Others disagree. For example Ian P. Farrell considers that Justice Scalia's analysis is flawed and that "philosophical analysis demonstrates that the principle of proportionality is not an inherently retributivist concept, but rather a theoretically independent moral conviction to which we are tenaciously attached"³⁷. Whatever option is chosen, there may be a possible conflict between the economic approach and the legal approach to sanctions for economic violations.

An illustration of this conflict may be found in the 1998 US Supreme Court Judgment *United States v. Bajakajian*, which was not a competition case but is nevertheless quite interesting for our purpose³⁸. In this case, a Mr Bajakajian had attempted to leave the United States with \$357,144 in cash without filling the form which must be filled by all citizens taking more than \$10,000 in US Currency out of the United States. The United States' government argued that it had "an overriding sovereign interest in controlling what property leaves and enters the country." and that full forfeiture of the unreported currency (\$357,144) supported that interest by serving to "dete[r] illicit movements of cash" and aided in providing the Government with "valuable information to investigate and detect criminal activities associated with that cash." The Supreme Court rejected this argument and ruled that it was unconstitutional to take \$357,144 from a person who failed to report his taking of more than \$10,000 in US Currency out of the United States. It was the first case in which the Supreme Court ruled a fine to violate the Excessive Fines Clause. The Supreme Court justified its decision by saying that "(c)omparing the gravity of respondent's crime with the \$357,144 forfeiture the Government seeks, we conclude that such a forfeiture would be grossly disproportional to the gravity of his offense. It is larger than the \$5,000 fine imposed by the district court by many orders of magnitude and it bears no articulable correlation to any injury suffered by the Government.... For the foregoing reasons, the full forfeiture of respondent's currency would violate the Excessive Fines Clause".

In the competition law area, there is a risk that review courts (adhering to the legal principle of proportionality and the implicit "retribution approach" or "moral acceptability approach" to sanctions) may find sanctions imposed (or requested) by competition authorities (adhering to the economic principle of deterrence and the implicit "cost minimization approach" to sanctions)

³⁷ Farrell.I.P. (2009) "Gilbert & Sullivan and Scalia: Philosophy, Proportionality and the Eighth Amendment" ExpressO Available at: http://works.bepress.com/ian_farrell/1

³⁸ *United States v. Bajakajian*, 524 U.S. 321 (1998).

disproportional and therefore tend to reduce the amount of the sanctions to non-detering levels. For instance, the principle of proportionality constitutes an important limit to the European Commission's discretion in imposing penalties³⁹. The principle is included in Article 49(3) of the Charter of Fundamental Rights of the EU providing that 'the severity of penalties must not be disproportionate to the criminal offence'. Proportionality is also a general principle of EU law, applying as such to all measures adopted by Community institutions. According to settled case law:

"by virtue of that principle, the lawfulness of the prohibition of an economic activity is subject to the condition that the prohibitory measures are appropriate and necessary in order to achieve the objectives legitimately pursued by the legislation in question; when there is a choice between several appropriate measures recourse must be had to the least onerous, and the disadvantages caused must not be disproportionate to the aims pursued".⁴⁰

This three-part test has, of course, to take into account the margin of discretion of the European Commission in adopting appropriate penalties, including its discretion in establishing the level of optimal deterrence. Although the principle of proportionality does not exist as such in US antitrust law, a constitutional proportionality requirement applies to most punitive damages cases as well as to other types of remedies.⁴¹

There is a second risk, which is that competition laws themselves may impose ceilings on the level of sanctions that limit the ability of competition authorities to impose deterrent sanctions. Indeed, many competition laws provide for maximum sanctions for competition violations expressed either in absolute terms (example: "the maximum sanction for bid rigging will be €1,000,000") or as a

³⁹ See also Wils, W.P.J. (2006), "Optimal Antitrust Fines: Theory and Practice", *World Competition* 29, 208. (Noting that 'the principle of proportionality of penalties reflects the retributive view of punishment. Indeed, the utilitarian conception of punishment, which justifies fines being set at the level required for optimal deterrence at the lowest cost, competes for the allegiance of the legal system with the retributive view of punishment. Under the latter view, punishment is not justified by its future consequence of deterring harmful conduct, but rather on the ground that it is morally fitting that a person who does wrong should suffer in proportion to his wrongdoing').

⁴⁰ Case C-331/88, *The Queen v Minister of Agriculture, Fisheries and Food and Secretary of State for Health, ex parte Fedesa and others* [1990] ECR I-4023, para. 13.

⁴¹ Thomas, T.A. (2007), "Proportionality and the Supreme Court's Jurisprudence of Remedies", *Hastings Law Journal*, 59, 73; Sullivan, T.E. and R.S. Frase (2008), *Proportionality Principles in American Law: Controlling Excessive Government Actions*, Oxford: Oxford University Press. See also *State Farm Mut. Auto. Ins. Co. v Campbell et al.*, 538 U.S. 408 (2003) where the US Supreme Court has declined to adopt a strict ratio test for punitive damages, but has suggested that the punitive to actual ratio should rarely be in double digits (that is, exceed a 9–1 ratio), thus indicating that a ratio of 10–1 might be found disproportional.

proportion of the turnover of the violators (example: “the maximum sanction for bid rigging will be 10% of the total turnover of the firm”) or as a proportion the affected market (example “the maximum sanction for bid rigging will be 10% of the amount of the relevant procurement market”).

Table 2: Statutory limits

Jurisdiction	Statutory limits
United States	<ul style="list-style-type: none"> • USD \$ 100 million (~ €76 million) under the Sherman Act, or • under the Alternative Sentencing Statute fines up to twice the gain derived from the criminal conduct or twice the loss suffered by the victims
European Union	<ul style="list-style-type: none"> • 10% cap of the total worldwide turnover
United Kingdom	<ul style="list-style-type: none"> • 10% cap of the total worldwide turnover
Germany	<ul style="list-style-type: none"> • 10% of the annual worldwide turnover of the undertaking. This has been interpreted by German courts not as a cap (as under EU law), but as a maximum fine.
France	<ul style="list-style-type: none"> • 10% cap of the highest worldwide pre-tax turnover
Brazil	<ul style="list-style-type: none"> • 30% of the gross revenue of the last financial year
Canada	<ul style="list-style-type: none"> • \$10 million Canadian dollars
Chile	<ul style="list-style-type: none"> • The TDLC can impose fines for fiscal benefit up to 30,000 annual tax units (UTA), (approximately US\$30,000,000) for practices consisting in express or tacit agreements among competitors, or concerted practices between them, that confer them market power and consist of fixing sale or purchase prices or other marketing conditions, limit production, allow them to assign market zones or quotas, exclude competitors or affect the result of bidding processes. For all other competition law infringements, the TDLC can impose fines for fiscal benefit up to 20,000

In all those cases the maximum amount of the fine being allowed legally risks being considerably lower than the amount which would minimize cost to society. When this is the case there is no guarantee that the competition authority will be able to impose deterrent sanctions on violators.

Yet, there are arguments to support the view that in the case of competition law, the deterrence principle should prevail over the retribution principle in the sanctioning policy of the competition authority and the courts.

First, one of the principal goals of competition law is economic: the promotion of economic efficiency. The underlying reason for the adoption of competition law lies in the teaching of economic analysis which suggests that in most cases competition promotes economic efficiency. It follows that the enforcement of competition law must itself be efficient if competition law is to promote economic efficiency. And the deterrence model meets this criterion. It would thus contradict the goal of competition law to base its enforcement on the retribution model. Illustrating the view, widely held by competition authorities, that deterrence should be the only goal of sanctions with respect to cartels, Werden (2009) observes that “(c)artel activity materially differs from other property crimes only with respect to the purpose of sanctions. Rehabilitation and incapacitation are important purposes for most criminal sanctions, but deterrence is the only significant function of sanctions for cartel activity, and the specific deterrence of convicted offenders clearly is secondary to the general deterrence of potential offenders”⁴².

Second, most competition laws impose a ceiling on the level of sanctions, which is very low compared to the cost imposed on society by cartel offenders and to what the deterrence model would suggest as appropriate sanctions. As J.A.H. Maks, M.P. Schinkel and I.A.M. Bos (2005) argue: “the existence of ceilings on sanctions in absolute value (US) or in percentage of turnover (EU) can have perverse effects on deterrence. Such ceilings are, in most cases, economically unjustified”⁴³. However, the main reason why such ceilings are so low is to ensure that the sanctions against antitrust violators remain proportional to the violations (or morally acceptable). Along those lines Wils (2006) notes that “(t)he maximum of twice the gross gain as foreseen in the US under the Criminal Fines Improvement Act, may reflect the limit of what multiplication is considered acceptable from a proportional justice perspective. In the EU, Regulation No 1/2003 provides that fines imposed by the European Commission cannot exceed 10 % of the total (consolidated) turnover

⁴² Werden, G. J. (2009) “Sanctioning Cartel Activity: Let the Punishment Fit the Crime”, *European Competition Journal* 5(1), 19-36.

⁴³ “Perverse incentive effects of bounding fines for infringements of competition law: the Dutch case”

of the company concerned in the preceding business year. This ceiling appears to reflect more generally concerns with very high fines, not only from the perspective of proportional justice but also as to the risk of inability to pay, and the social and economic costs of high fines"⁴⁴. Lianos has also explained that proportionality requirements limit the discretion of competition authorities when adopting remedies or sanctions/penalties. According to recital 12 and Article 7, the Commission may impose on infringers 'behavioural or structural remedies which are proportionate to the infringement committed and necessary to bring the infringement effectively to an end'. Structural remedies are subject to a stricter proportionality requirement as they can only be imposed 'either where there is no equally effective behavioural remedy or where any equally effective behavioural remedy would be more burdensome for the undertaking concerned than the structural remedy'. Fines are dealt in Article 23 and cannot exceed 10 percent of the total turnover of the undertaking the preceding business year, thus introducing a quantitative measure of proportionality. Below this threshold, the mere fact that a fine may be very high will not render the fine disproportionate, because the 10% threshold is an abstract safeguard against disproportionality.⁴⁵ There is no reason given for the introduction of this differentiation on the qualitative or quantitative expression of the proportionality principle, although it may be explained by the different forms of judicial scrutiny of fines and remedies, fines being subject, because of their punitive dimension, to a stricter judicial control⁴⁶.

Thus within the ceiling set by the law, deterrence should be the overriding concern in the setting of the sanctions and the sanctions should be a function of the expected profits by the violators and the probability of the practice being sanctioned. Yet in a number of cases antitrust fines are based on the volume of affected commerce, rather than on the profits of the colluding firms. As Bageri, Katsoulacos and Spagnolo show (2013) fines based on volume of commerce have a number of distortive effects⁴⁷. First, specialized firms active mostly in their core market expect, *ceteris paribus*, lower fines (when caps bind) than more diversified firms active in several other markets than the relevant one. Second, if expected fines are not sufficient to deter cartels (and we will discuss this issue later on), fine based in revenue rather than on collusive profits may push firms to increase cartel prices above the monopoly level to reduce the penalty thus exacerbating the anticompetitive

⁴⁴ Wils, W.P.J. (2006), 'Optimal Antitrust Fines: Theory and Practice', *World Competition* 29, 183. See also Lianos, I. (2013) "Competition law remedies in Europe: Which Limits for Remedial Discretion?", in Lianos, I., & Geradin, D. (Eds.), *Handbook in EU Competition Law* (Edward Elgar: Cheltenham), 362-455

⁴⁵ See Judgment of the Court (First Chamber), 18 May 2006, Case C-397/03 P (*Archer Daniel Midland v Commission*) [2006] ECR I-4429 at paras 100-106.

⁴⁶ See, Part VII of this report on judicial scrutiny and the distinction made in EU law between the control of legality of remedies and fines, the General Court having unlimited jurisdiction in respect of decisions by which the Commission imposes fines.

⁴⁷ Bageri, V., Katsoulacos, Y. and Spagnolo, G. (2013). "The distortive effects of antitrust fines based on revenue", *Economic Journal*, 123(572), 545–557.

harm caused by the cartel. Bageri, Katsoulacos and Spagnolo conclude that “(d)evelopments in economics and econometrics make it possible to estimate illegal profits from an antitrust infringement with reasonable precision or confidence, as regularly done to assess damages and advocate that “it is time to change these distortive rules of thumbs that make revenue so central for calculating fines, if the only thing the distortions buy for us is saving on the costs of data collection and illegal profit estimation”. This issue raises the need to integrate more effects-based approaches in setting fines, which will be examined later in this report.

D. Can there be over-deterrence? Are penalties for cartels excessive? Should they be?

The first thing to mention about over-deterrence is whether it should be considered to be a problem.

Over-deterrence of a practice, which may in some cases entail significant pro-efficiency benefits (such as an abuse of dominance), may be a major problem since such over-deterrence may entail significant costs in lost efficiency, over and beyond the direct cost of the over-enforcement.

Six possible sources of costs due to over-deterrence come to mind:

First, there is the possibility that law enforcement may be so intense that beyond some level the additional cost of law enforcement will be higher than the cost that the additional cartels deterred would have imposed on society. Indeed, “excessively high fines may over-deter by discouraging potential investors away from markets and practices that could raise the possibility of infringement actions”, and this may be welfare reducing in the long run⁴⁸.

Second there is the possibility, if competition authorities and courts are not infallible, that very high sanctions or a very high level of enforcement will lead to costly enforcement errors. The possible errors in appraising the behaviour in question may dilute the deterrent effect of sanctions and of course harm social welfare by leading to wrong enforcement decisions should also be considered.

Enforcement errors may be of two sorts⁴⁹:

- (i) Type I errors: These consist in wrongly concluding that there is an infringement. This can lower deterrence because it reduces the cost of violating the law.
- (ii) Type II errors: These consist in falsely not punishing a potential infringement. This may lead to uncorrected inefficient situations and also reduce deterrence because it reduces the difference between the expected fine from violating the law and not violating it.

⁴⁸ The OFT, “An assessment of discretionary penalties regimes” (London Economics, 2009) 19.

⁴⁹ The OFT, “An assessment of discretionary penalties regimes” (London Economics, 2009) 20.

As it is explained by Polinsky and Shavell, a positive probability of a Type I error reduces deterrence because it lowers the expected fine if an individual violates the law, while a positive probability lowers deterrence because it reduces the difference between the expected fine from violating the law and not violating it, thus making the violation less costly to the individual⁵⁰. For instance, Type II errors might be dealt by increasing prosecutorial resources and thus the probability of detection, in the context of public enforcement, or training judges and putting in place specialised tribunals, in the context of private enforcement, while Type I errors may be dealt by putting in place filters, such as summary judgments, in the context of private enforcement or by raising the standard of proof in both public and private enforcement or finally by adopting the principle of proportionality for penalties and remedies⁵¹. As Harold Houba, Evgenia Motchenkova and Quan Wen observe: “(...) excessive fines may amplify the possible negative impact of antitrust enforcement, which can stem from unobservable legal errors. Hence, the rationale for adopting the principle of proportionality is to minimize any potential undesirable impact of the antitrust policy”⁵².

Third, there is the possibility that if sanctions are very high and enforcement very intense, firms will spend a disproportionate amount of resources to ensure that their employees do not violate the law (for example through compliance programs) leading to a reduction in their efficiency because they will refrain from entering into efficient horizontal agreements for fear of being sanctioned (see the examples given by Posner referred to earlier).

Fourth, in jurisdictions where the victims of antitrust violations may be awarded damages over and beyond the prejudice they have suffered, there can be a risk that claimants have an incentive to bring dubious claims with the hope that they will benefit from a favorable court decision or settlement, thus imposing unjustified costs on the defendants.

Fifth, excessive fines may lead to the insolvency of the undertakings to which they have been imposed. This might not necessarily be a problem, as the risk of insolvency following the imposition of a fine may have potential deterrence effects. Yet, it may also lead to negative welfare effects, if it excludes one of the very few competitors in a market characterized by barriers to entry⁵³.

⁵⁰ Polinsky, M. and Shavell, S. (2009) “Public Enforcement of Law”, in Durlauf, S. N. and Blume, L. E. (eds.), *The New Palgrave Dictionary of Economics*, Palgrave/Macmillan, 2nd ed., 178-188, 183.

⁵¹ Polinsky, M. and Shavell, S. (2009) “Public Enforcement of Law”, in Durlauf, S. N. and Blume, L. E. (eds.), *The New Palgrave Dictionary of Economics*, Palgrave/Macmillan, 2nd ed., 178-188, 183.

⁵² Houba, H, Motchenkova, E. and Wen, Q. (2013) “Legal Principles in Antitrust Enforcement”, *Tinbergen Institute Discussion Paper*, TI 2013-178/II.

⁵³ The OFT, “An assessment of discretionary penalties regimes” (London Economics, 2009) 20.

Sixth, excessive fines may affect shareholders, bondholders and other creditors of the infringing undertaking, or employees, in case the payment of the financial penalty leads to a job cutting exercise in order to limit costs, even if none of the above may have been aware of the illegal activity or contributed to it. Furthermore, consumers may be harmed if the amount of the fine is passed on to them in the form of higher prices. For this reason, individual sanctions have been usually considered as a more effective tool of deterrence, in view of the fact that they are targeted to those real responsible for the anticompetitive conduct.

However, even though cartels can in very rare cases have pro-efficiency benefits, it is quite unlikely that they will have such effects in the vast majority of cases. This is why most jurisdictions treat them as per se violations of antitrust laws. Thus the cost of type I errors is quite limited for cartels.

Furthermore, the risk of insolvency is relatively limited in most cases. Although Werden and Simon (1987) noted the possibility that the optimal fine may lead several firms to bankruptcy, Craycraft *et al.* (1997) found that 95 to 100% of all firms fined for price fixing 1955-1993 were able to pay their fines and that some of them would have been able to pay “Beckerian” fines (that is, multiple fines imposed according to the optimal deterrence model)⁵⁴.

Finally, some authors doubt that in the cartel area there is a serious risk that firms may overreact to strong enforcement or that unjustified legal costs may be imposed on defendants. Thus, for example, Harrington (2014) states:

“(…) as has been noted by others, there are at least two sources of social harm from excessive enforcement. First, firms may avoid legitimate activities out of fear that their behavior would be misconstrued as collusive. Second, at least in the case of the U.S. where there is an overly active litigation scene, customers may pursue unjustified cases with the hope that the prospect of legal fees, discovery, and the small chance of having to pay large customer damages will induce settlement by innocent suppliers. I’m skeptical of these concerns, at least for the U.S. The standards for proving guilt for a Section 1 violation have always been high. Furthermore, Twombly has raised the bar as now discovery can be avoided unless the plaintiff can plead ‘facts that are suggestive enough to render a \$1 conspiracy plausible’. At present, it is quite difficult for a plaintiff to get past the pleading stage without some reasonably convincing evidence that there was collusion and it was of the unlawful variety”⁵⁵.

⁵⁴ Craycraft, J. L. Craycraft, C. and Gallo, J. C. (1997), “Antitrust Sanctions and a Firm’s Ability to Pay” *Review of Industrial Organization* 12, 175-176.

⁵⁵ Harrington, J. (2013) “Are penalties for cartels excessive and, if they are, should we be concerned?” February 13, 2014, at competitionacademia.com.

It follows from the previous analytical discussion about the deterrence model that there can be over-deterrence if (i) the sanctions are larger than the cost to society (e.g. overcharge, harm to innovation, reduction of quality and consumer choice) due to the violation divided by the probability of the violators being found guilty and (ii) the marginal cost of sanctioning cartels is larger than the marginal revenue to society from eliminating them.

Thus when one discusses whether sanctions against cartels are optimal, two main questions must be addressed: is there under-enforcement (if the level of sanctions is lower than the gains to violators from cartelizing divided by their (perceived) probability of being caught)? Is there over-enforcement (if we are in the optimality zone but the enforcement is so thorough that great costs are incurred to catch cartels which impose insignificant costs on consumers). The second question has been rarely examined because, as we shall see, most of the evidence presented in recent years has suggested that there was significant under-enforcement (rather than a risk of over-enforcement) in the major jurisdictions (United States and the European Union). However more recent research has argued that the level of sanctions in the EU could reach the deterrence level.

E. Are monetary sanctions over-deterrent or under-deterrent?

In Europe, the European Commission has substantially increased the level of sanctions for cartels during the first decade of the 2000s as shown in the following table⁵⁶:

Table 3: Fines imposed not adjusted for Court judgments – period 1990-2013 (last change 5 December 2013)

Year	Amount in €⁵⁷
1990-1994	539 691 550
1995-1999	292 838 000
2000-2004	3 462 664 100
2005-2009	9 414 012 500
2010-2013	7 241 181 674
Total	20 950 387 824

⁵⁶ see Combe, E. and Monnier, C. (2011) “Fines Against Hard Core Cartels in Europe: The Myth of Over Enforcement”, *Antitrust Bulletin* 56, 235.

⁵⁷ Amounts as imposed by the Commission and not corrected for changes following judgments of the Courts General Court and Court of Justice of the EU) and only considering cartel infringements under Article 101 TFEU. Only the amounts concerning Article 101 TFEU have been included in these statistics (not those concerning Article 102 TFEU).

Table 4: Ten highest cartel fines per case (since 1969) (last change 31 March 2014)

Year	Case name	Amount in € ⁵⁸
2012	TV and computer monitor tubes	1 470 515 000
2008	Car glass	1 189 896 000
2013	Euro interest rate derivatives (EIRD)	1 042 749 000
2014	Automotive bearings	953 306 000
2007	Elevators and escalators	832 422 250
2010	Airfreight	799 455 000
2001	Vitamins	790 515 000
2008	Candle waxes	676 011 400
2007/2012	Gas insulated switchgear (incl. re-adoption)	675 445 000
2013	Yen interest rate derivatives (YIRD)	669 719 000

Table 5: Ten highest cartel fines per undertaking (since 1969) (last updated 31 March 2014)

Year	Undertaking	Case	Amount in € ⁵⁹
2008	Saint Gobain	Car glass	715 000 000
2012	Philips	TV and computer monitor tubes	705 296 000 (of which 391 940 000 jointly and severally with LG Electronics)
2012	LG Electronics	TV and computer monitor tubes	687 537 000 (of which 391 940 000 jointly and severally with Philips)
2013	Deutsche Bank AG	Euro interest rate derivatives (EIRD)	465 861 000
2001	F. Hoffman-La Roche AG	Vitamins	462 000 000

⁵⁸ Amount adjusted to reflect changes introduced after General Court's and CJEU's judgments.

⁵⁹ Amount adjusted to reflect changes introduced after General Court's and CJEU's judgments.

2013	Société Générale	Euro interest rate derivatives (EIRD)	445 884 000
2007	Siemens AG	Gas insulated switchgear	396 562 500
2008	Pilkington	Car glass	357 000 000
2009	E.ON	Gas	320 000 000
2009	GDF Suez	Gas	320 000 000

A lively debate has ensued over whether the European sanctions for cartels were characteristic of over-enforcement or under-enforcement.

Combe and Monnier (2009), for example, studied 64 cartels sanctioned by the EU Commission for which they had sufficient data (a large majority were sanctioned after 2000) and concluded the following:

"(...) The level of fines compared to the illegal gain made by cartels members remains low as at best only half of the fines reach this value. This implies that fines regularly fall below the minimum illegal profits of cartels. Thus, fines imposed against cartels by the European Commission are suboptimal even considering a 100% probability of detection. It means that even if we do not consider the fact that some cartels remain undetected, the level of fines is insufficient. Hence, these fines cannot deter price fixing if decisions maker are risk neutral, as the probability of detection is clearly below 100%. (...) the Commission has never imposed a dissuasive fine given the low probability of detection and a low price elasticity of demand. For all these reasons, the risk of over enforcement is actually nonexistent and should be considered as a myth".

The issue of over-deterrence was discussed in the context of the adoption of the EU harmonized rules on private actions for damages. An external study prepared for the legislative preparations of the European Commission (Renda et al, 2007) included some discussion over the adoption of multiple (double) damages in order to enhance deterrence. The study found that, under low, medium and high assumptions regarding detection for cartel cases, double damages would encourage victims to exercise their right to damage compensation with no risk of overdeterrence, as the increase would not be sufficient to approximate optimal deterrence, given the low detection rate.

Assuming that the loss to society consists of two components (i) the overcharge (OC) on the cartelised goods, and (ii) the lost consumers' surplus (CS) on the output not produced because in order to raise price the cartel restrict output, Renda et al (2007) found that assuming the

deadweight loss equals either 10% or 50% and EU penalties imposed on cartels are between 23% and 79% of the overcharge, the yearly welfare impact of EU-wide cartels would be in the range between €13.4 billion and €36.6 billion, *i.e.* between 0.12% and 0.33% of EU GDP in 2006. One should also take into account that the benefits of a cartel can be greater than the overcharge whenever the cartel agreement leads to some efficiencies (*e.g.* cost reductions) for cartelists. The study found that even if treble damages (or, similarly, double damages with prejudgment interest) were awarded in Europe, enhanced private damages actions in addition to fines and settlement awards would still not recover the full societal loss from detected and undetected cartels⁶⁰. The following table prepared by Renda et al (2007) takes into account the penalties, damages and settlement awards a global cartel faces from the various competition law enforcement systems around the world. The inclusion of these costs has been explained by Connor (2007), in view of the benefit-cost calculation a cartel will face *ex ante* (before engaging in cartel activity)⁶¹. This can be represented with the following equation: $E(C) = E(F) + E(S) + E(R)$. The expected penalty faced *ex ante* by a cartel is the sum of expected public penalties ($E(F)$), expected private damage settlements ($E(S)$) and expected (negative) reputational effects ($E(R)$). Although the later are not included in the following table, these speculative results show that the liability/overcharge ratio would still lead to under-deterrence, even under the least conservative estimates. Even if the expansion of competition legislation across the globe the last decade may challenge some of these findings, competition law enforcement in most of these new competition law jurisdictions is still weak and presumably does not add much to the global efforts of deterrent competition law enforcement.

Table 6: Deterrence for a global cartelist⁶²

Scenario			
Jurisdiction	Low	Medium	High
Global cartels			
Detection rate	18%	24%	30%
Conviction rate	75%	75%	75%
Ex ante probability of	13.5%	18.0%	22.5%

⁶⁰ Renda, A. et al (2007), "Making antitrust damages actions more effective in the EU: welfare impact and potential scenarios" *Report prepared for the European Commission*, 109-110, (noting that even "with treble damages, private enforcement would allow for recovery of up to €11 billion, or 88.2% of the total loss from cartels").

⁶¹ Connor, J.M. (2007), "Price-Fixing Overcharges: Legal and Economic Evidence", Chapter 4, 59-153 in John B. Kirkwood (ed), Volume 22 of *Research in Law and Economics*. Oxford, Amsterdam and San Diego: Elsevier.

⁶² Renda, A. et al (2007), "Making antitrust damages actions more effective in the EU: welfare impact and potential scenarios" *Report prepared for the European Commission*, 105.

conviction			
Public fines US - % of overcharge	10.8%	18.8%	26.8%
Public fines Canada - % of overcharge	11.2%	24.0%	36.6%
Combined North America	10.9%	19.2%	27.5%
EU penalty - % on overcharge	9.2%	20.5%	31.8%
Combined North America and Europe	20.0%	39.6%	59.2%
Global penalties	1.6%	3.5%	5.4%
Combined penalties	21.6%	43.1%	64.7%
Awards/settlements North America	35%	80%	125%
Awards/settlements EU	29%	85%	145%
Awards/settlements combined	64%	165%	270%
Total liability – public fines and private awards/settl.	86%	209%	335%
Deterrence w/out EU private enf.	7.6%	22.2%	42.7%
Deterrence with EU private enf.	11.6%	37,5%	75.3%

However the methodology used by Combe and Monnier (2009) has been questioned. For example, Allain, Boyer, Kotchoniz, and Ponssard (2013) criticize their work on two grounds⁶³. The first concerns the cartel overcharge. The authors evaluate the validity of their estimated overcharge by controlling for econometric problems such as model error, estimation error and publication bias in the determination of representative overcharge estimates. Second, Allain, Boyer, Kotchoniz, and Ponssard consider a dynamic framework through which each individual firm must recurrently determine if pursuing its participation in the cartel will generate a level of future profits which

⁶³ Allain, M.-L. et al.(2013) “Are Cartel Fines Optimal? Theory and Evidence from the European Union”, *CIRANO -Scientific Publications 2013s-2.4*

exceeds those that would arise from deviating from the cartel agreement, while taking into consideration the probability of detection and the subsequent fine. Combe and Monnier do not include such a dynamic framework in their analysis.

Based on these improvements to the methodology of Monnier and Combe (2009), Allain, Boyer, Kotchoniz, and Ponssard (2013) estimate that the optimal fine should be more than ten times lower than the benchmark suggested by previous studies. They conclude:

"The comparison of our benchmarks to the actual level of fines imposed by the European Commission in recent cartel cases (from 2005 to 2010) shows that, according to the different competitive scenarios, approximately 30% to 80% of the fines are deterrent, while 50% to 80% are compensatory. These empirical results could indicate that recent fines are closer to their deterrence and compensation objectives than they used to be. However, a striking feature of our results is the dispersion of the fines: some seem to be much too high, while others are much too low".

Katsoulacos and Ulph (2013) build on the work of Allain, Boyer, Kotchoniz, and Ponssard and introduce an additional consideration regarding the timing of penalty decisions⁶⁴. They observe that the existing literature, based on the economics of crime, assumes that the detection and prosecution of cases takes place immediately after the action has come to its natural end. They point out that antitrust violations can last for many years and competition authorities sometimes intervene and terminate actions before they have come to a natural end. Symmetrically, a competition authority may only reach a decision on a case and impose a penalty long after the antitrust action has terminated.

Katsoulacos and Ulph then reason that if an anticompetitive action is stopped before it has reached its natural end, then the firm will suffer a loss of profits relative to what otherwise might have happened and so the penalty does not need to be so high to generate the same level of deterrence. However, on the other hand, the revenue base on which the penalty will be imposed is smaller than it would otherwise have been had the action lasted its natural life and so the penalty rate has to be higher to achieve the same level of deterrence.

If a decision can be reached and a penalty imposed long after the action has come to a natural end then this implies that the probability of effective action ever being taken is higher than if the action is taken only when the action has reached its natural life – pointing to a lower penalty. However, the fact that the penalty is imposed much later means that, discounted back to the present, it

⁶⁴ Katsoulacos, Y. and Ulph, D. (2013) "Antitrust penalties and the implications of empirical evidence on cartels overcharges", *The Economic Journal* 123 (572), 558–581.

represents a lower potential cost to the firm contemplating taking the action, and so the penalty rate needs to be raised to have the same deterrent effect.

Altogether, using a new European data set to calculate the impact of these additional factors, they show that the optimal penalty is approximately 75% of that implied by the conventional formula and they support the conclusions of Allain, Boyer, Kotchoniz, and Ponssard that existing penalties are within the range supported by calculations of optimal penalties.

Finally, Harold Houbay, Evgenia Motchenkova, Quan Wen (2013) using the marginal deterrence literature make a related point⁶⁵. They show that if one takes into consideration the legal principles which antitrust sanctions must obey (punishments should fit the crime, proportionality, bankruptcy considerations and minimum fines), the antitrust authority should not punish maximally overall, but punish in a smarter manner such that mild offences are not fined at all. Their results call for a subtle reconsideration of the common wisdom in the economics of concerted crime that setting the fine equal to the available legal upper bound always increases the effectiveness of deterrence.

F. Interaction between fines and private enforcement

1. The function of public and private enforcement of competition law: complements or substitutes?

The interaction between fines and private actions for damages is of particular interest for all jurisdictions that have made the choice of a dual enforcement system for their competition laws. This constitutes the majority of jurisdictions, which explains why the topic of the interaction between public and private enforcement, in particular with regard to cartels, has been, very early on, a matter of concern for the International Competition Network⁶⁶. After conducting a survey of the legal framework and practice in a number of jurisdictions, the ICN Report noted that private antitrust enforcement, when this results from individual actions for damages, “mainly fulfils a compensatory function”, as “the plaintiff resorts to private antitrust enforcement to assert his rights as an individual”, “on his own initiative and according to his own priorities”⁶⁷. From this perspective,

⁶⁵ Houbay, H., Motchenkova, E. and Wen, Q. (2013) “Legal Principles in Antitrust Enforcement”, *Tinbergen Institute Discussion Paper*, TI 2013-178/II.

⁶⁶ See, International Competition Network, Cartels Working Group, Interaction of Public and Private Enforcement in Cartel Cases, Report to the ICN Annual Conference, Moscow 2007, available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc349.pdf>.

⁶⁷ See, International Competition Network, Cartels Working Group (2007) “Interaction of Public and Private Enforcement in Cartel Cases”, Report to the ICN Annual Conference, Moscow, available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc349.pdf>, p. 33.

private enforcement may appear complementary to public enforcement whose principal aim is not the compensation of the injured parties from the competition law infringement, but deterrence⁶⁸. Both public enforcement and private enforcement (in particular through collective actions for damages) may have a deterrent function, as in combination with public enforcement, private enforcement can help to raise the deterrent effect of antitrust enforcement for companies and so prevent anticompetitive practices. The relation between the two different forms of enforcement in this case would be either complementary, if additional deterrence is always good, or competitive, if there can only be an optimum level of deterrence, in which case more deterrence through private enforcement should lead to less deterrence through public enforcement, if the authorities want to avoid over-deterrence, assuming that the latter result would be suboptimal for total welfare⁶⁹. Furthermore, private enforcement complements public enforcement because it fulfils a relief function when competition authorities have to concentrate their relatively limited resources on cases which are of general significance for competition, and hence, in the absence of public enforcement, private parties are offered the possibility of using private enforcement in order to protect their legitimate rights⁷⁰.

2. Public and private remedies and the need for “equalization”

The interaction between the administrative and the civil remedial process, in particular damages for infringements of competition law, has been a subject of controversy. Some authors have argued that the potential accumulation of remedies that might result from the dual enforcement system may be

⁶⁸ It is perfectly possible for public enforcement to aim compensation as well as deterrence. For instance, In the United States, according to Section 4C of the Clayton Act, *parens patriae* can be invoked by the a State attorney general enabling him to have standing to sue on behalf of the State citizens that have been injured by a violation of the Sherman Act.

⁶⁹ This view of an optimal level of deterrence assumes that the objective of deterrence in this context is intrinsically linked to that of economic efficiency or wealth maximization. Indeed, the optimal deterrence model and more generally optimal enforcement theory shares with economic efficiency theory the belief that the aim of the legal system is to promote wealth maximization. Some authors have distinguished between two forms of deterrence: deterrence as wealth maximization and deterrence as a moral requirement for corrective justice to work effectively, deterrence having a role to play even for those valuing only the moral principle of corrective justice and rejecting efficiency as a normative value (the deterrence-based corrective justice approach). See, I. Lianos, *Competition Law Remedies in Europe: Which Limits for Remedial Discretion?* In Lianos, I. and Geradin, D. (eds.) (2013), *Handbook in European Competition Law: Enforcement and Procedure*, Edward Elgar, 362-456. If one takes a deterrence-based corrective justice approach, it is unclear on which grounds “over-deterrence” will be deemed inappropriate, hence from this perspective public and private enforcement will always be complements.

⁷⁰ See, International Competition Network, Cartels Working Group (2007) “Interaction of Public and Private Enforcement in Cartel Cases”, Report to the ICN Annual Conference, Moscow, available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc349.pdf>, p. 33.

“problematic” and may demand “a formal mechanism for coordination or equalization”⁷¹. Discussing the EU example, Kloub advances a retributive equivalence theory measuring the optimal enforceability of a right in the following manner:

“A right is enforceable if the total damage inflicted by the violator (D) equals the amount of compensation (C) and monetary punishment (P). In short: $D = C + P$ [...]; therefore, an optimal enforcement system should strive to impose sanctions (in the form of compensation and monetary punishment) that equal the total damage inflicted by a violation (in the context of antitrust violations this includes both the actual damage caused to victims and the damage caused to society as a whole in the form of deadweight loss)”⁷².

Although the author distinguishes retributive equivalence from deterrence, which is “prospective looking and is viewed from the perspective of the violator or other potential violators” (thus specific and general deterrence), he claims that “post-violation enforceability of antitrust rules must be based principally on retributive equivalence” and that enforcement in excess of D is deemed to be over-enforcement⁷³. Over-enforcement may lead to “specific effects”, such as misallocate resources in the context of the particular violation, or general effects, leading to over-deterrence and consequently to negative chilling competition effects. If over-enforcement is possible, then the enforcement system should contain “an equalizing mechanism to ensure that the amount of monetary punishment and compensation imposed for individual violations does not exceed the total damage (damage to the victims, ie. wealth transfer; and damage to society, ie. deadweight loss) caused by the violation”⁷⁴.

Optimal enforceability defined, one should take into account that this goal may be achieved “either by monetary punishment (public enforcement) or compensation (private enforcement) alone, or by

⁷¹ See Frese, M.J (2011) “Fines and Damages under EU Competition Law: Implications of the Accumulation of Liability” *World Competition* 34(3), 397-432, 398; Kloub, J. (2009) “White paper on Damage Actions for Breach of the EC Antitrust Rules: Plea for a more Holistic Approach to Antitrust Enforcement” *European Competition Journal* 5 (2), 515-547.

⁷² Kloub, J. (2009) “White paper on Damage Actions for Breach of the EC Antitrust Rules: Plea for a more Holistic Approach to Antitrust Enforcement” *European Competition Journal* 5 (2), 515-547, 523. We consider that D should also cover the administrative costs of law enforcement to the extent that these lead to deadweight loss.

⁷³ Kloub, J. (2009) “White paper on Damage Actions for Breach of the EC Antitrust Rules: Plea for a more Holistic Approach to Antitrust Enforcement” *European Competition Journal* 5 (2), 515-547, 523.

⁷⁴ Kloub, J. (2009) “White paper on Damage Actions for Breach of the EC Antitrust Rules: Plea for a more Holistic Approach to Antitrust Enforcement” *European Competition Journal* 5 (2), 515-547, 530.

their combination”⁷⁵. There are several arguments for a mixed system of enforcement, instead of a purely public or private one, a topic that has already been examined extensively in the literature⁷⁶. Because of the risk of over-enforcement should public and private enforcement be combined to produce remedies that exceed the total damage (private enforcement being uncontrollable to a large extent as it is decentralized and results from the individual or collective initiative of the claimants), there is a need for an equalizing mechanism or, simply put, coordination between the two. From this perspective, although public and private enforcement are complements, they also compete as to the share of the total damage they effectively retribute, hence the need to examine the competitive relationship between the two and the procedures put in place in EU competition law to achieve an “optimal” coordination between these two forms of competition law enforcement. However, in view of the fact that public and private enforcement are also complements, their mutual interaction requires a greater degree of interoperability between them, which calls for rules designed to facilitate the exercise of each of these two forms of enforcement, to render them more cost-effective and to achieve the largest synergies possible.

3. The “optimal” combination of public and private enforcement

A possible way to increase the levels of enforcement in times of limited public resources is to allow for the private enforcement of competition law, thus contracting out part of the task of enforcement to private parties⁷⁷. Following up the work of Becker (1968), Becker and Stigler (1974) argued for a pure private model of enforcement, advancing the view that the public system has perverse

⁷⁵ Kloub, J. (2009) “White paper on Damage Actions for Breach of the EC Antitrust Rules: Plea for a more Holistic Approach to Antitrust Enforcement” *European Competition Journal* 5 (2), 515-547, 525.

⁷⁶ See, for instance, in Europe: Wils, W.P.J. (2003) “Should Private Antitrust Enforcement be Encouraged in Europe?”, *World Competition* 26(3), 473-488 (questioning the utility of private enforcement); Möschel, W. (2007) “Should Private Enforcement of Competition Law Be Strengthened?”, in Schmidtchen, D., Albert, M. and Voigt, S. (eds.) *The More Economic Approach to European Competition Law*, Mohr Siebeck 101-113; Komninos, A.P. (2006) “Public and Private Antitrust Enforcement in Europe: Complement? Overlap?” *Competition Law Review* 3(1), 5-26; Wils, W.P. J. (2009) “The Relationship between Public Antitrust Enforcement and Private Actions for Damages”, *World Competition* 32(1), 3-26; Hüschelrath, K. and Peyer, S., (2013) “Public and Private Enforcement of Competition Law - A Differentiated Approach” (2013) *ZEW - Centre for European Economic Research Discussion Paper* No. 29. Available at SSRN: <http://ssrn.com/abstract=2278839>.

⁷⁷ Although the judiciary is also paid by State resources, and hence this cost should be factored in, private enforcement often leads to settlements between the parties to the infringement, hence saving the costs of using the judicial system. In private enforcement, part of the investigation of facts and economic analysis is performed by the parties and their experts, thus limiting the amount of time and effort judges should spend, in comparison to the amount of time and effort spent by competition authorities in investigating the alleged infringement, in the context of public enforcement.

incentives because of the likelihood of corruption, unless the system is organized in such a way that private individuals and firms would investigate violations, apprehend violators and conduct legal proceedings to redress violations. If successful, the private enforcer will be entitled to retain the proceeds paid by the convicted violator, the unsuccessful enforcer being required to reimburse the defendant's legal expenses⁷⁸. Landes and Posner (1975) have criticized this approach arguing that competitive private enforcement will unambiguously lead to over-enforcement relative to what is optimal public enforcement⁷⁹. Assuming that an optimal enforcement system relies on the joint operation of sanctions and the probability of detection, in public enforcement, it is possible to reduce the cost of deterrence by imposing a higher fine and lowering the probability of detection. With regard to private enforcement, however, raising the fine would incentivize more enforcement, and would thus raise the probability of detection, leading to over-enforcement. This result may be explained by a misalignment of the private and the social incentives to bring suit⁸⁰. Private parties may have a greater motive to impose liability than what is socially desirable. According to Landes and Posner's model, private monopolistic enforcers will also over-enforce in comparison to the social optimum, as they do not internalize the full cost of enforcement (e.g. the administrative cost of providing the judicial forum), although the level of enforcement will be lower than in the context of a competitive private enforcement.

Polinsky (1980) took into account the variable of enforcement cost and found that, in a large range of circumstances, private enforcement may lead to less enforcement: the reason is that firms are willing to invest in enforcement only if their revenue from the proceeds of the sanctions/damages is as large as their enforcement costs, while under public enforcement, the public enforcer aims to deter as many potential violators as it is possible, which results to a fine revenue that is less than the enforcement costs⁸¹. Furthermore, when the harm is spread over a large population and involves small amounts of money, it is possible that the cost of distribution will exceed the benefits for each of the victims of the violation. According to Rosenberg and Sullivan (2005) this leads the claimants to invest less in litigation, as they possess only a "fractional ownership interest in prosecuting the

⁷⁸ Becker, G.S. and Stigler, G.,(1974) "Law enforcement, malfeasance, and compensation of enforcers" *Journal of Legal Studies*, 3, 1-18.

⁷⁹ Landes, W. M. and Posner, R.A (1975) "The Private Enforcement of law" *Journal of Legal Studies* 4, 1- 15, 15.

⁸⁰ Menell, P.S. (1983) "A note on private versus social incentives to sue in a costly legal system" *Journal of legal Studies* 12 (1), 41-52; Kaplow, L. (1986) "Private versus social costs in bringing suit" *Journal of Legal Studies*, 15, 371-385; Shavell, S. (1997) "The Fundamental divergence between the private and the social motive to use the legal system" *Journal of Legal Studies*, 26, 575-612.

⁸¹ Polinsky, A.M. (1980) "Private versus public enforcement of fines" *Journal of Legal Studies* 9, 105-127. Assuming that the budget of the public enforcer does not entirely depend on the fines collected.

common causes of action”⁸². In contrast, the defender benefits from efficiencies in the litigation scale. Indeed, irrespective of the litigated amount, “the defendant will treat any common issues as a single litigation unit, making a substantial investment to maximize the aggregate return from reduced liability and then spreading the cost of that investment across many separate actions it confronts or expects to confront”⁸³. In comparison, the plaintiffs are atomized and do not benefit from similar litigation efficiencies. For the same reason the defendant also benefits from an asymmetric bargaining power in subsequent settlement discussions with each of the plaintiffs, thus creating an incentive for the defendant to settle the case⁸⁴. Optimizing deterrence thus requires the aggregation of the plaintiffs’ case in order to provide both parties an equivalent opportunity to exploit available litigation scale efficiencies and to correct this “systemic bias” which undermines the deterrence function of private enforcement⁸⁵.

Regardless of the higher cost of public enforcement, the public enforcer has the advantage of being able to choose both the level of sanctions and the enforcement resources invested in detection. This is not possible in the context of private enforcement, as courts will calculate the damages by reference to the harm inflicted rather than by reference to the infringer’s gain and will be responsive rather than pro-active in enforcing the law, as they cannot act *proprio motu*. Thus, the choice of public over private enforcement (monopolistic or competitive) will depend on the level of the proceeds (damages/sanctions), public enforcement being superior for higher proceeds. The advantage of public over private enforcement nevertheless depends on the assumption that public enforcers are motivated by the public interest and have the adequate resources to enforce the law when optimal. These assumptions may not always prove correct, as public enforcers are also prone to under-performance, either because of budgetary and resource constraints, or because of political interference or, finally, because of a mismatch between bureaucratic incentives and the public interest.

Assuming that the optimal enforcement system will require some mix of public and private enforcement, what should then be the factors to take into account in order to fine-tune the system?

The cost of information over the occurrence of harmful acts may be an important consideration. One may distinguish here between available information and the cost of acquiring additional information. Private enforcers have usually superior information from public enforcers on the

⁸² Rosenberg, D. and Sullivan, J.P (2005) “Coordinating Private Class Action and Public Agency Enforcement of Antitrust Law” *Harvard Law and Economics Discussion paper* 523, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=795524 , 26.

⁸³ *Id.*, 24.

⁸⁴ *Id.*, 32.

⁸⁵ *Id.*, 30-31.

commission of harmful acts and in any case on the harm inflicted to them. In contrast, public enforcers have an informational advantage when the likely social costs and benefits of the action are uncertain and require a case-by-case analysis or some form of analysis by experts. In this case, centralised enforcement might provide economies of scale in hiring the necessary expertise. With regard to the acquisition of additional information, Segal and Whinston (2007) note that the cost might be higher for public enforcers in view of the fact that public enforcement is financed by taxation⁸⁶. Hence any additional enforcement cost will increase taxation and will affect economic activity, unless public enforcement is financed by the proceeds of the penalties imposed. Nevertheless, public enforcers dispose of a wider information base than private enforcers, as they can be seized by complaints, and they may dispose of more effective tools to collect information, in view of their wide-reaching investigative and sanctioning powers (e.g. leniency programmes and self-reporting of the harmful acts by the infringers, effective control of the level of sanctions).

The objectives of public and private enforcers may also diverge. According to optimal enforcement theory, public enforcers aim to deter harmful activities, while private enforcers focus more on compensation, rather than deterrence, without this however denying the possible deterrent effect of private enforcement. One may distinguish here between standalone and follow on damages actions⁸⁷. With regard to standalone actions, deterrence may be achieved, more effectively as it was previously explained, through public enforcement, although private enforcement might provide a “hedge” to the risk of under-enforcement, because of under-funding or ideological opposition to a more active public enforcement. The pursuit of public interest and the superior expertise of public enforcers constitute additional advantages of public enforcement. Follow-on actions may produce some deterrent effect, in particular if that leads to add damages to the other monetary sanctions imposed by public enforcement. However, they may also lead to over-deterrence, to the duplication of enforcement efforts and to a strategic use of private litigation with the purpose to harass a rival, thus suppressing productive business activities⁸⁸. Follow-on damages may also jeopardize the effectiveness of public enforcement, in particular if public enforcers place greater reliance on leniency and self-reporting in order to uncover harmful activity. The attractiveness of leniency programmes may be affected by the likelihood that leniency applicants will be confronted to follow-on private damages litigation.

⁸⁶ Segal, I. and Whinston, M. (2007) “Public v. Private Enforcement of Antitrust Law: A Survey” *European Competition Law Review* 28, 306-315.

⁸⁷ Kauper, T. and Snyder, E. (1986) “An Inquiry into the Efficiency of Private Antitrust Enforcement: Follow-on and Independently Initiated Cases Compared” *Georgetown Law Journal* 74, 1163-1230.

⁸⁸ McAfee, R.P. and Vakkur, N. (2004) “The Strategic Abuse of the Antitrust Laws” *Journal of Strategic Management Education* 1(3), 1-18.

As it has been observed by Segal and Whinston (2007), a public agency may also more easily pre-commit to a strategy of deterrence by committing resources, developing a reputation for aggressive enforcement and adopting guidelines setting priorities⁸⁹. In contrast, pre-commitment is extremely difficult in the context of private enforcement, as the cost of developing a reputation for suing offenders will exceed the benefits, unless the plaintiff firm is frequently harmed, in which case investment on aggressive litigation might pay off.

Private enforcement may also give rise to enforcement externalities when many parties have standing to sue for the same action, leading to inefficient duplication of litigation efforts and a possible free rider problem, if the litigation efforts of one of the parties produce positive externalities on the litigation efforts of another (e.g. assisting with additional evidence).

In view of the findings for the literature, it has been alleged that a pure public enforcement system might achieve more effectively deterrence than a mixed public and private enforcement system⁹⁰. This may be right with regard to private enforcement pursuing a pure deterrence objective. However, private enforcement, in particular actions for damages, may also aim to guarantee restitution to the victims of the competition law violation. If the principal objective pursued by the enforcement system is corrective justice, then private enforcement system may well be a superior (more effective) option than public enforcement⁹¹. First, private parties dispose of superior information on the magnitude of the harm suffered. Second, the proceeds go to the victims having suffered harm rather than to the public purse, as it is the case for fines and disgorgement in the context of public enforcement. Wils (2009) observes the following:

“(i)f [...] public antitrust enforcement is the superior instrument to pursue the objectives of clarification and development of the law and of deterrence and punishment, whereas private actions for damages are superior for the pursuit of corrective justice through compensation, then the optimal antitrust enforcement system would appear to be a system in which public antitrust enforcement aims at clarification and development of the law and at deterrence and punishment, while private actions for damages aim at compensation”⁹².

⁸⁹ I Segal, I. and Whinston, M. (2007) “Public v. Private Enforcement of Antitrust Law: A Survey” *European Competition Law Review* 28, 306-315.

⁹⁰ Wils, W.P.J. (2003) “Should Private Antitrust Enforcement be Encouraged in Europe?”, *World Competition* 26(3), 473-488.

⁹¹ See, Komninos, A.P. (2006) “Public and Private Antitrust Enforcement in Europe: Complement? Overlap?” *Competition Law Review* 3(1), 5-26, 10 (“(t)he primary function of the private action is clearly compensatory”).

⁹² Wils, W.P.J. (2009) “The Relationship between Public Antitrust Enforcement and Private Actions for Damages”, *World Competition* 32(1), 3-26, 12.

Consequently, any effort of coordination of public and private enforcement should integrate the “separate tasks approach, under which public antitrust enforcement and private actions for damages are each assigned the tasks they are best at”⁹³.

G. Interaction between fines and leniency

Leniency programmes, “a generic term to describe a system of partial or total exoneration from the penalties that would otherwise be applicable to a cartel member which reports its cartel membership to a competition enforcement agency” (also called immunity and amnesty in various jurisdictions), have spread across the globe⁹⁴. In the U.S., “corporate amnesty” and “corporate leniency” are used interchangeably to mean complete immunity from criminal conviction and from fines for the anticompetitive conduct”, while in Europe, the term “leniency” is preferred to refer to any reduction of fines of up to 100% (ICN, 2014). The interaction of leniency programmes and fines is relatively straightforward, as in essence these programmes provide a lenient treatment to the infringers providing useful information to the competition authorities in order to uncover cartels. One may also add the existence of settlement programmes, a sort of plea bargaining mechanism similar to leniency in its effects, but which does not originate from self-reporting, as leniency does, but intervenes once an investigation has been launched by the competition authority, thus following some already undergoing prosecutorial effort. The aims of these two tools of plea bargaining are also different: leniency aims to uncover information not available to the authorities, while settlements seek to reduce enforcement costs. Both tools, if well designed, increase deterrence. Leniency takes advantage of the internal stability problem of cartels in order to deter cartel formation and cartel detection at a lower enforcement cost⁹⁵. Settlements free competition

⁹³ Wils, W.P. J. (2009) “The Relationship between Public Antitrust Enforcement and Private Actions for Damages”, *World Competition* 32(1), 3-26, 12.

⁹⁴ For the list of leniency policies around the globe see, ICN, Anti-cartel enforcement manual (2014), available at http://www.icnmarrakech2014.ma/pdf/Intl-ICN-Anti-cartel_enforcement_manual.pdf , 24.

⁹⁵ See, for instance, Motta, M. and Polo, M. (2003) “Leniency Programs and Cartel Prosecution,” *International Journal of Industrial Organization* 21, 347-379. Motchenkova, E., (2004) “Effects of Leniency Programs on Cartel Stability” *Tilburg University, Center for Economic Research, Discussion Paper* 2004-98; Spagnolo, G. (2004, revised 2008) “Divide et Impera: Optimal leniency programs,” *CEPR Discussion paper series, working paper number* 4840.; Aubert, C., Rey, P. and Kovacic, W. E. (2006) “The impact of leniency and whistle-blowing programs on cartels,” *International Journal of Industrial Organization*, 24(6), 1241-1266; Buccirosi, P. and Spagnolo, G. (2007) “Optimal Fines in the Era of Whistleblowers - Should Price Fixers Still Go to Prison?” in *The Political Economy of Antitrust*, by Gosha, I. V. and Stennek, J. (Eds.), Elsevier: Amsterdam; Miller (2007); Harrington, J. (2008) “Optimal Corporate Leniency Programs,” *Journal of Industrial Economics* 56(2), 215-246.; Choi, J. P. and Gerlach, H. (2012) “Global cartels, leniency programs and international antitrust cooperation,” *International Journal of Industrial Organization*, 30(6), 528-540; Lefouili, Y. and Roux, C. (2012) “Leniency

authorities' resources, thus increasing prosecution rates and detection. Yet, for leniency and settlements to increase deterrence, it is important that penalties are already set at a very high level. Although the literature concludes that the introduction of a leniency program makes it more difficult for firms to support collusion, it is also recognized that to the extent that leniency programs reduce expected fines, they may reduce deterrence. A similar argument was made for settlements in view of the reduction of the costs to infringers relative to the level of penalties that they would otherwise expect⁹⁶. The literature has also put forward the possibility that cartels may make strategic use of generous leniency programmes, by explicitly including leniency applications in their collusive strategy in order to obtain the benefits of reduced fines⁹⁷. According to Wils,

“(s)uccessful cartels tend to be sophisticated organisations, capable of learning. It is thus safe to assume that cartel participants will try to adapt their organisation to leniency policies, not only so as to minimise the destabilising effect, but also, where possible, to exploit leniency policies to facilitate the creation and maintenance of cartels. This raises the question whether there could be features of leniency programmes that risk being exploited to perverse effects”⁹⁸.

Competition authorities should be cautious not to compromise the deterrent effects of their anti-cartel policies with generous leniency programmes, without increasing before adopting a leniency programme the level of the financial penalties they impose to infringing undertakings.

H. Interaction between fines and other punitive measures

In many jurisdictions it is possible that criminal sanctions may be added to fines. In principle such accumulation of punitive sanctions will not be an issue, and may increase deterrence, in view of the

programs for multimarket firms: The effect of Amnesty Plus on cartel formation" *International Journal of Industrial Organization*, 30(6), 624-640.; Chen, Z. and Rey, P. (2013) "On the Design of Leniency Programs" *Journal of Law and Economics*, 56(4) 917 – 957.

⁹⁶ See, in particular (for settlements) Polinsky, A. M. and Shavell, S. (2000) "The Economic Theory of Public Enforcement of Law" *Journal of Economic Literature* 38, 45-77.

⁹⁷ See, for instance, Clemens, G. and Rau, H.A (2014) "Do Leniency Policies Facilitate Collusion? Experimental Evidence" *Dusseldorf Institute for Competition Economics, Working Paper No 130*; Chen, Z. and Rey, P. (2013) "On the Design of Leniency Programs" *Journal of Law and Economics*, 56(4) 917 – 957., Chen, J. and Harrington, J.E (2007), "The Impact of the Corporate Leniency Program on Cartel Formation and the Cartel Price Path" in Goshal, V. and Stennek, J. (Eds.) *The Political Economy of Antitrust*, Elsevier: Amsterdam. 59–80. Spagnolo, G. (2004, revised 2008) "Divide et Impera: Optimal leniency programs," *CEPR Discussion paper series, working paper number 4840*, and Motta, M. and Polo, M. (2003) "Leniency Programs and Cartel Prosecution," *International Journal of Industrial Organization* 21, 347-379.

⁹⁸ Wils, W.P.J. (2008) *Efficiency and Justice in European Antitrust Enforcement*, Hart Publishing 137.

different targets of the sanction. Fines often target only the undertakings found to infringe competition law (e.g. EU), while sanctions aim at individuals, often company managers and CEOs. These may take different forms: criminal sanctions, such as imprisonment or civil sanctions, such as disqualification orders on directors of undertakings. Imprisonment is regarded as a very strong means of deterring anti-competitive conduct. It is possible, for individual sanctions to benefit from the leniency programme in some jurisdictions (e.g. US, UK). For instance, in the UK, it is possible for individuals to benefit from leniency and receive full immunity from criminal prosecution. The first individual applying for leniency in a personal capacity may be granted a “no-action letter”.

Disqualification orders for directors involved in cartel activity or abuse of dominance may be for a maximum period of 15 years⁹⁹. Such requests usually take the form of an application to the High court in England and Wales, who will decide whether the CDO should be granted. The director must either have contributed to the breach of competition law, had reasonable grounds to suspect that the conduct of the undertaking constituted a breach, or ought to have known that such conduct constituted a breach. It is “immaterial whether the person knew that the conduct of the undertaking constituted a breach”¹⁰⁰.

We have previously discussed the interaction between fines and punitive damages in a single injured party action for damages cases. Some English courts have expressed concerns over the compatibility of such accumulation to the principle of *ne bis in idem*¹⁰¹, which should preclude, according to them, the award of exemplary or punitive damages in an action for damages following a fining decision by the European Commission, even if the fine has been reduced or commuted to nil under the EU leniency programme. Yet, in other cases, the courts seem to have opened the theoretical possibility of imposing exemplary damages on top of fines imposed in the context of public enforcement, although this may be limited to the specific facts of the case, in which no fine was effectively imposed following a statutory immunity that did not relate to the policy objective of deterrence, as immunity resulting from leniency generally does¹⁰². Even if punitive (exemplary) damages were

⁹⁹ Stephan, A. (2011) “Disqualification Orders for Directors Involved in Cartels”, *CCP Working Paper* 11-8.

¹⁰⁰ For more information on disqualification orders, see OFT510 (now adopted by the CMA), *Director Disqualification Orders in Competition Cases* (2010, re-published March 12, 2014).

¹⁰¹ *Devenish Nutrition Ltd v Sanofi-Aventis SA* [2007] EWHC 2394 (Ch), para. 40, noting that “(t)his principle is a reflection of the common principle that a person is not to be punished twice for the same wrong (or the principle against double jeopardy)” and “a fundamental principle” of EU law. The High Court cited the jurisprudence of the General Court in Case T-329/01, *Archer Daniels Midland Co. v Commission* [2006] ECR II-3255, which held that “the principle of *ne bis in idem* prohibits the same person from being sanctioned more than once for the same unlawful conduct in order to protect one and the same legal interest. The application of that principle is subject to three cumulative conditions: the identity of the facts, the unity of offender and the unity of legal interest protected.”

¹⁰² *2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Limited* [2012] CAT 19.

granted in this case, the court however exercised caution as their calculation. These should be awarded only where compensation is inadequate to punish the defendant for his outrageous conduct and should bear relation to the compensatory damages awarded, the CAT rejecting any reference to the rules for setting fines by the OFT, despite the punitive and deterrent purpose of exemplary damages¹⁰³.

The situation may be different for collective actions. Recognizing the difficulties that arise from collective actions, if exemplary damages are available, the UK Government has proposed in its Consultation response document for Private Actions in Competition Law to prohibit exemplary damages in collective action cases¹⁰⁴. Should legislation be adopted on this issue that will lessen the tensions between public enforcement and exemplary damages, the two specializing in two different forms of deterrence: general deterrence for public enforcement and specific deterrence with regard to actions for exemplary damages? Punitive damages are also taken out of the picture of collective redress at the European level in the recent Communication of the European Commission on collective actions. The Commission clearly indicates that:

“Collective damages actions should aim to secure compensation of damage that is found to be caused by an infringement. The punishment and deterrence functions should be exercised by public enforcement. There is no need for EU initiatives on collective redress to go beyond the goal of compensation: Punitive damages should not be part of a European collective redress system”¹⁰⁵.

Member States should remain free, however, to adopt punitive/exemplary damages for single redress follow on actions.

I. Effects-based approach versus formalism

An approach that would emphasize corrective justice and the principle of proportionality may insist in setting the fine at a level corresponding to the harm caused by the anticompetitive conduct, including the need to take into account general and specific deterrence purposes relating to the

¹⁰³ *2 Travel Group PLC (in liquidation) v Cardiff City Transport Services Limited* [2012] CAT 19, paras 595-596.

¹⁰⁴ Department of Business, Innovation and Skills, Private Actions in Competition Law: A Consultation on Options for Reform – Government Response (January 2013), available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/70185/13-501-private-actions-in-competition-law-a-consultation-on-options-for-reform-government-response1.pdf

¹⁰⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Towards a European Horizontal Framework for Collective Redress, COM(2013) 401 final, p. 10.

specific conduct undertaken by the parties. Hence, in view of the objective of deterrence, one may not expect an exact correlation between the harm and the penalty. Such effects-based approach to fine setting will not rely, in general, on presumptions and proxies based on affected sales or volumes of commerce. According to economic theory, fines should be at least equal to the expected illegally earned profits divided by the probability to be caught, hence they should relate to “the *ex ante* extra profits originating from the violation and not to the extra profits actually gained that may be higher or lower than those expected at decision-making time”, should the fines be paid after the period of infringement¹⁰⁶. However, in contrast to actual profits, expected profits are not observable and cannot be computed in each individual case. A full-effects based approach may be unattainable in practice in view of the great diversity of market configurations. At most, competition authorities may estimate the actual extra profits generated by the cartel if they dispose of the relevant information or the damages caused by it (second best effects-based approach). A more formalistic approach, relying on presumptions or proxies, such as a percentage of the affected sales or volumes of commerce, may not also be perfectly compatible with the principle of proportionality and corrective justice which, in an extreme formulation, would require a case-by-case quantification of expected gains. That said, one should take into account the costs of computing/estimating the expected or actual profits of an anticompetitive practice, or the damage caused by it. These costs may reduce the administrability of more effects-based approaches in setting financial penalties, in particular for fines of modest amount. High administrability costs may render the burden to the prosecutor, and indirectly to the tax payer, disproportional, in comparison to the level of fines requested. Hence, recourse to some presumptions or proxies (and inevitably some degree of formalism) that would reduce the costs of estimating the fines may be necessary in instances where these administrative costs would cover an important part of the amount of the fine imposed.

However, as fine levels increase, “they may eclipse the costs of more precisely estimating damages” and that “(f)rom an economic perspective, the administrative costs of more rigorous calculations are increasingly justifiable as the potential fine value rises, because these calculations can prevent costly errors when fines are underestimated or overestimated”¹⁰⁷. It may make sense to use these methods, if expensive or time consuming, only for fines of a significant amount.

The earlier finding that there is a large dispersion in the cartel overcharges, which we mentioned in reporting the Oxera study and which also explains the findings of Allain, Boyer, Kotchoniz, and Ponssard that some sanctions seem to be much too high while others are much too low, suggests two comments.

¹⁰⁶ Heimler, A. and Mehta, K. (2012) “Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence”, *World Competition* 35 (1), 103–119, 105.

¹⁰⁷ Kauper, R. and Langenfeld J. (2011) The Potential Role of Civil Antitrust Damage Analysis in Determining Financial Penalties in Criminal Antitrust Cases, *George Mason L. Rev* 18(4) 953-986, 962.

First, the legal presumptions that cartels lead to an overcharge or that cartels lead to a predetermined cartel overcharge (of say 10%) are not economically justified. As we saw, in 7% of the cases it appears that cartels do not lead to any over-charge.

Such presumptions are, however, occasionally relied on by courts or legislators, for example in the case of Hungary, whose competition law introduced a (rebuttable) presumption that a cartel overcharge is 10%. Such presumptions could be used as a procedural device to shift the burden of proof in civil matters but in no way should they be considered non rebuttable presumptions.

Second, given the variability in the overcharge of cartels, a case by case analysis is necessary to establish what the appropriate level of sanctions should be and to avoid both over-deterrence and under-deterrence. One of the crucial questions then is whether Competition Authorities and Courts can have the necessary data and methodology to assess the optimal level of fines. It is sometimes argued that Courts usually do not have the means to undertake a case by case analysis of the overcharge of cartels.

Alberto Heimler & Kirtikumar Mehta (2012) suggest that competition and courts cannot be expected to do a detailed calculation of the optimal sanction in each case but should be able to arrive at a general estimate, thus offering a structured effects-based approach¹⁰⁸.

The authors argue that a measure of 'ex ante' extra profits provides the conceptually correct starting point and they suggest how this may be calculated by making a few assumptions:

- (a) a 15% permanent increase in prices as a result of the cartel (which is at the upper end of the overcharge scale observed to date in the various studies referred to above);
- (b) a demand price elasticity between 0.5 and 1.2; (the authors note that if prevailing market demand is more elastic, then cheating would undermine any cartel that is formed, and if the market demand is much less elastic, then the market coverage of the cartel is likely to be much reduced; in other words this range is the range that would encourage participants to coordinate their conduct and aim at joint profit maximization);
- (c) a Lerner index values (i.e. margin divided by the price) between 0.3 and 0.8;

¹⁰⁸ Heimler, A. and Mehta, K. (2012) "Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence", *World Competition* 35 (1), 103–119.

The authors also take into consideration the fact that the violators know that the violation can be discovered several years after the illegal cartel practice has been implemented. Future sanctions are discounted by the violators who also believe that the probability of an infringement being discovered decreases with time since proofs decay over time. Heimler and Mehta assume a discount factor for the sanction equal to 5% and a decay rate of the proofs of 5% per annum together with a probability of sanction of 20% (a rate higher than the 13% rate of detection suggested in previous studies to take into account the recent and growing effectiveness of leniency programs in the detection of cartels).

Given these estimates, the authors show that the range of optimal penalties for different values of the price elasticity of demand and the value of the Lerner Index goes from less than 1% to 15% of the parties' turnover depending on the value of the price elasticity of demand and of the Lerner Index.

Table 7: Deterrent Sanction in the Case of Cartels

	<i>Value of the Lerner Index</i>		
Elasticities	0,3	0,5	0,8
0.5	15.04%	13.12%	10.2%
0.8	13.09%	9.82%	4.9%
1.2	10.08%	4.83%	<1%

Furthermore Heimler and Mehta observe that: *“(....) the possibility of private action implies that deterrence is achieved with a fine reduced by a factor equal to the expected extra profits multiplied by the percentage of expected profits probably accepted as settlement of a damage claim. The probability of a follow-on action is increasing rapidly and it can be assumed to be equal to one. The share of expected extra profits to be granted as a damage claim can be assumed to be in the order of magnitude of 25% (an order of magnitude derived from Connor’s estimates of global settlements in Staff Paper #03-12 (Department of Agricultural Economics, Purdue University, November 2003)).*

Under those assumptions regarding private enforcement the deterrent sanctions in cases of cartels must be adjusted as follows:

Table 8: Deterrent Sanctions in the Case of cartels Adjusted for Private Enforcement

	<i>Value of the Lerner Index</i>		
<i>Elasticities</i>	0.3	0.5	0.8
0.5	12.26%	10.69%	8.31%

0.8	10.67%	8.01%	4.00%
1.2	8.19%	3.97%	<1%

The tables provided by Heimler and Mehta have the advantage of providing an educated guess of what deterrent sanctions could be, depending on two variables which are usually relatively easy to assess in the course of the investigation of cartels.

The authors make similar suggestions for exclusionary abuses for infringements relating to the abuse of a dominant position. They suggest that estimates over the expected extra profits in relation to sales achieved by the dominant firm may be obtained by “examining the determinants of profits as a proportion of total revenue of a dominant firm facing a fringe of price take competitors”¹⁰⁹. In this case, they assume that the expected profits originating from the abuse are equal to a part of the extra profits associated with dominance, in view of the exclusion of competitors and would be entrants from the contestable part of the dominant firm’s market share¹¹⁰. They also acknowledge that, because of fixed costs, linked to the economies of scale that most usually generate dominance, profits as a proportion of sales of a dominant firm are less than its margin over price (e.g. Lerner index). They actually estimate that the expected profits over revenue are approximately half of the Lerner index itself. According to them, super-dominant firms have not much to gain by eliminating the little competition they face from the fringe, hence, the change in the Lerner index is higher the lower the degree of dominance. This implies that the sanction should be higher the lower the degree of dominance of the infringer and inversely lower the higher the degree of dominance of the violating firm. In view of the higher probability of detection for exclusionary abuses, which they estimate for most cases as high as 70% (at least 50% where the dominant firm is a relatively small entity and virtually 100% for super-dominant large firms), they find that the range of sanctions in the case of abuse of dominance should be “much lower” than in the case of cartels¹¹¹. A further reason for lower fines advanced is that dominant companies have a better ability to raise prices and have greater incentives to pass on the fine to consumers. They suggest a range of 3.5%-8.3% of the value of sales to which the infringement relates multiplied by the number of years the infringement has lasted. This range is adjusted to a range of 2.7%-6.3% in the presence of extensive private enforcement (follow on actions for damages), on the assumption that 25% of the expected extra profits are granted as a damage claim (or settlement of a damage claim).

¹⁰⁹ Heimler, A. and Mehta, K. (2012) “Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence”, *World Competition* 35 (1), 103–119, 115-116.

¹¹⁰ Heimler, A. and Mehta, K. (2012) “Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence”, *World Competition* 35 (1), 103–119.

¹¹¹ Heimler, A. and Mehta, K. (2012) “Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence”, *World Competition* 35 (1), 103–119, 115-116.

Such structured effects-based approach presents some advantages, in terms of administrability concerns, with regard to the full effects-based approach in setting fines, and advantages in terms of accuracy in relation to more formalistic approaches relying on presumptions and proxies, such as a percentage of affected sales or affected commerce. They may also increase the predictability of fines, which has both advantages and disadvantages.

J. Optimal deterrence and predictability of fines

The adoption of detailed guidelines with clearly defined steps may increase the predictability of the fines, in the sense that it may limit to a certain degree the discretion of competition authorities or Courts. Individuals will have less incomplete knowledge of the true magnitude of penalties, thus enabling them to perform a cost/benefit calculation and identify situations where there might be a net benefit from the breach of competition law rules. This raises the issue of the relation between predictability of fines and optimal deterrence. Views diverge. Wils (2006) put forward three reasons why predictability of fines might reduce the deterrence effect¹¹². First, if the executives of the undertaking planning to infringe competition law are risk-averse, predictable fines may reduce deterrence, as it will limit the risks associated with engaging in anti-competitive activity and being sanctioned. Second, highly predictable fines may induce companies which would otherwise have been law-abiding to conclude that it is in their interest to infringe. Third, uncertainty as to the amount of potential fines and different fines and the possibility that fines may be different for each cartel member depending on their role in the cartel increases the variation in costs between the different cartel members, thereby making the cartel more unstable and thus incentivizing the cartel members to cheat. Uncertainty as to the proceeds of the cartel, in the presence of a differentiated penalties policy, will make it more difficult for colluding parties to reach agreement on who should bear the risks and for what reward¹¹³. Others have put forward that in combination with a leniency programme, predictable fines may enhance deterrence in view of the incentives created through the leniency programme by the immunity granted whistle-blowers. In a recent report by London Economics, commissioned by the OFT, it was stated:

“(t)heoretically, there appear to be more arguments against than for predictability of fines. In practice, however, the two main jurisdictions (US and EU) have strived to make their fining decisions more transparent and more predictable. It enhances leniency which [...] can have a powerful effect on deterrence. On balance, predictability may be an advantage if fine levels are on average very high but a disadvantage otherwise”¹¹⁴.

¹¹² Wils, W.P.J. (2006), ‘Optimal Antitrust Fines: Theory and Practice’, *World Competition*, 29, 183-208.

¹¹³ The OFT, “An assessment of discretionary penalties regimes” (London Economics, 2009) 22.

¹¹⁴ Id.

K. General presentation of the fine-setting process

In the following sections we perform a brief comparative analysis of the current European and US penalty schemes for violations of competition law, in view of the impact the EU and US models had on the penalties setting policies in other jurisdictions. We then sketch the different steps in the analysis.

1. Summary of the current EU fining Guidelines

It is determined in the European Guidelines on the Method of Setting Fines (2006) that the fines must be in proportion to their intended effect in terms of prevention, in proportion to the potential consequences of the prohibited practices in terms of the advantage to the offender and damage to competition, and in proportion to fines imposed on other companies involved in the same infringement. For these reasons, in determining the level of the fine, the turnover involved in the infringement, in principle, is taken into account. In addition, attention is also paid to the importance of the offender in the national economy. In this regard, in determining the upper bound on the fine, the total annual turnover of the undertaking is taken into account.

The general algorithm for setting the fine for competition law violations in Europe is as follows. The first step consists to determine the base fine. Usually, the base fine depends on the type of offence, its gravity, and duration and is set by European Commission. Next, the fine can be changed if there are any aggravating or attenuating circumstances. Finally, the legal upper bound on fines in Europe, which states that the fine cannot exceed 10% of the overall annual turnover, is taken into account.

The most recent EU 2006 Guidelines revise those adopted in 1998, with a view to increasing the deterrent effect of fines. Council Regulation 1/2003 provides that companies may be fined up to 10% of their total annual turnover. Within this limit, the revised Guidelines provide that fines may be based on up to 30% of the company's annual sales to which the infringement relates. In particular, the basic amount of the fine will be related to a proportion of the value of sales, depending on the degree of gravity of the infringement, multiplied by the number of years of infringement (i.e. duration, d).

To summarize, the total fine (F) should be put within the limit of 10% of the overall annual turnover (T) of the organization under investigation: $F^{max}=0,1T$. Where T is calculated as total annual turnover in all the markets where firm operates, not only markets corrupted by cartel agreement.

At the same time, turnover involved in the crime (infringement) is given by t . Further, the base fine f^b will be determined on the basis of t and the type of infringement, such that this base fine f^b is in the

range $[F^{min}, 0.3t]$.¹¹⁵ Moreover, a part of the fine – the so called “entry fee”- will be imposed in hardcore cartel cases, and may be imposed in other cases, irrespective of the duration of the infringement.

Further, the calculated base fine will be adjusted according attenuating and aggravating circumstances, legal maximum and bankruptcy considerations will also be taken into account. Firms, which apply for leniency and satisfy the requirements of the leniency program, will get complete or partial exemption from fines depending on the timing of application.

2. Summary of the current US Sentencing Guidelines

In the US, cartels are prosecuted as criminal offences, and sentences are imposed by a non-specialized court. According to the US Sentencing Guidelines (USSG) both pecuniary and non-pecuniary penalties may be imposed: fines on firms and individuals, as well as imprisonment of individuals involved in the cartel. With regards to fines on firms, the process of their assessment begins with the calculation of a base fine. To determine the base fine, a percentage of the *volume of affected commerce*, that is, of total sales from the relevant market (t), is taken into account. The USSG suggests that 20% of the volume of affected commerce can be used as a good proxy ($f^b=0.2t$). This volume of affected commerce covers the entire duration of the infringement.

Once the amount of the base fine has been calculated, aggravating and mitigating elements are taken into consideration. However, the final fine for undertakings must not exceed a maximum statutory limit which is the greatest of 100 million USD or twice the gross pecuniary gains the violators derived from the cartel or twice the gross pecuniary loss caused to the victims (i.e. $F^{max} = \max \{100 \text{ million}, 2\pi, 2\text{LossCS}\}$).

As USSG (2013) chapter 2 indicates, “the purpose for specifying a percent of the volume of commerce is to avoid the time and expense that would be required for the court to determine the actual gain or loss”. Further, they provide the following motivation:

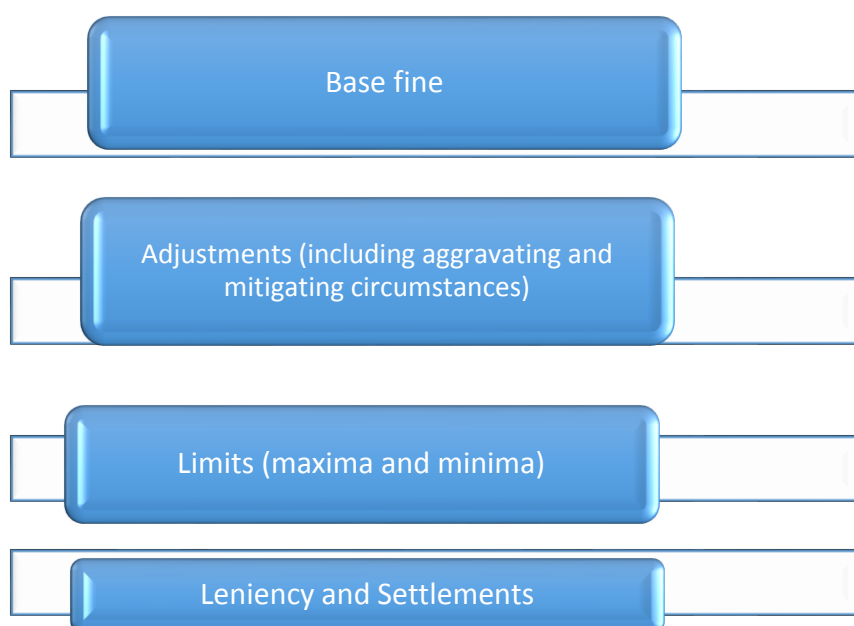
¹¹⁵ See also Bageri, V., Katsoulacos, Y. and Spagnolo, G. (2013) "The Distortive Effects of Antitrust Fines Based on Revenue," *The Economic Journal*, 123 (572), 545-557 for more detailed discussion. They summarize the 2006 Guidelines approach by saying that the base fine is calculated by taking into account the undertaking's *relevant turnover* (of the last year of the cartel), the gravity and the duration of the infringement, as well as an additional amount of about 15% - 25% of the value of sales in order to achieve deterrence. For cartels, the proportion of the relevant turnover is said to be set “at the higher end of the scale”, which is 30%.

“tying the offense level to the scale or scope of the offense is important in order to ensure that the sanction is in fact punitive and that there is an incentive to desist from a violation once it has begun. The offense levels are not based directly on the damage caused or profit made by the defendant because damages are difficult and time consuming to establish. The volume of commerce is an acceptable and more readily measurable substitute”.

Most other OECD countries follow the lead of the US and EU on one or both dimensions. For example, in the UK the starting point for calculating antitrust fines is a fraction of the relevant turnover, i.e. affected commerce; the cap on fines is set at 10% of the undertaking’s global turnover, exactly as is the case in the EU.

3. The different steps of the fines setting process

The main steps in the fine-setting process across jurisdictions may be described as following:



a. The base fine

The base level of the financial penalty is determined in relation to the value of the infringer’s turnover in the affected market as a rough proxy indication of the potential gains deriving from the cartel, the type (and gravity) of the infringement and eventually its duration.

Usually the determination of the fine takes as a starting point the level of the infringing company’s turnover, which relates directly to the infringement in question. The concept has been interpreted differently in each jurisdiction. Some jurisdictions take a narrow approach and refer to additional

characteristics, such as the product-related turnover of the infringer or the total turnover of the infringing company in the specific jurisdiction or the world-wide consolidated turnover of the group of companies to which the infringing company belongs. Even these concepts are interpreted differently from jurisdiction to jurisdiction. For instance, the global turnover refers to the overall consolidated turnover realised by the infringer and its subsidiaries worldwide in the relevant business year, which might be the last year of the infringement or the year before the finding of the infringement). In other jurisdictions, the global turnover taken into account is the “highest worldwide turnover, net of tax, achieved in one of the financial years ended after the financial year preceding that in which the practices were implemented” (France). The global turnover may also be relevant for the general purpose of deterrence and in order to increase the fine, in addition to the determination of the basic fine (e.g. EU Guidelines).

Other competition law regimes refer to broader criteria, such as the value of sales related to the infringement (e.g. EU) or to the volume of the affected commerce (e.g. US). The fine is determined starting a percentage of this specific measure. Other concepts frequently referred to are the relevant turnover, the value of affected sales and/or the value of affected commerce. The combination of the value of sales to which the infringement relates and of the duration of the infringement is thought to provide “an appropriate proxy to reflect the economic importance of the infringement as well as the relative weight of each undertaking in the infringement”¹¹⁶. According to the US Guidelines, the volume of commerce indicated the volume of sales done by the company in goods or services that were affected by the violation. Sales of the cartelised products between cartel members are generally excluded from consideration. Captive sales, that is sales which are used by the undertaking in the production of a downstream product, may also be considered, as long as, depending on the facts of the case, they amount to sales indirectly related to the infringement and there is no double counting.

With regard to the duration of the infringement, there are some slight differences as well. In some jurisdictions (e.g. under the 2006 Guidelines in the EU, although actual practice varies) the base fine is based on one year of turnover (which is the last business year for which figures are available) and the duration of the infringement is accounted for but multiplying the base fine by the length of the period of the infringement. Other jurisdictions (e.g. Germany) consider the duration in the base fine, because the affected commerce, for instance, is taken as the turnover of the company over the period of the infringement.

The competition law regimes then factor in the probability of detection and/or deterrence considerations. For instance, in the EU, depending on the gravity of the infringement, the base fine can be up to 30% of relevant turnover. The base amount for hardcore cartels will be set at the upper

¹¹⁶ EU Guidelines (2006), para. 6.

end of the 30% limit. The basic amount will be multiplied for each undertaking by the number of years of its participation in the cartel. In addition, the 2006 EU Guidelines provide for an “entry fee”, that is an additional penalty of 15 to 25% of one year turnover for the most serious infringements (e.g. price fixing, market allocation and sharing, output limitation). Some jurisdictions choose a different starting point. For instance, the previous OFT Guidelines on setting financial penalties retained a percentage of 10% of the relevant turnover of the undertaking. The most recent 2012 Guidelines increased the relevant turnover band to 30% bringing in line the OFT practice with that of the EU Guidelines. In the US, the base fine for bid-rigging, price-fixing or market allocation agreements among competitors is commonly set at 20% of the volume of the affected commerce, which corresponds, as we have previously explained, to the company’s turnover in the affected markets over the duration of the infringement¹¹⁷. To this figure, the DOJ establishes a “culpability score”, taking into account a number of qualitative factors, such as firm size, the nature of the offence, past history of violations, obstruction of justice, degree of involvement in the conspiracy and the level of cooperation with the DOJ, which indicates the minimum and the maximum “multipliers” to apply to the base fine in order to calculate the fine range. Consequently, the base fine may vary from 20 to 40% of the volume of the affected commerce.

b. Aggravating and mitigating circumstances

The base fine may be adjusted further by the consideration of aggravating and mitigating circumstances or of any estimates of any benefit made or likely to be made by the infringing undertaking¹¹⁸, including its size and financial position. For instance, in the EU repeat offenders face a 10% increase on the base fine for each previous offence. Recidivism may take into account previous infringements of EU competition law discovered by national competition authorities¹¹⁹. The Commission also increases the adjusted fine to reflect the large size of undertakings. Ring leadership may be an aggravating factor, which in the EU may result in up to 50% increase of the fine. In the US, aggravating circumstances consist in the prior history of the infringing undertaking (e.g. increasing the culpability score by two, if the offender committed an infringement for similar misconduct the last five years). Also, in the US, further three points are added to the culpability score if the infringer wilfully obstructed or impeded, aided abetted or encouraged an obstruction of justice. Non-compliance to procedural obligations (such as false or incomplete information, lack of disclosure, late provision of requested information) may also be subject to further sanctions. Intent and premeditation constitute aggravating factors in certain jurisdictions (e.g. Germany).

¹¹⁷ 2R1.1(d)1 of the USSG.

¹¹⁸ E.g. Brazil which considers the extent of damages or potential damages to competition, to the Brazilian economy, to consumers or to third parties.

¹¹⁹ For a discussion of what constitutes a recidivist, see our discussion of the different national experiences Part VI.

Cooperation with the authorities may, on the contrary, operate as a mitigating factor resulting in lower fines at the end of the process in both the EU and the US. In the US, an effective compliance and ethics programme may constitute a mitigating circumstance for which points may be subtracted from the culpability score if the compliance programme is effective (see our discussion previously). The immediate termination of the infringement, the limited participation or a minor role or a passive role in the infringement can also be considered as mitigating factors (e.g. EU, Germany). In some jurisdictions restitution (e.g. Canada) or compensation (e.g. Netherlands) to victims have also been considered as mitigating circumstances. Some of these factors, in particular the extensive cooperation with the authority, are taken into account in the context of leniency policies, rather than as a mitigating factor adjusting the base fine.

Inability to pay is indirectly considered with the provisions setting maximum fines at a certain percentage of the turnover. It is often considered by most competition authorities. This can either be done through the consideration of the proportionality principle, or by examining if the imposition of the fine will lead to drive the infringing undertaking from the market, thus reducing competition. According to the US Guidelines, the fine may also be reduced to the extent that its imposition would otherwise impair the infringing corporation's ability to make restitution to victims. Other jurisdictions provide facilities for the payment of the fine, such as a debtor warrant or a deferred payment (e.g. Germany).

c. Limits (Maxima and Minima)

Several jurisdictions have instituted maximum statutory limits, providing for a maximum amount of fines against undertakings. The maximum amount of fines may take the form of a specific monetary amount (e.g. Chile) or be a percentage of turnover (e.g. European Union, Germany, France) or similar measure. Other jurisdictions use the profits gained from the infringement or losses caused to the victims (e.g. US where the maximum fine for a corporation is the greatest of 100 million USD or twice the pecuniary gains the conspirators derived from the crime or twice the gross pecuniary loss caused to the victims of the cartel. Combinations between the different measures is also possible. For an illustration of various maxima limits, see Table 2 above. Although none of the examined jurisdictions provides for a minimum limit, this is theoretically possible.

d. Leniency and settlements

The last step in the process involves the consideration of leniency and settlements, which might lead to a reduction of the financial penalty imposed.

III. The harm caused by cartels

A. Aggregate harm of cartels and the development of presumptions

There is a rich body of recent empirical literature on the subject of the aggregate harm of cartels to society. John Connor has constructed the most exhaustive data base on cartels throughout the world and in his joint work with Lande has examined the design of optimal presumptions of harm for cartels¹²⁰. In doing so, in conformity with the economic theory of deterrence, Connor has estimated both the average overcharge of cartels and the probability of such cartels being caught.

In their seminal 2006 paper on the size of cartel overcharge in the US and the EU, Connor and Lande argued that in the United States, cartels overcharged an average of 18% to 37% of their total sales, depending upon the data set and methodology employed in the analysis and whether mean or median figures are used. With respect to European cartels, the overcharge was found to be in the 28% to 54% range. Finally, the authors looked at cartels that had effects solely within a single European country and found that overcharges averaged between 16% and 48%. The authors then compared these overcharges with the level of criminal or administrative fines imposed on those cartels and found that, on average, the cartel overcharges were significantly larger than the criminal fines in either the European Union or the United States. They concluded that since in those jurisdictions the cartel fines did not even cover the overcharge of the cartels, the United States and - especially - the European Union should increase their penalties for hard core collusion substantially.

Connor (2006) also assessed the antitrust fines and private penalties imposed on the participants of 260 international cartels discovered during 1990–2005, using four indicators of enforcement effectiveness¹²¹. Among other things, he found that median government antitrust fines average less than 10% of affected commerce, but rises to about 35% in the case of multi-continental conspiracies; that civil settlements in jurisdictions where they are permitted are typically 6 to 12% of sales; and that global cartels prosecuted in Europe and North America typically paid less than single damages.

¹²⁰ See for example : Connor, J.M and Lande, R.H (2005-2006) "How High Do Cartels Raise Prices - Implications for Optimal Cartel Fines" *Tulane Law Review*, 80, 513; (2006) "The Size of Cartel Overcharges: Implications for U.S. and E.U. Fining Policies" *The Antitrust Bulletin* 51, 983. Available at SSRN: <http://ssrn.com/abstract=988722> or <http://dx.doi.org/10.2139/ssrn.988722>, (2008) "Cartel Overcharges and Optimal Cartel Fines" *Issues in Competition Law and Policy, ABA Section of Antitrust Law*, 3, 2203. available at SSRN 1285455, 2008 - papers.ssrn.com.

¹²¹ Connor, J.M (2006) "Effectiveness of Antitrust Sanctions on Modern International Cartels" *Journal of Industry, Competition, and Trade*, 6, 195–223.

In its most recent paper (2014), J. M. Connor surveys more than 700 published economic studies and judicial decisions that contain 2,041 quantitative estimates of overcharges of hard-core cartels¹²². His primary findings are the following:

“(1) the median average long-run overcharge for all types of cartels over all time periods is 23.0%; (2) the mean average is at least 49%; (3) overcharges reached their zenith in 1891-1945 and have trended downward ever since; (4) 6% of the cartel episodes are zero; (5) median overcharges of international-membership cartels are 38% higher than those of domestic cartels; (6) convicted cartels are on average 19% more effective at raising prices than unpunished cartels; (7) bid-rigging conduct displays 25% lower mark-ups than price-fixing cartels; (8) when cartels operate at peak effectiveness, price changes are 60% to 80% higher than the whole episode; and (9) laboratory and natural market data find that the Cartel Monopoly Index (CMI) varies from 11% to 95%.”

He finally concludes that "historical penalty guidelines aimed at optimally deterring cartels are likely to be too low".

The work by Connor and Lande has inspired a number of authors to undertake studies refining their methodology in order to assess the level of overcharges from cartels. One such study was prepared for the European Commission by Oxera and a multi-jurisdictional team of lawyers and economists in December 2009¹²³. Oxera removed from the Connor data set a large number of observations based on a number of criteria, in particular focusing only on estimates obtained from peer-reviewed academic articles and chapters in published books. It also refined the sample of cartels examined by Connor, by considering only cartels that started after 1960 (thus taking into account only more recent cartels), for which an estimate of the average overcharge was available (rather than only an estimate of the highest or lowest overcharge), for which the relevant background study explicitly explained the method for calculating the average overcharge estimate.

In the distribution of cartel overcharges across this adjusted data set of 114 observations (out of more than 1,000 initially), the overcharge range with the greatest number of observations is 10–20%. Oxera found that in this data set the median overcharge was 18% of the cartel price, which is not far from the 20% found by Connor and Lande. However, since the variation in observed

¹²² Connor, J.M (2014) “Price-Fixing Overcharges” Working Paper, 3rd edition of “Price-fixing Overcharges: Legal and Economic Evidence”, in Richard O. Zerbe, John B. Kirkwood (ed.) *Research in Law and Economics* Emerald Group Publishing Limited available at <http://ssrn.com/abstract=2400780>

¹²³ OXERA (2009) “Quantifying Antitrust Damages Towards Non-Binding Guidance for Courts”, Study prepared for the European Commission, DG COMP available at http://ec.europa.eu/competition/antitrust/actionsdamages/quantification_study.pdf

overcharges is large, the authors considered the distribution of overcharges and not only the median or average.

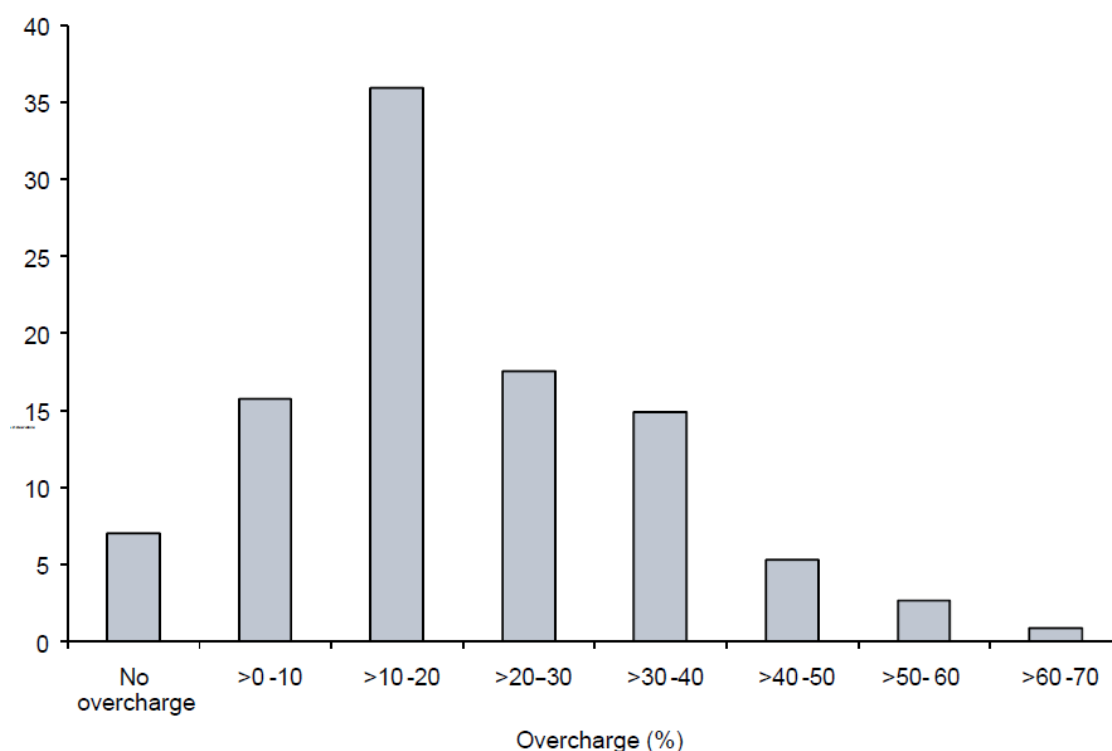


Figure 3: Distribution of cartel overcharges in empirical studies of past cartels: indicative results from new sample selected by Oxera, based on Connor and Lande (2008)¹²⁴

In 93% of the past cartel cases in the sample, the overcharge as a percentage of the cartel price was above zero. This supports the theory that, in most cases, the cartel overcharge can be expected to be positive, although it also indicates that there is a small but significant proportion of cartels (7%) where there is no overcharge.

In another study, Posner (2001) presents the overcharges for 12 cartel cases, with a median value of 28% of the cartel price. Elsewhere, Levenstein and Suslow (2006), based on their review of 16 cartel case studies, find that ‘virtually every cartel case study surveyed reports that the cartel was able to raise prices immediately following cartel formation’.

A 2002 OECD study (OECD Competition Committee Report on the Nature and Impact of Hard Core Cartels and Sanctions against Cartels under National Competition Laws) based on a limited survey of

¹²⁴ Imported from Commission Staff Working Document – Practical Guide Quantifying Harm in Actions for Damages Based on Breaches of Article 101 or 102 of the Treaty on the Functioning of the European Union, C(2013) 3440.

14 cartel cases conducted by its members between 1996 and 2000 finds that the median overcharge was between 15 and 20%. The OECD report adds: *“At the very least it seems clear that the gain from cartel agreements can vary significantly from case to case, and sometimes it can be very high. Moreover, since the actual loss to consumers includes more than just the gain transferred to the cartel (...), the total harm from cartels – is significant indeed”*. Werden (2003) reviews 13 other studies, and arrives at a median overcharge of 15% of the cartel price. Conducting a meta-analysis of cartel overcharge estimates, Boyer and Kotchoni (2014) found a mean and median overcharge estimate of 15.76% and 16.43%.

Altogether these studies are highly consistent with one other on several points. In only 7% of the cases there is no overcharge. In more than 90% of the cases cartels result in an overcharge. The median overcharge by cartels is between 10 and 20% of the cartel price. However there is a wide distribution of results across cartels and hence a case by case study is in order.

This literature has given rise to presumptions of cartel overcharge used in the context of either setting financial penalties in the context of public enforcement or in order to compute damages in the context of private enforcement.

In the context of private enforcement, the nature of the presumption is causal, as its aim is to facilitate the burden of proof of the claimants in damages cases against cartelists, in order to establish that they have been harmed as a result of a specific cartel (hence this relates to the individual harm of the specific cartel to the claimant). The claimant is not expected to bring forward concrete evidence of harm and overcharge, in order to establish the causal link between the cartel and the harm suffered, in case a cartel has been found, but may rely on a rebuttable presumption of harm/overcharge. This presumption is built on the high likelihood that a cartel leads to overcharges, in more than 9 out of 10 cases, on the basis of the empirical analysis available.

For instance, the recent Draft Directive voted by the European Parliament on certain rules governing actions for damages under national law for infringements of competition law sets up a causal presumption for cartels in order to “remedy the information asymmetry and some of the difficulties associated with quantifying antitrust harm, and to ensure the effectiveness of claims for damages”¹²⁵. As it is explained in the relevant Recital of the Directive,

“it is appropriate to presume that in the case of a cartel infringement, such infringement resulted in harm, in particular via a price effect. Depending on the facts of the case this means

¹²⁵ Directive of the European Parliament and of the Council on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States of the European Union, following amendments by the European Parliament, (April 9, 2014), Recital 42.

that the cartel has resulted in a rise in price, or prevented a lowering of prices which would otherwise have occurred but for the infringement. This presumption should not cover the concrete amount of harm”¹²⁶.

Accordingly, the Draft Directive requires Member States to establish a presumption that cartel infringements cause harm, also recognizing to the infringer the right to rebut this presumption¹²⁷. We should note however, that as we mentioned earlier, this presumption is not economically justified since 7% “of cartels seem not to lead to an overcharge. If it is used as a device to simplify the work of antitrust authorities or courts, it should remain a rebuttable presumption.

In the context of public enforcement, competition authorities most often make use of presumptions of harm, again on the basis of the empirical evidence on the average overcharge of cartels. For instance, the United States Sentencing Guidelines recommends a basic fine of 10% of the affected volume of commerce to a firm convicted of cartel collusion, plus another 10% for the harms “inflicted upon consumers who are unable or for other reasons do not buy the product at the higher price”. This generates a fine of 20% of the affected volume of commerce, subject to further adjustments for aggravating and mitigating circumstances. The Sentencing Commission, which adopted the Sentencing Guidelines in 1987 explained the choice of this 20% by the fact that it doubled the figure representing the average overcharge of cartels (10%) in order to account for losses, including customers who are priced out of the market (counterfactual customers). In the EU, the basic fine is set in a range up to 30% of the relevant turnover over the duration of the infringement, presumably also taking into account empirical evidence that the median overcharge of cartels is between 15-20%, with more than 40% of the population of cartels in these studies having an overcharge of more than 30%, on top of the need to factor in deterrence.

By being a step in the fine-setting process, such presumption entails the risk that it will be sued mechanically without taking into account the real harm that the specific cartel may have caused. As cartels are considered anticompetitive by their object in the EU or per se prohibited in the US, there is no effort made by the Competition authorities to determine the harm of the cartel when establishing the existence of the competition law infringement, with the result that this information is unavailable at the stage of setting the fine. The use of presumptions facilitates the work of competition authorities at this stage, to the price, however, of accuracy and a better linkage between the harm caused (including the need for general and specific deterrence) and the sanction, as would have implied the reference to the principle of proportionality of sanctions. This preference for a formalistic approach explains also the institution of statutory maximum fines. The attraction of this form-based approach consists in saving the administrative costs and human resources that

¹²⁶ Id.

¹²⁷ Id., Article 17(2) of the Directive.

would have been required for the assessment of the harm of the cartel. As it is rightly explained by Harrington (2014)

“(European Commission’s) fines are tied to revenue in the affected markets and not to incremental profits or customer losses, so the penalty does not scale up with the overcharge. If we take these estimates on face value, the only cartels that will form are those with abnormally high overcharges which are the ones imposing the largest losses on consumers. The problem here resides in the penalty formula not being proportional to the additional profits from colluding. [...] That is the case in the U.S. as well. Though U.S. Sentencing Guidelines have a maximum of “not more than the greater of twice the gross gain or twice the gross loss,” apparently that sort of calculation is not standard practice when the U.S. Department of Justice sets a fine. That cartel profits are not taken account of in setting or negotiating fines is a criticism of both the competition authority and the body that sets their budget. One defense of this practice is that it is too costly to calculate those profits. That does not seem credible. There are many plaintiffs who perform exactly that exercise for much smaller markets involving much smaller sums. If a plaintiff can engage in a cost effective calculation of the impact of collusion on profits when hundreds of thousands of dollars of claims are at stake then a competition authority should be able to do so when millions of dollars of fines are at stake. A second defense is that a competition authority has limited resources and it is better for it to use those resources to develop additional cases. That is a valid point but then the argument should be made to increase the competition authority’s budget so they can engage in the proper setting of fines. We must remember that the ultimate goal is not to convict and penalize cartels but rather to deter their formation, and that requires tying penalties to illicit profits. This point is worth emphasizing as competition authorities may attach too much weight to disabling cartels relative to deterring cartels”¹²⁸.

B. The need for an effects-based approach: assessing the individual harm of cartels

Various methods to estimate cartel overcharge have been advanced in the literature, and they are frequently used for the computation of the quantum of damages following a competition law infringement¹²⁹. The European Commission Staff has also prepared a practical guide quantifying harm in actions for damages cases, which provides a detailed and non-technical analysis of the

¹²⁸ Harrington, J. (2014) “Are penalties for cartels excessive and, if they are, should we be concerned?” February 13, 2014, at competitionacademia.com.

¹²⁹ For an excellent summary see, Baker, J. and Rubinfeld, D.L. (1999) “Empirical Methods in Antitrust Litigation: Review and critique”, *American Law and Economics Review* 1, 386-435; OXERA (2009) “Quantifying Antitrust Damages Towards Non-Binding Guidance for Courts”, Study prepared for the European Commission, DG COMP, p. v (comparative table).

different methodologies employed in economic research to quantify harm¹³⁰. We summarize the different methodologies available:

- (i) Comparator-based approaches: before and after approaches (time-series) or approaches comparing prices in the cartelized market with those in 'similar' uncartelised markets in other geographic regions (cross-sectional approaches, the yardstick method) or difference in differences approaches. These approaches involve the estimation of the correlation between the pre-cartel prices in the cartelized or similar markets and the post-cartel prices in these markets, cross-sectional econometrics, time-series econometrics and panel data regression;
- (ii) Financial cost-based approaches: which construct a "but for" cartel price "bottom up", by measuring the relevant costs and comparing the average of marginal unit costs plus a reasonable mark-up with actual prices. This also involves some form of quantitative methods (bottom-up costing, valuation);
- (iii) Market-structure based approaches: these involve the use of simulation models in order to estimate the losses incurred, using different models of oligopolistic behaviour (Cournot, Bertrand) to predict the Lerner index of market power or to estimate a demand and cost function that account for dynamic market conditions¹³¹.

One of the main differences between the evaluation of fines and that of damages is that, first, courts have in general a broad discretion and are free to choose which methodology is best suited to the facts of the case, while the discretion of the Commission is limited with regard to the method of evaluation of fines (self-limitation through the joint effect of the guidelines on the method of setting fines (above) and the principle of legitimate expectations, as well as limitations through the operation of the proportionality principle e.g. final amount of the fine shall not, in any event, exceed 10 % of the total turnover in the preceding business year of the undertaking or association of undertakings participating in the infringement, Second, fines generally aim at deterrence, while damages are perceived in Europe as mostly inspired by the principle of compensation, although, of

¹³⁰ European Commission Staff Working Document, Practical Guide , Quantifying harm in actions for damages based on breaches of Articles 101 or 102 of the Treaty on the Functioning of the European Union, SWD(2013) 205, available at http://ec.europa.eu/competition/antitrust/actionsdamages/quantification_guide_en.pdf

¹³¹ For instance, see Froeb, L.M., Koyak, R. A. and Werden, G. J. (1993) "What is the effect of bid-rigging on prices?" *Economics Letters* 42(4) 419-423; J.F. Nieberding (2006) "Estimating overcharges in antitrust cases using a reduced-form approach: Methods and issues" *Journal of Applied Economics*, 9, 361-380.

course, the right to compensation may also have a deterrent effect¹³². Thirdly, the calculation of damages for cartel infringements provides also the possibility to take into account of potential positive effects of cartels to consumers (efficiency gains), “like for instance, lower transportation costs or higher supply reliability”, which if significant would “have to be balanced against the potential negative effects to customers” in order to calculate the factual damages¹³³. This is of course impossible in the context of calculating fines, because of the principle of deterrence. It follows, that the potential scope of intervention of econometric techniques will be more limited in the calculation of fines, should the Commission move to a more economics approach.

There are various examples of an individual assessment of the amount of overcharge, in particular in the context of private enforcement for damages, as in both US and EU law cartels are prohibited per se or by their object, hence there is no need to establish the existence and the likely amount of consumer harm in order to apply Section 1 of the Sherman Act or Article 101 TFEU.

The recent German Cement cartel case and the judicial scrutiny exercised by the Higher Regional Court Düsseldorf (OLG), which has specialized chambers for antitrust matters, to the decision of the Federal Cartel Office to impose a fine for additional turnover related to a cartel in the cement industry (making use of the possibility offered to the FCO by German law to order the disgorgement of benefits) illustrates the different approaches that EU and national courts may take with regard to the assessment of evidence of a cartel overcharge¹³⁴. In the cement cartel case, the Court reviewed the fines both under the law applicable in 2003 (when the decision of the FCO was adopted, which provided for disgorgement of profits-related fines of up to three times the additional proceeds obtained through a cartel). As the fines aimed to skim-off additional earnings related to the infringement, the economic evidence presented at the Court resembled to that usually submitted for the evaluation of antitrust damages. The OLG appointed an expert and quantified the additional turnover based on the econometric assessment submitted by the expert. With regard to the standard of proof, the OLG has a broad discretion to choose the best suited methodology so that the results are conclusive and economically reasonable. With the help of the expert, the Court identified the appropriate methodologies: among the different ones available for the evaluation of damages,

¹³² See, White paper on Damages Actions for breach of the EC antitrust rules, COM(2008) 165 final, p. 3

¹³³ Hans. Friederiszick, W. and Röller, L.-H. (2010) “Quantification of harm in damages actions for antitrust infringements: insights from German cartel cases” *Journal of Competition Law & Economics* 6(3), 595-618.

¹³⁴ The FCO may skim off economic benefits related to the infringement. This is possible for both proceedings concerning Administrative fines (§ 81(4),(5) GWB post-2005 or § 81(2) GWB pre-2005 with § 17(4) OWiG) applying to cartels and administrative proceedings for non-cartel activity (which are dealt under § 34 GWB). The economic benefits to be disgorged not only encompass the net revenue generated because of the infraction, but also (the monetary value of) any other benefits such as the improvement of an undertaking’s market position.

the expert ruled out comparator-based geographical yardstick methods, as there were significant differences in market characteristics between the different regions and countries. The expert suggested instead a during-and-after time series approach, which involved the choice of an appropriate reference period (the period not influenced by the cartel). The Court followed the expert's suggestions on the design of the empirical method for the estimation of additional turnover. The court expert then proceeded to the application step, carrying out the analysis using data submitted by the parties, before performing robustness checks, allowing the various parties (the FCO, the defendants, the public prosecutor) to put forward additional questions and criticisms¹³⁵. These were extensively discussed in the judgment, although the OLG did not perform a control of the external validity of the evidence. The Court did not explain why it relied only on the time series method, but included some discussion of why it did not follow the regional yardstick analysis (essentially, because the prices in the other regional markets were either certainly or at least probably also affected by cartels). This may be owed to the fact that the Federal Court of Justice (BGH) had indicated in an earlier case that yardstick approaches (i.e. the comparison to the development of comparable markets) was generally a superior approach compared to model-based approaches.¹³⁶ The BGH later essentially upheld the OLG Düsseldorf's judgment in the Cement case.

C. The practice of the Chilean competition authority

According to Article 26, paragraph 3 of the Chilean Competition Act, as amended by Statue No. 20.361, for the estimation of the fine to be imposed the Competition Tribunal (TDLC) should "consider the economic benefit gained as a result of the infringement, the seriousness of the conduct and recidivism, but also –and fundamentally– the *damage to competition*"¹³⁷. FNE has proceeded in various instances to a case by case analysis of the effects of the cartel and the amount of the cartel overcharge or the excess profits gained by the cartel. In contrast to US, EU, UK, German and French competition law, it is thus possible to rely on an individual case by case analysis, rather than on proxies or presumptions, when assessing the compatibility of a collusive conduct to

¹³⁵ For a description of the different steps of the procedure in the German cement cartel case, see Friederiszick, W. and Röller, L.-H. (2010) "Quantification of harm in damages actions for antitrust infringements: insights from German cartel cases" *Journal of Competition Law & Economics* 6(3), 595-618; Frank, N. and Lademann, R.P. (2010) "Economic Evidence in Private Damage Claims: What Lessons can be Learned from the German Cement Cartel Case?" *Journal of European Competition Law & Practice* 1(4), 360-366.

¹³⁶ BGH (2007), Judgment of the German Federal Court of Justice (BGH) of June 19, 2007, KRB 12/07. See Frank, N. and Lademann, R.P. (2010) "Economic Evidence in Private Damage Claims: What Lessons can be Learned from the German Cement Cartel Case?" *Journal of European Competition Law & Practice* 1(4), 360-366, 366.

¹³⁷ Emphasis added.

competition law or at the stage of setting fines or evaluating damages. Note however, that nothing precludes those authorities from conducting a case by case analysis. This constraint imposed by the Chilean competition law regime when assessing the compatibility of cartel conduct to competition law (in the sense that must be applied to cartel activity) may become an advantage if the information is used to design optimal cartel sanctions that take into account the amount of the overcharge and integrate the optimal enforcement theory's focus on deterrence, in view of the low probability of detection of cartels in Chile. Indeed, it is only since 2009 that the agency has had, as part of its anti-cartel toolkit, intrusive investigative powers (including dawn raid and wiretapping authority) and a leniency programme. The leniency programme has enabled so far the discovery of one cartel in the Whirlpool/ Tecumseh do Brasil Ltda investigation in 2012, which represents the first time in Chile a leniency application has resulted in the successful prosecution of a cartel. The high standard of proof for cartels, in view of the requirement to prove market power, may also lower the probability of detection of cartels in Chile, thus inviting for a more drastic consideration of deterrence at the stage of setting fines with the inclusion of a "deterrent factor", as it is the case in the context of the EU Commission's Guidelines in setting fines for competition law infringements.

We examine three cases in which the Chilean competition authority has evaluated excess gains of cartel activity. The cases presented below in a chronological order include: (a) Retail pharmacy chains, (b) commercialization of low power, hermetic compressors for the manufacturing of refrigerators and, (c) poultry meat production. We then comment on the practice followed.

1. Case studies

(a) In the Retail pharmacy chains case, initiated in the FNE filed a complaint against the 3 main retail pharmacies: Farmacias Ahumada, Cruz Verde and Salcobrand accusing them of concerted action resulting in the price increase of around 200 drugs between December 2007 and March 2008. The FNE estimated the excess gain as overprice charged for each drug multiplied by the quantities sold for the entire period of collusion.

According to the information obtained during investigation the excess gain amounted to:

Pharmacy Chain	Gain (in UTA)
Farmacias Ahumada	16,856
Cruz Verde	29,009
Salcobrand	14,472
<i>Total</i>	60,338

The above estimation is just a proxy, considering that it does not take into consideration the loss of those consumers that could not afford to buy the product due to its elevated price in addition to not

accounting for dynamic inefficiencies. Furthermore, it does not account for the perpetrating effect in the market. In fact, the coordination between the three retail pharmacy chains shifted the equilibrium price upwards, which meant that, to date, long after the detection and conviction of the cartel, prices remain high. Until December of the 2008, the last month with available data, considering this perpetrating effect the gains obtained amounted to:

Pharmacy Chain	Gain (in UTA)
Farmacias Ahumada	20,191
Cruz Verde	32,055
Salcobrand	16,719
<i>Total</i>	68,965

The total gains obtained by the three pharmacies, even only considering the period with available data, exceeded the then maximum fine established by the Chilean Competition Law, set at UTA 20,000.

(b) In the commercialization of low power, hermetic compressors for the manufacturing of refrigerators case, initiated in 2010, the FNE filed a complaint against Whirlpool S.A. and Tecumseh Do Brasil Ltda., the main providers of low power, hermetic compressors for the manufacturing of refrigerators, who participated in an international cartel that went back to 2004.

As part of the trial, the FNE submitted to the Competition Tribunal an economic report that justified the amount of fine requested on the basis of the estimation of the excess gains obtained by the cartel.

The estimation of excess gains required the determination of the duration of the cartel as well as the overcharge charged during the price-fixing period. Tecumseh fully collaborated with information and data, as opposed to Whirlpool, who delivered inexact and incomprehensive data, impossible to be used for the analysis. As a result, the FNE relied exclusively on the Tecumseh data and used extrapolation to draw results on Whirlpool.

The duration of the cartel was determined by qualitative information obtained by Tecumseh, according to which the cartel dated back to the beginning of 2004 and terminated around February of 2009.

For the determination of a counterfactual, it was assumed that after the termination of the agreement the two firms returned gradually towards more competitive levels until December 2009 by which time the market had fully returned to competitive conditions. Excess gains were then

estimated using the profit margin of December 2009 as a counterfactual. The use of profit margins instead of prices for the estimation of excess gains addressed the defence argument that associated the high prices during the period of the collusion to the rising cost of commodities such as iron that were essential inputs for the production of compressors. The excess profits were then estimated as the real profits obtained by the two firms minus the profits that would have been obtained had margins been at the level of December 2009.

Overall, it is estimated that margins were varying between 100% and 140%, during collusion, far in excess of the 33% observed in December 2009. According to the above, Tecumseh gained the sum of CLP 4.4 billion, or approximately USD 8.5 million.

Excess profits for Whirlpool were estimated by means of proportionality using the average market share of Whirlpool for the period of 2004-2009 which was at 58%. This brought excess profits at CLP 7.2 billion or USD 14 million. The FNE then requested a fine equal to the excess gain obtained by the cartel, amounting to approximately UTA 15,000.

The Competition Tribunal ruled against Whirlpool and set the fine of UTA 10,500, lower than the gains directly accountable to the cartel, as calculated by the FNE¹³⁸.

(c) The third case relates to a complaint filed by FNE before the Competition Tribunal (TDLC) in 2011, accusing the three main poultry meat producers in Chile (i.e., “Agrosuper”, “Ariztía” and “Don Pollo”) of cartelization. The cartel was implemented and monitored by the Poultry Meat Producers’ Trade Association (APA – Asociación de Productores Avícolas de Chile A.G.).

The FNE claimed that the agreement –which was operating for at least 10 years-, was overseen and coordinated through the Trade Association and aimed to reduce the production of poultry meat in the Chilean market by controlling the quantity of meat offered and by assigning market shares to each party.

Taking into account the severity of their actions, the duration of the conduct, the market power the agreement conferred to the companies involved and the product (poultry meat is an essential product for lower income consumers), the FNE asked for the maximum penalty established in the act to be applied to each company cartelized – that is, 30,000 UTA (around USD 26 mil.) each. Additionally, the FNE asked for a penalty of 20,000 UTA and the dissolution of the Trade Association, due to its central role in coordinating and maintaining the cartel.

¹³⁸ See, our analysis of the case Part VII.D.

This is the first time that the FNE made use of the recently acquired powers of dawn raids and hence constitutes a milestone in the history of persecution of cartels in Chile. The case is being litigated before the Competition Tribunal and is expected to be sentenced within 2014.

The estimation of harm of the cartel was commissioned to two academics of the University of Chile, Andrés Gomes-Lobo and José Luis Lima. The authors estimated the real present value of the direct harm using the following formula:

$$D_i = \sum_{t=1}^{T_i} (1 + \rho)^{(\tau-t)} \frac{(p_{it}^1 - p_{it}^0) q_{it}^1}{UF_t} \quad (1)$$

Where:

p_{it}^1 is the observed wholesale price charged by company i in month t

p_{it}^0 is the wholesale price in the absence of collusion for company i in month t

q_{it}^1 is the observed quantity sold by company i in month t

ρ is the monthly discount rate that allows to bring the economic harm at month t to its current value

T_i is the last month of information

UF_t is the average value of UF¹³⁹ in month t

The estimation of this formula presented two difficulties, the first and most obvious was the estimation of the counterfactual, p_{it}^0 . In addition, the data available to the FNE covered the period of January 2006 until December 2010. However, the agreement between poultry meat producers goes back 1996. The authors of the report decided to estimate backwards up to 1996 using the following formula:

$$D_i^{total} = \left\{ \overline{sp}_i \cdot \overline{q}_i \cdot (1 + \rho)^{(\tau-(s_i-1))} \cdot \left(1 + \frac{1}{\theta}\right) \cdot \left[1 - \frac{1}{(1+\theta)^{(s_i-1)}}\right] \right\} + \left\{ \sum_{t=s_i}^{T_i} (1 + \rho)^{(\tau-t)} \cdot sp_i \cdot q_{it} \right\} \quad (2)$$

The first bracket on the right hand side of equation (2) expresses the backward estimation of harm from 1996 until 2005 as a function of average overprice \overline{sp}_i charged during the observed period multiplied by the average quantities sold during the observed period and adjusted by $\theta = \frac{1+g}{1+\rho} - 1$, with g being a parameter that reflects the average growth rate of sales during the unobserved period. According to the information provided by the Trade Association $g = 4.0\%$. In addition the

¹³⁹ UF (Unidad de Fomento, in Spanish) is another currency unit used in Chile that is readjusted daily on the basis of variation of inflation. Loans and real estate values are commonly expressed in UF. The daily value of the UF is published by the Central Bank of Chile. Because UF accounts for inflation it is commonly used by economists in order to transform current to real values.

authors considered $\rho = 3.17\%$, which is the average annual interest rate of 10-year Bonds offered by the Central Bank between 2002 and 2011.

For the estimation of total damages (2), the only term that remains unknown is the counterfactual, p_{it}^0 . Three different methodologies were used in order to estimate overprice, i) the comparison of domestic prices with prices observed in the USA and Brazil (using purchasing power parity), ii) comparison of domestic prices with prices of exports, and iii) use of simulation to forecast the competitive outcome, whereby the firms are involved in a Cournot type competition with homogeneous products.

The results of the statistical analysis show that domestic prices were 33%-45% higher than the prices in Brazil or the USA in purchasing power parity. In comparison to the export price, domestic prices were between 28%-67% higher¹⁴⁰. Finally the simulation model, estimates an overprice that varies between 12.9% and 15.9% assuming price elasticity of -0.93 and between 15.9% and 17.9% assuming a price elasticity of -1.393¹⁴¹.

The estimation of damages uses the most conservative of the estimations of overprice; namely the result of the simulation models assuming price elasticity of -0.93. The results show that even with the most conservative estimation of overprices, damages were as high as USD 850 million, far exceeding the maximum fines established in the Chilean competition law.

2. Comments

Generally, the approach employed for fine imposition by the Chilean competition authority in the three cases analysed below is valid and roughly follows the logic close to the structure of the current EU antitrust guidelines on the method of setting fines.

In the first two cases Chilean competition authority starts by assessing the gravity of the violation. This is done by estimating excess illegal gains for each member of the agreement. In the second and third case also duration of the cartel agreement has been taken into account. Then the fine imposed on each firm aims to extract the entire excess illegal gain obtained during the period of the violation. However, the final imposed fines were adjusted downwards due to the existence of the maximum fine established by the Chilean Competition Law or due to proportionality considerations.

¹⁴⁰ The actual overprice was different depending on the firm under analysis as well as for the different types of poultry parts.

¹⁴¹ The poultry meat Trade Association hired in 2008 a Consultancy firm, Quiroz Consultores Asociados to estimate demand models. The price elasticities shown above are the results of this research.

In the first case (Retail Pharmacies) excess illegal gains for each member of the cartel agreement were estimated as price-overcharge for each product multiplied by the quantities sold for the entire period of collusion. This approach seems to be supported by the economic theory (see section 2 below). However, existing sentencing guidelines in the two leading jurisdictions (EU and US) tend to avoid this method due to time and expense considerations that would be required to determine the actual overcharges in all the cases.

The method employed in the second case (Whirlpool-Tecumseh) seems to be the closest to the best current practices. In section 1.2 below, we will provide detailed explanations.

In the third case (Poultry Meat Producers) the method employed for estimation of illegal gains was quite precise, but very specific to the case. Hence, it will be difficult to extend to general setting, since the rules of the fining guidelines should ideally be applicable *ex-ante* to all cases.

Next, we will move to more detailed analysis of each of the three cases.

a. Retail Pharmacies case

The retail pharmacies case suggests several comments in light of our previous discussion:

First, it appears that the FNE requested fines are a function of the direct estimate of the illicit profit by the pharmacies due to their collusion.

The calculus of the overcharge avoids the biases referred to by Allain, Boyer, Kotchoni, and Ponssard (2013) when they criticize Connor for calculating biased and inflated estimates of average illicit surcharges and the distortive effect of sanctions based on total revenue mentioned by Bageri, Katsoulacos and Spagnolo (2013).

Second to assess the harm of the collusion, the FNE takes into consideration the illegal profit of the pharmacists rather than the welfare losses due to the collusion. The welfare losses due to the collusion are greater than the illegal gains of the pharmacists since the consumers who were discouraged from consuming because of the higher price also experienced a decrease in their consumer surplus. The (legal) reason for which competition authorities usually do not include the consumer loss of the consumers which have been discouraged from buying in their computation of the harm of cartels (ie. the deadweight loss) is that the amount that would have been bought had the collusion not been in effect but was not bought because of the increase in price due to collusion is usually not easy to assess and could be considered too speculative for courts to consider.

Third, the pharmacy case is a good example of the issues raised by Katsoulacos and Ulph (2013). It seems on the one hand that the collusion took place between December 2007 and March 2008 and had an effect that lasted longer than the duration of the collusive practice since it seems that the collusion “shifted the equilibrium price upwards”. It is often quite difficult to know when a market gets back to a competitive equilibrium level after a collusion has been uncovered. Furthermore, the decision to sanction the cartel became final with the decision of the Supreme Court on September 2012, more than four years after the collusion ended.

Any comparison between the calculated harm and the sanction would have two biases. The gains of the cartel would be underestimated since the cartel lasted probably longer than December 2008 (the last month for which data was available). The severity of the sanction imposed on the pharmacists would be overestimated since this sanction intervened several years after the end of the period during which data were available to estimate the harm to consumers.

This means that had the pharmacists made a rational calculation in December 2007 to know whether they would violate the law, they would have taken into consideration more profits than the recorded profits and they would have discounted the sanction given that the sanction would only intervene several years after their collusion.

In turn this means that a sanction equal to their recorded profits divided by the probability of their collusion being sanctioned underestimates the optimal sanction.

Fourth, there is a cap on the amount of the sanction that can be imposed on the colluding firms and it appears that globally the amount of extra profit which the pharmacists were able to have due to their collusion is lower than the amount of the fine they received. As mentioned in the review of the literature, the existence of a cap on sanctions can prevent the sanction from being deterrent.

In the case of the pharmacists it is clear that ex post profits from the collusion are greater than the sanctions imposed. Furthermore the profits from the collusion may also be an underestimate of the ex ante profits that the pharmacists expected (if they expected that the market would not get back to a competitive equilibrium immediately after December 2008) and the sanction is an overestimate of the ex ante cost of the sanction since it was imposed only in 2012 and therefore several years after the pharmacists benefitted from a large part of the illicit profits.

Even if the probability of detection and sanction is equal to one (and we can guess that it is lower than one), the fine imposed on the pharmacists does not seem to be deterrent.

One should add, however, that if there were additional sanctions on the cartel participants, (such as, for example, the negative publicity they got from being sanctioned for collusion) or follow on actions for damages, they should be taken into consideration to know whether the enforcement against their collusion was deterrent.

Finally we should keep in mind that general deterrence is based on the *ex ante* perceptions of the would-be violators (both in terms of anticipated profits and in terms of risk of punishment) rather than on *ex post* data.

b. Whirlpool-Tecumseh case

The cartel agreement consisted of two companies (Whirlpool S.A. and Tecumseh Do Brasil Ltda.). It lasted for a period of roughly 6 years (beginning of 2004 – February of 2009). Tecumseh Do Brasil Ltda came forward, cooperated with the authority, applied for Leniency and as a result was exempted from the fine.

The amount of fine imposed on the second member of the cartel (Whirlpool S.A.), which did not cooperate with the authority, was justified on the basis of estimation of the excess illegal gains obtained by the cartel and duration of the cartel. Excess gains seem to be correctly estimated through comparison to counterfactual profit margin (profit margin of December 2009, when the market had fully returned to competitive equilibrium). The excess profits were then estimated as the real profits obtained by the firms minus the profits that would have been obtained had margins been at the level of December 2009. The Chilean competition authority then requested a fine equal to the excess gain obtained by the cartel, amounting to approximately USD 14 million. After the appeal before the Supreme Court the fine has been reduced to about USD 4.9 million. It was argued that a lower fine also met the deterrence and retribution objectives of fines in competition law, which could have been related to the application of proportionality principle that states that the fine should not be in excess of the minimum fine that achieves the same level of deterrence.¹⁴²

¹⁴² Similar interpretation of proportionality principle can be found in e.g. Burca, de, G. (1993) "The Principle of Proportionality and its Application in EC Law," *Yearbook of European Law* 13, 105; Usher, J.A. (1998) *General Principles of EC Law*, European Law Series, Longman; Jacobs, F.G. (1999) "Recent Developments in the Principle of Proportionality in EC Law" in: Ellis, E., *The Principle of Proportionality in the Laws in Europe*, Hart Publishing, United Kingdom, Tridimas, T. (2006) *The General Principles of EC Law*, Oxford EC Law Library, Oxford University Press; Sullivan, E. and R.S. Frase (2008) *Proportionality Principles in American Law: Controlling Excessive Government Actions*, Oxford University Press; Fish, M. (2008) "An Eye for an Eye: Proportionality as a Moral Principle of Punishment," *Oxford Journal of Legal Studies* 28, 57-71; or Sauter, W. (2013) "Proportionality in EU law: a balancing act?" *TILEC Discussion Paper* No. 2013-003.

This case again raises the issue of the duration of cartels. It is well known that once a price agreement is terminated, the market does not get back to the competitive equilibrium immediately. The FNE rightly determined that the end of the effect of the cartel was when the market had returned to competitive conditions.

The FNE was also right to focus on profit margins rather than on prices. When a cartel lasts a number of years it is quite possible that variation in cost conditions may have an impact on prices independently of the level of competition. The profit margin is a good indicator of the market power exercised by the cartel members and of the loss of surplus of consumers due to the exercise of this market power.

The methodology used by the FNE to assess the profit margin of Whirlpool assumes that Whirlpool had the same costs and the same prices than Tecumseh. If the compressor for refrigerators are standardized and undifferentiated, the assumption is not problematic. If there are sharp differences in product design or in production technology between the two manufacturers, the assumptions may not reflect the reality. However, given the lack of cooperation of Whirlpool, and the fact that, since the producers had formed a cartel, we can assume that their compressors must have been close substitutes, the fact that the NFE resorted to this pragmatic approach is entirely justified. Whirlpool could have chosen to cooperate if it considered the implicit assumptions of the FNE to be wrong.

The reason for which the Supreme Court decreased the fine to UTA 5,000, and argued that a lower fine also met the deterrence and retribution objectives of fines in competition law is not clear. Unless one assumes that Whirlpool was likely to be sued for compensation by its clients (in which case the amount of damage likely to be awarded should be added to the fine to assess the sanction imposed on Whirlpool), or had faced very high legal fees, or had registered a large loss in reputation due to the publicity on the case, it seems that the sanction of Whirlpool is roughly a third of its extra profit due to the collusion. If that is indeed the case, the message sent to would be violators is that they can expect, if they are caught, to be fined a third of the illicit gains that they will have secured thanks to their collusion. This would mean that collusion would be profitable even if they had a 100% chance of being caught. From an economic standpoint even some risk averse firms would find it in their interest to enter into collusion. It is also difficult to see how such a fine meet the retribution goal.

Altogether, this case seems typical of the conflict we discussed when we stated: “In the competition law area, there is thus a risk that review courts (adhering to the legal principle of proportionality and the implicit “retribution approach” or “moral acceptability approach” to sanctions) may find sanctions imposed (or requested) by competition authorities (adhering to the economic principle of

deterrence and the implicit “cost minimization approach” to sanctions) disproportional and therefore tend to reduce the amount of the sanctions to non-detering levels”.

The method employed in this second case seems to closer to the current practices in the EU and the US and can even be considered as a relatively advanced approach. Here, similarly to algorithms proposed in the USSG (2013) and EU guidelines (2006),¹⁴³ the illegal gains are estimated, multiplied by duration of an infringement and then the fine is set equal to the calculated amount. However, there are some caveats with this approach. This approach is only appropriate for ex-post fine imposition, in case it is certain that cartel is discovered. However, as has been noted in Posner (2001) or Cooter and Ulen (2007), taking into account that the rate of law enforcement is generally lower than 1 (i.e. only fraction of the companies can be investigated), the *ex-ante expected* fine, which is generally described in the sentencing guidelines, will still be below the total gains from cartel. Better practice, which has been employed in e.g. Germany, Switzerland, or New Zealand, implies setting the fine equal to a multiple of illegal gains (e.g. up to three times the additional profit obtained as a result of the violation).¹⁴⁴

c. Poultry Meat Producers case

The formula proposed for estimation of the harm in expression (1) gives the real present value of the illegal profits due to collusion. Hence, it does not directly estimate direct harm (or damages) as indicated in the description of the formula. Even in simple linear demand models harm (or loss in total (consumer) welfare) will generally be expressed as a non-linear function of cartel overcharge.

As we mentioned earlier the FNE rightly focuses on the illegal profit due to the collusion. The assumption that if there had been no collusion, there would have been a Cournot oligopolololy with undifferentiated products (and therefore a price level above the competitive level) is realistic given the concentration of supply and the transparency of the market. Thus the overcharge is the difference between the observed prices and what would have been the oligopolistic price.

¹⁴³ Note that in the EU and the US illegal gains or harm are approximated by the percentage of affected commerce.

¹⁴⁴ According to the OECD (2002): "It is widely agreed that an effective sanction against a cartel should take into account not only the amount of gain realized by the cartel but also the probability that any given cartel will be detected and prosecuted. Because not all cartels are detected, the financial sanction against one that is detected should exceed the gain actually realized by the cartel. Some experts believe that as few as one in six or seven cartels are detected and prosecuted, implying a multiple of at least six. A multiple of three is more commonly cited, however." In the Annex B of OECD (2002), a range of fines between two and three times the illegal profits is reported.

The computation of the total damage due to the cartel (which lasted from 1996 to 2011) rightly takes into account the discount factor.

It is interesting to compare the estimates in this case with the assumptions that Heimler & Mehta (2012) suggest to the courts which do not have the means to do detailed calculations. They posit a price elasticity of demand between 0.5 and 1.2. Here we are told that the estimate of the price elasticity of demand is between 0.93 and 1.393 which is for the most part in the range posited by Heimler and Mehta. They also posit a 15% permanent price increase due to the collusion. Here we are told that the estimate of the surcharge when using the simulation model is between 13% and 18% depending on the value of the elasticity chosen. These values are also close to the general hypothesis proposed by Heimler and Mehta and therefore their methodology seems to be applicable to the case. In order to see what percentage of the total turnover of the firms over the period should the sanction amount to, one would need two additional data, the Lerner index before the increase in price and the probability of sanction.

This case shows, once more, that caps on fines can have the effect of preventing the enforcement mechanism from being deterrent. The level of extra profit generated by the colluding firms (appropriately discounted) is clearly much more important than the maximum amount of sanction that the court can impose. The disparity is all the more important that the cartel lasted a large number of years and that the cap does not seem to allow for the fact that some cartels lasted more than a decade. If the firms have the perception that they can reap the benefit from their cartels for many years before being caught (which suggests a low probability of detection and sanction) and that when caught their sanction is going to be limited to the cap resulting from the law, they may well have an incentive to enter into a cartel agreement.

d. Overall Assessment

As we have already stressed above, the approaches employed for fine imposition by the Chilean competition authority in the three cases analyzed are valid and roughly follow the logic of the current EU antitrust guidelines on the method of setting fines. The approaches of the second and the third case seem more advanced and could be utilized for developing antitrust sentencing guidelines together with the lessons from current practice in the US, EU and several OECD countries, which have been described above. As has been mentioned above, basing fines on carefully estimated excess illegal gains and adjusting these gains (denoted in the report by π) by a proper multiplier (e.g. 3π , as it has been done in Germany, Switzerland, or New Zealand), which takes into account the expected rate of law enforcement, will increase the deterrent effect and at the same time will not have any price distortions. This structure is superior to fines based on volume of affected commerce

or turnover (sales) as the latter cause substantial price distortions.¹⁴⁵ On the other hand, the methods employed in the second and third case still miss a number of factors (such as aggravating and attenuating circumstances, proportionality and bankruptcy considerations) which should also be taken into account while calculating the fine.

None of the three cases described above mention individual fines or imprisonment possibilities. These tools appear to be very effective according to the US experience and, perhaps, could be included in the new guidelines.¹⁴⁶

Further, discussion of the more strict treatment of repeat offenders, which is standard in the EU and the US, should also be included.

¹⁴⁵In particular, fines based on revenue may give incentives to increase cartel price as they do not target price reducing incentives directly, but rather target sales reducing incentives. This may lead to increase in prices even above monopoly level. See also Bageri, V., Katsoulacos, Y. and Spagnolo, G. (2013) "The Distortive Effects of Antitrust Fines Based on Revenue" *The Economic Journal*, 123 (572), 545-557 and Katsoulacos, Y., E. Motchenkova and D. Ulph (2014), "Penalizing Cartels: The Case for Basing Penalties on Price Overcharge", mimeo (May 2014) for more detailed intuition.

¹⁴⁶See e.g. USSG (2013) or ADM cartel case literature Eichenwald, K. (2000) *The Informant: a True Story*, Broadway Books, Lieber J.B, (2000) *Rats in the Grain: The Dirty Tricks and Trials of Archer Daniels Midland, the Supermarket to the World*, Basic Books; Connor, J. (2001) "Our Customers Are Our Enemies": The Lysine Cartel of 1992–1995," *Review of Industrial Organization*, 18(1), 5-21; Connor, J. (2003) "Private International Cartels: Effectiveness, Welfare, and Anticartel Enforcement" *Purdue University, College of Agriculture, Department of Agricultural Economics*, Working Papers 03-12.

IV. The Chilean Competition Act's legislative intent regarding fines

The best way to find out Competition Act's legislative intent regarding fines is to return to the discussions that led to its modifications. Below, we highlight some passages of the bills that later became amendments to the Competition Act.

A. The History of Statute No. 19.911 (issued on October 2003)

Statute No. 19.911 amended the existing competition agencies and Courts, by creating the TDLC and substantively transforming the structure of the FNE, as it is known today. Along with it, Act 19.911 amended the system of penalties. Therefore, the presidential message (motivation) of the bill included some reference to the justification on fines introduced:

"Finally, a Tribunal strengthened with clear guidelines, should have adequate sanctioning powers which can effectively meet the objective of inhibiting anti-competitive behaviour in the strict constitutional framework. Therefore, it is proposed to replace the existing criminal penalties with higher fines and liability for the executives involved in actions contrary to free competition"¹⁴⁷.

"[...] For these reasons, it is advisable to maintain a comprehensive behavioural standard with basic examples, so the members of the body [TDLC] would be able to hear and decide causes according to the case, deciding which behaviours constitutes a breach of competition law.

However, this approach is inconsistent with the existence of a criminal offense, in which the type specification is an essential requirement, failure of which is a violation of the constitutional guarantee provided by the final paragraph of section 3 of Article 19 of our Constitution.

As a counterpart to the elimination of criminal penalties –which has rarely given rise to criminal proceedings and is estimated to have failed to deter misconduct against free competition–, it is proposed to increase fines and hold managers or directors of companies who commit them jointly and severally liable for payment.

¹⁴⁷ President of the Republic message on Bill 132-346 (May 17th, 2002), which establish the "Tribunal de Defensa de la Libre Competencia". On: Library of National Congress ("Biblioteca del Congreso Nacional, "BCN"), *History of the Statue No. 19.911*, p. 8. Available at: <http://www.leychile.cl/Navegar/scripts/obtienearchivo?id=recursoslegales/10221.3/2472/1/HL19911.pdf>

Thus, we estimate that eliminating criminal penalties, far from suggesting a softening against violations of competition law, will more effectively deter potential offenders¹⁴⁸.

B. The History of Statute No. 20.361 (issued on July 2009)

Statute No. 20.361 amended the Competition Act some years after the creation of the *TDLC* and the institutional changes introduced by Statute No. 19.911. Among other changes and adjustments, Statute No. 20.361 increased fines for certain violations of competition law. The justification given in the Presidential bill about this increase illustrates the legislator's aim and goals.

"[...] Moreover, the abolition of criminal sanctions for those who violate competition law has led economic agents –as rational subjects–, to take real risks of being sanctioned, but in the absence of rules determining fines, they may still incur such conduct under the hope of not being discovered or, if investigation is initiated, arguing general principles of tort system to apply this fines to their minimum or, as was not provided on the Statute No. 19,911, engage in behaviours that cause great harm to others, which are difficult to identify and, therefore, which have no incentives to deduct civil claims, without being such damages negatively weighted by the TDLC when applying fines"¹⁴⁹.

"Under the foreseeable greater efficiency in investigative work of the National Economic Prosecutor's Office, because of the new powers given to it and the introduction of "leniency", the office should be able to discover behaviours that cause great damage to the country's market system. This makes it desirable to increase the fines that Courts are able to apply against the facts, acts or agreements that prevent, restrict or hinder free competition, detering such practices and giving an additional incentive for the subject who is able to benefit of leniency rules. Thus, letter c) of the second paragraph of Article 26 Competition Act is amended, increasing the maximum fines to be applied by the Court from 20,000 to 30,000 [UTA] Annual Tax Units.

¹⁴⁸ *Ibíd.*, p. 12.

¹⁴⁹ President of the Republic message on Bill 134-354 (June 5th, 2006), which "Amends DFL Act N°1/2005 Ministry of Economy, Building and Reconstruction, 2005, about Tribunal de Defensa de la Libre Competencia". On: Library of National Congress ("Biblioteca del Congreso Nacional, "BCN"), *History of the Statute No. 20.361*, pp. 6-7. Available at: <http://www.leychile.cl/Navegar/scripts/obtienearchivo?id=recursoslegales/10221.3/3841/2/hdl-20361.pdf>

Incorporation of damage as a circumstance to determine the fines

In accordance with this, for the estimation of the fine to be imposed the Tribunal will consider the economic benefit gained as a result of the infringement, the seriousness of the conduct and recidivism, but also –and fundamentally– the damage to competition; so third paragraph of Article 26 of the Competition Act is amended”¹⁵⁰.

The following is the current wording of the third paragraph of Article 26:

“To determine the fines, the following circumstances, among others, will be considered: the economic benefit obtained as a result of the violation, the severity of the conduct, the reoffending nature of the offender, and, for the purposes of lowering the fine, the collaboration the latter provided to the Fiscalía before or during the investigation”.

The current wording does not include any reference to the damage to competition and/or general or specific deterrence.

C. Literature and other sources

Currently, the national literature usually emphasizes the importance of deterring infringements of competition, particularly regarding collusion and other concerted practices. As a summary of some recent discussions and suggestions, it may be useful to consider some sections of the report that a special Advisory Committee to the President of the Republic issued in July 2012, suggesting some amendments to the Chilean competition law.

“Regarding sanctions established by the TDLC, these are essentially fines and other administrative sanctions. In the case of monetary fines, the maximum amount was recently raised by the amendment made in 2009, leaving this in 30,000 UTA for collusion. Notwithstanding this adjustment in the amount of monetary sanctions, it is important to empathize that –in general– this maximum does not appear to be a constraint on the decisions TDLC and Supreme Court, since the average of the penalties imposed have remained substantially below the maximum allowed by law. However, the increase in the amount of the maximum fine established in the recent legislation amendment on competition (2009) is a signal from lawmakers to the

¹⁵⁰ *Ibíd.*, pp. 10-11.

TDLC and the Supreme Court to increase the sanctions for violations to the Competition Act¹⁵¹.

“Regarding sanctions to companies and corporations, an idea that raised a significant level of agreement in the Commission is the use of a scale indicator in determining the fine set by the TDLC to the firm(s) accused of anticompetitive actions. This is because there are practical difficulties associated with obtaining an accurate and timely estimation of “*injury*” in the traditional economic sense”.

“It is recommended to adopt the practice used in many countries and set the fine as a percentage of sales of the company during the period of the anti-competitive conduct, adding a “deterrent factor”¹⁵².

“Some members of the Commission justified the existence of criminal sanctions for anti-competitive practices, arguing that fines and administrative sanctions are not an effective deterrent, a result that could only be achieved by the threat of a potential loss of liberty. Moreover, it was argued that the risk of deprivation of liberty would enhance the effectiveness of the mechanism of “leniency” as a tool to dismantle collusion”¹⁵³.

“On the other hand, other members of the Commission rejected the explicit incorporation of criminal sanctions within the scope of competition law. This position was based on the recent revision and refinement of an institutional framework that seeks to make the analysis and evaluation of situations related to competition in specialized courts [...]”¹⁵⁴.

One may thus conclude from the above that the legislator’s goal was to establish a system of effective and deterrent financial penalties against competition law infringements.

¹⁵¹ Presidential Advisory Committee on Competition Law. Final Report (July 2012), p. 10. Available at: <http://www.economia.gob.cl/wp-content/uploads/2012/07/INFORME-FINAL-ENTREGADO-A-PDTE-PINERA-13-07-12.pdf>

¹⁵² *Ibíd.*, p. 13.

¹⁵³ *Ibíd.*, p. 16.

¹⁵⁴ *Ibíd.*, p. 17.

V. Recommendations

We first proceed in summarizing the main recommendations of the existing literature on the determination of optimal antitrust fines and the optimal design of leniency programmes, before delving into our suggestions for the design of Guidelines on the setting of fines.

A Summary of the recent theoretical recommendations in the literature on determination of optimal antitrust fines and optimal design of leniency programme

A literature review indicates the following recommendations for policy makers:

- With regard to the base from which to calculate the fine, there are two options: to use profits as determined on a case-by-case basis as a base or to use proxies such as a proportion of the affected commerce or the value of sales. The former, profit-based, approach may reflect the economic harm more precisely, *provided* that the relevant data are available. The latter, turnover-based, approach may over- or underestimate the true economic harm, but has the advantage of greatly enhancing administrability and avoiding under-deterrence in cases in which the infringement causes real economic harm that is difficult to quantify, such as harm of cartels in declining industries that aim at preventing future losses, harm to innovation, or similar harm to competition. All jurisdictions surveyed in this report have chosen the latter approach of using turnover-based proxies. Nevertheless, some economic literature has suggested to move away from the volume of affected commerce (revenue or sales) as a base of the penalty to penalties based on profits (or overcharges) and a unique emphasis on a formalistic approach. This concern was also raised by the Antitrust Modernization Commission (AMC) (2007) in the US, which recommended to the Sentencing Commission to reconsider whether reliance on a proxy, such as a specific percentage of affected commerce, turnover/sales etc, is consistent with the principle that punishment should be calculated based on the actual harm in individual cases. The AMC recognized that “because general deterrence of antitrust violations does not require an exact correlation of expected harm and penalty, the Sentencing Commission determined that reliance on a proxy amount would be appropriate”¹⁵⁵. However, the AMC noted that the “development of economic learning and estimation techniques over the past fifteen years may have made proving gain or loss in an antitrust case less difficult than it was when the Sentencing Commission created the proxy”¹⁵⁶. It is widely argued in the theoretical

¹⁵⁵ Antitrust Modernization Commission (2007) “Final Report and Recommendations” 300, available at http://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf

¹⁵⁶ Antitrust Modernization Commission, Final Report and Recommendations (2007), 301

literature on antitrust that illegal gains and overcharges are more precise measures of gravity of violation.¹⁵⁷ Also basing penalties on profits does not impose price distortions, while revenue based penalties are distortionary. In particular, fines based on revenue may give incentives to increase the cartel price as they give incentives not to reduce price, but to reduce sales. This may lead to an increase in prices even above monopoly level. See also Bageri, Katsoulacos, Spagnolo (2013) and Katsoulacos, Motchenkova and Ulph (2014) for more detailed intuition.

- We believe that the suggestion to move towards a more effects-based approach in designing financial penalties has its disadvantages in the many competition cases in which it is difficult to quantify the exact harm. The German experience with “additional turnover”-based fines has not been an encouraging one: resources invested into the determination of the additional turnover could likely be put to better use elsewhere in a capacity-constrained competition authority. The greater precision of the case-by-case analysis of profits comes at a cost. On the other hand, the profit-based approach suggested in the economic literature may be more easily achievable in Chile, in view of the obligation imposed by Art 3rd (a) of the Decree Law No. 211 of 1973 (DL211) that any competitors’ agreements aiming at fixing prices, limiting output or allocating markets may be subject to the sanctions established by law, if abusing the market power conferred upon them by such agreements, thus requiring that current or potential effects on markets be shown for sanctioning cartel conducts.
- Increasing or abolishing legal upper bounds (or maximum fines) is another recommendation suggested in a number of leading contributions in antitrust enforcement literature. Buccirossi and Spagnolo (2007), Bos and Schinkel (2007), Wils (2007) and Harrington (2010) point out that the current inspection efforts and the existing upper bounds on fines, at least in the EU and several OECD countries, are insufficient to deter all cartels. In a number of related empirical studies, Connor and Lande (2005, 2006, 2008, 2012) also argue that the existing US and EU penalties for cartel violations are too low resulting in high cartel overcharges. This suggests that the existing legal upper bounds (or maximum fines) are not

¹⁵⁷ See Bageri, V., Katsoulacos, Y. and Spagnolo, G. (2013) "The Distortive Effects of Antitrust Fines Based on Revenue," *The Economic Journal*, 123 (572), 545-557; Harrington, J. (2004) "Cartel Pricing Dynamics in the Presence of an Antitrust Authority" *The Rand Journal of Economics* 35, 651-673; Harrington, J. (2005) "Optimal Cartel Pricing in the Presence of an Antitrust Authority," *International Economic Review* 46, 145-170, Houbá, H., Motchenkova E., and Wen, Q. (2010), "Antitrust enforcement with price-dependent fines and detection probabilities," *Economics Bulletin*, 30(3) 2017-2027, or Jensen, S. and Sorgard, L. (2012) "Enforcement with heterogeneous cartels" *Institute for Research in Economics and Business Administration*, Norway, Working paper 14/12; Jensen, S. and Sorgard, L. (2014) "Fine schedule with heterogeneous cartels: Are the wrong cartels deterred?" *Institute for Research in Economics and Business Administration*, Norway, mimeo.

high enough to deter cartel formation and, hence, should be adjusted upwards, above the current $F^{max}=0,1T$. One solution short of abolishing the legal maximum for the fine entirely would be to use a turnover-based approximation of the fine within the legal limit, but to permit fines that exceed the legal maximum where profits are shown to exceed this maximum. This would correspond to the German solution (§ 81(5) GWB with § 17(4) OWiG) and would be similar to the European solution in so far as the European Guidelines allow a higher proportion than 30 per cent of the value of sales where this is necessary to deprive the infringer of the gains improperly made.

- Deterrence: Specific and general deterrence constitute the primary objectives of all financial penalties systems for the infringement of competition law that we have examined for the purposes of this report. In view of the objective of deterrence, one may not expect an exact correlation between the harm and the penalty. According to economic theory, fines should be at least equal to the expected illegally earned profits divided by the probability to be caught, hence they should relate to expected profits originating from the violation and not to the profits actually gained that may be higher or lower than those expected at decision-making time, should the fines be paid after the period of infringement. The implementation of the principle of deterrence may involve reliance on presumptions and proxies based on a percentage of affected sales or volumes of commerce as a starting point for the calculation of the base fine, which although they do not correspond to the illicit gains of the competition law infringement or the damages caused, they integrate the need for general or specific deterrence. It is also possible to rely on a multiplier of the base fine equal to the inverse of the estimated detection probability, thus incorporating deterrence considerations in the calculation of financial penalties.
- Imposing an entry fee (i.e. fixed fine in addition to proportional component) has been proposed in the EU (2006) guidelines and has been analyzed theoretically in Motchenkova (2008). This fee is imposed in order to deter companies from ever entering into seriously illegal conduct. In most serious cartel cases the Commission may add to the amount of the base fine a sum equal to 15% to 25% of the yearly relevant sales, whatever the duration of the infringement. In other words, the mere fact that a company enters into a cartel could “cost” it at least 15 to 25% of its yearly turnover in the relevant product. This will significantly increase deterrence.
- Increasing penalty rates can also be an effective instrument to increase deterrence and to reduce the gravity of the offence in cartel cases. This instrument, in case fines are based on illegal gains or overcharges, reduces the optimal cartel price and, hence, also reduces the harm to consumers. More detailed analysis of these issues can be found in Katsoulacos and

Ulph (2013), Houba, Motchenkova and Wen (2010), and Katsoulacos, Motchenkova and Ulph (2014).

- The fining guidelines should also be accompanied by properly designed leniency programmes. The most up to date recommendations on the design of leniency programs is a mix of the design implemented in the EU and the US:
 - Full immunity should be available only for strictly first reporting firm.¹⁵⁸
 - While it has been suggested with good theoretical arguments that there should be no fine reductions for subsequent reporters,¹⁵⁹ in practice there may be a need to reward further applicants in order to acquire a better evidence basis. In these cases, a reduction for the second or later applicants should be made contingent on strict criteria concerning the “added value” of the evidence these applicants must produce.
 - Ex-post availability of leniency (i.e. complete immunity can be granted even if the firm reports after the investigation has started).¹⁶⁰
 - Repeat offenders are also allowed to obtain full immunity.¹⁶¹

B. Suggested Design of Fining Guidelines

Publishing sentencing guidelines will enable Fiscalía to send a strong message to potential cartelists and other competition law infringers that anti-competitive conduct will not be tolerated and might give rise to substantial financial penalties. Following the findings of the report on the impact of fining guidelines on the policy-making and executing discretion of competition authorities, we consider that the publication of such guidelines will not affect the ability of Fiscalía to request high financial penalties in actions brought against infringers in front of the TDLC. It may also have the advantage of streamlining appellate scrutiny of the fines so as to accommodate the prosecutorial discretion of Fiscalía and the fact that fines are set by an independent and specialised trial judge with the

¹⁵⁸ See e.g. Spagnolo, G. (2004, revised 2008) "Divide et Impera: Optimal leniency programs," *CEPR Discussion paper series, working paper number 4840*; Harrington, J. (2008) "Optimal Corporate Leniency Programs," *Journal of Industrial Economics* 56(2), 215-246., or Houba, H., Motchenkova E., and Wen, Q. (2010).

¹⁵⁹ Spagnolo, G. (2004, revised 2008).

¹⁶⁰ See Motta, M. and Polo, M. (2003) "Leniency Programs and Cartel Prosecution," *International Journal of Industrial Organization* 21, 347-379

¹⁶¹ See Chen, Z. and Rey, P. (2013) "On the Design of Leniency Programs" *Journal of Law and Economics*, 56(4) 917 – 957. Wils, W.P.J. (2008) *Efficiency and Justice in European Antitrust Enforcement*, Hart Publishing or Houba, H., Motchenkova E., and Wen, Q. (2010).

necessary expertise as to integrate optimal deterrence. In our view, the structure of the Chilean enforcement system offers advantages as to the individualization of sanctions, so that they are reasonably related to culpability and thus proportional. Yet, the current statutory maximum of 30,000 [UTA] Annual Tax Units for any fines imposed greatly jeopardizes the effectiveness of the Chilean system of competition law enforcement. It is our view that this ceiling should be eliminated or at least revised to reflect current international practice, which is to set the maximum fine to 10% of the total turnover of the undertaking in the preceding business year. Should the ceiling be lifted to this level, there would be a greater need for guidelines in view of the fact that, on balance, enhanced predictability of fines may be an advantage if the fine levels are on average very high.

Effective deterrence “depends, in part on the uniformity and predictability of serious and swift punishment”¹⁶². As has been explained by Justice Breyer (in some of his extra-judicial writing), when drafting sentencing guidelines, a compromise should be made between two competing goals of a sentencing system: uniformity and proportionality¹⁶³. The publication of guidelines will need to accommodate the aim of uniformity and general deterrence, without however compromising the need for flexibility and individualized assessment based on the facts of particular cases, inherent in the principle of proportionality. This aim can be achieved in the context of Guidelines, in view of the numerous parameters individualizing the sanction (linking it to the harm/overcharge) and the need to account for specific deterrence¹⁶⁴. The publication of guidelines will certainly not bind the TDLC, although it will certainly inform its decision-making process, as the experience of the Sentencing Guidelines in the US shows with trial judges employing the Sentencing Guidelines as an initial benchmark, even if these are not mandatory. The publication of guidelines will also help put emphasis on the goal of deterrence and the need for optimal sanctions against anticompetitive conduct, in particular in view of the judicial scrutiny of the Supreme Court. The Supreme Court should, in our view, accommodate the need for both general and specific deterrence, in view of the nefarious effects of cartel activity and, more generally anticompetitive conduct, to the whole economy and the consumers.

The design of the sentencing guidelines should include the following three steps: estimate the base fine, integrate mitigating and aggravating circumstances adjusting the basic amount and applying the legal maximum should this exist, interaction with leniency and private enforcement. We do not provide more detail as to the different mitigating and aggravating factors that should be

¹⁶² Thide, F. (2013) “Judicial Policy Nullification of the antitrust Sentencing Guideline”, *Boston College Law Review* 54(2), 861, 887.

¹⁶³ Breyer, S. (1988) “The Federal Sentencing Guidelines and the key compromises upon which they rest”, *Hofstra Law Review* 17(1) 1-50..

¹⁶⁴ See, for instance, the discussion in *United States v. Booker*, 543 U.S. 220, 263-265 (2005) (Breyer delivering the opinion in part),

incorporated in the Guidelines, as we believe that these should take into account the local circumstances of regular business behaviour and the existing regulatory framework in other areas of law. We have provided, however, in our comparative analysis ample details on how these circumstances have been interpreted by five major competition law regimes. We think this analysis may be a source of inspiration for Fiscalía.

The drafting team considered the balance to be achieved between administrability and accuracy in the design of guidelines.

We took into account recent theoretical contributions by Bageri, Katsoulacos and Spagnolo (2013), Katsoulacos and Ulph (2013), Katsoulacos, Motchenkova and Ulph (2014) that show the superiority of the profit based fines over revenue (or sales) based proxies. We also recognized that the Chilean legislator has amended Article 26, paragraph 3 of the Competition Act to request, for the estimation of the fine to be imposed, the Tribunal to consider “the economic benefit gained as a result of the infringement, the seriousness of the conduct and recidivism, but also **–and fundamentally–** the damage to competition. We believe that there is value to integrate as much as possible an effects-based analysis in the determination of fines (Harrington, 2014) and rely on proxies only when the costs and delays of using more accurate calculations is high in view of the volume of affected sales. This choice reflects also the fact that when the volume of affected sales is relatively large, rigorous analyses will provide more accurate estimates, when the economists have sufficient reliable data and information to proceed with their estimation techniques. A mixed-methods approach that would fit the circumstances of each case, the availability of data, the costs of accurate estimation of expected profits and the amount of the fine requested, may provide the necessary degree of flexibility to accommodate both the requirements of optimal and just financial penalties. We consider that the competition authority should be offered the choice between three options among which it may choose the one leading to the greatest financial penalty of either (i), (ii) or (iii):

- I. Estimate the excess illegal gains from the offense (that is 100% of the overcharge)¹⁶⁵, **or**
- II. Estimate the pecuniary losses to a person other than the defendant (100% of these losses) to the extent the loss was caused intentionally, knowingly, or recklessly, **or**
- III. If the above options would unduly complicate or prolong the sentencing process, or would not reflect the harm caused by the anticompetitive conduct if this harm may not

¹⁶⁵ This may be done with the integration of a structured effects-based approach, similar to that suggested by Heimler and Mehta [see our commentary, Section II(I) above], as a starting point for the analysis, the defendant being able to challenge these estimations with further evidence.

be quantified in the form of pecuniary losses,¹⁶⁶ use a proxy based on a percentage of affected sales (on the basis of e.g. 10-15% as an overcharge estimate)

Finally, we take into account that the adversarial process followed in the determination of the financial penalties by the TDLC, a specialised tribunal, will inevitably favour the use of the most accurate method possible for estimating fines, as the defendants will certainly challenge the accuracy of a fine requested on the sole basis of a proxy of a percentage of affected commerce. For this reason, in our view, it is inevitable for the FNE (unless it reaches a settlement with the defendants) to estimate the excess illegal gains from the offense and/or the pecuniary losses during the adversarial process in front of the TDLC. Our proposal is influenced by the approach followed in US (and German) law, regarding financial penalties, when the use of a proxy does not adequately reflect seriousness of the offense in light of the pecuniary gain or loss it caused. The Guidelines should provide the choice to the FNE to proceed with either (i), (ii) or (iii). Yet, we also agree with some commentators that “as fine levels increase, they may eclipse the costs of more precisely estimating damages” and that “(f)rom an economic perspective, the administrative costs of more rigorous calculations are increasingly justifiable as the potential fine value rises, because these calculations can prevent costly errors when fines are underestimated or overestimated”¹⁶⁷. Hence, it may make sense to use these methods, if expensive or time consuming, only for fines of a significant amount. Yet, this is a decision to be made on a case by case basis by the FNE, depending on nature of the offense and the data available (e.g. aggregate sales or profit data for the entire group of customers allegedly impacted by the anticompetitive conduct or customer transaction data), some of which it is easy, quick and inexpensive to collect, while for other more difficult, expensive and time consuming¹⁶⁸. In any case, such data are frequently used by courts in the context of private enforcement for the quantification of damages and could be of assistance also when determining the level of the financial penalty¹⁶⁹.

The three steps in the fine-setting process should be set as following:

1. Determination of the basic amount of the fine:

¹⁶⁶ For instance, the harm relates to other parameters of competition than price, such as quality, innovation, variety, consumer choice, which is sometimes difficult to quantify in the form of pecuniary losses.

¹⁶⁷ Kauper, R. and Langenfeld J. (2011) The Potential Role of Civil Antitrust Damage Analysis in Determining Financial Penalties in Criminal Antitrust Cases, *George Mason L. Rev* 18(4) 953-986, 962.

¹⁶⁸ Ibid. 968, noting however that computer programs can often readily calculate revenues, quantities, and prices from customer transactions datasets, in particular if the data is available in user-friendly electronic format and accurate enough.

¹⁶⁹ Idem.

- a. The FNE should be offered the choice between three options, among which it may choose the one leading to the greatest financial penalty:
 - i. Estimate¹⁷⁰ the excess illegal gains from the offense¹⁷¹ (that is 100% of the overcharge), **or**
 - ii. Estimate¹⁷² the pecuniary losses to a person other than the defendant (100% of these losses) to the extent the loss was caused intentionally, knowingly, or recklessly, **or**
 - iii. If the above options would unduly complicate or prolong the sentencing process, or would not reflect the harm caused by the anticompetitive conduct if this harm may not be quantified in the form of pecuniary losses, use a proxy based on a percentage of affected sales (on the basis of e.g. 10-15% as an overcharge estimate: e.g. in the EU the starting point is 30% of affected sales)
- b. Apply a multiplier equal to the inverse of the estimated detection probability (e.g. 6 if the detection probability is estimated as 1/6).¹⁷³ We consider that Article 26 of the Chilean Competition (Decree Law 211) should be revised so as to include among the circumstances considered to determine the fines, which are now the following ones: the economic

¹⁷⁰ An approximate calculation should suffice, allowing to make a reasonable estimate of the probable amount. In contrast to damages cases or restitution claims, the deterrent and punitive function of financial penalties may accord with a less precise calculation, as long as this is not speculation or guesswork, the defendant having being found to infringe competition law. Hence, she should bear the risks of any doubt on the exact amount of gains. Some authors have put forward a structured effects-based approach involving the estimation of expected profits from the anticompetitive conduct, on the basis of some percentage range of the values of sales to which the infringement relates [see, Heimler, A. and Mehta, K. (2012) "Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence", *World Competition* 35 (1), 103–119]. This will require competition authorities to take into account the value of the Lerner index, or the change in the value of the Lerner index or the probability of detection as a starting point for such calculation, the defendant being able to challenge the figure put forward by the authority as not being accurate.

¹⁷¹ This refers to the total gross gain from the anticompetitive conduct, including the gross gain to the defendants and other participants in the anticompetitive conduct.

¹⁷² An approximate calculation should suffice, allowing to make a reasonable estimate of the probable amount. In contrast to damages cases or restitution claims, the deterrent and punitive function of financial penalties may accord with a less precise calculation, as long as this is not speculation or guesswork, the defendant having being found to infringe competition law. Hence, she should bear the risks of any doubt on the exact amount of losses.

¹⁷³ Cf. section II.B of this report.

benefit obtained as a result of the violation, the severity of the conduct, the reoffending nature of the offender, and, for the purposes of lowering the fine, the collaboration the latter provided to the Fiscalía before or during the investigation, also the following two: *damage to competition* and *specific and general deterrence*. The new formulation of the text should also provide the possibility to incorporate deterrence by multiplying the base fine with a multiplier equal to the inverse of the estimated detection probability of the competition law infringement (e.g. 6 if the detection probability is estimated as 1/6, as it is the case for cartels¹⁷⁴).

- c. In order to take duration into account, the base fine should be multiplied by the number of years of participation in the infringement.
- d. The current statutory maximum of 30,000 [UTA] Annual Tax Units should be eliminated as it has proven too low and under-deterrent in at least two cartel cases (pharmacies and poultry). Ideally, there should be no statutory maximum (including the one of 20,000 UTA for all other infringements) where the gains actually made or the damage to competition can be calculated. As a second best, the statutory maximum should change from its current form as a fixed amount to a proportion of the total turnover of the undertaking (e.g. 10% of the total turnover).

2. Adjustments to the basic amount¹⁷⁵

a. Aggravating circumstances (upward adjustment)

i. Repeat offenders¹⁷⁶

¹⁷⁴ For exclusionary abuses of a dominant position the probability of detection depends on the importance of the dominant position of the undertaking and hence the multiplier may vary (for instance, the probability of detection for most cases of exclusionary abuse of a dominant position is estimated as high as 70% - at least 50% where the dominant firm is a relatively small entity and virtually 100% for super-dominant large firms with a market share of more than 80-90% (see Heimler, A. and Mehta, K. (2012) "Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence", *World Competition* 35 (1), 103–119, 115-116). However, we consider that in order to induce large dominant undertakings to comply with competition law - in view of the general deterrence objective- the fines should be significant, hence the suggestion to keep a multiplier of 2 for all types of exclusionary abuses of a dominant position.

¹⁷⁵ Adjustments to the basic amount are proposed on the basis of the structure outlined in the current EU Guidelines (2006). As for the adjustments in percentage, we do not provide specific recommendations as this is at the discretion of the competition authorities and courts. One should take into account the fact that aggravating circumstances should not be as high as to eliminate the benefit of applying for leniency for the second or third applicant, in order to maintain the incentives to apply for leniency. For more specific percentages, see the practice of the French Competition Authority, in Appendix 5.

- ii. Refusal to cooperate
 - iii. Role of leader in the infringement
- b. Mitigating circumstances (downward adjustment)
 - i. Sufficient cooperation with authority
 - ii. Limited involvement in the infringement
 - iii. [Effective corporate compliance programmes]¹⁷⁷
- c. Application for leniency (downward adjustment or full immunity)
- d. Inability to pay – bankruptcy considerations (downward adjustment)
- e. Adjustment according to the legal maximum: it is suggested to eliminate or replace the legal maxima of 20,000 and 30,000 [UTA] Annual Tax Units, which might lead to under-deterrence. As a first best, the legal maximum should be eliminated if it is possible to calculate the gains actually made or the damage to competition. As a second best, the current legal maximum should be replaced by a percentage of the worldwide turnover of the infringing undertakings, for instance, a percentage of 10%, as it is the case in the EU, UK, Germany and France. It is suggested for this percentage to operate as a maximum fine, not a cap (see our discussion of the debate in Germany in Appendix 2).

3. Additional issues

- a. Public antitrust enforcement should be accompanied by the possibility of private actions for damages.
- b. Corporate fines should be combined with individual fines as well as imprisonment.

¹⁷⁶The current EU Commission's practice is to increase a fine by 50% -100% where the undertaking has been found to have been previously involved in one or more similar infringements.

¹⁷⁷ More on this issue, see Appendix 1.

Summary of specific recommendations

1. It is surprising that in none of the Chilean cases analysed, the fine requested by the FNE or that established by the TDLC or the Supreme Court, systematically incorporated deterrence by multiplying the base fine with a multiplier equal to the inverse of the estimated detection probability. General and specific deterrence constitutes one of the main objectives of competition law enforcement in all jurisdictions examined and the principle of deterrence is systematically integrated in the calculation either of the base fine (by relying on a minimum percentage of affected sales as a starting point of the calculation, e.g. 30%) and/or by applying multipliers representing the inverse of the estimated detection probability. This is considered as a crucial reform so as to enhance the effectiveness of Chilean competition law. More concretely, it is suggested to include an explicit reference to general and specific deterrence in the text of Article 26 of the Decree Law 211, along with other factors usually taken into account, such as the economic benefit obtained as a result of the violation, the severity of the conduct, the reoffending nature of the offender.
2. The current text of Decree Law 211 lists among the factors to be taken into account in the calculation of damages only the following ones: the economic benefit obtained as a result of the violation, the severity of the conduct, the reoffending nature of the offender... In view of the high administrative costs and the possible under-deterrent effect of such calculation (which is often quite resource intensive and may not be possible for the lack of data), it is suggested to revise this section of Article 26 of the Decree Law 211 in order to add “damage to competition” to the existing factors, on top of the reference to “general and specific deterrence” that we propose at point 1.
3. For the same reason, and in order to limit administrative costs when this is possible, it is suggested to include an option for the FNE to rely on proxies, such as a percentage of the affected sales as a starting point for the calculation of the base fine, in particular for lower fines. As we have explained in the report, there should be some balance achieved between, from one side, the need to ensure proportionality and, from the other side, the necessity to limit administrative costs, as well as the need to ensure general and specific deterrence. Article 26 of the Decree Law should be

revised accordingly so as to provide FNE the discretion to choose among three options in order to estimate the base fine:

- a. Estimate the excess illegal gains from the offense (that is 100% of the overcharge), **or**
 - b. Estimate the pecuniary losses to a person other than the defendant (100% of these losses) to the extent the loss was caused intentionally, knowingly, or recklessly, **or**
 - c. If the above options would unduly complicate or prolong the sentencing process, or would not reflect the harm caused by the anticompetitive conduct if this harm may not be quantified in the form of pecuniary losses, use a proxy based on a percentage of affected sales (on the basis of e.g. 10-15% as an overcharge estimate: e.g. in the EU the starting point is 30% of affected sales)
4. In view of the emphasis put on general and specific deterrence, Article 26 of the Decree Law 211 should be amended in order to eliminate the current legal maxima of 20,000 UTAs and 30,000 UTAs for cartel behaviour referred to in Article 3(a) of the Decree Law 211 ("express or tacit agreements among competitors, or concerted practices between them, that confer them market power and consist of fixing sale or purchase prices or other marketing conditions, limit production, allow them to assign market zones or quotas, exclude competitors or affect the result of bidding processes). Indeed fines have proven too low in at least two cases (pharmacies and Poultry). Ideally there should be no legal maximum where it is possible to calculate the illicit gains or the competition law damage. As a second best, the legal maximum should change from its current form (a fixed amount) to a percentage of the worldwide turnover of the infringing undertakings, for instance, a percentage of 10%, as it is the case in the EU, UK, Germany and France.
5. Should the above reforms be implemented, it might be necessary to include among the factors taken account in Article 26 for the purposes of lowering the fine, its inability to pay. Appendix 3 provides information as to the criteria usually taken into account in the various jurisdictions examined in order to evaluate this factor.

6. The lack of consistency observed in the fines applied in different decisions, and the excessive judicial scrutiny exercised by the Supreme Court, which has modified them in several occasions, without taking into account the need for deterrence, constitutes a significant weakness of the system. It is suggested that the economic prosecutor, the FNE, should establish guidelines, providing for a detailed methodology for the calculation of financial penalties for competition law infringement. The guidelines should include information on the way the basic amount will be set (including information on the deterrence multiplier(s) and/or the percentage of affected sales that will constitute the starting point of the calculation), as well as information on aggravating and mitigating circumstances. Although the guidelines will not be binding for the TDLC and the Supreme Court, they will inevitably lead to the establishment of a more coherent financial penalties framework, the role of the Supreme Court being merely to verify that the principles of the guidelines have been followed, or that any departure from them is fully justified by the specific characteristics of the case.
7. Regarding the basic amount of the fine, the FNE should aim to ascertain the excess gains or at least the damage to competition, although it would make no sense, due to administrative costs, to do this systematically for the cases which involve low fines. FNE should enjoy some discretion to decide whether to use a form-based approach relying on the proxy of the percentage of affected sales as the starting point for the calculation or to opt for a more effects-based approach, which will require the estimation of the illicit gains or damage to competition.

Bibliography

- Abrantes-Metz, R. Bajari, P. and Murphy, J.E (2010). Enhancing Compliance Programs Through Antitrust Screening *The Antitrust Counselor* 4 (5).
- Agüero, F. and Montt, S. (2013) Chile: The Competition Law System and the Country's Norms in Fox, E. and Trebilcock, M. (eds.) *The Design of Competition Law Institutions: Global Norms, Local Choices*, Oxford University Press.
- Allain, M.-L. et al (2013) Are Cartel Fines Optimal? Theory and Evidence from the European Union, *CIRANO -Scientific Publications 2013s-2.4*.
- Andreangeli, A. (2012) Competition law and human rights: striking a balance between business freedom and regulatory intervention in Lianos, I. and Sokol, D. (eds) *The Global Limits of Competition Law*, Stanford University Press, 22-36.
- Andreangelli et al. (2010) Enforcement by the Commission – the decisional and enforcement structure in antitrust cases and the Commission's fining system, in Merola, M. & Waelbroeck, D. (eds.), *Towards an optimal enforcement of competition rules in Europe*, Bruylant, Brussels, Chapter 3.
- Antitrust Division Manual (updated Mar. 2014) Ch. 3 C.1. 5th Ed., available at: <http://www.justice.gov/atr/public/divisionmanual/>.
- Antitrust Modernization Commission (2007) Final Report and Recommendations 299-300, available at: http://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf.
- Araya Jasma, F. (2013) Derecho de la Libre Competencia, *Revista Chilena de Derecho Privado* 21, 433-445.
- Arlen, J. (1994) The Potentially Perverse Effects of Corporate Criminal Liability *The Journal of Legal Studies* 23, 833-867.
- Arnull, A. (2003) From Charter to Constitution and beyond: Fundamental Rights in the new European Union, *Public Law* Winter, 774
- Aubert, C., Rey, P. and Kovacic, W. E. (2006) The impact of leniency and whistle-blowing programs on cartels, *International Journal of Industrial Organization*, 24(6), 1241-1266.
- Bageri, V., Katsoulacos, Y. and Spagnolo, G. (2013) The Distortive Effects of Antitrust Fines Based on Revenue. *The Economic Journal*, 123 (572), 545-557.
- Baker, J. and Rubinfeld, D.L. (1999) Empirical Methods in Antitrust Litigation: Review and critique, *American Law and Economics Review* 1, 386-435
- Barbier de la Serre, E. and Lagathu, E. (2013) The Law on Fines Imposed in EU Competition proceedings: Faster, Higher, harsher *Journal of Competition Law & Practice* 4(4), 325-344.
- Bechtold, R. (2010) *GWB - Kommentar* 6th Ed. Munich: C.H. Beck. § 81, para. 34.
- Becker, G.S. (1968) Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76, 169-217.
- Becker, G.S. and Stigler, G., (1974) Law enforcement, malfeasance, and compensation of enforcers *Journal of Legal Studies*, 3, 1-18.

- Bos, I. and M.P. Schinkel (2006) On the Scope for the European Commission's 2006 Fining Guidelines under the Legal Maximum Fine. *Journal of Competition Law and Economics* 2, 673-682.
- Breyer, S. (1988) The Federal Sentencing Guidelines and the key compromises upon which they rest, *Hofstra Law Review* 17(1) 1-50.
- Bryant, P.G., E.W. Eckard (1991) Price Fixing: The Probability of Getting Caught. *The Review of Economics and Statistics* 73, 531-536.
- Buccirossi, P. and Spagnolo, G. (2007) Optimal Fines in the Era of Whistleblowers - Should Price Fixers Still Go to Prison? in Goshal, V. and Stennek, J. (Eds.) *The Political Economy of Antitrust*, Elsevier: Amsterdam.
- Burca, de, G. (1993) The Principle of Proportionality and its Application in EC Law, *Yearbook of European Law* 13, 105.
- Burca, de, G. (1993) The Principle of Proportionality and Its Application in EC Law. 13 *Yearbook of European Law* 105.
- Byrne, C., Hessick, A. (2014) Critical Review of the Sentencing Commission's Recent Recommendations to Strengthen the Guidelines' System. *Houston Law Review* 51(5) 1335, 1337.
- Camesasca, P., Ywesyn, J. Weck, T. and Bowman, B. (2013) Cartel Appeals to the Court of Justice: the Song of the Sirens?, *Journal of European Competition Law & Practice* 4(3), 215.
- Camilli, E.L. (2006) Optimal Fines in Cartel Cases and the Actual EC Fining Policy *World Competition: Law & Economics Review*, 29, 575-605.
- Canor, I. (2000) Primus inter pares. Who is the ultimate guardian of Fundamental Rights in Europe, *European Law Review* 25, 3.
- Chen, J. and Harrington, J.E (2007), The Impact of the Corporate Leniency Program on Cartel Formation and the Cartel Price Path in Goshal, V. and Stennek, J. (Eds.) *The Political Economy of Antitrust*, Elsevier: Amsterdam, 59–80.
- Chen, Z. and Rey, P. (2013) On the Design of Leniency Programs *Journal of Law and Economics*, 56(4) 917 – 957.
- Choi, J. P. and Gerlach, H. (2012) Global cartels, leniency programs and international antitrust cooperation, *International Journal of Industrial Organization*, 30(6), 528-540.
- Clemens, G. and Rau, H.A (2014) Do Leniency Policies Facilitate Collusion? Experimental Evidence *Dusseldorf Institute for Competition Economics, Working Paper* No 130.
- Combe, E. and Monnier, C. (2007), Cartel Profiles in the European Union, *Concurrences* N° 3-2007, 181-189.
- Combe, E. and Monnier, C. (2011) Fines Against Hard Core Cartels in Europe: The Myth of Over Enforcement, *Antitrust Bulletin* 56, 235.
- Connor, J.M (2001) Our Customers Are Our Enemies: The Lysine Cartel of 1992–1995, *Review of Industrial Organization*, 18(1), 5-21

- Connor, J.M (2003) Private International Cartels: Effectiveness, Welfare, and Anticartel Enforcement *Purdue University, College of Agriculture, Department of Agricultural Economics*, Working Papers 03-12.
- Connor, J.M (2006) Effectiveness of Antitrust Sanctions on Modern International Cartels *Journal of Industry, Competition, and Trade*, 6, 195–223.
- Connor, J.M. (2010) Recidivism Revealed: Private International Cartels, 1990-2009. *Competition Policy International* 101.
- Connor, J.M (2014) Price-Fixing Overcharges Working Paper, 3rd edition of Price-fixing Overcharges: Legal and Economic Evidence, in Zerbe, R.O and Kirkwood, J.B. (ed.) *Research in Law and Economics* Emerald Group Publishing Limited.
- Connor, J.M. and R. H. Lande (2005) How High Do Cartels Raise Prices: Implications for Optimal Cartel Fine, *Tulane Law Review* 80, 513- 570.
- Connor, J.M and Lande, R.H (2006) The Size of Cartel Overcharges: Implications for U.S. and E.U. Fining Policies, *The Antitrust Bulletin* 51, 983-1022.
- Connor, J.M and Lande, R.H (2008) Cartel Overcharges and Optimal Cartel Fines in S.W. Waller (ed) *Issues in Competition Law and Policy, ABA Section of Antitrust Law*, 3, 2203-2218.
- Connor, J.M. and Lande, R.H. (2012) Cartels As Rational Business Strategy: New Data Demonstrates that Crime Pays, mimeo.
- Cooter, R. and Ulen, T. (2007) *Law and Economics*, Addison Wesley Longman.
- Costello, C. (2006) The Bosphorus ruling of the European Court of Human Rights: fundamental rights and blurred boundaries in Europe, *Human Rights Law Review* 6, 87.
- Craycraft, J. L., Craycraft C. and Gallo, J. C. (1997), Antitrust Sanctions and a Firm's Ability to Pay *Review of Industrial Organization* 12, 171-183.
- Dannecker, G. and Biermann, J. (2007) in Immenga, U. and Mestmäcker, E.-J. (eds) *GWB Kommentar*, 4th edn., Munich: C.H. Beck.
- ECA Working Group on Sanctions (2008) *Pecuniary Sanctions Imposed on Undertakings for Infringements of Antitrust Law. Principles for Convergence*, available at http://www.autoritedelaconurrence.fr/doc/eca_principles_uk.pdf.
- Eichenwald, K. (2000) *The Informant: a True Story*, Broadway Books.
- Elhauge, E. (2009) Disgorgement as an Antitrust Remedy, *Antitrust Law Journal* 76, 79-95.
- EU (2006) Guidelines on the Method of Setting Fines Imposed Pursuant to Article 23(2)(a) of Regulation no 1/2003, Official Journal of the European Union (2006/C 210/02), Brussels.
- Farrell, I.P. (2009) Gilbert & Sullivan and Scalia: Philosophy, Proportionality and the Eighth Amendment *ExpressO*.
- First, H. (2009) The Case for Antitrust Civil Penalties *Antitrust law Journal* 76, 127.
- Fish, M. (2008) An Eye for an Eye: Proportionality as a Moral Principle of Punishment. *Oxford Journal of Legal Studies*. 28, 57-71.

Forwood, N. (2011) The Commission's 'More Economic Approach – Implications for the Role of the EU Courts, the Treatment of Economic Evidence and the Scope of Judicial Review in Marquis, M. and Ehlermann, C.-D. (eds.), *EUI Competition Law Annual 2009*, Oxford: Hart Publishing, 255.

Frank, N. and Lademann, R.P. (2010) Economic Evidence in Private Damage Claims: What Lessons can be Learned from the German Cement Cartel Case? *Journal of European Competition Law & Practice* 1(4), 360-366.

Freed, D. (1992) Federal Sentencing in the Wake of Guidelines: Unacceptable Limits on the Discretion of Sentencers, *Yale Law Journal* 101, 1681.

Frese, M.J (2011) Fines and Damages under EU Competition Law: Implications of the Accumulation of Liability *World Competition* 34(3), 397-432.

Friederiszick W. and Röller, L.-H. (2010) Quantification of harm in damages actions for antitrust infringements: insights from German cartel cases *Journal of Competition Law & Economics* 6(3), 595-618

Froeb, L.M., Koyak, R. A. and Werden, G. J. (1993) What is the effect of bid-rigging on prices? *Economics Letters* 42(4) 419-423.

Gardner, J. (2011) What is Tort Law For? Part 1. The Place of Corrective Justice. *Law and Philosophy*, 30, 1- 50.

Geradin, D. (2013) Antitrust Compliance Programmes & Optimal Antitrust Enforcement: A Reply to Wouter Wils, *Journal of Antitrust Enforcement* 1(2) 325-346.

Geradin, D. and Petit, N. (2010) Judicial Review in European Union Competition Law: A Quantitative and Qualitative Assessment, *TILEC Discussion Paper No. 2011-008*, *Tilburg Law School Research Paper No. 01/201*.

Ginsburg, D.H. and Wright, J.D. (2010) Antitrust Sanctions, *Competition Policy International* 3, 15.

Hammond, S.D. Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice (Nov. 3, 2005) Statement on Behalf of the United States Department of Justice, Before the Antitrust Modernization Commission Hearings on Criminal Remedies, available at <http://www.justice.gov/atr/public/testimony/othertestimony.html>.

Harrington, J. (2004) Cartel Pricing Dynamics in the Presence of an Antitrust, Authority *The Rand Journal of Economics* 35, 651-673.

Harrington, J. (2005) Optimal Cartel Pricing in the Presence of an Antitrust Authority. *International Economic Review* 46, 145-170.

Harrington, J. (2008) Optimal Corporate Leniency Programs *Journal of Industrial Economics*. 56(2), 215-246.

Harrington, J. (2010) Comment on Antitrust Sanctions, *Competition Policy International* 6, 41-51.

Hausfeld, M., Lehmann, M. and Jones, M. (2009) Observations from the Field: ACPERA's First Five Years. *Sedona Conference Journal* 10, 95.

Heimler, A. and Mehta, K. (2012) Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence, *World Competition* 35 (1), 103–119.

- Houba, H., Motchenkova E., Wen, Q. (2010), Antitrust Enforcement with Price-Dependent Fines & Detection Probabilities, *Economics Bulletin*, 30 (3), 2017-2027.
- Houba, H., Motchenkova E., Wen, Q. (2011) Antitrust Enforcement & Marginal Deterrence. *TinbergenInstitute Discussion Paper 11-166/1*.
- Houba, H., Motchenkova, E. and Wen, Q. (2012) Competitive Prices as Optimal Cartel Prices, *Economics Letters* 114, 39-42.
- Houba, H, Motchenkova, E., Wen, Q. (2013) Legal Principles in Antitrust Enforcement. *Tinbergen Institute Discussion Paper*, TI 2013-178/II.
- Houba, H., Motchenkova, E. and Wen, Q. (2014) The Role of Legal Principles in the Economic Analysis of Competition Policy forthcoming in Peitz, M. and Spiegel, Y. (eds) *Analysis of Competition Policy and Sectoral Regulation*, Now Publishers Inc. Boston-Delft 389-422.
- Hovenkamp, H. (1989) Antitrust's Protected Classes. *Michigan Law Review*, 88, 1-48.
- Hüschelrath, K. and Peyer, S., (2013) Public and Private Enforcement of Competition Law - A Differentiated Approach (2013) *ZEW - Centre for European Economic Research Discussion Paper No. 29*.
- ICN Cartel Working Group (2008), *Setting of Fines for Cartels in ICN Jurisdictions*, available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc351.pdf>.
- Jacobs, F.G. (1999) Recent Developments in the Principle of Proportionality in EC Law. In Ellis, E. (Ed.) *The Principle of Proportionality in the Laws in Europe*, Hart Publishing, United Kingdom.
- Jensen, S., L. Sorgard (2012) Enforcement with Heterogeneous Cartels. *Working paper 14/12, Institute for Research in Economics and Business Administration, Norway*.
- Jensen, S., L. Sorgard (2014) Fine Schedule with Heterogeneous Cartels: Are the Wrong Cartels Deterred? mimeo, *Institute for Research in Economics and Business Administration, Norway*.
- Kaplow, L. (1986) Private versus social costs in bringing suit *Journal of Legal Studies*, 15, 371-385.
- Katsoulacos, Y. and Ulph, D. (2013) Antitrust Penalties and the Implications of Empirical Evidence on Cartel Overcharges. *The Economic Journal* 123 (572), 558-581.
- Katsoulacos, Y., Motchenkova, E. and Ulph, D. (2014), Penalizing Cartels: The Case for Basing Penalties on Price Overcharge, mimeo.
- Kauper, R. and Langenfeld J. (2011) The Potential Role of Civil Antitrust Damage Analysis in Determining Financial Penalties in Criminal Antitrust Cases, *George Mason L. Rev* 18(4) 953-986.
- Kauper, T. and Snyder, E. (1986) An Inquiry into the Efficiency of Private Antitrust Enforcement: Follow-on and Independently Initiated Cases Compared *Georgetown Law Journal* 74, 1163-1230.
- Khan, N. (2012) *Kerse & Khan on EU Antitrust Procedure*, London: Sweet & Maxwell , 6th edition.
- Kloub, J. (2009) White paper on Damage Actions for Breach of the EC Antitrust Rules: Plea for a more Holistic Approach to Antitrust Enforcement *European Competition Journal* 5, 515-547.
- Koch, C.H. (1986) Judicial Review of Administrative Discretion *George Washington Law Review*, 54 (4), 469-511.

- Komninos, A.P. (2006) Public and Private Antitrust Enforcement in Europe: Complement? Overlap? *Competition Law Review* 3(1), 5-26.
- Kurgonaite, E. (2013) Interview with Andreas Mundt, *ABA-Section of Antitrust Law/International Committee, International Antitrust Bulletin* 1, 2.
- Laguna de Paz, J.C. (2014) Understanding the limits of judicial review in European Competition Law, *Journal of Antitrust Enforcement* 2(1), 203-224.
- Landes, W. M. and Posner, R.A (1975) The Private Enforcement of law *Journal of Legal Studies* 4, 1-15.
- Landes, W.M. (1983) Optimal Sanctions for Antitrust Violations. *The University of Chicago Law Review*. 50, 652-678.
- Lefouili, Y. and Roux, C. (2012) Leniency programs for multimarket firms: The effect of Amnesty Plus on cartel formation *International Journal of Industrial Organization*, 30(6), 624-640.
- Lemmens, P. (2001) The relation between the Charter of Fundamental Rights of the European Union and the European Convention of Human Rights—Substantive aspects, *Maastricht Journal of European And Comparative Law* 8, 4.
- Lianos, I. and Geradin, D. (eds.) (2013), *Handbook in European Competition Law: Enforcement and Procedure*, Edward Elgar.
- Lianos, I. (2012), “Competition law remedies: in search of a theory“, in Lianos, I. and Sokol, D. (Eds.), *The Global Limits of Competition Law* (Stanford University Press) 177-204;
- Lianos, I. (2013) “Competition law remedies in Europe: Which Limits for Remedial Discretion?“, in Lianos, I., & Geradin, D. (Eds.), *Handbook in EU Competition Law* (Edward Elgar: Cheltenham), 362-455
- Lieber J.B., (2000) *Rats in the Grain: The Dirty Tricks and Trials of Archer Daniels Midland, the Supermarket to the World*, Basic Books
- Macrory, R. (2006) Regulatory Justice: Making Sanctions Effective, Final Report 29-31.
- Martin, S. (1999) *Industrial Economics*, Prentice Hall, New Jersey.
- McAfee, R.P. and Vakkur, N. (2004) The Strategic Abuse of the Antitrust Laws *Journal of Strategic Management Education* 1(3), 1-18.
- Menell, P.S. (1983) A note on private versus social incentives to sue in a costly legal system *Journal of legal Studies* 12 (1), 41-52.
- Mookherjee, D. and Png, I.P.L (1994) Marginal Deterrence in Enforcement of Law, *Journal of Political Economy* 102, 1039-1066
- Möschel, W. (2007) Should Private Enforcement of Competition Law Be Strengthened?, in Schmidtchen, D., Albert, M. and Voigt, S. (eds.) *The More Economic Approach to European Competition Law*, Mohr Siebeck 101-113.
- Motchenkova, E. (2004) Effects of Leniency Programs on Cartel Stability *Tilburg University, Center for Economic Research*, Discussion Paper 2004-98.

- Motchenkova, E. (2005) PhD Dissertation: Optimal enforcement of competition law, *CentER for Economic Research, Tilburg University, Dissertation Series*, ISBN 90 5668 151 6, NR. 151.
- Motchenkova, E. (2008) Determination of Optimal Penalties for Antitrust Violations in a Dynamic Setting. *European Journal of Operational Research* 189(1), 269-291.
- Motta, M. and Polo, M. (2003) Leniency Programs and Cartel Prosecution, *International Journal of Industrial Organization* 21, 347-379.
- Mutchik, J.H., Casamassina, C.T., Rogers, B.A. (June 2008) The Volume of Commerce Enigma. *The Antitrust Source* 1-10.
- Nieberding, J.F. (2006) Estimating overcharges in antitrust cases using a reduced-form approach: Methods and issues *Journal of Applied Economics* 9, 361-380.
- OECD (2002) Fighting Hard-Core Cartels: Harm, Effective Sanctions and Leniency Programs OECD Report 2002, OECD, Paris, France, <http://www.SourceOECD.org>.
- Ost, K. (2013) Die Regelung der Rechtsnachfolge und weitere Neuerungen im Kartellordnungswidrigkeitenrecht durch die 8. GWB-Novelle, in Bien, F. (ed) *Das deutsche Kartellrecht nach der GWB-Novelle* Baden-Baden: Nomos 2013, 305.
- Ost, K. (2014) From Regulation 1 to Regulation 2: National Enforcement of EU Cartel Prohibition and the Need for Further Convergence, *Journal of European Competition Law & Practice* 5(3), 125.
- Ovey, C. and White, R.C.A (2002) *Jacobs and White European Convention on Human Rights*, 3rd Ed.,: Oxford University Press.
- Pate, R.H. Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice (Aug. 12, 2003) Vigorous & Principled Antitrust Enforcement: Priorities & Goals. Address Before the Antitrust Section of the ABA Annual Meeting, available at: <http://www.justice.gov/atr/public/speeches/201241.htm>.
- Pitofsky, R. (2002), Antitrust at the Turn of the Twenty-First Century: The Matter of Remedies *Georgetown Law Journal* 91, 169.
- Polinsky, A.M. (1980) Private versus public enforcement of fines *Journal of Legal Studies*, 9, 105-127.
- Polinsky, A. M. and Shavell, S. (2000) The Economic Theory of Public Enforcement of Law *Journal of Economic Literature* 38, 45-77.
- Polinsky, A.M. and Shavell, S. (2009) Public Enforcement of Law, in Durlauf, S. N. and Blume, L. E. (eds.), *The New Palgrave Dictionary of Economics*, Palgrave/Macmillan, 2nd ed., 178-188.
- Posner, R.A. (1976 & 2001 2d ed.), *Antitrust Law: An Economic Perspective*. Chicago: University of Chicago Press.
- Posner, R.A. (1981) The Concept of Corrective Justice in Recent Theories of Tort Law. *Journal of Legal Studies*, 10, 187–206.
- Renda, A. et al (2007) Making Antitrust Damages Actions More Effective in the EU: Welfare Impact & Potential Scenarios. *Report prepared for the European Commission*.
- Rey, P. (2003) Towards a Theory of Competition Policy. In M. Dewatripont, L. Hansen, S. Turnovsky, Eds. *Advances in Economics and Econometrics: Theory and Applications*. Cambridge University Press.

Romero Guzmán, J.J. (2012) Enforcement, Sanciones y Multas an el sistema de libre competencia Chileno in *La Libre Competencia en el Chile del Bicentenario*, Santiago: Centro de Libre Competencia UC – Thomson Reuters, 503-537.

Roseau, M. (2007) Panorama des procédures d'appel contre les décisions des ANC en Europe, *Concurrences* 2, 209-218.

Rosenberg, D. and Sullivan, J.P (2005) Coordinating Private Class Action and Public Agency Enforcement of Antitrust Law *Harvard Law and Economics Discussion paper* 523.

Sauter, W. (2013) Proportionality in EU law: A Balancing Act? *TILEC Discussion Paper* No. 2013-003.

Schermers, H.G. (1999) *Matthews v United Kingdom*, judgment of 18 February 1999 *Common Market Law Review* 36, 673.

Schwarze, J. (2006) European Administrative Law. Office for Official Publications of the European Communities.

Schweitzer, H. (2013) Judicial Review in EU Competition Law, in Lianos, I. and Geradin, D. (eds) *Handbook on European Competition Law*, Edward Elgar 537.

Segal, I. and Whinston, M. (2007) Public v. Private Enforcement of Antitrust Law: A Survey *European Competition Law Review* 28, 306-315.

Shavell, S. (1992) A Note on Marginal Deterrence, *International Review of Law and Economics* 12, 345-355.

Shavell, S. (1995) The Appeals Process as a Means of Error Correction *Journal of Legal Studies* 24, 379

Shavell, S. (1997) The Fundamental divergence between the private and the social motive to use the legal system *Journal of Legal Studies*, 26, 575-612.

Sokol, D. (2012) Cartels, corporate compliance, and what practitioners really think about enforcement *Antitrust Law Journal*, 78, 202

Spagnolo, G. (2004) Optimal Leniency Programs. CEPR Discussion Paper Series, Working Paper Number 4840, (revised 2008).

Spagnolo, G. (2004, revised 2008) Divide et Impera: Optimal leniency programs, *CEPR Discussion paper series, working paper number 4840*.

Sproul, M.F. (1993) Antitrust and Prices. *Journal of Political Economy*. 101(4) 741-755.

Stigler, G. (1970) The optimum enforcement of laws *Journal of Political Economy* 78, 526-536

Sullivan, E. and R.S. Frase (2008) *Proportionality Principles in American Law: Controlling Excessive Government Actions*, Oxford University Press.

Tapia, J. (2013) La aplicación de multas a agentes económicos en el Derecho Chileno de la Libre Competencia, Una propuesta Metodológica *Estudios Públicos* 132, 71-105.

Tapia, J. and Montt, S. (2012) Judicial Scrutiny and Competition Authorities: The Institutional Limits of Antitrust, in Lianos, I. and Sokol, D. (eds.) *The Global Limits of Competition Law*, Stanford University press.

- Thide, F. (2013) Judicial Policy Nullification of the antitrust Sentencing Guideline, *Boston College Law Review* 54(2), 861.
- Thomas, T.A. (2007) Proportionality & the Supreme Court's Jurisprudence of Remedies. *Hastings Law Journal* 59, 73.
- Tridimas, P.T. and Gari, G. (2010) Winners and Losers in Luxembourg: A statistical analysis of judicial review before the European court of Justice and the Court of First Instance (2001-2005) *European Law Review* 35(2), 131-173.
- Tridimas, T. (2006) *The General Principles of EC Law*, Oxford EC Law Library, Oxford University Press.
- Usher, J.A. (1998) *General Principles of EC Law*, European Law Series, Longman.
- USSG (2013) US Sentencing Guidelines (Chapter 8: Sentencing of Organizations), available at: <http://www.ussc.gov/guidelines-manual/guidelines-manual>.
- Veljanovski, C. (2007) Cartel Fines in Europe, 30(1) *World Competition* 65-86.
- Veljanovski, C. (2011) Deterrence, Recidivism, and European Cartel Fines, 7(4) *Journal of Competition Law & Economics* 871-915.
- Vesterdorf, B. (2005) Standard of Proof in Merger Cases, *European Competition Journal* 1(1), 3-33.
- Vesterdorf, B. (2009) The Court of Justice and Unlimited Jurisdiction: What does it mean in practice? *Antitrust Chronicle* 6.
- Völcker, S. (2007) Rough Justice? An Analysis of the European Commission's New Fining Guidelines. 44 *Common Market L.R.* 1285-1320.
- Vollmer, C. (2007) Die Bußgeldleitlinien des Bundeskartellamts. *Zeitschrift für Wettbewerbsrecht* (ZWeR) 168-181.
- Wagner- von Papp, F. (2005) The German Federal Court of Justice Rules on the Standard of Proof for the Existence of a Revenue Surplus from a Cartel Agreement (*Transportbeton Berlin*). Bulletin e-Competitions, Art. N° 467.
- Wagner- von Papp, F. (2011) What If All Bid Riggers Went to Prison and Nobody Noticed? – Cartel Criminalisation in Germany 157-182. In Beaton-Wells, C. & Ezrachi, A. (eds.). *Criminalising Cartels: Critical Studies of an Int'l Regulatory Movement*. Oxford: Hart Publishing, draft available *sub. nom. Criminal Antitrust Law Enforcement in Germany: 'The Whole Point is Lost If You Keep it a Secret! Why Didn't You Tell the World, Eh?'* at: SSRN: <http://ssrn.com/abstract=1584887>.
- Wagner-von Papp, F. (2013) Germany in Denozza, F. and Toffoletto, A. (eds), *International Encyclopedia of Laws: Competition Law*, Alphen aan den Rijn, NL: Kluwer Law International.
- Werden, G. and Simon, M. (1987) Why Price Fixers Should Go to Prison. *The Antitrust Bulletin* 32, 917-937.
- Werden, G. J. (2009) Sanctioning Cartel Activity: Let the Punishment Fit the Crime. *European Competition Journal* 5(1), 19-36.
- Werden, G., Hammond, S.D., Barnett, B.A. (2011) U.S. Dept. of Justice, Antitrust Div. Recidivism Eliminated: Cartel Enforcement in the United States Since 1999. Address Before the Georgetown

Global Antitrust Enforcement Symposium, available at:
<http://www.justice.gov/atr/public/speeches/275388.pdf>.

Wilde, L. (1992) Criminal Choice, Nonmonetary Sanctions, and Marginal Deterrence: A Normative Analysis. *International Review of Law and Economics* 12, 333-44.

Wils, W.P.J. (1998) The Commission's New Method for Calculating Fines in Antitrust Cases. 23(3) *European L. Rev.* 252-263.

Wils, W.P.J. (2003) Should Private Antitrust Enforcement be Encouraged in Europe? , *World Competition* 26(3), 473-488.

Wils, W.P.J. (2006) Optimal Antitrust Fines: Theory and Practice. *World Competition*, 29, 183.

Wils, W.P.J. (2007) The European Commission's 2006 Guidelines on Antitrust Fines: A Legal and Economic Analysis. 30(2) *World Competition* 197-230.

Wils, W.P.J. (2008) *Efficiency and Justice in European Antitrust Enforcement*, Hart Publishing.

Wils, W.P. J. (2009) The Relationship between Public Antitrust Enforcement and Private Actions for Damages, *World Competition* 32(1), 3-26.

Wils, W.P.J. (2010) The Increased Level of EU Antitrust Fines, Judicial review and the European Convention on Human Rights, *World Competition* 33(1), 1.

Wils, W.J.P. (2011) EU antitrust enforcement powers and procedural rights and guarantees: the interplay between EU law, national law, the Charter of Fundamental Rights of the EU and the European Convention on Human Rights, *World Competition* 34(2), 189-213

Wils, W.P.J. (2012) Recidivism in EU Antitrust Enforcement: A Legal and Economic Analysis. *World Competition*. 35(1) 5.

Wils, W.P.J (2013) Antitrust Compliance Programmes & Optimal Antitrust Enforcement, *Journal of Antitrust Enforcement* 1, 52-81.

Wils, W.P.J. (2014) The Compatibility with Fundamental Rights of the EU Antitrust Enforcement System in which the European Commission Acts both as Investigator and as First-Instance Decision Maker *World Competition* 37, 5.

Yomere, A. (2013) *Die Novellierung des Kartellbußgeldverfahrens Durch Die 8. GWB-Novelle*, WuW. 1187-1196.

Appendix 1: A Comparative Perspective

Although the design of an optimal financial penalties system depends on the economic circumstances prevailing in a jurisdiction and the institutional capabilities of the authorities in charge of competition law enforcement, we believe that a comparative analysis of the way other competition law regimes have proceeded in setting financial penalties for competition law infringements may provide useful insights. This is particularly the case, in view of the absence of any authoritative international source on this matter. Indeed, the *Recommendation of the OECD Council concerning effective action against hard core cartels* (1998) observed that “hard core cartels are the most egregious violations of competition law and that they injure consumers in many countries by raising prices and restricting supply, thus making goods and services completely unavailable to some purchasers and unnecessarily expensive for others”, and recommended Member countries of the OECD to provide for “effective sanctions, of a kind and at a level adequate to deter firms and individuals from participating in such cartels; and enforcement procedures and institutions with powers adequate to detect and remedy hard core cartels, including powers to obtain documents and information and to impose penalties for non-compliance”¹⁷⁸. Yet, the Recommendation of the Council did not offer clear guidance on the way the fine-setting process should be structured. In 2002, the OECD adopted a more lengthy report noting that “the principal purpose of sanctions in cartel cases is deterrence” and proceeding to a comparative analysis of the sanctions for cartel activity available in the OECD Member States¹⁷⁹. Yet again, the report did not provide a detailed account of how this fine-setting process should look like.

The cartel working group of the ICN has published a report in 2008 on *Setting of Fines for Cartels in ICN jurisdictions*, which also took a comparative approach describing the different national experiences and guidelines, although it also stayed short in providing recommendations for a model/optimal fine-setting system and methodology¹⁸⁰. ECA’s, the European Competition Authorities’ Association, Working Group on Sanctions also published in May 2008 *Principles for Convergence on Pecuniary sanctions imposed on undertakings for infringements of antitrust law* reflecting the general principles shared by the European Competition Authorities for the

¹⁷⁸ OECD (1998), Recommendation of the Council Concerning Effective Action Against Hard Core Cartels (Adopted by the Council at its 921st Session on 25 March 1998), C(98)35/FINAL, available at <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=193>

¹⁷⁹ OECD (2002), Fighting Hard Core Cartels: Harm, Effective Sanctions and Leniency Programmes, available at <http://www.oecd.org/competition/cartels/2474442.pdf>; See also, OECD (2003) Cartels Sanctions Against Individuals, available at <http://www.oecd.org/competition/cartels/34306028.pdf>.

¹⁸⁰ ICN Cartel Working Group (2008), *Setting of Fines for Cartels in ICN Jurisdictions*, available at <http://www.internationalcompetitionnetwork.org/uploads/library/doc351.pdf>.

determination of pecuniary sanctions¹⁸¹. All these documents may be consulted in the process of preparing guidelines.

A. European Union¹⁸²

1. Historical Background

The fining practice of the European Commission can be divided into four periods.

- In the first period (1962 until 1979), fines did not exceed 2 per cent of the fined undertaking's turnover.
- In the second period (1979-1998), the Commission, with the Court's approval, increased fines beyond this 2 per cent level to improve deterrence, but the average fine stayed low by today's standards. Between 1990 and 1994, the average fine per undertaking was still only approximately €2 million, and between 1995 and 1999, the average fine was still only approximately €6 million.
- In 1998, the Commission adopted the first generation of Fining Guidelines. Average fines per undertaking increased to €20 million between 2000 and 2004.
- In 2006, the Commission adopted the second generation of Fining Guidelines. Average fines per undertaking increased to €40 million between 2005 and 2009, and further to €50 million since 2010.

In the first two periods (1962-1998), the Commission's discretion was only guided by the statutory regime, according to which it is necessary to consider the gravity and duration of the infringement, and whether the infringement is committed negligently or intentionally (below I.). In the latter two

¹⁸¹ ECA Working Group on Sanctions, *Pecuniary Sanctions Imposed on Undertakings for Infringements of Antitrust Law. Principles for Convergence* (May 2008), available at http://www.autoritedelaconurrence.fr/doc/eca_principles_uk.pdf.

¹⁸² For literature on the fining policy and practice in the European Union generally, and under the 2006 Fining Guidelines in particular, see, e.g., Veljanovski, C. (2007) Cartel Fines in Europe. *World Competition*. 30(1), 65-86; Veljanovski, C. (2011) Deterrence, Recidivism, & European Cartel Fines. *Journal of Competition Law & Economics*. 7(4) 871-915; Völcker, S. (2007) Rough Justice? An Analysis of the European Commission's New Fining Guidelines. *Common Market L.Rev.* 44, 1285-1320; Wils, W. (2007) The European Commission's 2006 Guidelines on Antitrust Fines: A Legal and Economic Analysis. *World Competition* 30(2) 197-230; Khan, N. (2012) *Kerse & Khan on EU Antitrust Procedure*. Ch. 7. 6th Ed. London: Sweet & Maxwell.

periods, the Commission published Guidelines on the Setting of Fines that resulted in a certain self-binding effect, limiting the Commission's discretion. The first set of Fining Guidelines was published in 1998 (below II.). The current set of Fining Guidelines was published in 2006 (below, "DESCRIPTION OF THE CURRENT SYSTEM").

a. The first two periods (1962-1979; 1979-1998)

In the first two periods, fines were only constrained by the statutory provisions in Article 15 Regulation 17 of 1962,¹⁸³ the provision that was essentially the equivalent of today's Article 23

¹⁸³ Article 15 of Regulation 17 of 1962 provided:

Article 15 - Fines

1. The Commission may by decision impose on undertakings or associations of undertakings fines of from 100 to 5000 units of account where, intentionally or negligently:

(a) they supply incorrect or misleading information in an application pursuant to Article 2 or in a notification pursuant to Articles 4 or 5 ; or

(b) they supply incorrect information in response to a request made pursuant to Article 11 (3) or (5) or to Article 12, or do not supply information within the time limit fixed by a decision taken under Article 11 (5) ; or

(c) they produce the required books or other business records in incomplete form during investigations under Article 13 or 14, or refuse to submit to an investigation ordered by decision issued in implementation of Article 14 (3).

2. The Commission may by decision impose on undertakings or associations of undertakings fines of from 1000 to 1 000 000 units of account, or a sum in excess thereof but not exceeding 10 % of the turnover in the preceding business year of each of the undertakings participating in the infringement where, either intentionally or negligently:

(a) they infringe Article 85 (1) or Article 86 of the Treaty; or

(b) they commit a breach of any obligation imposed pursuant to Article 8 (1).

In fixing the amount of the fine, regard shall be had both to the gravity and to the duration of the infringement.

3. Article 10 (3) to (6) shall apply.

4. Decisions taken pursuant to paragraphs 1 and 2 shall not be of a criminal law nature.

5. The fines provided for in paragraph 2 (a) shall not be imposed in respect of acts taking place:

(a) after notification to the Commission and before its decision in application of Article 85 (3) of the Treaty, provided they fall within the limits of the activity described in the notification;

(b) before notification and in the course of agreements, decisions or concerted practices in existence at the date of entry into force of this Regulation, provided that notification was effected within the time limits specified in Article 5 (1) and Article 7 (2).

6. Paragraph 5 shall not have effect where the Commission has informed the undertakings concerned that after preliminary examination it is of opinion that Article 85 (1) of the Treaty applies and that application of Article 85 (3) is not justified.

Regulation 1/2003.¹⁸⁴ Accordingly, in these first two phases the main principles in the setting of the fine for substantive competition law infringements were, pursuant to Article 15(2) Regulation 17 of

¹⁸⁴ Article 23 of Regulation 1/2003 provides:

Article 23 – Fines

1. The Commission may by decision impose on undertakings and associations of undertakings fines not exceeding 1 % of the total turnover in the preceding business year where, intentionally or negligently:

(a) they supply incorrect or misleading information in response to a request made pursuant to Article 17 or Article 18(2);

(b) in response to a request made by decision adopted pursuant to Article 17 or Article 18(3), they supply incorrect, incomplete or misleading information or do not supply information within the required time-limit;

(c) they produce the required books or other records related to the business in incomplete form during inspections under Article 20 or refuse to submit to inspections ordered by a decision adopted pursuant to Article 20(4);

(d) in response to a question asked in accordance with Article 20(2)(e),

- they give an incorrect or misleading answer,

- they fail to rectify within a time-limit set by the Commission an incorrect, incomplete or misleading answer given by a member of staff, or

- they fail or refuse to provide a complete answer on facts relating to the subject-matter and purpose of an inspection ordered by a decision adopted pursuant to Article 20(4);

(e) seals affixed in accordance with Article 20(2)(d) by officials or other accompanying persons authorised by the Commission have been broken.

2. The Commission may by decision impose fines on undertakings and associations of undertakings where, either intentionally or negligently:

(a) they infringe Article 81 or Article 82 of the Treaty; or

(b) they contravene a decision ordering interim measures under Article 8; or

(c) they fail to comply with a commitment made binding by a decision pursuant to Article 9.

For each undertaking and association of undertakings participating in the infringement, the fine shall not exceed 10 % of its total turnover in the preceding business year.

Where the infringement of an association relates to the activities of its members, the fine shall not exceed 10 % of the sum of the total turnover of each member active on the market affected by the infringement of the association.

3. In fixing the amount of the fine, regard shall be had both to the gravity and to the duration of the infringement.

4. When a fine is imposed on an association of undertakings taking account of the turnover of its members and the association is not solvent, the association is obliged to call for contributions from its members to cover the amount of the fine.

Where such contributions have not been made to the association within a time-limit fixed by the Commission, the Commission may require payment of the fine directly by any of the undertakings whose representatives were members of the decision-making bodies concerned of the association.

1962, (1) that the fines must not exceed 10 per cent of the annual turnover of each undertaking, (2) that they must take into account the gravity and duration of the infringement, and (3) whether the infringement was intentional or only negligent. In the first period, lasting up to the late 1970s, the level of fines imposed stayed below 2 per cent of the turnover.¹⁸⁵

The second period can be said to start in the late 1970s, when the Commission started to increase its fine level considerably. In *Pioneer Hi-Fi Equipment*,¹⁸⁶ the Commission imposed for the first time fines that exceeded 2 per cent of the turnover of the undertakings, and reached levels up to 4 per cent of the turnover.¹⁸⁷ The Commission argued that a policy of higher fines was adequate and necessary because:

many undertakings carry on conduct which they know to be contrary to Community law because the profit which they derive from their unlawful conduct exceeds the fines imposed hitherto. Conduct of that kind can only be deterred by fines which are heavier than in the past.¹⁸⁸

The Court of Justice approved of the Commission's considerations, and stated that:

in assessing the gravity of an infringement for the purpose of fixing the amount of the fine, the Commission must take into consideration not only the particular circumstances of the case but also the context in which the infringement occurs and must ensure that its action

After the Commission has required payment under the second subparagraph, where necessary to ensure full payment of the fine, the Commission may require payment of the balance by any of the members of the association which were active on the market on which the infringement occurred.

However, the Commission shall not require payment under the second or the third subparagraph from undertakings which show that they have not implemented the infringing decision of the association and either were not aware of its existence or have actively distanced themselves from it before the Commission started investigating the case.

The financial liability of each undertaking in respect of the payment of the fine shall not exceed 10 % of its total turnover in the preceding business year.

5. Decisions taken pursuant to paragraphs 1 and 2 shall not be of a criminal law nature.

¹⁸⁵ Cf. Judgment of the Court of 7 June 1983, Joined Cases 100 to 103/80 (*SA Musique Diffusion Française and others v Commission of the European Communities*) [1983] ECR 1825 at para. 103.

¹⁸⁶ Commission Decision No 80/256 of 14 December 1979 relating to a proceeding under Article 85 of the EEC Treaty (IV/29.595 — *Pioneer Hi-fi Equipment*), [1980] Official Journal L 60.

¹⁸⁷ Cf. Judgment of the Court of 7 June 1983, Joined Cases 100 to 103/80 (*SA Musique Diffusion Française and others v Commission of the European Communities*) [1983] ECR 1825 at para. 103.

¹⁸⁸ See the Commission's argument in Judgment of the Court of 7 June 1983, Joined cases 100 to 103/80 (*SA Musique Diffusion Française and Others v Commission of the European Communities*) [1983] ECR 1825 at para. 104.

has the necessary deterrent effect, especially as regards those types of infringement which are particularly harmful to the attainment of the objectives of the Community.¹⁸⁹

The Court explicitly approved of the Commission's reasoning that the persistence of infringing conduct could be an indication that the fines were not sufficiently deterrent, and that the Commission could therefore raise the level of fines to "*reinforce their deterrent effect*".¹⁹⁰ The Court did not accept the appellants' argument that the Commission was estopped by its previous practice from increasing the level of fines for the future: "[o]n the contrary, the proper application of the Community competition rules requires that the Commission may at any time adjust the level of fines to the needs of that policy."¹⁹¹

Nevertheless, fines even in the second of these two initial periods stayed relatively low compared to the levels reached after the introduction of Fining Guidelines in 1998. It appears that in cases predating the 1998 Fining Guidelines, it was the usual – though not invariable – practice of the Commission to set the fines no higher than at 10 per cent of the turnover achieved with the relevant product on the relevant geographic market.¹⁹² It has been noted that "[u]ntil the late 1980s, few fines had exceeded €1 million".¹⁹³ All of the ten highest cartel fines per undertaking since 1969 have been imposed after 2000.¹⁹⁴ As will be explained in greater detail below, average fines per undertaking rose from around €2 million per undertaking in the period 1990-1994, to approximately €6 million per undertaking in 1995-1999, and then steeply to some €20 million per undertaking in 2000-2004, €40 million in 2005-2009, and €50 million since 2009.

¹⁸⁹ Ibid., at para. 106.

¹⁹⁰ Ibid., at para. 108.

¹⁹¹ Ibid., at para. 109.

¹⁹² See the discussion in Judgment of the Court (Grand Chamber), 28 June 2005, Joined Cases C-189/02 P, C-205/02 P and C-213/02 P, *Dansk Rørindustri and others v Commission* [2005] ECR I-5425 paras 156-197, especially at paras 157-158, 176, 180-181.

¹⁹³ See Khan, *supra* note 18282, at § 7-053. A fine of more than €1 million per undertaking had first been imposed in *European Sugar Industry* (on Tirlémontoise), but it was reduced on appeal in *Suiker Unie v Commission*. Until the end of 1989 (inclusive), fines of more than €1 million were imposed in *Pioneer*, *Flat Glass Benelux*, *Peroxide Products*, *John Deere*, *Polypropylene*, *Meldoc*, *Hilti*, *British Sugar*, *British Plaster Board*, *Flat Glass*, *PVC*, *LdPE* (later annulled on appeal), and *Welded Steel Mesh*.

¹⁹⁴ See European Commission, Cartel Statistics, Section 1.6, <http://ec.europa.eu/competition/cartels/statistics/statistics.pdf>, reproduced below.

b. Fining Guidelines 1998

In 1998, the Commission adopted its first set of Fining Guidelines.¹⁹⁵

i. Summary of the 1998 Fining Guidelines

Under these Guidelines, the first step was to categorize the gravity of an infringement as “minor” (usually vertical agreements, limited market impact, limited geographic scope), “serious” (usually horizontal agreements, but also some abuses of dominant positions, wider market impact, wider geographic scope), or “very serious” (generally horizontal hardcore agreements, clear-cut abuses of a dominant position). The fine level (before adjustments) was between ECU 1,000 and ECU 1 million for minor infringements; between ECU 1 million and ECU 20 million for serious infringements; and above ECU 20 million for very serious infringements. Within these categories, the “effective economic capacity of offenders to cause significant damage to other operators” was to be taken into account, also allowing for a differentiation according to the specific weights of the offending conduct of each of several offenders participating in the same infringement.¹⁹⁶

This fine level was to be adjusted for the duration of the infringement in the following way: where the duration was “short” (usually shorter than 1 year), there was no adjustment; where the duration was “medium” (usually between 1 and 5 years), the fine would be increased by 50%; where the duration was “long” (longer than 5 years), the fine would be increased by 10% for each year. This factoring in of the duration was said to result in a “considerable strengthening of the previous practice”,¹⁹⁷ the 2006 Fining Guidelines led to a further strengthening of this aspect.¹⁹⁸

¹⁹⁵ Guidelines on the Method of Setting Fines Imposed pursuant to Article 15(2) of Regulation 17 and Article 65(5) of the ECSC Treaty, [1998] Official Journal C 9/3 (the “1998 Fining Guidelines”). On these Guidelines, see Wils, W. (1998) The Commission’s New Method for Calculating Fines in Antitrust Cases. *European Law Review* 23(3), 252-263.

¹⁹⁶ 1998 Fining Guidelines, section 1.A., paras 4 and 6. Cf. Judgment of the Court of First Instance (Fourth Chamber), 9 July 2003, Case T-224/00 (*Archer Daniel Midland v Commission*) [2003] ECR II-2597 at paras 187-196, where the Court of First Instance stated that, while the 1998 Fining Guidelines did not clearly state that the overall or relative turnover were to be factored in, they did not prohibit these factors to be taken into account, and concluding with respect to the relevant turnover: “[T]he proportion of turnover derived from the goods in respect of which the infringement was committed is likely to give a fair indication of the scale of the infringement on the relevant market. In particular, as the Court of First Instance has emphasised, the turnover in products which have been the subject of a restrictive practice constitutes an objective criterion which gives a proper measure of the harm which that practice causes to normal competition.” Case T-151/94 *British Steel v Commission* [1999] ECR II-629, paragraph 643, upheld in, Judgment of the Court (First Chamber), 18 May 2006, Case C-397/03 P, *Archer Daniel Midland v Commission* [2006] ECR I-4429 at paras 88-96).

¹⁹⁷ 1998 Fining Guidelines, section 1.B.

This basic amount – taking into account the gravity (minor/serious/very serious) and the duration (short/medium/long) – was then to be adjusted for aggravating or attenuating circumstances.¹⁹⁹

Finally, the 1998 Fining Guidelines applied the cap of 10% of the undertaking's annual worldwide turnover in the preceding accounting year, and took account of "certain objective factors such as a specific economic context, any economic or financial benefit derived by the offenders [...], the specific characteristics of the undertakings in question and their real ability to pay in a specific social context".²⁰⁰

ii. Legal Challenges to the 1998 Fining Guidelines

- Dansk Rørindustri (Pre-Insulated Pipes)

The Commission applied the 1998 Fining Guidelines, *inter alia*, in the *Pre-Insulated Pipes* cartel decision of 21 October 1998. The undertakings concerned appealed the Commission decision, among other things, on the basis that the application of the 1998 Fining Guidelines to cartel conduct that took place before the Fining Guidelines had been published infringed the undertakings' legitimate expectations and the principle of non-retroactivity, and that the method of setting the fine in the 1998 Fining Guidelines was incompatible with Article 15(2) of Regulation 17 of 1962.

The Court of First Instance rejected these arguments, and in *Dansk Rørindustri*, the Grand Chamber of the Court of Justice affirmed.²⁰¹ The Court reasoned that the principle of legitimate expectations

¹⁹⁸ See *infra*, text accompanying notes 469-472.

¹⁹⁹ 1998 Fining Guidelines, section 2 and 3. Section 2 mentions, in a non-exhaustive list of aggravating circumstances: recidivism, refusal to cooperate or obstruction of investigations, leadership or being the instigator, retaliation against other undertakings to enforce the infringement, and the need to increase the penalty in order to skim off the gains improperly made as a result of the infringement. Section 3 mentioned, in a non-exhaustive list of attenuating circumstances, "passive or 'follow-my-leader' role", non-implementation, termination as soon as the Commission intervenes, "existence of reasonable doubt ... as to whether the restrictive conduct does indeed constitute an infringement"; "infringements committed as a result of negligence or unintentionally", and effective cooperation outside the scope of the Leniency Notice. The reference to "unintentional" infringements beside negligent infringements is slightly puzzling, because fines under Article 15 Regulation 17 of 1962 (and under Article 23 Regulation 1/2003) can only be imposed for intentional or negligent infringements. The 2006 Guidelines (*infra* 211) now only mention negligence as a mitigating factor, para. 29.

²⁰⁰ 1998 Fining Guidelines, section 5 (a) and (b).

²⁰¹ Judgment of the Court (Grand Chamber), 28 June 2005, Joined Cases C-189/02 P, C-205/02 P and C-213/02 P, *Dansk Rørindustri & Others v Commission*, [2005] ECR I-5425 paras 156-233.

was not infringed by the change in the method of calculation, because the Commission had wide discretion in setting the fine within the statutory limit of 10 per cent of the annual worldwide turnover of the undertaking. It pointed to its 1983 judgment in *Musique Diffusion Française* to show that it must have been clear to the parties that the Commission is free to modify its fining practice “if that is necessary to ensure to the implementation of the Community competition rules”.²⁰²

The undertakings also submitted the argument that the undertakings had legitimate expectations as to the pre-existing fining practice of calculating the fine because they had relied on this practice when applying for leniency and cooperating under the leniency programme. The Court rejected this argument as well, arguing that the only legitimate expectation to be formed under the leniency programme was as to the percentage of the reduction of the fine for the cooperation, not to the level of the fines.²⁰³

The Court also rejected the plea alleging an infringement of the principle of non-retroactivity. In this context, it explained the effect of Guidelines in the following way:

[A]lthough those measures may not be regarded as rules of law which the administration is always bound to observe, they nevertheless form rules of practice from which the administration may not depart in an individual case without giving reasons that are compatible with the principle of equal treatment.

[...]

In adopting such rules of conduct and announcing by publishing them that they will henceforth apply to the cases to which they relate, the institution in question imposes a limit on the exercise of its discretion and cannot depart from those rules under pain of being found, where appropriate, to be in breach of the general principles of law, such as equal treatment or the protection of legitimate expectations. It cannot therefore be precluded that, on certain conditions and depending on their content, such rules of conduct, which are of general application, may produce legal effects.²⁰⁴

²⁰² Ibid., at paras 169-175, quotation in para. 169.

²⁰³ Ibid., at paras 182-197, in particular paras 188 and 191.

²⁰⁴ Ibid., at paras 209, 211. See also Judgment of the Court (First Chamber), 18 May 2006, Case C-397/03 P, *Archer Daniel Midland v. Commission* [2006] ECR I-4429 at para. 91; Judgment of the Court (Second Chamber), 8 December 2011, Case C-272/09 P (*KME Germany v Commission*) [2011] ECR I-12789 para. 100.

The Court then, again, relied on *Musique Diffusion Française* to show that the change of the fining practice within the legal limit established in Article 15 of Regulation 17 of 1962 was reasonably foreseeable for the undertakings and therefore did not infringe the principle of non-retroactivity.²⁰⁵

The Court further considered the method for setting the fines in the 1998 Fining Guidelines to be compatible with the statutory requirements that the fine be based on the gravity and duration of the infringement and the turnover of the undertakings concerned. With regard to the total and relevant turnover to be taken into account to determine the gravity of the infringement, the Court explained that

it is permissible, for the purpose of fixing the fine, to have regard both to the total turnover of the undertaking, which gives an indication, albeit approximate and imperfect, of the size of the undertaking and of its economic power, and to the proportion of that turnover accounted for by the goods in respect of which the infringement was committed, which gives an indication of the scale of the infringement. On the other hand, it follows that it is important not to confer on one or the other of those figures an importance disproportionate in relation to the other factors and, consequently, that the fixing of an appropriate fine cannot be the result of a simple calculation based on the total turnover. That is particularly the case where the goods concerned account for only a small part of that figure (see *Musique Diffusion française and Others v Commission*, paragraph 121, and Case 322/81 *Michelin v Commission* [1983] ECR 3461, paragraph 111).²⁰⁶

The Court considered the 1998 Fining Guidelines to give the Commission sufficient flexibility to take account of all the relevant factors for determining the fine.²⁰⁷ In particular, the Court rejected the argument by the applicants that the absolute brackets led to a basic amount of the fine that exceeded, for small and medium sized enterprises, the 10% of the total annual turnover threshold even before the duration and aggravating circumstances were taken into account, so that for these undertakings the fine was predetermined entirely by the basic amount and was no longer specific to the offence and the offender.²⁰⁸

²⁰⁵ *Dansk Rørindustri*, *supra* note 192, at paras 198-233, in particular paras 227-232.

²⁰⁶ *Ibid.*, at para. 243. See also Judgment of the Court (First Chamber), 18 May 2006, Case C-397/03 P, *Archer Daniel Midland v Commission* [2006] ECR I-4429 at para. 100.

²⁰⁷ *Dansk Rørindustri*, *supra* note 192, at paras 238-269, in particular 266-267.

²⁰⁸ *Ibid.*, at paras 272-289, 322-323, 346. From a comparative perspective, it should be noted that exactly this argument prevailed before the German Federal Court of Justice in the *Grauzement* judgment, so that in Germany the 10% total worldwide annual turnover threshold is interpreted not as a cap (as it is under EU law), but as the *maximum fine*. See the description in the National Report on Germany. It may be that the European Courts are opening up to this line of argument as well in the context of the 2006 Fining Guidelines. See

The Court further rejected the argument that the Commission is obliged (rather than merely authorized) to take into account the undertaking's ability to pay. The Court accepted that the

Court of First Instance correctly held at that paragraph [scil.: paragraph 308 of the LR AF 1998 v Commission judgment] that the Commission is not required, when determining the amount of the fine, to take into account the poor financial situation of an undertaking concerned, since recognition of such an obligation would be tantamount to giving an unjustified competitive advantage to undertakings least well adapted to the market conditions (see, to that effect, Joined Cases 96/82 to 102/82, 104/82, 105/82, 108/82 and 110/82 *IAZ v Commission* [1983] ECR 3369, paragraphs 54 and 55).²⁰⁹

- Archer Daniel Midland

In *Archer Daniel Midland* the applicants complained, among other things, that the fine imposed under the 1998 Fining Guidelines reached 115 per cent of the relevant turnover in the final year of the infringement, and that this breached the principle of proportionality. The Court rejected this argument by pointing out that the danger of disproportionality was precisely the reason for the cap of 10 per cent of the total turnover; fines below this level were not to be considered disproportionate merely because of their high level.²¹⁰

Judgment of the General Court, 16 June 2011, Case T-211/08, *Putters International v Commission* [2011] ECR II-3729 where the General Court stated (*at para. 75*) that:

In the context of the 2006 Guidelines, the application of the 10% ceiling laid down in Article 23[2] of Regulation No 1/2003 is now the rule rather than the exception for any undertaking which operates mainly on a single market and has participated in a cartel for over a year. In that case, any distinction on the basis of gravity or mitigating circumstances will as a matter of course no longer be capable of impacting on a fine which has been capped in order to be brought below the 10% ceiling. The failure to draw a distinction with regard to the final fine that results presents a difficulty in terms of the principle that penalties must be specific to the offender and to the offence, which is inherent in the new methodology. It may require the Court to exercise fully its unlimited jurisdiction in those specific cases where the application of the 2006 Guidelines alone does not enable an appropriate distinction to be drawn. In the present case, however, the Court finds that this is not the case (see also, in that regard, paragraphs 81 et seq. below).

²⁰⁹ *Ibid*, *at para. 327*.

²¹⁰ Judgment of the Court (First Chamber), 18 May 2006, Case C-397/03 P, *Archer Daniel Midland v Commission* [2006] ECR I-4429 *at* 100-106.

2. Description of the Current System

a. Overview Fining Guidelines 2006

In 2006, the Commission revised the fining guidelines to their current version.²¹¹ The 2006 Fining Guidelines are to be applied “*in all cases where a statement of objections is notified after their date of publication in the Official journal [...]*.”²¹²

At an abstract level, the setting of the fine under the 2006 Fining Guidelines proceeds in a similar steps as the 1998 Fining Guidelines: In a first step, a basic amount is calculated,²¹³ which is then, in a second step, adjusted, primarily according to aggravating or mitigating circumstances,²¹⁴ but also to ensure a deterrent effect.²¹⁵ Subsequently, the statutory cap of 10% of the turnover will be applied if necessary,²¹⁶ and, if applicable, any reductions under the leniency programme²¹⁷ and/or the settlement procedure²¹⁸ will be applied. Finally, the Commission may take account of the undertaking’s inability to pay the fine.²¹⁹

Despite this apparent similarity to the 1998 Fining Guidelines, however, the 2006 Fining Guidelines differ significantly, first, in the way in which the basic amount is calculated – namely, the value of sales is now (again) the starting point –, and secondly in the way in which the duration is taken into account –, namely, by multiplying the basic amount by the number of years of duration, rather than merely adjusting the basic amount. The 2006 Fining Guidelines now also quantify the adjustment for

²¹¹ Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation 1/2003, [2006] Official Journal C 210/2 (the “2006 Fining Guidelines”). See, e.g., Völcker, *supra* n.182 at 1285-1320; Wils, *supra* n.130 at Ch. 4; Khan, *supra* n.182 at paras 7-055 to 7-250.

²¹² Para. 38 of the 2006 Fining Guidelines.

²¹³ Paras 10, 12-26 of the 2006 Fining Guidelines.

²¹⁴ Paras 11, 27 with 28 and 29, respectively, of the 2006 Fining Guidelines.

²¹⁵ Paras 30 (specific increase for undertakings with a particularly large turnover outside the relevant value of sales) and 31 (increase to skim off gains improperly made as a result of the infringement) of the 2006 Fining Guidelines.

²¹⁶ Paras 32, 33 of the 2006 Fining Guidelines.

²¹⁷ Para. 34 of the 2006 Fining Guidelines in combination with the Leniency Notice.

²¹⁸ The settlement procedure was only introduced in 2008, so that the 2006 Fining Guidelines do not mention this possibility. Commission Regulation (EC) No 622/2008 of 30 June 2008 amending Regulation (EC) No 773/2004, as regards the conduct of settlement procedures in cartel cases, [2008] Official Journal L 171/3; Commission Notice on the conduct of settlement procedures in view of the adoption of Decisions pursuant to Article 7 and Article 23 of Council Regulation (EC) No 1/2003 in cartel cases, [2008] Official Journal C 167/1.

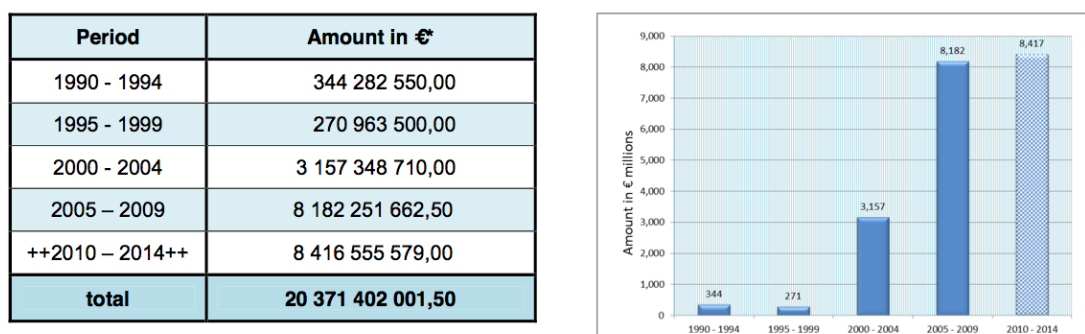
²¹⁹ Para. 35 of the 2006 Fining Guidelines. See also the Information Note by Mr. Joaquín Almunia, Vice-President of the Commission, and by Mr. Janusz Lewandowski, Member of the Commission, Inability to Pay under paragraph 35 of the 2006 Fining Guidelines and Payment Conditions Pre- and Post-Decision Finding an Infringement and Imposing Fines, SEC(2010) 737/2 of 12 June 2010. See below Section VI.

recidivism, which may be “up to 100%” of the basic amount for *each* previous infringement sufficiently similar to the one being fined (although it should be noted from the outset that the actual increases for recidivism are much lower). The General Court has considered the 2006 Fining Guidelines to be “*a fundamental change in the methodology for setting fines*”.²²⁰

b. Fining Practice

As mentioned previously, the introduction of the 1998 Fining Guidelines and the 2006 Fining Guidelines have led to a considerable increase in the fines imposed by the Commission.

The amount of total fines imposed (adjusted for Court judgments) in 5-year brackets since 1990 is illustrated in Figure 4 below.



* Amounts corrected for changes following judgments of the Courts (General Court and European Court of Justice) and only considering cartel infringements under Article 101 TFEU (previously Article 81 resp. Article 85 of the Treaty). Wherever prohibitions and fines concern infringements of Article 101 TFEU (previously Article 81 resp. Article 85 and of Article 102 TFEU (previously Articles 82 resp. Article 86 of the Treaty), only those amounts have been considered which concern the Article 101 TFEU infringements.

Figure 4: Fines for infringements of Article 101 TFEU imposed by the European Commission 1990-2014, adjusted for Court Judgments; source: <http://ec.europa.eu/competition/cartels/statistics/statistics.pdf> (last updated 2 April 2014)

This increase in the total amount of fines is nearly exclusively due to an increase of the average fine per undertaking, rather than an increased number of fined undertakings. The number of fined undertakings has remained relatively stable²²¹ despite the increased number of cartel cases since the introduction of the Leniency Programmes.²²²

²²⁰ Judgment of the General Court (Eighth Chamber), 16 June 2011, Case T-199/08, *Ziegler SA v Commission*, [2011] ECR II-3507, para. 91, upheld on appeal, Judgment of the Court 11 July 2013, Case C-439/11 P, *Ziegler SA v Commission* [2013] ECR I-000 (*but see* *ibid.*, para. 111, adding that this fact did not justify the conclusion the General Court drew at para. 92 that the Commission’s obligation under the 2006 Fining Guidelines to state reasons was therefore more onerous).

²²¹ Between 1990 and 1994 (inclusive), cartel fines were imposed on 185 undertakings/associations; between 1995 and 1999 (inclusive), 45 undertakings/associations were fined for cartel participation; between 2000 and 2004 (inclusive), 157 undertakings/associations were fined for cartel participation; between 2005 and 2009

Average fines per undertaking have now reached approximately €50 million. Dividing the total fines imposed on cartels, as represented in Figure 4 (above), by the number of fined undertakings (or associations) in the relevant periods²²³ yields the following average cartel fines per undertaking for the respective periods:²²⁴

1990-1994:	€1,860,986.76
1995-1999:	€6,021,411.11
2000-2004:	€20,110,501.34
2005-2009:	€39,913,422.74
++2010-2014++:	€50,398,536.40

The change from the average fine in the period 2000-2004 to the average fine in the periods 2005-2009 and 2010-2014 seems to bear out *Veljanovski's* prediction that fines under the 2006 Fining Guidelines were likely to double compared to the 1998 Fining Guidelines.²²⁵

The ten highest cartel fines per undertaking since 1969, as of 31 March 2014, are listed in Figure 5.

(inclusive), 205 undertakings/associations were fined for cartel participation; between 2010 and 2014 (inclusive until 2 April 2014), 167 undertakings/associations were fined for cartel participation. Source: European Commission, Cartel Statistics, <http://ec.europa.eu/competition/cartels/statistics/statistics.pdf>, section 1.8.

²²² In each of the periods 1990-1994 and 1995-1999, the Commission issued 10 cartel decisions. In the period 2000-2004, 30 cartel decisions were issued, in the period 2005-2009, 34 cartel decisions were issued, and in the current period since 2010, 25 decisions have been issued so far (as of 2 April 2014). See European Commission, Cartel Statistics, <http://ec.europa.eu/competition/cartels/statistics/statistics.pdf>, Section 1.10.

²²³ *Supra* note 222.

²²⁴ Note that these numbers do not appear to have been adjusted for inflation.

²²⁵ *Veljanovski, supra* n.182 at 81-84. It should be noted, however, that *Veljanovski* used very strict assumptions (30 per cent of the value of sales for all very serious infringements, entry fee of 25 per cent), whereas the actual practice to date seems to be to use percentages between 15-20 per cent for both the value of sales and the entry fee.

Year	Undertaking**	Case	Amount in €*
++2008++	Saint Gobain	Car glass	715 000 000
2012	Philips	TV and computer monitor tubes	705 296 000 of which 391 940 000 jointly and severally with LG Electronics
2012	LG Electronics	TV and computer monitor tubes	687 537 000 of which 391 940 000 jointly and severally with Philips
2013	Deutsche Bank AG	Euro interest rate derivatives (EIRD)	465 861 000
2001	F. Hoffmann-La Roche AG	Vitamins	462 000 000
2013	Société Générale	Euro interest rate derivatives (EIRD)	445 884 000
2007	Siemens AG	Gas insulated switchgear	396 562 500
2014	Schaeffler	Automotive bearings	370 481 000
2008	Pilkington	Car glass	357 000 000
2009	E.ON	Gas	320 000 000
	GDF Suez	Gas	320 000 000

Figure 5: Ten highest cartel fines per undertaking since 1969, adjusted for Court decisions, last updated 31 March 2014 (source: European Commission, Cartel Statistics, <http://ec.europa.eu/competition/cartels/statistics/statistics.pdf>, section 1.6)

In the *Yen Interest Rate Derivatives* (YIRD) cartel, the Commission would have imposed a record-breaking fine of around €2.5 billion on UBS; however, UBS was the first leniency applicant and was granted full immunity.²²⁶

The method of calculating fines in the 2006 Fining Guidelines is arguably tailored to cartel cases. In dominance cases, the application of the value of sales analysis may lead to extravagant fines. In the *Intel* case, the fine amounted to €1.06 billion, even though the Commission used only 5 per cent as the relevant percentage of the value of sales.²²⁷

In conclusion, the average fine per undertaking in the period between 2010 and 2014 (as of 2 April 2014) was €50 million. The highest fine actually imposed was the fine of €1.06 billion imposed in the *Intel* case. The highest fine ever on one undertaking would have been the fine on UBS in the *Yen Interest Rate Derivatives cartel*, calculated to be €2.5 billion; however, UBS received full immunity under the Leniency Notice.

²²⁶ See Commission, Press Release, 4 December 2013, IP/13/1208, Case COMP/39.861 – *Yen Interest Rate Derivatives (YIRD)*; see also MEMO/13/1090 in the same case.

²²⁷ Commission Decision, 13 May 2009, Case COMP/37.990 – *Intel* at recital 1786 (appeal pending, Case T-286/09).

B. United States

1. Historical Background

a. *The road to the adoption of Antitrust Sentencing Guidelines*

The sanction of antitrust violations in the US has been a recurrent issue in US antitrust enforcement, since the adoption of the Sherman act in 1890. The Antitrust Division at the DOJ may prosecute Sherman Act violations either criminally or civilly. The DOJ benefits from an important prosecutorial discretion and in practice only prosecutes “hard core” violations criminally. A “hardcore violation” involves the clandestine activity, concealment and clear knowledge on the part of the perpetrators of the wrongful nature of their behaviour. In essence, these are currently the following categories of horizontal cartel agreements: horizontal price fixing including bid rigging, horizontal limitation of output and horizontal allocation/division of markets²²⁸. Hence, there are no civil or administrative financial penalties in US law for monopolization or other illegal agreements cases, the main civil remedy available in this instance being antitrust damages²²⁹. In order to impose sanctions, DOJ must either prove its case in a Federal court or negotiate a plea agreement with the accused. Hence, the US system is a fully prosecutorial system of antitrust enforcement and sanctioning. The final fine imposed on the undertaking is determined by the court. In the context of settlement, the DOJ regularly recommends a proposed US Sentencing Guidelines fines range, which judges regularly accept. Nearly all convictions for antitrust offences are the result of settlement (plea agreements in the US terminology) between the DOJ and the defendant. A defendant may seek to reach an agreement with the DOJ at any stage of the investigation, under the condition that he admits guilt and cooperates with the DOJ if the investigation continues.

Federal district court judges have generally been afforded an important discretion to sentence defendants within the broad statutory ranges provided by Congress. Despite the possibility for sentencing decisions to be subject to appellate review, this “indeterminate” system of sentencing, in the sense that similarly situated defendants may receive dissimilar sentencing decisions based on the judge assigned to their case, has been criticized.

²²⁸ Pate, R.H. Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice (Aug. 12, 2003) Vigorous & Principled Antitrust Enforcement: Priorities & Goals. Address Before the Antitrust Section of the ABA Annual Meeting, available at: <http://www.justice.gov/atr/public/speeches/201241.htm>. See also Antitrust Division Manual (updated Mar. 2014) Ch. 3 C.1. 5th Ed. (providing non-binding guidance of situations where nominally “hard core” per se cases should not be prosecuted criminally), available at: <http://www.justice.gov/atr/public/divisionmanual/>.

²²⁹ For a criticism and suggestions for reform, see First, H. (2009) The Case for Antitrust Civil Penalties. *Antitrust Law Journal*. 76, 127.

Although antitrust violations were subject to antitrust penalties from the enactment of the Sherman Act, until 1974, violations of the Sherman Act were a misdemeanour (transformed to felony in 1974), offenders being also subject to financial penalties (for corporations, the level was set to \$5K in 1890, \$50K in 1955, \$1 million in 1974, \$10 million in 1990, \$100 million in 2004). In view of the low level of such penalties in practice, the Antitrust Division of the department of Justice published Guidelines for Sentencing (1977) consisting of base sentences along with aggravating and mitigating factors²³⁰. Nevertheless, the Antitrust Division had very limited success in obtaining prison sentences, the main focus of US antitrust enforcement action in view of the important deterrent effect.

In 1984 Congress passed the Sentencing reform Act (1984), which created a Sentencing Commission with the mandate to develop sentencing guidelines²³¹, these guidelines being made mandatory to sentencing judges²³². Hence, once sentencing judges applied the Guidelines they were generally confined to the narrow sentencing range established by the Commission, something that was criticized at the time²³³. One of the main objectives of Congress was to reduce unwarranted sentencing disparities between similarly situated defendants by framing the sentencing judge's discretion within statutory ranges provided for federal crimes. Congress empowered the Commission to review and revise the Guidelines based on new data and national experience.

The Sentencing Commission implemented the Sentencing Guidelines in 1987 with the aim to provide a definite, transparent, uniform and respectful of the principle of proportionality process of sentencing individual offenders (including corporations)²³⁴. The Sentencing Commission also promulgated specific Antitrust Sentencing Guidelines in 1987, which are part of the Sentencing Guidelines²³⁵. These were most recently revised by the Antitrust Penalty Enhancement and Reform Act of 2004 ("ACPERA"), which increased the maximum penalty for corporations ten-fold (from 10 million to \$100 million fines) and penalties for individuals more than three-fold (from 3 years to 10

²³⁰ Guidelines for Sentencing: Recommendations in Felony Cases under the Sherman Act (24 February 1977).

²³¹ Sentencing Reform Act of 1984, pub. L. No. 98-473, tit. II, ch. 2, 98 Stat. 1987.

²³² 18 U.S.C. §3553 (b) (1) (2006). This was invalidated by the Supreme Court in *United States v. Booker*, 543 U.S. 220 (2005).

²³³ Freed, D. (1992) Federal Sentencing in the Wake of Guidelines: Unacceptable Limits on the Discretion of Sentencers. *Yale L. J.* 101, 1681; More on the reaction of the courts: Thide, F. (2013) Judicial Policy Nullification of the Antitrust Sentencing Guidelines. *Boston College L. Rev.* 54(2), 861.

²³⁴ US Sentencing Commission, Sentencing Guidelines and Policy Statements (April 13, 1987), reprinted in 52 fed. Reg. 18,046 (may 13, 1987).

²³⁵ U.S. Sentencing Commission, U.S. Sentencing Guidelines Manual §2R1.1 (rev. Nov. 1, 2013) (Antitrust Offenses).

years imprisonment, and from \$350,000 to \$1 million in fines).²³⁶ Prior to ACPERA, the Antitrust Division of the DOJ was increasingly relying on the so-called “Alternative Fine” statute²³⁷ when seeking to impose substantial fines for violations of the antitrust laws, especially in the case of international cartels. Under the Alternative Fine authority, it is possible for the Antitrust Division at the DOJ to request fines of up to twice the gross gain (derived by all conspirators) or loss (suffered by all victims) resulting from the violation. Using this legal basis, the DOJ had obtained since 1997, fine settlements in excess of \$100 million. This option is still available to the DOJ, which can choose either to rely ACPERA or on the “Alternative Fine” provisions. The later choice is the only one available if the US DOJ wants to request financial penalties exceeding \$100 million. However, reliance is not without potential problems in particular as the standard of proof for the purpose of the Alternative Fine provision is the criminal one of beyond a reasonable doubt, and the Antitrust Division at the DOJ should prove at a sentencing hearing the actual amount of the gross gain or gross loss. The standard of proof for ACPERA purposes is the civil one of balance of probabilities. Moreover, § 3571(d) by its terms does not apply where it would “unduly complicate or prolong the sentencing process”. The US DOJ is on solid ground when seeking fines of up to \$100 million, to rely on ACPERA (the revised Sentencing Guidelines) and it might have the incentive to limit the amount of the fine requested to less than \$100 million where application of § 3571(d) and the Sentencing Guidelines would yield fines exceeding, but not substantially exceeding, \$100 million, especially if the defendant appears willing to litigate the fine.

b. *The Sentencing Guidelines and the judiciary*

ACPERA was implemented literally days before the U.S. Supreme Court in *United States v. Blakely* (2004) established that federal judges should enjoy greater discretion in sentencing, in comparison to that afforded in the U.S. Sentencing Guidelines²³⁸. This trend towards a greater discretion for sentencing courts was confirmed in *United States v. Booker* (2005), where the Supreme Court held that the Sentencing Guidelines were not compulsory to sentencing courts but had only an advisory character²³⁹. The U.S. Supreme Court held that the Federal Sentencing Guidelines violated the Sixth Amendment because they permitted a defendant’s maximum possible sentence to be increased

²³⁶ Antitrust Penalty Enhancement and Reform Act of 2004 (“ACPERA”), Pub. L. No. 108-237, tit. II, 118 Stat. 661, 665 (codified as amended in 15 U.S.C.A. § 1 note). See also Antitrust Criminal Penalty Enhancement and Reform Act of 2004 Extension Act Pub. L. 111-30, 123 Stat. 1775 (2009) (extending ACPERA's five-year sunset provision by one year to June 23, 2010); Pub. L. No. 111-190, 124 Stat. 1275 (June 9, 2010) (extending ACPERA's sunset provision to June 23, 2020 and making various other changes). For a comment, see Hausfeld, M., Lehmann, M. & Jones, M. (2009) Observations from the Field: ACPERA's First Five Years. 10 Sedona Conf. J. 95.

²³⁷ 18 U.S.C. § 3571(d).

²³⁸ *United States v. Blakely*, 542 U.S. 296 (2004).

²³⁹ *United States v. Booker*, 543 U.S. 220 (2005).

based on judicial fact-finding, rather than jury determination of the facts. The Supreme Court emphasized in *Booker* that although application of the Federal SG no longer is mandatory, sentencing courts still are required “to calculate and consider Guidelines ranges, although they retain the ability to tailor the sentence in light of other statutory concerns as well”²⁴⁰. Despite, however, this case law of the Supreme Court, until very recently, the lower courts have generally continued to embrace the Sentencing Guidelines, noting that they are advisory but applying them as if they were mandatory. As it was explained by some authors,

“[...] in its decisions since *Booker*, the Court has been forced to walk a very fine line between promoting district court discretion and encouraging adherence to the Guidelines. In attempting to accomplish these two inconsistent aims, the Court has largely attempted to encourage adherence to the Guidelines through oblique methods—such as by mandating certain procedures that privilege the Guidelines and permitting less stringent appellate review of within-Guidelines sentences—rather than through substantive limits on district courts’ discretion”²⁴¹.

Some recent judgments of the Supreme Court have nevertheless questioned the implementation of the Sentencing Guidelines²⁴². For instance, in *Pepper* the Supreme Court held that “a district court may in appropriate cases impose a non-Guidelines sentence based on a disagreement with the Commission’s views. That is particularly true where, as here, the Commission’s views rest on wholly unconvincing policy rationales not reflected in the sentencing statutes Congress enacted”²⁴³. However, the Court also suggested that district court policy disagreement may not always be “appropriate”, thus indicating that courts have not received a full re-delegation of sentencing policy, the Guidelines remaining “as a substantive constraint on the discretion of district court judges, at least in some limited form”²⁴⁴. This flexibility enables sentencing courts to sentence outside of the Guidelines based on policy disagreements as long as they identify some fact about the defendant’s

²⁴⁰ *Id.*; see also *United States v. Hughes*, 2005 WL 147059 (4th Cir. Jan. 24, 2005) (holding that “consistent with the remedial scheme set forth in *Booker*, a district court shall first calculate the range prescribed by the guidelines. Then, the court shall consider that range as well as other relevant factors set forth in the guidelines and those factors set forth in § 3553(a) before imposing the sentence.”).

²⁴¹ Byrne, C., Hessick, A. (2014) Critical Review of the Sentencing Commission’s Recent Recommendations to “Strengthen the Guidelines’ System”. *Houston L. Rev.* 51(5) 1335, 1337.

²⁴² *Gall v. United States*, 552 U.S. 38, 45–47 (2007), where the Court refused to conduct a proportionality review when the courts departed from the guideline range for fear of interfering with the sentencing court’s discretion; *Kimbrough v. United States*, 552 U.S. 85, (2007), where the Supreme Court held that district courts have the ability to sentence outside of the Guidelines range; *Spears v. United States*, 555 U.S. 261, (2009).

²⁴³ *Pepper v. United States*, 131 S. Ct. 1229, 1247 (2011).

²⁴⁴ See Byrne & Hessick, *supra* n.241 at 1341.

crime or personal background that warranted a non-Guidelines sentence²⁴⁵. Under the advisory Guidelines regime, judges are required to balance the sentencing factors prescribed by Congress and the Sentencing Reform Act to “make an individualized assessment based on the facts presented”²⁴⁶. In any case, judges should ground departures from an applicable Guideline provision and their judgment is subject to more intensive appellate scrutiny, the more it departs from the guidelines for judicial policy reasons or because of disagreements with its goals. For instance, some of the Guidelines’ features, such as the assumption of a 10% overcharge for cartels and the consequent adoption of a 20% volume of commerce proxy in order to define the base fine has been criticized by the Antitrust Modernization Commission (AMC) in 2007 for not being compatible with an interpretation of the Supreme Court’s *Booker* judgment as holding that facts not proven to the jury or admitted by the defendant may not be used to increase a defendant’s sentence, for the cartels that have a lower overcharge than 10%²⁴⁷.

In its 2012 report on the continuing impact of *Booker*, the U.S. Sentencing Commission recommended to Congress the adoption of a number of proposals designed to “strengthen the guidelines system” In particular, the Commission suggested to Congress, among others, to require heightened appellate scrutiny for the substance of sentencing decisions and require district courts to give substantial weight to the Guidelines as a factor at sentencing²⁴⁸. The Commission’s recommendations to Congress are explicitly designed to ensure that the Guidelines play a more prominent role in federal sentencing

2. Description of the Current System

a. Overview

The current financial penalties system in the U.S. relies on a delicate balance between the action of the Antitrust Division of the US DOJ putting forward criminal prosecutions and attaining settlements with defendants, under the shadow of the significant fines that may be imposed, should the Antitrust Sentencing Guidelines being applied or the Alternative Fine statute, and that of sentencing courts, which benefit from an important discretion, in particular post-*Booker*. The US Antitrust Sentencing Guidelines have already been briefly summarized at Part II and will be examined thoroughly in Part VI.

²⁴⁵ Ibid.

²⁴⁶ *Gall v. United States*, 552 U.S. 38, 50.

²⁴⁷ Antitrust Modernization Commission (2007) Final Report and Recommendations 299-300, available at: http://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf.

²⁴⁸ U.S. Sentencing Commission Report on the Continuing Impact of *United States v. Booker* on federal Sentencing, part A 1 (2012). For a critical analysis of these proposals, see Byrne & Hessick, *supra* n.241 at 1341.

b. Fining Practice.

The U.S. Sentencing Commission collects data on the sentencing of organizations (and individuals) convicted by the federal courts. This data shows a considerable increase in antitrust criminal convictions and financial penalties imposed in recent years.

The following statistics provide some further information on fining practice for organizations (corporations).

Table 9 Criminal Sanctions for Organizations

Fiscal year	Total Fines Assessed (\$millions)	Number of Organizations Fined	Average Fine (\$millions)
2006	\$469.8	18	\$26.1
2007	\$615.7	12	\$51.3
2008	\$695.0	12	\$57.9
2009	\$973.7	16	\$60.9
2010	\$388.6	11	\$30.8
2011	\$380.0	11	\$34.5
2012	\$1473.0	33	\$44.6
2013	\$272.2	24	\$11.35

Source: Department of Justice, Antitrust Division, Workload Statistics Fiscal Years 2006-2013 (p.11). The federal government's fiscal year runs from October 1 to September 30th.

On average, the fines imposed since 2006 amount to \$39.7 million. To this of course one should add fines to individuals and also prison sentences, as well as treble damages.

DOJ Antitrust Division Workload Statistics 2013

Sherman Act Violations – highest corporate fines

Defendant (FY)	Product	Fine (\$ Millions)	Geographic Scope	Country
AU Optonics Corporation of Taiwan (2012)	Liquid Crystal Display (LCD) Panels	\$500	International	Taiwan
F. Hoffmann-La Roche, Ltd. (1999)	Vitamins	\$500	International	Switzerland
Yazaki Corporation (2012)	Automobile Parts	\$470	International	Japan
Bridgestone Corporation (2014)	Anti-vibration rubber products for automobiles	\$425	International	Japan
LG Display Co., Ltd LG Display America (2009)	Liquid Crystal Display (LCD) Panels	\$400	International	Korea
Société Air France and Koninklijke Luchtvaart Maatschappij, N.V. (2008)	Air Transportation (Cargo)	\$350	International	France (Société-Air France) The Netherlands (KLM)
Korean Air Lines Co., Ltd. (2007)	Air Transportation (Cargo & Passenger)	\$300	International	Korea
British Airways PLC (2007)	Air Transportation (Cargo & Passenger)	\$300	International	UK
Samsung Electronics Company, Ltd. Samsung Semiconductor, Inc. (2006)	DRAM	\$300	International	Korea
BASF AG (1999)	Vitamins	\$225	International	Germany
CHI MEI Optoelectronics Corporation (2010)	Liquid Crystal Display (LCD) Panels	\$220	International	Taiwan
Furukawa Electric Co. Ltd. (2012)	Automotive Wire Harnesses & Related Products	\$200	International	Japan
Hitachi Automotive Systems, Ltd (2014)	Automotive Wire Harnesses & Related Products	\$195	International	Japan
Mitsubishi Electric Corporation (2014)	Automotive Wire Harnesses and Electronic Components	\$190	International	Japan

C. Germany

1. Historical Background

The fining system in Germany has undergone several changes since its inception, and in particular within the last decade. As will be explained in more detail, for infringements committed between 1958 and 2005, the fine mostly depended on the determination of the “additional turnover” derived from the infringement; the fine was then set at triple this amount. Since 2005, the German legislative framework resembles more closely the European framework. However, the interpretation of the provision on fines in Germany differs for constitutional reasons from the European interpretation despite the similarity of the wording of the provisions. The third part of this national report will describe the fining practice. The German law on administrative fines has recently also faced a number of other constitutional challenges.

In addition to the administrative fines enforcement, Germany prosecutes bid rigging both under the general fraud provision (§ 263 *Strafgesetzbuch* (Criminal Code, StGB)) and, since 1998, under a special provision against bid rigging (§ 298 StGB). While the data basis is incomplete, approximately 20 persons are sentenced annually under the special bid-rigging provision, mostly to criminal fines and/or suspended prison sentences, although there is also some anecdotal evidence of prison sentences that are not suspended. The following national report will focus on the administrative enforcement.²⁴⁹

As will be explained in more detail, for infringements committed between 1958 and 2005, the fine mostly depended on the determination of the “additional turnover” derived from the infringement; the fine was then set at triple this amount. Since 2005, the German legislative framework resembles more closely the European framework. However, the interpretation of the provision on fines in Germany differs for constitutional reasons from the European interpretation despite the similarity of the wording of the provisions. The third part of this national report will describe the fining practice. The German law on administrative fines has recently also faced a number of other constitutional challenges. We summarize the points examined in the following sections:

²⁴⁹ For criminal antitrust enforcement in Germany, see Papp, F. (2011) What If All Bid Riggers Went to Prison and Nobody Noticed? – Cartel Criminalisation in Germany. 157-182. In Beaton-Wells, C. & Ezrachi, A. (eds.). *Criminalising Cartels: Critical Studies of an Int'l Regulatory Movement*. Oxford: Hart Publishing, draft available sub. nom. *Criminal Antitrust Law Enforcement in Germany: 'The Whole Point is Lost If You Keep it a Secret! Why Didn't You Tell the World, Eh?' at*: SSRN: <http://ssrn.com/abstract=1584887>.

- The initial legislative scheme in Germany required the determination of the “additional turnover” caused by the infringement. In many cases, it was difficult to prove the additional turnover.
- The “additional turnover” scheme was therefore replaced by a scheme resembling the European system in 2005, allowing fines on undertakings of up to 10% of their annual worldwide turnover.
- However, the threshold of 10% of the annual worldwide turnover of the undertaking has been interpreted by German courts not as a cap (as under EU law), but as a maximum fine. A judgment by the Federal Court of Justice to this effect has prompted the Bundeskartellamt to revise its Fining Guidelines in 2013.
- The 2013 Fining Guidelines start with a working hypothesis of a “gains and harm potential” of 10% of the affected sales over the duration of the infringement; this is multiplied by a factor that depends on the global turnover, ranging from a factor of 2-3 for undertakings with a global turnover below €100 million to a factor of more than 6 for undertakings with a global turnover of more than €100 billion.
- Both under the “additional turnover” scheme governing infringements committed before 2005 and the new statutory scheme, fines exceeding €100 million per undertaking have been imposed and upheld by the courts in cartel cases.
- Additionally, fines on individuals of up to €1 million are possible, and fines in the magnitude of €250,000 for individuals are not unusual in cartel cases.
- Particular problems have arisen with regard to the legal succession in the context of corporate restructuring of undertakings.
- Constitutional challenges, for example against the accrual of pre-judgment interest on fines imposed by competition authorities, have so far been unsuccessful.

a. The “additional turnover” framework (1958-2005)

i. Legal framework

In the original version of the Gesetz gegen Wettbewerbsbeschränkungen (Act against Restraints of Competition, “GWB”) of 1957,²⁵⁰ in force since 1 January 1958, the fine for intentional infringements of the main competition prohibitions was to be set at an amount up to *the higher of*

- (1) Deutschmark (DM) 100,000 (the “absolute amount prong”), or
- (2) three times the additional turnover derived from the infringement (the “additional turnover prong”).²⁵¹

²⁵⁰ GWB of 27 July 1957, BUNDESGESETZBLATT PART I 1957, p. 1081 (cited as GWB 1957).

Case law defined the “additional turnover” as the difference between the actual turnover and the counterfactual turnover that would have resulted in the absence of the infringement.²⁵²

While subsequent legislative changes modified certain aspects of the provision, the general framework for setting the maximum fine at the higher of a specified absolute amount or three times the additional turnover caused by the infringement remained in place until 2005 (and possibly beyond for infringements committed before 2005²⁵³). Before the major revision of the framework for setting fines in 2005 (below II.), the framework for fines was marginally modified in the following aspects:

- The relevant section was renumbered in 1965²⁵⁴ and 1998.²⁵⁵
- The differentiation between intentional and negligent infringements was removed from the text of the GWB in 1973, but remained in place in substance.²⁵⁶
- In 1980, the provision was amended in two aspects: first, the absolute amount prong for infringements was raised from DM 100,000 to DM 1 million, and, second, it was added

²⁵¹ § 38(3) no. 1 GWB 1957. § 38(3) no. 2 GWB 1957 provided that for *negligent* infringements, the fine was the higher of:

(1) Deutschmark (DM) 30,000, or

(2) twice the additional turnover derived from the infringement.

²⁵² Bundesgerichtshof (Federal Court of Justice, BGH), 19 June 2007 – KRB 12/07, NJW 2007, 3792, WuW/E DE-R 2225, para. 10 – *Papiergroßhandel*; BGH, 25 April 2005 – KRB 22/04, WuW/E DE-R 1487, 1488 – *steuerfreier Mehrerlös*; BGH, 24 April 1991 – KRB 5/90, WuW/E 2718, 2719 – *Bußgeldbemessung*.

²⁵³ According to German inter-temporal law, where the sanction of an administrative offence has been modified in the period between the completion of the commission of the offence and the imposition of the sanction, the mildest sanction has to be applied, § 4(3) Ordnungswidrigkeitengesetz (Administrative Offences Act, OWiG). This means that for infringements that were completed before the 2005 amendment went into effect but are fined afterwards, both the old and the new framework have to be applied and the lower of the two resulting fines has to be applied.

²⁵⁴ § 38(3) GWB 1957 became § 38(4) GWB 1965 (1st Amendment to the GWB of 15 September 1965, BUNDESGESETZBLATT PART I 1965, p. 1363).

²⁵⁵ § 38(4) GWB 1980 became § 81(2) GWB 1998 (6th Amendment to the GWB of 26 August 1998, BUNDESGESETZBLATT PART I 1998, p. 2521).

²⁵⁶ After the 2nd Amendment of the GWB had come into force, the text of § 38(4) GWB did not any longer contain the differentiation in the text of the GWB (2nd Amendment to the GWB of 3 August 1973, BUNDESGESETZBLATT PART I 1973, p. 917). However, in substance the differentiation continued: Since 1968, § 17(2) OWiG provides that the maximum fine for negligent infringements is half of the maximum fine for intentional infringements.

that the amount of the additional turnover could be *estimated* for the additional-turnover prong.²⁵⁷

The government's explanatory memorandum for the 1980 amendments stated that the amendment was necessary to "sanction severe infringements adequately".²⁵⁸ It was noted that the German *Bundeskartellamt* (Federal Cartel Office, BKartA) had already imposed fines amounting to a million DM or more under the additional-turnover prong, but that the calculation of the additional turnover frequently presented difficulties.²⁵⁹ Therefore the fixed-amount prong was raised to DM 1 million, in order to signal that competition law infringements are not trivial but severe offences subject to deterrent sanctions.²⁶⁰ The memorandum also noted that the threshold of DM 1 million had already been proposed in 1955, and was then only rejected because the highest criminal fine at the time was set at DM 100,000.²⁶¹

It should be noted that this framework applied to fines for both individuals and undertakings.

ii. Application of the additional-turnover framework in practice

Despite the various changes over time, the framework proved inadequate to sanction severe infringements, such as hardcore cartels. The absolute amount prong of only DM 1 million was wholly inadequate, and the calculation of the additional turnover often proved problematic in practice.

Under the additional turnover framework, which is still generally the framework to be applied to infringements predating the 2005 reform,²⁶² it first has to be proven to the relevant standard of proof (the Court's "full conviction" as required by criminal procedural law to overcome the *in dubio pro reo* presumption) that there was at least *some* positive additional turnover.²⁶³ Only once the existence of some positive additional turnover is proven to the full conviction of the Court can the Court go on to estimate the amount of this additional turnover. The Bundesgerichtshof (Federal

²⁵⁷ First and second sentence of § 38(4) GWB 1980 (4th Amendment to the GWB of 26 April 1980, Bundesgesetzblatt Part I 1980, p. 458).

²⁵⁸ BUNDESTAGS-DRUCKSACHE 8/2136 of 27 September 1978, p. 27.

²⁵⁹ *Ibid.*

²⁶⁰ *Ibid.*

²⁶¹ *Ibid.*

²⁶² *Supra* note 253.

²⁶³ BGH, 28 June 2006 – KRB 2/05, WuW/E DE-R 1567, 1569, – *Berliner Transportbeton I* (for an English summary, see Papp, F. (28 June 2005) The German Federal Court of Justice Rules on the Standard of Proof for the Existence of a Revenue Surplus from a Cartel Agreement (*Transportbeton Berlin*). Bulletin e-Competitions, Art. N° 467), affirmed and applied in BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861, para. 77 – *Grauzement*.

Court of Justice, BGH) facilitated this task, however, by establishing an evidential presumption for the existence of a positive additional turnover based on the following reasoning:²⁶⁴

- Cartels are generally entered into in order to increase profits.
- Where a cartel agreement is proven to exist, there is a high probability that the participants' turnover is higher than it would have been in the absence of the cartel agreement.
- The longer the duration and intensity of the cartel, and the greater its geographic coverage, the higher this probability will be, and the greater is the burden of explanation on a court that wants to argue that the cartel agreement did not result in any additional turnover.
- In the absence of exceptional circumstances indicating that the cartel was wholly ineffective, there is an evidential presumption that there was at least *some* positive additional turnover.

Once the existence of some positive additional turnover is established, the Court then has to estimate the amount of this additional turnover. In this respect, the Federal Court of Justice ostensibly grants the trial courts "wide discretion".²⁶⁵ The trial court may choose the most appropriate method for estimation aimed at coming as close as possible to reality.²⁶⁶ The chosen method has to be logically consistent and its results have to be possible and reasonable from an economic perspective.²⁶⁷

Nevertheless, the Federal Court of Justice has repeatedly criticized the methods for estimation used by trial courts. The Court's preferred method for estimation is a yardstick comparison to separate

²⁶⁴ BGH, 28 June 2006 – KRB 2/05, WuW/E DE-R 1567, 1569-1570, – *Berliner Transportbeton I* (see also *supra* note 263); reaffirmed and applied in BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861 KRB 20/12, WuW/E DE-R 3861, para. 76-77 – *Grauzement* (see also the judgment of the court below: OLG Düsseldorf, 26 June 2009, VI-2a Kart 2 - 6/08 OWi, http://www.justiz.nrw.de/nrwe/olgs/duesseldorf/j2009/VI_2a_Kart_2_6_08_OWiurteil20090626.html, paras 427 *et seq.*); BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, – *Papiergroßhandel* at para. 11 (supporting the contested judgment in so far as it applied the evidential presumption) and para. 21 (criticizing the contested judgment in so far as it had considered the evidential presumption to be rebutted with regard to some specialty (SD) paper; the contested judgment had considered the evidential presumption rebutted because price reductions would have been unprofitable for the cartelists because such reductions would not have induced customers to switch anyway, because customers would otherwise have had to discard remaining stock; the Federal Court of Justice criticized that this conclusion would only be possible once the extent of the possible reduction was determined, because in the case of a high reduction switching could have become profitable for consumers even if old stock would have become unusable). See also the extra-judicial statement of the presiding judge of the First Cartel Senate at the OLG Düsseldorf: Jürgen Kühnen, *Mehrerlös und Vorteilsabschöpfung nach der 7. GWB-Novelle*, WuW 2010, 16, 18.

²⁶⁵ BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, para. 12 – *Papiergroßhandel*.

²⁶⁶ *Ibid.*

²⁶⁷ *Ibid.*

geographic markets that are unaffected by cartel agreements,²⁶⁸ if necessary foreign geographic markets,²⁶⁹ with the necessary corrections to take account of structural differences. In some cases, this approach may not be available, for example because there is at least a reasonable suspicion that these other markets are also affected by cartel agreements.²⁷⁰ Alternatively, a yardstick comparison to similar product markets, or before/after comparisons may be possible.²⁷¹ Where these methods do not promise to be the best approximations of reality, it may be necessary to resort to economic modelling, which will “usually” require expert witnesses.²⁷² In the *Papiergroßhandel* case, in which sellers of paper on the wholesale level had cartelized, the Court suggested that the counterfactual market price should be determined by (1) determining the prices which the producers charged the sellers on the wholesale level, adding (2) the costs of the wholesale level, and (3) an “empirically determined operating margin” in similar sectors; the results of this analysis should then be cross-checked against other indicators, such as similar product markets (taking account of structural differences) and prices that resulted after the cartel was dissolved (again, taking account of developments of the market conditions).²⁷³

In the *Grauzement* case, the Higher Regional Court Düsseldorf appointed Lars-Hendrik Röller, the European Commission’s former Chief Economist, as a court-appointed expert. He developed an econometric model based on time-series data in consultation with the court and the parties.²⁷⁴

b. The 10% turnover threshold as a maximum (2005/2007/2013)

i. The new scheme

In 2005, the legislator sought to align German competition law more closely with European law. Originally, the government bill had only proposed to increase the absolute amount of € 500,000 to

²⁶⁸ BGH, 28 June 2006 – KRB 2/05, WuW/E DE-R 1567, 1571 – *Berliner Transportbeton I*; BGH, 25 April 2005 – KRB 22/04, WuW/E DE-R 1487, 1488 – *steuerfreier Mehrerlös*; obiter BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, paras. 13, 19 – *Papiergroßhandel*.

²⁶⁹ Cf. BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, paras. 19 – *Papiergroßhandel*.

²⁷⁰ BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, para. 13-14 – *Papiergroßhandel*; BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861, para. 78 – *Grauzement*.

²⁷¹ E.g., BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861, para. 78 – *Grauzement* (approving the contested judgment’s approach of comparing to the prices that had developed after the cartel was terminated).

²⁷² BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, paras. 19-20 – *Papiergroßhandel*.

²⁷³ BGH, 19 June 2007 – KRB 12/07, NJW 2007, 3792=WuW/E DE-R 2225, paras. 19-20 – *Papiergroßhandel*.

²⁷⁴ OLG Düsseldorf, 26 June 2009, VI-2a Kart 2 - 6/08 OWi, http://www.justiz.nrw.de/nrwe/olgs/duesseldorf/j2009/VI_2a_Kart_2_6_08_OWiurteil20090626.html, paras 448-578

€1 million, and to continue the existing additional-turnover framework as described above.²⁷⁵ However, Parliament's Economic Committee, after consultation with expert witnesses, considered that (1) German undertakings would be subject to a 10% of the turnover cap anyway as soon as the European Commission fined the infringement (Article 23 Regulation 1/2003);²⁷⁶ (2) "the determination of the additional turnover is beset by substantial uncertainty" and this uncertainty prevented the imposition of fines that are sufficiently high to deter serious infringements;²⁷⁷ and (3) the absolute amount of €500,000 (or, as proposed, €1 million) was "utterly insufficient" to deter serious infringements.²⁷⁸ The Economic Committee therefore recommended that the wording of the new § 81(4) GWB should be aligned with the European fining system.²⁷⁹

The legislator of the 7th Amendment to the GWB in 2005 followed this recommendation and introduced the following formulation into § 81(4) GWB:²⁸⁰

In the cases of paragraph 1, paragraph 2 no. 1, no. 2 lit. a) and no. 5 and paragraph 3 [scil.: these provisions enumerate substantive infringements of German and European competition law, such as anticompetitive agreements or abuses of dominant positions] the administrative offence may be punished by a fine of up to €1 million. Beyond sentence 1 a higher fine may be imposed on an undertaking or an association of undertakings; the fine must not exceed 10 percent of the total turnover of such undertaking or association of undertakings achieved in the business year preceding the decision of the authority. [...] In fixing the amount of the fine, regard shall be had both to the gravity and to the duration of the infringement.

Since this amendment, the absolute amount (now €1 million) is de facto only of relevance to individuals who are fined, whereas for undertakings and associations it is 10% of their annual turnover that is the relevant threshold.

ii. Ancillary provisions

The 2005 amendment also provided that

²⁷⁵ Government Bill, 12 August 2004, BUNDESTAGS-DRUCKSACHE 15/3640, pp. 17, 67.

²⁷⁶ Economic Committee, 9 March 2005, BUNDESTAGS-DRUCKSACHE 15/5049, p. 50.

²⁷⁷ Ibid.

²⁷⁸ Ibid.

²⁷⁹ Ibid., at pp. 30, 50.

²⁸⁰ 7th Amendment to the GWB of 7 July 2005, BUNDESGESETZBLATT PART I 2005, p. 1954.

- (1) the fine “may” deprive the perpetrator of the gains improperly made due to the infringement, § 81(5) GWB; this modifies the general principle in the German law of administrative offences that the fine “should” deprive the perpetrator of these improper gains even if this exceeds the statutory maximum of the fine, § 17(4) OWiG, in order to relieve the competition authority of the necessity to determine the gains;
- (2) a fine imposed on legal persons and partnerships starts to accrue interest two weeks after the fining decision is served, § 81(6) GWB at a rate of 5% over the base interest rate (this amendment sought to provide a disincentive for fined entities to contest the fining decision merely to delay paying the fine in order to benefit from the interest in the meantime);
- (3) the Bundeskartellamt was authorized to issue guidelines on the exercise of its discretion with regard to fines, § 81(7) GWB.

iii. 10% threshold as a maximum fine, not a mere cap

Several commentators considered that the interpretation of the 10% threshold as a cap (as under European law), which the German legislator had intended in 2005, left the determination of the fine below this threshold to be insufficiently certain, and that this uncertainty infringed the constitutional guarantee of *nulla poena sine lege certa*.²⁸¹ If the 10% threshold were a mere cap, a fine of greater than 10% of the turnover could result not only in the most serious cases, but even in the case of only low to medium range infringements, and in all these cases the fine would be capped at the same level, namely 10% of the turnover. This would not comply with the general rules on sanctions for criminal and administrative offences, which require that the sanction be proportionate to the offence, and that the highest possible fine can only be imposed for the most serious case conceivable.

In 2013, the Federal Court of Justice agreed that the 10% threshold would be unconstitutional if it were interpreted as a mere cap.²⁸² § 81(4) GWB itself does not state that the 10% threshold is a mere cap, so that the provision is not unconstitutional because it can be interpreted in a way that leads to a result that complies with constitution, namely as a *maximum fine*. Accordingly, 10% of the undertaking’s worldwide annual turnover is the fine to be imposed only for the most serious infringement conceivable, whereas a “medium-range” infringement could attract a fine of 5% of the

²⁸¹ See, e.g., Wolfgang Deselaers, *Uferlose Geldbußen bei Kartellverstößen nach der neuen 10% Umsatzregel des § 81 Abs. 4 GWB?*, WuW 2006, 118, 121-122; Rainer Bechtold, *GWB – KOMMENTAR* 6th edn (Munich: C.H. Beck 2010) at § 81 paras 26, 34, 48, with further references.

²⁸² BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861, para. 50-65 – *Grauzement*.

worldwide annual turnover etc.²⁸³ This judgment led to the revision of the *Bundeskartellamt's* fining guidelines and the current system.

2. The Current System

a. Overview

§ 81(7) GWB was introduced in 2005 to dispel any lingering doubts as to the authority of the *Bundeskartellamt* to publish fining guidelines.²⁸⁴ The first set of fining guidelines was issued in 2006,²⁸⁵ which have since replaced by the 2013 Guidelines discussed in this section.

§ 81(4) GWB requires, as does Article 23 Regulation 1/2003 in EU law, that the gravity and duration of the infringement have to be taken into account. In addition, the prevailing view is that § 17(3) OWiG is also applicable,²⁸⁶ according to which the fine has to take account of (1) the nature of the offence and (2) the culpability of the offender; furthermore, (3) the financial circumstances of the offender may be taken into account as well.

²⁸³ If this were strictly applied, the fines for large undertakings could become “unacceptably high” even for less serious infringements (Rainer Bechtold, *GWB – KOMMENTAR* 6th edn (Munich: C.H. Beck 2010) at § 81 para. 27); for example, an undertaking with a total turnover of €100 billion would, for an infringement of medium-range gravity, face a fine of €5 billion. To take this consideration into account, the *Bundeskartellamt's* 2013 Guidelines therefore use as the maximum fine the *lower* of (1) 10 per cent of the total turnover or (2) 10% of the relevant turnover multiplied by a multiplier that varies with the total turnover. See below.

²⁸⁴ The predominant view is that the authorization is declaratory, because administrative authorities may issue self-binding guidelines to explain how they will exercise their discretion. Some commentators had argued, however, that the high amount of fines usual in competition cases required a legislative authorization. Even the authorization in § 81(7) GWB, however, is subject to attacks of commentators who argue that the high level of fines usual in competition cases requires that the definition of principles for setting the fines must not be left to the discretion of the competition authority, but that these principles need to be defined by the legislator itself. See, e.g., Bechtold, R. (2010) *GWB – KOMMENTAR*. 6th Ed. Munich: C.H. Beck. § 81, para. 34.

²⁸⁵ Bekanntmachung Nr. 38/2006 über die Festsetzung von Geldbußen nach § 81 Abs. 4 Satz 2 des Gesetzes gegen Wettbewerbsbeschränkungen [GWB] gegen Unternehmen und Unternehmensvereinigungen – Bußgeldleitlinien, 15 September 2006. For a discussion, see Vollmer, C. (2007) Die Bußgeldleitlinien des *Bundeskartellamts*. *ZEITSCHRIFT FÜR WETTBEWERBSRECHT (ZWER)* 168-181 (German with an English abstract, noting the similarity of the German guidelines and the European guidelines, and stating that the “only major difference” between the two is the absence of the “entry fee” provision under German law, where instead every infringement that has been in effect for less than a year is deemed to have been in effect for a year).

²⁸⁶ BVerfG, 19 December 2012, 1 BvL 18/11, WuW/E DE-R 3766, para. 11 (with further references) – *Verzinsungspflicht*, available at http://www.bverfg.de/entscheidungen/Is20121219_1bvl001811.html (in German).

As described above, the Federal Court of Justice in *Grauzement* accepted the constitutionality of this fining regime with the modification that the 10% threshold is a maximum fine rather than a mere cap. This allows courts to use the criteria of § 81(4) GWB and § 17(3) OWiG to pinpoint the appropriate level of the fine on the fining range reaching from €5 to 10% of the turnover.

To take account of the principles espoused in the *Grauzement* decision, the Bundeskartellamt revised its 2006 Guidelines in 2013.²⁸⁷

b. Fining Practice

As a preliminary matter, it should be noted that under German *substantive* competition law it has never been necessary to prove any market power where hardcore cartels are concerned (below I.). This is important for the interpretation of the average fines reported below (II. and III.), because fines for undertakings in cartels with market power are likely to be much higher than fines for undertakings in cartels without market power.²⁸⁸ In Germany, then, there will be many cartels with only limited effectiveness, which attract only a relatively low fine. This will reduce the amount of the average fine. If one only considered the subset of cartels *with* market power, average fines in Germany would be considerably higher.

It also has to be considered that large cartels whose effects transcend German borders, which arguably have higher overcharges and attract higher fines, will more likely be taken up by the European Commission. Accordingly, most cases dealt with by German authorities are regional or at most national cartels. This arguably explains, at least partially, the lower average of fines in Germany compared to those imposed by the European Commission and Court.

i. Even cartels without market power are prohibited

While it has always been necessary under German law that a restriction be “capable of affecting market conditions”, early case law settled that the likelihood of an “appreciable” effect was

²⁸⁷ Bundeskartellamt, Guidelines for the setting of fines in cartel administrative offence proceedings, 25 June 2013, available at http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitlinien/Guidelines%20for%20the%20setting%20of%20fines.pdf?__blob=publicationFile&v=3 (the English translation is somewhat difficult to digest; the German version is much more readable: Bundeskartellamt, Leitlinien für die Bußgeldzumessung in Kartellordnungswidrigkeitenverfahren, 25 June 2013, available at http://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Leitlinien/Bekanntmachung%20-%20Bußgeldleitlinien-Juni%202013.pdf?__blob=publicationFile&v=5).

²⁸⁸ See *supra* note 446: the factor “qualitative effects” for the determination of the fine includes, *inter alia*, “the significance of the companies involved in the infringement on the markets affected”.

sufficient, and a likelihood of “substantial” restrictive effects need not be shown.²⁸⁹ An “appreciable” restriction in this sense could exist even where the combined market shares of the undertakings involved was below 5 per cent.²⁹⁰ The more problematic the nature of the infringement was, in particular where a restriction of competition was the object of the agreement, the less likely it was that an infringement would be denied on the basis of an absence of appreciability. Therefore, where hardcore restrictions were concerned, combined market shares as low as 0.5 per cent were considered to lead to an “appreciable” restriction.²⁹¹ Furthermore, the threshold for appreciability will be lower where other factors already reduce the intensity of competition in the market.²⁹²

²⁸⁹ BGH, 14 Jan. 1960, KRB 12/59, WuW/E BGH 369, 372–373 – *Kohlenplatzhandel* (no substantial restriction necessary; however, in that case there was no error in law where the appeal court found no appreciable restriction where a recommendation was followed by suppliers with a combined market share of some 5%).

²⁹⁰ BGH, 27 Jan. 1966, KRB 2/65, WuW/E BGH 726, 730–731 – *Klinker*, clarifying that the judgment in *Kohlenplatzhandel* (*supra* note 289) was not to be understood as saying that there is a safe haven below a market share of 5%; instead, any appreciable restriction will suffice, provided its effects are not merely speculative.

²⁹¹ BGH, 7 Jun. 1962, KZR 6/60, WuW/E BGH 486, 491–492 – *SPAR* (horizontal geographic market allocation between two grocery stores with a combined market share of some 0.5% was considered appreciable); BGH, 27 Jan. 1966, KRB 2/65, WuW/E BGH 726, 730–731 – *Klinker* (where the competing parties participating in an exclusive sales agency had at least – depending on the product market definition – 1% market share, see the appeal court's decision KG, 16 Oct. 1964, Kart B 1/63, WuW/E OLG 709, 713 – *Bockhorner Klinker*); OLG Munich, 23 Oct. 1986, U (K) 2833/86, WuW/E OLG 3946, 3947–3948 – *Fassadenbau* (finding an appreciable restriction in a settlement between competitors that aimed at a geographic market allocation). Under older German case law, even in hard core cases, however, ‘appreciability’ could not necessarily be presumed as a matter of course, see BGH, 23 Feb. 1988, KRB 4/87, WuW/E BGH 2469, 2470 – *Brillenfassungen*, where an optician had supplied a competitor with a computer program with price lists, and the Federal Court of Justice reversed the conviction and remanded for further determinations about the market conditions to assess whether the restraint was appreciable.

²⁹² Cf. BGH 14 Apr. 1983, KRB 4/82, WuW/E BGH 2000, 2001–2003 – *Beistand bei Kostenangeboten* (where bid rigging is rife in a market, even a bid rigging arrangement of minor proportions is capable of appreciably restricting trade); BGH, 30 Jun. 1987, KZR 12/86, NJW-RR 1988, 50, 51 = WuW/E BGH 2411, 2413 – *Personenbeförderung ab Stadtkreisgrenze* (where a non-binding price recommendation was seen to have an appreciable effect because the prices for in-town taxi rides were fixed by regulation anyway, and the price recommendation would remove the residual price competition for out-of-town taxi rides). See also BGH, 13 Jan. 1998, KVR 40/96 (1998) GRUR 739, 743–744 = WuW/E DE-R 115, 120–121 – *Carpartner*, where the market share of a joint venture was considered irrelevant because the joint venture's prices would be used as reference prices by other competitors.

Today, the European principles on appreciability of restrictions of competition apply to § 1 GWB as well.²⁹³ In principle, only agreements that have the object or effect of *appreciably* restricting competition are prohibited. However, in Germany as in the European Union it is unambiguously clear that the respective *de minimis* notices do not apply to hardcore restrictions, so that there is no safe harbour of a combined 10 per cent for horizontal hardcore restrictions.²⁹⁴ The *Expedia* judgment of the Court of Justice of the European Union has even indicated that in the case of object restrictions there may not be any need for showing any appreciability of the restriction.²⁹⁵ Even though it is questionable whether the *Expedia* judgment is to be understood as removing the appreciability criterion for object restrictions completely, it is certainly an indication that for these restrictions the threshold for appreciability is much reduced; this would seem to lead to a similar result as the earlier German case law described above.

ii. Fines Imposed on Individuals

²⁹³ First sentence of Article 3(2) Regulation 1/2003. Under German law, the European standard will even be applied to infringements of § 1 GWB that do not have the capability of affecting trade between Member States, even though they are not covered by Article 3(2) Regulation 1/2003.

²⁹⁴ Bundeskartellamt, Notice No. 18/2007 of the Bundeskartellamt on the Non-Prosecution of Cooperation Agreements of Minor Importance (“*de minimis* Notice”) of 13 March 2007, http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Bekanntmachungen/Notice%20-%20De%20Minimis.pdf?__blob=publicationFile&v=2, paras 13-15:

13 This notice does not apply to horizontal or non-horizontal agreements which directly or indirectly, in isolation or in connection with other factors under the control of the contracting parties, have the following as their object or effect:

14 a) with regard to third parties, the fixing of prices or price elements when purchasing or selling products or procuring or providing services;

15 b) the restriction of production, sourcing or distribution of goods or services, in particular by means of sharing sources of supply, markets or customers.

[internal footnote omitted].

²⁹⁵ Judgment of the Court (Second Chamber), 13 December 2012, Case C-226/11, nyr, paras 36-37:

36 In that regard, the Court has emphasised that the distinction between ‘infringements by object’ and ‘infringements by effect’ arises from the fact that certain forms of collusion between undertakings can be regarded, by their very nature, as being injurious to the proper functioning of normal competition (Case C- 209/07 Beef Industry Development Society and Barry Brothers (‘BIDS’) [2008] ECR I- 8637, paragraph 17, and Case C- 8/08 T-Mobile Netherlands and Others [2009] ECR I- 4529, paragraph 29).

37 It must therefore be held that an agreement that may affect trade between Member States and that has an anti-competitive object constitutes, by its nature and independently of any concrete effect that it may have, an appreciable restriction on competition.

The statutory maximum fine for individuals is €1 million (§ 81(4) GWB). The Bundeskartellamt typically fines one individual for each undertaking fined. Between 1993 and 2010, the Bundeskartellamt fined 510 individuals and 563 legal persons.²⁹⁶ The average fine per fined individual in that period was reportedly €56,000.²⁹⁷

Data about the distribution of these fines is sparse, but there are indications that the distribution is skewed so that individual fines can be substantially higher, especially in cartel cases.

For example, in the recent beer breweries cartel, 14 individuals were fined a total of approximately €3.6 million.²⁹⁸ Even if this amount were equally distributed among these individuals, the fine for each of these 14 individuals would be approximately €257,000. Similarly, individual fines of €250,000 and €200,000 were reported in the *Papiergroßhandel* and *Grauzement* cases, respectively.²⁹⁹

iii. Fines on undertakings

Between 1993 and 2010, the Bundeskartellamt fined 563 legal persons.³⁰⁰ The average fine for each undertaking over this period was €4.6 million.³⁰¹ It should be noted, however, that fines have considerably increased since the turn of the millenium, as Figure 6 indicates, so that the average fine today is arguably much higher; also, the distribution is very likely significantly skewed, with a large number of very small fines but also a number of very high fines.

²⁹⁶ BVerfG, 19 December 2012, 1 BvL 18/11, WuW/E DE-R 3766, paras 52, 60 – *Verzinsungspflicht*, available at http://www.bverfg.de/entscheidungen/ls20121219_1bvl001811.html (in German).

²⁹⁷ Ibid., para. 60.

²⁹⁸ Bundeskartellamt, 2 April 2014, Fallbericht Bußgelder gegen Brauereien (Summary Case Report on the decisions of 27 December 2013 and 31 March 2014, Case B10-105/11), http://www.bundeskartellamt.de/SharedDocs/Entscheidung/DE/Fallberichte/Kartellverbot/2014/B10-105-11.pdf?__blob=publicationFile&v=1.

²⁹⁹ In the *Grauzement* case, the individual fine was reduced by €10,000 on appeal because of the long duration of the appeal procedure (see *infra* note 264).

³⁰⁰ Bundeskartellamt, Fallbericht Bußgelder gegen Brauereien (*supra* note 298).

³⁰¹ Ibid.

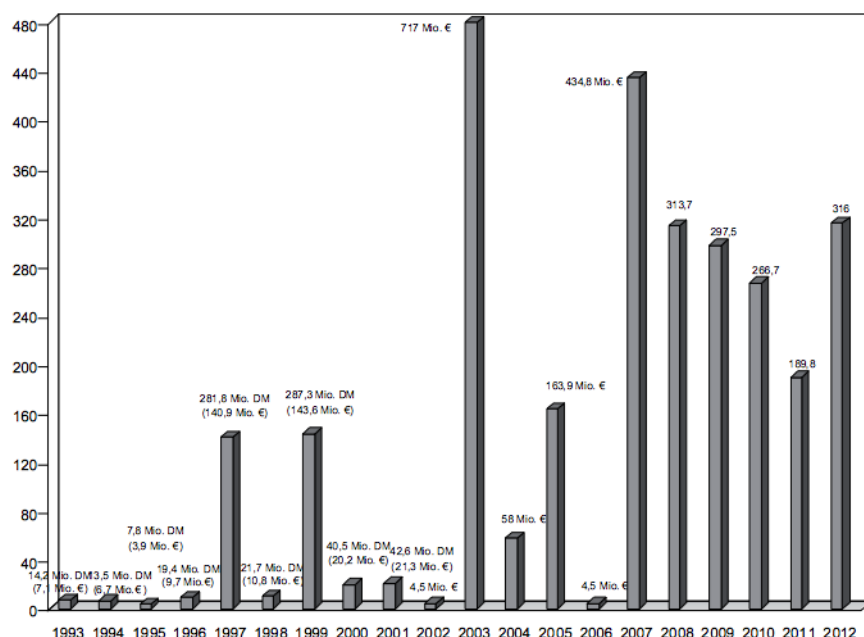


Figure 6: Fines imposed by the Bundeskartellamt (in million €) (source: Bundeskartellamt, Tätigkeitsbericht 2011/12, Bundestags-Drucksache 17/3675 of 29 May 2013, p. 30)

For example, in a recent cartel the Bundeskartellamt imposed overall fines of €280 million on three undertakings, including a fine of €195.5 million on one undertaking (Südzucker), a fine of approximately €75 million on a second undertaking, and a fine “in the single-digit millions” on a third (Nordzucker).³⁰²

In the *Grauzement* case, the Bundeskartellamt had initially imposed fines in the amount of €661 million, which were later approximately halved by the OLG Düsseldorf and further marginally reduced by the Federal Court of Justice.³⁰³ Even after all reductions on both appeals, these fines included a fine of some €161 million on one undertaking (HeidelbergCement AG), a fine of some €66.5 million on a second undertaking (Schenk Zement AG) and a fine of some €50 million on a third undertaking (Dyckerhoff AG), as well as some smaller fines of approximately €22.8 million (Lafarge

³⁰² The Bundeskartellamt press release mentions only that three undertakings were fined a total fine of €280 million. Südzucker self-reported the fine of €195.5 million (<http://www.faz.net/aktuell/wirtschaft/wirtschaftspolitik/kartell-280-millionen-euro-bussgeld-gegen-zuckerhersteller-12808244.html>) and Nordzucker, whose fine was “substantially reduced” to take account of its cooperation, self-reported a fine “in the single-digit millions” (ibid.). This leaves some €75-80 million for the third undertaking and the seven individuals fined.

³⁰³ BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861 – *Grauzement* considered the further appeal to be not well founded on the merits, but (*at paras 87 et seq.*) reduced the fines of the appellants by 5% because of the long duration of the appeal process caused by the delay in preparing the prosecutor’s response to the appeal; the prosecutor and the Bundeskartellamt had worked out an 800-page response, which took them approximately two years – in contrast to the regular statutory period of one week for the response.

Zement GmbH), some €13.9 million (Holcim Deutschland AG), and some €12 million (ReadyMix, today CEMEX Deutschland AG) on further undertakings.

In the *Rail track* cartel, one undertaking (ThyssenKrupp GfT Gleistechnik GmbH) was fined €103 million; overall, fines of €222 million were imposed on 12 undertakings in this cartel.³⁰⁴

In another recent cartel of beer breweries (already mentioned above 2.), fines of approximately €334 million were imposed on 11 undertakings, despite substantial reductions for cooperation (up to 50 per cent) and settlements.³⁰⁵ The exact distribution of the overall fine over the 11 undertakings is not published, but it is likely that some breweries had to pay a much higher fine than the average of €30.36 million.

In the *Kesselhersteller* cartel, one undertaking (ALSTOM Power Systems GmbH) had originally been fined €91 million under the additional turnover provision; the Bundeskartellamt had estimated the additional turnover according to the principles established in the Federal Court of Justice's *Papiergroßhandel* judgment.³⁰⁶ Following the submission of a complaint, the Bundeskartellamt reduced this fine to €42 million, *inter alia*, because the undertaking had shown that certain of its costs had not been accurately estimated and that the undertaking had made substantial restitution for overcharges to its customers; this fining decision became final.³⁰⁷

c. Controversies

i. No nullity for retroactivity

The 7th Amendment to the GWB in 2005 provided that the amendment was to enter into force “on 1 July 2005”. Because of various delays, however, the Act was only signed into effect on 7 July 2005, and promulgated in the official gazette on 12 July 2005. Taken literally, then, the Act provided that the amendments should enter into force retroactively. For administrative offences, as for criminal offences, such retroactivity is strictly prohibited (*nulla poena sine lege*). Some argued that therefore at least for a transitory period infringements were not subject to a fine; and some further argued

³⁰⁴ Bundeskartellamt, 14 December 2012, Fallbericht Erste Bußgelder im Schienenkartell verhängt (Case Report about the first set of fines in the Rail track cartel, decision of July 2012, Case B12 – 11/11).

³⁰⁵ See Bundeskartellamt, *supra* note 304.

³⁰⁶ Bundeskartellamt, press release of 12 August 2010.

³⁰⁷ Bundeskartellamt, 25 November 2011, Fallbericht Bußgeldverfahren gegen Hersteller von Großdampferzeugern (Case Report about producers of utility steam generators, decision of 20 October 2011, Case B11 – 26/05).

that this period would have to be taken to be the mildest law.³⁰⁸ The Federal Court of Justice rejected this argument in 2013. The Court argued that the 2005 Act was to be interpreted in such a way that the amendment concerning the fining of the administrative offence did not enter into force retroactively.³⁰⁹

ii. Constitutional Complaint against the Execution of a Fine Imposed by the European Commission

In *ThyssenKrupp Nirosta*, the addressee of a fines decision by the Commission applied to the Federal Constitutional Court for a preliminary injunction against the execution of the fine. It claimed that its fundamental rights before the European institutions were so deficient that it could invoke the *Solange II* principles. The Federal Constitutional Court rejected the application for a preliminary injunction, because the damage to the diplomatic interests of Germany if the injunction were granted and the complaint later turned out not to be well founded would be grave, whereas no irreparable harm would result if the fine were executed, even if the complaint should later turn out to be well founded.³¹⁰

iii. Legislative changes and changes in the Guidelines

More generally, the recent legislative changes in the 8th Amendment to the GWB and the major revision of the 2013 Fining Guidelines, as well as the recent “codification” (in the form of Guidelines) of the Settlement Procedure in Germany are bound to lead to further constitutional challenges in the near future.³¹¹

³⁰⁸ The effect of this would have been that infringements committed before (at least) 2007 could no longer be fined (*supra* note 307). In 2007, the legislator re-promulgated the norm out of an abundance of caution to heal any such effect.

³⁰⁹ BGH, 26 February 2013, KRB 20/12, WuW/E DE-R 3861, para. 45-49 – *Grauzement* (stating that both chambers of Parliament had voted on the bill on 16/17 June 2005 and therefore clearly did not intend any retroactivity when providing for the entry into force on 1 July 2005; the Court left undecided whether the new rules went into force the day after promulgation (i.e., on 13 July 2005) or 14 days after promulgation (26 July 2005), because at any rate the new rule replaced the old rule seamlessly, so that at no time there was a period where the infringement was not subject to a fine).

³¹⁰ BVerfG, 30 August 2013, 2 BvR 2752/11, WuW/DE-R 4081 – *ThyssenKrupp Nirosta*.

³¹¹ Cf., e.g., Yomere, A. (2013) Die Novellierung des Kartellbußgeldverfahrens Durch Die 8. GWB-Novelle, WuW. 1187-1196, who finds the duty to reveal sales data under the new § 81a GWB to infringe the *nemo tenetur* principle and the provisions on legal successions in § 30(2a) OWiG to infringe the principle of personal culpability. She also considers “desirable” the presence of an interpreter where a foreign competition official is present during an inspection.

D. United Kingdom

1. Historical Background

a. *The statutory framework*

Section 36(1) and (2) of the Competition Act 1998 provided the Office of Fair Trading (OFT) the power to require an undertaking to pay a penalty in respect of an infringement of the Chapter I, Chapter II prohibition of the Competition Act 1998, as well as EU competition law. The OFT has discretion to impose financial penalties where the infringement has been committed intentionally or negligently by the undertaking³¹², up to the level of 10% of the undertaking's worldwide turnover³¹³. The Competition Act 1998 also required the OFT to publish guidance on how it determines the appropriate amount of the financial penalty imposed, which the OFT has done in several occasions³¹⁴. Under the previous competition law regimes implemented in the UK no conduct was unlawful until after it had been proscribed by an order of the Secretary of State for Trade and Industry or after the firm concerned had given a legally binding undertaking to the Competition Authority (the Director General of Fair Trading at the time) that it would refrain from anti-competitive conduct. Therefore no penalties could be levied for previous conduct, no matter how damaging to competition.

The CMA may of course make a finding of an infringement of the Competition Act even if no penalty is imposed, if it shows a legitimate interest in making such decision without imposing penalties. Yet, this requirement of intention or negligence has been broadly interpreted by the courts. For instance, the CMA does not have to decide if the conduct was committed intentionally or negligently, a cumulative qualification being sufficient for the purposes of imposing a financial penalty³¹⁵. According to the CAT,

“As to the meaning of “intentionally” in section 36(3), in our judgment an infringement is committed intentionally for the purposes of the Act if the undertaking must have been aware that its conduct was of such a nature as to encourage a restriction or distortion of competition:[...]. It is sufficient that the undertaking could not have been unaware that its

³¹² Section 36(3) of the Competition Act 1998.

³¹³ Section 36(8) of the Competition Act 1998. Also Order 2000, SI 2000/309, which specifies how the turnover of the undertaking is to be determined for the purposes of section 36(8) of the Competition Act 1998, as amended by the Competition Act 1998 (Determination for Turnover of Penalties) (Amendment) Order 2004, SI 2004/1259.

³¹⁴ Section 38(1) Competition Act 1998.

³¹⁵ *Napp Pharmaceutical Holdings Ltd v. Director General of Fair Trading*, 1001/1/1/01 [2002], paras 453-455.

conduct had the object or would have the effect of restricting competition, without it being necessary to show that the undertaking also knew that it was infringing the Chapter I or Chapter II prohibition:[...]. While in some cases the undertaking's intention will be confirmed by internal documents, in our judgment, and in the absence of any evidence to the contrary, the fact that certain consequences are plainly foreseeable is an element from which the requisite intention may be inferred. If, therefore, a dominant undertaking pursues a certain policy which in fact has, or would foreseeably have, an anti-competitive effect, it may be legitimate to infer that it is acting "intentionally" for the purposes of section 36(3).

As to "negligently", there appears to be little discussion of this concept in the case law of the European Community. In our judgment an infringement is committed negligently for the purposes of section 36(3) if the undertaking ought to have known that its conduct would result in a restriction or distortion of competition [...]. For the purposes of the present case, however, we do not need to decide precisely where the concept of "negligently" shades into the concept of "intentionally" for the purposes of section 36(3), nor attempt an exhaustive judicial interpretation of either term"³¹⁶.

One should also consider the limited immunity in relation to "small agreements", other than price fixing, under Section 39 of the Competition Act 1998 for infringements of Chapter I, or "conduct of minor significance", under Section 40 of the Competition Act 1998, for infringements of Chapter II, which preserve infringers from the effect of financial penalties imposed under Section 36(2) of the Competition Act 1998. The concept of "small agreements" refers to agreements where the combined turnover of the parties in the preceding calendar year was £20 million or less³¹⁷. The concept of "conduct of minor significance" has been interpreted as referring to conduct where the perpetrator's worldwide turnover in the preceding calendar year was £50 million or less³¹⁸. The CMA may however withdraw the immunity, if as a result of an investigation, it considers that the conduct is likely to infringe the Chapter I and II prohibitions.

The OFT published Guidance in 2000 on the methodology for setting financial penalties, which were revised in 2004 and most recently in 2012. The Guidance explains the steps which the OFT takes in calculating a penalty, setting out an approach in different steps. In the 2004 version of the Guidance these consisted in taking a percentage of the relevant turnover as a starting point (step 1), adjust for the duration of the infringement (step 2), adjust for other factors in order to achieve the policy objectives pursued, in particular deterrence (step 3), adjust for aggravating and mitigating factors

³¹⁶ Ibid., paras 456-457.

³¹⁷ Competition Act 1998 (Small Agreements and Conduct of Minor Significance) Regulations 2000, SI 2000/262, reg 3.

³¹⁸ Competition Act 1998 (Small Agreements and Conduct of Minor Significance) Regulations 2000, SI 2000/262, reg 4.

(step 4) and adjust to prevent the maximum penalty being exceeded (step 5). Normally the Guidance does not bind the Competition Appeal Tribunal (CAT), to which decisions on financial penalties may be appealed³¹⁹.

b. The impact of the judicial control of the CAT

A crucial development regarding the OFT's fining policy occurred with the CAT's judgments in the construction cartel cases (nine judgments in the construction bid-rigging cartel³²⁰ and one judgment on the construction recruitment forum cartel³²¹), where the CAT slashed fines imposed by the OFT by up to 90%. The OFT had in its decisions imposed financial penalties with the view that these should have a sufficient deterrent effect. Yet, this led to the charge that the level of these financial penalties was excessive. Most of the cases consisted in the practice of "simple" cover pricing and compensation payments made by the company providing the cover price to the company receiving it in the event that the former won the tender to which the cover price related, the OFT considering that the infringements involving compensation payments to be more serious than those involving "simple" cover pricing. The OFT imposed penalties amounting to just under £130 million, the individual fines ranged from £173 to almost £18 million, having calculated the penalties according to its own Guidance at the time (the 2004 version of it). In particular, at step 3, providing for an adjustment of the penalty figure in order to achieve deterrence, the OFT was concerned that in some cases the penalty arrived at by step 2 was small compared to the undertaking's total worldwide turnover and in order to achieve deterrence, in particular in view of the economic size of the undertakings, the OFT increased the penalty, where necessary, to a level equivalent to a specific proportion (0.75% or 1.05%) of the undertaking's worldwide turnover in the year prior to the decision.

The OFT arrived to the figures of 0.75% (for simple cover pricing) and 1.05% (for infringements involving compensation payments) under the assumption that the undertaking's turnover in the relevant market represented at least 15% of its total worldwide turnover. The OFT then applied the relevant Step 1 starting point percentage (5% or 7%, as the case might be) to this assumed 15%, resulting in the 0.75% or 1.05% figures. This was the so-called "minimum deterrence threshold" ("MDT"), which when applied had the effect of dissociating the link between penalty for the particular infringement and the actual relevant turnover, the financial penalty being instead related

³¹⁹ On this issue, see our discussion in Part VI of this report.

³²⁰ *Kier Group and Others v. OFT* [2011] CAT 3; *Durkan Holdings and Others v OFT* [2011] CAT 6; *GF Tomlinson and Others v OFT* [2011] CAT 7; *Barrett Estate Services and Others v OFT* [2011] CAT 9; *Crest Nicholson v OFT* [2011] CAT 10; *Quarmby Construction Company v OFT* [2011] CAT 11; *GMI Construction Holdings and Others v OFT* [2011] CAT 12 (GMI); *AH Willis v OFT* [2011] CAT 13; *North Midland Construction v OFT* [2011] CAT 14.

³²¹ *Eden Brown & Others v OFT* [2011] CAT 8.

to total worldwide turnover. This led to fines after step three that were approximately 175% larger than what it should have been had the MDT not applied. The parties argued at the CAT that the MDT has been applied too mechanistically and produced fines which were unfair. The parties had also challenged, among other things, the definition of the relevant turnover by the OFT, for instance in the construction recruitment forum case, the reliance by the OFT on the gross turnover of the undertakings, instead of using net fees that would have not included temporary worker's wages, in view of the specificity of the recruitment industry³²².

With regard to the first point, although the CAT recognized the OFT some margin of appreciation in considering that the infringements were serious, it also held that "cover pricing" was a less serious infringement than bid rigging and in view of the low margins in the industry, among other things, which did not support the existence of substantial cartel overcharges, the final penalties imposed by the OFT were excessive. The CAT contested the OFT's decision to consider 5% of the relevant turnover as the starting point for the base fine under step 1, the OFT Guidance on fines setting a maximum of 10%, since the difference between 5% and 10% did not adequately reflect the distinction in culpability between cover pricing as practised in the construction industry in the relevant period and, say, a multi-partite horizontal price fixing or market sharing cartel", hence "(g)reater head-room is required to accommodate the latter type of offence within the range currently provided by Step 1 of the Guidance"³²³. A starting point of 3.5% was more appropriate in such cases, although the CAT also recognized that the OFT was entitled to choose the same starting point for all infringements (cover pricing and compensation payments), if the differences among them could be accommodated at a later stage in the fining methodology³²⁴. These adjustments under step 3 were even more necessary as the definition of the market for the purpose of defining the relevant turnover by the OFT was extremely narrow. The CAT also found that the OFT had misapplied its own Guidance by taking into account in order to define the relevant turnover the relevant market in the last year prior to the adoption of the decision, instead of the turnover in the last year of the undertaking's participation in the infringement, as it was indicated in the OFT Guidance. The CAT referred to some case law of the Court of Justice of the EU emphasising the importance of taking into account turnover which reflects the undertaking's real economic situation during the period in which the infringement was committed, also observing that in case the OFT intended to adopt a different policy, they should first have consulted upon and sought approval for the change, eventually revising the Guidance. In the construction recruitment forum case, the CAT also held that the OFT should not focus mechanistically on the undertaking's audited accounts, if there are more appropriate indicators of actual economic performance and activity of the business carried out by the undertaking in question.

³²² *Id.*

³²³ *Kier Group and Others v OFT* [2011] CAT 3, para. 114.

³²⁴ *Ibid.* at para. 121.

More importantly, the CAT challenged the mechanical use of the MDT by the OFT, with the aim to treat parties in different cases in a more uniform way, as this conflicted with the principle that penalties had to be assessed on a case-by-case basis, with regard to the individual circumstances of the parties, and the principle of proportionality. The CAT did not oppose to the use of the MDT, as “there is nothing in Step 3 which precludes, or is inconsistent with, use of a mechanism to assist the OFT in making an appropriate adjustment, provided always that the resulting figures are subject to an individual appraisal ensuring a proportionate penalty”³²⁵. According to the CAT, the choice of the 15% of the turnover was not justified, and in any case the bluntness of the method enhanced the risk of disproportionate figures, particularly in the case of firms with very substantial activities outside the sector to which the infringement related. For the CAT, and contrary to the assumptions behind the MDT, profits and cash flow was more important than turnover to take into account. More importantly, for the CAT, “there must be a link between culpability and the deterrent element in the penalty”, yet the MDT severed this link³²⁶. According to the CAT,

“(i)t is a cardinal principle that the ultimate penalty imposed must satisfy the requirements of proportionality. Whilst deterrence is a relevant consideration when assessing proportionality in this context, so equally is the culpability of the offender/seriousness of the offence. If these two considerations pull in different directions, a fair balance should be sought. Where a provisional penalty at Step 1 is deemed insufficient for the purpose of deterrence (or for that matter does not properly reflect the seriousness of the offence) it is proper to increase it. But the culpability consideration must not be lost to view, and it may well impose some limit on the extent of any increase based purely on deterrence. Ultimately the question will be: is the final penalty reasonable and proportionate having regard to the twin objectives set out in paragraph 1.4 of the Guidance? We are not aware that any of the above is controversial”³²⁷.

Indeed, “determination of the penalty requires a refined consideration and assessment of all the relevant circumstances, and the element of deterrence, while undoubtedly one of those circumstances, should not lead to the level of penalty being calculated according to a mathematical formula”³²⁸. For the CAT, a mechanistic approach would run “counter to the thrust of the Guidance and ordinary penal principles, which require a case-by-case analysis and assessment of the appropriate penalty” and also may lead to excessive and disproportionate fines³²⁹. The OFT “should

³²⁵ *Ibid.* at para. 181.

³²⁶ *Ibid.* at para. 174.

³²⁷ *Kier Group and Others v OFT* [2011] CAT 3, para. 175.

³²⁸ *Eden Brown and Others v OFT* [2011] CAT 8, para. 99.

³²⁹ *Kier Group and Others v OFT* [2011] CAT 3, para. 184.

have taken a step back and ask itself whether in all the circumstances a penalty at the proposed level is necessary and proportionate in order both to punish the particular undertaking for the specific infringement and to deter it and other companies from further breaches of that kind³³⁰, looking “critically at the figure produced by the MDT”³³¹. The CAT even made the suggestion for such a step, of stepping back, to be formalized in the OFT Guidance, in order to avoid a mechanistic application of a formula³³².

The jurisprudence of the CAT led the OFT to revise its Guidance in 2012 and introduce a new step (new step 4) in order to examine whether the penalty is proportionate as part of its overall assessment, after adjustments have been made on the basis of aggravating and mitigating factors and also achieves deterrence, emphasising the need for flexibility and an assessment of the individual circumstances of each case.

Following the implementation of the new UK enforcement regime introduced by the Enterprise and Regulatory Reform Act 2013 on 1 April 2014, the functions of the Competition Commission and many of the functions of the OFT were transferred to the Competition and Markets Authority (CMA), which became the main competition law enforcer in the UK (the OFT and the Competition Commission being abolished). Hence, the provisions empowering the OFT to impose financial penalties are now implemented by the CMA. The CMA has also published on their website all the previous guidelines of the OFT, in particular those on financial penalties³³³ and leniency³³⁴, thus indicating that they will follow on the same policies.

The legislator also put more emphasis on deterrence, thus tilting the balance between deterrence and proportionality to the former. Section 44 of the Enterprise and Regulatory Reform Act (ERRA) 2013 amended section 36 (penalties) of the Competition Act, by adding after subsection (7), subsection (7A) stating the following:

“In fixing a penalty under this section the CMA must have regard to
(a) the seriousness of the infringement concerned, and
(b) the desirability of deterring both the undertaking on whom the penalty is imposed and others from (i) entering into agreements which infringe the Chapter 1 prohibition or the prohibition in Article [101](1), or (ii) engaging in conduct which infringes the Chapter 2 prohibition or the prohibition in Article [102].”

³³⁰ *Ibid.* at para. 166.

³³¹ *Ibid.* at para. 168.

³³² *Ibid.* at para. 186.

³³³ OFT 423, OFT's guidance as to the appropriate amount of a penalty (September 2012).

³³⁴ OFT 1495, Applications for leniency and no-action in cartel cases (July 2013).

Section 38 of the Competition Act was also reformulated by ERRA 2013 in order to impose an obligation to the Competition Appeal Tribunal to “have regard” to the guidance published by the CMA, thus indicating the need for the CAT to take, probably more into account, the OFT’s policy objectives of general deterrence. It remains to be seen if this textual reformulation will have any impact on the deference provided by the CAT to the OFT’s determination of financial penalties.

Ensuring general and specific deterrence, while making sure that financial penalties are proportionate has been a recurrent theme in the development of an effective sanctions system, not only in the context of competition law, but also for all types of regulatory offenses. The six principles of regulatory sanctions developed by the Macrory report on Regulatory Justice: making Sanctions Effective (2006) recognize the complexity of integrating various parameters in the decision to impose variable monetary administrative penalties³³⁵. Of particular interest is also one of the recommendations of the report to assess carefully the advantages and disadvantages of setting an upper limit to variable monetary administrative sanctions in underlying legislation, as this would pose undue complexity on the system³³⁶. Regulators should have flexibility and ability in “capturing the financial benefit businesses may have acquired through a regulatory breach”, hence the suggestion not to specify an upper limit. These suggestions illustrate the trend towards a more flexible, case-by-case approach in determining the level of sanctions, based on the harm inflicted by the violation with the addition of tools to take into account the objective of general deterrence and the low probability of detection for some regulatory offenses.

2. Description of the current system

a. Overview

The OFT Guidance of 2012 indicates that a financial penalty imposed by the OFT (now CMA) under section 36 of the Competition Act 1998 will be calculated following a six-step approach:

Step 1: calculation of the starting point having regard to the seriousness of the infringement and the relevant turnover of the undertaking

•Step 2: adjustment for duration

Step 3: adjustment for aggravating or mitigating factors

Step 4: adjustment for specific deterrence and proportionality

Step 5: adjustment if the maximum penalty of 10 per cent of the worldwide turnover of the undertaking¹⁷

Step 6: adjustment for leniency and/or settlement discounts.

³³⁵ Macrory, R. (Nov. 2006) Regulatory Justice: Making Sanctions Effective, Final Report. 29-31.

³³⁶ *Ibid.* at 48.

b. Fining Practice

The analysis of the fining practice of the OFT shows that in general the average starting amount for fines in the UK is relatively lower, compared to the EU and the US, with a 9.3% proportion of the firm sales in the relevant market taken into account, as opposed to 21.5% in the EU and 20% in the US. This percentage increases slightly after deterrence is considered to 12.1%, after aggravating/mitigating circumstances to 12.7%, before being reduced to 12.6% after adjustment for the 10% turnover limit and 9% after leniency. This percentage is significantly lower than the average of 15.8% for the EU and 21.5% for the US (after leniency). The fact that the financial penalty as a proportion of total turnover is not capped in the US, explains of the higher on average financial penalties as a proportion of firm sales in the relevant market³³⁷.

A closer look to the fining practice indicates that the OFT proceeded to impose a significant amount of financial penalties in some horizontal price fixing cartels, most notably in the airline passenger fuel surcharges cartel with a total fine to British Airways (BA) of the amount of £58.5 million (2012)³³⁸, which was a substantial decrease from the staggering £121.5 million requested from BA in the early resolution agreement between the OFT and BA in 2007³³⁹, the OFT re-calculating the fine in view of the CAT's more restrictive case law after the construction cartel cases in 2011. The fine was reassessed following the issue of a Statement of Objections in November 2011 also in light of the overall value added to the OFT's investigation by BA's co-operation was greater than had been anticipated at the time of the original agreement. One may also note the OFT's fines (for price information exchange) against Royal Bank of Scotland, a fine of £ 28.59 million³⁴⁰, but also in abuse of dominance cases, such as a fine by the Gas and Electricity Markets Authority, a concurrent enforcer of competition law in the UK in the energy sector, against National Grid for £41.6 million³⁴¹ or for vertical price fixing against Imperial Tobacco for the amount of £112.4 million approximately³⁴² (see Appendix 1). Some significant cases of the OFT led also to significant aggregate financial penalties to the participants to the infringement. For instance, in the tobacco case the total fines imposed amounted to £225 million³⁴³, in the dairy products case to £49.51 million³⁴⁴, in the

³³⁷ OFT 1132, An assessment of discretionary penalties regimes, Final report (October 2009), 74-75.

³³⁸ OFT Press release (2012) <http://www.of.gov.uk/news-and-updates/press/2012/33-12#.U4HmDZBuUI>

³³⁹ OFT Decision CA98/01/2012; Case CE/7691-06.

³⁴⁰ OFT Decision CA98/01/2011; Case CE/8950/08.

³⁴¹ GEMA Decision CA98/STG/06.

³⁴² OFT Decision CA98/01/2010, Case CE/2596-03.

³⁴³ *Id.*.

³⁴⁴ OFT Decision CA98/03/2011, Case CE/3094-03.

construction industry cartel £129.2 million (after leniency)³⁴⁵. The OFT has also proceeded so far to a reduction of fines for leniency purposes. For instance in construction recruitment case, the OFT limited the total fine to £39.3 million approximately from £173 million before leniency³⁴⁶.

In view of the relatively small number of decisions imposing financial penalties for infringements of competition law in the UK, we do not include statistics but a table with all the decisions imposing fines, which is available at the Appendix 1 [See also, Table 10 below].

Year of infringement decision	Number of infringement decisions	Post leniency and settlement fines (£)	Value of fines post-appeal (£)
2001	1	3,210,000	2,200,000
2002	4	6,515,409	6,187,369
2003	5	48,046,598	37,991,000
2004	2	2,004,626	1,922,835
2005	4	696,897	696,897
2006	3	2,624,267	2,624,267
2007	-	-	-
2008	-	-	-
2009	2	168,044,016	71,280,274
2010	1	221,642,290	58,138,327
2011	3	88,275,056	84,348,556
2012	1	58,500,000	58,500,000
2013	3	3,298,633	3,298,633
		602,857,792	327,188,159

Table 10: Competition law infringement decisions in the UK and value of fines post leniency and post appeal

³⁴⁵ OFT Decision , CA98/02/2009, Case CE/4327-04.

³⁴⁶ OFT Decision, CA98/01/2009, Case: CE/7510-06.

E. FRANCE

1. Historical Background

The antitrust provisions related to antitrust agreements and concerted practices, from one hand, and abuses of dominant positions, from the other hand, were introduced in France in 1953 and 1963. Only criminal courts could impose antitrust sanctions (fines). The French Competition Authority (FCA) only had consultative functions (the powers of investigations were in the hand of the Ministry of Economy).

In 1977, the Minister of Economy was empowered of imposing administrative fines (up to 5% of the net turnover realized in France during the last financial year for undertakings and to 5 million of Francs for other legal entities).

In 1986, the new FCA (the “Competition Council”) has become in charge of the decision-making power. Decisions of the FCA could be challenged before the Paris Court of appeal.

In 2000, the antitrust provisions were introduced in the French Commercial Code (Articles L.420-1 and subsequent for the Legislative Party and R.420-1 and subsequent for the Decrees’ Party).

In 2001, the maximum amount of fines was set from 5% of the turnover realized in France to 10% of the global turnover. The 2001 Law has introduced a leniency program in French Law. The FCA has adopted a Leniency notice in 2006 which was revised in 2007 and 2009 in order to give clarifications on the conditions for leniency and on the procedure³⁴⁷. The 2001 Law has also introduced the settlement procedure in French Law. The FCA has adopted a notice on settlement procedure in 2011³⁴⁸.

In order to reinforce the separation of the powers of investigations and decision within the FCA, the Competition Council has become the Competition Authority in 2008. Its decisions are still challenged before the Paris Court of appeal.

In parallel with administrative fines, criminal penalties are still provided by the French Commercial Code. Under its Article L.420-6, *“any individual who takes part with fraud, personally and decisively, in the design, organization or implementation of practices referred to in articles L.420-1 and L.420-2 shall be sentenced to four years’ imprisonment and fined 75,000 Euros”*.

³⁴⁷ http://www.autoritedelaconcurrency.fr/doc/cpro_clemence_uk_2_mars_2009.pdf.

³⁴⁸ http://www.autoritedelaconcurrency.fr/doc/notice_antitrust_penalties_16may2011_en.pdf.

Criminal provisions are relatively rare. Criminal offenders are especially prosecuted for having been involved in bid rigging and others criminal infringements (*i.e.* corruption).

a. *The fining policy of the FCA before the adoption of the 2011 sentencing guidelines*

A 1992 Law has laid down three criteria which should be used to set the amount of the fines: the seriousness of the facts, the damage caused to the economy and the position of the convicted person.

Despite this distinction, the FCA has not always reasoned its decisions on each of these three criteria. The FCA could invoke anticompetitive effects without identifying the seriousness of the facts or the damage caused to the economy. The reasoning was therefore general³⁴⁹. Sometimes, the application of these criteria was confusing: the impact on prices of collusion was analysed regarding the seriousness of the facts, not the damage caused to the economy³⁵⁰. This is also the case concerning the duration of the antitrust practices which is considered as a relevant element for the assessment the seriousness of the facts and the damage caused to the economy³⁵¹.

The fining policy could be considered as having more of a retributive function than a deterrent one taking into account, for instance, social issues³⁵², health issues³⁵³ or the fact that the victims of the antitrust behaviours were fragile³⁵⁴. The jurisprudence of the Paris Court of appeal was especially attentive to the retributive function of the fines.

The Paris Court of appeal has full jurisdiction on decisions of the FCA. The Paris Court of appeal quite used to review the decisions of the FCA, especially the assessment of the criteria used to set the amount of the fines.

³⁴⁹ See for instance, Decisions N°93-D-40 of 12nd October, 1993. Please note that 93 mean the year of the adoption of the decision and 40 mean the number of the decision.

³⁵⁰ See for instance, Decisions N°97-D-47 of 11th June, 1997.

³⁵¹ 2011 SG, §22 (see for instance, Decision N°13-D-06 of 28th February, 2013, §231).

³⁵² The fact that the authors contribute to the local shop has been considered as a mitigating factor: Paris Court of appeal, 3rd June, 1993 (challenging decision N°92-D-38 of 9th June, 1992).

³⁵³ Decision N°2000-D-29 of 5th July, 2000 and decision N°03-D-61 of 17th December, 2003, esp. §79.

³⁵⁴ Regarding old people: Paris Court of appeal, 19th September, 2000 (challenging decision N°99-D-84 of 21st December, 1999).

b. The 2011 sentencing guidelines

After a public consultation, the FCA has adopted its sentencing guidelines (hereafter, “SG”) the 16th May of 2011³⁵⁵. The power for the FCA to adopt SG was strongly contested by lawyers. The Paris Court of appeal has decided that the FCA was empowered to adopt the SG, considered as guidelines which do not alter the legal framework³⁵⁶.

The SG does not apply for procedural infringements or failure to comply with the merger control regime³⁵⁷. The FCA can decide not to apply the SG (see SG, §7). The FCA has decided to depart from the SG method for an infringement of a very short duration and without impact³⁵⁸ and when the legal framework and the behaviour of the administration have encouraged the infringement³⁵⁹.

The SG aim to introduce a fining policy more:

- (i) deterrent (general deterrence);
- (ii) coherent from a national perspective (cohesion of the fining policy of the FCA);
- (iii) coherent from an European perspective (soft harmonization with the European Commission policy); and
- (iv) reasoned in order to limit judicial review of the decisions of the FCA³⁶⁰.

2. Description of the Current System

a. Overview

The 2011 Guidelines provide that the FCA will now rely on the direct turnover achieved in France by the company concerned on the relevant market during the last full year of the infringement, with limited exceptions where the turnover and/or the last full year is not the most representative reference (points 33 and seq.). The approach is very similar to that of the Commission. The basic amount of the fine is constituted by a share of this annual turnover, in principle between 0 and 30 % (and even between 15 and 30 % for hardcore horizontal restrictions) reflecting the seriousness of the infringement and the importance of the resulting damage to the economy³⁶¹) The Notice then

³⁵⁵ http://www.autoritedelaconurrence.fr/doc/notice_antitrust_penalties_16may2011_en.pdf.

³⁵⁶ Paris Court of appeal, 30th January, 2014 (challenging decision N°11-D-17 of 8th December, 2011).

³⁵⁷ See, for instance, Decisions N°12-D-12 of 11th May, 2012, N°12-D-15 of 9th July, 2012, N°13-D-01 of 31st January, 2013 and N°13-D-22 of 20th December, 2013.

³⁵⁸ Decision N°13-D-03 of 13th February, 2013, esp. §392.

³⁵⁹ Decision N°12-D-26 of 20th December, 2012, esp. §§290-291.

³⁶⁰ See SG, §§ 1-19.

³⁶¹ See SG §40.

provides that duration is integrated to this amount according to a methodology leading to lower fines than that followed by the European Commission as the FCA applies a ratio of 1 for the first year, and then of 0.5 for each additional year. However, in bid-rigging cases, the FCA does not apply this method but rather retains a proportion of the total turnover achieved in France by the entity concerned or the group to which it belongs. This proportion will be defined taking into account the seriousness of the facts and of the harm done to the economy³⁶². At this stage, the FCA proceeds to individualize the fine, based on mitigating and aggravating circumstances. Recidivism may, for example lead to an increase by 15 to 50%. An additional individualization occurs with regard to the size, the more or less significant economic power the company concerned enjoys, its overall resources, the group to which the undertaking belongs³⁶³. This enables the FAC to tailor the specific deterrence effect of the sanction to the individual circumstances of the undertaking. Such factor has the potential to introduce significant changes in the final amount of the fine and may lead to impose higher fines to companies that are large and diversified, in comparison to smaller companies. After checking that the maximum fine level (10 % of the total annual consolidated turnover) is not met, reductions for leniency and settlement are applied and the inability to pay is also considered in order to reduce or annul the final amount of the fine. The following list summarizes the different steps of the fine-setting process.

Step1: Turnover of the market concerned multiplied by 0-30% gravity/damage.

Step 2: The amount after step 1 is multiplied with Duration $1+(0.5 \times \text{additional years})$.

Step 3: To this amount (after step 2) is subtracted approximately - 0-50% for each mitigating circumstance.

Step 4: To this amount (after step 3) is added approximately + 0-50% for each aggravating circumstance.

Step 5: The size and diversification of the undertakings is taken into account either to subtract or to add.

Step 6: Statutory maximum applied (10% of the total annual consolidated turnover).

Step 7: Leniency and settlement.

Step 8: Inability to pay.

³⁶² See SG, §§ 67-68.

³⁶³ See SG, §§ 47 seq.

b. Fining Practice

A closer look to the fining practice of the FCA indicates that the amount of fines imposed on average seems higher than the average of financial penalties in the UK, for instance, to compare with an economy with a roughly equal size. The FCA is also very actively enforcing competition law, with a significantly higher number of decisions imposing fines than the OFT in the UK. Fines for cartel cases tend to be significant in some cases. For instance, the FCA imposed in 2011 a fine of €240.2 million against Procter & Gamble, €92.3 million against Henkel and €35.4 million against Colgate Palmolive for their participation to a cartel involving the coordination of promotions and product offerings of laundry soap in French retail stores³⁶⁴. Equally, a fine of €117.4 million was imposed against Orange & France Telecom and €65.7 million against SFR for an abuse of a dominant position for price discrimination and foreclosure effect³⁶⁵, while €19 million was imposed against Nestle for an RPM and exclusivity clauses competition law infringement³⁶⁶.

³⁶⁴ Decision N°11-1-17 of 8 December 2011.

³⁶⁵ Decision N°12-D-24 of 13 December 2012.

³⁶⁶ Decision N°12-D-10 of 20 March 2012.

Appendix 2: Issues to be addressed in guidelines/statutory regime on fines: a Comparative perspective

A. Calculating the Basic Amount of the Fine

8. The Relevant Measure

a. EU: Value of Sales

For the calculation of the basic amount, first the value of the undertaking's sales of goods to which the infringement directly or indirectly relates in the relevant geographic market within the European Economic Area³⁶⁷ will be determined ("value of sales").³⁶⁸ As the Court noted in *Team Relocations*, "point 13 of the 2006 Guidelines pursues the objective of adopting as the starting point for the calculation of the fine imposed on an undertaking an amount which reflects the economic significance of the infringement and the size of the undertaking's contribution to it."³⁶⁹

It is important to note that the "goods to which the infringement directly or indirectly relates" are not restricted to those goods in respect of which it can be proved that the infringement had an effect,³⁷⁰ and they are also not synonymous with the relevant product market:³⁷¹ Where the price

³⁶⁷ Where the nature of the infringement requires it, the market share of a wider market may be applied to overall sales within the EEA, para. 18 of the 2006 Fining Guidelines. This will be the case, for example, for world-wide market allocation cartels, where some participants may not have any sales, or only sales not representative for their impact, on markets within the EEA. For the corresponding practice under the 1998 Guidelines, see, e.g., Commission decision, 24 January 2007, Case COMP/F/38.899 – *Gas Insulated Switchgear*, at recital 481:

Given the global character of the cartel arrangements, the worldwide sales figures give the most appropriate picture of the participating undertakings' capacity to cause significant damage to other operators in the EEA. This approach is supported by the fact that the object of the cartel was, inter alia, to allocate markets on a worldwide level. Thus, the worldwide turnover of any given party to the cartel also gives an indication of its contribution to the effectiveness of the cartel as a whole or, conversely, of the instability which would have affected the cartel had it not participated. In fact, since it is concluded that a common understanding existed that the Japanese undertakings would refrain from competing on the European market, the Commission would substantially underestimate the role of the Japanese participants in the cartel if it were to rely on turnover data pertaining only to the EEA. The comparison is made on the basis of the worldwide product turnover in the last full year of the infringement for each undertaking.

³⁶⁸ Para. 13 of the 2006 Fining Guidelines.

³⁶⁹ Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 para. 76.

³⁷⁰ Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 paras 76-78.

level of products or services that belong to another product market is influenced by the infringement, for example because the products or services that constitute the relevant product market serve as a reference point, the turnover with these products or services may be counted into the value of sales.

b. US: 20% of the volume of affected commerce,

As we have previously explained, the Sentencing Guidelines (SG) provide guidance on fines to organizations (and individuals) in the United States. Regarding Antitrust Offenses (bid rigging, price fixing and market allocation), Section 2R1.1.subsection (d) provides a special instruction for fines of organizations in order to define the base fine: “in lieu of the pecuniary loss”, as it is the case for other offenses without a special regime, the sentencing judge should use “20 percent of the volume of affected commerce”. This applies only to covert conspiracies that are intended to, and serve no purpose other than to, restrict output and raise prices, and that are so plainly anticompetitive that they have been recognized as illegal per se, without any inquiry in individual cases as to their actual competitive effect. Other antitrust offenses are not included, in view of the lack of consensus about their harmfulness. The 20 percent reflects the empirical basis of the guidelines at the time of their adoption (in 1987) that the average overcharge imposed by a price-fixing conspiracy is 10 percent. The Commission doubled the figure representing the average overcharge (10%) in order to account for losses, including customers who are priced out of the market (counterfactual customers). The Guidelines make the presumption of 10% overcharge almost conclusive. This forms one of the core assumptions of the antitrust part of the SG and their concern for deterrence although one may put forward that the percentage chosen underestimates the average overcharge and it should be set at a higher level³⁷². The purpose of specifying a percent of the volume of commerce is to avoid the time and expense that would be required for the court to determine the actual gain or loss. As it is explained by the SG Commission’s commentary, the offense levels are not based directly on the

³⁷¹ It is true that the General Court in *Team Relocations* stated that “[t]he wording of point 13 therefore relates to sales in the relevant market” (Judgment of the General Court, 16 June 2011, Joined Cases T-204/08 and T-212/08, *Team Relocations v Commission* [2011] ECR II-3569 para. 63, pointing to the German language version of para. 6 of the 2006 Fining Guidelines), and the Court of Justice upheld the decision on this point (Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 paras 80-81). However, the argument there was that para. 13 of the Guidelines referred to sales on the *entire* relevant product market, not only to that part of the product market that could be shown to be affected by the infringement. Arguably neither the General Court nor the Court of Justice wanted to exclude the possibility, clearly indicated in footnote 1 accompanying para. 13 of the 2006 Fining Guidelines, that an infringement could *indirectly* relate to other product markets than the relevant product market to which it relates directly.

³⁷² Connor, J.M., Lande, R.H. (2005) How High Do Cartels Raise Prices? Implications for Optimal Cartel Fines. *Tulane L. Rev* 80, 513, 516-518.

damage caused or profit made by the defendant because damages are difficult and time consuming to establish, while the volume of commerce is an acceptable and more readily measurable substitute. Empirical evidence on pre-guidance practice has also shown that fines increased with the volume of commerce. In cases in which the actual monopoly overcharge appears to be either substantially more or substantially less than 10 percent, this factor should be considered in setting the fine within the guideline fine range. The Commission's commentary also notes that another consideration in setting the fine is that the average level of mark-up due to price-fixing may tend to decline with the volume of commerce involved.

This is not the only possibility offered to assess the base fine. The Antitrust Division at the DOJ may also use the Alternative Fine Statute for fining cartel related activities occurring after June 22, 2004³⁷³. This text provides two additional measures for the base fine: (i) the pecuniary gain to the organization from the offense and (ii) the pecuniary loss from the offense caused by the organization, to the extent the loss was caused intentionally, knowingly, or recklessly as a measure for the base fine. The Antitrust Division will thus choose the greatest of either the affected volume of commerce, the pecuniary gain to the organization by the offense or the pecuniary loss from the offense. Practically, the third alternative is almost always the one applied as it leads to the largest fine range, because of the existence of a presumption of the pecuniary loss caused by the defendant equal to 20% of the affected commerce for the purpose of applying the alternative fine provision of the Comprehensive Crime Control Act. This leads the Antitrust Division to rely on the conspiracy's volume of commerce (not just that of the individual defendant's) and indicates that notwithstanding the option chosen the affected volume of commerce should be determined.

c. Germany: 10% of Domestic Sales connected with the Infringement

The 2013 Guidelines start with a generally assumed "gains and harm potential" of 10% of the domestic sales of products or services "connected with"³⁷⁴ the infringement over its entire duration (the "relevant turnover").³⁷⁵ Where the infringement evidently had a higher potential for gain and/or harm, the proportion of the relevant turnover may exceptionally be set higher than 10%.³⁷⁶

³⁷³ 18 U.S. CODE § 3571.

³⁷⁴ This is the formulation the English translation of the Guidelines uses; it is likely that this is to be interpreted along the same lines as the "related to the infringement" in the 2006 European Fining Guidelines.

³⁷⁵ Para. 10 of the Guidelines. Note that, in contrast to the EU Guidelines, the duration of the infringement is integrated into the determination of the affected sales. Where there were no or lower sales due to the nature of the infringement (such as a market allocation or bid-rigging cartel for the undertaking submitting cover bids), the affected sales will be estimated with reference to the sales that would have been expected in the absence of the infringement (para. 11 of the Guidelines and the examples in the explanatory notes accompanying the Guidelines). Where the infringement lasted less than 12 months,

The relevant turnover is then multiplied by a factor that varies with the aggregate annual worldwide turnover of the undertaking *i.e.*, the single economic entity, which may comprise several legal and/or natural persons; the relevant period is the financial year preceding the authority's decision.³⁷⁷ Where this turnover is below €100 million, the factor is 2-3; where it is between €100 million and €1 billion, the factor is 3-4; between €1 billion and €10 billion, the factor is 4-5; between €10 billion and €100 billion, the factor is 5-6; and above €100 billion, the factor is greater than 6.

Where the product of the relevant turnover multiplied by this factor is greater than the maximum statutory fine (10% of the aggregate worldwide turnover for intentional infringements or 5% for negligent infringements), the statutory maximum will be the relevant upper limit.³⁷⁸ Where the product of the relevant turnover multiplied by the factor is below the statutory threshold, this product will – absent special circumstances³⁷⁹ – constitute the relevant upper limit.³⁸⁰

d. United Kingdom: the relevant turnover

The starting point for determining the level of financial penalty is generally calculated by looking to the relevant (assumed) turnover of the undertaking, as well as the seriousness of the infringement³⁸¹. With regard to the relevant turnover, this is defined in the Guidelines as “the turnover of the undertaking in the relevant product market and relevant geographic market affected by the infringement in the undertaking's last business year”³⁸². An undertaking's last business year is the financial year preceding the date when the infringement ended. This introduces a change with regard to the 2004 Guidelines of the OFT, which took into account the year preceding the OFT's decision.

It has been suggested during the consultation leading to the adoption of the 2012 Guidelines that a minimum starting point of 25% should be set. However, the proposal met with strong opposition and such minimum was not finally included in the Guidelines.

para. 12 states that the calculation will be based on a period of 12 months, and that it is the 12 months prior to the end of the infringement that are relevant for the calculation.

³⁷⁶ Para. 15 of the Guidelines, and Explanatory Note, Comment 2 accompanying para. 10 of the Guidelines.

³⁷⁷ Para. 13 of the Guidelines with the accompanying Explanatory Note 4.

³⁷⁸ Para. 14 of the Guidelines and accompanying example 2 in the Explanatory Notes.

³⁷⁹ Para. 15 of the Guidelines.

³⁸⁰ Para. 14 of the Guidelines and accompanying example 1 in the Explanatory Notes.

³⁸¹ OFT (CMA) Guidelines (2012), para. 2.3. The OFT Guidelines on financial penalties are also engaging the CMA and are published at the CMA's website.

³⁸² OFT (CMA) Guidelines (2012), para. 2.7.

e. France: affected sales

The basic amount is set from the affected sales made during the ultimate full accounting year of participation in the infringement (see SG, §33 and s.)³⁸³. When bid-rigging is concerned, the FCA considers that a percentage on the global turnover is more appropriate than the value of the relevant market³⁸⁴.

2. Whose Sales are Taken into Account?

a. EU: The “Undertaking” and the Single Economic Unit

It is “the undertaking’s” sales that are taken into account. It is “the undertaking” that infringes competition law. The concept of undertaking in European competition law may comprise two or more legal entities, provided they act as a single “economic unit.”³⁸⁵ Such a single economic unit exists where a parent company has exercised decisive influence, directly or indirectly, over a subsidiary.³⁸⁶ Where a parent company holds a 100%, or nearly 100%, shareholding, the exercise of decisive influence is rebuttably presumed.³⁸⁷ Where the presumption applies, the Commission may consider the “parent company as jointly and severally liable for payment of the fine imposed on its subsidiary, unless the parent company, which has the burden of rebutting that presumption, adduces sufficient evidence to show that its subsidiary acts independently on the market.”³⁸⁸ Where

³⁸³ When the ultimate year is not representative, the FCA refers to several years. See, for instance, Decision N°12-D-02 of 12th January, 2012, esp. §§176 and 177.

³⁸⁴ Decision N°13-D-09 of 17th April, 2013, esp. §149.

³⁸⁵ Judgment of the Court (Ninth Chamber), 26 September 2013, Case C- 179/12 P, *Dow Chemical v Commission* [2013] ECR I-000 paras 52, 57; Judgment of the Court (Grand Chamber), 19 July 2012, Joined Cases C- 628/10 P and C- 14/11 P, *Alliance One International & Another v Commission* [2012] ECR I-000 para. 42; Judgment of the Court (First Chamber), 20 January 2011, Case C-90/09 P, *General Química SA and Others v Commission* [2011] ECR I-1 para. 35; Judgment of the Court (Third Chamber), 10 September 2009, Case C- 97/08 P, *AKZO Nobel v Commission* [2009] ECR I-8237 para. 55.

³⁸⁶ *Alliance One* (*supra* note 385) para. 43:

Specifically, the conduct of a subsidiary may be imputed to the parent company in particular where, although having a separate legal personality, that subsidiary does not decide independently upon its own conduct on the market, but carries out, in all material respects, the instructions given to it by the parent company, having regard in particular to the economic, organisational and legal links between those two legal entities (Case C- 97/08 P *Akzo Nobel and Others v Commission* [2009] ECR I- 8237, paragraph 58; *Elf Aquitaine v Commission*, paragraph 54, and Case C- 520/09 P *Arkema v Commission* [2011] ECR I- 8901, paragraph 38).

³⁸⁷ *Alliance One*, *supra* note 385, paras 46-48; *AKZO Nobel*, *supra* note 385, para. 60; *General Química*, *supra* note 385, paras 39-41.

³⁸⁸ *Alliance One*, *supra* note 385, para. 47 (with further references).

shareholdings are substantially below 100%, the presumption does not apply, and the Commission will have to adduce evidence for the actual exercise of decisive influence.³⁸⁹ To establish actual exercise, the Commission has to consider “*the economic, organisational and legal links which tie that subsidiary to the parent company, which may vary from case to case and cannot therefore be set out in an exhaustive list*”.³⁹⁰

While the Commission Decision has to be addressed to specific legal entities, all legal entities forming a “single economic unit” and therefore belonging to the same “undertaking” are jointly and severally liable. The Commission has discretion whether to address the decision to a parent where these requirements for parental liability are met.³⁹¹ Today, the Commission generally exercises this discretion in favour of addressing the decision also to the parent or parents.

b. US: Person/Participant to the conspiracy or his principal

According to the SG, the volume of commerce is the one done by the individual participant to a conspiracy or his principal in goods or services that were affected by the violation. When multiple counts or conspiracies are involved, the volume of commerce should be treated cumulatively to determine a single, combined offense level. Yet, such definition leaves an area of ambiguity, which is to define what portion of the commerce was in fact “affected” by the violation.

c. Germany: The “Undertaking” and the Single Economic Unit

§ 81(4) GWB, introduced by the 7th Amendment in 2005, that established the 10% turnover threshold in German law originally did not specify whose turnover was to be taken into account; the new § 81(4) GWB merely spoke of the turnover of the “undertaking”. This gave rise to a debate whether it one should use the company’s turnover, the turnover of the single economic unit, or the turnover of the entire corporate group. In 2007, the legislator inserted a clarification that the relevant turnover was the worldwide turnover of all the natural and legal persons acting as a single

³⁸⁹ *Dow Chemical v Commission*, *supra* note 385, paras 58-70 (discussing when the parents of a 50:50 joint venture are jointly and severally liable with the joint venture).

³⁹⁰ *Alliance One*, *supra* note 385, para. 45 (with further references).

³⁹¹ See *Alliance One*, *supra* note 385, a case in which the Commission had chosen to forgo sole reliance on the “100% presumption” for most addressees and had instead relied on a “dual basis”, holding the parents only liable where there was evidence of actual influence. For one addressee, however, it had exclusively relied on the “100% presumption”. The Court considered this differential treatment of addressees in one and the same case to infringe the principle of equality.

economic unit.³⁹² The *Grauzement* judgment of the BGH later held that the added sentence about the single economic entity was a mere declaratory clarification and that the same result had already obtained under § 81(4) GWB in the 2005 version, which had used the term “undertaking” that was to be interpreted with reference to the European concept of an undertaking that could comprise one or more legal entities forming a single economic unit.³⁹³

d. United Kingdom: The “Undertaking” and the Single Economic Unit

The relevant turnover taken into account is that of the undertaking found to infringe competition law. The undertaking in this context may include subsidiary entities as well.

e. France: The Undertaking and the Single Economic Unit

Only the sales made by the concerned legal entity are taken into account. A joint liability can be found when the parent company control the undertaking. Should a decisive influence of the parent company on the subsidiary established, the fact that the parent company was not involved in the antitrust practices is irrelevant³⁹⁴.

3. Calculation of Relevant Sales/Turnover

a. EU: Calculation of Relevant Sales

The 2006 Guidelines state that the Commission will “normally take the sales made by the undertaking during the last full business year of participation in the infringement”³⁹⁵ – before VAT and other directly sales-related taxes – as a basis.³⁹⁶ While the Commission has in some cases made use of this approximation permitted by the Guidelines for reasons of expediency, the Commission has in other cases taken into account the actual sales figures over the duration of the cartel where the data were easily accessible.³⁹⁷

³⁹² Article 1 no. 17 of the *Preismissbrauchsnovelle* of 18 December 2007, BUNDESGESETZBLATT PART I 2007, p. 2966 (the same amendment also added that the turnover may be estimated, and specified that the guidelines under § 81(7) GWB may, in particular, provide guidance as to the amount of the fine).

³⁹³ BGH, 26 February 2013 – KRB 20/12, WuW/E DE-R 3861, para. 66-70 – *Grauzement*.

³⁹⁴ Decision N°13-D-12 of 28th May, 2013, esp. §821.

³⁹⁵ Para. 13 of the 2006 Fining Guidelines. Paras 15 and 16 elaborate that the Commission will take the best available figures, and may make the determination on the basis of partial figures where the information are incomplete or unreliable.

³⁹⁶ Para. 17 of the 2006 Fining Guidelines.

³⁹⁷ Commission Decision, 8 December 2010, Case COMP/39.309 – *LCD* at recital 384:

The value of sales includes the undertaking's entire EEA-wide turnover of the goods to which the infringement relates, without deduction of input costs; the argument that the fine should be determined in relation only to the value added has been rejected by the Court, at least in the context of the 1998 Fining Guidelines.³⁹⁸

An issue that has recently become extremely controversial and has not been dealt with consistently in the Commission practice is the inclusion or exclusion of “captive” (or “internal”) sales into the value of sales, that is, the sales by a vertically integrated undertaking to its subsidiaries (or parents, respectively). In its earlier practice, the Commission had consistently included the value of such captive sales into the value of sales. Vertically integrated undertakings challenged this practice as inflating their value of sales, arguing that cartel prices had not been applied to internal sales. These arguments were rejected by the Commission and the Court, among other things, because (1) the value of sales included not only sales that were *affected* by the infringement (see above), and (2) vertically integrated undertakings indirectly benefit from the cartel prices being applied to outsiders, because the non-application of cartel overcharges to the internal sales means that the subsidiary operating downstream has a competitive advantage over its non-vertically integrated competitors on the downstream market.³⁹⁹

The Commission normally takes into account the sales made by an undertaking during the last full business year of its participation in the infringement (point 13 of the Guidelines on fines). In this case, however, the actual relevant data can be established with relative ease for the entire duration of the infringement. Moreover, having regard to the exponential growth of the sales over the different years for all undertakings (except Hannstar, whose sales anyway fluctuated enormously), in deviation from normal practice and in line with claims submitted by some parties, it is appropriate to take the average annual value of sales (based on the actual sales over the entire duration of the infringement) as the basis for the 'value of sales' calculation.

From a comparative perspective, it is noteworthy that the German 2013 Fining Guidelines (para. 11) appear to require the determination of sales generally over the entire duration, although they point out that an estimation is permissible.

³⁹⁸ Judgment of the Court (Second Chamber), 8 December 2011, Case C-272/09 P, *KME Germany v Commission* [2011] ECR I-12789 paras 40-57, in particular 53 (“[scil.: A distinction between] *net and gross turnover* [...] *would be difficult to apply and would give scope for endless and insoluble disputes, including allegations of unequal treatment.*”). This case was decided under the 1998 Fining Guidelines, but took the turnover on the relevant market into account in determining the gravity of the infringement, so that its conclusions may be indicative for the practice under the 2006 Fining Guidelines as well. Indeed, it is said that the Commission’s *Airfreight* decision (Case COMP/39.258, a decision whose non-confidential version is not yet available, and appeals against which are currently pending before the General Court) used the argument in the context of the 2006 Fining Guidelines; see Khan, *supra* n.182.

³⁹⁹ See, e.g., Commission Decision, 3 December 2003, 2004/420/EC Case C/38.359 – *Electrical & Mechanical Carbon & Graphite Products*, paras 291-295 (upheld in Judgment of the Court of First Instance (Fifth

Despite this approval by the Court of the Commission's practice to include the internal sales into the value of sales, the Commission has *excluded* these internal sales of vertically integrated undertakings in a number of more recent decisions, starting with the *Flat Glass* decision.⁴⁰⁰ This time the undertakings that were *not* vertically integrated challenged the fining decisions addressed to them, arguing that (1) internal sales were to be included in the value of sales of vertically integrated undertakings, and (2) if they were not included in the value of sales for the vertically integrated undertakings, this was de facto amounting to a reduction in the fine that should, for reasons of equal treatment, also be applied to the fines of the undertakings that were not vertically integrated. The General Court in its *Guardian* judgment sided with the Commission, and found no error in the Commission's exclusion of the value of the internal sales from the value of sales used for the calculation of the fines of the vertically integrated undertakings.⁴⁰¹ On appeal to the Court of Justice, Advocate General Wathelet has recently argued that the General Court erred in upholding the decision of the Commission in so far as it excluded the internal sales from the calculation of the value of sales for the vertically integrated undertakings.⁴⁰² It remains to be seen whether the Court agrees with this assessment by the Advocate General.

b. US: Calculation of the volume of affected commerce

As it was mentioned above, the SG retain the figure of 20% of the volume of the affected commerce as the starting point for setting the base fine. Much debate has followed the adoption of the SG on how the volume of commerce may be calculated. The SG do not provide much guidance on this issue. The prevailing practice has been to use only the volume of US commerce affected by the conspiracy, not that of the defendant⁴⁰³, when calculating that defendant's SG fine range. So only the domestic commerce (sales within the US) affected by the illegal conduct is taken into account. Foreign sales have been used more as an aggravating factor requiring an increase in the fine. Yet, the

Chamber), 8 October 2008, Case T-68/04, *SGL Carbon v Commission* [2008] ECR II-2511 and Judgment of the Court (Fourth Chamber), 12 November 2009, Case C-564/08 P, *SGL Carbon v Commission* [2009] ECR I-191*); *see already* Judgment of the Court, 16 November 2000, Case C-248/98 P (*KNP BT v Commission*), [2000] ECR I-9641, para. 62.

⁴⁰⁰ Commission Decision, 28 November 2007, C(2007)5791, Case COMP/39.165 – *Flat Glass*.

⁴⁰¹ Judgment of the General Court (Sixth Chamber), 27 September 2012, Case T-82/08 *Guardian Industries Corp. & Guardian Europe S.à.r.l. v Commission*, [2012] ECR II-000 (appeal pending, Case C-580/12 P).

⁴⁰² Opinion of Advocate General Wathelet, 29 April 2014, Case C-580/12 P, *Guardian Industries Corp. and Guardian Europe S.à.r.l. v Commission*.

⁴⁰³ Hammond, S.D. Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice (Nov. 3, 2005) Statement on Behalf of the United States Department of Justice, Before the Antitrust Modernization Commission Hearings on Criminal Remedies, available at <http://www.justice.gov/atr/public/testimony/othertestimony.html>.

factors attaching a sale to domestic commerce are unclear⁴⁰⁴. Potential relevant factors may include from the location and relationships between the manufacturing and sales arms of the defendants to the location of bank accounts from which money was transferred for the transaction, the location of contract negotiations and signing etc. The implementation of the domestic commerce criterion is particularly difficult in the context of a conspiracy involving international commerce, in view of the restrictive approach followed by the Supreme Court in *Empagran* with regard to the interpretation of the Foreign Trade Antitrust Improvements Act of 1982 (FTAIA), which defines the jurisdictional boundaries of the Sherman Act in cases involving international trade or commerce. As the Supreme Court explained in *Empagran*, US exporters (and firms doing business abroad) are not prevented from entering into business arrangements that are anticompetitive, as long as those arrangements adversely affect *only* foreign markets, mainly for reasons of comity⁴⁰⁵. These limits on the jurisdictional reach of the Sherman Act necessarily reduce the potential scope of the “volume of commerce” concept taken into account in setting penalties.

The issue of what may be included in domestic commerce has been debated in courts, which have increasingly an important role to play in the setting of fines, despite the existence of SG, some taking an expansive approach, finding that there is a presumption that affected commerce includes all sales during the period of the conspiracy, without regard to whether individual sales were made at the target price⁴⁰⁶, while others reject this expansive approach finding that only sales above the competitive market price should be included in “volume of affected commerce”⁴⁰⁷, and others prefer a rebuttable presumption that all sales during the period of the conspiracy have been affected by the illegal agreement⁴⁰⁸.

c. Germany: Calculation of the Relevant Turnover

The relevant turnover is (generally) 10% of the domestic turnover achieved by the undertaking from the sale of the products or services connected with the infringement over the duration of the violation; it may be estimated.⁴⁰⁹

The Bundeskartellamt applies § 38(1) GWB by analogy in order to calculate the relevant turnover, with the modification that sales between affiliated undertakings are included if they are connected

⁴⁰⁴ For a discussion, see Mutchik, J.H., Casamassina, C.T., Rogers, B.A. (June 2008) The Volume of Commerce Enigma. The Antitrust Source. 1-10.

⁴⁰⁵ *F. Hoffman-La Roche Ltd. V. Empagran S.A.*, 542 U.S. 155 (2004); FTAIA, 15 U.S.C. §6a.

⁴⁰⁶ *United States v. Hayter Oil CO.*, 51 F.3d 1265, 1273 (6th Cir. 1995).

⁴⁰⁷ *United States v. SKW Metals & Alloys Inc.*, 195 F.3d 83, 91 (2d Cir. 1999).

⁴⁰⁸ *United States v. Andreas*, 216 F.3d 645 (7th Cir. 1999).

⁴⁰⁹ Paras 10-11, 15 of the German Guidelines.

with the infringement.⁴¹⁰ § 38(1) GWB is the provision used for the calculation of turnover for purposes of merger control. It includes, by reference, the principles in § 277(1) of the Handelsgesetzbuch (Commercial Code, HGB). This provision states that turnover is the revenue from the sale or lease of products and goods that are typical for the usual activities of the corporation, and from services that are typical for the usual activities of the corporation, after the deduction of expenses and value-added tax. For financial institutions and insurance companies, § 38(4) GWB is applied by analogy.⁴¹¹

Where the turnover to be expected in the ordinary course of events does not materialize “due to the nature of the infringement or an unforeseen course of development”, the turnover that would have been achieved in the ordinary course of events will be used.⁴¹² The Explanatory Notes give the example of a market-sharing cartel for a case where the “nature of the infringement” prevents the expected turnover from arising.⁴¹³ As an example where an “unforeseen course of development” prevents the turnover from being achieved, the explanatory notes adduce the example of collusive tendering that fails because the contract is awarded to a third party or the tendering process is abandoned.⁴¹⁴

d. United Kingdom: Calculation of the Relevant Turnover

Relevant turnover is calculated after deducting sales rebates, VAT, and other taxes directly related to turnover. However, there is no need for the purposes of setting fines to proceed to a formal analysis

⁴¹⁰ Explanatory Note, Comment 4 accompanying para. 10 of the Guidelines. For the controversial question whether such “internal” or “captive” sales are to be considered under European Law, see the Flat Glass/Guardian case described in the National Report on the European Union.

⁴¹¹ Explanatory Note, Comment 4 accompanying para. 10 of the Guidelines. § 38(4) GWB provides (translation by the Bundeskartellamt):

In the case of credit institutions, financial institutions and building and loan associations, the turnover shall be replaced by the total amount of the proceeds referred to in § 34 (2) sentence 1 no. 1 point (a-e) of the Regulation on the Rendering of Accounts of Credit Institutions [Verordnung über die Rechnungslegung der Kreditinstitute] of 10 February 1992 (Federal Law Gazette [Bundesgesetzblatt] I p. 203), minus value added tax and other taxes assessed directly on the basis of such proceeds. In the case of insurance undertakings, the premium income in the last completed business year shall be relevant. Premium income shall be income from insurance and reinsurance business including the portions ceded for cover.

⁴¹² Para. 11, third sentence.

⁴¹³ Example 1 in the explanatory note accompanying para. 11, third sentence, of the Guidelines. This example seems to assume that the undertaking to be fined was allocated a market (at least partially) outside the territory of the Federal Republic of Germany.

⁴¹⁴ Example 2 in the explanatory note accompanying para. 11, third sentence, of the Guidelines.

of the relevant product market and the Courts have found sufficient for the OFT (CMA) “to be satisfied, on a reasonable and properly reasoned basis, of what is the relevant product market affected by the infringement⁴¹⁵”. Indeed, as this was recognized by the English Courts, this is by nature a hypothetical test (assumed turnover, not real turnover) and it is not necessary for the turnover to have a connection with the infringement in question⁴¹⁶.

It is possible for the CMA to determine the turnover for the starting point by considering not only the relevant product market directly affected by the infringement but also the turnover in related products which may reasonably be considered to have been affected by the infringement. For instance, in *Umbro* the OFT included turnover in socks and shorts although the infringement only concerned shirts, under the justification that shirt prices had spill over effects on related products and they were sold together as a kit in the majority of cases⁴¹⁷.

As it is explained in the Guidelines, the CMA will base relevant turnover on figures from an undertaking’s audited accounts, although it is also acknowledged that in exceptional circumstances it might be appropriate to use a different figure as reflecting the true scale of an undertaking’s activities in the relevant market⁴¹⁸. This is indeed the case where the remuneration for services supplied is based on commission fees. In these circumstances, the CMA will consider a number of factors, such as (i) whether the remuneration for the services is decided by the seller of the services or the client; (ii) whether the undertaking is purchasing inputs in order to supply a fresh product incorporating those inputs to its client; (iii) whether the person takes ownership of the goods and (iv) whether the person bears risks resulting from the operation of the business in question. Other particular circumstances may arise in the areas of credit, financial industries and insurance. In “relevant turnover is used to reflect the effective scale of activity of the undertaking and thus, where several undertakings are involved, to reflect the appropriate relationship between the penalties imposed on each of them”⁴¹⁹. In other words, the CMA should be careful not to just look to turnover figures found in the undertaking’s audited accounts. It might be appropriate, additionally, to explore if there are more appropriate indicators of actual economic performance and activity of the business carried out by the undertaking in question.

⁴¹⁵ *Argos Limited v. Office of Fair Trading and JJB Sports plc v. Office of Fair Trading* [2006] EWCA Civ 1318, para. 169, 170-173. See also *Umbro Holdings Ltd v. OFT* [2005] CAT 22, paras 111-112; *Quarmby Construction Company Limited & St James Securities Company Limited v. OFT*, [2011] CAT 11, para. 160.

⁴¹⁶ *Umbro Holdings Ltd v. OFT* [2005] CAT 22, paras 113-115.

⁴¹⁷ *Id.* at para. 116.

⁴¹⁸ OFT Guidelines (2012), para. 2.9. See *Eden Brown Ltd and others v Office of Fair Trading* [2011] CAT 8 (the *Construction Recruitment Forum* judgment), paras 44-59.

⁴¹⁹ *Eden Brown Limited v. OFT* [2011] CAT 8, para. 44.

When enforcing articles 101 and 102 TFEU, the UK competition authorities take into account the effects in another Member State of the agreement or the unilateral conduct in question, hence considering turnover generated in another member State if the relevant geographic market is wider than the UK and it has the express consent of the relevant Member State or National Competition Authority for the particular case⁴²⁰.

e. France: Calculation of the Relevant Sales

Only (but all) sales realized in France are taken into account when the practices concern only France (see SG, §34). When the practices had an impact on the sales outside France, all the sales realized in the concerned foreign countries are taken into account⁴²¹.

When the defendant is a commercial agent or intermediary, the relevant reference is the amount of its commissions, not of the value of the sales made in the name of the principal⁴²².

The taxes are excluded.

B. Determining the Basic Amount

1. Gravity/Seriousness of the Infringement

a. EU

Having calculated the value of sales, the gravity of the infringement will be assessed to determine the proportion of the value of sales to be considered in the setting of the fine. This proportion can, under the Guidelines, generally be set at up to 30 per cent of the value of sales.

Factors determining this percentage include the “nature of the infringement, the combined market share of all undertakings concerned, the geographic scope, and whether the infringement has been implemented”.⁴²³ Beyond these factors, “all the relevant circumstances of the case” will be taken into account.⁴²⁴

⁴²⁰ OFT Guidelines (2012), para. 2.10.

⁴²¹ See for a market-share agreement between France and Germany, Decision N°12-D-09 of 13th March, 2012, esp. §779. Only the seriousness and the damage caused to the Economy established in France were taken into account.

⁴²² Decision N°12-D-09 of 13th March, 2012, esp. §§781 and 782.

⁴²³ Para. 22 of the 2006 EU Fining Guidelines. See also the factors mentioned in Judgment of the Court (Second Chamber), 8 December 2011, Case C-272/09 P, *KME Germany v Commission* [2011] ECR I-12789 paras 96-97; Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 para. 100.

⁴²⁴ Para. 20 of the 2006 Fining Guidelines.

i. Nature of the Infringement

Hardcore infringements, such as horizontal price fixing, market sharing and horizontal output limitations, are said to usually result in a percentage of the value of sales close to 30 per cent.⁴²⁵ However, despite this announcement the percentage in most cartel cases has only been set at between 15 and 20 per cent of the value of sales,⁴²⁶ with the decision in *Marine Hoses* being one of the few instances where the Commission went beyond this range and used a percentage of 25 per cent.⁴²⁷

ii. Market Shares

Market shares have a double role to play. First, the combined market shares of, for example, cartelists is an indication for a higher impact of the cartel on the market and undistorted competition. Secondly, the market share of the individual participants of an infringement used to serve as an indicator for a differentiation between the individual contributions of the participants.⁴²⁸ However, under the 2006 Fining Guidelines, the market share will already directly affect the value of sales, so that an adjustment based on the market shares of the individual participants will usually not be indicated.⁴²⁹

⁴²⁵ Ibid., para. 23.

⁴²⁶ See, e.g., Judgment of the General Court (Third Chamber), 14 May 2014, Case T-406/09, *Donau Chemie v Commission* [2014] ECR II-000, paras 26, 63 (noting that despite the Guidelines the percentage was set at only 17% and therefore closer to the middle of the range); Judgment of the Court, 11 July 2013, Case C-439/11 P, *Ziegler SA v Commission*, [2013] ECR I-000 at paras 117-123 (noting that where the Commission set the percentage at 17% and accordingly “considerably below the upper limit of the scale ... for the most serious restrictions”, the addressee could not require a “particular explanation as to the choice of that percentage”); see also the parallel Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 paras 121-126. See also Khan, *supra* note 182, § 7-077.

⁴²⁷ Commission decision, 28 January 2009, Case COMP/39406 – *Marine Hoses* at recital 445.

⁴²⁸ See, e.g., Judgment of the General Court (First Chamber) of 13 July 2011, Case T-38/07, *Shell Petroleum v Commission* [2011] ECR II-4383 para. 154 (“[B]y setting the starting amount of the fine at a higher level for those undertakings with a relatively larger market share than the others in the relevant market, the Commission took account of the actual influence of the undertaking on that market. That factor is the expression of the higher degree of responsibility of the undertakings with a relatively larger market share than the others in the relevant market for the damage caused to competition and, in the final analysis, to consumers by forming a secret cartel”).

⁴²⁹ Judgment of the General Court (Third Chamber), 14 May 2014, Case T-406/09, *Donau Chemie v Commission* [2014] ECR II-000, para. 106.

iii. Geographic scope

The 2006 Guidelines mention the “geographic scope” as a factor in the determination of the gravity of the infringement. This is arguably a legacy from the 1998 Guidelines, where this factor was used in the categorization of an infringement as “minor”, “serious” or “very serious”.⁴³⁰ Under the 2006 Guidelines, the geographic scope will already be taken into account in the “value of sales”: a larger geographic scope will usually be automatically reflected in a higher value of sales.⁴³¹ It is, however, possible that a comprehensive geographic coverage may take on a separate importance, for example because a global cartel may distort competition to a greater degree than is reflected in the (EEA-wide) value of sales.

iv. Implementation

Implementation of the infringement is not to be confused with an impact on the market. Neither the 2006 Guidelines nor the Court require the Commission to determine an impact on the market.⁴³² The *implementation* of the infringement remains a factor to be considered for the determination of the gravity of the infringement under the 2006 Fining Guidelines, but this element is already fulfilled where, for example, a cartel agreement is *acted upon*, for example where an undertaking informs its employees or customers of (agreed) prices, or takes measures to supervise its own distributors’ or its competitors’ adherence to agreed prices.⁴³³ The enquiry into implementation does not entail an enquiry into actual *effects* on the market; even where an infringement is implemented, it is possible that there is no impact on the market.⁴³⁴ The Commission *may* additionally consider the actual effects of an infringement in the overall assessment, but is generally not obliged to do so, unless the undertaking can substantiate that there were no such effects on the market.⁴³⁵ Where the amount of gains improperly made as a result of the infringement is known, this will, under the 2006 Guidelines, be a reason to increase the fine.⁴³⁶

b. US⁴³⁷

As it was previously mentioned, only certain categories of antitrust offenses are subject to criminal penalties following the Sentencing Guidelines (for which there is “near universal agreement” that they can cause serious economic harm), such as horizontal price-fixing (including bid-rigging) and horizontal market allocation). For all other anticompetitive practices, other punitive and remedial

⁴³⁰ 1998 Fining Guidelines Section 1.A.: Where the restriction affected “only a substantial but relatively limited part of the Community market”, this was an indication for a “minor” infringement; where the restriction had “effects in extensive areas of the common market”, this was an indication for a “serious” infringement.

⁴³¹ See Khan, *supra* note 182, § 7-082.

tools, such as treble damages etc are available. Once the judge determines the volume of commerce and calculates the base fine (20%), the Organizational Guideline provides information on how to determine the firm's final offense level by reference to some "culpability multipliers".

Under one of the special instructions in §2R1.1(d), the minimum multiplier must be at least 0.75, so the bottom of the Guidelines range will be at least 15% of the affected volume of commerce, although in most cases that will be higher. For antitrust offenses the culpability multipliers may vary between 0.75 and 4, thereby producing a total fine between 15 and 80% of the volume of commerce. The sentencing judge has to multiply the base fine amount by the minimum and maximum culpability multipliers to arrive at the fine range. The relevant "culpability multiplier" is derived from a table in the Guidelines Manual by reference to the organization's "culpability score"⁴³⁸. For instance, a culpability score of 10 or more results in a minimum multiplier of 2.00 and a maximum multiplier of 4.00, while a lower culpability score of 3 results in a minimum multiplier of 0.60 and a maximum multiplier of 1.20⁴³⁹. The maximum and minimum multipliers are then used to calculate the guideline fine range under §8C2.7. To find the organization's culpability score, §8C2.5 instructs the judge to start with 5 and then add or subtract points based on the applicability of a number of factors set forth in that section. Hence, mitigating and aggravating circumstances are directly considered at the level of determining the guideline fine range, rather than as an adjustment to the base fine. Factors such as the duration of the infringement (and its effects) are in any case considered when examining the affected volume of commerce. In any case, no penalty can be less than 15% of the affected volume of commerce, no matter the culpability score that would otherwise apply. We will examine the culpability score, when we comment on mitigating and aggravating circumstances.

The guideline fine range is determined by multiplying the base fine calculated under §8C2.4 by both the minimum multiplier calculated under §8C2.6, which yields the minimum of the guideline fine

⁴³² See Judgment of the Court (Second Chamber), 8 December 2011, Case C-272/09 P, *KME Germany v Commission* [2011] ECR I-12789 paras 29-36.

⁴³³ Judgment of the General Court (Third Chamber), 14 May 2014, Case T-406/09, *Donau Chemie v Commission* [2014] ECR II-000, paras 69-72.

⁴³⁴ *Ibid.*

⁴³⁵ Cf. *ibid.*, paras 75-82; Judgment of the Court (Second Chamber), 8 December 2011, Case C-272/09 P, *KME Germany v Commission* [2011] ECR I-12789 paras 29-36.

⁴³⁶ 2006 EU Fining Guidelines, para. 31.

⁴³⁷ The developments draw partly on United States Sentencing Commission, Chapter Eight Fine Primer: Determining the Appropriate Fine Under the Organizational Guidelines (March 2013), available http://www.ussc.gov/sites/default/files/pdf/training/primers/Primer_Organizational_Fines.pdf

⁴³⁸ USSG §8C2.6.

⁴³⁹ USSG §8C2.6.

range, and by the maximum multiplier calculated under §8C2.6, which yields the maximum of the guideline fine range⁴⁴⁰. Courts may determine the appropriate fine amount between the minimum and maximum ranges resulting from application of the multiplier to the base fine. The court may depart up or down from the fine range due to various factors, including the risk presented by the offense to the integrity or continued existence of a market⁴⁴¹, if the organization is a public entity⁴⁴², or exceptional organizational culpability⁴⁴³. The policy statement at §8C2.8(a) instructs the sentencing court that, in determining the appropriate fine, the court must consider certain factors under 18 U.S.C. §§ 3553(a) and 3572(a). These may include the following: (i) the defendant's income, earning capacity, and financial resources, (ii) the burden that the fine will impose upon the defendant, any person who is financially dependent on the defendant relative to the burden that alternative punishments would impose, (iii) whether restitution is ordered or made and the amount of such restitution, (iv) the need to deprive the defendant of illegally obtained gains from the offense, (v) whether the defendant can pass on to consumers or other persons the expense of the fine, (vi) the size of the organization and any measure taken by the organization to discipline any officer, director, employee, or agent of the organization responsible for the offense and to prevent a recurrence of such an offense. It is also mentioned that if, as a result of a conviction, the defendant has the obligation to make restitution to a victim of the offense, other than the United States, the court shall impose a fine or other monetary penalty only to the extent that such fine or penalty will not impair the ability of the defendant to make restitution. An additional factor is whether the organization failed to have an effective compliance and ethics program at the time of the offense. The court may also consider the relative importance of any factor used to determine the fine range, so that a court is able to differentiate between cases that have the same offense level but differ in seriousness or between two cases with the same aggravating factors but where the factors vary in their intensity⁴⁴⁴.

c. Germany

Within the range between €5 (§ 17(1) OWiG) and the relevant upper limit as defined in paragraph 14 of the Guidelines, that is, the lower of (1) 10 per cent of the overall global turnover, or (2) 10 per cent of the relevant sales in Germany multiplied by a factor that depends on the overall global turnover, the Bundeskartellamt considers various criteria related to the offence itself and to the offender to determine the actual fine.

⁴⁴⁰ USSG §8C2.7(a), (b).

⁴⁴¹ USSG §8C4.5.

⁴⁴² USSG §8C4.7.

⁴⁴³ USSG §8C4.11.

⁴⁴⁴ USSG §8C2.8(b).

Under the non-exhaustive list of examples in paragraph 16 of the Guidelines, offence-related criteria are:

- the type and duration of the infringement,⁴⁴⁵
- its qualitative effects (*e.g.* size of the geographic markets affected by the infringement, significance of the companies involved in the infringement on the markets affected),⁴⁴⁶
- the importance of the markets (*e.g.* type of product affected by the infringement) and
- the degree of organisation among the parties involved.

Offender-related criteria are under the non-exhaustive list in the second bullet-point in paragraph 16 of the Guidelines:

- the role of the company (undertaking?) within the cartel,
- its position on the market affected,
- specifics concerning the degree of value creation,
- the extent of intention/negligence,
- previous infringements, and also
- the company's (undertaking's?) financial capacity.

d. United Kingdom

As it is explained in the CMA Guidelines (2012), the starting point, which is expressed as a percentage rate, will depend on the nature of the infringement. The more serious and widespread the infringement is, the higher the starting point is likely to be. The Guidelines list the following among the most serious infringements: price-fixing or market-sharing agreements and other cartel activities, but also serious infringements of the provisions on abuse of dominance position, such as predatory pricing⁴⁴⁷. The Guidelines apply a rate of up to 30% to an undertaking's relevant turnover in order to reflect adequately the seriousness of the particular infringement and hence increase deterrence. It is also mentioned in the Guidelines that the CMA will use a starting point towards the upper end of the range for the most serious infringements of competition law, including hardcore

⁴⁴⁵ It should be noted that the duration would already appear to be included in the German Guideline's definition of "relevant turnover", so that it arguably cannot be taken into account in so far as it would lead to double counting. As to the type of infringement, the Guidelines further note that "[i]n the case of price-fixing and quota cartels, territorial and customer agreements and other similarly serious horizontal competition restraints, the fine will usually be set in the upper range."

⁴⁴⁶ Again, one will have to avoid double counting: the size of the geographic market and the individual market share are generally already taken account of in the relevant turnover. The combined market share is likely to be of more relevance.

⁴⁴⁷ OFT (CMA) Guidelines (2012), para. 2.4. For an example of predatory pricing as a serious infringement, see *Aberdeen Journals Ltd v. Director General of Fair Trading* (No2) [2003] CAT 11, para. 491.

cartels and “the most serious” abuses of dominant position⁴⁴⁸. This constitutes a significant change in comparison to the previous 2004 OFT Guidelines, in which the maximum starting point was 10%, with the result that financial penalties in UK competition law were significantly lower than those in the EU and other jurisdictions⁴⁴⁹.

In determining the percentage rate, the CMA assesses the seriousness of the infringement, taking into account a number of (non-exhaustive) factors:

- the nature of the product,
- the structure of the market,
- the market share(s) of the undertaking(s) involved in the infringement,
- entry conditions and the effect on competitors and third parties
- the need to deter other undertakings from engaging in such infringements in the future
- the damage caused to consumers whether directly or indirectly will also be

This assessment is made on a case-by-case basis for all types of infringement, taking into account “all the circumstances of the case”⁴⁵⁰. It was however made clear by the CAT that the profit or gain of the infringing party is not a relevant factor in fixing the penalty, as the CAT accepted that the penalty may be several times greater than the profit margin earned on the relevant products⁴⁵¹.

e. France

The FCA takes into account the seriousness of the infringement, as well as the damages caused to the Economy.

The seriousness of the infringement depends on (non-limitative list):

- The nature of the competition restraint (systematic and the most important criteria);
- Number of practices⁴⁵²;
- The fact that a cartel is secret and intentional⁴⁵³;

⁴⁴⁸ OFT (CMA) Guidelines (2012), para. 2.5.

⁴⁴⁹ For a comparison, see OFT 1132, An assessment of discretionary penalties regimes (October 2009), pp. 61-62 (noting that because of this lower maximum starting point UK fines were on average 65% lower than comparable EU fines when firms sales in the relevant market are between €50m and €170 m. The study also noted that the base fine as a proportion of firm sales in the relevant market started at 9.3% in the UK, while it was 21.5% in the EU and 20.0% in the US, after initial adjustments the average fine increasing to 12.1% in the UK, 26.5% in the EU and 33% in the US).

⁴⁵⁰ OFT (CMA) Guidelines (2012), para. 2.6.

⁴⁵¹ *Argos Ltd & Littlewoods Ltd v. OFT* [2005] CAT 13 (judgment on penalty), para. 228.

⁴⁵² Decision N°13-D-21 of 18th December, 2013, esp. §536.

⁴⁵³ Decision N°12-D-09 of 13th March, 2012, esp. §792.

- The existence of a legal or factual monopoly⁴⁵⁴;
- The fact that the offender was previously in charge of a legal monopoly⁴⁵⁵;
- The existence of a monitoring of the cartel⁴⁵⁶;
- The nature of the products⁴⁵⁷;
- The legal framework⁴⁵⁸;
- The existence of economic difficulties⁴⁵⁹;
- An antitrust intent⁴⁶⁰;
- The identity of the victims⁴⁶¹;
- ...

However, a buying power of the victims is not relevant to mitigate the seriousness⁴⁶².

The damages caused to the Economy depend on (non-limitative list):

- The value of the relevant market;
- The combined market shares of the offenders⁴⁶³;
- The impact of the practices on the market⁴⁶⁴;
- The price elasticity of the demand⁴⁶⁵;
- Barriers to entry⁴⁶⁶;
- The duration of the infringement⁴⁶⁷;
- Characteristics of the relevant economic sector⁴⁶⁸;

⁴⁵⁴ Decision N°12-D-06 of 26th January, 2012, esp. §232.

⁴⁵⁵ Decisions N°12-D-25 of 18th December, 2012, esp. §679 ; N°13-D-20 of 17th December, 2013, esp. §577.

⁴⁵⁶ Decisions N°12-D-09 of 13th March, 2012, esp. §§795 and s. ; N°12-D-10 of 20th March, 2012, esp. §252 (absence of measures of deterrence) ; N°13-D-12 of 28th May, 2013, esp. §§916 and s.

⁴⁵⁷ Decision N°12-D-24 of 13th December, 2012, esp. §§618 and 621.

⁴⁵⁸ Decision N°12-D-26 of 20th December, 2012, esp. §§294-295.

⁴⁵⁹ Decision N°13-D-03 of 13th February, 2013, esp. §328.

⁴⁶⁰ Decision N°13-D-06 of 28th February, 2013, esp. §239 ; N°14-D-02 of 20th February, 2014, esp. §360. For a notice sent by the competition authorities in order to alert the entities about the illegality of its behaviour: Decision N°13-D-03 of 13th February, 2013, esp. §§ 419 and s.

⁴⁶¹ Taking into account that infringements concern public resources: Decisions N°13-D-14 of 11th June, 2013, esp. §170 ; N°13-D-21 of 18th December, 2013, esp. §533 (Public health).

⁴⁶² Decision N°12-D-27 of 20th December, 2012, esp. §242.

⁴⁶³ Decision N°12-D-09 of 13th March, 2012, esp. §801.

⁴⁶⁴ Decision N°12-D-06 of 26th January, 2012, esp. §243 (price increase) and §250 (necessity to launch a new tender).

⁴⁶⁵ Decisions N°12-D-06 of 26th January, 2012, esp. §248 ; N°12-D-09 of 13th March, 2012, esp. §810 ; N°12-D-10 of 20th March, 2012, esp. §260.

⁴⁶⁶ Decisions N°12-D-06 of 26th January, 2012, esp. §251; N°12-D-25 of 18th December, 2012, esp. §694 ; N°14-D-02 of 20th February, 2014, esp. §366.

⁴⁶⁷ Decision N°12-D-24 of 13th December, 2012, esp. §§632 and 664.

⁴⁶⁸ Decision N°12-D-24 of 13th December, 2012, esp. §§639 and s.

- ...

2. Duration

a. EU

Under the 2006 Fining Guidelines, the percentage of the value of sales determined in this way will be *multiplied* by the number of years of participation in the infringement,⁴⁶⁹ in contrast to the mere adjustment under the 1998 Fining Guidelines.⁴⁷⁰

This is arguably the most important change from the 1998 Fining Guidelines.⁴⁷¹ The General Court conceded that the way in which the duration is taken into account under the 2006 Fining Guidelines constituted “*a fundamental change in methodology as to how the duration of a cartel is taken into consideration*”, but it added that “*Article 23(3) of Regulation No 1/2003 does not, however, preclude such a development*”; the General Court noted that while the French-language version of Regulation 1/2003 seems to accord higher weight to the gravity of the infringement than to its duration, the German- and English-language versions of the Regulation accord equal weight to gravity and duration.⁴⁷²

b. US

The duration is already taken into account in the affected volume of commerce, because it is the affected volume of commerce “over the entire duration” of the infringement that is relevant.

c. Germany

⁴⁶⁹ Fractions of an entire year will be considered in the following way: 0<fraction≤6 months will be counted as half a year, 6<fraction≤12 months will be counted as one year. Para. 24, second sentence, of the 2006 EU Fining Guidelines. The Commission has, however, used the actual number of months, rather than rounding them up in some cases. See *Kerse & Khan*, *supra* note 182, § 7-087, quoting from Case COMP/39.258 – *Airfreight* at recital 1189 (currently there is no non-confidential version of this decision available).

⁴⁷⁰ As described above, the adjustment under the 1998 Guidelines was essentially 10% per year; under the 2006 Guidelines, the adjustment is 100% per year.

⁴⁷¹ Cf. Wils, *supra* n.130 at 281.

⁴⁷² Judgment of the General Court, 16 June 2011, Joined Cases T-204/08 and T-212/08, *Team Relocations v Commission* [2011] ECR II-3569 para. 109. On appeal, the Court of Justice considered the relevant ground of appeal to be partially inadmissible. Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 paras 132-136.

The duration is already taken into account in the relevant turnover, because it is the turnover “over the entire duration” of the infringement that is relevant.⁴⁷³

d. UK

The second step in setting financial penalties in the UK is the adjustment for duration. The Guidelines note that penalties for infringements which last for more than one year may be multiplied by not more than the number of years of the infringement. For agreements/collusive practices the duration commences from the date of the agreement rather than the date the agreement comes into effect⁴⁷⁴.

e. France

The duration of the infringement is taken into account through a multiplication by number of years: SG, §42: *“The proportion set by the Autorité is applied, for the first full year of participation of each undertaking or entity at stake in the infringement, to the value of the sales made during the full accounting year of reference, and, for each of the following years, to half of this value. Beyond the last full year of participation in the infringement, the remaining duration is taken into account by the month, insofar as the elements in the case-file make it possible to do so”*.

When several infringements are found, the FCA can take into account the converging period of all the infringements⁴⁷⁵. However, the FCA can decide to impose several fines, one by infringement⁴⁷⁶.

The FCA can take into account the duration of the antitrust effect, and not only the duration of the practices⁴⁷⁷.

3. Additional amount (“entry fee”)

a. EU

In cases of hardcore infringements (and possibly beyond), a so-called “entry fee” of 15-25 per cent of the value of sales will additionally be included in order to be able to fine these infringements even

⁴⁷³ This appears to be a difference to the European Guidelines, according to which the preceding financial year’s turnover is multiplied by the number of years, but in European practice, the Commission also uses the actual turnover data where they are available.

⁴⁷⁴ *Umbro Holdings Ltd v. OFT* [2005] CAT 22, para. 184.

⁴⁷⁵ Decision N°12-D-25 of 18th December, 2012, esp. §719

⁴⁷⁶ Decisions N°12-D-27 of 20th December, 2012, esp. §219 ; N°13-D-12 of 28th May 2013, esp. §887.

⁴⁷⁷ Decision N°13-D-21 of 18th December, 2013, esp. §628.

where they are detected prior to, or soon after, implementation.⁴⁷⁸ The Commission practice, sanctioned by the Court, frequently uses the same percentage factor for the entry fee as it does for the determination of the percentage of the value of sales to be taken into account.⁴⁷⁹ With regard to the hardcore restrictions enumerated in paragraph 25, the addition of the entry fee is *automatic*.⁴⁸⁰

b. US

As it was previously mentioned, a multiplier range of at least 0.75 is applied to antitrust offenses, no matter the culpability score, for deterrence purposes, leading to a fine of at least 15% of the affected volume of commerce in any circumstance.

c. Germany

The German Guidelines do not add an entry fee; however, they count any infringement lasting less than 12 months as having a duration of 12 months,⁴⁸¹ which achieves a similar, albeit not identical effect.

d. UK

There is no entry fee. However, part years are treated as full years and where the total duration of an infringement is less than 12 months that duration is treated as a full year. In exceptional circumstances, the starting point may be decreased where the duration of the infringement is less than one year. Finally, if the infringement is more than one year, part years will be rounded up to the nearest quarter year, although in exceptional cases it will be possible to round up the part year to a full year⁴⁸².

⁴⁷⁸ 2006 Fining Guidelines, para. 25.

⁴⁷⁹ See, e.g., Judgment of the Court 11 July 2013, Case C-439/11 P, *Ziegler SA v Commission* [2013] ECR I-000 at paras 117-124, concluding, at para. 124, in relation to the “additional amount” (= the entry fee): “*The General Court was therefore entitled to refer ... to its analysis of the reasons given for the percentage figure used to determine the basic amount of the fine.*” Cf. Judgment of the General Court (Third Chamber), 14 May 2014, Case T-406/09, *Donau Chemie v Commission* [2014] ECR II-000 paras 8, 9, 25, 26, 63.

⁴⁸⁰ Judgment of the General Court, 16 June 2011, Joined Cases T-204/08 and T-212/08, *Team Relocations v Commission* [2011] ECR II-3569 para. 117, upheld in Judgment of the Court (Third Chamber), 11 July 2013, Case C-444/11 P, *Team Relocations v Commission* [2013] ECR I-000 paras 140-141.

⁴⁸¹ Para. 12 of the Guidelines.

⁴⁸² OFT (CMA) Guidelines (2012), para. 2.12.

e. France

There is no entry fee.

4. Adjustments for aggravating circumstances

a. EU

The adjustments for aggravating and mitigating circumstances are similar to the ones in the 1998 Guidelines.

Aggravating factors are, in particular, recidivism, that is the continuation or repetition of “the same or a similar infringement” after a finding of an infringement; a refusal to cooperate or obstruction of investigations; the role as a leader or instigator; and any steps to coerce or retaliate against other undertakings.

i. Recidivism

Recidivism is said to be “*the most commonly invoked aggravating factor*”.⁴⁸³

One potentially significant difference to the 1998 Fining Guidelines is that under the 2006 Fining Guidelines the increase for recidivism concerning “the same or a similar infringement” is now specified to be “up to 100%” of the basic amount “for each such infringement established”. In practice, the Commission appears more likely to impose an increase of approximately 50% where there is one such infringement, and 30% of the basic amount for each such infringement where there is more than one, and 100% for four prior infringements.⁴⁸⁴

It should be noted that the “same or similar infringement” is interpreted broadly. First, where the practice before the Court falls under Article 101 TFEU, any and all prior Article 101 TFEU infringements appear to be interpreted as being “the same or similar infringement”, and the same is true, *mutatis mutandis*, for Article 102 TFEU infringements.⁴⁸⁵ Second, the 2006 Fining Guidelines envisage taking account not only of previous cases in which the *European Commission* found an infringement, but also of cases in which *national competition authorities* made such a finding.

⁴⁸³ Khan, *supra* note 182, § 7-109.

⁴⁸⁴ Wils, W.P.J. (2012) Recidivism in EU Antitrust Enforcement: A Legal and Economic Analysis. *World Competition*. 35(1), 5; Khan, *supra* n.182, § 7-108.

⁴⁸⁵ Khan, *supra* n.182, § 7-101.

It is controversial whether the absence of any time limitation for taking account of infringements in the distant past is problematic. Even quite old findings of infringements have been taken into account, at least where there was some personal continuity in the undertaking between the time of the prior infringement and the infringement in question.⁴⁸⁶ The Court has emphasized, however, that the lapse of time between the infringements may be taken into account in assessing the tendency to infringe competition law in each individual case, and that the principle of proportionality obliges the Commission and the Courts to consider this point.⁴⁸⁷

ii. Refusal to Cooperate or Obstruction of Investigations

The 2006 Guidelines mention the refusal to cooperate and the obstruction of investigations as aggravating circumstances. It is alternatively possible to impose separate fines for procedural infringements of up to 1% of the relevant turnover under Article 23(1) Regulation 1/2003, and it has been argued with good reason that this is today the preferable approach with regard to refusals to cooperate or obstructions of investigations where they do not affect the gravity of the substantive infringement.⁴⁸⁸ The practice of increasing the basic amount of the substantive fine for such procedural infringements developed under Article 15(1) Regulation 17 of 1962, which provided for a maximum fine of €5,000. The practice of increasing the substantive fine was arguably a

⁴⁸⁶ Wils, *supra* n.485 at 15-17 (discussing, *inter alia*, Judgment of the Court, 8 February 2007, Case C-3/06 P, *Danone v Commission* [2007] ECR I-1331, paras 37-39; Judgment of the Court (Second Chamber), 17 June 2010, Case C-413/08 P, *Lafarge v Commission* [2010] ECR I-5361, paras 66-75).

⁴⁸⁷ See Judgment of the Court (Second Chamber), 17 June 2010, Case C-413/08 P, *Lafarge v Commission* [2010] ECR I-5361, paras 69/70:

[T]he Court there [scil.: in *Danone*] emphasised that the Commission may, in each individual case, take into consideration the indicia which confirm an undertaking's tendency to infringe competition rules, including, for example, the time that has elapsed between the infringements in question (*Groupe Danone v Commission*, paragraph 39). Moreover, the principle of proportionality requires that the time elapsed between the infringement in question and a previous breach of the competition rules be taken into account in assessing the undertaking's tendency to infringe those rules. For the purposes of judicial review of the Commission's measures in matters of competition law, the General Court and, where appropriate, the Court of Justice may therefore be called upon to scrutinise whether the Commission has complied with that principle when it increased, for repeated infringement, the fine imposed, and, in particular, whether such increase was imposed in the light of, among other things, the time elapsed between the infringement in question and the previous breach of the competition rules.

⁴⁸⁸ Khan, *supra* n.182, §§ 7-031, 7-111. For an example of a procedural infringement that did have an impact on the gravity of the substantive infringement, see *ibid.*, footnote 53 (SGL Carbon's informing of its co-conspirators to continue the operation of the cartel).

circumvention of this clearly inadequate maximum.⁴⁸⁹ Since the maximum fine for procedural infringements has been increased to 1% of the overall turnover, this reason for treating procedural infringements as an aggravating factor in setting the substantive fine has disappeared. Nevertheless, the Court continues to allow the Commission to choose to consider procedural infringements as aggravating factors for the substantive fine instead of fining them separately.⁴⁹⁰

A refusal to cooperate may, of course, only be considered as an aggravating factor where the undertaking is legally obliged to cooperate, and not where the rights of defence permit a refusal to cooperate.⁴⁹¹

iii. Leader, Instigator, Coercer

The Guidelines also consider the role as “leader in, or instigator of, the infringement”, “steps taken to coerce other undertakings to participate” and “retaliatory measures taken against other undertakings” as aggravating circumstances. “Instigator” and “leader” refer to different concepts. Increases for either role or both roles have been in the region of 30-50 per cent.

An “instigator” is an undertaking that initiates an infringement or encourages others to join it. As the General Court explained in *Shell*:

⁴⁸⁹ *But see* Judgment of the General Court (Sixth Chamber) 27 September 2012, Case T-357/06, *Koninklijke Wegenbouw Stevin BV v Commission* [2012] ECR II-000, paras 247-251 (upheld in Judgment of the Court (Tenth Chamber) of 19 December 2013, Case 586/12 P, *Koninklijke Wegenbouw Stevin BV v Commission* [2013] ECR I-000), rejecting the accusation that the Guidelines’ use of obstruction as an aggravating circumstance intended the circumvention of the €5,000 limit.

⁴⁹⁰ Judgment of the General Court (Sixth Chamber) 27 September 2012, Case T-357/06, *Koninklijke Wegenbouw Stevin BV v Commission* [2012] ECR II-000, paras 247-251 (upheld in Judgment of the Court (Tenth Chamber) of 19 December 2013, Case 586/12 P, *Koninklijke Wegenbouw Stevin BV v Commission* [2013] ECR I-000); Judgment of the General Court (Eighth Chamber), 24 March 2011, Case T-384/06, *IBP v Commission* [2011] ECR II-1177 paras 109:

The fact that Regulation No 1/2003 allows the Commission to impose a fine of a maximum of 1% of an undertaking’s turnover for obstruction or for the supply of false or misleading information in response to a request for information, as an autonomous infringement, does not mean that it cannot be taken into account as an aggravating circumstance (see, to that effect, Case C-308/04 P *SGL Carbon v Commission* [2006] ECR I-5977, paragraph 64). However, if conduct is classified under one of those heads, it cannot at the same time be classified under the other.

⁴⁹¹ Judgment of the Court (Grand Chamber), 28 June 2005, Joined Cases C-189/02 P, C-205/02 P and C-213/02 P, *Dansk Rørindustri and Others v Commission* [2005] ECR I-5425 paras 348-353 (on the equivalent provision in the 1998 Fining Guidelines).

[I]n order to be classified as an instigator of a cartel, an undertaking must have persuaded or encouraged other undertakings to establish the cartel or to join it. By contrast, it is not sufficient merely to have been a founding member of the cartel. That classification should be reserved to the undertaking which has taken the initiative, if such be the case, for example by suggesting to the other an opportunity for collusion or by attempting to persuade it to do so (*BASF v Commission*, paragraph 140 above, paragraph 321). The Courts of the European Union do not however require the Commission to have information regarding the development or the detailed planning of the cartel. Lastly, the Courts of the European Union have made it clear that instigation is concerned with the establishment or enlargement of a cartel (*BASF v Commission*, paragraph 140 above, paragraph 316), and it is therefore conceivable that several undertakings might simultaneously play a role of instigator within the same cartel.⁴⁹²

A “leader” is an undertaking that is a “significant driving force”. As the General Court explained in more detail in *Siemens*:

According to the case-law, in order to be classified as a ‘leader’ in a cartel, an undertaking must have been a significant driving force for the cartel (*BASF v Commission*, paragraph 311 above, paragraph 374, and Case T-410/03 *Hoechst v Commission* [2008] ECR II-881, paragraph 423) and have borne individual and specific liability for the operation of the cartel (see, to that effect, *BASF v Commission*, paragraph 311 above, paragraph 300). That factor must be assessed in the light of the overall context of the case (see, to that effect, *BASF v Commission*, paragraph 311 above, paragraphs 299 and 373). The classification as ‘leader’ has been established when the undertaking carried out the duties of coordinator within the cartel and, in particular, organised and staffed the secretariat responsible for the actual implementation of the cartel (Case T-224/00 *Archer Daniels Midland and Archer Daniels Midland Ingredients v Commission* [2003] ECR II-2597, ‘ADM’, paragraphs 246 and 247), or when that undertaking played a central role in the actual operation of the cartel, for example by organising numerous meetings, by collecting and distributing information within the cartel, by taking responsibility to represent certain members within the cartel or most often formulating proposals relating to the operation of the cartel (see, to that effect, Joined Cases 96/82 to 102/82, 104/82, 105/82, 108/82 and 110/82 *IAZ International Belgium and*

⁴⁹² Judgment of the General Court (Sixth Chamber), 27 September 2012, Case T-343/06, *Shell Petroleum & Others v Commission* [2012] ECR II-000 para. 155. The Commission had increased the basic amount by 50 per cent for SNV’s role as leader and instigator of the cartel. The General Court held that the role of SNV as instigator and leader was not sufficiently established. The application to appeal has been withdrawn, see Order of the President, 11 April 2013, Case C-585 P.

Others v Commission [1983] ECR 3369, paragraphs 57 and 58, and *BASF v Commission*, paragraph 311 above, paragraphs 404, 439 and 461).⁴⁹³

Coercive or retaliatory conduct, in the form of economic pressure or even physical violence, has led to increases of some 30 per cent.⁴⁹⁴

iv. Other aggravating factors

The list of aggravating factors in the 2006 Guidelines is not exhaustive. One of the more important “innominate” factors is the continuation of an infringement after the undertakings have been informed of investigations.⁴⁹⁵

b. US⁴⁹⁶

The US SG put forward a number of factors to determine the “culpability score” of the organization having committed the antitrust offense. Although these factors do not operate as aggravating and mitigating circumstances leading to the adjustment of the fine, but form inherent part of the calculation of the guidelines fine range, we will examine them briefly, by focusing here on the factors that add points to the culpability score (upwards adjustments), as opposed to those that led to a

⁴⁹³ Judgment of the General Court (Second Chamber) of 3 March 2011, Case T-110/07, *Siemens AG v Commission* [2011] ECR II-477 para. 337 (upheld in Judgment of the Court (Fourth Chamber), 19 December 2013, Joined cases C-239/11 P, C-489/11 P and C-498/11 P, *Siemens AG and others v Commission* [2013] ECR I-000).

⁴⁹⁴ See, e.g., Commission Decision 2003/600/EC, 2 April 2003, Case COMP/C.38.279/F3, [2003] Official Journal L 209/12 – *French Beef*, recital 173; substantially upheld (the only modification was that the Court considered the exceptional circumstances of the mad cow crisis to justify a reduction of 70% instead of the 60% applied by the Commission) in Judgment of the Court of First Instance (First Chamber) of 13 December 2006, Joined cases T-217/03 and T-245/03, *Fédération nationale de la coopération bétail et viande (FNCBV) and others v Commission* [2006] ECR II-4987, in particular paras 273-290, describing, *inter alia*, blockades of abattoirs by farmers and the attack on refrigerators; upheld in Judgment of the Court (Third Chamber), 18 December 2008, Joined Cases C-101/07 P and C-110/07 P, *Coop de France bétail et viande and others v Commission* [2008] ECR I-10193.

⁴⁹⁵ See *ibid.*: the undertakings continued their infringement in secret, after having promised to the Commission that the infringement would cease. The Commission applied an increase of 20 per cent with the approval of the CFI (recital 174 of the Commission Decision in *French Beef*, para. 271 of the Judgment of the Court of First Instance in *FNCBV*).

⁴⁹⁶ The developments draw partly on United States Sentencing Commission, Chapter Eight Fine Primer: Determining the Appropriate Fine Under the Organizational Guidelines (March 2013), available at: http://www.ussc.gov/sites/default/files/pdf/training/primers/Primer_Organizational_Fines.pdf.

point reduction (downwards adjustment), which we will explore in the part on mitigating circumstances.

i. Recidivism

Recidivism in infringing antitrust, in particular by participating to cartels, has been an important concern for US antitrust scholarship. Ginsburg and Wright (2010), for instance, observed that, over just the past few decades, several companies were convicted more than once in the United States for engaging in cartel activity, suggesting that there is a problem with recidivism⁴⁹⁷. In contrast, other authors, Werden, Hammond & Barnett (2011) searched U.S. enforcement records for instances of cartel recidivism and found none at all since July 1999 when the first non-U.S. national was sentenced to a term of imprisonment for participation in international cartel activity, thus indicating the effectiveness of anti-cartel enforcement in the United States⁴⁹⁸.

Notwithstanding which of the two theses is true, prior history of infringement is considered as a factor increasing upwards the culpability score. According to §8C2.5 of the Sentencing Guidelines Manual:

“If the organization (or separately managed line of business) committed any part of the instant offense less than 10 years after (A) a criminal adjudication based on similar misconduct; or (B) civil or administrative adjudication(s) based on two or more separate instances of similar misconduct, add **1** point;

Or

(2) If the organization (or separately managed line of business) committed any part of the instant offense less than 5 years after (A) a criminal adjudication based on similar misconduct; or (B) civil or administrative adjudication(s) based on two or more separate instances of similar misconduct, add **2** points”⁴⁹⁹.

⁴⁹⁷ Ginsburg, D.H., Wright, J.D. (Autumn 2010) Antitrust Sanctions. Competition Policy Int’l. 3, 15; *See also* Connor, J.M. (Autumn 2010) Recidivism Revealed: Private Int’l Cartels: 1990-2009. Competition Policy Int’l. 101.

⁴⁹⁸ Werden, G., Hammond, S.D., Barnett, B.A. U.S. Dept. of Justice, Antitrust Div. (Sept. 22, 2011) Recidivism Eliminated: Cartel Enforcement in the United States Since 1999. Address Before the Georgetown Global Antitrust Enforcement Symposium, available at: <http://www.justice.gov/atr/public/speeches/275388.pdf>.

⁴⁹⁹ USSG §8C2.5(c)(1)-(2).

ii. Refusal to Cooperate or Obstruction of Investigations

Obstruction of justice constitutes the fourth aggravating factor that increases the culpability score⁵⁰⁰. Under this provision, if the organization wilfully obstructed or impeded, attempted to obstruct or impede, or aided, abetted or encouraged obstruction of justice during the investigation, prosecution, or sentencing of the instant offense, the court adds three points to the organization's culpability score. This three-point enhancement is also applicable if the organization knew of such obstruction or impedance or attempted obstruction or impedance and failed to take reasonable steps to prevent it.

Similarly, the third aggravating factor listed in the US SG increases the culpability score by one or two points if the commission of the instant offense violated a judicial order or injunction, or the organization violated a condition of probation⁵⁰¹.

iii. Participation of high-level or substantial authority personnel in the infringement

This aggravating factor concerns high-level or substantial authority personnel in organizations of varying sizes who participate in, condone, or are wilfully ignorant of criminal activity⁵⁰². The organization's culpability score is increased by between one and five points depending on the number of employees in the organization or unit of the organization and the involvement of individuals who are either within high-level personnel or substantial authority personnel. The commentary to the guidelines define the terms "high-level personnel" and "substantial authority personnel." "High-level personnel" means individuals who have substantial control over the organization or who have a substantial role in the making of policy within the organization, such as directors, executive officers, individuals in charge of sales, administration, or finance, and individuals with substantial ownership interests⁵⁰³. "Substantial authority personnel" means individuals who within the scope of their authority exercise a substantial measure of discretion in acting on behalf of an organization, such as plant managers, sales managers, individuals with authority to negotiate or set price levels, or individuals authorized to negotiate or approve significant contracts⁵⁰⁴.

c. Germany

⁵⁰⁰ USSG §8C2.5(e).

⁵⁰¹ USSG §8C2.5(d)(1)-(2).

⁵⁰² USSG §8C2.5(b)(1)-(5).

⁵⁰³ USSG §8A1.2, comment. (n.3(B)).

⁵⁰⁴ USSG §8A1.2, comment. (n.3(C)).

The German Guidelines do not separately discuss aggravating circumstances. However, such circumstances would arguably be taken into account as “innominate” considerations under paragraph 16 of the 2013 Fining Guidelines.

i. Recidivism

With regard to recidivism, the Higher Regional Court Düsseldorf explained in *Grauzement* that the Court (in contrast to the Bundeskartellamt) had in previous cases not taken account of prior infringements of a similar nature, but indicated that, in principle, it would be willing to do so in the future.⁵⁰⁵ However, in contrast to the European Union, prior infringements can only be taken into account under restrictive time-limitations: § 153(6) of the Gewerbeordnung (Trade Regulations Act, GewO) prohibits taking account of infringements that have been entered into the Commercial Register but have expired.⁵⁰⁶ Infringements generally expire after 5 years, and are expunged one year thereafter.⁵⁰⁷ While European fines decisions are not entered into the register, the rules on expiry are applied by analogy.⁵⁰⁸

ii. Refusal to Cooperate

In general, this aspect will not be an aggravating factor under German law, because the accused is generally not required to contribute to its conviction (*nemo tenetur se ipsum prodere*); there is no general duty to cooperate as there is under Regulation 1/2003 in the European Union.

iii. Leader, instigator of the infringement

This is taken into account as an offender-related criterion under para. 16 of the Fining Guidelines.

d. UK

The third step in the calculation of financial penalty is to increase the penalty based on aggravating factors. According to the CMA Guidelines, aggravating factors include the following:

⁵⁰⁵ OLG Düsseldorf, 26 June 2009, VI-2a Kart 2 - 6/08 OWi, http://www.justiz.nrw.de/nrwe/olgs/duesseldorf/j2009/VI_2a_Kart_2_6_08_OWiurteil20090626.html, para. 409.

⁵⁰⁶ *Ibid.*

⁵⁰⁷ § 153(1) no 2, (5) GewO.

⁵⁰⁸ OLG Düsseldorf, 26 June 2009, VI-2a Kart 2 - 6/08 OWi, http://www.justiz.nrw.de/nrwe/olgs/duesseldorf/j2009/VI_2a_Kart_2_6_08_OWiurteil20090626.html, para. 409.

i. Recidivism

Repeated infringements by the same undertaking or other undertakings in the same group may constitute an aggravating factor. The Guidance of the CMA clarifies that where the CMA, concurrent regulators or the European Commission have previously issued a decision relating to the same or similar infringements in the preceding 15 years, this may result in the amount (following the application of steps 1 and 2) being increased up to 100%. The prior infringements are taken into account only where they had an impact in the UK. According to the 2012 Guidance, infringements are the “same or similar” where they fall under the same provision of the CA98 or equivalent provision of the TFEU. For instance, an infringement decision under the Chapter I prohibition or Article 101 could be counted as a ‘same or similar’ infringement when assessing the penalty for another infringement of Chapter I or Article 101. The actual amount of any such increase for recidivism will be determined on a case-by-case basis having regard to all relevant circumstances⁵⁰⁹.

ii. Refusal to cooperate

Persistent and repeated unreasonable behaviour that delays the CMA’s enforcement action constitutes since the adoption of the 2012 Guidance an aggravating factor. This includes repeatedly disrespecting CMA procedures’ time limits, for instance, for providing representations on confidentiality. However, as the Guidance notes, the full exercise of the party’s rights of defence will not be treated as unreasonable behaviour, which will certainly raise interesting questions in practice as to the distinction between a legitimate exercise of the right of defence and the need to ensure its protection and unreasonable behaviour in responding to onerous information requests.

iii. Leader, instigator of the infringement

This is generally taken into account⁵¹⁰.

iv. Other aggravating factors

The Guidance lists some additional aggravating factors, such as the involvement of directors or senior management, retaliatory or other coercive measures taken against other undertakings aimed at ensuring the continuation of the infringement, continuing the infringement after the start of the investigation.

⁵⁰⁹ OFT (CMA) Guidelines (2012), para. 2.14.

⁵¹⁰ *Umbro Holdings Ltd v. OFT* [2005] CAT 22 (judgment on penalty), paras. 39, 203.

e. France

As illustrated by the Appendix 2, the most frequent aggravating circumstance taken into account is the size and economic power of the concerned undertaking and/or its group.

i. Recidivism

Recidivism (reiteration) is established when the four following conditions are met⁵¹¹:

- The existence of a previous infringement has been found by the FCA before the termination of the practice at stake⁵¹²;
- The practice at stake and the previous one must be identical or similar;
- The previous finding of infringement is definitive by the day the FCA adopts its decision; and
- The period of time running from the prior finding infringement to the starting point of the practice at stake does not exceed 15 years (by principle)⁵¹³. The shorter this period is, the most it can be considered as serious⁵¹⁴.

To be identical or similar, practices must have a same anticompetitive object or effect, as for instance foreclosure. Relevant markets can differ⁵¹⁵.

ii. Refusal to cooperate

Under Article L. 450-8 of the French Commercial Code, refusal to cooperate is a criminal offence (up to 2 year imprisonment and a €300,000 fine).

iii. Leader, instigator, coercer ...

As before the European Commission, the role during the infringement has become an aggravating factor which is rarely taken into account⁵¹⁶.

⁵¹¹ SG, §51. Paris Court of appeal, 10th October, 2013, (challenging decision N°12-D-10 of 8th December, 2011 of 20th March, 2012).

⁵¹² The practice at stake can have started before the previous finding of infringement: Decision N°12-D-26 of 20th December, 2012, esp. §311.

⁵¹³ Decision N°12-D-24 of 13th December, 2012, esp. §§677 and s.

⁵¹⁴ Decision N°12-D-25 of 18th December, 2012, esp. §753.

⁵¹⁵ Decision N°12-D-24 of 13th December, 2012, esp. §688.

⁵¹⁶ *But see* Decisions N°13-D-12 of 28th May, 2013, esp. §§956 and s. ; N°13-D-14 of 11th June, 2013, esp. §181.

5. Adjustments for mitigating circumstances

a. EU

Mitigating factors mentioned in the non-exhaustive list in paragraph 29 of the 2006 Guidelines are the immediate termination of the infringement as soon as the Commission intervenes (this is not applicable to secret agreements or practices); the commission of the infringement based on mere negligence; substantially limited involvement in the infringement by avoiding the application of the offending agreement “by adopting competitive conduct in the market”;⁵¹⁷ effective cooperation outside the scope of the Leniency Notice and beyond the undertaking’s legal obligation; and the authorization or encouragement by public authorities or by legislation.⁵¹⁸

One of the most controversial questions is whether the existence of an effective compliance scheme should be considered as a mitigating factor. Practitioners and some academics argue that such a fines discount programme would be an incentive to establish effective compliance schemes.⁵¹⁹ The Commission and the Court have rejected such arguments, and argue that the benefits of an effective compliance scheme lie in its prevention of infringements.⁵²⁰

b. US

The guideline lists two mitigating factors that decrease the culpability score. The first allows the court to subtract three points from the organization’s culpability score if the organization had an effective compliance and ethics program in place at the time of the offense⁵²¹. The concept of “effective compliance and ethics program is defined in length at §8B2.1 of the USSG⁵²². This reduction should be denied, however, if the organization unreasonably delayed reporting the offense to the appropriate governmental authorities or under specified instances in which high-level

⁵¹⁷ It should be noted that mere cheating on the cartel does generally not suffice to invoke this head of mitigating circumstances, unless this leads to the collapse of the cartel.

⁵¹⁸ For an example for this last mitigating circumstance, see the *French Beef* case, para. 176 of the Commission Decision).

⁵¹⁹ See, e.g., Geradin, D. (2013) Antitrust Compliance Programmes & Optimal Antitrust Enforcement: A Reply to Wouter Wils. *Journal of Antitrust Enforcement*. 1(2) 325-346.

⁵²⁰ For a sustained argument against accepting evidence of effective compliance programmes as a mitigating factor, see Wils, W.P.J. (2013) Antitrust Compliance Programmes & Optimal Antitrust Enforcement. *Journal of Antitrust Enforcement*. 1(1) 52-81.

⁵²¹ USSG §8C2.5(f)(1).

⁵²² For the full text see, <http://70.32.97.65/resources/statutes/Chapter-81.pdf> pp. 512-517.

or substantial authority personnel participated in, condoned, or were wilfully ignorant of the offense⁵²³.

The second mitigating factor decreases the culpability score by five points if the organization self-reported the offense to the appropriate governmental authorities, fully cooperated in the investigation, and clearly demonstrated recognition and affirmative acceptance of responsibility for its conduct⁵²⁴. If the organization did not self-report, but fully cooperated in the investigation, and accepted responsibility for its conduct, the culpability score is reduced by two points⁵²⁵. Finally, if the organization did not self-report or cooperate, but clearly demonstrated recognition and affirmative acceptance of responsibility for its conduct, the culpability score is reduced by one point⁵²⁶.

c. Germany

The German Guidelines do not separately discuss mitigating circumstances. However, such circumstances would arguably be taken into account as “innominate” considerations under paragraph 16.

Cooperation may be a mitigating factor,⁵²⁷ and given that there is no general duty to cooperate under German law, it is easier than in European law to reach the threshold for cooperation that may be rewarded by a reduction in the fine.

One aspect that has to be considered is a delay that infringes the right of the accused to a speedy trial.⁵²⁸ The fine is not reduced, but any delay is declared in the decision, and where this is appropriate, a proportion of the fine is deemed to have been executed.

d. UK

The 2012 Guidance includes as mitigating factors:

⁵²³ USSG §8C2.5(f)(2), (f)(3). The involvement of high-level or substantial authority personnel is not, however, an absolute bar to this reduction.

⁵²⁴ USSG §8C2.5(g)(1).

⁵²⁵ USSG §8C2.5(g)(2).

⁵²⁶ USSG §8C2.5(g)(3).

⁵²⁷ OLG Düsseldorf, 26 June 2009, VI-2a Kart 2 - 6/08 OWi, http://www.justiz.nrw.de/nrwe/olgs/duesseldorf/j2009/VI_2a_Kart_2_6_08_OWiurteil20090626.html, paras 414-420.

⁵²⁸ For the European Union, see Judgment of the Court, 26 November 2013, Case C-50/12 P, *Kendrion v Commission* [2013] ECR I-000 paras 77-107.

- (i) The role of the undertaking, for example, where the undertaking is acting under severe duress or pressure;
- (ii) Genuine uncertainty on the part of the undertaking as to whether the agreement or conduct constituted an infringement;
- (iii) Adequate steps having been taken with a view to ensuring compliance with articles 101 and 102 TFEU and the national equivalents (Chapter I and II of the Competition Act 1998). The latter category may include compliance activities under specific circumstances. For instance, the Guidance notes that in principle compliance activities will be “neutral” and the CMA will consider carefully the evidence presented by the undertaking in order to assess if its compliance activity “merits a discount from the penalty of up to 10%⁵²⁹. Hence, according to the Guidance the “mere existence” of compliance activities will not be considered as a mitigating factor, but in individual cases, “evidence of adequate steps having been taken to achieve a clear and unambiguous commitment to competition law compliance throughout the organization (from the top down) – together with appropriate steps relating to competition law risk identification, risk assessment, risk mitigation and review activities – will likely be treated as a mitigating factor”⁵³⁰. It is explained that “(t)he business will need to demonstrate that the steps taken were appropriate to the size of the business concerned and its overall level of competition risk”, as well as present evidence “on the steps it took to review its compliance activities, and change them as appropriate, in light of the events that led to the investigation at hand”⁵³¹. However, in some “exceptional cases”, the CMA may treat compliance activities as an aggravating factor justifying an increase in the financial penalty, in particular for situations where compliance activities were used to conceal or facilitate an infringement, or to mislead the CMA during its investigation.
- (iv) Termination of the infringement as soon as the OFT intervenes.
- (v) Cooperation which enables the enforcement process to be concluded more effectively and/or speedily. The Guidance specifies that cooperation over and above respecting CMA’s time limits will be necessary but still not sufficient to merit a reduction at this step. Undertaking benefiting from the leniency programme will not receive an additional reduction in financial penalties under this head (since continuous and complete cooperation is a condition of leniency)⁵³².

Other mitigating factors include admission of liability⁵³³ and a public apology⁵³⁴ or some other action taken to compensate consumers⁵³⁵.

⁵²⁹ OFT (CMA) Guidelines (2012), para. 2.15, footnote 26.

⁵³⁰ *Ibid.*

⁵³¹ *Ibid.*

⁵³² See, e.g., *Umbro Holdings Ltd v. OFT* [2005] CAT 22 (judgment on penalty), para. 333.

⁵³³ *Id.* at paras 201 and 265.

e. France

Since the FCA must take into account all the elements in the file, it can find mitigating circumstances without request from the undertaking. Nevertheless, some mitigating circumstances need a demonstration by the concerned company when it is the only one to have relevant information (as inability to pay⁵³⁶).

As abovementioned, the FCA takes into account the antitrust intent.

As stated in the SG (§45), cheating from a cartel can be considered as a mitigating factor⁵³⁷.

The existence of an effective compliance program is considered as a mitigating factor only when there is settlement. Indeed, in the French settlement procedure, the FCA enforces the effective application of the compliance program⁵³⁸. Nevertheless, in accordance with the Framework document of the FCA (§28), the Paris Court of appeal has ruled that an effective compliance program can be considered as a mitigating factor when, before the opening of the investigations, the concerned undertaking has (i) adopted its compliance program and (ii) put an end to the antitrust practices⁵³⁹.

The legal framework can be considered as a mitigating factor⁵⁴⁰. For instance, as mentioned in the FCA's press release, *"the progressive drop in ceiling rates for termination calls imposed by sector regulation created a transitional economic interest for operators to encourage their customers to make "on net" calls. In light of this, the FCA reduced the amount of the fines imposed on both companies by 50%antitrust practices"*⁵⁴¹.

The absence of illicit gain is not considered as a mitigating factor⁵⁴².

⁵³⁴ *Id.* at para. 265.

⁵³⁵ *Id.* at paras 265 and 266.

⁵³⁶ Decision N°12-D-25 of 18th December, 2012, esp. §758.

⁵³⁷ See, for instance, Decision N°12-D-09 of 13th March, 2012, esp. §§848 and s.

⁵³⁸ Decisions N°12-D-27 of 20th December, 2012, esp. §327 ; N°13-D-12 of 28th May, 2013, esp. §984 (absence of mitigating factor in a "normal" procedure). Confirmed by Paris Court of appeal, 30th January, 2014 (challenging decision N°11-D-17 of 8th December, 2011). See the 2012 framework-document: http://www.autoritedelaconcurrence.fr/doc/framework_document_compliance_10february2012.pdf.

⁵³⁹ Paris Court of Appeal, 10th October, 2013, (challenging decision N°12-D-10 of 20th March, 2012).

⁵⁴⁰ Decision N°12-D-24 of 13th December, 2012, esp. §705.

⁵⁴¹ *Ibid.*

⁵⁴² *Ibid.*, esp. §700.

C. Specific increase for deterrence

1. EU

The 2006 Fining Guidelines then add that the fine needs to have a sufficiently deterrent effect and that the fine derived by adjusting the basic amount by mitigating and aggravating factors may need to be increased for undertakings with a particularly large turnover relative to the value of sales (application of a so-called “multiplier” for specific deterrence).⁵⁴³

The fine may also be increased to skim off the “amount of gains improperly made as a result of the infringement where it is possible to estimate that amount”.⁵⁴⁴

2. US

The penalty multipliers essentially take into account the objective of specific deterrence.

3. Germany

The total-turnover-based multiplier under paragraph 13 essentially serves the function of the specific increase for deterrence. However, it should be borne in mind that the product of multiplier and relevant turnover merely determines the *maximum* fine.

In accordance with § 81(5) GWB, the Bundeskartellamt may impose a higher fine (or pursue separate proceedings under § 32 or § 34 GWB) to skim off the economic benefit derived from the offence.⁵⁴⁵

4. UK

The 2012 Guidance includes a fourth step in the setting of fines enabling the CMA to adjust for specific deterrence and proportionality. We will focus here on deterrence. For doing so, the CMA will examine appropriate indicators of the size and financial position of the undertaking, including where they are available, total turnover, profits, cash flow and industry margins, as well as any other relevant circumstances of the case, concerning the undertaking’s size and financial position at the time the penalty is being imposed, but also from the time of the infringement. According to the Guidance, the penalty figure resulting from steps 1 to 3 may be increased by the CMA to ensure that

⁵⁴³ Para. 30 of the 2006 Fining Guidelines.

⁵⁴⁴ Para. 31 of the 2006 Fining Guidelines.

⁵⁴⁵ Para. 17 of the Guidelines.

the penalty imposed will have a deterrence effect on the undertaking in the future (specific deterrence)⁵⁴⁶. Such an increase will be limited to situations in which the undertaking has a significant proportion of its turnover outside the relevant market or where the CMA has evidence that the infringing undertaking has made or is likely to make an economic or financial benefit from the infringement that is above the level of penalty reached at the end of step 3⁵⁴⁷. The CMA may also account for any gain which might accrue to the undertaking in other product and geographic markets as well as the relevant market in question. This would be the case, for instance, of predation cases, where the relevant market may be very small but the act of predation provides the undertaking with a reputation for aggressive behaviour which may be used to its advantage in many other markets. This will also include the gain in another Member State, when the CMA implements Articles 101 and 102 TFEU, provided that the CMA has the express consent of the relevant Member State or NCA in each particular case. The CMA will proceed to an adjustment of the penalty on a case by case basis for each individual infringing undertaking. This will be particularly the case when the undertaking has very low or zero turnover at the end of step 3, in which case the CMA may make significant adjustments to the amount of the penalty.

5. France

For undertakings with "large turnover, it is a very frequent aggravating factor (see hereafter Appendix 2).

D. Statutory Maximum fine and Proportionality

1. EU

The fine derived by the basic amount, where applicable as adjusted and increased, will then be capped at the statutory limit of 10% of the total turnover in the preceding business year.⁵⁴⁸ Where an association is fined, the limit is 10% of the sum of the total turnover of each member that is active on the relevant market to which the infringement relates directly or indirectly.⁵⁴⁹

Regarding the relevant "preceding business year", the Court has recently reaffirmed in a case where the undertaking's turnover had dropped significantly in the year before the adoption of the

⁵⁴⁶ OFT (CMA) Guidelines (2012), para. 2.17.

⁵⁴⁷ OFT (CMA) Guidelines (2012), para. 2.17

⁵⁴⁸ Article 23(2) Regulation 1/2003; paras 32 and 33 of the 2006 Fining Guidelines.

⁵⁴⁹ Article 23(2) Regulation 1/2003; paras 32 and 33 of the 2006 Fining Guidelines. See in particular Judgment of the Court (Third Chamber), 18 December 2008, Joined Cases C-101/07 P and C-110/07 P (*Coop de France bétail et viande and others v Commission*) [2008] ECR I-10193.

Commission Decision because the undertaking had sold off assets and converted them into cash, and the Commission had therefore not considered that year (2008) but instead the previous year (2007), that:

15 In determining the preceding business year, the Commission must assess, in each specific case and in the light of both its context and the objectives pursued by the scheme of penalties created by the regulation, the intended impact on the undertaking in question, taking into account in particular a turnover which reflects the undertaking's real economic situation during the period in which the infringement was committed (see Case C- 76/06 P *Britannia Alloys & Chemicals v Commission* EU:C:2007:326, paragraph 25).

16 The Court has observed in relation to the concept of the preceding business year, in paragraph 29 of *Britannia Alloys & Chemicals v Commission* (EU:C:2007:326), that, in certain situations, the turnover in question does not provide any useful indication as to the actual economic situation of the undertaking concerned and the appropriate level of fine to impose on that undertaking.

17 In such a situation, and as the Court made clear in paragraph 30 of *Britannia Alloys & Chemicals v Commission* (EU:C:2007:326), the Commission is entitled to refer to another business year in order to be able to make a correct assessment of the financial resources of that undertaking and to ensure that the fine has a sufficient and proportionate deterrent effect.⁵⁵⁰

2. US

Under the Sherman Act (and the 2004 ACREPA amendments)⁵⁵¹, the statutory maximum corporate fine is \$100 million⁵⁵². In addition, the Alternative Fines Statute, should the Antitrust Division choose this route, states:

“If any person derives pecuniary gain from the offense, or if the offense results in pecuniary loss to a person other than the defendant, the defendant may be fined not more than the greater of twice the gross gain or twice the gross loss, unless imposition of a fine under this subsection would unduly complicate or prolong the sentencing process”.⁵⁵³

⁵⁵⁰ Judgment of the Court (Second Chamber), 15 May 2014, Case C-90/13 P (1. *garantovaná v Commission*) [2014] ECR I-000 paras 15-17.

⁵⁵¹ Antitrust Criminal Penalty Enhancement and Reform Act 2004 (“ACREPA”) §215(a) (15 U.S.C. § 1 note).

⁵⁵² One may remark the important increase of the statutory maximum of the Sherman Act from \$5K in 1890, to \$50K in 1955, to \$1 million in 1974, \$10 million in 1990, \$100 million in 2004.

⁵⁵³ 18 U.S.C. § 3571 (d).

Hence, in cases in which the Antitrust Division will seek a fine above the Sherman Act statutory maximum, it will allege the amount of gain or loss attributable to the entire cartel, thus twice the loss caused by the cartel rather than by the defendant. Specifically identifying twice the gain or twice the loss under 18 U.S.C. § 3571(d) constitute “facts” that must be proved to a jury beyond a reasonable doubt⁵⁵⁴. It is also reminded that joint and several liability does not apply for the Alternative Fines Statute. Since 2005 the Antitrust Division has entered into a number of plea agreements in which the agreed fine exceeded the statutory maximum.

3. Germany

There is no statutory “cap” under German law; instead, the statutory limit of 10% of the undertaking’s annual worldwide turnover (or, if lower, 10 per cent of the relevant domestic turnover multiplied with the total global turnover based multiplier) defines the maximum fine.

4. UK

The UK financial penalties regime addresses proportionality and the maximum statutory fine as two different steps in the setting of fines. Proportionality is now assessed along with deterrence in the fourth step of the fine-setting process. Again, the CMA has regard to factors such as the size of the undertaking, its financial position and the nature of the infringement. According to the 2012 Guidance, penalties, even if they factor in deterrence, should not be “disproportionate or excessive having regard to the undertaking’s size and financial position and the nature of the infringement”⁵⁵⁵. In addition to this necessary compromise between deterrence and proportionality, the CMA will address at the fourth step of the analysis if the overall penalty is appropriate in the round. It will do so by having regard again to the undertaking’s size and financial position and the nature of the infringement, but also on the impact of the undertaking’s infringing activity on competition⁵⁵⁶.

The maximum penalty cannot exceed 10% of the worldwide turnover of the undertaking in its last business year, which is that preceding the date on which the decision of the CMA is taken or, if figures are not available for that business year, the one immediately preceding it⁵⁵⁷. This adjustment for the maximum penalty will be made after all the relevant adjustments have been made in steps 2 to 4 and also before any further adjustments in respect of leniency or settlement discounts under

⁵⁵⁴ *Southern Union Co. v. United States*, 132 S. Ct. 2344 (2012), 2351 n. 4, 2351-52 [6th amendment right to jury finding) for any fact (other than a prior conviction) that increases a criminal defendant’s maximum potential sentence].

⁵⁵⁵ OFT (CMA) Guidelines (2012), para. 2.19.

⁵⁵⁶ OFT (CMA) Guidelines (2012), para. 2.20.

⁵⁵⁷ OFT (CMA) Guidelines (2012), para. 2.21.

step 6⁵⁵⁸. If there is an infringement by an association of undertakings (for instance a trade association) relating to the activities of its members, the penalty should not exceed 10% of the sum of the worldwide turnover of each member of the association of undertakings active on the market affected by the infringement⁵⁵⁹.

The Guidance also notes that if a penalty or fine has been imposed by the European Commission or by a court or other body in another Member State in respect of an agreement or conduct, the CMA “must take that penalty or fine into account when setting the amount of a penalty in relation to that agreement or conduct, according to Article 38(9) of the Competition Act 1998 in order to ensure that double jeopardy will be avoided. Hence, where an anti-competitive agreement or conduct is subject to proceedings resulting in a penalty or fine in another Member State, an undertaking will not be penalized again in the UK for the same anti-competitive effects⁵⁶⁰.”

5. France

According Article L. 464-2 of the French Commercial Code, *“the maximum amount of the penalty is €3 million. Where the infringer is an undertaking, the maximum account is 10% of the highest worldwide pre-tax turnover achieved during one of the accounting years closed since the accounting year prior to that in which the practices have taken place”*.

E. Leniency and Settlement Discounts

1. EU

The fine so determined may be reduced according to the Leniency Notice.⁵⁶¹ The application of the 10 per cent turnover cap before any reductions under the Leniency Notice ensures that there remains a sufficient incentive to make use of the Leniency Programme.⁵⁶²

⁵⁵⁸ OFT (CMA) Guidelines (2012), para. 2.22.

⁵⁵⁹ OFT (CMA) Guidelines (2012), para. 2.23.

⁵⁶⁰ OFT (CMA) Guidelines (2012), para. 2.24.

⁵⁶¹ 2006 Fining Guidelines, para 34.

⁵⁶² If the cap were applied after the leniency discount, cooperation might not be rewarded at all. For example, where a mono-product undertaking that is only active in the EEA has participated in a 5-year hardcore cartel that covered the EEA, the basic amount could be, for example, 20 per cent of the value of sales multiplied by the duration of 5 years, *i.e.* 100 per cent of the value of sales, which, in the case of a mono-product undertaking active only in the EEA would at the same time be 100 per cent of the annual turnover. If this undertaking could expect a 50 per cent reduction under the Leniency Programme, but this reduction were applied *before* the cap, then the cooperation would not be rewarded at all: without cooperation, the fine would be capped at 10 per cent of the annual turnover; applying the reduction for

Where the fined undertakings or associations comply with the settlement procedure, the fine (if applicable: after application of a leniency discount) will be reduced by 10 per cent.⁵⁶³

2. US

The US was the first jurisdiction to develop wide-ranging leniency programmes in order to provide substantial incentives for cartel participants (companies and individuals) to report cartel activity to the Antitrust Division of the DOJ. Corporate leniency covers the corporation and all directors, officers, and employees of the corporation who admit their involvement in the illegal antitrust activity as part of the corporate confession, and assist the Antitrust Division throughout the investigation. The Antitrust Division grants leniency *only* to first qualifying application in order to attempt to create a race among cartel participants to report the antitrust offense.

There are various types of leniency possibilities: type A corporate leniency when the Antitrust Division has not received information about the illegal activity from any other source or upon discovery, the corporation took prompt and effective action to terminate its participation, where possible, the corporation makes restitution to injured parties, it clearly is not the leader in or the originator of the illegal activity, among other conditions. Type B leniency is awarded to the corporation that is the first to come forward and qualify for leniency with respect to the activity and the Antitrust Division does not have evidence against the company that is likely to result in a sustainable conviction and such cooperation advances the investigation of the Antitrust Division. Finally, “amnesty plus” provides a company that is too late to obtain leniency for one conspiracy, but has information on a second conspiracy, to obtain leniency for the second conspiracy.

The Antitrust Division will also recommend a substantial reduction in the financial penalties for the first conspiracy to which the company participated. ACREPA also provides a limited leniency recipient’s liability to actual damages caused by the recipient’s wrongful acts as the leniency recipient is not liable for treble damages and is not jointly or severally liable. This benefit is dependent on the leniency recipient’s “satisfactory cooperation” with the private claimants.

cooperation would also lead to a cap at 10 per cent of the annual turnover (50 per cent of 100 percent of the annual turnover would be 50 per cent of the annual turnover, which would also capped at the statutory 10 per cent threshold). Applying the leniency discount *after* capping results in a fine of only 5 per cent of the annual turnover.

⁵⁶³ Article 10a Regulation 773/2004, as amended by Regulation 622/2008 (*supra* note 218). This is not mentioned in the 2006 Fining Guidelines, because the Settlement Procedure was only introduced after their publication.

3. Germany

The fine as determined by the 2013 Guidelines may be subject to further reductions on the basis of the leniency notice or the settlement notice.⁵⁶⁴

4. UK

The consideration for any reductions for leniency or for settlement agreement forms part of the sixth step in the fine-setting process. The CMA has published guidelines concerning applications for leniency and no-action in cartel cases⁵⁶⁵. Part 3 of the 2012 Guidance on the setting of financial penalties summarizes the different types of leniency available and the criteria governing their award.

The Enterprise and Regulatory Reform Act 2013 in operation since on 1 April 2014 also formalized the settlement procedure to simplify the process by which a company may admit infringing competition law in return for a reduced penalty (20% discount if settlement is before a Statement of Objections and 10% afterwards). This will streamline the investigation procedure and provide greater predictability and consistency of process and outcomes. However, the use of settlement procedures will be at the CMA's discretion. The proposals draw substantially on the European Commission's well-established settlement procedure, which it has used successfully in several cartel investigations.

5. France

In accordance with Article L 464-2-IV of the French Commercial Code, the FCA has published guidelines regarding applications of the criteria and the procedure of its leniency program. The third and last version is dated March 2nd, 2009⁵⁶⁶.

F. Inability to Pay

⁵⁶⁴ Para. 18 of the Guidelines with the Leniency Notice (Notice no. 9/2006 of the Bundeskartellamt on the immunity from and reduction of fines in cartel cases - Leniency Programme - of 7 March 2006, http://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitlinien/Notice%20-%20Leniency%20Guidelines.pdf?__blob=publicationFile&v=5) and the Settlement Notice (which is not translated into English; the German version is: Bundeskartellamt, Merkblatt - Das Settlement-Verfahren des Bundeskartellamtes in Bußgeldsachen, 23 December 2013, http://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Merkblätter/Merkblatt-Settlement.pdf?__blob=publicationFile&v=2).

⁵⁶⁵ OFT 1495 (CMA), (2013). "Applications for leniency and no-action in cartel cases"

⁵⁶⁶ http://www.autoritedelaconurrence.fr/doc/cpro_clemence_uk_2_mars_2009.pdf.

1. EU

The Guidelines go on to state (similarly to, but more elaborately than the 1998 Guidelines) that

[i]n exceptional cases, the Commission may, upon request, take account of the undertaking's inability to pay in a specific social and economic context. It will not base any reduction granted for this reason in the fine on the mere finding of an adverse or loss-making financial situation. A reduction could be granted solely on the basis of objective evidence that the imposition of the fine as provided for in these Guidelines would irretrievably jeopardise the economic viability of the undertaking concerned and cause its assets to lose all their value.⁵⁶⁷

First, it should be pointed out that the Grand Chamber in *Dansk Rørindustri* held, as quoted above, that there is no *obligation* on the Commission to take the inability to pay into account, because this would give an “*unjustified competitive advantage to undertakings least well adapted to the market conditions*”.⁵⁶⁸

Accordingly, it was not easily predictable whether the Commission would take the inability to pay into account in any specific case. In particular in the course of the financial crisis after 2007 applications for a reduction under paragraph 35 of the 2006 Guidelines increased. Additionally, post-decision requests for an ex post reduction or waiver of the fine were often addressed to the Commission.

The Competition Commissioner and Vice-President of the Commission Joaquín Almunia and Janusz Lewandowski therefore published an “Information Notice” in 2010 to clarify the Commission's practice.⁵⁶⁹

The Notice first registers its reservations against taking inability to pay (ITP) into account, based on (1) the possibly unequal treatment by taking ITP into account in the case of “those companies that are inefficient, badly managed or over-leveraged at the expense of well managed and financially prudent companies” ; (2) the resulting danger of moral hazard, among other things by providing incentives for corporate restructuring; (3) the danger of inconsistency in the fining practice; (4) the

⁵⁶⁷ Fining Guidelines, para 35.

⁵⁶⁸ C-213/02 P (*Dansk Rørindustri and others v Commission*) [2005] ECR I-5425 (in the context of the similar provision in the 1998 Fining Guidelines).

⁵⁶⁹ Information Note by Mr Joaquín Almunia, Vice-President of the Commission, and by Mr. Janusz Lewandowski, Member of the Commission, Inability to pay under paragraph 35 of the 2006 Fining Guidelines and payment conditions pre- and post-decision finding an infringement and imposing fines, SEC(2010) 737/2 of 12 June 2010.

diminution of the deterrent effect of fines.⁵⁷⁰ On the other hand, the Notice states that competitive companies and productive assets should not be driven out of the market by fines, a danger that is particularly high for “SMEs and/or mono-product companies”.⁵⁷¹

The Notice then elaborates on the interpretation of paragraph 35, stating that the financial situation of the company will be assessed on the basis of primarily the solvency and liquidity, as estimated by bankruptcy prediction models such as the Altman Z-score test, but also of profitability and capitalization.⁵⁷² The indicators are assessed relying on historical data and projections for the future, especially with regard to cash flows.⁵⁷³

The condition of the economic and social context are said to be “fulfilled relatively easily, e.g. during a sectoral or general economic crisis”; both a cyclical sectoral crisis and the general difficulty in getting access to capital and credit may suffice.⁵⁷⁴

The Notice widens the scope of the ITP argument by replacing the 2006 Fining Guideline’s condition that the productive assets would “lose all their value” by the less strict condition that they would “lose ‘significantly’ their value”, which is already the case where the bankruptcy would lead “to the disappearance of the undertaking as a going concern”.⁵⁷⁵

The consequence of a successful ITP application is either a reduction of the fine to be paid, or a relaxation in the conditions for payment, such as deferred payment by instalments. While the Notice recognizes that from a deterrence perspective it would be preferable to keep the nominal amount of the fine as determined by the 2006 Fining Guidelines and only relax the conditions of payment, the Notice gives more weight to the consideration that such a relaxation of the payment conditions is less beneficial to the undertakings.⁵⁷⁶ Therefore, the Notice announces that in the future successful ITP applications will generally lead to reduction of the fine, and only exceptionally to a mere relaxation of the payment conditions, or – very exceptionally – to a combination of these two options.⁵⁷⁷

⁵⁷⁰ Ibid., para. 4.

⁵⁷¹ Ibid.

⁵⁷² Ibid., para. 7.

⁵⁷³ Ibid.

⁵⁷⁴ Ibid., para. 8.

⁵⁷⁵ Ibid., para. 9.

⁵⁷⁶ Ibid., paras 11-12.

⁵⁷⁷ Ibid., para. 13.

The Notice further states that companies that appeal a fine should be able to choose freely between paying the fine provisionally or providing a valid bank guarantee.⁵⁷⁸

Finally, the Notice explains the procedure for taking ITP concerns into account that arise subsequent to the adoption of the decision.⁵⁷⁹ In such a case, the College of Commissioners would have to partially or fully waive the fine.⁵⁸⁰ The exact procedure differs depending on the point in time when the financial distress develops.⁵⁸¹

2. US

According to the US SG, the court must reduce the fine below that otherwise required by the guidelines to the extent that imposition of such fine would impair the organizations ability to make restitution to its victims⁵⁸². The court may impose a fine below that otherwise required if the court finds that the organization is not able and, even with the use of a reasonable instalment schedule, is not likely to become able to pay the minimum fine required, provided that the reduction is not more than necessary to avoid substantially jeopardizing the continued viability of the organization⁵⁸³.

3. Germany

Any inability to pay is taken into account in determining the financial capacity of the undertaking in the application of the offender-related criteria (§ 17(3) OWiG, paragraph 16, second bullet point).

4. UK

The Guidance recognizes that in exceptional circumstances, the CMA may reduce the penalty where the undertaking is unable to pay it because of its financial position⁵⁸⁴. This adjustment for financial hardship forms part of the sixth step of the fine-setting process. The 2004 Guidelines integrated its assessment in considering mitigating circumstances. In its *Achilles* judgment the CAT had agreed with the OFT submission that “the fact that a fine may result in a company going into liquidation and exiting the market is something that the OFT should take into account but is not necessarily a reason

⁵⁷⁸ Ibid., paras 14-16.

⁵⁷⁹ Ibid., paras 17-21.

⁵⁸⁰ Ibid. para. 19.

⁵⁸¹ Ibid., paras 18, 20.

⁵⁸² USSG §8C3.3(a).

⁵⁸³ USSG §8C3.3(b).

⁵⁸⁴ OFT (CMA) Guidelines (2012), para. 2.27.

for reducing the fine”⁵⁸⁵. The CAT also refused to consider the argument put forward by Achilles that paying the fine would lead it to exit the market and that such exit will leave one market player with very significant power. According to the CAT, limiting fines on this basis will be extremely difficult, recognizing a margin of appreciation to the OFT on how to balance deterrence as against possible adverse effects on the market structure.

5. France

The FCA has published a questionnaire on the ability to pay of all entities (not only undertakings) in 2011⁵⁸⁶. Inability to pay is assessed at the group level⁵⁸⁷. Undertakings must provide the FCA with the information requested in this questionnaire: individual and consolidated (when applicable) financial statements for the last three years, a summary of the financial covenants concluded between the undertaking and its banks, the amount of banking credit lines available on the last day of each of the last three certified fiscal years, amount of the provisions for the last closed fiscal year as well as for the ongoing fiscal year. Additional information is requested for foreign undertakings or for undertakings which do not resort to a statutory auditor.

The questionnaire is not legally binding. However, the burden of proof is on the undertaking which asked for a reduction, therefore it is strongly recommended to provide the FCA with the information mentioned in the questionnaire.

G. Deferred payment, Interest on Fines

1. EU

Where the Commission has imposed a fine, no interest will be due where the fine is (at least provisionally) paid by the deadline specified in the Decision.⁵⁸⁸ Once the deadline has passed, interest starts to accrue at the rate of 3.5 per cent above the interest rate applied by the European Central Bank to its main refinancing operations.⁵⁸⁹ Where a financial guarantee has been accepted

⁵⁸⁵ *Achilles Paper Group Ltd v. OFT* [2006] CAT 24, paras 21-23, 42 and 43 referring to the position in EU law.

⁵⁸⁶ http://www.autoritedelaconcurrence.fr/doc/questionnaire_itp_mai_2011_en.pdf.

⁵⁸⁷ Decision N°12-D-25 of 18th December, 2012, esp. §762.

⁵⁸⁸ Article 78(3)(b) of the Commission Regulation (EC, EURATOM) No 2342/2002 of 23 December 2002 laying down detailed rules for the implementation of Council Regulation (EC, Euratom) No 1605/2002 on the Financial Regulation applicable to the general budget of the European Communities, [2002] Official Journal L 357/1, as amended.

⁵⁸⁹ Article 86(1), (2)(b) of Regulation 2342/2002.

by the accounting officer in lieu of provisional payment, the interest rate is only 1.5 per cent above the interest rate applied by the European Central Bank to its main refinancing operations.⁵⁹⁰

The rate of 3.5 per cent above the interest rate applied by the European Central Bank to its main refinancing operations has been challenged as being above market rates; this could prevent addressees of fines decisions from seeking an effective judicial remedy. However, the Court has found the rate to be acceptable, reasoning that too low a rate would give an incentive to bring dilatory appeals merely to benefit from the interest collected, and that the rate was not so high as to deter addressees from seeking judicial recourse.⁵⁹¹

2. US

The sentencing court must order immediate payment of the fine unless it finds that the organization is financially unable to make immediate payment or that such payment would pose an undue burden on the organization, in which case the court shall require full payment at the earliest possible date, either by setting a date certain or by establishing an instalment schedule⁵⁹². In no event should the period provided for payment exceed five years.

3. Germany

§ 81(6) GWB, provides that a fine imposed on legal *persons or partnerships* starts to accrue interest two weeks after service of the fining decision, at a rate of 5% above the base interest rate. The legislator introduced this duty to pay interest in order to prevent the persons concerned from moving for court decisions solely in order to delay having to pay the fine.

In 2011, the OLG Düsseldorf made a preliminary reference to the Federal Constitutional Court because it considered this provision to infringe the constitutional guarantee of equal treatment⁵⁹³ in three respects:

- (1) it discriminates between legal persons and partnerships on the one hand, and individuals and sole proprietors on the other hand;

⁵⁹⁰ Article 86(5) of Regulation 2342/2002.

⁵⁹¹ Judgment of the Court of First Instance (Fifth Chamber), 8 October 2008, Case T-68/04 (*SGL Carbon v Commission*) [2008] ECR II-2511 paras 140-154 (pointing out that the case-law predating Regulation 2342/2002 even accepted interest as high as 13.75%), upheld in Judgment of the Court (Fourth Chamber) of 12 November 2009, Case C-564/08 P (*SGL Carbon AG v Commission*) [2009] ECR I-191.

⁵⁹² USSG §8C3.2(a) and (b).

⁵⁹³ Article 3(1) *Grundgesetz* (the German Constitution, GG).

- (2) it discriminates between fines in competition cases and other administrative fines, which do not accrue interest; and
- (3) it discriminates between fines imposed in the authority's decision, which automatically start to accrue interest, and fines imposed by the court.⁵⁹⁴

The plaintiffs had also argued

- (4) that the accruing interest provided a disincentive to make use of the constitutional right⁵⁹⁵ to seek judicial recourse and
- (5) that the duty to pay interest before the decision had become final infringed the presumption of innocence.

In 2012, the German Federal Constitutional Court rejected all these arguments and held that § 81(6) GWB is constitutional.⁵⁹⁶ In particular, the differentiation between legal persons and partnerships on the one hand and natural persons and sole proprietors on the other hand was held to be justified because fines on the latter category were found to be considerably lower, so that the strategic incentive to appeal a decision to delay paying the fine did not exist to the same extent in these cases, whereas undertakings (and associations) have a much greater incentive to appeal for the strategic purpose of earning interest in the meantime.⁵⁹⁷ Nor was the provision a significant disincentive to lodge meritorious appeals; the rate of interest to be paid could potentially be earned on the capital market and was therefore not prohibitive, and where a defendant feared that it would not earn 5% above the base rate, it could avoid the duty to pay interest by paying the fine provisionally, subject to the outcome of the appeal.⁵⁹⁸ The Court also rejected the argument that the duty to pay interest infringed the presumption of innocence; after all, where the administrative decision does not become final, the duty to pay interest is eliminated as well.⁵⁹⁹

4. UK

⁵⁹⁴ *Oberlandesgericht* (Higher Regional Court, OLG) Düsseldorf, 24 May 2011, V-1 Kart 1/11 (OWi), WuW/E 3308, 3315–3320 – *Zinsverpflichtung*.

⁵⁹⁵ Article 19(4) GG.

⁵⁹⁶ *Bundesverfassungsgericht* (Federal Constitutional Court, BVerfG), 19 December 2012, 1 BvL 18/11, WuW/E DE-R 3766 – *Verzinsungspflicht*, available at http://www.bverfg.de/entscheidungen/Is20121219_1bvl001811.html (in German).

⁵⁹⁷ *Ibid.*, paras 43–62. For the rejection of the other alleged infringements of the equal treatment clause, see *ibid.*, paras 63–67.

⁵⁹⁸ *Ibid.*, paras 68–88.

⁵⁹⁹ *Ibid.*, paras 89–91.

Payment of the financial penalty is normally due up to three months from the date of their notice⁶⁰⁰. The CMA may also recover interest in respect of any amount outstanding, by virtue of the rules of civil procedure for recovery of a debt in the United Kingdom. Appeals by the undertaking which is the subject of the decision against the imposition, or the amount of a penalty will automatically suspend the effect of the penalty imposed. In those cases, although the requirement to pay the penalty will be suspended until the appeal is determined, under Rule 27 of the Competition Appeal Tribunal's Rules, if it confirms or varies any penalty the CAT may, in addition, add interest on the penalty from the date no earlier than the date on which the application was made⁶⁰¹.

5. France

According Article L.464-4 of the French Commercial Code, the fines imposed by the FCA "*are recovered as State debts separate from taxes and state property*". Since 2009, the FCA is empowered to ensure that the concerned undertakings comply with its decisions (previously, it was the Minister of Economy who was empowered). However concerning the payment of the fines, this is the Treasury Department which sends the fines companies a debit note mentioning when the payment must be done and the level of interest on fines. The fines companies may negotiate conditions of payment with the Treasury Department.

An appeal before the Paris Court of appeal does not suspend the obligation to pay fines. This court can suspend the duty to pay when exceptional circumstances are met (risk for the undertaking to disappear).

H. Corporate Restructuring

1. EU

Particular problems may arise from corporate restructuring. Where the infringing entity is transferred after the infringement has ceased, European law takes the position that, first, the transferring undertaking remains liable for the infringement, but second, where the transferring undertaking is left without substantial assets, the legal successor – understood as "*the person who has become responsible for [the] operation*" of "*the combination of physical and human elements which contributed to the commission of the infringement*"⁶⁰² – may be liable.⁶⁰³

⁶⁰⁰ Section 37(1) Competition Act 1998 on recovery of penalties.

⁶⁰¹ *Napp Pharmaceutical Holdings Ltd v. Director general of Fair Trading*, para 542; CAT Rules 2003, SI 2003/1372, rule 56. See also, *Kier Group plc v. OFT* [2001] CAT 3, para. 343.

⁶⁰² Judgment of the Court of First Instance (First Chamber), 17 December 1991, Case T-6/89 (*Enichem Anic SpA v Commission*) [1991] ECR II-1623 para. 237.

2. US

In general common law, successor liability typically applies when a company has acquired another company as a result of an actual merger or stock acquisition. For instance, the Tenth Circuit's decision in *United States v. Wilshire Oil Co. of Texas*, the court refused to dismiss criminal charges against an acquiring entity for premerger conduct in a conspiracy to fix the price of asphalt sold to state highway departments, rejecting the acquiring company's claim that it "unwittingly bought into an ongoing conspiracy", and instead finding that the company "had ample opportunity to detect and reject the illegal practices" prior to and after its assumption of control.⁶⁰⁴ Successor liability is usually not recognized if there is only a sale of the assets. Courts have consistently held that a purchaser of only assets takes the assets free and clear of any liability or debts⁶⁰⁵. Indeed, a different position would, according to certain courts, "allow every corporate entity concerned about potential antitrust liability to impose a collateral obstacle to such liability simply by removing its offending element, e.g., by creating a subsidiary"⁶⁰⁶. However, some exceptions exist where an asset sale could generate the same successor liability as a merger or acquisition. One exception occurs when the purchasing entity is merely a continuation of the existing business. The specific facts of each asset sale must be analyzed to determine if successor liability is applicable⁶⁰⁷.

3. Germany

The imposition of administrative fines on undertakings suffered a severe (to some extent temporary) setback, when the Federal Court of Justice held in 2011 that the legal successor of an undertaking whose managers committed administrative offences is not liable for the fine on the undertaking, unless there is "identity or near identity" between the predecessor undertaking whose managers committed the offence and the successor.⁶⁰⁸ This left a substantial loophole for undertakings to

⁶⁰³ For details and references see Khan, N., *supra* note 182, §§ 7-009 - 7-016.

⁶⁰⁴ See, *United States v. Wilshire Oil Co. of Texas*, 427 F.2d 969, 974 (10th Cir. 1970).

⁶⁰⁵ See, *United States v. Carter*, 311 F.2d 934, 941 (6th Cir. 1963).

⁶⁰⁶ See, *United States v. Ashland Oil*, 537 F. Supp. 427, 432 (M.D. Tenn. 1988).

⁶⁰⁷ An additional issue may arise from the implementation of Chapter 11 of the Bankruptcy Code, which entitles a reorganized debtor to a "fresh start" and releases him from all claims that could have been asserted against it prior to the Bankruptcy Court's confirmation of the reorganized debtor's bankruptcy plan. For a recent analysis of this issue, see Salzman, H. and Reiss, W.V. (2013) The Case for Joint, Several Liability of Reorganized Debtors That Continue to Participate in Antitrust Conspiracies Post-Discharge (Bloomberg BNA, Nov. 4), available at <http://www.bna.com/the-case-for-joint-several-liability-of-reorganized-debtors-that-continue-to-participate-in-antitrust-conspiracies-post-discharge/>

⁶⁰⁸ BGH, 10 Aug. 2011, KRB 55/10, WuW/E DE-R 3455 = NJW 2012, 164 – *Versicherungsfusion*. The insurer whose managers had infringed competition law was restructured by merging the company into another

escape liability for competition law fines by restructuring.⁶⁰⁹ The *Bundeskartellamt* even asked the European Commission to take over German cartel cases where they may affect trade between Member States (Article 11(6) Regulation (EC) 1/2003).⁶¹⁰

The 8th Amendment to the GWB did not completely eliminate this loophole, but narrowed the scope for circumvention considerably. § 30(2a) OWiG now provides that a fine may be imposed on a legal successor in certain cases, capped by the amount of the value added by legal succession. The legislative change took care of at least most of the opportunities for circumvention that have actually been used to date.⁶¹¹ However, the *Bundeskartellamt* and the European Commission have noted that this still leaves loopholes that can be used to circumvent the imposition of a fine, for example where the assets are disposed of by way of an asset deal.⁶¹² The legislator tried to plug this loophole by facilitating writs of attachment following the issuing of a fining decision.⁶¹³ Apart from concerns about the practicality of such attachments, there is also the continuing danger of restructuring activities before the fines decision is issued.⁶¹⁴

insurance company that was part of the same corporate group (see Konrad Ost, *Die Regelung der Rechtsnachfolge und weitere Neuerungen im Kartellordnungswidrigkeitenrecht durch die 8. GWB-Novelle*, in *DAS DEUTSCHE KARTELLRECHT NACH DER GWB-NOVELLE* 305, 309 (Florian Bien, ed., Baden-Baden: Nomos 2013)). The resulting successor took over 4% of the insurance policies of the predecessor, which made up 28% of the successor's portfolio of insurance policies, accounting for 45% of the predecessor's and 42% of the successor's gross premium income. The *Bundeskartellamt* imposed a fine on the successor undertaking. The Higher Regional Court denied the successor's liability for the fine, because the successor was neither identical nor nearly identical to the predecessor, and the Federal Court of Justice affirmed.

⁶⁰⁹ See the *Bundeskartellamt's* opinion of 22 Jun. 2012 on the Government Bill for an 8th Amendment to the GWB, pp. 13–15, available at <http://www.bundeskartellamt.de/wDeutsch/publikationen/Diskussionsbeitraege/Stellungnahmen.php> (in German), including, as an annex, the facsimile of a letter from Alexander Italianer of DG Comp to the President of the *Bundeskartellamt*.

⁶¹⁰ See Kurgonait, E. (2013) "Interview with Andreas Mundt", *ABA-Section of Antitrust Law/International Committee, International Antitrust Bulletin* 1, 2, 3–4.

⁶¹¹ Ost, K. (2013) "Die Regelung der Rechtsnachfolge und weitere Neuerungen im Kartellordnungswidrigkeitenrecht durch die 8. GWB-Novelle", in Bien, F. (ed) *Das deutsche Kartellrecht nach der GWB-Novelle*, Baden-Baden: Nomos 2013, 305, 313. Yomere, A. (2013) "Die Novellierung des Kartellbußgeldverfahrens durch die 8. GWB-Novelle" *WuW* 1187, 1192–1195., considers the new regime for legal succession to infringe the constitutional requirement of personal responsibility for (quasi) criminal conduct.

⁶¹² See the references *supra* note 609; see also Ost, K. *supra* note 611, at 311.

⁶¹³ § 30(6) OWiG, which provides for the application of § 111d of the Strafprozessordnung (Criminal Procedure Code, StPO), substituting the authority's administrative fines decision for the judgment usually required.

⁶¹⁴ Ost, *supra* note 611, at 313–314.

4. UK

According to the UK courts⁶¹⁵, the undertaking is not liable for the illegal acts of its employees since competition rules impose liability only on the undertakings for the specific conduct. Therefore, the company is personally at fault and is not subject to vicarious liability. Hence, the carteliser may not pass on the fines it had suffered to the employees who had caused them (in breach of their duties to the employer) as this would allow the defendant to avoid the consequences of its own egregious behaviour. The UK courts should take into account the EU jurisprudence on this matter, in view of the obligation imposed under Section 60 of the Competition Act 1998 to implement the Act in a manner which is consistent with the treatment of corresponding questions arising in EU Competition Law.

5. France

The transferable undertakings are liable. Please find hereafter in Appendix 2 the details of the reasoning of the FCA in its decisions when it applies the SG.

⁶¹⁵ See, for instance, *Safeway and others v Twigger and others* [2010] EWCA Civ 1472, para. 20 & 23.

Table 11: A cross-jurisdictional study of the fine-setting process

Issue	EU	US	Germany	UK	France
Institution in charge of setting the fine	European Commission, subject to unlimited judicial review (Art. 261, 263 TFEU)	Sentencing judges	Bundeskartellamt (or, less importantly, <i>Länder</i> competition authorities); once the undertaking/association concerned raises a complaint, the Court becomes competent to set the fine based on a de novo appraisal of the facts after a full trial	Competition and Markets Authority	Autorité de la concurrence (French Competition Authority)
Guidelines available?	Yes (2006)	Yes (1987), last revised 2004	Yes (2013)	Yes (2012)	Yes (2011)
Guidelines binding to the sentencing or appellate courts	No	Yes (until 2005); No (since 2005)	No	No	No
The Relevant Measure	value of sales	Affected turnover	Upper limit of the fining range is determined by a mixture of relevant domestic turnover and overall global turnover; within that range, offence- and offender-related criteria determine the fine	Relevant turnover	Value of sales

Entry fee (minimum fine)	15-25%	A multiplier range of at least 0.75 is applied to antitrust offenses, no matter the culpability score, for deterrence purposes, leading to a fine of at least 15% of the affected volume of commerce in any circumstance	No separate entry fee, but where duration is less than a year, infringement will be deemed to have existed for one year	No separate entry fee, but where duration is less than a year, infringement will be deemed to have existed for one year	No
Proportionality of the fines as a separate step in the fine-setting process	No. However, the cap at 10% of the worldwide turnover is generally	No, but taken into account in the overall assessment	No, but taken into account in the overall assessment	Yes	Yes

	seen as a sufficient protection of the proportionality principle				
Aggravating factors ⁶¹⁶					
Infringement committed intentionally	Intentional infringement is taken to be the norm; where the undertaking proves mere negligence, this may be a mitigating factor	Yes	Intentional infringement is taken to be the norm; where there is only negligence, the fining range is halved	No, but taken into account in the overall assessment	Yes
Involvement of senior management	Not mentioned explicitly in the GL, but	Yes	May be considered in the overall assessment	Not explicitly	Yes

⁶¹⁶ Indicate Yes or No, if possible.

	aggravating factors are non-exhaustive; meetings between senior management was mentioned in determination of leading role within the cartel (eg ADM)				
Leading role in the infringement	Yes	Yes	Yes	Yes	Yes
Non-cooperation Obstruction of the investigation	Yes	Yes	(separate fines or criminal sanctions for procedural infringements possible)	Yes	Yes
Recidivism	Yes	Yes	Yes (but generally only infringements within	Yes	Yes

			the previous five years can be taken into account)		
Size of firm	Yes (deterrence multiplier; 10% of worldwide turnover cap)	Yes	Yes (in setting the multiplier for the relevant domestic turnover, and for the 10% of worldwide turnover maximum fine)	Yes	Yes
Mitigating factors					
Acceptance of responsibility	May be considered as cooperation; may also lead to settlement under the Settlement Notice (10% reduction)	Yes	May be considered in the overall assessment; may also lead to settlement under the Settlement Notice (10% reduction)	Yes	Yes
Compensation of injured	Has been taken into	No	Has been taken into account in some cases	Yes	No

parties	account in some cases (eg Fine on ABB reduced in Pre-Insulated Pipes Cartel; Nintendo)				
Cooperation with the investigation	Yes (but only if it exceeds the general legal obligation to cooperate)	Yes (but only if it exceeds the general legal obligation to cooperate)	Yes	Yes (but only if it exceeds the general legal obligation to cooperate)	No
Effective compliance programme	No	Under certain conditions	No	Under certain conditions	Under certain conditions
Minor role in the infringement	Yes (mitigating factor if involvement was substantially limited; but a	No	Yes	Not explicitly	No

	very strict standard is applied, mere cheating on the cartel does not suffice)				
Non-implementation	(taken into account in determining the relevant percentage of the value of sales)	No	Yes	No	Yes
Participation under duress, coercion	sometimes considered, but strict standard	No	sometimes considered, but strict standard	Yes	Yes
Self-reporting	Yes (under Leniency Notice, or as cooperation outside of	Yes	Yes (under Leniency Notice, or as cooperation outside of Leniency Notice in the overall assessment)	No	Yes (under Leniency Notice, or as cooperation outside of Leniency Notice in the overall assessment

	Leniency Notice as a mitigating factor)				
Termination of the infringement as soon as investigation started	May be considered as mitigating circumstance, but not usually in secret cartels.	No	May be considered in the overall assessment	Yes	No
Uncertainty as to existence of an infringement	Where the infringement is not proven to the relevant standard of proof, there will be no fine	No	Where the infringement is not proven to the relevant standard of proof, there will be no fine	Yes	Yes

Appendix 3: Financial Penalties in UK Competition Law

Fines imposed by the OFT Case	OFT decision	Infringement	Level of Fine	Judicial scrutiny
Access control & alarm systems	6 December 2013	Chapter I: collusive bidding arrangements	£53,310 total.	

			<ul style="list-style-type: none"> • Cirrus Communication Systems Ltd.: £0 (leniency). • Glyn Jackson Communications Ltd.: £35,700. • Peter O'Rourke Electrical Ltd.: £15,933. • Owens Installations Ltd.: £1,777 (includes 20% leniency discount). 	
Distribution of Mercedes Benz commercial vehicles	27 March 2013	Chapter I: price fixing and market division	<p>£5.4 million total fine.</p> <p><u>21 February 2013 Settlement Agreement</u> (Mercedes & dealers):</p> <ul style="list-style-type: none"> • Mercedes-Benz UK Ltd, parent Daimler UK Ltd, and ultimate parent Daimler AG (Mercedes): £1,492,646. • Road Range Ltd.: £115,774. • Ciceley Commercials Ltd. and parent Ciceley Ltd. (Ciceley): £659,675. • Enza Motors 	

			<p>Ltd., parent Enza Holdings Ltd. and ultimate parent Enza Group Ltd. (Enza): £347,198.</p> <ul style="list-style-type: none"> • Northside: £0 (leniency). <p><u>27 March 2013</u> <u>Settlement Agreement</u> (Mercedes & commercial vehicle dealers):</p> <ul style="list-style-type: none"> • Ciceley: £659,675, includes 15% discount for settling (otherwise £776,088). • Enza: £347,198, includes a 15% discount for settling (otherwise £408,469). • Mercedes: £1,492,646, includes a 15% discount for settling (otherwise £1,756,054). • Road Range: £115,774, includes a 15% 	
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			<p>discount for settling (otherwise £136,204).</p> <ul style="list-style-type: none"> • H&L Garages Ltd.: £242,076. • Northside: £0 (leniency). 	
Airline passenger fuel surcharges	19 April 2012	Chapter I: price fixing	£58.5 million total fine imposed on British Airways with the other party to the infringement (Virgin Atlantic Airways) receiving immunity.	
Dairy products	10 August 2011	Chapter I: vertical price fixing	<p>£49.51 million total fine.</p> <p><u>Dairy Processors:</u></p> <ul style="list-style-type: none"> • Arla: £0 (leniency). • Dairy Crest: £7.14m (includes 35% early resolution discount). • The Cheese Company: £1.26m (includes 35% early resolution discount). • McLelland: £1.66m (includes 30% early resolution 	<p>Tesco appealed the OFT's decision, and the CAT set aside portions of that judgment but requested additional information before reducing the fine.⁶¹⁷</p>

⁶¹⁷ Case 1188/1/1/11, *Tesco Stores Ltd. et al. v. OFT*, [2012] CAT 31 (20 Dec.).

			<p>discount).</p> <ul style="list-style-type: none"> • Wiseman: £3.20m (includes 35% early resolution discount). <p><u>Supermarkets:</u></p> <ul style="list-style-type: none"> • Asda: £9.10m (includes 35% early resolution discount, 10% leniency discount). • Safeway: £5.69m (includes 35% early resolution discount). • Sainsbury's: £11.04m (includes 35% early resolution discount). • Tesco: £10.43m. 	
Reckitt Benckiser	13 April 2011	Chapter II: unfair commercial practices in relation to a patented medicine (withdrawing and delisting drug from NHS prescription channel)	£10.2 million total fine (resolution agreement) imposed on Reckitt Benckiser.	
Royal Bank of Scotland	20 January 2011	Chapter I: pricing information exchange	£28.59 million total fine imposed on Royal Bank of Scotland, with the other party to the infringement (Barclays)	

			receiving immunity.	
Tobacco	15 April 2010	Chapter I: vertical price fixing	<p>£225 million total fine.</p> <p><u>Manufacturers:</u></p> <ul style="list-style-type: none"> Imperial Tobacco: £112,332,495. Gallaher: £50,379,754. <p><u>Retailers:</u></p> <ul style="list-style-type: none"> Asda: £14,095,933. The Co-operative Group: £14,187,353. First Quench: £2,456,528. Morrisons: £8,624,201. Safeway: £10,909,366. Sainsbury's: £0. Shell: £3,354,615. Somerfield: £3,987,950. T&S Stores (now One Stop Stores): £1,314,095. TM Retail: £2,668,991. 	The CAT upheld appeals brought by six parties (Imperial Tobacco, Co-operative Group, Morrisons, Safeway, Asda, & Shell) and quashed the OFT's decision concerning those parties. ⁶¹⁸

⁶¹⁸ Joined Cases No. 1160/1/1/10 et seq., *Imperial Tobacco Group Plc et al. v. OFT*, [2011] CAT 41 (12 Dec.).

Construction Recruitment	29 September 2009	Chapter I: collective boycott & price fixing	<p>£173 million total fine before leniency.</p> <p>£39.27 million total fine after leniency.</p> <ul style="list-style-type: none"> • A Warwick Associates Ltd.: £3303. • CDI AndersElite Ltd. (Parent: CDI Corp): £7,602,789 (includes 30% leniency). • Eden Brown Ltd.: £1,072,069 (includes 35% leniency). • Fusion People Ltd.: £125,021 (includes 20% leniency). • Hays Specialist Recruitment Ltd. (Parent: Hays Specialist Recruitment (Holdings) Ltd.) (Ultimate Parent: Hays plc): £30,359,129 (includes 30% leniency). • Henry 	<p>Fines reduced by CAT to £8.14 million overall, specifically for three defendants.⁶¹⁹</p> <ul style="list-style-type: none"> • Eden Brown Ltd.: from £1,072,069 down to £477,750. • CDI AndersElite Ltd: from £7,602,789 down to £1,543,500. • Hays Specialist Recruitment Ltd: from £30,359,129 down to £5,880,000.
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⁶¹⁹ Joined Cases No. 1140/1/1/09 et seq., *Eden Brown Ltd. et al. v. OFT*, [2011] CAT 8 (1 Apr).

			<p>Recruitment Ltd.: £108,043 (includes 25% leniency).</p> <ul style="list-style-type: none"> Beresford Blake Thomas Ltd. & Hill McGlynn & Associates Ltd.: £0 (100% leniency). 	
Bid rigging in the English construction industry	21 September 2009	Chapter I: bid rigging (cover pricing)	<p>£194.1 million fine before leniency.</p> <p>£129.2 million fine after leniency. The highest individual penalty, £17,894,438, was imposed on Kier Regional Ltd.⁶²⁰</p>	<p>(1) Fines reduced by CAT overall to £63.9 million, specifically for six defendants:⁶²¹</p> <ul style="list-style-type: none"> Kier Group Plc: down to £1,700,000 from £17.9m. Ballast Nedam N.V.: reduced from £8,333,116 to £534,375. Bowmer and

⁶²⁰ See Appendix for chart of individual fines.

⁶²¹ Joined Cases No. 1114/1/1/09 et seq., *Kier Group Plc et al. v. OFT*, [2011] CAT 3 (11 Mar.).

				<p>Kirkland Ltd.: reduced from £7,574,736 to £1,524,000.</p> <ul style="list-style-type: none"> • Corringway Conclusions plc: reduced from £769,592 to £119,344. • Thomas Vale Holdings Ltd.: reduced from £1,020,473 to £171,000. • John Sisk & Son Ltd.: reduced from £6,191,627 to £356,250. <p>(2) CAT reduced £1.5m fine on North Midland Construction to</p>
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				<p>£300,000. 622</p> <p>(3) CAT reduced joint & several liability between Crest Nicholson & ISG Pearce for infringement t 75 from £5,188,846 to £950,000. 623</p> <p>(4) CAT reduced joint and several liability on Quarmby Construction & St. James Securities Holdings for Infringements 6, 214, and 233</p>
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⁶²² Case 1124/1/1/09, *North Midland Construction Plc v. OFT*, [2011] CAT 14 (27 Apr.).

⁶²³ Joined Cases 1115/1/1/09 et seq., *Crest Nicholson Plc et al. v. OFT*, [2011] CAT 10 (15 Apr.).

				<p>from £881,749 to £213,750. ⁶²⁴</p> <p>(5) CAT further reduced the following fines:⁶²⁵</p> <ul style="list-style-type: none"> Francis Constructio n for infringemen ts 69, 208, and 234: from £530,238 to £169,575. GAJ Constructio n for infringemen t 174: from £109,683 was varied to £42,750. Allenbuild Ltd. for Infringemen ts 39, 137, and 204: from £3,547,931 to
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⁶²⁴ Case 1120/1/1/09, *Quarmby Construction Co. Ltd. & St. James Securities Holdings Ltd. v. OFT*, [2011] CAT 11 (15 Apr.).

⁶²⁵ Joined Cases 1128/1/1/09 et seq., *GAJ Construction Ltd. et al. v. OFT*, [2011] CAT 9 (15 Apr.).

				<p>£926,250.</p> <ul style="list-style-type: none"> • Robert Woodhead Ltd. for Infringements 46, 78, and 178: from £411,595 to £151,725. • J H Hallam Ltd. for Infringements 95, 96, and 183: from £359,588 to £99,000. • Hobson & Porter Ltd. for Infringements 230, 236, and 238: from £547,507 to £123,750. <p>(6) CAT reduced joint and several liability on Durkan Holdings, Durkan, & Concentra from</p>
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				£6,720,551 to £789,000 for Infringement 135 and £1,647,000 for Infringement 240. ⁶²⁶
Ofgem (National Grid)	21 February 2008	Chapter II: Abuse of a dominant position	Ofgem fined National Grid £41.6 million.	Fine reduced by CAT to £30.0 million (highest ever penalty in UK for abuse of dominance). ⁶²⁷ Court of Appeal further reduced fine to £15.0 million. ⁶²⁸
British Airways	1 August 2007	Chapter I: price fixing and information exchange	£121.5 million total fine imposed on British Airways, with the other party to the infringement (Virgin Atlantic) receiving immunity.	

⁶²⁶ Case 1121/1/1/09, *Durkan Holdings Ltd. et al. v. CAT*, [2011] CAT 6 (22 Mar.).

⁶²⁷ Case No. 1099/1/2/08, *National Grid Plc v. GEMA*, [2009] CAT 14 (29 Apr.).

⁶²⁸ *National grid plc v. Gas & Electricity Markets Authority*, [2009] CAT 14 and on appeal, *National Grid plc and Gas and Electricity Markets Authority* [2010] EWCA Civ 114).

Schools: fee information exchange	21 November 2006	Chapter I: exchange of information on future fees	<p>£489,000 total fine before leniency.</p> <p>£467,500 total fine, £10,000 per school, after leniency.⁶²⁹</p> <p>The OFT granted leniency to the following schools: Eton College (50 per cent), Winchester College (50 per cent), Sevenoaks School (45 per cent), Benenden School (30 per cent), Cheltenham Ladies' College (30 per cent) and Malvern College (20 per cent).</p>	
English Welsh & Scottish Railway Ltd.	17 November 2006	Chapter II: exclusionary & discriminatory behaviour	£4.1 million total fine on EWS (includes 35% discount for early resolution).	
Aluminium spacer bars	29 June 2006	Chapter I: price-fixing, market allocation, non-compete clauses	<p>£1.384 million total fine before leniency.</p> <p>£898,470 total fine after leniency.</p>	

⁶²⁹ The price-fixing participants were: Ampleforth College, Bedford School, Benenden School, Bradfield College, Bromsgrove School, Bryanston School, Canford School, Charterhouse School, Cheltenham College, Cheltenham Ladies College, Clifton College, Cranleigh School, Dauntsey's School, Downe House School, Eastbourne College, Epsom College, Eton College, Gresham's School, Haileybury, Harrow School, King's School Canterbury, Lancing College, Malvern College, Marlborough College, Millfield School, Mill Hill School, Oakham School, Oundle School, Radley College, Repton School, Royal Hospital School, Rugby School, St Edward's School, Oxford, St Leonards-Mayfield School, Sedbergh School, Sevenoaks School, Sherborne School, Shrewsbury School, Stowe School, Strathallan School, Tonbridge School, Truro School, Uppingham School, Wellington College, Wells Cathedral School, Westminster School, Winchester College, Woldingham School, Worth School and Wycombe Abbey.

			<ul style="list-style-type: none"> • EWS (Manufacturing) Ltd.: £490,050. • Thermoseal Group Ltd.: £380,700, reduced to £228,420 by leniency. • Double Quick Supplyline Ltd.: £180,000. • Ulmke Metals Ltd.: (£333,300, reduced to £0 by leniency). 	
Stock check pads	4 April 2006	Chapter I: price-fixing & market allocation	<p>£2.184 million total fine before leniency.</p> <p>£168,318 total fine after leniency.</p> <ul style="list-style-type: none"> • BemroseBooth Ltd.: £1,888,600 reduced to £0 by leniency. • Achilles Paper Group Ltd.: £255,697.50 reduced to £127,848.75 by leniency. • 4imprint Group PLC: £40,470. 	
Collusive	23 February 2006	Chapter I: price-fixing	£1.852 million total fine	

tendering for car park			<p>before leniency.</p> <p>£1.557 million total fine after leniency.</p> <ul style="list-style-type: none"> • Anglo Asphalt Company Ltd.: one infringement, £2,865 penalty, reduced to £2,005 by leniency. • Asphaltic Contracts Ltd.: three infringements amounting to £22,255 penalty. • Briggs Roofing & Cladding Ltd.: five infringements amounting to £328,264 penalty, reduced to £0 by leniency. • Cambridge Asphalte Co. Ltd.: five infringements amounting to £71,699 penalty, reduced to £53,774 by 	
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			<p>leniency.</p> <ul style="list-style-type: none"> • Coverite Ltd.: one infringement, £104,498 penalty. • Durable Contracts Limited: two infringements, amounting to £47,221 penalty. • Holme Asphalt: two infringements, amounting to £6,453 penalty. • Makers UK Ltd.: one infringement, £526,500 penalty. • Pirie Group Ltd., one infringement, £6,743 penalty reduced to £3,034 by leniency. • Prater Ltd., two infringements, amounting to £270,432 penalty. • Rio Asphalt & Paving Co. Ltd.: two 	
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			<p>infringements, amounting to £12,113 penalty, reduced to £9,085 by leniency.</p> <ul style="list-style-type: none"> • Rock Asphalte Ltd.: 17 infringements, amounting to £852,253 penalty, reduced to £511,351 by leniency. • WG Walker & Co. Ltd.: one infringement, £1,570 penalty, reduced to £863 by leniency. 	
Collusive tendering for roofing contracts	12 July 2005	Chapter I: price-fixing & bid-rigging	<p>£238,576 total fine before leniency.</p> <p>£138,515 total fine after leniency.</p> <ul style="list-style-type: none"> • Pirie: £0 total fine, reduced from £85,774 because of leniency. • Walker: £41,907 total fine, reduced from £76,194 	

			<p>because of leniency.</p> <ul style="list-style-type: none"> • Advanced Roofing Systems Ltd.: £1,963 total fine. • Brolly: £22,239 total fine. • Bonnington: £45,187 total fine. • McKay: £27,219 total fine. 	
Collusive tendering for mastic asphalt flat-roofing contracts	8 April 2005	Chapter I: price-fixing & bid-rigging	<p>£231,445 total fine before leniency.</p> <p>£87,353 total fine after leniency.</p> <ul style="list-style-type: none"> • Briggs: £0 total fine, reduced from £57,120 because of leniency. • Pirie: £51,693 total fine, reduced from £114,873 because of leniency. • Walker: £16,415 total fine, reduced from £29,845 because of leniency. 	

			<ul style="list-style-type: none"> • Lenaghan: £19,245 total fine, reduced from £29,607 because of leniency. 	
Collusive tendering for felt & single ply flat-roofing contracts	8 April 2005	Chapter I: price-fixing, bid-rigging, market allocation	<p>£598,223 total fine before leniency.</p> <p>£471,029 total fine after leniency.</p> <ul style="list-style-type: none"> • Briggs: £0 total fine, reduced from £88,956 because of leniency. • Dufell: £74,624 total fine. • Hodgson & Allon: £74,151 total fine. • Hylton: £47,700 total fine, reduced from £73,385 because of leniency. • Kelsey: £262,000 total fine. • Roofclad: £12,554 total fine, reduced from £25,107 because of leniency. • Single Ply: £0 	

			total fine.	
UOP Ltd./Ukae Ltd. (Desiccants)	9 November 2004	Chapter I: price-fixing.	<p>£2.433 million total fine before leniency.</p> <p>£1.707 million total fine after leniency.</p> <ul style="list-style-type: none"> • UOP Ltd.: £1,232,000 total fine, which includes 20% discount off £1,540,000 due to leniency. • UKae Ltd.: £0 total fine, reduced from £278,000 because of leniency. • Thermoseal Supplies Ltd.: £139,000 total fine, which includes a 50% discount off £279,000 due to leniency. • Double Quick Supplyline Ltd.: £109,000 total fine. • Double Glazing Supplies Group Plc.: £227,000 	CAT reduced overall fine to £1.635m. ⁶³⁰

⁶³⁰ Case No. 1048/1/1/05, *Double Quick Supplyline Ltd. v. OFT*, consent order of 19 May 2005.

			total fine.	
West Midlands roofing contractors	17 March 2004	Chapter I: price-fixing & bid-rigging	<p>£971,186 total fine before leniency.</p> <p>£297,625 total fine after leniency.</p> <ul style="list-style-type: none"> • Apex: £35,922.80 total fine. • Briggs: £0 total fine after 100% leniency. • Brindley: £55,540.80 total fine. • General Asphalte: £63,192.86 total fine. • Howard Evans: £35,510.25 total fine, after 50% leniency (£71,020.50 original fine). • Price: £18,000.00 total fine. • Redbrook: £17,802.90 total fine. • Rio: £45,049.68 total fine. • Solihull: £26,606.25 	CAT reduced the overall fine to £288,625 by lowering the penalty imposed on Price from £18,000 to £9,000. ⁶³¹

⁶³¹ Case No. 1033/1/1/04, *Richard W. Price Ltd. v. OFT*, [2005] CAT 5 (24 Feb.).

			total fine.	
Hasbro II	2 December 2003	Chapter I: price-fixing	<p>£38.25 million total fine before leniency.</p> <p>£22.66 million total fine after leniency.</p> <ul style="list-style-type: none"> Hasbro UK Ltd. paid £0 in total fines because of 100% leniency, reduced from £15.59 million. Argos Ltd. paid £17.28 million in total fines. Littlewoods Ltd. paid £5.37 million in total fines. 	CAT reduced overall fine to £19.50 million, including the fine of Argos from £17.28 million to £15 million, and the fine of Littlewoods from £5.37 million to £4.5 million. ⁶³²
Replica Football Kits	1 August 2003	Chapter I: price-fixing.	<p>£18.668 million total fine before leniency.</p> <p>£18.627 million total fine after leniency.</p> <ul style="list-style-type: none"> Manchester United Plc. paid £1.652m in total fines. Football Assoc. Ltd. paid £0.158m in total fines, which included 	<p>CAT reduced overall fine to £15.49m, including:⁶³³</p> <ul style="list-style-type: none"> For Umbro, from £6.641 million to £5.3 million. For MU, from £1.652 million to £1.5 million. For JJB

⁶³² Joined Cases 1014/1/1/03 et seq., *Argos Ltd. & Littlewoods Ltd. v. OFT*, [2005] CAT 13 (29 Apr.).

⁶³³ Joined Cases 1019/1/1/03 et seq., *Umbro Holdings Ltd. v. OFT*, [2005] CAT 22 (19 May).

			<p>a 20% reduction from £0.198m due to leniency.</p> <ul style="list-style-type: none"> • Umbro Holdings Ltd. paid £6.641m in total fines. • Allsports Ltd. paid £1.350m in total fines. • Blacks Leisure Group Plc. paid £0.197m in total fines. • JJB Sports Plc. paid £8.373m in total fines. • Sports Soccer Ltd. paid £0.123m in total fines. • The John David Group Plc. paid £0.073m in total fines. • Florence Clothiers (Scotland) Ltd. (previously “Sports Connection”) paid £0.020m in total fines, which included a 25% reduction from £0.027m due 	<p>Sports, from £8.373 million to £6.7 million.</p> <p><u>For the first time,</u> CAT increased the fine for Allsports from £1.35 million to £1.42 million.</p>
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			<p>to leniency.</p> <ul style="list-style-type: none"> • Sportsetail Ltd. benefited from 100% leniency and thus paid £0 in total fines, reduced from £0.004m. 	
Genzyme Ltd.	27 March 2003	Chapter II: tying & margin squeeze.	£6.8m total fine on Genzyme.	CAT reduced overall fine on Genzyme from £6,809,598 to £3.0m. ⁶³⁴
Hasbro I	6 December 2002	Chapter I: price-fixing.	<p>£9 million total fine before leniency.</p> <p>£4.95m total fine levied on Hasbro UK Ltd. after leniency.</p> <p>The OFT refrained from levying any fines on the 10 distributors⁶³⁵ also party to the price-fixing arrangement because Hasbro had taken the initiative in setting prices and because the distributors were in substantially weaker market positions.</p>	
Aberdeen Journals Ltd.	16 September 2002	Chapter II: predation	£1.328m total fine on Aberdeen.	CAT reduced overall fine on Aberdeen from £1,328,040 to

⁶³⁴ Case No. 1016/1/1/03, *Genzyme Ltd. v. OFT*, [2004] CAT 4 (11 Mar.).

⁶³⁵ The ten distributors were: Lewison Ltd., A.B. Gee of Ripley Ltd., Sellicks (Plymouth) Ltd., George Clapperton & Son Ltd., J A Magson Ltd., L B Group Ltd., Newswell Ltd., Williams of Swansea Ltd., Youngsters Ltd., & Esdevium Games Ltd.

				£1.0m. ⁶³⁶
John Bruce Ltd., Fleet Parts Ltd., & Truck and Trailer Components	17 May 2002	Chapter I: price-fixing	<p>£33,737 total fine.</p> <ul style="list-style-type: none"> • John Bruce (UK) Ltd. paid 3% of its relevant turnover in fines (exact amount redacted), after receiving a 10% reduction due to full cooperation, 10% for not disputing the facts, and 20% due to remedial action taken. • Fleet Parts Ltd. paid 5.6% of its relevant turnover (exact amount redacted), after receiving a 10% reduction due to full cooperation, 10% for not disputing the facts, and another 10% for swift 	

⁶³⁶ Case No. 1009/1/1/02, *Aberdeen Journals v. OFT*, [2003] CAT 11 (23 June).

			remedial action. <ul style="list-style-type: none"> Truck & Trailer Components paid 24% of its relevant turnover (exact amount redacted). 	
Arriva plc & First Group plc	5 February 2002	Chapter I: market allocation	£203,632 total fine after leniency. Prior to leniency applied, OFT levied fine of £318,175 on Arriva and £529,852 on First Group, for a total of £848,027. After leniency applied, OFT levied fine of £203,632 on Arriva and nothing (£0) on First Group.	
Napp Pharmaceutical Holding Ltd.	5 April 2001	Chapter II: exclusionary discounts & exploitative prices	£3.21m total fine imposed on Napp.	CAT reduced overall fine from £3.21 to £2.2m. ⁶³⁷

⁶³⁷ Case No. 1001/1/1/01, *Napp Pharmaceutical Holdings Ltd. v. Director General of Fair Trading*, [2002] CAT 1 (15 Jan.).

Appendix 4: Financial penalties in French Competition law

DECISIONS WITH APPLICATION OF THE 2011 SG

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
11-D-17 12-8-2011	UNILEVER	CARTEL	Particularly grave	Certain	20%	5Y,9M,12D ⁶³⁸ (3,37)	198.830.000	Size and economic power of the group: +25%	N/A	100%	0	CONFIRMED (Paris, 30 th June, 2014)
	HENKEL					5Y,9M,12D (3,37)	107.031.000	Size and economic power of the group: +15%		25%	92.310.000	
	PROCTER & GAMBLE					5Y,9M,12D (3,37)	240.240.560	Size and economic power of the group: +25%		20%	240.240.000	
	COLGATE PALMOLIVE					4Y,10M, 12D (2,91)	36.216.000	Size and economic power of the group: +15%		15%	35.400.000	

⁶³⁸ Y=YEAR ; M=MONTH ; D=DAY.

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
11-D-19 12-15-2011	KONTIKI	RPM	Grave	Very low	9%	4Y,2M (2,58)	13.467.600	Mono-product firm and strong decrease of its turnover: -90%	N/A	N/A	1.340.000	CONFIRMED (Paris, 16 th May, 2013)
12-D-02 01-12-2012	GEFIL (professional organization)	CARTEL (price coordination through a professional organization)	Grave	Very low	9%	N/A			N/A	N/A	15.000	CONFIRMED (Paris, 6 th June, 2013)
	ARCESSOR					1Y,11M (1,45)	27.125	Partial inability to pay			8.500	
	ASSAI					11M (1)	832	N/A			800	
	DELOITTE CONSEIL					5Y,10M (3,41)	340.966	Size and economic power of the group: +50%			510.000	
	HOTELS ACTION CONSEILS					3Y,6M (2,25)	82.398	Mono-product firm:-70%			24.700	
	MAITRES DU					5Y,7M	94.673	Mono-product	N/A		28.400	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
	REVE					(3,29)		firm:-70%				
	MEDIEVAL					3Y,6M (2,25)	63.620	Partial inability to pay			12.000	
	MERIMEE CONSEILS					5Y,10M (3,41)	60.653	Mono-product firm:-70% Partial inability to pay			2.600	
	PHILIPPE CAPARROS DEVELOPPEMENT					5Y,10M (3,41)	27.634	Mono-product firm:-70%			8.000	
	PROMOTOUR CONSULTANTS					4Y,11M (2,95)	8.294	Mono-product firm:-70%			800	
	SOMIVAL					5Y,9M (3,37)	49.918	N/A			49.900	
12-D-06 01-26-	EXPLOITATION DES CARRIERES	CARTEL AND ABUSE OF COLLECTIVE	Particularly grave	Certain, but limited to	16%	17Y,8M (9,33)	150.999	N/A	20%	N/A	120.790	NO APPEAL
	ALLEN-MAHE					17Y,8M	111.901				89.520	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
2012		DOMINANT POSITION (FORCLOSURE EFFECT)		a small territory		(9,33)						
	ATELIER FER					17Y,8M (9,33)	73.239				58.590	
	GUIBERT FRERES					17Y,8M (9,33)	119.149				95.310	
	SOCIETE SAINT- PIERRAISE DE TRANSPORT				13% (only 1 antitrust practice)	5Y,3M (3,12)	21.499				17.190	
12-D-09 03-13- 2012	AXIANE MEUNERIE	CARTEL (Market share between French and German producers)	Particularly grave	Significant	19%	5Y,11M (3,45)	19.927.200		N/A	N/A	19.927.000	PENDING APPEAL
	BACH MUHLE					5Y,11M (3,45)	36.708	Leader :+10%	N/A	N/A	40.000	
	BINDEWALD KUPFERMULHE					4Y,7M (2,79)	2.891.695	Maverick : -10%	N/A	N/A	2.602.000	
	BLIESMUHLE					6Y,1M	1.929.689	N/A	N/A	N/A	1.929.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
						(3,54)						
	FLECHTORFER MUHLE WALTER THONEBE					6Y,1M (3,54)	4.510.455	N/A	N/A	N/A	4.510.000	
	FRANCE FARINE					6Y,1M (3,54)	7.541.191	Leader :+10%	N/A	N/A	8.295.000	
	FRIESSINGER MUHLE					6Y,1M (3,54)	11.770.500		N/A	N/A	11.770.000	
	GRANDS MOULINS DE PARIS					4Y,8M (2,83)	11.834.239		N/A	N/A	11.834.000	
	GRANDS MOULINS DE STRASBOURG					5Y,11M (3,45)	11.635.125	Partial inability to pay: -15%	N/A	N/A	9.890.000	
	HEYL et GRAIN MILLERS					6Y,1M (3,54)	2.564.623	N/A	10%	N/A	1.564.000	
	HEYL					6Y,1M		N/A		N/A	487.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
						(3,54)						
	MILLS UNITED HOVESTAD & MUNSTERMAN N & GRAIN MILLERS					6Y,1M (3,54)	6.602.914	N/A	10%	N/A	4.028.000	
	MILLS UNITED HOVESTAD & MUNSTERMAN N					6Y,1M (3,54)		N/A		N/A	1.254.000	
	SAALEMUHLE ALSLEBEN					8M 0,66	297.699	N/A	N/A	N/A	297.000	
	VK MUHLEN					4Y,8M (2,83)	17.110.689	N/A	N/A	N/A	17.110.000	
	WILH WERHAHN					4Y,6M (2,75)	16.667.750	N/A	N/A	100%	0	
	AXIANE MEUNERIE	CARTEL	Particularly grave	Significant	17%	46Y (13)	44.032.040	N/A	N/A	N/A	44.032.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
	EUROMILL NORD & NUTRIXO	(French market)	(but less than the other cartel, since it was not secret)			46Y (13)	35.205.300	N/A	N/A	N/A	14.435.000	
	EUROMILL NORD					46Y (13)		N/A	N/A	N/A	20.770.000	
	GRANDS MOULINS DE PARIS & NUTRIXO					42Y,4M (12,62)	24.605.592	N/A	N/A	N/A	10.392.000	
	GRANDS MOULINS DE PARIS					42Y,4M (12,62)		N/A	N/A	N/A	14.213.000	
	GRANDS MOULINS STORIONE & NUTRIXO				16% (only one cartel)	10Y (5,5)	95.920	N/A	N/A	N/A	95.000	
	GRANDS MOULINS DE				17%	45Y,7M (12,95)	22.274.777	Partial inability to pay: -15%	N/A	N/A	18.930.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
	STRASBOURG											
	MINOTERIES CANTIN					32Y,6M (11,64)	23.622.914	N/A	N/A	N/A	23.622.000	
	MOULINS SOUFFLET				16% (only one cartel)	8Y (4,5)	393.120	N/A	N/A	N/A	393.000	
12-D-10 03-20-2012	NESTLE	RPM and EXCLUSIVITY CLAUSES	Grave	Low	[5-10%] Confidential	4Y (3)	18.576.000	Size and economic power of the group: +25%	18%	N/A	19.040.000	CONFIRMED (Paris, 10 th October, 2013)
	ROYAL CANIN						10.102.000	Size and economic power of the group: +15% Recidivism: +25%	20%	N/A	11.618.000	
	HILL'S PET			None	[3-7%]		4.056.000	Size and	N/A	N/A	4.664.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
	NUTRITION & COLGATE- PALMOLIVE				Confidential			economic power of the group: +15%				
12-D-24 12-13-2012	ORANGE & FRANCE TELECOM	ABUSE OF DOMINANT POSITION (Price discrimination : foreclosure effect)	Grave	Certain	5%	3Y (2)	142.326.000	Size and economic power of the group: +10% Recidivism: +50% Legal context: -50%	N/A	N/A	117.419.000	PENDING APPEAL
	SFR						119.470.000	Size and economic power of the group: +10% Legal context:	N/A	N/A	65.708.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
								-50%				
12-D-25 12-18-2012	SNCF	ABUSE OF DOMINANT POSITION (Abusive use of confidential information regarding competitors, restraint to access to essential facilities, predatory prices)	Grave	Certain	6%	From 1Y,10M to 4Y,7M (1,75)	48.195.000	Size and economic power of the group: +15% Recidivism: +10%	N/A	N/A	60.966.000	PENDING APPEAL
12-D-27 12-20-	FNAC	Price fixing	Grave (not secret	Low	12%	4Y,9M (2,87)	3.383.044	Size and economic power of the group:	10%	N/A	3.501.000	NO APPEAL

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
2012			practices)					+15%				
	FNAC & FRANCE BILLET						1.519.918	Size and economic power of the group: +15%	10%	N/A	1.573.000	
	TICKETNET						1.073.795	Size and economic power of the group: +15%	20%	N/A	987.000	
	FNAC	Boycott	Particularly grave	Low	13%	1Y,11M 1,45)	1.851.637	Size and economic power of the group: +15%	10%	N/A	1.916.000	
	FNAC & FRANCE BILLET						831.895	Size and economic power of the group: +15%	10%	N/A	861.000	
	TICKETNET						587.719	Size and	20%	N/A	540.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
								economic power of the group: +15%				
13-D-03 02-13-2013	ABERA	CARTEL (Concerted limitation of the production in order to decrease the buying prices)	Particularly grave by nature (but effectively, less grave due to the economic difficulties of the sector)	Low	16%	3M (0,25)	1.316.742	Mono-product firm:-50%	N/A	N/A	592.533	PENDING APPEAL
	BERNARD						1.398.083	Mono-product firm:-50%	18%	N/A	573.213	
	GAD & FINANCIERE DU FOREST						1.485.254	Mono-product firm:-60%	N/A	N/A	250.000	
	GROUPE BIGARD						3.648.391	Size and economic power of the group: +10%	18%	N/A	1.339.698	
	SOCOPA VIANDES & GROUPE BIGARD						1.948.090	Size and economic power of the group: +10%	18%	N/A	1.757.177	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
	FRENCH MEAT ASSOCIATION	CARTEL (Purchase price fixing)	Very grave by nature (but very short duration)	Very low	N/A	2D	3.000	N/A	10%	N/A	2.700	
	FEDERATION DES ACHETEURS AU CADRAN						3.000	N/A	10%	N/A	2.700	
	BERNARD						5.000	N/A	18%	N/A	4.100	
	COOPERL ARC-ATLANTIQUE						5.000	N/A		N/A	5.000	
	ABERA						3.000	N/A	10%	N/A	2.700	
	AIM GROUPE & HAIM						3.000	N/A	18%	N/A	2.460	
	GAD & FINANCIERE DU FOREST						7.000	N/A	10%	N/A	6.300	
	GROUPE BIGARD						7.000	N/A	18%	N/A	5.740	
	KERMENE						7.000	N/A		N/A	7.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
	FRENCH MEAT ASSOCIATION	Price fixing	Particularly grave	Very low	N/A		12.000	N/A	10%	N/A	10.800	
	COOPERL ARC-ATLANTIQUE	CARTEL (Price fixing and market allocation)	Particularly grave	Very low	15%	2M (1)	12.081	Size and economic power of the group: +10%	10%	N/A	13.288	
	GAD & FINANCIERE DU FOREST						3.048	Mono-product firm:-60%	10%	N/A	1.097	
13-D-06 02-28-2013	CONSEIL SUPERIEUR DE L'ORDRE DES EXPERTS-COMPTABLES	ABUSE OF DOMINANT POSITION (Exclusivity clauses,...)	Very grave	Certain	7%	7Y,5M (4,2)	1.617.024	Legal maximum limited to 1.500.000 for non-undertakings which face a simplified procedure. Use of moral	22%	N/A	77.220	PENDING APPEAL
	EXPERT COMPTABLE MEDIA ASSOCIATION									N/A	1.170.000	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
								authority (professional order):+10%				
13-D-09 04-17-2013	EIFFAGE	CARTEL (Bid-rigging)	Particularly grave	Moderate	1% of the French turnover	N/A	647.568	Size and economic power of the group: +15%	N/A	N/A	740.000	NO APPEAL
	EIFFAGE CONSTRUCTION							Recidivism: +30%	N/A	N/A	220.000	
	VILMOR CONSTRUCTION						65.445	Partial inability to pay	N/A	N/A	5.000	
13-D-11 05-14-2013	SANOFI	ABUSE OF DOMINANT POSITION (Denigration)	Particularly grave	Effective	13%	N/A	27.080.012	Size and economic power of the group: +50%	N/A	N/A	40.600.000	PENDING APPEAL
13-D-12 05-28-	BRENNTAG & DBML	CARTEL (Major part of	Particularly grave	Certain	20%	7Y,5M (4,2)	48.194.370	Instigator: +15% Size and	N/A	25%	47.802.789	PENDING APPEAL

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
2013		France concerned)						economic power of the group: +15%				
	DBML						(Liability as previous Brenntag' parent company)	Limited to the period of control	N/A	N/A	5.311.422	
	CALDIC EST					4Y,11M (2,95)	1.668.796	N/A	20%	N/A	1.335.036	
	SOLVADIS					5Y,9M (3,37)	13.430.420	N/A	N/A	100%	0	
	UNIVAR					6Y,8M (3,83)	19.412.355	Size and economic power of the group: +15%	15%	20%	15.180.461	
	GEA GROUP						(Liability as	Limited to the	20%	N/A	9.405.279	

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
							previous Solvadis' parent company)	period of control				
	BRENTAG	CARTEL (One client concerned)	Particularly grave	Certain	20%	7Y,1M (4,04)	62.216	Leader :+15% Size and economic power of the group: +15%	N/A	100%	0	
	DBML						(Liability as previous Brenntag' parent company)	Limited to the period of control	N/A	N/A	50.916	
	CHEMCO						36.603	Partial inability to pay:-73%	N/A	N/A	10.000	
13-D-14	CONSEIL REGIONAL DES	CARTEL	Particularly grave	Moderate	N/A (based on the amount of the		20.000	Use of moral authority	N/A	N/A	25.000	NO APPEAL

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
06-11-2013	VETERINAIRES D'ALSACE	(through professional orders)			resources of the CRVA)			(professional order) and leader:+25%				
	SYNDICAT NATIONAL DES VETERINAIRES D'EXERCICE LIBERAL (BAS-RHIN)				N/A (based on the amount of the resources of the SYNDICATE)		5.000	N/A	N/A	N/A	5.000	
	SYNDICAT DEPARTEMENTAL DES VETERINAIRES D'EXERCICE LIBERAL (HAUT-RHIN)				N/A (based on the amount of the resources of the SYNDICATE)		1.000	N/A	N/A	N/A	1.000	
13-D-20	EDF	ABUSE OF DOMINANT	Particularly grave	Moderate	11%	1Y,5M (1,2)	5.255.158	Size and economic power	N/A	N/A	9.853.420	PENDING APPEAL

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
12-17-2013		POSITION (favoritism of a subsidiary by an undertaking in charge of a Service of General Economic Interest)						of the group: +50% Recidivism: +25%				
			Grave	Very low	3%	11M (0,91)	1.968.015	Size and economic power of the group: +50% Recidivism: +25%	N/A	N/A	3.690.027	
13-D-21 12-18-2013	SCHERING-PLOUGH & FINANCIERE MSD & MERCK	ABUSE OF DOMINANT POSITION (Denigration of a competitive product and loyalty)	Particularly grave	High	14%	1Y (1)	12.806.640	Size and economic power of the group: +50%	20%	N/A	15.367.000	PENDING APPEAL

DECISION (N° and date)	UNDERTAKINGS	INFRINGEMENT	GRAVITY	DAMAGES CAUSED TO THE ECONOMY	% OF SALES VALUE	DURATION (Multiplication factor)	BASIC AMOUNT	PERSONALIZATION	SETTLEMENT REDUCT.	LENIENCY REDUCT.	FINAL AMOUNT	JUDICIAL REVIEW
		rebates)										
	SCHERING- PLOUGH & FINANCIERE MSD & MERCK	CONCERTED PRACTICES (Application of the ADP)	Particularly grave	Taken into account for the ADP	4%	2M,4D (0,16)	345.245	Size and economic power of the group: +50%	20%	N/A	414.000	
	RECKITT						212.125	Size and economic power of the group: +50%	20%	N/A	318.000	
14-D-02 02-20- 2014	EDITION PHILIPPE AMAURY	ABUSE OF DOMINANT POSITION (Predatory practices)	Grave	Effective	9%	9M (0,75)	8.786.745	Partial inability to pay:-60%	N/A	N/A	3.514.000	PENDING APPEAL

Appendix 5: Corporate compliance as a mitigating circumstance

Enhancing compliance: Can compliance programmes contribute to effective enforcement? Should there be a bonus for compliance programmes?

Corporate compliance refers to the organisational measures taken by companies in order to achieve the degree of compliance desired. In the context of competition law, compliance programmes can be defined as:

‘A set of measures adopted within a company or corporate group to inform, educate and instruct its personnel about the antitrust prohibitions [...] and the company’s or group’s policy regarding respect for these prohibitions, and to control or monitor respect for these prohibitions or this policy. Antitrust compliance programmes are thus a type of organizational control system aimed at standardizing staff behaviour, specifically within the domain of antitrust compliance’.⁶³⁹

After providing an overview of existing national approaches to compliance programmes, this section will analyse the contribution of corporate compliance to the enforcement objectives of prevention and detection of anti-competitive collusive practices. The specific option of rewarding compliance programmes in the context of antitrust infringement will be then discussed.

1. Overview of different national approaches to compliance

Many competition authorities engage with compliance programmes, through soft law instruments. A first set of tools are designed to provide practical guidance to companies on how to achieve compliance.⁶⁴⁰ Some competition authorities give further detailed guidance: among the existing initiatives, some agencies tailor guidance to SMEs (the UK⁶⁴¹) or to specific sectors (the Netherlands⁶⁴²); some provide a template or framework based on which companies

⁶³⁹ Wils, W.P.J (2013) “Antitrust Compliance Programmes & Optimal Antitrust Enforcement”, *Journal of Antitrust Enforcement* 1, 52-81, 52.

⁶⁴⁰ See for example ‘Materials & guidance on compliance programs’ available at <http://www.internationalcompetitionnetwork.org/working-groups/current/cartel/awareness/business.aspx>.

⁶⁴¹ OFT ‘Quick Guide on Competition Law Compliance’ (2009) available at <http://www.of.gov.uk/OFTwork/competition-act-and-cartels/competition-law-compliance/quick-guide/#.U3YFSCi1aTI>

can establish their compliance programmes (Canada⁶⁴³, Japan⁶⁴⁴ and Australia⁶⁴⁵); and also others engage in direct support to the implementation of compliance measures (Japan⁶⁴⁶). Certification and standardisation of an existing compliance programme that meet particular criteria is available in Brazil and South Korea⁶⁴⁷. In addition, the willingness of competition authorities to engage with corporate compliance translates in resources being spent in understanding the drivers of compliance (France, the UK, Australia)⁶⁴⁸, or in engaging in advocacy and outreach aimed at changing social and business norms towards a culture of compliance (Brazil)⁶⁴⁹. Some authorities even acknowledge that corporate compliance is a key component or asset of their enforcement system (France, Australia).⁶⁵⁰

⁶⁴² Eg. Insurance sector and home care industry. International Chamber of Commerce (2011) "Promoting Antitrust Compliance: the various approaches of national antitrust" 5.

⁶⁴³ [http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/CorporateCompliancePrograms-sept-2010-e.pdf/\\$FILE/CorporateCompliancePrograms-sept-2010-e.pdf](http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/vwapj/CorporateCompliancePrograms-sept-2010-e.pdf/$FILE/CorporateCompliancePrograms-sept-2010-e.pdf)

⁶⁴⁴ International Chamber of Commerce (2011) "Promoting Antitrust Compliance: the various approaches of national antitrust".

⁶⁴⁵ <http://www.accc.gov.au/business/business-rights-protections/implementing-a-compliance-program#download-the-templates>

⁶⁴⁶ Active coordination with the Fair Trade Institute (an affiliate of the Japan Competition authority) which helps companies establish and implement compliance programmes. International Chamber of Commerce (2011) "Promoting Antitrust Compliance: the various approaches of national antitrust".

⁶⁴⁷ International Chamber of Commerce (2011) "Promoting Antitrust Compliance: the various approaches of national antitrust" 3.

⁶⁴⁸ Europe Economics(2008), "Etat des lieux et perspectives des programmes de conformité, Une étude réalisée pour le Conseil de la concurrence" http://www.autoritedelaconcurrence.fr/doc/etudecompliance_oct08.pdf; OFT report (2010) "The Drivers of Compliance and Non-compliance with Competition Law", Australia has observed a three phase evolution and the fact that a company rarely reverts to non-compliance once it has progressed to the third phase. (International Chamber of Commerce) 3.

⁶⁴⁹ "Annual report on Competition Policy in Developments in Brazil" (2012), submitted to the OECD <http://search.oecd.org/officialdocuments/displaydocumentpdf/?cote=DAF/COMP/AR%282013%2919&docLanguage=En>

⁶⁵⁰ Australia: compliance is regarded as an "important component of the ACCC's integrated suite of compliance tools"

France: the Autorité described compliance as an "asset" for antitrust authorities. International Chamber of Commerce (2011) "Promoting Antitrust Compliance: the various approaches of national antitrust" 4.

Competition authorities seem more reluctant to integrate compliance programmes in the hard law dimension of their enforcement systems. The European Commission affirmed that compliance programmes cannot constitute a mitigating factor in the context of a conviction.⁶⁵¹ The US Department of Justice also refuses to consider compliance programmes in antitrust infringements.⁶⁵² Only a few competition authorities give credit to compliance programmes in the context of a litigation or investigation, granting a maximum of a 10% reduction in fine. In most cases, compliance programmes are taken into consideration, in relation to measures implemented after the infringement (*post-factum*), typically set up in response to an investigation (Netherlands⁶⁵³, Italy⁶⁵⁴, France⁶⁵⁵). In the UK, in contrast, companies may benefit for a 10% reduction in fine for having effective compliance measures before (or soon after) the infringement (*ante factum*).⁶⁵⁶ In addition, undertakings to implement a compliance programme can be required in the enforcement stage (Canada⁶⁵⁷,

⁶⁵¹ J. Almunia, Vice President of the European Commission responsible for Competition Policy, “A successful compliance programme brings its own reward. The main reward for a successful compliance programme is not getting involved in unlawful behaviour. Instead, a company involved in a cartel should not expect a reward from us for setting up a compliance programme, because that would be a failed programme by definition.” SPEECH/11/268, 14 April 2011.

⁶⁵² According to the US Sentencing Guidelines, the US may consider compliance programmes as a mitigating factor in the context of corporate crimes. However, the conditions attached to it almost exclude this possibility for antitrust violations. In addition, the Antitrust Division seems to clearly exclude the consideration of compliance programmes in the context of antitrust: ‘[T]he Antitrust Division has established a firm policy, understood in the business community, that, credit should not be given at the charging stage for a compliance program.’ Murphy, J.E. (2013) “Making the Sentencing Guidelines Message Complete” available at http://www.ussc.gov/Meetings_and_Rulemaking/Public_Comment/20130801/Public_Comment_Murphy_Proposed_Priorities.pdf

⁶⁵³ International Chamber of Commerce (2011) 3.

⁶⁵⁴ <http://www.mwe.com/Italys-Competition-Chair-and-Minister-of-Justice-Confirm-That-ad-hoc-Compliance-Programs-Will-Continue-to-be-Considered-as-a-Mitigating-Factor-10-28-2013/>

⁶⁵⁵ France : Autorité de la Concurrence, (2012) “Document-cadre du 10 février 2012 sur les programmes de conformité aux règles de concurrence” para 31.

⁶⁵⁶ The OFT (2012) “OFT's guidance as to the appropriate amount of a penalty” para 2.15;

⁶⁵⁷ <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/03280.html#footnote3b>

South Africa⁶⁵⁸, Australia⁶⁵⁹). In contrast some anti-corruption laws of the same jurisdictions open the possibility for companies to be relieved from anti-corruption completely, on ground related to compliance programmes.⁶⁶⁰

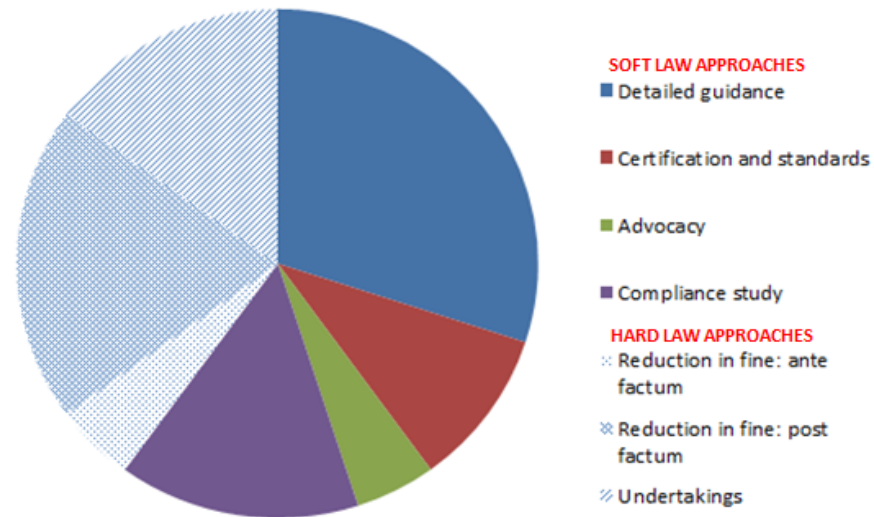


Figure 2: Summary of existing soft and hard law national approaches⁶⁶¹

⁶⁵⁸ See for example <http://www.compcom.co.za/assets/Uploads/AttachedFiles/MyDocuments/CC-Pioneer-Foods30Nov2010.pdf>

⁶⁵⁹ Section 87B of the Australian Trade Practices Act 1974: the Australian Competition authority can accept formal administrative undertakings, which may include compliance programme obligations.

⁶⁶⁰ See for example the UK: Section 7 (2) of the UK Bribery Act; US: The Criminal Division of the U.S. Department of Justice and the Enforcement Division of the U.S. Securities and Exchange Commission, 'A Resource Guide to the U.S. Foreign Corrupt Practices Act' (2012) 53.

⁶⁶¹ This chart summarises the existing corporate compliance tools used by countries under examination, based on information available in F. Thépot, "A Study of Corporate Compliance" (forthcoming) and International Chamber of commerce. The proportions are only indicative and do not reflect any trend beyond the countries that are mentioned here.

2. Rewarding compliance programmes in the light of sanctions optimality⁶⁶²

A very important element of the effectiveness of sanctions is the perceived probability that an illegal act is detected. A threat of prison sentence or high pecuniary sanction deters the wrongdoing only if detection can be expected. Rewarding compliance programmes in a manner that induce companies to prevent and detect illegal behaviour internally, can improve the probability of detection.⁶⁶³ A first value of compliance programmes to the enforcement policy stems from the informational advantage of companies over agencies.

Giving credit to compliance programmes can improve the effectiveness of corporate liability regime, especially in cases where companies have neither the incentives nor the means to address such issue internally. Corporate liability, in the absence of individual penalties, imposes sanction on shareholders and not on the responsible individuals. A company can seek to mitigate the risk that individuals expose the company to liability and, some argue, have a natural incentive to implement a compliance programme.⁶⁶⁴ However, corporate liability does not automatically induce the adoption of internal compliance measures.⁶⁶⁵ Firstly, the incentive to adopt compliance programmes may be mitigated by ‘perverse’ effects of a strict corporate liability. A company may fear that implementing internal measures to prevent and detect the wrongdoing of their employees increases the probability of detection.⁶⁶⁶ Weighing the costs and benefits of implementing a compliance programme, a company may decide not to incur any of those costs if they expect that the costs of detection are higher than the expected benefit of detecting the crime internally.

⁶⁶² The following developments are inspired from F. Thépot, “A Study of Corporate Compliance” (forthcoming).

⁶⁶³ According to optimal sanction theory Becker, G.S. (1968) "Crime and Punishment: An Economic Approach," *Journal of Political Economy* 76, 169-217.

⁶⁶⁴ Of course this depends on the level of fine and probability of detection.

⁶⁶⁵ Sokol, D. (2012) “Cartels, corporate compliance, and what practitioners really think about enforcement” *Antitrust Law Journal*, 78, 202.

⁶⁶⁶ Arlen, J. (1994) “The Potentially Perverse Effects of Corporate Criminal Liability” *The Journal of Legal Studies* 23, 833-867.

Second, companies may not have ‘effective methods of preventing individuals from committing acts that impose huge liabilities on them’.⁶⁶⁷ Companies can set up effective methods, but at a certain cost. The extent to which a company is capable of monitoring their employees adequately depends on the quality of internal mechanisms such as corporate governance. Corporate governance schemes that fail to reach the objectives for which they have been designed, are not likely to be highly effective in preventing individuals from committing illegal acts either.

In the presence of individual sanctions, compliance programmes have potentially a greater outreach on company’s employees than when they are not personally liable. A senior executive may pay greater attention to a compliance training if pecuniary or prison sanctions are part of the non-compliance risk. Therefore, compliance programmes may yield much greater value to the company. Competition authorities should leverage the potential of greater value that compliance programmes constitute to companies, in giving more importance to internal prevention and detection. Competition authorities, facing the issue of cartel detection, would then benefit from the informational advantage companies have on their managers and employees.

Compliance programmes could then enhance the effectiveness of leniency if it enables companies to better monitor and collect information relevant to a leniency application. A company that is better able to prevent and detect an infringement internally is also equipped with better tools to constitute a leniency application. In addition, it can help the company detect earlier the infringement than the other cartel members.⁶⁶⁸

3. The key foundations of an effective compliance programme

Corporate compliance is a matter of degree and resources allocated to achieving compliance. More than the mere training sessions delivered to employees, a compliance programme encompasses all types of compliance efforts and processes taken by a company.

A first essential foundation of an effective corporate compliance lies in the culture embedded from the top of the hierarchy. The OFT describes how clear and unambiguous commitment by senior management serves the purpose of setting the high compliance standard throughout the firm.⁶⁶⁹ Such core

⁶⁶⁷ R.A. Posner, (1976) *Antitrust Law: an Economic Perspective*, University of Chicago Press, 225.

⁶⁶⁸ Geradin, D. (2013) “Antitrust Compliance Programmes & Optimal Antitrust Enforcement: A Reply to Wouter Wils” *Journal of Antitrust Enforcement*, 1 (2), 18.

commitment needs to be written and strongly communicated within the company. To ensure that senior management's commitment is supported by a real awareness of the organisation of compliance, board members need to be part of the compliance effort.

Communication constitutes another key dimension of compliance programmes. Communicating a strong message of compliance throughout the organisation involves holding training sessions to teach employees and senior executives, compliance risks and procedures, especially those presenting exposure with competitors. In addition to delivering educational training about competition law, compliance programmes need to motivate the employees, so as to raise the compliance awareness within the company. Therefore, compliance needs to work hand in hand with communication so as to 'impact emotionally' and avoid training fatigue.

Related to the communication dimension, the organisation of compliance needs to be structured around an 'ambassador' of competition law compliance. With sufficient degree of responsibility, this person, either as part of legal services or compliance department needs to have room to advocate the compliance with competition law. The issue of competition compliance cannot be diluted and given a lower level of priority compared to other areas of business. Especially true for large companies, the need for a 'compliance ambassador' also stands for smaller companies that can hand the compliance responsibility to someone particularly sensitive to such issue.

Effective corporate compliance entails procedures of prevention, detection and response⁶⁷⁰. To do so, procedures to monitor risky business activities or that provide legal advice need to be clearly established. In addition, the eventuality of an infringement needs to be addressed, for example by anonymous alert systems, and credible sanctioning schemes.⁶⁷¹

⁶⁶⁹ The OFT (2011) "How your business can achieve compliance with competition law" para 2.1-2.3.

⁶⁷⁰ Which may involve sophisticated technique such as screenings. Abrantes-Metz, R. Bajari, P. and Murphy, J.E (2010). "Enhancing Compliance Programs Through Antitrust Screening" *The Antitrust Counselor* 4 (5).

⁶⁷¹ The ICC provides a whole range of practical solutions to implement an effective compliance programme, relevant not only to large companies, but to those of much smaller size and constrained with resources. Also, For example, J. Murphy proposes an organisation of compliance to small companies for 'a Dollar a Day' that meet the principles set out in the US Sentencing Guidelines and OECD Good Practice Guidance: 'A Compliance & Ethics Program on a Dollar a Day: How Small Companies Can Have Effective Programs' (2010) available at <http://www.hcca-info.org/Portals/0/PDFs/Resources/ResourceOverview/CEProgramDollarADay-Murphy.pdf>

4. The verifiability of compliance programmes

Most of the debate about compliance programmes crystallises around the verifiability of the quality of compliance programme. Some argue that the inherent difficulty to evaluate a compliance effort may create perverse incentives: companies would then adopt ‘cosmetic’ compliance programmes to ensure a reduction in the level of fine.⁶⁷² As a result, infringing competition law would become less costly. This argument may be rejected on grounds similar to those advocating the use of leniency programmes. The fine eventually imposed no longer matches the gravity of the infringement, in order to stimulate the level of detection. Therefore, the competition authority operates a trade-off between reducing the potential deterrent effect of fines, at the benefit of an increased level of detection. Rewarding compliance efforts entails a reduced level of fine, at the benefit of increased level of internal prevention and detection.

Based on the foundations of effective compliance programmes, tangible elements can be required by competition authorities to demonstrate that appropriate compliance effort can be rewarded. To attest that there is a core commitment to competition compliance, competition authorities could require evidence that compliance is being discussed regularly at board meetings and that senior management attended training. The authority may also want to verify that there is a board member responsible for compliance, and the frequency at which the compliance unit reports to the board. The communication dimension of an effective compliance lies in internal communication and training material: the availability of a code of conduct, adopted internally and also in relation with business partners is part of compliance communication. In addition, evidence of mention of the compliance in top executives speeches or other internal communication, as well as the involvement of communication department in compliance can attest of an effective communication of compliance. The actual implementation of compliance can be evidenced with training attendance records, the percentage of good results achieved. In particular, competition authorities can request proof that senior executives, sales managers or high risk positions attended training, and whether or not they can get disciplined if they do not attend. Companies can also demonstrate that clear procedures are in place, in hiring employees - human resources can indicate that their employee have no past history of antitrust infringement- and in monitoring risky business areas – such as trade association meetings. In addition, the availability of sanctioning procedures and a history of sanction cases are signs that compliance comprises wider range

⁶⁷² Wils, W.P.J (2013) “Antitrust Compliance Programmes & Optimal Antitrust Enforcement”, *Journal of Antitrust Enforcement* 1, 52-81.

of procedures than training sessions. The availability of corporate compliance audit reports signals a willingness to continually adapt the compliance programme.

5. Conclusion on rewarding compliance programmes

Based on the elements outlined, the validity of compliance efforts seems verifiable. However such process, which needs to be undertaken by trained agency staff, involves gathering and checking a large amount of evidence that is not costless. In addition, such inquiry may interfere with a company's internal affairs and may concern sensitive information. Therefore, competition authorities may choose to give credit to compliance programmes, but only in the context of an investigation.⁶⁷³ Because it holds informational advantage over the competition authorities, the burden of proof should in any case lie with the company. Upon cooperation and sufficient evidence of adequate compliance's efforts, one may consider allowing a company to benefit from a reduction in the level of fine, assessed on a case-by-case basis. One could consider rewarding commitment by a company to introduce or improve an existing compliance programme. However, in the light of optimal penalty policy, the reward, if any, should not just focus on post-infringement compliance programmes. The objective is to encourage the implementation of compliance effort *ex ante*. *Ex post* consideration of compliance may undermine the impact such reward is designed to have on prevention of cartels in the first place.

⁶⁷³ An argument against a penalty discount for compliance schemes is that such a reward is an implicit subsidy of compliance schemes, but one that is contingent on an infringement; firms that have a compliance scheme (perhaps a very effective one) and never infringe competition law, do not get to benefit from such a subsidy. For details see Wils, W.P.J (2013) "Antitrust Compliance Programmes & Optimal Antitrust Enforcement", *Journal of Antitrust Enforcement* 1, 52-81.

