OFFICE OF FAIR TRADING

An assessment of discretionary penalties regimes

Final report

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PREFACE

This report was commissioned by the Office of Fair Trading (OFT) from London Economics. They were asked to assess the extent to which the UK penalty regime is characterised by penalties that are optimal to achieve deterrence.

UK practice is looked at (a) within the context of current theoretical debate, particularly in relation to what are considered important characteristics for a penalty regime that effectively and efficiently maximises compliance and (b) against other penalty regimes. In addition to fining, the analysis also considers the interaction with the UK leniency, settlement, and private actions regimes.

The study also examines the interaction of corporate fines with sanctions on individuals, particularly non-monetary sanctions such as Competition Disqualification Orders (CDOs) and criminal sanctions.

Since cartel infringements account for the vast majority of recent cases (as apposed to Article 82 cases) and for ease of comparison, the main focus of the study is on cartel infringements.

Any views expressed are those of the authors and they do not necessarily reflect the views of the OFT. In particular, this report is not and should not be treated as a guideline issued under section 38 of the Competition Act 1998.

This report is part of the OFT's Economic Discussion Paper Series and is intended for discussion within a wider audience of practitioners and interested parties. If you would like to comment on the paper, please write to Amelia Fletcher at the address below. The OFT welcomes suggestions for future research topics on all aspects of UK competition and consumer policy.

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1 EXECUTIVE SUMMARY

Background

1.1 Infringements of competition law, such as cartel agreements and abuse of dominant positions, are highly damaging to consumer welfare. The additional revenue achieved worldwide by cartel prices above the competitive equilibrium has been estimated to exceed €25 billion per year.[1] Consequently, deterring companies from committing such infringements, and detecting those organisations and individuals that continue to undertake anti-competitive activity is one of the most important tasks for competition authorities internationally.

1.2 The purpose of this study is to assess the deterrent power of the UK penalties regime against the background of the current literature and the practice observed in five other regimes (United States, European Commission, Germany, Netherlands and Australia). Our analysis is based on three main elements. First, we review the theoretical and empirical literature on penalty regimes to provide an overview of what researchers consider the most significant features for deterrence. Second, we look at how penalties are applied in the UK and the five other jurisdictions. Finally we analyse fine data across the EU, US and UK to compare UK fines with those of the European Commission and US.

1.3 The main focus of our analysis is on fine levels relating to cartel infringements as opposed to other Article 81/Chapter 1 infringements. However, other components of the various regimes are considered. Specifically, we consider criminal sanctions, settlement and leniency procedures, and private actions as the other three main components of a penalty regime (although we note private actions are generally brought by competitors or customers rather than public authorities). These components, as identified in the literature, are key features of a penalty regime and can substantially enhance the deterrence power of fines.

Overall conclusions

1.4 Deterring firms from anti-competitive activities is a key element of an effective competition regime. However economic literature suggests that the levels of fines

[1] Connor and Helmers (2006).

currently seen are, by themselves, not sufficient to achieve optimal deterrence of anti-competitive activities. Whilst raising fines can increase the level of deterrence it is not necessarily the only way nor is it without associated costs. Higher fines can increase the cost of errors, may (in some situations) lead to insolvency and may not deter individual managers. For these reasons the literature suggests complementary means of achieving deterrence should be used alongside fines including individual sanctions, leniency, settlement and private actions.

1.5 When combining these means into an optimal deterrence regime the literature highlights a number of trade-offs that authorities need to be mindful of. First, whilst leniency policies may raise the probability of detection, poorly designed policies may also reduce the deterrence impact of fines. Second, although using settlement policies may increase the efficiency of the authority (and hence increase detection probability) they also reduce the level of fines and may also reduce the effectiveness of leniency, impacting upon deterrence. Finally, if authorities pay too much attention to financial hardship this may encourage firms to manipulate their balance sheets, whilst insufficient attention may result in bankruptcy and possible reductions in competition. In general, the literature concludes that financial hardship should only be taken into account where not doing so would cause a significant reduction of competition within the market.

1.6 In summary our review of the literature points to an optimal regime that includes both fines and non-monetary sanctions in order to provide an optimal deterrence. In order to provide a view on the degree to which the UK sanctions regime is in line with other countries regimes we compare the UK with five other regimes paying particular attention to fine levels and non-monetary sanctions.

1.7 With regards to fine levels there is no evidence that the UK is fining above the international comparators and some evidence that the UK is fining below. First, when we examine fines in markets of similar size, expected UK fines are around 65 per cent lower than the EC fines. Second, when we apply the UK's fining guidelines to a case study we find the UK would be 76 per cent below the fine estimated from current EC guidelines and 50-75 per cent below the fine estimated from current US guidelines.

1.8 Our hypothetical case study suggests that a key reason for the difference in cartel fines is the low starting point in the UK. At 10 per cent of the relevant market turnover, the maximum UK base fine is well below the comparable upper limits in

the US (20-40 per cent)[2] and in the European Commission (30 per cent). Germany and the Netherlands also use 30 per cent for comparable infringements, and whilst we do not have their actual fining data, this higher starting point suggests higher fines than the UK.

1.9 Finally it is important to note that, as the literature shows, fines are not the only factor in a regime with optimal deterrence. An optimal regime comprises both monetary and non-monetary sanctions. On non-monetary sanctions the UK regime compares well to international comparators.

1.10 The UK provides strong sanctions against individuals, including competition disqualification orders for anti-competitive practices, up to five years imprisonment and no limit on personal fines for cartel offences. Germany and the US have similar sanctions with jail sentences of up to five years and 10 years, and personal fines of up to $1 million and €1.8 million respectively.

1.11 The UK also has a strong leniency regime providing good incentives for companies to provide evidence of anti-competitive activity. Arguably, only the US has a stronger leniency regime because the Department of Justice (DoJ) can also offer de-trebling of damages/ removal of joint and several liability for subsequent private actions. On the other hand, unlike the US, the UK does not have class actions and representative actions are restricted to 'specified bodies' which can bring claims on behalf of consumers only. These restrictions limit the availability of private actions in the UK.

1.12 Taking all of these findings, our comparative assessment of the six penalty regimes is illustrated in the table below:

[2] Based on sentencing guidelines and case law.

1.1 Comparison of deterrence effect of fining regimes across jurisdictions

Aspect of fining regime	US	EU	DE	UK	NL	AU
Corporate fine level						
Effective leniency programme						
Extra deterrence from private actions						
Penalties on individuals (other than incarceration)						
Penalties on individuals (incarceration)						

Source: London Economics' analysis. Note: Darker shading implies a greater deterrence effect and lighter shading implies less of a deterrence effect

1.13 Our findings in each of the report chapters are outlined in more detail below.

Literature review: what constitutes an effective enforcement regime?

1.14 Section 3 looks at the existing theoretical and empirical literature. It identifies the key components of an effective enforcement regime and discusses their relative strengths and impact on deterrence. The conclusions from our review of the literature review are outlined below.

1.15 First, at a fundamental level, the most important result is that high fines are a crucially important element of deterrence.

1.16 It is argued in some areas of the literature that absolute fine levels are, on the whole, too low. If, as some studies have found, cartel overcharges are in the region of 20-30 per cent and the probability of detection is around 20 per cent, in order to deter potential infringers, fines would need to be set at a minimum of 100 per cent of relevant turnover.[3] The literature has found that average fines for the UK and the other jurisdictions sit considerably below this range.

[3] This would change to a minimum of 200 per cent of relevant turnover if the probability of detection was just 10 per cent.

1.17 However, there are limits to the levels that fines should reach. Apart from proportionality considerations, high fines impose potential costs due to errors and because of imprecise targeting of those more directly responsible for the infringement.

1.18 Second, criminalisation and other forms of personal sanctions are important added elements to the deterrent power of corporate fines and (particularly incarceration) are arguably the strongest possible deterrent for a potential infringer.

1.19 Third, leniency operates through increased detection rates and by destabilising cartel agreements, however, because of the game theoretic aspects that sustain collusion, leniency programmes have to be carefully designed – a poorly designed regime can support rather than destabilise cartel agreements.

1.20 Fourth, damages awarded through private actions can add to the total financial liability arising from an infringement of the competition rules but may suffer from the same drawbacks as high fines.

1.21 In summary our review of the literature points to the key features of an effective enforcement regime being: fine levels, personal penalties and criminalisation, leniency, settlement, and private actions.

Comparison of penalty regimes across the six jurisdictions

1.22 In Section 5, we consider how the UK fining regime compares to that of five other major jurisdictions. Our comparison across jurisdictions highlights important differences as well as similarities among the regimes. Our main findings in this section are outlined below.

Fine levels

1.23 The UK approach to determining penalties is similar to that of the US, EU, Germany, and the Netherlands regimes. In the first stage, a base level is set that reflects the overall gravity of the offence. It is calculated as a percentage of the turnover achieved in the market affected over the duration of the infringement.

1.24 The OFT regime has a relatively low base level, capped at 10 per cent of relevant turnover. The US starts at 20 per cent[4] and the European Commission's (EC) starting point is closer to 30 per cent for the most serious types of infringement.[5]

1.25 In a second stage, the base level is adjusted upwards to take account of the size of the undertakings involved and to increase deterrence of particularly harmful behaviour (for example, instigating the formation of a cartel, repeat offences, and coercion). Downward adjustments may reflect non-intentional infringement and assisting the anti-trust authorities' investigation.[6] The treatment of these factors varies significantly across jurisdictions.

1.26 Fine levels can be subject to statutory limits. EC fines are capped at 10 per cent of the firm's worldwide turnover, as are fines in the UK, and other EU jurisdictions. There is no fixed upper limit on fines set in the US under the alternative fine provisions

Individual sanctions

1.27 The UK regime provides additional deterrence in the form of individual sanctions. Criminal and civil courts have the power to impose disqualification orders on directors of undertakings. Commission of the cartel offence may attract, among other things, up to five years' imprisonment. In the US, the use of imprisonment is extensive, and over time both the number and duration of prison sentences imposed are increasing. Imprisonment is widely regarded as a very strong means of deterring anti-trust infringements[7] and even a relatively low probability of facing a jail term may prove significantly deterrent relative to jurisdictions where this

[4] Although the final fine level can range between 20 per cent and 40 per cent even if there are neither aggravating nor mitigating factors to take into account. Note also, as above, that this is the result of case law and sentencing guidelines by the Federal Courts.

[5] In addition to the determination of the starting point, the European Commission levies an additional fine or 'entry fee' for hardcore cartels.[5]

[6] The OFT undertakes the incorporation of deterrence and aggravating and mitigating circumstances in two steps.

[7] Deloitte (2007), 'The deterrent effect of competition enforcement by the OFT', OFT Report 962, November 2007.

possibility is altogether absent. No criminal sanctions can be imposed by the European Commission, nor are they currently available in Australia[8] or the Netherlands.

Leniency

1.28 The UK and the US offer relatively strong protection under leniency rules. In the UK, it is possible for individuals to benefit from leniency and to receive full immunity from criminal prosecution. For the first individual applying for leniency in a personal capacity, the OFT can also issue a 'no-action' letter.[9]

1.29 In the US, not only can individuals benefit from immunity from criminal prosecution, a company that is granted immunity by the US Department of Justice and co-operates with claimants in private actions will cease to be exposed to treble damages and instead be liable only for actual damages. In addition cooperating firms may cease to be subject to joint and several liability for the harm caused by other cartelists. The US can also offer immunity to a cartel member who discloses previously undetected antitrust offences involving a cartel different from the one that first brought that cartelist to the prosecutors' attention.

1.30 Leniency in the EU is complicated by the fact that the European Commission does not have the power to grant immunity in relation to each of the EU national jurisdictions. This is a particular issue where the cartel member may be liable under criminal law or likely to face civil litigation as both criminal and civil actions against it will be facilitated by the admission of guilt made under the leniency agreement.

Settlement

1.31 Under settlement procedures in the US, 90 per cent of antitrust cases are settled. In the US and the UK, the level at which cases are settled are made public.

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[8] Although Australia is currently considering the introduction of prison terms for cartel offences.

[9] To encourage individuals to come forward with information relating to cartel activities in which they are involved, the OFT may offer immunity from prosecution in the form of 'no-action letters'.

Private actions

1.32 In the UK, the absence of class actions, the restriction of representative actions to 'specified bodies', and the inability of these bodies to bring actions on an 'opt out' basis mean that private actions currently do not play the complementary role they do in the US, where private actions are pursued often and vigorously and treble damages are available in antitrust cases.[10] In relation to EC cases, there is no single legal mechanism to bring EU-wide collective actions. However, the European Commission encourages harmed parties to apply for compensation in national courts.

Comparison of fining practices across jurisdictions

1.33 The final section considers the actual fining outcomes in three of the jurisdictions where data was available. We compare the average and distribution of pre-leniency (UK and EU) and final fines (US) imposed as a proportion of firm sales in the relevant market and as a proportion global firm turnover. Our analysis of OFT data, combined with publicly available information relating to US and EC fining decisions, indicate the following:

- For all three jurisdictions, as is expected, the average fine level is increasing as firm sales in the relevant market increases.
- Where firm sales in the relevant market are between €50m and €170m, UK fines are expected to be on average 65 per cent lower than comparable EC fines. Above and below these levels there are not enough comparable observations to draw conclusions.
- Where the relevant market size in value terms is greater than €600m, average US fines are expected to be approximately 40 per cent[11] lower than average EC

[10] Although treble damages are in principle available, the level at which private case settlements are actually reached has not been investigated as part of this study.

[11] The US varies between 38 and 44 per cent lower than the EU average depending on the size of firm sales in the relevant market.

fines.[12] Below this point there are not enough comparable observations to draw conclusions.

- There is no evidence that global firm turnover is a significant driver of UK and EC fines once firm sales in the relevant market is held constant. In the US there is some evidence to suggest that the fine size is increasing with global firm turnover.

1.34 In addition, we also analyse the process of fine determination across the three jurisdictions to compare the individual stages of fine determination and their relative contribution to the eventual fines imposed on infringers.

1.35 Finally, given some of the data used in the analysis is relatively dated, we work through a case study to illustrate how the authorities in these three jurisdictions differ in their approach to current fine determination. This case study illustrates the stages of fine determination where the differences among the EC, the UK and the US are most marked. The analysis illustrates that for the worst infringers, the European Commission can depart in multiples from the base fine with the application of large fine increases for recidivism. The case study finds that for serious infringers, the OFT would impose fines in the region of 50-75 per cent below the US and 76 per cent below the EC.[13] The OFT fines are estimated to be well below the US and EC levels. Based on this hypothetical case study, the relatively lower OFT fines are primarily a result of the lower base amount (see Figure 5.7 and 5.8).

[12] For markets below €600m, there is no expected difference in the average size of expected fines as the difference is not statistically significant.

[13] The relative differences would be affected by the specific facts of the case given differences occur at several of the adjustment stages in calculating fines.

2 OBJECTIVES OF THE STUDY

2.1 The main objective for this project is to assess the extent to which the UK penalty regime is characterised by penalties that are optimal to achieve deterrence. Since cartel infringements account for the vast majority of recent cases (as opposed to Chapter II/Article 82 cases/unilateral conduct cases) and for ease of comparison, the main focus of the study is on cartel infringements.

2.2 UK practice is looked at within the context of current theoretical debate, particularly in relation to what are considered important characteristics for a penalty regime that effectively and efficiently maximises compliance and against other penalty regimes. In addition to fining, the analysis also considers the interaction with the UK leniency, settlement, and private actions regimes.

2.3 The study also examines the interaction of corporate fines with sanctions on individuals, particularly non-monetary sanctions such as Competition Disqualification Orders (CDOs) and criminal sanctions.

2.4 Ultimately the study aims to assist the OFT in shaping an informed view on whether and how the effectiveness of the UK penalties regime could be improved and on how firms operating in the UK can be incentivised to adopt a compliance culture.

2.5 This report provides a summary of the academic and policy literature on penalty regimes and anti-trust enforcement (Section 3), a description and comparison of the UK penalty regime with that of five selected jurisdictions (Section 4), and a comparison of actual and predicted fining practice by the UK, US and EU authorities in their respective jurisdictions (Section 5). Section 6 concludes.

3 LITERATURE REVIEW: WHAT CONSTITUTES AN EFFECTIVE ENFORCEMENT REGIME?

3.1 There is abundant theoretic literature on the social optimality and deterrence effects of a penalty regime. This section looks at the existing theoretical and empirical literature. It identifies the key components of an effective enforcement regime and discusses their relative strengths, their interaction and their impact on deterrence.

3.2 The section's main findings are as follows.

3.3 First, the main components of a penalty regime are: fines, personal penalties and criminalisation, private actions,[14] leniency, and settlement.

3.4 Second, a sufficiently high level of fines in combination with a positive probability of detection will have a deterrent effect. A 'rational' agent will choose to participate in criminal activity if the expected cost of punishment is lower than the expected benefit. Therefore, deterrence is enhanced by:

(1) raising the cost of sanctions and/or

(2) raising the probability of detection.

3.5 Raising the probability of detection can be costly and this makes raising fines a more straightforward route for enforcement agencies to pursue.[15]

3.6 However, theoretically extremely high fine levels raise issues of proportionality, over-deterrence, impact on market structure, and concerns related to the fact that

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[14] Although, we note that private actions are generally brought by competitors or customers rather than public authorities.

[15] There has been some recent work undertaken in relation to deterrence (*The deterrent effect of competition enforcement by the OFT,* Office of Fair Trading Discussion Document 963, November 2007). The authors state that any activity that deters cartels or abuse of dominance leads to major benefits: lower prices, wider choice, higher productivity and higher innovation. They indicate that although pricing the impact is difficult, the although the direct effect of competition enforcement in 2006/7 was £116m, the OFT estimates that, given the scale of the deterrence effect, the benefits to consumers from OFT work may be at least a further £600m per year. This compares to an OFT total annual budget of about £70m.

enforcement errors cannot be ruled out. In addition, even very high fine levels may be ineffective in situations where managers benefit from the infringement more than they are hurt when their company has to pay high fines.

3.7 In practice, most regimes are not characterised by extremely high fines. The empirical literature points to fines having been too low. Recently, there appears to be a trend to increase fines across a number of jurisdictions, most notably the 2006 Fining Guidelines of the EC.

3.8 Third, fines alone may not be enough to achieve effective deterrence. Sanctions on individuals may be required. This can be in the form of individual fines, competition disqualification orders and imprisonment. Non-monetary sanctions on individuals are believed to add significantly to the deterrent power of a penalty regime.

3.9 Private actions can increase deterrence by significantly increasing corporate financial costs for infringers. Any consideration of the deterrence effect of fines needs to take into account the overall financial penalty an infringer is likely to incur.

3.10 Alternative routes to deterrence are to increase detection probabilities and destabilise cartels by creating incentives for partners to 'betray' each other. These can be exploited through leniency policies. Some authors have cautioned that a poorly designed leniency programme can enhance cartel stability. Settlement policies can also help save enforcement resources but settled fines are generally lower and deterrence may be somewhat diluted by over-reliance on settled fines.

3.11 Finally, financial hardship may encourage firms to manipulate their balance sheets and insufficient attention to financial hardship may result in insolvency and possible reductions in competition. The literature advocates that financial hardship should only be taken into account where not doing so would cause a significant reduction of competition within the market.

3.12 The remainder of this section is organised around the following topics.

- fine levels and optimal fines
- personal penalties and criminalisation
- leniency

- settlement
- private actions, and
- empirical literature.

Fine levels and optimal fines

The theory of optimal fines

Becker

3.13 The basic theory of optimal fines in economic theory was initially formulated in Becker (1968).[16] A rational individual will infringe the law when the expected gain outweighs the expected cost. The optimal fine will deter infringement by making the expected cost of punishment, taking into account the probability of detection, exceed the gains.

3.14 There are several alternative theoretical models which move away from this.

Proportionality

3.15 Proportionality suggests fines should be related to the harm caused. That is, account should be taken of illegal profit and the costs imposed on others as a result of the illegal conduct. For example, a price-fixing cartel causes harm that is in excess of the illegal gains obtained by the infringers.[17,18] These models focus on the proportionality of fines with regard to welfare costs caused. As such, it takes into account both the harm caused by the increase in prices and, the reduction in output caused by the higher prices, as well as the possibility that infringements

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[16] Becker, G. (1968): 'Crime and Punishment: An Economic Approach', *Journal of Political Economy*, 76, 169-217.

[17] This is because the harm is not only projected in the price increase for those consumers who do buy the affected product but also in the loss of consumption of those who can no longer afford the increased price.

[18] Posner, R.A., (2001): Antitrust Law: An Economic Perspective. Second Edition, University of Chicago Press, Chicago.

may lead to increased productive efficiency which may offset some of the social costs.

3.16 In a recent paper on the 2006 EC fining guidelines, Van Cayseele and Camesasca (2007) suggest that the new guidelines risk over-deterrence. They argue that, under the guidelines, fine determination is insufficiently underpinned by an estimate of the likely harm. The social cost of cartels can be very large in some cases, but there may also be price agreements which cause practically no harm. The guidelines do not allow for a case by case fine reduction even in circumstances where it would be possible to the Commission to estimate that harm was low.

Marginal Deterrence

3.17 In many circumstances, firms may consider which of several harmful acts to commit (for example, to collude on a single market or several markets or how much to raise prices in each market). Marginal deterrence is where there is an incentive to moderate the extent of harm caused. The threat of sanctions can play a role in marginal deterrence.

3.18 Other things being equal, it is socially desirable that enforcement policy creates marginal deterrence. This suggests that sanctions should rise with the magnitude of harm and, therefore, that most sanctions should be less than maximal. However, fostering marginal deterrence may conflict with achieving deterrence generally: for the schedule of sanctions to rise steeply enough to accomplish marginal deterrence, sanctions for less harmful acts may have to be so low that individuals are not deterred from committing some harmful act. This tension between marginal deterrence and deterrence of less harmful conduct was explored first in Shavell (1991b) and later in Mookherjee and P'ng (1992).

3.19 Consequently it is not clear a regime based on marginal deterrence will be optimal overall.

How high should fines be?

3.20 Taking the Becker model - since only a fraction of infringements are caught, fines have to be greater than the gains by several multiples.[19] For authorities, it is difficult to estimate both the gains from infringements and the proportion which are detected. This leaves the question of how high should fines be?

3.21 The literature[20] suggests that current antitrust fines in practically all jurisdictions are too low to achieve cartel deterrence.[21] Given the probability of detection is generally considered to be no more than 20 per cent. If overcharges are in the region of 20 per cent of turnover,[22] a minimum fine of 100 per cent of turnover is needed for deterrence. Observed fines are generally considerably below this level.[23]

3.22 In practice there are several arguments against extremely high fine levels:

- **Over-deterrence**: Excessively high fines may over-deter by discouraging potential investors away from markets and practices that could raise the possibility of infringement actions.

- **Enforcement errors**: No enforcement agency can rule out the possibility of errors and this is one reason why authorities seek to avoid setting fines higher

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[19] Infringements involving multiple individuals or companies, like cartels are different, a well designed leniency schemes could achieve deterrence with lower fines (Spagnolo 2008), though higher fines may not harm as the improved information considerably reduce the risk of over-deterrence.

[20] See, for example, Motchenkova (2004) for a comprehensive review on this literature.

[21] But most of the published studies do not cover the fining decisions taken by the EC post 2006 Fining Guidelines, which are seen as having led to a substantial increase in average fine levels.

[22] Cartel overcharges are generally discussed in percentage terms relative to turnover. A cartel, in very simple terms, is an arrangement among competitors to keep prices above the levels that would be maintained in a competitive market. This cartel mark-up has been estimated in the literature to be in the order of 20 per cent. If the cartel sells at a price that is 20 per cent higher than the competitive price, the gains to cartel participants can be approximated by 20 per cent of respective turnovers.

[23] For example Veljanovski (2006),[23] estimates that the fines for 39 cartels that were pursued by the European Commission should have been 18 times higher on average to achieve deterrence.

than necessary to achieve deterrence. The literature recognises two classic types of errors that can occur in public enforcement of law:

- Type I errors are falsely finding an infringement. This can lower deterrence because it reduces the difference between the expected fine from violating the law and not.[24] In essence you may get fined even if you comply with the law.

- Type II errors are falsely clearing a potential infringement. This also lowers deterrence because it reduces the difference between the expected fine from violating the law and not violating it. In essence you may not be fined even if you are detected violating the law.

Schinkel (2006) and Schinkel and Tuinstra (2006) found when competition law enforcement is imperfect, welfare is greater if competition authorities are less 'zealous'. They speculate that the criminal system in the US is less prone to erroneous decisions than the new administrative law regime in Europe. The authors' arguments suggest that an enforcement regime that relies too heavily on merely imposing high fines is unlikely to be optimal. The relationship between high fines and deterrence is not a linear one nor does it apply in the same way for all types of regime. This effect is likely to be larger the greater the probability of error.

- **Insolvency**: Insolvency of infringers is not in itself a bad outcome from an intervention and that possibility is likely to have positive deterrence effects. However, in certain markets, losing one or more competitors due to infringement actions may lead to significantly weaker competition and ultimately hurt consumers in that market.[25] Authorities should, however, be wary of offering fine reductions to companies in financial difficulty. Financial difficulty can be manufactured through debt or increases in production costs.[26]

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[24] See P'ng (1986).

[25] See Werden and Simon (1987), Craycraft et al. (1997) have shown that US Courts do take this argument into account by reducing fines against firms in financial difficulty.

[26] See Shavell 1986, 2005, Che and Spier 2008, Bucirossi and Spagnolo 2008 and Smith et al. (1987).

- **Social costs**: Coffee (1981) argued that in the absence of perfect markets, high fines imposed on companies will have an impact on all the stakeholders in the firm. Bondholders and other creditors will suffer a diminution in the value of their securities. Employees may suffer from cost cutting exercises due to the fine. Exchequer tax receipts may be reduced and consumers may end up suffering (if the fine is passed on). However, these costs are always incurred when a company pays a fine. Moreover, the argument above fails to recognise that putting at risk the wealth of stakeholders is crucial to induce them to monitor the firm's management and dissuading it from behaving illegally, as demonstrated by Hiriart and Martimort (2006).[27]

3.23 In addition, there is an important argument why even very high fines may be ineffective: the incentives of the decision-makers in the company. Typically, in the years during which a cartel agreement is in place the company makes large profits, a share of which goes to the managers. Even if the infringement is later prosecuted and the firm made to pay a very high fine, it is unlikely that the costs to the managers will be commensurate to the cost to the company. The managers may not be made to return their bonuses from previous years and may have left. The fine is more likely to hurt the shareholders or perhaps the debt holders of the firm and only to a lesser extent the managers responsible. This argues for personal penalties which we discuss after paragraph 3.30.

3.24 Overall corporate fines may reach a level above which they can contribute little more to deterrence and other instruments may be required.

Optimal deterrence and the predictability of fines

3.25 In practice sanctions are often not fully predictable. Individuals may have incomplete knowledge of the true magnitude of sanctions, particularly if sanctions are not fixed by sentencing guidelines, but are to some degree discretionary. ICN (2008) compares the predictability of fines across a number of jurisdictions and finds the EC and the United States have more predictable antitrust fines than other jurisdictions.

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[27] Martimort David and Yolande Hiriart. 'Environmental Risk Regulation and Liability under Adverse Selection and Moral Hazard', in 'Frontiers in the Economics of Environmental Regulation and Liability', Ashgate (2006), Boyer, Hiriart, Martimort eds, 209-233.

3.26 The paragraphs below reflect the debate in the literature about whether predictability of fines enhances the deterrent strength of a penalty regime.

- **Predictability reducing deterrence Wils (2006)**: First, it is argued that to the extent that undertakings and executives who plan to commit infringements are risk averse, a more indeterminate approach for setting fines generates more deterrence. Second, to the extent that fines may not be high enough to deter, precision as to the expected fine may lead some undertakings that would otherwise have been law-abiding to conclude that they have an interest in committing infringements. Third, the differentiation of penalties depending on the role played by each cartel member has the effect of raising the cost of forming and sustaining cartels. Uncertainty as to the precise level of the fines aggravates this effect, as it becomes more difficult for the colluding parties to reach agreement on who should bear what risks and for what reward.

- **Predictability enhancing deterrence:** predictability, not necessarily in terms of fine determination but in terms of immunity granted to leniency applicants, is a very important element of a successful leniency programme. Leniency is discussed later in paragraphs 3.34 to 3.38.

3.27 Theoretically, 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 as discussed later 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.

Fine level reductions for corporate programmes

3.28 In some jurisdictions, a well-designed compliance programme may help the company qualify for sentence mitigation.[28] Others consider that it is inappropriate to take the existence of a compliance programme into account as an attenuating

[28] See 2004 US Federal Sentencing Guidelines Manual (November1, 2004), accessible at www.ussc.gov/2004guid/gl2004.pdf, §§ 8B2.1 and 8C2.5, and W.J. Kolasky, 'Antitrust Compliance Programs: The Government Perspective', address before the Corporate Compliance 2002 Conference (San Francisco, 12 July 2002).

circumstance for a cartel infringement, whether committed before or after the introduction of such a programme.[29]

3.29 Wils (2006) argues that compliance programmes may reflect a genuine commitment to antitrust compliance at the highest levels within the company, and that well-designed, compliance programmes can both help prevent antitrust violations and to detect such violations as early as possible. However, compliance programmes should not necessarily translate into reduced fines: if fines are set at the adequate level required for deterrence, companies will already have all the necessary incentives to prevent antitrust violations. In the same vein, Calkins (1997) points out that a company has a wide array of means to increase its compliance and that the government should set out penalties for violating the law and leave it to firms to determine how best to respond to those penalties.

Personal penalties and criminalisation

3.30 Certain jurisdictions consider that fines on corporations may be insufficient to deter infringement and therefore prosecute individuals involved. This can be through personal fines, professional disqualification and imprisonment.

3.31 There are at least three main economic arguments identified in the literature for why imprisonment may be a necessary tool for effective deterrence.

- **Incentives**. An approach based purely on fines on companies may give firms the incentives to control their managers; however, firms may lack the tools to effectively control their actions. A manager can deliver high profit either by colluding with low effort or competing with high effort. Shareholders prefer the latter but can only imperfectly monitor effort and so managers may choose the former. This lack of alignment in owners' and managers' incentives implies that sanctions directed at the owners may be ineffective or have considerably diluted effect on managers.[30]

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[29] Decision of 3 December 2003 in Case COMP/E-23/38.359 Electrical and mechanical carbon and graphite products, see also Judgments of the Court of First Instance of 20 March 2002 in Case T-31/99 ABB Asea Brown Boveri v Commission [2002] ECR 11-1884, paragraph 221, and of 9 July 2003 in Case T-224/00 Archer Daniels Midland v Commission [2003] ECR 11-2597, paragraphs 280-281.

[30] See Aubert (2007).

3.32 In terms of the sanctions which most motivate compliance, the OFT company survey[31] highlighted the importance of sanctions which operate at the individual, as opposed to corporate, level. Specifically, companies' average ranking of the factors which motivate compliance was: (1) criminal penalties (2) disqualification of directors (3) adverse publicity (4) fines and (5) private damages actions. It is interesting to note the relative importance of both financial and non financial sanctions[32] on deterrence, as well as the possible reputational risks associated with breaches of competition law.

3.33 OFT research questioned what could be done to improve deterrence of competition law infringements in the UK. More criminal prosecutions for cartels was one of the suggestions, along with increased publicity and education, greater encouragement of private damages actions, faster decision taking, and more decisions/greater enforcement activity.

Leniency

3.34 The early focus of the literature on deterrence and fine levels failed to recognise that in the case of cartels and analogous forms of 'organised infringements', there is an internal stability problem. This concept was first documented by Stigler (1964)[33] and can be exploited to achieve deterrence at lower levels of sanction. The internal incentive problems of an illegal organisation could be exploited to obtain deterrence at lower costs through well designed leniency programs was only recognised recently in the literature on leniency programs, starting with the work of Motta and Polo (2003), Rey (2003) and Spagnolo (2000, 2004) and recently surveyed in Spagnolo (2008).[34]

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[31] The deterrent effect of competition enforcement by the OFT, November 2007, OFT962, downloadable at www.oft.gov.uk/shared_oft/reports/Evaluating-OFTs-work/oft962.pdf.

[32] Looking at non-pecuniary sanctions, Shavell (1987a) provides a theoretical examination of optimal incapacitation policy, while Ehrlich (1981) develops a model to estimate the relative importance of incarceration and deterrence and Levitt (1998) conducts an empirical study of incarceration and deterrence.

[33] Stigler, G.J., (1964). A Theory of Oligopoly. The Journal of Political Economy 72, 44-61.

[34] Rey P., (2003) 'Towards a Theory of Competition Policy', in Advances in Economics and Econometrics: Theory and Applications - Eight World Congress,

3.35 Well designed and administered leniency programmes operate through increasing the probability of detection and undermining trust among wrongdoers. Leniency programmes encourage cartel participants to come forward and offer information that would otherwise be difficult or plainly impossible for competition authorities to obtain. It also rewards whistle-blowers thus destabilising the cartel activity. Operationally, leniency can present some difficulties particularly in jurisdictions where criminal prosecution of cartel participants is not under the same jurisdiction as cartel detection and in those jurisdictions where private actions can add significant costs to the fines imposed on infringers.

3.36 Buccirossi and Spagnolo (2007) show that the presence of leniency programs changes the deterrence effect of fines. They estimate that a combined criminal and administrative sanction penalty regime results in the level of financial penalty required for deterrence decreasing substantially. This may be to a level that is within the range of fines that are currently used by enforcement authorities.

3.37 Leniency may also reduce deterrence if administered too generously, and may raise some political and ethical questions as it effectively allows wrongdoers to escape prosecution. Much theoretic debate has been undertaken on whether immunity is sufficient to make fines against non reporters adequate to encourage reporting and deter cartel activity.

3.38 Usually, the best sources of information on cartel violations are the companies and individuals that have committed the antitrust violations themselves. For certain types of violations, in particular secret price cartels, the undertakings that have committed the violations and their staff may be the only ones holding the

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M. Dewatripont, L. P. Hansen and S. J. Turnovsky (eds.), series Econometric Society Monographs, vol. II, n. 36, Cambridge University Press, p. 82-132.
Spagnolo, G., (2000), 'Optimal Leniency Programs', Milano: Fondazione Eni Enrico Mattei Note di Lavoro 42/2000.
S. J. Turnovsky (eds.), series Econometric Society Monographs, vol. II, n. 36, Cambridge University Press, p. 82-132.
Spagnolo, G., (2000), 'Optimal Leniency Programs', Milano: Fondazione Eni Enrico Mattei Note di Lavoro 42/2000.
Spagnolo G., (2004), Divide et Impera: Optimal Leniency Program, CEPR, Discussion Paper No. 4840.
Spagnolo G., (2008), 'Leniency and Whistleblowers in Antitrust', Ch. 12 of P. Buccirossi (Ed.) Handbook of Antitrust Economics, 2008, M.I.T. Press.

information that the competition authorities need to detect and punish violations. Leniency is the ideal (and perhaps only) method to obtain this information. It is also the only method under which there is no clear incentive to provide unreliable information. However, importantly, leniency can only work if the companies and individuals concerned perceive a risk that the competition authorities will detect and prove the antitrust violation without recourse to leniency.

Settlement

3.39 Settlement and plea bargaining are mechanisms used to facilitate enforcement and reduce its costs. By reducing enforcement costs and increasing the efficiency of the authority, settlement should increase detection and/or prosecution rates.

3.40 It is similar to leniency in its effects but it does not originate from self reporting by cartel members, instead it relies on the initial results of some already undergoing prosecutorial effort. Settlement can undermine leniency to the extent it reduces the benefit from leniency if reductions in fines are available for firms detected but who do not apply for leniency. Polinsky and Shavell (2000) discuss some of the advantages and disadvantages of settlement. They argue that settlement can dilute deterrence because they lower the costs to infringers relative to the levels of penalties that they would otherwise expect. For settlement not to compromise the overall level of deterrence, sanctions have to be increased to offset this settlement-related reduction in deterrence. Settlements have also been discussed in the private litigation context by Polinsky and Rubinfeld (1988), Shavell (1997), and Spier (1997). A related discussion in the public enforcement context appears in Polinsky and Rubinfeld (1989).

Private actions

3.41 The potential for private actions either prior, concurrently or after public infringement actions can add significantly to the deterrent effect of a regime and in certain cases can assist in increasing the probability of detection. Private actions are also the predominant way in which infringement victims can receive redress from the harm suffered. The literature covers all of these aspects:

- **Deterrence**. Private actions increase the costs to infringers through damages actions. Calkin (1997) finds that private litigation provides an important role by

providing supplemental deterrence, compensation and identification of wrong-doing.

- **Enforcement**. Polinsky and Shavell (2000) and Buccirossi and Spagnolo (2007) note that private enforcement is sometimes more efficient than public enforcement, particularly where citizens have better information on the potential infringement. McAffee et al (2008)[35] also consider that private actors are more likely to possess information about antitrust violations and have greater incentive to seek enforcement than public bodies, however, firms are also more likely to use antitrust lawsuits strategically (that is, to the detriment of competitors and consumers). In this regard, McAffee and Vakkur (2004)[36] had previously described in great detail a number of strategic ways in which companies use the US antitrust laws.

3.42 In Lande and Davis (2008), a group of forty successful large-scale private antitrust cases in the United States was analysed. Though not representative of all cases, the specific cases evaluated are some of the largest private antitrust cases that have reached resolution in the US since 1990. These 40 specific private actions resulted in $18 billion (€14 billion) of private payments compared to criminal antitrust fines imposed in DOJ cases (since 1990) of $4.2 billion for all cases combined (not just for the cases analysed in the study).

Empirical literature

3.43 We provide below a short review of empirical literature on the deterrence effects of anti-trust enforcement. Measuring the level of deterrence arising from different aspects of a penalty regime is a considerable challenge. While it is possible to measure how many instances of infringement have been uncovered, it is not possible to know how many remain undetected. It is thus very difficult to ascertain whether the probability of cartels being formed is impacted by a certain change in

[35] McAffee, R. P., Mialon, H. M. and Mialon, S. H. (2008), 'Private v. public antitrust enforcement: A strategic analysis'. Journal of Public Economics, 92.

[36] McAffee, R. P. and Vakkur,N. V. (2004), 'The Strategic Abuse of the Antitrust Laws', Journal of Strategic Management Education, 1(3).

the penalty regime and/or whether this change has any impact on the probability of detection.

3.44 A study on deterrence recently completed for the OFT,[37] using a combination of in-depth interviews and telephone surveys with lawyers, economists and companies, provides estimates of the deterrence effect of the OFT anti-trust enforcement and of the elements of the UK penalty regime that most contribute to deterrence. The analysis estimates the ratio of potential infringements abandoned or significantly modified because of the perceived risk of OFT investigation during the period between 2000 and 2006.

3.45 For cartel abuses, the ratio in the legal survey was estimated to be five to one and sixteen to one in the company survey.[38] The implication is that the threat of an OFT investigation has a significant deterrent effect on potential infringements.

Effectiveness of anti-trust intervention

3.46 Given these limitations, there are in fact very few studies that attempt to directly measure the impact of a particular penalty regime on the incidence of cartelisation. We summarise two exceptions to this rule below.

3.47 An early example is Clarke and Eventt (2003) who, in the context of the vitamin cartels, empirically investigate the effect of the presence of strong anti-trust enforcement regimes on conspirators' decisions to raise prices. Based on data on vitamin imports from 1985 to 2000 across over 90 countries, they found that after the formation of the international cartels, vitamin prices tended to increase less in countries where cartels are prosecuted and where fines and other forms of sanctions are imposed. Clarke and Eventt's (2003) evidence suggests that active anti-cartel regimes have some degree of effectiveness in deterring cartel activity.

3.48 More recently, Hylton and Deng (2006) examine how different antitrust penalty systems affect the intensity of competition in individual countries (measuring the

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[37] Deloitte (2007), 'The deterrent effect of competition enforcement by the OFT', OFT Report 962, November 2007.

[38] One explanation for the higher ratios is the existence of deterred activity on which external advice is not taken.

relative intensity of competition by comparing price levels). They find that the scope of a country's competition law (in terms of the types of conduct generally prohibited under competition laws, the types of penalties that might be adopted under the law and the procedures for enforcing those laws) are positively associated with a measure of the intensity of competition in the country's economy. They also find that increasing the range of instruments available to enforcement authorities has a significant impact on the competition intensity of a country.

3.49 All other empirical studies of penalty and fining regimes adopt an indirect methodology to assess their impact on incentives for cartel formation. This empirical literature has looked at deterrence in three alternative ways. First, it has considered the amount of fines imposed on detected infringers and related this to an estimate of the illicit cartel gains. Another approach has been to look at the strength of the prosecutorial effort (proxied by the evolution of aggregate fine levels, the number of firms and individuals prosecuted and the intensity of the investigation efforts). The concept here is that a regime that is seen as more active and better resourced should be more deterrent. A third and more recent approach has been to look at the impact of an indictment on firms' subsequent profitability, proxied by share prices. This allows researchers to assess how stock prices react to an indictment across jurisdictions or, in a given jurisdiction before and after a particular change in the regime takes place.

Fine amounts compared to illicit gains

3.50 Connor (2006b)[39] summarises the structural conditions and price effects of the 16 global vitamins cartel and analyses the deterrence power of world-wide financial penalties paid by the corporate members of these cartels. The paper concludes that only in North America did monetary antitrust penalties exceed the monopoly profits of the vitamins cartel, principally because of substantial incidences and outcomes associated with private settlements.

3.51 Penalties in the European Union were a small percentage of European overcharges, and penalties in the rest of the world were negligible. On a global basis, the

[39] Connor, J. M. (2006b): 'The Great Global Price-Fixing Conspiracy: Sanctions and Deterrence', Concurrences: Revue des droits de la concurrences, 4, pp. 17-20.

deterrence effect of the financial penalties was sup-optimal for three major reasons: low penalties outside North America, delays in the collection of fines and private settlements (that is, the absence of court-awarded prejudgement interest), and the low probability of discovery of cartels.

3.52 Connor and Lande (2007)[40] compare the fine levels imposed by the EC and US authorities to the amounts gained on average by cartels as a result of their offence. They collect and analyse the available information concerning the size of the overcharges caused by hard-core price fixing, bid-rigging and market allocation agreements. They found that cartels over-charged on average between 18 per cent and 37 per cent in the US and between 28 per cent and 54 per cent in the EU. The authors also examine cartels that had effects solely within a single European country. Their results showed significantly higher overcharges in single European countries than on the EU-wide level. Their results show that on average cartel overcharges are significantly larger than the resulting criminal fines of either the EU or the US authorities. They conclude that the US (and especially the EU authorities) should increase their penalties for hard-core collusion to a significant extent.

Prosecutorial effort

3.53 Gallo et al. (1994) present an empirical analysis of criminal antitrust prosecutions undertaken by the US Department of Justice (DoJ) during the period 1955-1993. In particular, they investigate whether antitrust penalties have been sufficient to deter price-fixing and other concealable antitrust violations using Becker's model of optimal deterrence. Assuming a conspiracy mark-up of 10 per cent, a unitary demand elasticity[41] and a successful infringement prosecution rate of 15 per cent, it is illustrated that the actual monetary penalties imposed in DoJ price-fixing cases are significantly below the level necessary for optimal deterrence. The authors

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[40] Connor, J. M. and Lande, R. H. (2007): 'Cartel Overcharges: Implications for U.S. and EU Fining Policies', Antitrust Bulletin, 51, pp. 983-1022.

[41] A unitary price elasticity of demand assumes that the along the entire demand curve, following a given percentage increase in the price charged for a particular good, there is an equi-proportionate reduction in the quantity demanded. This assumption implies that the demand curve for the good in question is non linear (convex).

show that when imprisonment is incorporated as part of the penalty, price-fixing infringement is more effectively deterred.

3.54 In another piece of research by the same authors, Gallo et al. (2000) empirically evaluate the DoJ's antitrust penalty regime using the CCH Trade Regulation Reporter database of DoJ cases for the years 1995-1997. They develop a set of measures for assessing the deterrence power of the DoJ's penalty regime. These include the number of cases investigated and alleged violations, the number of corporate officials prosecuted, the win-loss record, the amount of civil and criminal sanctions imposed, while the length of the proceedings is used as a measure of efficiency in DoJ's case handling.

3.55 The analysis indicates that each of the legislative changes introduced by the DoJ since the 1970s has led to a significant increase in average fines for both individuals and firms, which should increase the deterrence of antitrust violations assuming that the probability of detection and punishment have remained constant.[42]

3.56 Connor (2004) describes and compares penalties imposed on participants of 167 international cartels across different jurisdictions. While he does not directly test for the effect of penalties on deterrence, he makes important comparisons of fine levels with companies' relevant turnover and with estimates of the cartel overcharge. He concludes that these ratios vary widely across jurisdictions and that, at the time, most appeared to lag behind the US in terms of the strength of the penalties. However, the dataset covers only international cartels discovered during between 1990 and 2003. Connor suggests that deterrence is frustrated by the lack of compensatory private suits outside of the US and by the absence of fines in Asian jurisdictions.

[42] In particular, Gallo *et al.* (2000) find that the Sherman Act Amendments of 1955, the Antitrust Procedures and Penalties Act of 1974, the Antitrust Amendment Act, and the Sentencing Reform Act have all had significant impacts on the observed level of fines (although not in a linear fashion in relation to the increases in thresholds).

Value of the firm

3.57 Connor et al. (2005) investigate whether these changes in antitrust penalties issued by the US Department of Justice led to improved effectiveness of antitrust actions with respect to price-fixing between 1981 and 2001. They use measures of effectiveness of antitrust actions in three different ways. The first measure is the stock market's reaction to the announcement of an indictment in a price-fixing case. Second, they examine the length of time required for the price of the infringer's stock to recover to the pre-indictment level (after correcting for overall market movements), which is interpreted as a return to illegal behaviour. The final measure is the observed rate of recidivism, or how often the infringers return to collusive behaviour.

3.58 The results indicate that the changes in antitrust law[43] do improve effectiveness as measured by changes in the market valuations of infringers, but the durability of the deterrent effect and the rate of recidivism are left unaffected, suggesting that Sherman Act Section 1 enforcement has little lasting effect. In particular, Connor et al. (2005) hypothesise that the drop in the firm's stock market value at the time of the indictment is attributed to a decline in monopoly profits resulting from prior collusive activity. They interpret the subsequent rebound of the firm's market-adjusted value to the pre-announcement level as a return to collusive behaviour. Finally, Connor et al. (2005) point out that price fixing is driven largely by the structural conditions within an industry. Since financial penalties do not generally affect market structure, recidivism is a logical outcome.

3.59 Langus and Motta (2007)[44] present a case study analysing the effect of EU antitrust investigations and fines on a firm's valuation. The authors find that fines account only for a small fraction of the loss in value of a firm after a decision is issued. The authors consider this as evidence of the effectiveness of the intervention, as the rest of the drop in value can be explained by the loss of a profitable activity (for example, price fixing etc).

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[43] See footnote 7 for details on these changes.

[44] Langus, G. and Motta, M (2007), 'The effect of EU antitrust investigations and fines on a firm's valuation'.

3.60 Normann and Tan (2006)[45] analyse the effects of German cartel policy on the high-voltage power-cable cartel. The cartel was exempted from the general cartel prohibition for eleven years, making it possible to compare behaviour under two different legal regimes. The authors show that the cartel earned significantly higher profits when legal, and that it sustained the high level of profits after the exemption phase was lifted. Intended efficiency gains did not materialise during the exemption phase. Furthermore, the cartel was convicted three times for violations of cartel law but the penalties failed to lower prices.

Impact of leniency

3.61 Miller (2007)[46] provides the first independent empirical evaluation of leniency in cartel enforcement, as applied in the US. Miller develops a theoretical model of cartel behaviour that provides empirical predictions that he applies to the complete set of indictments issued over a twenty year span. This model estimates that leniency has contributed to a significant reduction in cartel formation and a significant increase in cartel detection.

3.62 Brenner (2009)[47] provides an empirical study of the 1996 EU Leniency Programme. Brenner finds evidence indicating that the programme provides incentives to reveal information on cartel activities in the sense that agencies are better informed about the cartel conduct than they would be absent the programme. Investigation and prosecution becomes faster under the leniency program (by about 18 months). However, in relation to the question of whether the 1996 Leniency Program provides sufficient conditions for the destabilising effect of leniency, the data do not support the view that these conditions are satisfied for this programme.[48]

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[45] Normann, Hans-Theo and Elaine Tan (2006), The Effects of Cartel Policy: Evidence from the German Power-Cable Industry, Department of Economics Royal Holloway College, University of London.

[46] Miller, N.H., 'Strategic Leniency and Cartel Enforcement' University of California – Berkeley, September 2007, forthcoming American Economic Review.

[47] Brenner, S., 'An empirical study of the European corporate leniency program', Humboldt-University Berlin, February 2009, forthcoming International Journal of Industrial Organisation.

[48] The European Commission has since issued two leniency programme revisions, one in 2002 and one in 2006. Brenner's analysis does include either of these.

4 COMPARISON OF PENALTY REGIMES ACROSS THE SIX JURISDICTIONS

4.1 The literature review identified five key elements of an effective penalty regime:

- fines (against companies)
- penalties (administrative and criminal) against individuals
- leniency
- settlement, and
- private damages actions.

4.2 With the exception of the EC which does not have powers to impose sanctions on individuals, the jurisdictions reviewed have penalty regimes which consist of all these elements.

4.3 In this section, we compare the salient features of the UK penalty regime to those in five other jurisdictions – United States (US), European Commission (EC), Germany, Netherlands, and Australia. We also consider whether these regimes are characterised by the key elements of an effective enforcement regime identified in the Literature Review. As the focus of this study is on fining practices, fines on companies are discussed in greater detail than other aspects of the penalty regimes.

4.4 The section main findings are as follows:

Fine levels

4.5 The UK (OFT), US (DOJ), EU (EC), Germany (FCO), and the Netherlands (NMa) all have similar approaches to determining penalties. In a first stage, a base level is set that reflects the overall gravity of the offence. It is calculated as a percentage of the turnover achieved in the market affected over the duration of the infringement.

- The OFT regime has a relatively low base level, capped at 10 per cent of relevant turnover. The US starts at 20 per cent[49] and the EC's, Germany's, and the Netherlands' starting point is closer to 30 per cent for the most serious types of infringement.[50]

4.6 In a subsequent stage, the base level is adjusted to take account of the size of the undertakings involved and to increase deterrence of particularly harmful behaviour (for example, instigating the formation of a cartel, repeat offences, and coercion). Downward adjustments reflect non-intentional infringement and assistance to the anti-trust authorities' investigation.[51] The treatment of these factors varies significantly across jurisdictions.

4.7 In Australia the fine-determination procedures are left to the courts and no indication of a similar step-by-step procedure was found.

Individual sanctions

4.8 The UK regime provides additional deterrence in the form of criminal sanctions, including criminal fines on individuals under EA02, confiscation orders under Proceeds of Crime Act 2002, competition disqualification and up to five years' imprisonment. Civil Director Disqualification Orders on directors of undertakings are also possible. In the US, the use of imprisonment is extensive, and over time both the number and duration of prison sentences imposed are increasing. Imprisonment is widely regarded as a very strong means of deterring anti-trust infringements[52] and even a relatively low probability of facing a jail term may provide significant deterrence relative to jurisdictions where this possibility is altogether absent. No

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[49] Although the final fine level can range between 20 per cent and 40 per cent even if there are neither aggravating nor mitigating factors to take into account.

[50] In addition to the determination of the starting point, the European Commission levies an additional fine or 'entry fee' for hardcore cartels.

[51] The OFT undertakes the incorporation of deterrence and aggravating and mitigating circumstances in two steps.

[52] Deloitte (2007), 'The deterrent effect of competition enforcement by the OFT', OFT Report 962, November 2007.

criminal sanctions are imposed by the European Commission, Australia[53] or the Netherlands.

Leniency

4.9 The UK and the US offer relatively strong protection under leniency rules. In the UK, it is possible for employees of companies to benefit from leniency arrangements and automatically receive full immunity from criminal prosecution. For the first individual applying for leniency in a personal capacity, the OFT can also issue 'no-action' letters.[54]

4.10 In the US, not only can individuals get immunity from criminal prosecution, a company that is granted immunity by the US Department of Justice and co-operates with claimants in private actions may also become liable only for actual damages (as opposed to treble damages). In addition cooperating firms may no longer be subject to joint and several liability for the harm caused by other cartelists. The US and the UK can also offer immunity to a cartel member who discloses previously undetected antitrust offences involving a cartel different from the one that first brought that cartelist to the prosecutors' attention.

4.11 Leniency in the EU is complicated by the fact that the European Commission does not have the power to grant immunity in relation to each of the EU national jurisdictions. This is a particular concern where the cartel member may be liable under criminal law or likely to face civil litigation as both will be facilitated by the admission of guilt made under the leniency agreement.

Settlement

4.12 Under settlement procedures in the US, 90 per cent of antitrust cases are settled. In the US and the UK, the level at which cases are settled becomes public information.

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[53] Although Australia is currently considering the introduction of prison terms for cartel offences.

[54] To encourage individuals to come forward with information relating to cartel activities in which they are involved, the OFT may offer immunity from prosecution in the form of 'no-action letters' .

Private actions

4.13 In the UK, the absence of class actions and the restriction of representative actions to 'specified bodies', mean that private actions currently do not play the complementary role they have in the US, where private actions are pursued often and vigorously and treble damages are available in antitrust cases.[55] In relation to EC cases, there is no single legal mechanism to bring EU-wide collective actions. However, the European Commission encourages harmed parties to apply for compensation in national courts.

Comparison of fines for companies

4.14 Our comparison shows substantial similarity between the way fines for companies are set within the European Union. The approaches of Germany and the Netherlands to enforcement closely resemble that of the European Commission, more so than the UK. The guidelines for determining fine levels are extensive in these jurisdictions and the methodology employed by the competition authorities has become increasingly harmonised in recent years.

4.15 In all six jurisdictions, fine determination takes as a starting point the level of an infringer's turnover that directly relates to the infringement in question. There are subtle differences in the way different jurisdictions define the turnover with respect to which base fines are set. Terms that are used include 'relevant turnover' (UK), 'affected commerce' (US), 'value of sales in the relevant market' (EC), but in practical terms these are interchangeable.

4.16 Very marginal differences also exist in the way rules in different countries account for the duration of an infringement in setting the fine. In the UK, as is also the case for the EC,[56] the base fine is based on one year of turnover (the last business year for which figures are available) and duration is accounted for by multiplying the

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[55] Although treble damages are in principle available, the level at which private case settlements are actually reached has not been investigated as part of this study.

[56] Before the 2006 EC Guidelines this used to result in a big difference across jurisdictions because the EC did not aggravate the base fine in proportion to the years of duration. The current guidelines do exactly this and so that considering duration at the stage of the base fine or later on is irrelevant.

base fine by the length of the period of infringement. In other jurisdictions (DE, NL, US) duration enters in the base fine because the affected commerce is taken as the turnover of the company over the period of the infringement.[57] The former approach leads to heavier fines for companies whose turnover increased over the duration of the infringement.

4.17 In the UK, to reflect the particulars of the case, fines can be adjusted upwards or downwards. The same is true for the other jurisdictions. Upward adjustments may be made to take account of the size of the undertakings involved and to increase deterrence of forms of behaviour seen as particularly harmful (for example, instigating the formation of a cartel, repeat offences, and coercion). Downward adjustments may be applied where behaviours that mitigate the impact of the infringement or aid the authorities in bringing it to a close.

4.18 Fine levels can be subject to statutory limits. Fines are capped at 10 per cent of the firm's worldwide turnover in the UK, the EC and other EU jurisdictions. There is no upper limit on fines set in the US under the Alternative Fining Guidelines.

4.19 Where applicable, fines will be reduced or eliminated in the context of leniency notices. This is a general feature of all six jurisdictions studied.

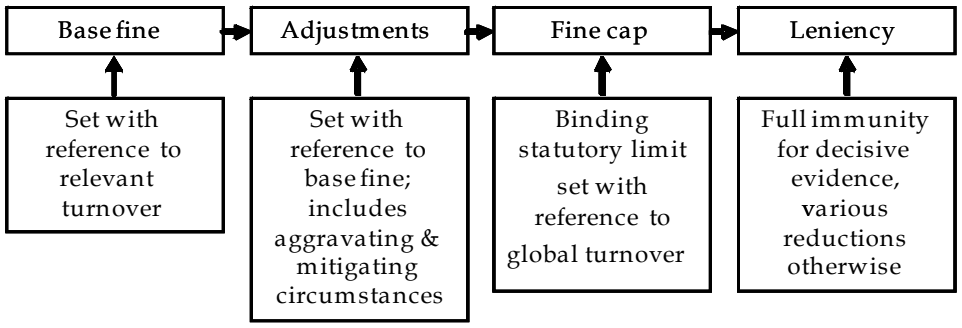
4.20 From the above discussion, the fine-setting process can be split into three stages:

- setting the base fine
- adjusting the base fine according to the circumstances of the case
- applying a cap on the resulting overall fine
- reduction or elimination of fine within a leniency notice.

A stylised depiction of the process by which penalties are determined is shown below.

[57] In principle, this is also the case in Australia. However, Australian courts can impose separate fines for each iteration of a recurring infringement (that is, a price-fixing agreement that is reviewed annually).

4.1 Generic process of final fine determination



Note: Australia does not appear to fit this structure precisely because there is no indication of the authorities starting with a base fine. The US does not have a fine cap under their Alternative Fining Guidelines.
Source: London Economics.

The base fine

4.21 Australia apart, the UK and the other four jurisdictions analysed in this review all use a concept of base fine, upon which subsequent adjustments are made.

4.22 Consistent with theory, the base level financial penalty (starting point) is determined in relation to the value of the infringer's turnover in the affected market. It is also conceptually related to the type (and thus, gravity) of the infringement. For example, hardcore cartels are given a higher base fine than milder anti-competitive arrangements.

4.23 Under the OFT guidelines, the base fine may not in any event exceed 10 per cent of the relevant turnover of the undertaking. In the US, the starting point is higher. The base fine for bid-rigging, price-fixing or market allocation agreements among competitors is commonly set at 20 per cent of the organisation's turnover in the affected markets over the duration of the infringement. This leads to a fine in the range 20-40 per cent if no other adjustments are made. The starting point for the EC is also higher than that of the UK. Depending on the gravity of the infringement, the base fine can be up to 30 per cent of relevant turnover. The base amount for members of hardcore cartels, for example, will be set at the upper end of the 30 per cent limit. The same holds for Germany.

4.24 The new EC guidelines further provide for an 'entry fee', that is, an additional fine of 15 per cent to 25 per cent of one-year turnover for the most serious offences, such as price-fixing, market-sharing and output limitation infringements. This 'entry fee' is intended as additional deterrence against companies entering into the named types of agreement.

4.25 The NMa starts with a base amount of 10 per cent in the case of less serious infringements, 10-20 per cent for serious infringements, and 15-30 per cent for very serious infringements.[58]

4.26 Australia is less predictable and is the only jurisdiction that does not make an explicit distinction between base fines and adjustment factors. The size of fines is determined by the Court with reference to the statutory guidance provided in Section 76(1) of the TPA.[59]

4.27 The figure below shows the range of base fine levels that we observe in the different jurisdictions.

[58] Far-reaching horizontal restrictions and forms of abuse of dominant position by infringers in a monopolistic or all but monopolistic position are considered very grave. Forms of abuse of a dominant position, such as discrimination and tied sales, which may not be qualified as very grave infringements, are regarded as grave infringements. Schemes that distort competition to a limited degree are regarded as less grave infringements. As a rule, vertical schemes will be deemed to be less grave infringements.

[59] TPC v TNT [1995] ATPR 41-375, 40,165 (Burchett J). contains the following, instructive quote: 'the fixing of the quantum of penalty is not an exact science. It is not done by the application of a formula, and, within a certain range, courts have always recognised that one precise figure cannot be incontestably said to be preferable to another'.

4.2 Upper limit on the base fine as a proportion of relevant turnover

Jurisdiction	% of relevant turnover over the duration of the infringement
AUS	Not applicable
DE	up to 30%
EC	up to 30%
NL	up to 30%
UK	up to 10%
US	20-40%

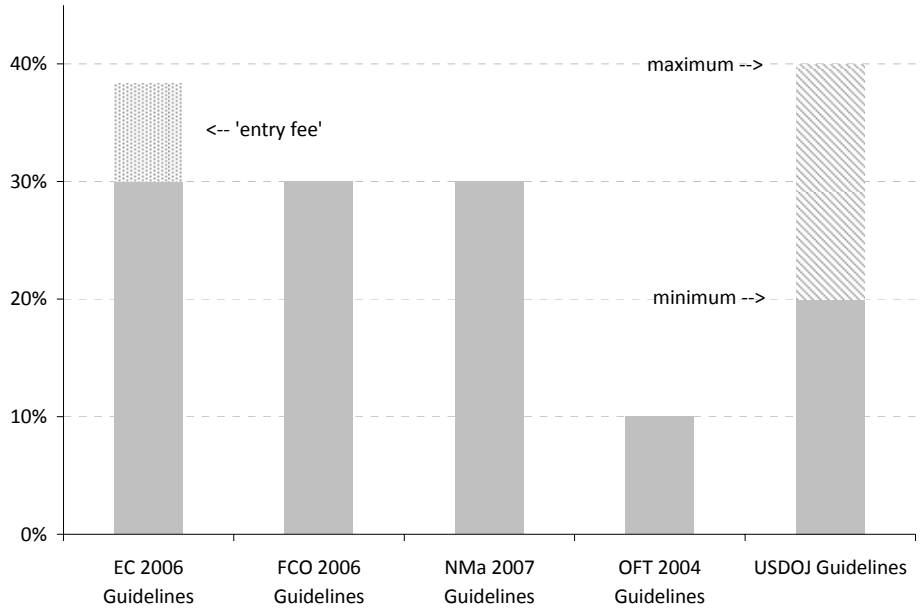
Sources: DoJ, EC, FCO, NMa, OFT.

4.28 A stylised example - based on the rules in place in the various jurisdictions - of how differences in the way the base level is determined can affect fine levels is shown in Figure 4.2 below.

4.29 In the UK the base level is capped at 10 per cent of relevant turnover. This makes the UK, of the five jurisdictions, by far the one with the lowest fine base level.

4.30 For infringements lasting one year, the EC's 'entry fee' for hardcore cartels of 15-25 per cent of relevant sales can result in a large increase in the base level compared with other jurisdictions. However, for cartel durations in excess of one year, the impact of the entry fee – though still relatively significant – is diluted. After duration is taken into account, base fines in Germany and the Netherlands stand at 30 per cent of relevant turnover, while the base fine in the US fines stands at between 20 per cent and 40 per cent of relevant turnover.

4.3 Differences in the base level: turnover base (3 years' duration)



Note: Scenario: hardcore cartel, 3 years' duration, no aggravating/mitigating factors.
Source: London Economics.

Adjustment of the base fine

4.31 In the UK, as with the other jurisdictions studied, adjustments are normally made to the base fine. The guidelines and judicial practice of these jurisdictions apply different catalogues of adjustment factors, although not too much should be read into the semantic differences between them. Different aspects of a company's behaviour will influence the view taken by the court or competition authority as to its role in the infringement. Moreover, the lists of aggravating and mitigating circumstances provided in the various guidelines are not meant to be exhaustive. For all the regimes reviewed, one major objective is added deterrence. That is, fines high enough to punish infringements and discourage future infringements.

4.32 In the UK, in determining the adjustment, the OFT may rely on an estimate of any economic or financial benefit made (or likely to be made) by the undertaking from the infringement and the special characteristics, including the size and financial position of the undertaking in question. Further adjustments may be made after evaluating aggravating circumstances and mitigating circumstances.

4.33 To adjust the base fine, the DoJ establishes the defendant's 'culpability score', based on a number of qualitative factors, including firm size, 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. This culpability score dictates the minimum and maximum 'multipliers' to apply to the base fine to calculate the final fine range, which can vary between a minimum of 15 per cent and a maximum of 40-80 per cent of relevant turnover. Further details are given in Annex A.

4.34 The EC adjusts the base amount by applying increases/discounts for aggravating/mitigating circumstances. Repeat infringers face a 100 per cent increase on the base fine for each previous offence.[60] This is a striking difference between the EC and the other jurisdictions and this can escalate fines to a level unseen in other jurisdictions.

4.35 The Commission also increases the adjusted fine for particularly large firms to ensure sufficient deterrence and, where necessary, makes sure that the fine exceeds the excess gains made as a result of the infringement.

4.36 For Germany, the basic amount determined is increased or reduced in light of certain adjustment factors, in particular for added deterrence (up to 100 per cent increase), and aggravating and mitigating circumstances.

4.37 In the case of the NMa, aggravating and mitigating factors may lead to adjustments of the basic fine. However, there is no specific information in the fining guidelines on the magnitude of these adjustments.

4.38 There is also no detailed guidance on how adjustments are made to fines by the courts in Australia.

4.39 A generally recognised mitigating factor is co-operation with the competition authority's investigation. Co-operation may result in lower fines either where it is taken into account as a mitigating factor (UK, US, Netherlands) or within the framework of a leniency notice (Germany, EC), where discounts on penalties are

[60] Where prior infringements found by national competition authorities are also counted.

granted at the end of the fining decision, depending on the usefulness of the cooperation to the investigation.

4.40 Figure 4.3 below shows an overview of the adjustment factors in the individual jurisdictions.

4.4 Aggravating and mitigating circumstances considered in the fining decisions

1. Aggravating factors	AUS	EC	DE	NL	UK	US
Coercive measures to ensure continuation of the infringement		•	•	•	•	
Continuation of the infringement after start of investigation					•	
High degree of organisation	•		•			
Infringement committed intentionally	•		•		•	
Involvement of senior management	•				•	•
Leading role in the infringement		•	•	•	•	•2)
Obstruction of the investigation		•		•		•
Pervasive tolerance of the offence by substantial authority personnel						•
Recidivism	•	•1)	•	•	•	•
Retaliatory measures against leniency applicants					•	
Size of firm	•	•	•1)			•
Violation of an injunction/condition of probation						•
2. Mitigating factors						
Acceptance of responsibility						•
Compensation of injured parties			•	•		
Cooperation with the investigation	•	•		•	•	•
Effective compliance programme	•				•	•
Infringement authorised/encouraged by legislation/public authorities		•	•			
Minor role in the infringement			•			•2)
Non-implementation		•				
Participation under duress			•		•	
Self-reporting						•
Termination of the infringement as soon as investigation starts		•3)		•	•	
Uncertainty as to existence of an infringement					•	

Notes: 1) up to 100 per cent increase in fine. 2) applies to individual defendants. 2008 Federal Sentencing Guidelines Manual §3B1.1-2. 3) does not apply to cartels.
Source: 2008 Federal Sentencing Guidelines Manual, EC 2006 Fining Guidelines, OFT 2004 Fining Guidelines, and ACCC v Visy Industries Holdings Pty Limited (No 3) [2007] FCO1617, NMa 2007 Fining Guidelines, FCO 2006 Fining Guidelines.

Fine cap

4.41 Five of the six jurisdictions (the exception being the US) have limits on fines that can be imposed for infringements of competition law. The relevant provisions are summarised in the following table.

4.5 Statutory limits on fines

Jurisdiction	Statutory limit(s)
AU	the greatest of:* • AUS $10,000,000 (~ € 5 million) • if the Court can determine the value of the cartel gains attributable to the act or omission--3 times the value of that benefit, • if the Court cannot determine the value of that benefit – 10% of the total worldwide turnover in the year prior to the infringement
DE	10% (or, in the case of an infringement attributable to negligence, 5%) of total worldwide turnover
EC	10% of total worldwide turnover.
NL	The greater of: • € 450,000, or • 10% of total worldwide turnover.
UK	10% of total worldwide turnover
US**	• USD $ 100 million (~ €76 million) under the Sherman Act, or • An alternative sentencing statute allows for fines up to twice the gain derived from the criminal conduct or twice the loss suffered by the victims.

Note: * Certain types of less serious anticompetitive conduct (for example, secondary boycotts) incur a maximum fine of AUS$750,000 (€377,565). The maximum penalty applies to each individual infringement of the TPA, so that several penalties can be imposed for conduct within the context of a single cartel.
** When infringements are large, the DoJ can invoke the Alternative Sentencing Guidelines under which there is no upper limit on fines. Under these guidelines fines are determined in relation to twice the gain or twice the harm caused by the infringement and cartel participants may be jointly and severally liable for the maximum of these amounts. In practice, in the US most of the final fines are determined under plea bargains. Court determination of fines would be a burden on the DoJ's resources as the burden of proof makes it very difficult to determine either the gain to infringers or the harm caused by the infringement.
Sources: EC, FCO, NMa, OFT, DoJ, ACCC.

Comparison of sanctions against individuals

4.42 This section provides a brief overview of the administrative and criminal penalties that are available against individuals found to have infringed the competition rules. In what follows, the EC is excluded as it has no powers to impose sanctions on individuals.

4.43 Fundamental differences exist in the area of penalties for individuals. The EC does not have jurisdiction over individuals. In the other five jurisdictions, individuals can be penalised for infringements of competition law.

- Administrative fines on individuals are possible in the Netherlands. In Germany, US, Australia and the United Kingdom, penalising individuals is a matter for the courts.

- Criminal sanctions, including imprisonment, are available in the US, the UK and Germany. In Germany, bid-rigging is the only anti-competitive offence subject to criminal sanctions.

4.44 Leniency is granted to individuals on the same terms as to companies. Moreover, individuals benefit from derivative immunity in cases where the company has already been granted immunity.

Administrative sanctions

4.45 In the UK, where a company has infringed competition law, its directors can face Competition Disqualification Orders, barring them from acting as a company director or shadow director for up to 15 years.

4.46 In the case of Germany, a financial penalty may be levied on individuals responsible for the infringement. Under Section 81(4) of the Act against Restraints on Competition (ARC) individuals can be punished for infringements of the main

prohibitions (ARC §1 and §19 and Articles 81 and 82 of the EC Treaty) with a fine of up to €1 million.[61]

4.47 In the Netherlands, financial penalties may also be levied on individuals. The starting point is determined in respect to the ranges set out below:

- €10,000-€200,000 for giving instructions or exercising leadership of an infringement.[62]

- €50,000-€400,000 for giving instructions or exercising leadership of an infringement involved on activity in contravention of Articles 81 and 82 of EC Treaty (and equivalent national legislation).

  Adjustments may be made depending on the seriousness and duration of the infringement, the specific aggravating and mitigating circumstances associated with the infringement, and the individual's position within the undertaking and their involvement in the violation.

4.48 Currently in Australia, under the Trade Practices Act (TPA), the maximum penalty for individuals is AUS$500,000 (€251,750). Following an application by the Australian Competition and Consumer Commission (ACCC), the Federal court can impose non-monetary sanctions such as director-disqualification orders. Such orders disqualify a person from managing corporations 'for a period that the Court considers appropriate'.[63]

4.49 In contrast, the US does not have separate administrative and criminal penalties. All antitrust penalties are criminal.

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[61] Up from €500,000 (6th Amendment of the ARC, 1999).

[62] §25b1 or §25b2 (record keeping), §35 (failure to cooperate), §42 (provision of information), §43 (provision of information), §59a(3) (provision of information), §70b or §77a(3) (provision of information in relation to other undertakings) or infringing §5.20 of the General Administrative Law Act (failure to co-operate).

[63] TPA Part VI Section 86E.

Criminal sanctions

4.50 In the UK, an individual found guilty of committing a cartel offence before a magistrates' court may be imprisoned for up to six months and/or receive a fine up to the statutory maximum (which is currently £5,000 (€5,687)). If an individual is found guilty in the Crown Court, they may be imprisoned for up to five years and/or receive an unlimited fine.

4.51 In the US, an approach similar to the fine determination process for organisations is adopted for individuals. Under the Sherman Act, individuals can face fines of up to $1 million (€779,000) and prison sentences of up to 10 years for anti-trust violations. Under the alternative sentencing guidelines fines up to twice the gain to the individual or twice the loss suffered by the victims are allowed. In general, however, sanctions for individual cartel participants have focused on jail terms rather than large fines.

4.52 To date bid-rigging remains the only type of anti-competitive behaviour that is a crime under German law. All other infringements of competition law continue to carry only administrative penalties.[64] Criminal sanctions for bid-rigging include custodial sentences of up to five years.[65] Fines can also be imposed, but they differ from administrative fines in that criminal fines are payable in daily instalments, where for each sentence the number of instalments is at least five, but cannot exceed 360.[66] The amount payable in each instalment can range from €1 to €5,000, so that the maximum total fine for offences under the Criminal Code is 360 x € 5,000 = €1.8 million.[67]

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[64] Some forms of collusive behaviour that are outside the scope of both the ARC and Section 298 of the Criminal Code, for example, bid rigging conspiracies in which the procurer colludes with only one of the bidders, may also be prosecuted as common fraud under Section 263 of the Criminal Code, or bribery, under Section 299.

[65] Imprisonment is rare in cases where the sentence does not exceed two years (CC Sections 56(1)-56(2)).

[66] ARC Section 40(1).

[67] ARC Section 401(2).

4.53 In addition to fines and prison terms, the courts can order preventative or reforming measures, such as the confiscation or forfeiture of gains made as a result of the crime and impose disqualification orders.

4.54 An amendment to the Australian Trade Practices Act to introduce criminal penalties for cartel conduct has been passed by the Australian Parliament and its provisions entered into effect on July 2009. For individuals who are convicted of criminal cartel offences, the maximum sentence is 10 years' imprisonment and/or fines of up to AUS$220,000 (€100,700) for each contravention of the Act.

4.55 In the Netherlands there are no criminal sanctions available in competition cases.

4.56 The figure below gives an overview of the penalties against individuals that are available in the different jurisdictions.

4.6 Maximum penalties for individuals

Jurisdiction	Maximum fine	Maximum prison term	Other penalties
AUS	Administrative: AUS$ 500,000 (€251,710) Criminal: AUS$ 200,000 (€100,700)	10 years*	Director Disqualification Orders**
DE	Administrative: €1 million Criminal: €1.8 million***	5 years**	-
EC	Not applicable	Not applicable	Not applicable
NL	Administrative: €450,000	Not applicable	-
UK	Criminal: £5,000 (€5,687) (magistrates court), unlimited (crown court)	5 years	Competition Disqualification Orders
US	Criminal: $1 million (€779,277) or twice the gain/harm	10 years	-

Notes: * since July 2009, ** since 1 January 2007, ***only available in bid-rigging cases.
Sources: EC, Global Legal Group (2008).

Leniency

4.57 After the fine has been determined, reduction in the fines for leniency may be considered.Many regimes have in place a leniency programme. One rationale for such leniency schemes is savings on investigative resources by encouraging cartel members to come forward with evidence. This may translate into benefits for society in terms of increased deterrence for a given level of activity on the part of the competition authority if the leniency policy is not too generous with late or multiple applicants. The availability of leniency may also directly deter cartels by undermining their internal stability, especially since the value of immunity from fines increases with the duration of the infringement. Other things being equal, some cartels can be expected not to form or to last for shorter periods than they would in the absence of a well designed and administered leniency programme.

4.60 The UK operates a leniency scheme similar to those of other jurisdictions though the US has some notable differences, the most notable being that subsequent reporters do not gain immunity, they would however have cooperation taken into account as a mitigating factor when calculating the fine. The main features of the different regimes are summarised in the figure below.

4.7 Protection afforded by leniency regimes

Jurisdiction	Immunity from corporate fines: 1st reporter	Immunity from corporate fines: subsequent reporters	Immunity from criminal sanctions	Protection against civil damages claims
AUS	Full[1), 2)]	Partial	n/a	No
EU	Full[2)]	Partial	n/a	n/a
DE	Full[1), 2)]	Partial	No	No
NL	Full[2)]	Partial	n/a	No
UK	Full[2)]	Partial	Full[3)]	No
US	Full[1)]	No[4)]	Full[5)]	Partial[6)]

Notes: 1) not available if the applicant was the ringleader in the infringement. 2) not available if the applicant coerced other parties to participate in the infringement. 3) automatic for employees of recipients of full corporate immunity, at the OFT's discretion in other cases. 4) Cooperation is however a mitigating factor in fine determination. 5) 1st reporters only. 6) companies that have received immunity from the DoJ and cooperate with damages claims against other cartel participants are liable for single, not treble damages. Source: ACCC, EC, FCO, NMa, OFT, DoJ.

4.61 In keeping with the rationale for leniency, the highest rewards are offered to applicants who enable the competition authority to detect and prove an infringement case in situations where this would not have been possible without the evidence provided by a whistleblower. A company or individual who can provide such evidence may receive full immunity from administrative sanctions and, in some cases, even criminal sanctions. To qualify, a number of conditions have to be met.

4.62 In particular, the applicant must:

- be the first to come forward with evidence of an infringement (this also makes 'gaming' the scheme difficult)
- not have been the ringleader or instigator of the infringement, or have coerced others to participate in it
- cease participation in the infringement, and
- co-operate fully with the competition authority's investigation.

4.63 The UK along with Australia and the US also offer 'amnesty plus'. This means that a company that is being investigated for one infringement, but is cooperating with

the investigation, can receive a further reduction in its penalty if it discloses its involvement in another, separate cartel, of which the authorities had been hitherto unaware.

4.64 Like the UK OFT, the competition authorities in Australia, Germany, the Netherlands and the European Commission, offer further rewards in the form of penalty discounts to applicants that do not meet the conditions for full immunity, but add significant value to the investigation.

4.65 In all six jurisdictions, partial or full immunity is available for both companies and individuals. While individuals employed in a company guilty of an infringement benefit from derivative immunity if their company qualifies, companies no longer qualify if individual employees have been quicker to approach the authorities. Where applicable, the conditions for individuals are the same as for companies.

4.66 The leniency programmes in the UK and the US are particularly powerful, as they offer individuals immunity not only from administrative, but also from criminal penalties (in the UK, through the OFT's 'no-action letter').

4.67 To preserve the attractiveness of leniency for cartel members the UK, as with the other jurisdictions, try to protect informants in a variety of ways. For example, all six jurisdictions allow applications for leniency to be made orally, and there are typically commitments to protect the identity of applicants.

4.68 The US DoJ is the only jurisdiction to offer substantial protection against private actions for damages. Under the Antitrust Criminal Penalty Enhancement and Reform Act, a company that qualifies for immunity and cooperates with plaintiffs in damages actions is not jointly and severally liable for the whole of the harm caused by the cartel and furthermore is liable only for actual damages, not treble damages as would otherwise be the case. Given the threat of class actions and the fact that cartel members not benefiting from immunity are jointly and severally liable for the entire damage caused by their cartel, this increases the attractiveness of the leniency scheme considerably.

Settlement

4.69 A settlement programme is another key feature of an effective penalty regime. Settlement refers to the practice whereby an infringer agrees the level of the penalty before a formal decision is made. It helps to reduce the cost of

enforcement by allowing a speedier resolution of enforcement procedures in exchange for a (potentially) lower fine. A priori, settlement is thus more attractive for firms in jurisdictions where the outcome of formal proceedings is more uncertain (for example, Australia).

4.70 Settlement programmes are present in the UK penalty regime and in the other regimes being studied. They are very common in the US, where an estimated 90 per cent of cases are settled.[68] Figure 4.8 provides an overview of settlement procedures across the six jurisdictions.

[68] The DoJ has a long history of settling cartel cases with what in the US are called 'plea agreements'. Over 90 per cent of defendants in criminal cartel offenses, over the last 20 years have admitted to the conduct and entered into plea agreements, according to Ann O'Brien from the DoJ in a speech entitled 'Cartel Settlements in the U.S. and EU: Similarities, Differences & Remaining Questions'. www.usdoj.gov/atr/public/speeches/235598.htm. Also in S.D. Hammond, 'The U.S. Model of Negotiated Plea Agreements: A Good Deal With Benefits For All' (2006) OECD Competition Committee Working Party No. 3. p1.

4.8 Settlement procedures

Jurisdiction	Definition
AUS	No formal policy. Informal process available for companies who benefit from the ACCC's Cooperation Policy
DE	No formal policy. Lower fines have been imposed on companies that do not contest FCO findings and do not appeal a decision.
EC	Policy laid out in the Commission Notice on the Conduct of Settlement Procedures (2008). Companies that acknowledge their liability can be rewarded with lower fines for reducing the burden on the EC's resources. The EC retains full discretion about which companies can benefit from settlement and the terms of the settlement.
NL	No formal policy
UK	No formal policy. Lower fines have been imposed on companies that do not contest OFT findings and do not appeal a decision (for example, Independent Schools).
US	Negotiated settlements are possible at any stage of the investigation. More than 90% of convictions in antitrust cases are a result of 'plea-bargaining'.

Sources: EC, Gallo et al. (2000), Global Legal Group (2008).

4.71 Settlement is uncommon in the context of European administrative law. Of the six jurisdictions, the EC is the only one that follows a formal settlement process. The 2008 Commission Notice on the conduct of settlement procedures[69] sets the procedural framework for such settlements. The EC enjoys a large amount of discretion with respect to which cases it considers appropriate for settlement and can terminate the process at any stage. The system thus appears more one-sided than in the US, where settlement is default option in antitrust cases. Given the limited experience with settlements outside the US, the overall impact, and especially potential interactions with the fining practice of the national competition authorities, is difficult to judge. However, it would seem that the very high fines that can be imposed under the 2006 guidelines have made settlement a more attractive option in the context of EC law.

[69] Official Journal 2008/C 167/01.

Private damages actions

4.72 Private actions can be an important complement to public enforcement. In this section, we assess how conducive the six jurisdictions are to private enforcement, and hence how much additional deterrence is available in each system.

4.73 The UK and all the other jurisdictions looked at allow private litigation for damages in competition cases, but, as private actions fall to the national courts, the conditions vary considerably from one jurisdiction to the next.

4.74 In the UK the absence of class actions and restrictions on representative actions mean that private claimants face significant hurdles. The EC has no jurisdiction over civil claims, but EC rules can be enforced in the national courts. In Australia and Germany, where conditions are relatively benign, private litigation is on the increase.

4.9 Availability of private actions

Jurisdiction	Type of private action available	Benign environment for private actions?	Are private actions common?
AUS	Opt-out class actions and representative actions by the ACCC. Indirect purchaser* standing.	Yes	No
DE	Private actions available. Can be submitted by third parties. Indirect purchaser* standing.	Yes	No
EC	Not applicable	-	-
NL	Private actions available in principle. Settlements brought by a group of claimant can be made binding wrt. all individual claimants by the courts. Indirect purchaser standing*	No	No
UK	Private actions available before the CAT (follow-on only) and the civil courts. Representative actions by specified bodies. Indirect purchaser* standing.	No	No
US	Opt-out** class actions. Each cartelist faces joint and several liability for the damage caused by the cartel. Treble damages if proceeds to judgement. No indirect purchaser* standing in federal cases.	Yes	Yes

Note: * Indirect purchasers are parties that have no immediate contact with the parties engaged in an infringement, but are damaged nonetheless because direct purchasers can 'pass on' the overcharge from the infringement (that is, higher input prices) down the supply chain through higher prices of their own. In many cases, consumers will be the ultimate indirect purchasers. ** This refers to litigation on behalf of all members in a certain class (of victims of the infringement, for example, all customers who bought from the members of a cartel), regardless of whether these are actively seeking redress. Opt-out class actions thus typically result in much larger claims than opt-in class actions, where victims of an infringement have to declare themselves part of the collective of claimants. Sources: EC, Global Legal Group (2008).

4.75 There are three main aspects of the legal framework that determine how conducive a regime is to private damages actions:

- evidential considerations
- the cost of litigation
- incentives for claimants (and lawyers) from potentially very large payments – for example, treble damages.

4.76 It is generally recognised that individual claimants have great difficulty in establishing the facts necessary to prove an infringement. Private actions are thus overwhelmingly 'follow-on' actions, that is, they follow a previous decision made by a competition authority or court.

4.77 In general, the courts in the six jurisdictions recognise previous decisions by the national competition authorities as proof of infringement. The UK civil courts recognise prior OFT and EC decisions as binding, while the German courts even recognise as binding decisions of other national competition authorities in the EU. Evidence held by competition authorities can be used by private claimants in accordance with the disclosure rules for the jurisdictions. This represents a problem in the case of evidence submitted by leniency applicants. Here, the interest of competition authorities is to protect such evidence from private claimants in order to maintain the attractiveness of official leniency programmes.

4.78 On the basis of the right to compensation mentioned above, all jurisdictions we considered as part of this analysis (except the US), allow indirect purchasers to claim compensation for loss suffered due to breaches of competition law.[70] However, any loss suffered by indirect purchasers is likely to be even harder to prove. In practice, claims by indirect purchasers seem to be unlikely as a consequence. An exception might be claims on behalf of consumers, who receive special consideration in the UK.[71]

4.79 The cost of litigation is another major factor preventing private litigation. Typically, the asymmetry in size and resources between the victims and the perpetrators in a cartel offence make litigation highly risky for individual claimants. A way forward is offered by pooling individual claims in representative or class actions.

4.80 The UK system appears less conducive to private actions, due mainly to the lack of class-action type claims and the restriction of representative actions to specified

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[70] In federal cases only, indirect purchasers have standing under individual state laws. Indirect purchasers are purchasers who had no direct dealings with the infringer, but who nonetheless may have suffered considerable harm because an illegal overcharge was passed on to them along the distribution chain.

[71] UK law provides for representative actions by 'specified bodies' (such as the UK Consumers' Association) on behalf of named consumers in follow-on actions (Section 47B of the Competition Act). Note that no such provision exists for businesses.

bodies acting on behalf of consumers. However, no firm judgement on the incidence of private claims can be made, as out-of-court settlements might far exceed the number of actual cases.

4.81 Opt-out class actions[72] are very common in the US. As such, a potential infringer expects these further costs, in addition to the penalties imposed by the authorities. Opt-out class actions are also available in Australia, although here their use in cartel cases is much more limited than in the US.

4.82 In the Netherlands affected companies or individuals may commence collective actions so that a collection of claims is brought by one authorised legal person. In such an action, the claimants can request that a cartel agreement be declared void and, at the same time, claim damages for loss suffered as a consequence of the infringement.

4.83 Germany allows claims to be submitted by third parties. This has happened in, for example, a current case following on from an FCO decision against a major cartel in the cement market. A Regional Court admitted a submission by a special purpose vehicle that had paid individual claimants for their 'share' in the case.

4.84 In our assessment, the US legal system provides the greatest incentives for private damages claims in antitrust cases. The liabilities faced by cartel members through such claims often exceed the magnitude of the antitrust fine. Besides the widespread use of class actions, there are two other crucial factors:

- treble damages (Section 4 of the Clayton Act, 15 U.S.C. § 15)[73] and
- the claimant is not liable for the defendant's costs if he loses the case.

4.85 None of the other jurisdictions follows the US in offering such strong incentives for private actions. In Europe, public enforcement has been preferred. Nonetheless,

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[72] These are class actions where class members are given the opportunity to opt out of the class and to pursue their own claims against the defendant(s).

[73] An exception is made for defendants that have received immunity from the DoJ: under the Antitrust Criminal Penalty Enhancement and Reform Act of 2004, they are only liable for actual (instead of treble) damages.

some jurisdictions, notably Germany, provide a benign environment for private actions, and they are, although not frequent, an established part of the German enforcement regime.

5 COMPARISON OF FINING PRACTICES ACROSS JURISDICTIONS[74]

5.1 In this section, we undertake a comparison of the fining practices of the UK and two of the other major jurisdictions discussed in this study, namely the US and EC. We concentrate on fines and on these jurisdictions because of data availability and ease of comparison. We first consider the average fines imposed on infringing firms as a proportion of both firm sales in the relevant market[75] and global firm turnover within the UK, US and EC. Second we analyse the stages of fine determination across the three jurisdictions. Finally we undertake a case study analysis of an EC fining decision and apply current UK, EC and US practice.

5.2 The main findings in this section are as follows:

Average fines[76]

- We looked at past fining data for the UK, for cases fined, between the years of 2001 to 2006. For the EC between 2003 and 2007 and for the US between 1999 and 2008.

- For all three jurisdictions, as is expected, the average fine level is increasing as firm sales in the relevant market increases.

- Where firm sales in the relevant market are between €50m and €170m, UK fines are expected to be on average 65 per cent lower than comparable EU fines. Above and below these levels there are not enough comparable observations to draw conclusions.

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[74] The OFT provided technical assistance with the data analysis contained in this section.

[75] At certain places in this section we also use the term 'affected commerce'. These terms refer to the turnover of the infringing firm in the market where the infringement took place for the entire duration of the infringement.

[76] Average fines are calculated as weighted averages where observations are weighted by relevant turnover (for average fines as a percentage of relevant turnover) or by global firm turnover (for average fines as a percentage of firms' global turnover).

- Where firm sales in the relevant market are greater than €600m, US average fines are expected to be approximately 40 per cent[77] lower than average EU fines. Below this point there are not enough comparable observations to draw conclusions.

- In the UK and EU, there is no evidence that global firm turnover is a significant driver of fines once firm sales in the relevant market is held constant. In the US there is some evidence to suggest that the fine size is increasing with global firm turnover.

Evolution of fining decisions and case study fine determination

- In our evaluation of the evolution of fining decisions the base fine (as a proportion of firm sales in the relevant market) starts at 9.3 per cent in the UK, 21.5 per cent in the EU and 20.0 per cent in the US. After initial adjustments the average fine increases to 12.1 per cent in the UK, 26.5 per cent in the EU and 33 per cent in the US.

- Consideration of aggravating and mitigating circumstances increases the average fine in the UK (from 12.1 per cent to 12.7 per cent) and EU (from 26.5 per cent to 31.3 per cent) but reduces it in the US (from 33 per cent to 27 per cent).

- Following the imposition of the fine cap in the UK and EU (at 10 per cent of global firm turnover), the average final pre-leniency fine is 12.6 per cent in the UK and 24.5 per cent in the EU. The average final fine as a proportion of affected commerce, after leniency, is 9.0 per cent in the UK, 15.8 per cent in the EU[78] and 21.5 per cent in the US.

- Our hypothetical case study shows fines in the UK are below the equivalent fines administered in the other jurisdictions. In the example presented after

[77] The US varies between 38 and 44 per cent lower than the EU average depending on the size of firm sales in the relevant market.

[78] The value for the EU does not match previous values of fine as a percentage of relevant turnover because only a subset of 48 observations had information on the fining levels at the different stages of the fine setting procedure.

paragraph 5.31, our analysis (of a serious infringement by a repeat infringer) illustrates that the pre-leniency fine as a proportion of firm sales in the relevant market is estimated at just under 20 per cent under OFT guidelines, compared to approximately 40 per cent under US guidelines, 23.3 per cent under the pre-2006 EC guidelines and over 80 per cent under the current EC guidelines.

- For the hypothetical case study, the gap between the UK fines and those of the other jurisdictions is driven by the relatively lower base amount in the UK and the large increase in fine imposed by the EC for repeat infringers under the new guidelines.

5.3 Given that the optimal deterrence may require fines that are a minimum of 100 per cent of firm sales in the relevant market, the UK (and the EU and US) may have room to increase fines.[79] However, this is tempered by the fact that fines are not the only instrument in the toolkit for achieving optimal deterrence.

Data sources and caveats

5.4 To undertake this analysis, we have relied on information from the OFT, the European Commission and the US Department of Justice on fining decisions and outcomes. Due to the way in which fining decisions are reported, we consider the pre-leniency financial penalty in the EU and in the UK. In relation to fining outcomes in the US, we are restricted to the consideration of final (that is, post-leniency) fines in excess of $10 million, which implies that the US data covers only the larger infringements.

5.5 To undertake this analysis, we use information on all fining decisions taken by the OFT between 2001 and 2006. The information provided by the OFT contained a total of 77 observations. All observations contain specific information on firm sales in the relevant market and 69 observations contained information on the total turnover of the firms involved. We also gathered information from specific EC fining decisions between 2003 and 2007. From the detailed and summary fining decisions published by the EC, we constructed a dataset containing 109 observations with relevant turnover (and subsequently firm sales in the relevant

[79] This is based on the findings from studies (see Chapter 2 – Literature Review) that suggest that cartel overcharges are in the region of 20-30 per cent and that the probability of detection is around 20 per cent.

market through the incorporation of duration data). In addition, we were able to generate 87 observations containing firm level data relating to global turnover. For fining decisions in the US, we collected information from the US Department of Justice. The data cover the period 1999 to 2008. The majority of the fining decisions contain relatively little information in relation to firm sales in the relevant market (affected commerce) or global turnover given the fact that most fining decisions are determined through plea bargaining. To bolster the data set, we collected information on total turnover from other public sources (for example, Bloomberg). In total, we collected 28 observations relating to US final fines as a proportion of firm sales in the relevant market and 58 relating to US final fines as a proportion of global firm turnover.

5.6 In addition, although we have complete information on the process of fine determination in the UK, there is more limited information for the EU and US. In the case of the EU, the full fining decisions are not always published, which leads to a relatively small number of complete information points involving post-2006 fining guidelines.[80] In addition to the lack of step-by-step information on fine determination in the summary decisions, some firm level financial information (such as global or sales in the relevant market) is redacted from the full decisions published by the Commission on grounds of confidentiality.

5.7 Finally it should be noted that the information from the US is generally limited by the fact that most fining outcomes are decided as part of plea agreements and thus only provide information on the final fine agreed between the parties.

Comparison of fine levels across jurisdiction

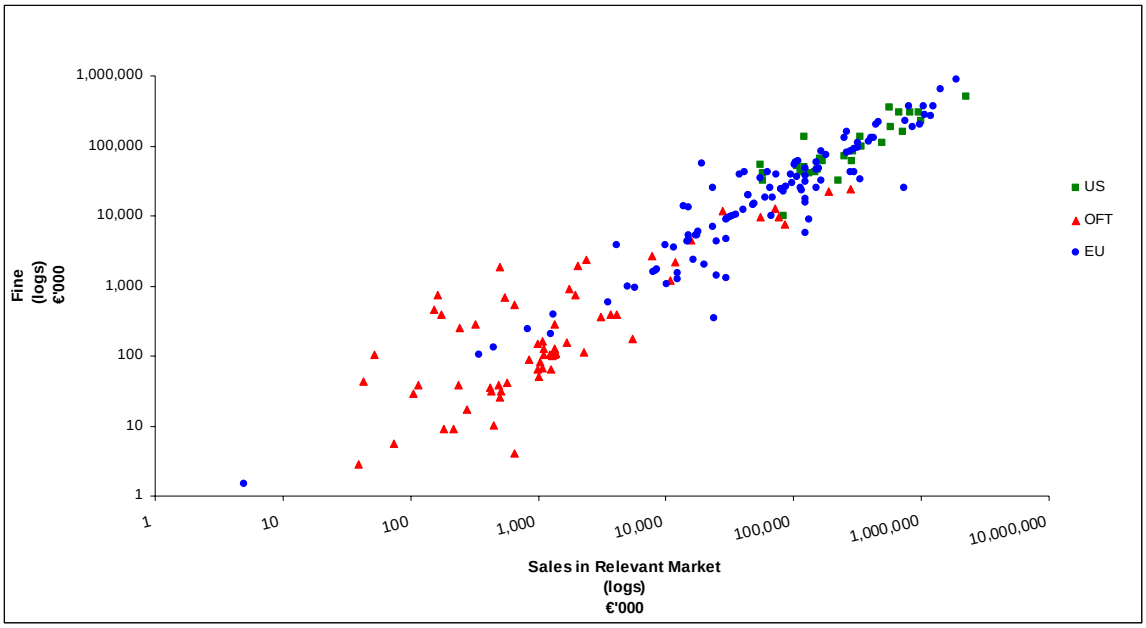
5.8 To make comparisons with fines across jurisdictions we need to ensure that all other substantive drivers of fines are held constant. Based on the literature review and our analysis of different jurisdiction guidance, we believe firm sales in the

[80] We have attempted to address this lack of data through estimating firm sales in the relevant market associated with each fine outcome determined under the current EC guidelines. We have incorporated all the information that has been published on the factors contributing to the final fines imposed and worked backwards to determine firm sales in the relevant market under the assumption that any serious infringement is associated with a fine that is 30 per cent of relevant turnover in the previous year.

relevant market and global firm turnover are important drivers. As such any cross jurisdiction comparison needs to ensure that these factors are accounted for.

5.9 To explore whether there is an empirical relationship between fines, firm sales in the relevant market and global firm turnover, we begin with a preliminary look at the data. Figure 5.1 and Figure 5.2 presents plots of fines against firm sales in the relevant market and global firm turnover respectively.

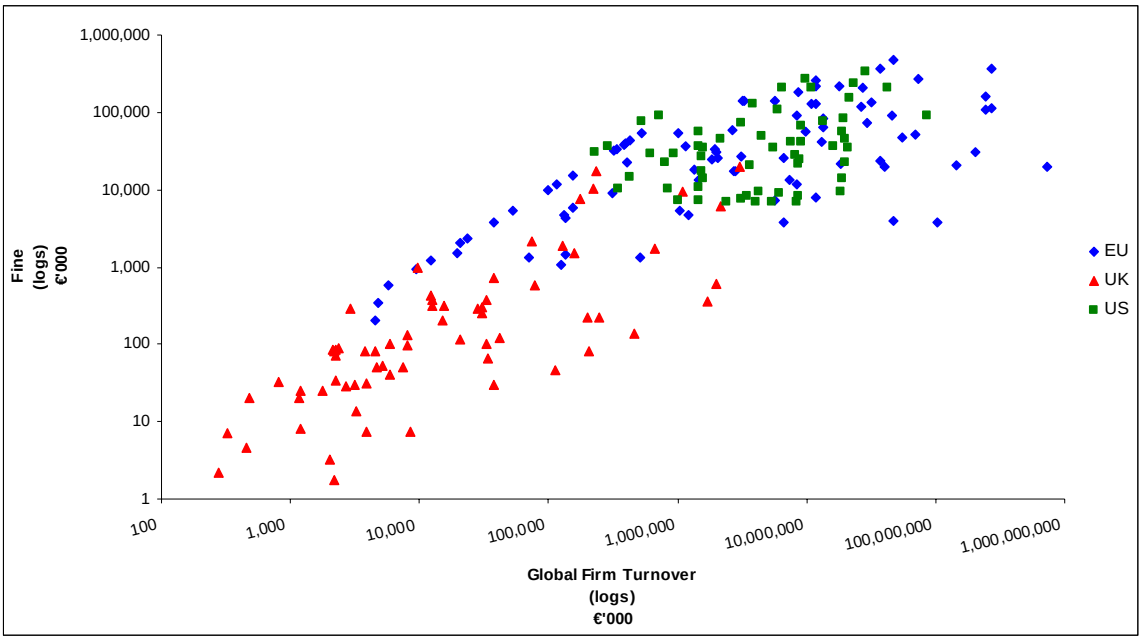
5.1 Relationship between fines and firm sales in relevant market



Note: EU and UK data uses pre-leniency fine data whilst US data uses post-leniency fine data.
Source: Analysis of OFT, US Department of Justice and EC data

5.10 The diagram above shows that, without controlling for global firm turnover, there appears to be a strong and positive correlation between fines and firms sales in the relevant market. This correlation can be seen both across all jurisdictions, and within each individual jurisdiction.

5.2 Relationship between fines and global firm turnover



Note: EU and UK data uses pre-leniency fine data whilst US data uses post-leniency fine data.
Source: Analysis of OFT, US Department of Justice and EC data

5.11 Likewise, without controlling for firm sales in the relevant market, there appears to be a positive relationship between fines and global firm turnover.

5.12 The relationship between fines and firm sales in the relevant market and global firm turnover can be examined in more detail by generating quartile ranges for each jurisdiction. To explore whether there are any underlying trends, we present them in terms of the absolute level of fines. This is illustrated in Figure 5.3 below.

5.3 Quartile averages for all jurisdictions combined – Absolute values[81]

	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
Average fine in each quartile based on firm sales in the relevant market (€000s)				
UK	141	1,691	22,075	47,000
EU	181	7,571	27,627	122,627
US	n/a	n/a	40,497	201,341
Average fine in each quartile based on global firm turnover (€000s)				
UK	128	2,848	6,606	n/a
EU	1,151	18,762	48,727	123,244
US	n/a	32,552	37,920	101,699

Note: There are no US fines below $10 million within our dataset.
Source: Analysis of OFT, US Department of Justice and EC data

5.13 The quartile averages presented in Figure 5.3 support the indicative evidence from the scatter plots in Figure 5.1 and Figure 5.2. For the UK, EU, and US, average fine based on sales in the relevant market is increasing across the quartiles. This suggests a positive relationship between fine levels and the size of the infringement – as the total sales in the relevant market increases, the fine level increases. Likewise, for all three jurisdictions, average fine based on global firm turnover increases across the quartiles. This suggests a positive relationship between fine levels and firm size – as global firm turnover increases, the fine level increases.

5.14 Comparing across jurisdictions, it appears that average UK fines are below that of the EU and the average EU fines are below that of the US except for the largest firms measured by global sales where EU average fines exceed the US. However, a comparison based simply on absolute magnitudes is not illuminating (as there are still differences in mix within each quartile). Another way of expressing fines is as a percentage of firm sales in the relevant market or as a percentage of global firm turnover. This may be a better way of comparing across jurisdictions when there are few observations in one particular quartile. This is shown in Figure 5.4.

[81] All observations across all three jurisdictions are ranked by firm sales in the relevant market and global firm turnover respectively and then broken into the four quartiles. Each jurisdiction's average fine is then reported for all its observations in each of the four quartiles.

5.4 Quartile averages for all jurisdictions combined - Percentages

	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
Average fine in each quartile as a percentage of firm sales in the relevant market				
UK	48.05%	29.23%	12.58%	9.14%
EU	27.73%	39.97%	34.68%	32.07%
US	-	-	36.78%	21.57%
Average fine in each quartile as a percentage of global firm turnover				
UK	2.07%	1.40%	0.24%	-
EU	8.70%	6.18%	1.43%	0.46%
US	-	6.56%	1.16%	0.60%

Note: There are no US fines below $10 million within our dataset.
Source: Analysis of OFT, US Department of Justice and EC data

5.15 Here the quartile averages expressed as percentages show that fines as a percentage of firm sales in the relevant market in the UK are again generally lower than those in the EU and US.[82] However, in contrast to the quartile ranges expressed as magnitudes (Figure 5.3), there are instances where the EU fines are higher than US where previously they had been lower and vice versa. For example, in the last quartile, expressing fines as a percentage of firm sales in the relevant

[82] Average UK fines appear to be higher than that of the EU for the first quartile. However, this may be driven by the lack of sufficient overlapping data to allow for a robust comparison.

market shows EU fines higher than the US whilst as magnitudes they were substantially lower.[83]

5.16 Comparing Figure 5.3 and Figure 5.4 it is clear that for some comparisons both the direction of which jurisdiction has higher fines, and the relative magnitudes of this direction, are sensitive to both the mix of fines in a quartile, and whether global firm turnover is held constant or firm sales in the relevant market is held constant. Therefore any comparison of fines should take account of both the firm sales in the relevant market and the size of firm. The simple analysis of the quartiles does not allow us to control for these differences simultaneously, nor the differences in the mix of observations, nor does it allow us to determine whether these comparisons are statistically significant.

5.17 For these reasons we have performed some very simple regression analysis in order to control for both firms sales in the relevant market and global firm turnover and determine the statistical significance of these variables. The basic linear model for fines is expressed as the following:

$$Fines_i = \alpha_i + \beta_{1i}\, firmsalesrelevantmarket + \beta_{2i}\, globalturnover + \varepsilon_i$$

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[83] The quartile averages for individual jurisdictions (that is, within jurisdiction quartile averages) suggest that for all three jurisdictions there is a positive relationship between the ratio of fines to total sales in the relevant market and fine levels and a positive relationship between the ratio of fines to global firm turnover and fine levels.

	First Quartile	Second Quartile	Third Quartile	Fourth Quartile
Average fine in each quartile as a percentage of firm sales in the relevant market				
UK	87.74%	38.10%	16.89%	19.27%
EU	31.93%	46.86%	30.63%	31.92%
US	35.89%	28.55%	22.90%	20.68%
Average fine in each quartile as a percentage of global firm turnover				
UK	2.27%	2.08%	1.92%	1.29%
EU	6.99%	3.70%	1.20%	0.24%
US	5.66%	1.13%	0.89%	0.41%

Source: Analysis of OFT, US Department of Justice and EC data

We note that unlike Figure 5.4, the table above is unsuitable for jurisdiction comparisons because it is based on individual jurisdiction quartiles. This means the fines in the same quartiles for different jurisdictions can be of very different magnitudes. For example, some fines in the fourth quartile in the UK are of the same magnitude as those in the first quartile of the US, this is because our dataset only had US fines above $10 million.

5.5 Regression results[84]

	EU model 1	EU model 2	UK model 1	UK model 2	US model 1	US model 2
α	1.294	1.771	0.301*	0.222	22.590*	15.274
(standard error)	(4.563)	(7.528)	(0.146)	(0.160)	(9.491)	(9.448)
β_1 (Sales in relevant market)	0.304**	0.253**	0.110**	0.109**	0.162**	0.155**
(standard error)	(0.013)	(0.020)	(0.005)	(0.006)	(0.016)	(0.015)
β_2 (Global firm turnover)		0.000		0.000		0.001*
(standard error)		(0.000)		(0.000)		(0.000)
R^2	0.835	0.780	0.873	0.871	0.803	0.836
Adjusted R^2	0.834	0.772	0.871	0.866	0.796	0.822
Number of fines	107	53	63	58	28	28

Source: Analysis of OFT, US Department of Justice and EC data

5.18 We proceed in a stepwise fashion by first controlling for sales in relevant market and then for global firm turnover. Figure 5.5, shows that firm sales in the relevant market is a strong and statistically significant determinant for the level of fine. However, controlling for sales in the relevant market, global firm turnover has no significant effect on the size of fines in the UK and EU[85,86] and a small, although statistically significant effect on the size of fines in the US. For these reasons we prefer model one for the EU and UK whilst model two for the US. It should be noted that even though only one or two variables are modelled, our preferred

[84] The constant (alpha) is in millions of Euros, converted using September 2009 exchange rate. Adjusted R^2 is adjusted for the number of variables in the model.* denotes significant at five per cent confidence level and ** denotes significant at one per cent confidence level.

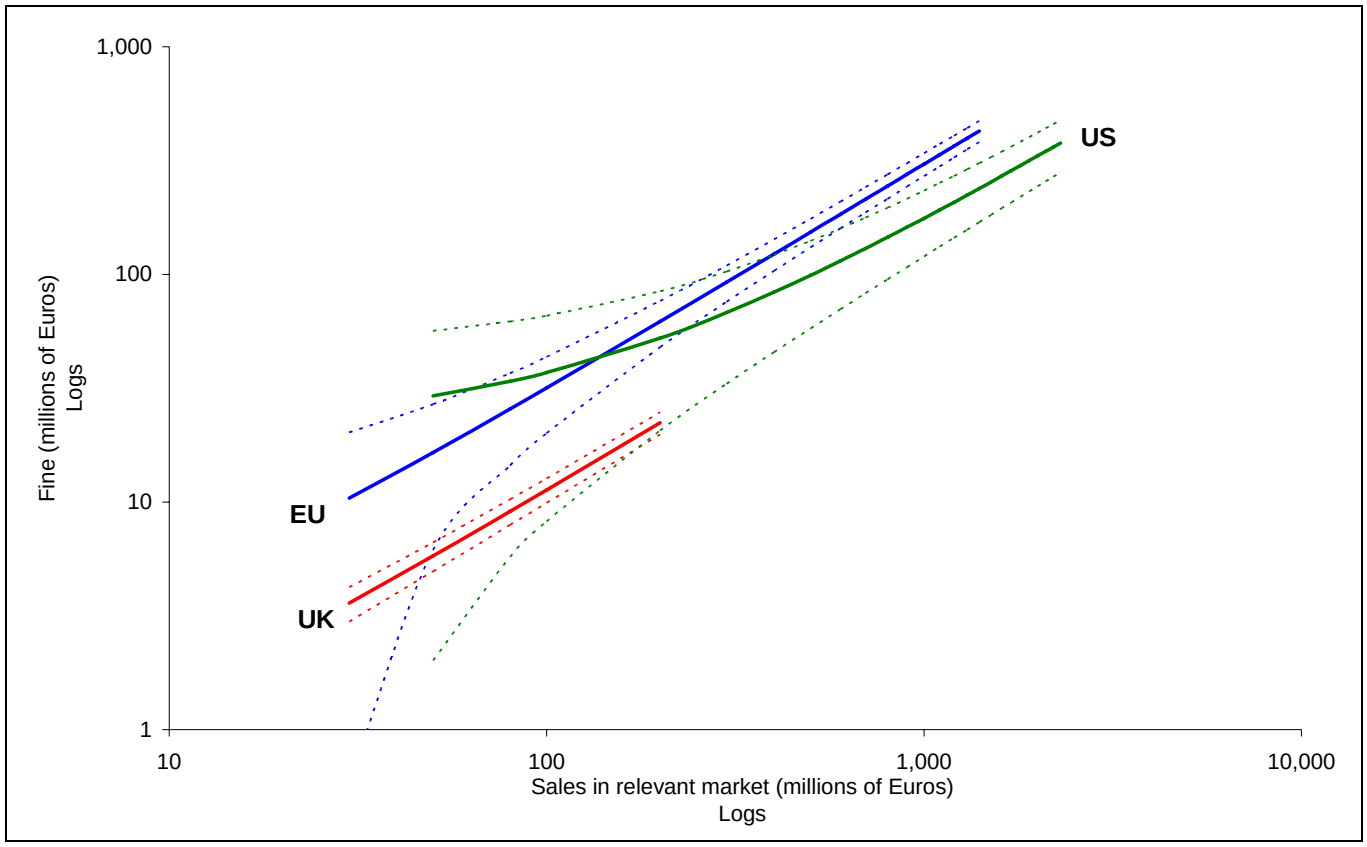
[85] We investigated further the finding that EU and UK fines were not related to global turnover, and in particular whether a non-linear relationship exists. To examine this, we plotted the standardized residuals from the regression of fine size onto affected commerce value against the logarithm of global turnover. For the EU, there was no significant linear correlation (probability of no correlation 0.50) and visual inspection of a scatter plot confirmed this finding. For the UK, one relatively large fine was a distance from the rest of the data. When this was removed, there was no significant linear correlation in the rest of the UK sample either (probability of no correlation 0.17).

[86] The relationship between global firm turnover and fines for the EU and UK (as shown in Figure 5.2) is predominantly driven by correlation between global firm turnover and sales in the relevant market. Testing for multicollinearity reveals that for the UK and EU, firm sales in the relevant market is correlated with global firm turnover. In the US, this collinearity does not exist.

models explain a very high amount of the variation in fines (80 - 90 per cent) within jurisdictions.

5.19 The regression equations allow us to plot (using logarithmic scales) each jurisdiction's predicted average fine given firm sales in the relevant market in the diagram below. In addition we have plotted the 95 per cent confidence intervals around the expected fines. Thus with 95 per cent probability the fine will be within these boundaries for a given level of firm sales in the relevant market.

5.6 Estimated average fines against firm sales in the relevant market



Source: Analysis of OFT, US Department of Justice and EC data

5.20 The diagram only shows the relationship between the fine and firm sales in the relevant market for the values within which there are significant observations. For example we do not say anything for the UK above €170m because there are not enough observations to make robust predictions. The differences in these values

reflect the differences in the mix of observations across jurisdictions. This means that we are not able to draw strong conclusions for a comparison between the UK and US. There is highly limited overlapping data to allow for a reliable and significant comparison – large infringements in UK are several multiples smaller than small infringements in the US sample.

5.21 In addition, in making comparisons across jurisdictions we have taken the conservative view of only drawing conclusions when the upper and low boundaries intersect. For example we conclude that for UK and EU, for infringements between €50m (the point at which the UK upper bound intersects the EU lower bound) and €170m, UK average fines are expected to be lower than EU average fines. Below sales in the relevant market of €50m and above €170m we cannot say with 95 per cent confidence that UK average fines will be below those of the EU.

5.22 Taking this into account, a comparison between the EU and UK shows that for sales in the relevant markets between €50m and €170m, the EU average fine is expected to be about €194,000 higher for each million of extra sales in the relevant market. That is, the UK average fine is expected to be approximately 65 per cent lower than the EU average fine.[87,88]

5.23 With regards to a comparison between the EU and the US, we cannot say with statistical significance that there is an expected difference between the average size of fines for relevant markets up to €600m (the intersection of the EU lowerbound and US upperbound confidence intervals). For markets that are bigger than €600m, EU average fines are expected to be about €54,000 to 149,000 higher for each million increase in market size. This equates to US average fines being approximately 40 per cent lower than EU average fines (depending on firm sales in the relevant market).[89]

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[87] UK varies between 64% and 65% lower than the EU average depending on the size of firm sales in the relevant market.

[88] As stated in the previous section it is important to note that for both UK and US comparisons with the EU, corporate fines are not the sole elements of an optimal deterrence policy.

[89] The US varies between 38% and 44% lower than the EU average depending on the size of firm sales in the relevant market. These estimates were calculated using the median firm global turnover for all of the US firms in the sample of fines.

Fines and size of firm sales in the relevant market

5.24 Controlling for the size of firm, for all three jurisdictions, there is a positive relationship between fines and firm sales in the relevant market. This implies that as the size of the market directly affected by the infringement increases, the average financial penalty increases. This should not be surprising given that all three jurisdiction guidelines use firm sales in the relevant market as a starting point for fine determination.

Fines and size of global firm turnover

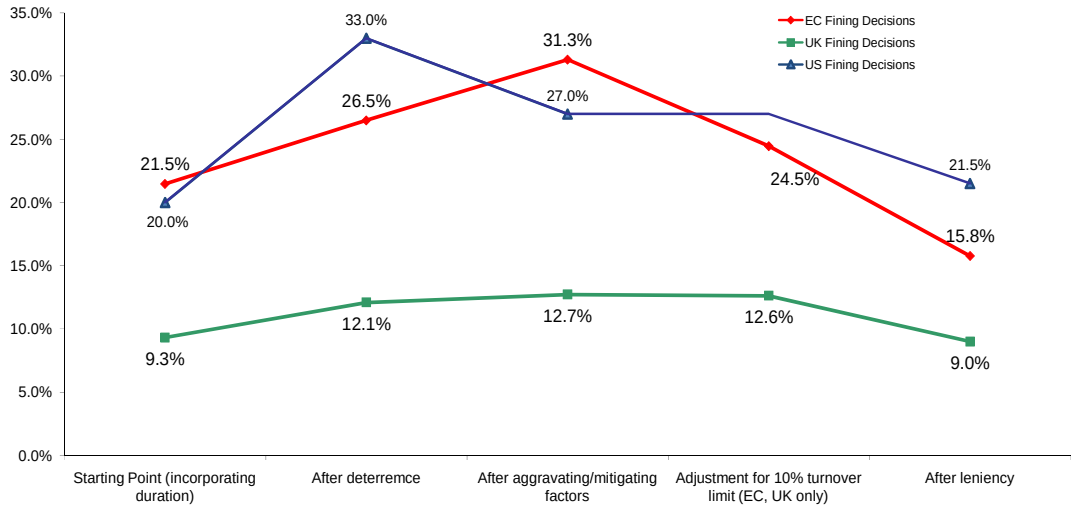
5.25 Figure 5.5 showed that global firm turnover has no significant effect on the size of fines in the UK and EU. As such there is no evidence that, for a given level of firm sales in the relevant market, large firms are fined higher than small firms or vice versa. For the US, there is a small but significant positive relationship between global turnover and fines suggesting that the fine level is increasing in firm size.

Fine stages across different jurisdictions

5.26 In this section, we illustrate the evolution of fining decisions across the three jurisdictions. It is important to note that there are data limitations in the analysis – especially in respect to the EC and US fining decisions. In the previous section, we were able to illustrate the level of pre-leniency fines (in the EU) due to the fact that this information is generally available from the European Commission in its case summaries and press releases. However, it is generally the case that information relating to step-by-step fine is unavailable. As such, for the European Commission decisions, we consider a subset of the sample used in the previous section and hence the results are not directly comparable.

5.27 In Figure 5.7, we present the evolution of fines as a proportion of firms' sales in the relevant market in the three jurisdictions.

5.7 Fine stages as a proportion of firm sales in the relevant market in the UK, EC, and US



Source: Analysis of OFT, US Department of Justice and EC data

5.28 The analysis illustrates that there is a sizeable difference in the average starting amount for fines. In the UK, the average starting point as a proportion of firm sales in the relevant market is 9.3 per cent compared to 21.5 per cent in the EU and 20 per cent in the US. The next element of fine determination involves the incorporation of a deterrence factor. This raises the average fine as a proportion of firm sales in the relevant market turnover to 12.1 per cent in the UK, 26.5 per cent in the EU and 33 per cent in the US.

5.29 In the UK, the fourth step of fine determination involves the adjustment of the fine for aggravating and mitigating circumstances. It was not possible to disaggregate the available information to assess the relative impact of individual aggravating and mitigating circumstances, however, it is interesting to note that the average fine as a proportion of firm sales in the relevant market increases to 12.7 per cent in the UK and 31.3 per cent in the EC, compared to a reduction in the fine level in the US to 27.0 per cent (which is primarily a result of co-operation with the authorities and acceptance of responsibility).

5.30 The final stage of the fine determination process involves adjusting the fine (if necessary) in the UK and EC to ensure that the total fine is not greater than 10 per

cent of the global turnover of the firm in question. There are a larger number of firms affected by the 10 per cent cap in the EC compared to the UK, as indicated by the fact that this step reduces the average fine as a proportion of affected commerce to 24.5 per cent compared to a marginal reduction in the fine to 12.6 per cent in the UK. The financial penalty as a proportion of total turnover is not capped in the US.

Hypothetical fining decisions

5.31 In this section, we provide some additional analysis on the fining outcomes for a particular European Commission cartel case (Hydrogen Peroxide (2006)[90]). The fining decision in this case occurred under the 2002 EC fining guidelines. As such, we have supplemented the description of actual outcomes with an assessment of the potential fines that might have been imposed under the OFT guidelines, as well as the potential fines that might have been imposed by the European Commission under the current guidelines and under the US guidelines. This specific cartel case has been selected because there are a range of factors that are considered in the case. In addition, two of the main firms involved (Solvay and Akzo Nobel) have also been the subject of a plea bargain in the United States for a similar type of infringement in the same product at the same time.[91]

5.32 The two cases provide an interesting illustration of how the jurisdictions differ in their treatment of very serious infringers (the first case) and infringers that benefit from discounts for leniency and/or co-operation in the investigation outside respective leniency notices.

5.33 We present a summary of the fining information in relation to Solvay in Figure 5.8 and fines as a proportion of affected commerce[92] in Figure 5.9, while the equivalent information is presented in Figure 5.10 and Figure 5.11 for Akzo Nobel.

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[90] European Commission Case COMP/F/C.38.620.

[91] There are a number of differences in the cases brought by the European Commission and US DoJ (such as duration of the infringement and the role of the parties). Therefore, we apply the US fining guidelines to the case presented in the European Union.

[92] We use the concept of affected commerce in this case in an attempt to maintain some degree of comparability across jurisdictions. This is US term for the concept of firm sales in the relevant market.

Fine determination against Solvay

Starting Point

5.34 As presented in Figure 5.8, Solvay generated a worldwide turnover of approximately €8.562 billion across all operations in 2005 (the year preceding the fine determination). The European Commission indicated that the total size of the market affected by the cartel in the final year of the infringement was in the region of €470 million, with Solvay accounting for approximately 20-30 per cent of market share (estimated to be in the region of €115 million).

5.35 We estimate the affected commerce as the duration of the infringement times the relevant turnover associated with the infringement in the final year of the cartel activity. This is €795 million.

5.8 Comparison of Solvay fines under European Commission (pre and post 2006), OFT and US fining guidelines (€million)

	EC pre 2006	EC post 2006	OFT	US
Global Turnover (2005)	€8,562m	€8,562m	€8,562m	€8,562m
Relevant turnover (last year of infringement)/	€115.0m	€115.0m	€115.0m	€115.0m
Duration of cartel	6 years 11 months	6 years 11 months	6 years 11 months	6 years 11 months
Affected commerce	€795.4m	€795.4m	€795.4m	€795.4m
Category/gravity	Category 1 - Very serious			
Starting Point	€50.0m	€34.5m (Market Size x 0.3)	€11.5m (Step 1: 10% of relevant turnover)	€159.0m - €318.0m (20-40% of affected commerce)
Adjustment for 'entry fee'	-	+ €23.0m (Market Size x 0.2)	-	-
Adjustment for size of undertaking	€75.0m (Starting point x 1.5)	-		€318.0m - €636.0m
Adjustment for duration	€123.7m (10% per annum)	€264.5m (100% per annum)	€80.5m (Step 2: 100% per annum)	€318.0m - €636.0m
Base amount	€123.7m	€264.5m	€80.5m	€318.0m - €636.0m
Adjustment for seriousness and			€104.6 (Step 3: 30% increase)	-

	EC pre 2006	EC post 2006	OFT	US
deterrence				
Adjustment for recidivism	€185.6m (50% increase)	€529.0m (100% increase)	€156.9m (Step 4: 50% increase)	€381.8m - €763.6m
Adjustment for co-operation and acceptance of responsibility	-	-	-	€318.0m - €636.0m
Adjustment for size of undertaking	-	€661.2m (25% increase)	-	-
Adjustment for fine cap	€185.6m	€661.2m	€156.9m (Step 5)	€318.0m - €636.0m
Final fine pre-leniency	€185.6m	€661.2m	€156.9m	€318.0m - €636.0m
Leniency	€167.0m (10% reduction)	€595.1m (10% reduction)	€141.2m (10% reduction)	€286.3m - €572.6m
Settlement				€286.3m
Final Fine	€167.0m	€595.1m*	€141.2m*	€286.3m*
Final fine as a proportion of affected commerce**	21.0%	74.8%	17.8%	36%
Final fine as a proportion of global turnover	1.95%	6.95%	1.65%	3.34%

Note: * Hypothetical fine **Affected commerce is estimated as the size of the marker in the last year of the infringement times the duration for which the cartel operated

5.36 Given the market share of Solvay and the duration of the infringement (six years and 11 months), the Commission rated the involvement of the organisation as being Category 1 (or a very serious infringement).[93] This resulted in an initial starting point of €50 million.

5.37 Under the current EC guidelines, a fine at or close to the upper limit of 30 per cent of relevant turnover in the last year of the infringement would be imposed. In this case, this is equivalent to €34.5 million. In addition, we have adjusted the fine to incorporate an entry fee, which is levied for straightforward participation in cartel

[93] These will generally be horizontal restrictions such as price cartels and market sharing quotas, or other practices which jeopardise the proper functioning of the single market, such as the partitioning of national markets and clear-cut abuse of a dominant position by undertakings holding a virtual monopoly.

activity. This is set in the range of 15-25 per cent of one year turnover and we have taken 20 per cent, the mid-point of the range. This corresponds to an extra €23.0 million.

5.38 According to OFT guidelines, the base fine may not exceed 10 per cent of relevant turnover. The maximum starting point fine level under OFT guidelines would thus be €11.5 million. For the purpose of this example we will assume that the starting point is 10 per cent.

5.39 In the United States, the starting fine range is set at between 20 per cent and 40 per cent of affected commerce over the duration of the infringement. This implies a base amount of between €159.0 and €318.0 million.

Adjustment for size of undertaking

5.40 Under the pre-2006 EC guidelines, the starting point is adjusted as a function of the size of the undertaking. Given the significant worldwide turnover of Solvay, this resulted in a multiplicative factor of 1.5 being adopted, raising the fine to €75 million. Under the current EC and OFT guidelines the size of the undertaking is considered at a later stage of the fining process.

5.41 In the United States, Solvay has more than 5,000 employees and as such an additional 5 culpability points would be imposed on the organisation. This factor doubles the fine to between €318.0 and €636.0 million.[94]

Duration

5.42 The duration of the infringement for Solvay was six years and 11 months and, under the 2002 EC fining guidelines, the adjustment for the duration led to an increase in fine by a factor of 0.65, bringing it to €123.75 million.

5.43 The 2006 EC Guidelines treat duration very differently and in a similar situation would have increased the fine by a factor of 7 (100 per cent per year of duration, rounded up). Therefore, under the current EC guidelines, the base fine would stand at €264.5 million, which is more than double the base fine under the previous

[94] Given the information, we have estimated the fine per culpability point to be approximately €31.8 million.

system of fine determination. The OFT would also multiply the starting fine by the number of years of infringement, resulting in a base amount of €80.5 million.[95] There is no adjustment for duration under the US system at this point given that duration is already encompassed in the definition of affected commerce.

Adjustment for deterrence and seriousness

5.44 Step 3 of the OFT fining guidelines allows for an adjustment to the calculated fine for other factors, including deterrence. Using information on previous fining decisions imposed by the OFT, we have been able to estimate that the average increase in the fine level at this stage of fine determination has been approximately 30 per cent. Therefore, we have assumed that the size of the fine is increased by 30 per cent. This results in an increase in the fine to €104.6 million.

Recidivism

5.45 The second fundamental difference between the previous and current EC fining guidelines relates to recidivism. The Commission indicated that Solvay had previously participated in previous cartel activity and as such the base fine should be increased by 50 per cent thereby increasing the fine to €185.62 million.

5.46 Under the current EC guidelines, recidivism is treated more harshly, and the base fine is increased by 100 per cent for each previous infringement. Application of this adjustment would result in an increase in the fine imposed on Solvay to €529 million (more than three times the fine imposed under the previous guidelines).

5.47 Recidivism is considered in Step 4 of the OFT's fining guidelines, which concerns aggravating and mitigating circumstances. Although there is no specific guidance on how recidivism is treated, in consultation with the OFT, it has been suggested that recidivism would result in a fine increase of approximately 50 per cent. This brings the OFT fine to €156.97 million.

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[95] According to the OFT Guidance, penalties for infringements which last for more than one year may be multiplied by not more than the number of years of the infringement. Part years may be treated as full years for the purpose of calculating the number of years of the infringement.

5.48 In the United States, prior history of infringements is subject to a maximum increase in culpability score of 2, raising the fine to the range €381.8-€763.6 million. The differential treatment of recidivism between current EC practice and the US guidelines is striking.

Aggravating and mitigating circumstances

5.49 In the original EC cartel case, there were no adjustments made to reflect aggravating and mitigating circumstances in this case.

5.50 As discussed in paragraph 5.29, the impact of aggravating and mitigating circumstances is more likely to reduce the average fine imposed on firms in the United States. The information from sentencing outcomes illustrates that infringers culpability scores are more often than not reduced if the infringer provides full co-operation with the authorities and accepts responsibility for the infringement. In addition, the information contained in the plea bargain in the equivalent case brought in the US indicates that co-operation and acceptance of responsibility resulted in a 2 point reduction in culpability score. As such, we have assumed that Solvay's culpability score would decrease by two points under US fining guidelines to account for the full co-operation and acceptance of responsibility of the firm of the illegal activity undertaken. This reduces the expected size of the minimum fine range to €318.1-€636.2 million (or 40-80 per cent of affected commerce).

Adjustment for size of undertaking

5.51 The current EC fining guidelines adjust the calculated fine to account for the size of the undertaking at a later stage of the process. Based on adjustments made in cases involving firms of a similar size, we have assumed that the fine imposed on Solvay increases by 25 per cent to reflect the global turnover of the firm. This results in a fine of €661.2 million.

Leniency

5.52 The final stage of fine determination involves adjustment for leniency. The Commission reduced the fine imposed on Solvay by 10 per cent to account for the co-operation provided by the organisation during the investigation. The impact of this reduction on the grounds of leniency was to reduce the final fine imposed by the Commission to €167.1 million (or 21.0 per cent of affected commerce).

Adopting the same reduction for leniency, the current EC fining guidelines would result in a fine for Solvay of €595.1 million (or 74.8 per cent of affected commerce). We have assumed that the OFT guidelines would treat the co-operation of the infringer such that this would result in a reduction in the OFT fine by 10 per cent. This would produce a final hypothetical fine of €141.27 million (or 17.8 per cent of affected commerce).

5.53 We have also assumed a 10 per cent reduction in the minimum fine in the US to account for leniency. The final expected fine range for Solvay is estimated to be between €286.3 million and €572.7 million (between 36 per cent and 72 per cent of affected commerce) to be determined by the courts.

5.54 It is clear that the expected fine based on US sentencing guidelines is significantly in excess of the statutory maximum ($100 million). As such, it is likely that the fine would be determined under the Alternative Sentencing guidelines, whereby the total fines incurred by the cartel member may be up to twice the damages associated with the entire cartel (that is, potentially jointly and severally liable). Under this interpretation, rather than the estimate of Solvay's affected commerce being in the region of €795 million, the affected commerce associated with the entire market would be estimated to be closer to €3.25 billion. Assuming a cartel mark up of 10 per cent for the purpose of this exercise, this would imply that Solvay would be liable for a fine of €650 million. Given the alternative sentencing guidelines, the process of settlement becomes even more central to final fine determination.

5.55 With the possibility of final fines being lower than the minimum fine guide,[96] for illustration purposes, we have assumed that the final fine following settlement stands at the minimum of the range - €286.3 million (or 36 per cent of affected commerce).

5.56 The entire process of fine determination is presented in Figure 5.9 below.

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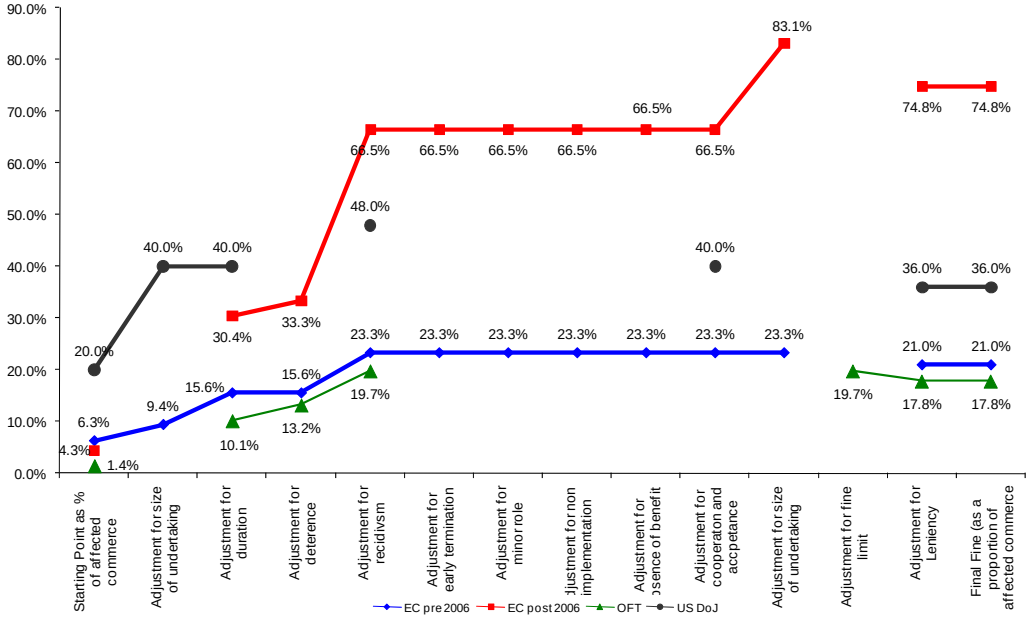
[96] In the United States' Hydrogen Peroxide case, the final fine imposed on Solvay was lower than the suggested minimum fine. Specifically, Solvay was fined $40.87 million compared to a suggested minimum fine of $62.64 million. The substantial leniency offered was in part due to the co-operation and assistance offered by Solvay during the investigation and also the fact that they were considered to have been less tolerant of criminal activity (compared to Akzo Nobel).

5.57 One final point to note is that although the final fine in the US is lower than the hypothetical fine under EC fining guidelines, it appears that private actions in the US substantially increased the financial burden on Solvay. The actual joint sentencing memorandum in the US imposed a fine of $40.87 million (€31.8 million) on Solvay. The settlement of the class action was approximately $20.5 million (€15.9 million) equivalent to a 50 per cent increase in the financial exposure.

5.9 Comparison of fining decision by the European Commission pre and post 2006, United States and current OFT fining guidelines (proportion of 'affected commerce') for Solvay (Hydrogen Peroxide)



Source: Analysis of OFT, US Department of Justice and EC data

5.58 In sum, using the UK guidelines, UK fines would be 15 per cent below the actual EU fine (76 per cent below the estimated fine level using current EU guidelines), and 50 -75 per cent below the estimated fine level derived by a theoretical application of the US methodology.

Fine determination against Akzo Nobel

Starting Point

5.59 As shown in Figure 5.10, Akzo Nobel generated a worldwide turnover of approximately €130 billion across all operations in 2005 (the year preceding the fine determination). The Commission indicated that the total size of the market affected by the cartel in the final year of the infringement was in the region of €470 million, with Akzo Nobel accounting for approximately 10-15 per cent of market share (estimated to be in the region of €51 million).

5.60 The European Commission indicated that Akzo Nobel's infringement was a minor infringement[97] and given the market share of Akzo Nobel and the duration of the infringement (five years and 11 months), rated the involvement of the organisation as being Category 3. This resulted in an initial starting point of €20 million.

5.61 Under the current EC guidelines, rather than impose a 'recommended' fine on infringers, we have estimated that the Commission would impose a fine of 30 per cent of relevant turnover (for hardcore cartel activity) in the last year of the infringement, which is equivalent to €15.3 million. In addition, under current EC guidelines there is an additional fine imposed to provide additional deterrence (the entry fee). This was estimated to be 20 per cent of relevant turnover in the final year of cartel activity (€10.2 million) which raises the fine to €25.5 million.

5.62 We have also attempted to estimate the starting point of fines under current OFT guidelines. Under the assumption that horizontal price fixing activity results in a starting fine of 10 per cent of relevant turnover, the starting fine under OFT guidelines would be €5.1 million.

5.63 In the United States, the starting point is assumed to be between 20 per cent and 40 per cent of affected commerce (€301.75 million). This implies that a fine range of €60.3-€120.6 million would be imposed at this stage of the process.

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[97] These might be trade restrictions, usually of a vertical nature, but with a limited market impact and affecting only a substantial but relatively limited part of the Community market.

5.10 Comparison of Akzo Nobel fines under the European Commission pre and post 2006, OFT and US fining guidelines (€million)

	EC pre 2006	EC post 2006	OFT	US
Global Turnover ('05)	€130,000m	€130,000m	€130,000m	€130,000m
Relevant turnover (last year of infringement) –	€51.0m	€51.0m	€51.0m	€51.0m
Duration of cartel	5 yrs 11 months	5 yrs 11 months	5 yrs 11 months	5 yrs 11 months
Affected commerce	€301.75m	€301.75m	€301.75m	€301.75m
Category	Category 3			
Starting Point	€20.0m	€15.3m (Relevant turnover x 0.3)	€5.1m (Step 1: 10% of relevant turnover)	€60.3m-€120.6m (20-40% of affected commerce
Adjustment for 'entry fee'	-	+ €10.2m (Relevant turnover x 0.2)	-	-
Adjustment for size of undertaking	€35.0m (Starting point x1.75)	-		€120.7m-€241.4m
Adjustment for duration	€42.0m (10% per annum)*	€40.8m (100% per annum)*	€10.2m (Step 2: 100% per annum)*	-
Base Amount	€42.0m	€40.8m	€10.2m	€120.7m-€241.4m
Adjustment for seriousness and deterrence	-	-	€13.3m (Step 3: 30% increase)	-
Adjustment for recidivism	€42.0m	€40.8m	€13.3m (Step 4)	-
Adjustment for co-operation and acceptance of responsibility	-	-	-	€96.5m-€193.0m
Adjustment for size of undertaking	-	€61.2m (50% increase)	-	-
Adjustment for fine cap				-
Final fine pre leniency	€42.0m	€61.2m	€13.3m	€96.5m-€193.0m
Leniency	€25.2m (40% reduction)	€36.7m (40% reduction)	€23.8m (40% reduction)	€57.9m-€115.8 (40% reduction)
Final Fine	€25.2m	€36.7m	€23.8m	€57.9m
Final fine as a proportion of affected commerce**	8.4%	12.2%	7.9%	19.2%%
Final fine as a proportion of global turnover	0.019%	0.028%	0.018%	0.044%

Note: *Under normal circumstances, under the pre 2006 (post 2006) fining guidelines, the size of the fine is increased by 10 per cent (100 per cent) for each full year for which the cartel operated (and five per cent (100 per cent) for each period between six months and one year). In this case, this should have resulted in an increase in the fine by 55 per cent (600 per cent). However, the duration adjustment was capped at the equivalent of two years (or 20 per cent (200 per cent) under the pre-2006 (post 2006) guidelines)). In the case of the post 2006 guidelines, the adjustment for duration affects only the starting point (not the entry fee). **Affected commerce is estimated as the size of the market in the last year of the infringement times the duration for which the cartel operated

Adjustment for size of undertaking

5.64 Under the previous EC guidelines, the first adjustment of the starting point is to reflect the size of the undertaking. Given the enormous worldwide turnover of Akzo Nobel, this multiplicative factor was determined by the Commission to be 1.75, which raised the fine to €35 million. The adjustment for firm size under the current EC and OFT guidelines are implemented at a later stage of the fining process.

5.65 In the US, given the fact that Akzo Nobel has more than 5,000 employees an additional five culpability points would be imposed on the organisation. This doubles the fine range levied to €120.6-€241.2 million.

Duration

5.66 The first major divergence between the previous and current EC fining practices relates to the treatment of duration. Under the previous EC guidelines, for each full year of the infringement, the fine was increased by 10 per cent (and five per cent for each period in excess of six months but less than a year). Given the fact that Akzo Nobel was complicit in the infringement for five years and 11 months, this should have led to an increase in the fine by 55 per cent. However, the Commission determined that the information provided by Akzo assisted in the determination of the length of the infringement and capped the adjustment to the fine at 20 per cent (the equivalent of two years of participation). This resulted in

the estimation of the base fine at €42 million. If duration had been treated normally under the guidelines, the base fine would have been €54.25 million.[98]

5.67 The EC currently increases the fine by 100 per cent per year of duration (rounded up). If the same leniency reduction was offered to Akzo under the current EC guidelines, the base fine would stand at €40.8 million, which is just below the base fine under the previous system of fine determination. Had the current guidelines been applied without the additional leniency for co-operation, Akzo's base fine would be in the region of €102 million.

5.68 The OFT guidelines treat duration in a similar way[99] as the European Commission and as such after Step 2 of the fining guidelines, the fine imposed on Akzo (assuming no additional adjustment for leniency) would be €30.8 million. For the sake of comparability, if the same duration adjustments were made by the OFT, the fine imposed following this step of fine determination would stand at €10.2 million.

5.69 The US already incorporates duration into the estimation of affected commerce, so there is no additional adjustment to account for duration. The fine levied after this stage remains in the range €120.6-€241.2 million, which is significantly higher than the current EC fining guidelines, though only marginally higher were additional leniency discounts not offered by the Commission in this case.

Adjustment for deterrence

5.70 Step 3 of the OFT fining guidelines makes an adjustment to the calculated fine to reflect other factors, including deterrence. Using information from the OFT, we have been able to estimate that the average increase in the undertaking's fines has been approximately 30 per cent. Therefore, we have assumed that the size of the

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[98] Under paragraph 26 of the EC Leniency guidelines, 'If the applicant for a reduction of a fine is the first to submit compelling evidence in the sense of point (25) which the Commission uses to establish additional fact increasing the gravity or the duration of the infringement, the Commission will not take such additional facts into account when setting any fine to be imposed on the undertaking which provided this evidence.' See http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:298:0017:0022:EN:PDF for further details.

[99] There may be some difference in the way the two authorities 'round off' turnover amounts referring to partial years, which would make a small impact for the purpose of this example.

fine is increased by 30 per cent to reflect the worldwide turnover of Akzo Nobel, which increases the fine to €13.3 million.

Recidivism

5.71 The Commission indicated that Akzo had not participated in previous cartel activity and as such the base fine should not be altered. Recidivism is considered in Step 4 of the OFT's fining guidelines (as an aggravating circumstance), however, given the fact that there was no previous illegal activity, the OFT fining decision has not been altered at this Step. Similarly, in the United States, recidivism can result in an increase in the culpability score by two (equivalent to an increase in the fine by €24.1 million in this case). For determining the fines under US guidelines, we assume the same case facts as in the EC case and do not alter the fine on account of recidivism.

Aggravating and mitigating circumstances

5.72 The various undertakings party to the infringement requested that their fines be reduced as a result of a number of mitigating circumstances including early termination, playing a minor role, non-implementation and absence of firm benefit. The Commission indicated that none of these mitigating circumstances applied to Akzo Nobel. As such the fine remained at €42 million under the previous Commission guidelines, €40.8 million under the current Commission guidelines, €13.3 million under OFT guidelines and between €120.6 and €241.2 million under US guidelines.

5.73 In the United States, we have assumed that the culpability score decreases by two (equivalent to €24.1 million) to account for the full co-operation and acceptance of responsibility of the firm of the illegal activity undertaken. We have assumed that this mitigating factor reduces the fine in this case, as in the equivalent case brought in the United States, both parties received a reduction in culpability score for this activity. This reduces the expected size of the fine range to between €96.5 and €193.0 million.[100]

Later adjustment for size of undertaking

5.74 The current EC fining guidelines adjust the calculated fine to account for the size of the undertaking at a later stage of the process. Given the available information relating to the treatment of firm size on penalties, we have assumed that the fine imposed on Akzo Nobel increases by 50 per cent to reflect the global turnover of the firm resulting in a fine of €61.2 million.

Statutory cap

5.75 None of the fine ranges considered in this case reached the statutory cap of 10 per cent of worldwide turnover.

Leniency

5.76 The final stage of fine determination involves the explicit adjustment for leniency. In addition to the leniency offered to Akzo Nobel (in relation to the reduced impact of duration), the Commission reduced the fine calculated at the previous step by 40 per cent. The impact of this reduction on the grounds of leniency was to reduce the final fine imposed by the Commission to €25.2 million. Adopting the same reduction for leniency, the current EC fining guidelines would result in a fine

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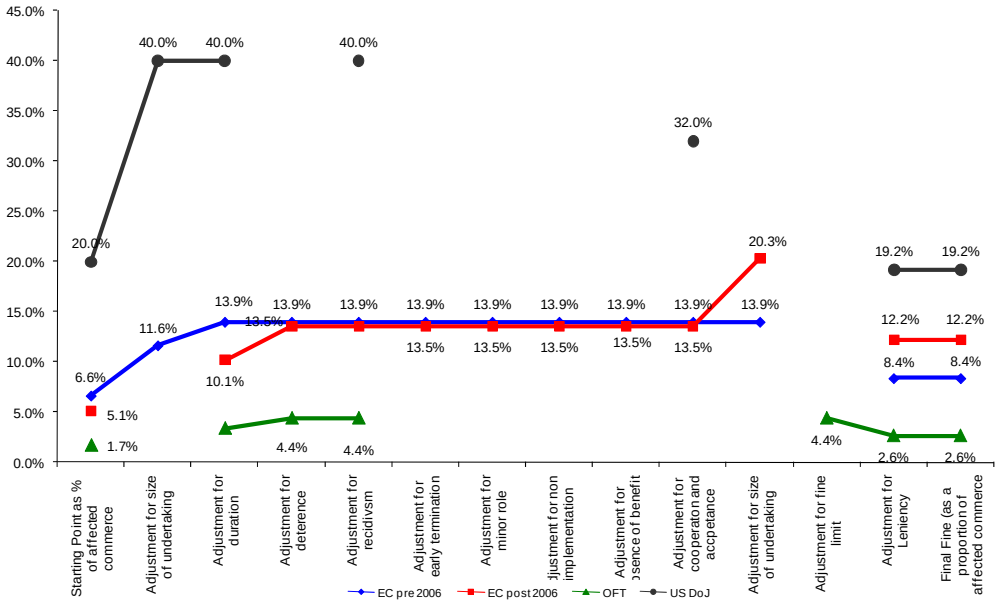
[100] In general terms, the fines under the EC fining guidelines are greater than the final fines imposed in the US and under previous EC guidelines. However, in this example, the special treatment of duration by the European Commission has resulted in a substantially lower fine than would normally be the case. In particular, if duration was treated strictly as per the guidelines with no additional account taken for leniency, the fine imposed following the incorporation of aggravating and mitigating circumstances would be €102 million compared to between €96 million and €192 million n the US and €57 million under the previous EC guidelines.

for Akzo Nobel of €36.7 million, while the OFT guidelines would indicate a final fine of €7.96 million.

5.77 With a similar treatment of leniency in the US, the final expected fine range for Akzo Nobel is estimated to be between €57.9 million and €115.8 million to be determined by the courts. It is possible for the final fine to be lower than the suggested minimum fine,[101] however, we have assumed that the final fine following settlement stands at the minimum of the range - €57.9 million.

5.78 The evolution of the actual and estimate fines under the alternative guidelines (as a proportion of affected commerce) is presented in Figure 5.11 below.

5.11 Comparison of fining decisions by the European Commission pre and post 2006, OFT and US fining guidelines (proportion of 'affected commerce') for Akzo Nobel (Hydrogen Peroxide)



Source: Analysis of OFT, US Department of Justice and EC data

[101] As was the case in the United States' Hydrogen Peroxide case where Akzo Nobel was fined $32 million compared to a suggested minimum fine of $33.16 million despite having committed a prior offence.

5.79 In this case, using the UK guidelines, UK fines would be 68.3 per cent below the actual EU fine (78.3 per cent below the estimated fine level using current EU guidelines), and 86.2 per cent - 93.1 per cent below the estimated fine level derived by a theoretical application of the US methodology.

6 GLOSSARY

6.1 Terminology abbreviations

TPA	Trade practices Act
ACCC	Australian Competition and Consumer Commission
ACPERA	Antitrust Criminal Penalty Enhancement and Reform Act (US)
ARC	Act against Restraints on Competition (Germany)
AUS	Australia
CAT	Competition Appeals Tribunal
CDA	Dutch Competition Act
CDO	Competition Disqualification Orders
CDPP	Commonwealth Director of Public Prosecutions
CFI	Court of First Instance
DE	Germany
DoJ	United States' Department of Justice
DoJ WS	Department of Justice Antitrust Division Workload Statistics
EC	European Commission
ECJ	European Court of Justice
EU	European Union
FCO	German Federal Competition Office
NL	The Netherlands
NMa	Netherlands Competition Authority

OECD	Organisation for Economic Co-operation and Development
OFT	The Office of Fair Trading
TPA	Trade practices Act (Australia)
UK	United Kingdom
US	United States
USSG	United States Sentencing Guidelines Manual

A PENALTY REGIMES IN DIFFERENT JURISDICTIONS: ADDITIONAL DETAILS

United Kingdom

Provisions and enforcement of the Antitrust Prohibition

A.1 The UK's competition regime is built upon the Competition Act 1998 ('Competition Act') which prohibits anti-competitive agreements and abuses of dominance. Together with section 188 of the Enterprise Act 2002 ('Enterprise Act'), the Competition Act lays the statutory foundation for the antitrust prohibition in the United Kingdom. In addition, Council Regulation 1/2003 empowers the UK to enforce the antitrust prohibition under Articles 81 and 82 of the EC Treaty.

A.2 The antitrust prohibitions under the Competition Act and Articles 81 and 82 of the EC Treaty are civil or administrative in their nature and exclusively relate to the conduct of undertakings. The cartel prohibition under the Enterprise Act is criminal and relates to the conduct of individuals.

Substantive Provision for the Anti-competitive Prohibition

A.3 Cartel Prohibition: Section 2 of the Competition Act prohibits agreements, decisions or concerted practices which have as their object or effect the prevention, restriction or distortion of competition and may affect trade within the United Kingdom ('Chapter I prohibition'). The Chapter I prohibition applies both to horizontal arrangements between competitors (for example, price fixing, market sharing) as well as vertical arrangements. The Chapter I prohibition applies to agreements between undertakings (that is, businesses), decisions by associations of undertakings or concerted practices.

A.4 Section 188 of the Enterprise Act establishes the 'cartel offence'. This specifies that an individual is guilty of a criminal offence if he dishonestly agrees with one or more other persons to make or implement (or cause to be made or implemented) arrangements relating to at least two competing undertakings which directly or indirectly fix prices, limit or prevent supply or production, market share, or amount to bid-rigging

A.5 Prohibition of Abuse of Dominance: The EC Treaty and the Competition Act 1998 both prohibit abuse of a dominant position. The prohibitions are set out in Article 82 of the EC Treaty (Article 82) and section 18 of the Competition Act (the Chapter II prohibition). EC Regulation 1/2003 (the Modernisation Regulation) requires the designated national competition authorities of the Member States (NCAs) and the courts of the Member States to apply and enforce Article 82 as well as national competition law when national competition law is applied to an abuse prohibited by Article 82.

Enforcement Body and the Right to Impose Sanctions

A.6 In the United Kingdom, both Chapter I and II prohibition under the Competition Act and Articles 81 and 82 of the EC Treaty are enforced by the Office of Fair Trading (OFT). In addition, the following sectoral regulators have jurisdiction to investigate anti-competitive conduct in their specific sectors: OFCOM (communications), OFGEM (electricity and gas), OFREG NI (energy in Northern Ireland), OFWAT (water and sewerage), CAA (civil aviation), and ORR (railway services). Investigations and prosecutions under the criminal cartel offence under the Enterprise Act in England, Wales and Northern Ireland are conducted by the OFT or the Serious Fraud Office (SFO). Investigations and prosecutions in Scotland are conducted by the OFT or the International and Financial Crime Unit, Crown Office (IFCU).

Procedure Steps between Investigation and Imposition of Sanction

A.7 The OFT may initiate an investigation (i) following its own market intelligence, (ii) following a complaint, or (iii) following a leniency application.

A.8 Once the OFT believes that it has sufficient evidence in its possession to prove the suspected cartel conduct, it will issue a statement of objections to the alleged cartel participants setting out the facts, its provisional conclusions and the action which it intends to take (for example, the imposition of fines). The addressees of the statement of objections then have the opportunity to inspect the OFT's investigation file, to make written submissions and to attend an oral hearing to respond to the allegations advanced in the statement of objections. If, after having had regard to the parties' submissions, the OFT concludes that it has sufficiently strong evidence to prove the alleged cartel conduct it will issue an infringement decision to all parties concerned imposing fines.

Fine determination

A.9 A financial penalty imposed by the OFT under section 36 of the Competition Act is calculated following a five step approach.[102]

A.10 calculation of the starting point having regard to the seriousness of the infringement and the relevant turnover of the undertaking:

- adjustment for duration
- adjustment for deterrence and other factors
- adjustment for further aggravating or mitigating factors, and
- adjustment if the fine after step 4 exceeds 10 per cent of the previous year worldwide turnover of the undertaking (the statutory maximum).

A.11 Stage 1 – Starting point: The starting point for determining the level of financial penalty which will be imposed on an undertaking is calculated based on the seriousness of the infringement and the relevant turnover of the undertaking. The starting point will depend in particular upon the nature of the infringement. When making its assessment, the OFT considers a number of factors, including the nature of the product, the structure of the market, the market shares of the infringers, entry conditions and the effect on competitors, third parties and consumers. This is undertaken on a case by case basis (and may take into account effects in other Member States). The starting point may not in any event exceed 10 per cent of the relevant turnover of the undertaking.

A.12 Stage 2 – Duration: The starting point may be increased or, in exceptional circumstances, decreased to take into account the duration of the infringement. Penalties for infringements which last for more than one year may be multiplied by not more than the number of years of the infringement. Part years may be treated as full years for the purpose of calculating the number of years of the infringement

[102] As contained in OFT's guidance as to the appropriate amount of a penalty. See www.oft.gov.uk/shared_oft/business_leaflets/ca98_guidelines/oft423.pdf.

A.13 Stage 3 – Adjustment for deterrence other factors: The penalty fine estimated as a result of Steps 1 and 2 may be adjusted to achieve a number of policy objectives, including specifically the objective of deterring undertakings from engaging in anticompetitive practices. In determining the adjustment at this step of the fine determination, the OFT may rely on an estimate of any economic or financial benefit made (or likely to be made) by the undertaking from the infringement and the special characteristics, including the size and financial position of the undertaking in question.

A.14 Stage 4 – Aggravating and mitigating circumstances: Aggravating circumstances and mitigating circumstances may adjust the fine (subject to the maximum fine). Aggravating factors include:

- role of the undertaking as a leader in, or an instigator of, the infringement
- involvement of directors or senior management
- coercion
- continuing the infringement after the start of the OFT's investigation
- recidivism
- infringements committed intentionally rather than negligently, and
- retaliatory measures taken or commercial reprisal sought by the undertaking against a leniency applicant.

A.15 Mitigating factors include:

- role of the undertaking, for example, where the undertaking is acting under severe duress or pressure
- genuine uncertainty on the part of the undertaking as to whether the agreement or conduct constituted an infringement
- adequate steps having been taken with a view to ensuring compliance with Articles 81 and 82 and the Chapter I and Chapter II prohibitions
- termination of the infringement as soon as the OFT intervenes, and

- co-operation that enables the enforcement process to be concluded more effectively and/or speedily.

A.16 There is no specific information on the extent to which these factors can increase or decrease final fines.

A.17 Stage 5 - Adjustment to prevent the maximum penalty being exceeded: The final amount of the penalty calculated may not exceed 10 per cent of the worldwide turnover of the undertaking in its last business year.

Sanctions on individuals

A.18 The UK regime allows for two types of non-monetary sanctions on individuals – competition disqualification orders and imprisonment.

A.19 Where a company has infringed competition law, a director whose conduct in relation to that breach makes him unfit to be involved in the management of any company going forward, can be disqualified from acting as a company director or shadow director for up to 15 years.

A.20 The cartel offence was established by the Enterprise Act which came into force on 20 June 2003. In the United Kingdom, an individual found guilty of committing the cartel offence is liable, on summary conviction, to imprisonment for up to six months and/or a fine up to the statutory maximum (which is currently £5,000 (€5,687)). If an individual is found guilty, upon indictment, they may be imprisoned for up to five years and/or receive an unlimited fine. A competition disqualification order may also be made by the trial judge where an individual has been convicted of the criminal cartel offence.

A.21 The criminal offence promised to compensate for a potential shortfall in civil deterrence. However, five years after the offence came into force in the UK, the only convictions have been in the Marine Hoses cartel case, where the prosecution was not contested by the defendants, all of whom entered guilty pleas. In that case the defendants had entered into a plea bargain arrangement with the US Department of Justice Antitrust Division (DOJ), which allowed them to return to the UK on condition that (i) they plead guilty to the UK cartel offence and (ii) they would return to the US if their UK sentences were shorter than those agreed under

the plea agreement.[103] The criminal cartel offence's first real test – a prosecution which is contested by the individuals concerned – is still to occur. At the present time, the only other charges pending concern four current or former British Airways executives, who are charged with offences in connection with the fixing of passengers fuel surcharges. It remains to be seen whether this case will be contested or not.

Leniency for companies

A.22 The OFT operates a leniency policy for companies in respect of cartel infringements. In parallel, the OFT also operates a 'no-action' policy offering immunity from prosecution for the cartel offence to cooperating individuals. Both policies are closely linked. The two formal leniency and no-action policy documents are supplemented by the OFT's guidance note on the handling of leniency (for companies) and no-action (for individuals) applications. The OFT guidance distinguishes a number of basic types of leniency:

- Type A leniency: First to come forward and no pre-existing investigation. To encourage companies to come forward, the OFT will grant total immunity from financial penalties for a cartel infringement to a participant in cartel activity who is the first to come forward where there is no pre-existing investigation and where the company satisfies the following requirements.

A.23 The undertaking must:

- provide the OFT with all the information, documents and evidence available to it regarding the cartel activity
- maintain continuous and complete co-operation throughout the investigation and until the conclusion of any action by the OFT arising as a result of the investigation

[103] On Wednesday 11 June 2008 Bryan Allison, David Brammer and Peter Whittle were jailed for between thirty months and three years for their roles in organising a worldwide cartel in the supply of flexible marine hoses. The three individuals were arrested by US antitrust authorities in Houston in 2007, after they attended a cartel meeting. They admitted guilt in the US and agreed jail sentences under a plea bargain. In November 2008, the sentences in the UK were reduced by the Court of Appeal to reflect the terms of the US plea bargain.

- refrain from further participation in the cartel activity from the time of disclosure of the cartel activity to the OFT (except as may be directed by the OFT), and

- not have taken steps to coerce another undertaking to take part in the cartel activity.

- Type B leniency: First to come forward but there is a pre-existing investigation. An undertaking may benefit from a reduction in the level of the financial penalty of up to 100 per cent if the undertaking seeking immunity is the first to provide the OFT with evidence of cartel activity in a market before the OFT has issued a statement of objections, and agrees to the four stipulations presented in relation to Type A immunity. The reduction in the level of the financial penalty of up to 100 per cent by the OFT in these circumstances is discretionary.

- Type C leniency: In addition to the immunity granted to undertakings being first to come forward, undertakings which provide evidence of cartel activity before a statement of objections is issued, but are not the first to come forward, or do not qualify for total immunity, may be granted a reduction of up to 50 per cent in the amount of a financial penalty which would otherwise be imposed, if the first three conditions applicable to Type A and Type B immunity are met (that is, any undertaking involved in coercion will not be eligible for immunity).

Leniency for individuals

A.24 Individuals can benefit from criminal immunity for the cartel offence as a result of their former or current employer's leniency application if they co-operate with the OFT's investigation. However, an individual can also report cartel conduct directly to the OFT in return for a promise of immunity from prosecution for the cartel offence, that is, the grant of a so-called 'no-action letter'. In order to be guaranteed a no-action letter, the individual must be the first individual or company to report the relevant cartel conduct. Where an individual applies on his or her own account, the applicant's identity may remain secret (the applicant may be a 'secret source') if the safety of that individual would be in serious jeopardy or other adverse consequences would follow as a result of disclosure of his/her identity.

A.25 In cases where the individual within an undertaking reports the cartel on his or her own account before the company does, the company will lose guaranteed corporate and individual immunity status, in circumstances where that company would otherwise have qualified for it. However, the OFT may still grant corporate and individual immunity in such circumstances, depending on what stage the OFT's investigation has reached and the value which it is likely to gain from any additional evidence the company can provide. This is therefore the only possible exception where immunity may still be available even though the applicant is not the first to report the cartel conduct to the OFT.

Settlement

A.26 Unlike in the US and the EU, there are no formal settlement procedures in the United Kingdom. The OFT has, however, proved willing to explore innovative case settlement options on a case-by-case basis in the past. The OFT settled the Independent Schools case in December 2006 and agreed a fixed financial penalty with British Airways in the Passenger Fuel Surcharge case in August 2007. In each case the settlement offer involved the admission of the alleged infringement and a promise not to appeal the final infringement decision in return for a lower fine than would otherwise have been imposed.

Private enforcement

A.27 Under section 47A of the Competition Act (amended by the Enterprise Act) any person who has suffered injury as a result of a competition infringement may bring a claim for damage compensation before the Competition Appeals Tribunal (CAT).

A.28 In general claims may only be brought before the CAT when the OFT, sectoral regulator or the European Commission has made a decision establishing that one of the relevant prohibitions has been infringed, and any appeal from such decision has been finally determined.

A.29 The issue of liability (at least in theory) should be settled, leaving the CAT to determine causation and level of damage. These claims are referred to as 'follow-on actions'.

A.30 Alternatively, actions for damages suffered as a result of cartel conduct can also be brought in the civil courts. Where there is a prior infringement decision by a

relevant competition authority, the rules that apply to the CAT are similar in the civil courts.

A.31 Where there is no prior infringement decision, the claimant must commence an action for damages in the civil courts and must establish the infringement itself before being able to claim damages.

United States

Provisions and enforcement of the Antitrust Prohibition

A.32 Sections 1 and 2 of the Sherman Act (1890) cover roughly the same ground as Chapters I and II of the UK Competition Act 1998 (or Articles 81 and 82 of the EC Treaty of Rome). Section 1 prohibits concerted practices in unreasonable restraint of trade[104] and Section 2 prohibits anti-competitive conduct that contributes to the acquisition or preservation of monopoly power.[105] Section 7 of the Clayton Act is roughly comparable to the OFT Merger Control, it prohibits mergers and acquisitions the effect of which may be 'to substantially lessen competition, or tend to create a monopoly'.[106]

Substantive provisions for the antitrust prohibition

A.33 Prohibition of bilateral and multilateral conduct: Section 1 of the Sherman Act provides that 'every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal'. Although this may cover a range of business conduct that arguably restrains trade, it is limited by well-developed case law. As applied, US criminal cartel enforcement focuses on so-called 'hardcore' antitrust offences: price fixing, bid rigging, and market allocation among competitors.

A.34 Prohibition of Unilateral Conduct: Section 2 of the Sherman Act provides that 'every person who shall monopolise, or attempt to monopolise ... trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine ... or by imprisonment not exceeding three years, or by both said punishments, in the discretion of the court'. It is clear from Section 2 of the act that, in contrast with

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[104] 15 U.S.C. §1, see Standard Oil Co. v. United States, 221 U.S. 1, 60–70 (1911).

[105] 15 U.S.C. §2, see United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966).

[106] 15 U.S.C. §18.

the UK, EU and other jurisdictions, the US is the only jurisdiction where unilateral conduct could lead to incarceration.

Enforcement agent and the right to impose sanctions

6.2 The US Department of Justice (DOJ) has authority to enforce the Sherman Act, both civilly and criminally, and to enforce the Clayton Act civilly. The DOJ is primarily responsible for conducting investigations and prosecuting companies and individuals for competition infringement. For the most part, cartel investigations are conducted according to the same rules as all other criminal prosecutions. The DOJ must convene a grand jury to issue subpoenas for testimony and documents, but has a large degree of discretion as to how best to collect uncompelled evidence. In order to impose sanctions, DOJ must either prove its case in Federal court or negotiate a plea agreement with the accused. However, unlike many other jurisdictions (such as the United Kingdom, the European Union and the Netherlands) the DOJ itself does not set the fines or impose other forms of sanctions on convicted organisations or individuals.[107] Rather, the sanction is set by a non-specialised court that adjudicates in competition cases.

Fine determination

A.35 Chapter 8 of the Federal Sentencing Guidelines Manual (USSG), which deals with the sentencing of organisations, was adopted in 1991.

Determination of the Base Fine

A.36 The first stage of fine determination consists of calculating a base fine, which may then be increased or decreased according to aggravating and mitigating factors. The base fine for bid-rigging, price-fixing or market allocation agreements among competitors is commonly set at 20 per cent of the volume of affected commerce (under § 2R1.1(d)(1) of the USSG). This corresponds to the organisation's turnover in the affected markets over the duration of the infringement.

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[107] Besides the US, there are a few other jurisdictions where competition authorities do not set sanctions themselves. Rather, the sanctions are usually determined by a non-specialised court which adjudicates in competition cases. This is the case of, for example, Canada, Ireland, and New Zealand.

Culpability score

A.37 Next, the DOJ establishes the defendant's 'culpability score', based on a number of qualitative factors, including firm size, nature of the offence, past history of violations, obstruction of justice, the degree of involvement in the conspiracy, and the level of cooperation with the DOJ. This culpability score dictates the minimum and maximum 'multipliers' to apply to the base fine to calculate the USSG fine range.

Involvement or tolerance of criminal activity

A.38 The first stage of the adjustment process involves the assessment of whether the organisations has been involved in or tolerated criminal activity. The Department of Justice uses firm size as a proxy for this adjustment factor. Specifically, organisations add five points to their culpability score if either the unit or the firm as a whole employ more than 5,000 staff, and 'an individual within high-level personnel of the organisation participated in, condoned or was wilfully ignorant of the offence' or if 'tolerance of the offence by any other authoritative personnel was pervasive throughout such a unit'.[108] There is a sliding scale to calculate the impact of firm size on culpability score – and applies even to relatively small undertakings. Specifically, if an organisation had just 10 or more employees and an individual with substantial authority participated, condoned, or was wilfully ignorant of the offence, the culpability score is increased by one.

[108] See Chapter 8 of the Federal Sentencing Guidelines.

A.1 Culpability Scores and Adjustments

<table>
<tr><td></td><td></td><td>Fine range as a percentage of affected commerce</td></tr>
<tr><td>Base Fine</td><td>20% of affected commerce</td><td></td></tr>
<tr><td>Baseline Culpability Score</td><td>5</td><td>20%-40%</td></tr>
<tr><td>Tolerance of criminal activity</td><td>up to +5
for the larger firms
(> 5,000 employees)</td><td rowspan="4">raise fine range up to
40%-80%</td></tr>
<tr><td>Recidivism</td><td>up to +2</td></tr>
<tr><td>Violation of an order</td><td>up to +2</td></tr>
<tr><td>Obstruction of justice</td><td>0 or +3</td></tr>
<tr><td>Effective compliance programme and no failure to report and no high level participation</td><td>-3</td><td rowspan="4">decrease fine range
to no lower than
15% of relevant turnover</td></tr>
<tr><td>Self reporting prior to threat of detection</td><td>-5</td></tr>
<tr><td>Cooperation</td><td>-2</td></tr>
<tr><td>Acceptance of responsibility</td><td>-1</td></tr>
</table>

Aggravating circumstances

A.39 Prior History: If the organisation committed and part of the offence in the preceding 10 years (based on criminal adjudication of similar misconduct) or civil or administrative adjudications (based on two or more separate instances of similar misconduct), the culpability score is increased by 1. If the offences occurred within the last five years, the culpability score is increased by two.

A.40 Violation of an order: If the undertaking violated a judicial order or injunction (other than a violation of a condition of probation) or if the undertaking violated a condition of probation by engaging in similar misconduct (to the conduct that resulted in it being placed on probation), an additional two points are added to the culpability score. If the undertaking committed an offence that violated a condition of probation, then one point is added to the culpability score.

A.41 Obstruction of justice: If the organisation wilfully obstructed or impeded, aided, abetted or encouraged obstruction of justice (or attempted to) during the investigation, prosecution or sentencing, a further three points are added to the culpability score.

Mitigating circumstances

A.42 Effective compliance and ethics programme: The first mitigating circumstance for which points may be subtracted from the culpability score occurs if the organisation has an effective programme to prevent and detect infringement, unless an individual with substantial authority participated in the violation. The maximum reduction in the culpability score associated with having an effective compliance and ethics programme is three points.

A.43 Self reporting, cooperation and acceptance of responsibility: The second factor that may decrease the culpability score include the reporting of the offence, full cooperation from the organisation or the clear demonstration and recognition of their responsibility in the infringement. If the organisation reported the offence to the appropriate authorities, fully cooperated in the investigation and clearly demonstrated recognition and affirmative acceptance of responsibility for criminal conduct, then five points are deducted from the culpability score. A sliding scale exist such that if the organisation demonstrated recognition and affirmative acceptance of responsibility for criminal conduct, then one point is deducted from the culpability score

Calculating the maximum and minimum fine

A.44 The culpability score establishes the maximum and minimum multiplier for the base fine, which in turn determines the minimum and maximum fine. To determine the minimum fine, the final culpability score is multiplied by 0.2, while to determine the maximum fine, the final culpability score is multiplied by 0.4. The minimum fine is the product of the baseline fine and the minimum fine multiplier (baseline fine x culpability score x 0.2), while the maximum fine is the product of the baseline fine and the maximum fine multiplier (baseline fine x culpability score x 0.4). As a result of the culpability score, final fine ranges can vary between a minimum of 0.75 times the base fine and a maximum interval of two to four times the base fine. It should be noted that a score leading to the maximum range can

occur quite readily if, for example, the organisation has more than 5,000 employees and does not qualify for any of the mitigating circumstances.

A.45 The final fine imposed on the undertaking is determined by the court. In the context of settlement, the DOJ regularly recommends, and the judge approves mostly without question, a proposed USSG fines range.

Alternative sentencing guidelines

A.46 When the proposed USSG range exceeds the Sherman Act maximum of $100 million, the DOJ routinely justifies these higher fines by invoking the alternative sentencing guidelines, which authorises 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 corporation in question).

A.47 The DOJ has the capacity to impose a fine that equals twice the gain derived by, or twice the loss caused by, the entire cartel (not just the defendant).[109] As a result, even assuming a low five to 10 per cent overcharge by the entire cartel, the fines imposed nearly always surpass the recommended USSG range under the base fine plus culpability score adjustments methodology.

Sanctions on individuals

A.48 Chapters 2, 3 and 5 of the USSG deal with the sanctions that may be imposed on individuals.

A.49 In summary, individuals can face fines of up to $1 million (€779,277) and prison sentences of up to 10 years. There is also an alternative sentencing statute that applies to individuals that similarly allows fines up to twice the gain to the individual or twice the loss suffered by the victims. In general, however, sanctions for individual cartel participants have focused on jail terms rather than large fines.

[109] Although Connor (2008) suggests that, as it is conventionally applied by the DoJ, the alternative fine statute does not apply the legal principle of joint and several liability.

Monetary sanctions

A.50 In determining the fines imposed on individuals involved in antitrust activities, a similar approach is adopted as the fine determination process for organisations. For bid-rigging, price fixing or market allocation agreements amongst competitors, the baseline offence level is determined as 12. For bid-rigging offences, the offence level is increased by one point.

Aggravating and mitigating circumstances

A.51 Role of defendant: If the defendant was an organiser or leader of criminal activity that involved five or more participants, the offence level is increased by four points. If the defendant was a manager or supervisor of criminal activity that involved five or more participants, the offence level is increased by three points. If the defendant was an organiser, leader, manager or supervisor of criminal activity not previously described, the offence level is increased by two points. Conversely, if the defendant was a minimal (minor) participant in the criminal activity, the offence level is reduced by four points (two points).

A.52 Obstruction and related adjustments: If the individual wilfully obstructed or impeded, aided, abetted or encouraged obstruction of justice (or attempted to) during the investigation, prosecution or sentencing, a further two points are added to the offence level.

Non-monetary sanctions

A.53 Prison sentences can be up to 10 years. In addition to the offence level impacting on the level of the fine that an individual might be expected to receive, the individual's criminal history also contributes to determine the length of imprisonment sentences.

Leniency for Companies

A.54 The DOJ has widely publicised its leniency programme which automatically provides complete amnesty from prosecution for the first reporter of anticompetitive conduct if all other programme requirements are satisfied. According to the DOJ's leniency programme, there are two types of leniency, with

slightly differing requirements depending on whether the DOJ has already initiated an investigation.

A.55 Type A leniency is available before an investigation has begun. To qualify for Type A leniency, a company must meet the following requirements: (1) the DOJ must not have received information about the infringement, (2) the company must have taken prompt action to end its offence upon its discovery, (3) the company must report the conduct and cooperate with the DOJ during the investigation, (4) the confession must be a corporate act rather the isolated confession of individuals, (5) the corporation must compensate injured parties when possible, and (6) the company must not have coerced others into participating in the conduct, and must not have been the leader in or originator of the infringement.

A.56 If the requirements for Type A leniency are not met, a company can still qualify for Type B leniency, in relation to an already existing investigation. To qualify for Type B leniency: (1) the company must be the first to come forward and qualify for leniency, (2) the DOJ must not yet have convicting evidence against the company, (3) the company must report the conduct and provide cooperation throughout the investigation, (4) the confession must be a corporate act rather the confession of individuals, (5) where possible, the corporation must make restitution to injured parties, (6) the company must not have coerced others into participating in the conduct, and must not have been the leader in or originator of the illegal activity, and (7) a grant of leniency must not be unfair to others, considering the nature of the offence, the confessing corporation's role in it, and when the corporation comes forward.

A.57 If the company qualifies for Type A leniency, all current and former officers, directors and employees who admit their wrongdoing and cooperate with the investigation will also receive amnesty from prosecution. If a corporation attempts to qualify for leniency under the Corporate Leniency Policy, any directors, officers or employees who come forward and confess will be considered for leniency under the provisions of the Corporate Leniency Policy. If the company qualifies for Type B leniency, any individuals who admit their wrongdoing and cooperate with the investigation will be considered for amnesty on the same terms as if they had approached DOJ individually.

A.58 Legislation passed in 2004 provides an additional incentive for a company to seek amnesty. Under the Antitrust Criminal Penalty Enhancement and Reform Act

(ACPERA), a company that receives amnesty from DOJ and cooperates with plaintiffs in civil actions for damages against other members of the cartel face reduced civil damages. Ordinarily, civil plaintiffs in anti-trust cases can recover three times their actual damages. Under ACPERA, a company with amnesty is only liable for actual damages.

A.59 Amnesty plus was implemented in 1999 by the DOJ and aims at encouraging firms already convicted in one market to report collusive agreements in other markets. To benefit from this programme companies must report a cartel of which the DOJ was previously unaware, and are automatically granted amnesty for this second offense. Moreover, the firm benefits from a substantial additional discount in the calculation of its fine for participation in the first cartel.

Leniency for Individuals

A.60 Individuals can report cartel conduct independently of their employer and receive leniency for their cooperation. According to DOJ's 'Leniency Policy for Individuals', an individual can receive total amnesty for reported conduct if: (1) the DOJ has not already received information about the illegal activity from any other source, (2) the individual reports his wrongdoing and provides complete cooperation throughout the investigation, and (3) the individual was not a ringleader of the illegal activity. If the individual does not meet these requirements, informal immunity may still be available on a case-by-case basis. There are no financial incentives available for individual whistleblowers. If an individual comes forward after his employer has sought amnesty under the Corporate Leniency Policy, his application for leniency will be considered solely under the terms of the Corporate Leniency Policy.

Settlement

A.61 Nearly all convictions of both companies and individuals for antitrust offences are the result of settlement (plea agreements in the US terminology) between the DOJ and the defendant. Once an investigation becomes public (either through the serving of grand jury subpoenas or the execution of search warrants) the DOJ will typically be in periodic contact with the defendants' lawyers. A defendant may seek to reach an agreement with the DOJ to resolve the potential charges against it at any stage of the investigation. In order to do so, the defendant will have to admit guilt and cooperate with the DOJ if the investigation continues.

A.62 In exchange, the defendant will get varying amounts of credit for their cooperation depending on how far the DOJ's investigation has progressed at the time of the negotiation. The DOJ has emphasised that the second company to cooperate can earn significant credit, even though there is no clearly defined reduction in fine for the second company to cooperate (that is, there is no leniency, except for the first reporter).

Private enforcement

A.63 Follow-on litigation for civil damages is a common result of DOJ antitrust investigations. Unlike the United Kingdom and European Union, individual plaintiffs in the United States frequently bring in private lawsuits in the deferral courts against corporate infringers. Individual plaintiffs in the United States filed 1,029 antitrust lawsuits in the Federal courts in the 12 months ending March 31, 2008.[110] Under Section 4 of the Clayton Act, 15 USC. § 5, injured parties can bring lawsuits against infringers and receive three times the amount of damage actually inflicted as a result of the anticompetitive conduct.

A.64 Joint and several liability lawsuits: In a cartel case, each individual cartel defendant can be held jointly and severally liable for the damages of the entire cartel, with no right of contribution. This means that any single firm can be made to pay the entire treble damages for the cartel. Successful plaintiffs can also recover their reasonable legal fees.

A.65 Multiple plaintiffs and class-actions: Defendants often face damages claims from multiple plaintiffs, including class actions (comprising only direct purchasers in federal cases, but potentially also indirect purchasers in individual states). Additionally, large purchasers (again only direct purchasers in federal cases) and State's Attorneys General often make individual claims for damages. Companies listed on a US stock exchange, may also face shareholder litigation based on the impact of the antitrust litigation on the share price and the company's failure to disclose the conspiracy.

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[110] According to the study the Commission released in August 2004, there were then in Europe only 60 reported cases in which a private litigant sued for a violation of competition law— and only 18 of those alleged a violation of Articles 81 or 82, while 32 were based upon the laws of a Member State (and 10 are unaccounted for).

European Union

Provisions and enforcement of the Antitrust Prohibition

A.66 In the European Community the prohibitions of cartels and abuses of dominance are contained, respectively, in Articles 81 and 82 of the Treaty establishing the European Union. The two competition articles represent the minimum standard of competition law in the Member States (in the sense that conduct that is illegal under community law cannot be legal under national law), as well as a template for the corresponding national laws.

A.67 Articles 81 and 82 are targeted at agreements and practices that 'may affect trade between Member States'. This concept is interpreted broadly and can capture conduct that is restricted to one Member State, and even conduct taking place outside the boundaries of the EU.[111]

A.68 A.6The Commission considers that horizontal agreements are not, in principle, capable of appreciably affecting trade between Member States when the following cumulative conditions are met: (i) the aggregate market share of the parties on any relevant market within the Community affected by the agreement does not exceed 5 per cent, and (ii) in the case of horizontal agreements, the aggregate annual Community turnover of the undertakings concerned in the products covered by the agreement does not exceed €40 million.

A.69 Anti-competitive agreements that fail the test of showing an appreciable effect on interstate trade are matters of national competition law in the affected Member States. This implies that fines imposed in EC cases are likely to be higher than fines set in purely national cases.

A.70 While the Treaty is silent on how fines for infringements of Articles 81 and 82 should be determined, it does specify that agreements prohibited under Article 81

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[111] As long as the conduct/agreement meets the twin test of appreciably affecting trade between Member States. See the Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty [Official Journal C 101 of 27.4.2004].s.

are void.[112] Furthermore, Article 81 lists certain types of infringements which are considered exemplars of the behaviour the Article is meant to control. They are:

- price-fixing
- the limitation of output or sales, and
- the allocation of markets or customers.

A.71 The explicit listing of these 'hardcore' restrictions suggests that the penalties for the named infringements are intended to be particularly severe.

A.72 Apart from this, Article 83 of the Treaty instructs the European Council to lay down 'appropriate regulations or directives to give effect to the principles set out in Articles 81 and 82'.

Procedure

A.73 The current vehicle for implementing Articles 81 and 82 is Council Regulation 1/2003 (the Modernisation Regulation). The Regulation gives the European Commission powers to enforce EC competition law, including the power to

- investigate cases where infringements are suspected to have occurred (Chapter V)
- decide whether an infringement has been committed (Article 7), and
- determine the penalty that should be imposed if such a decision is made (Article 23).

A.74 The Commission implements the tasks set out in the Regulation 1/2003 through its Directorate-General Competition. The Commission, like its counterparts in Germany, the Netherlands and the UK, can impose fines under its own authority. Judicial review of its decisions is provided by the Court of First Instance and the European Court of Justice.

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[112] Article 81(2).

Fine determination

The 2006 Fining Guidelines

A.75 The 2006 Guidelines specify a two-stage process for setting fines. First a base amount is fixed with regard to the relevant turnover of the undertaking concerned. In a second step, various adjustments are made to this base amount.

A.76 In a departure from the practice under the 1998 guidelines, the base amount is determined primarily by an undertaking's relevant turnover.[113] Depending on the type of infringement, the base amount can be up 30 per cent of relevant turnover. The base amount for members of hardcore cartels, for example, will be the upper end of the 30 per cent limit.

A.77 The base amount is then multiplied by the number of years over which the infringement took place (rounded upwards to the nearest whole number). Finally, the base amount is increased by 15 per cent to 25 per cent for price-fixing, market-sharing and output limitation infringements. This so-called entry fee is intended as additional deterrence against companies entering into the named types of agreement.

A.78 The base amount is then adjusted by applied increases/discounts for aggravating/mitigating circumstances. The list of aggravating circumstances closely resembles that in the 1998 guidelines, the only important difference being a harsher treatment of repeat infringers. Repeat infringers now face a doubling of their fine for each previous offence.[114]

A.79 The mitigating circumstances are also very similar to the 1998 list. However, instead of claiming a 'purely passive role' or non-implementation of the agreement, undertakings have to prove that they in fact behaved competitively, in spite of the agreement to the contrary.

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[113] Relevant turnover is defined as 'the value of the undertaking's sales of goods or services to which the infringement directly of indirectly relates in the relevant geographic area within the EEA'.

[114] In addition, previous infringements found by national competition authorities are also counted.

A.80 Finally, the Commission will again increase the adjusted fine for particularly large firms to ensure sufficient deterrence, and, where necessary, make sure that the fine exceeds the excess gains made as a result of the infringement.

A.81 The statutory provision limiting fines to 10 per cent of global turnover continues to apply, under both versions of the guidelines, fines have to be capped at this level, even when the calculations described above lead to a higher fine.

A.82 Fines under the 2006 guidelines are potentially more severe than previously. Repeat infringers and very large companies in particular, could face very high fines under the new guidelines. On the other hand infringements of short duration, or affecting only a small market, might incur a lower fine than under the 1998 guidelines.

A.83 The main improvement on the 1998 guidelines is in the area of transparency. Determination of the base amount under the new guidelines appears to be more objective than the categorisation approach adopted previously. However, the Commission still retains a large amount of discretion. For example in setting adjustment factors for deterrence, an element of unpredictability about fine levels remains.

Sanctions on individuals

A.84 The EC has no powers to impose sanctions on individuals.

Leniency for companies

A.85 The Commission issued 3 leniency notices between 1996 and 2006. The first (1996) notice set out the conditions under which leniency may be granted, and indicated ranges of percentage reductions of fines for companies that assist the Commission's investigations. To qualify, a company must

- inform the Commission of the existence of a secret cartel
- be the first to submit such evidence
- put an end to its involvement in the cartel
- offer full and continuous cooperation, and

- not have been an instigator or have played a determining role in, or forced other undertakings to participate in, the infringement

A.86 Companies that meet the conditions can get their fine reduced by at least 75 per cent. Where the Commission has already investigated a cartel, but does not have sufficient proof to open proceedings against it, the first leniency applicants can get a reduction of between 50 per cent and 75 per cent. Subsequent applicants that do not meet all the conditions set out above can qualify for reductions of between 10 per cent and 50 per cent.

A.87 The 2002 notice on immunity from fines and reduction of fines in cartel cases represents a significant refinement of the rules. Cartel members are eligible for leniency if they supply the Commission with evidence that will enable it to find an infringement of Article 81(1). The focus thus shifts from improving detection rates saving the investigative resources of the Commission. The other conditions are similar to those listed in the 1996 notice.

A.88 The 2002 notice offers first applicants that meet all the conditions unqualified immunity. Subsequent applicants, whose evidence provides significant 'added value' to the Commission's investigations may receive discounts, which decrease with each new application: the first (subsequent) undertaking qualifies for a discount of between 30 per cent and 50 per cent, the second for a discount of between 20 per cent and 30 per cent, and subsequent undertakings for discounts of up to 20 per cent.

A.89 The 2002 notice also includes clarifications on procedural matters. The 2006 notice expands further on leniency procedures. The schedule for reductions is the same as in the 2002 notice.

Leniency for individuals

A.90 The EC does not impose sanctions on individuals and there are no specified procedures for individuals who provide the Commission with information about existing cartels. However, individuals can play a role as whistleblowers. Where an individual, rather than a company is the first to inform the Commission about an infringement, this deprives companies who subsequently approach the Commission of 'first-reporter' status.

Settlement

A.91 In 2008, the European Commission introduced a settlement procedure in cartel cases. The new rules are contained Commission Regulation (EC) No 622/2008.[115] The Regulation is accompanied by an explanatory Commission Notice. [116]

A.92 The Settlement Regulation is aimed at giving the Commission a set of simplified enforcement procedures in cases that are not contested, thereby freeing up investigative resources and avoiding the danger of costly litigation. To this end the Regulation gives undertakings against whom proceedings have been opened (that is, after a statement of objections has been issued) the chance to express their interest to engage in a settlement process. Undertakings that have thus signalled their willingness to settle will then be informed in confidence about:

- the details of the objections
- the Commission's evidence, and
- the range of possible fines.

A.93 Parties wishing to take the settlement process forward can do so by acknowledging their participation in an infringement of Article 81 and accepting liability. Upon the parties' confirmation of their commitment to settle, the Commission can proceed immediately to adopting a final decision pursuant to Articles 7 and/or 23 of Regulation (EC) No 1/2003.[117]

A.94 The Commission retains discretion as to which cases it considers suitable for settlement and may terminate the settlement process unilaterally at any time if it

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[115] 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, Official Journal L 171, 1.7.2008, p. 3–5.

[116] 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, Official Journal C 167, 2.7.2008, p. 1–6.

[117] Article 7 enshrines the Commission's power to find an infringement and bring it to an end by imposing structural and/or behavioural remedies, Article 23 gives the Commission the power to set fines.

considers that the procedural efficiencies that form the rationale for the settlement process are not likely to be achieved.

A.95 An undertaking with whom a settlement is reached can be rewarded with a reduction in its fine: According to the Notice,

- the fine imposed will be reduced by 10 per cent (after the 10 per cent turnover limit has been applied). In addition,
- any deterrence multiplier in such a case is not to exceed two.

A.96 Apart from this, the ordinary fining guidelines apply. Where the undertaking is also eligible for leniency, the resulting reduction of the fine will be added to the reward for settlement. Implicitly, the undertaking also benefits from faster resolution.

Private enforcement

A.97 Private claims for damages are matters for the national courts in the Member States. But claims for damages resulting from anti-competitive behaviour remain rare in the European Union compared to the United States.

A.98 The Commission has nonetheless taken the lead in devising a European framework in which such claims could be made. The process started with the publication of a Green Paper on the issue in 2005[118] and, following extensive consultations, culminated in a 2008 White Paper containing the Commission's recommendations.[119] In it the Commission has attempted to balance the right to compensation of injured parties against the practical problems that can accompany private damages claims, particularly un-meritorious litigation and interference with leniency programmes. The key suggestions include:

- The passing-on defence and indirect purchaser standing should be allowed, in accordance with the compensatory principle.

[118] Green Paper - Damages actions for breach of the EC antitrust rules, COM(2005) 672, 19.12.2005.

[119] White Paper on Damages Actions for Breach of the EC antitrust rules, COM(2008) 165, 2.4.2008.

- Small individual claims should be grouped and handled by representatives, such as recognised consumer groups.

- Courts should have the power to order discovery (under judicial control) where discovery is not already automatic.

- Final decisions by competition authorities should be sufficient proof of infringement in damages cases before national courts.

- Leniency applicants should enjoy protection against disclosure of corporate statements submitted.

Germany

Provisions and enforcement of the antitrust prohibitions

A.99 The bulk of Germany's competition laws are contained in the Act against Restraints on Competition (ARC), currently in its 7th Amendment. While the current version of the law dates to 2005, with the latest amendment taking place in 2008, the ARC is one of the oldest competition laws in Europe, dating back to 1957. A process of harmonisation with EC competition law started with the 6th Amendment in 1999 and continued through the 7th revision. Today the substantial provisions, in particular the prohibitions of anti-competitive agreements (cartels) and abuses of dominance closely resemble the relevant provisions in the EU Treaty.

- Section 1 of the ARC prohibits anti-competitive agreements and mirrors Article 81(1).
- Section 19 of the ARC prohibits abuses of dominant undertakings.

A.100 While the main prohibitions of the ARC are substantially identical with the corresponding EC law, there are a number of differences, especially concerning SMEs, which enjoy special protection under German law.[120] A further peculiarity of German law is that bid-rigging, in contrast to other types of anti-competitive conduct, is a criminal offence. This means that the whole process of enforcement follows different rules, starting with the agency responsible and including the types of penalties available.[121]

Procedure

A.101 In terms of procedure a distinction has to be made between the administrative procedure triggered by infringements of the ARC and the procedure under ordinary criminal law which applies to bid-rigging. Since Regulation 1/2003, with its

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[120] For example, Section 3, which exempts SMEs under certain circumstances from the prohibition of Section 1, or Section 20(2), which extends special protections against discriminatory behaviour to SMEs.

[121] Certain forms of anti-competitive may also constitute criminal fraud, outside the scope of the ARC.

provision for the direct applicability of EC competition law by national competition authorities came into force, the ARC has been amended to allow for the parallel application of national and EC law.

A.102 Enforcement of the general competition rules is assigned to the Federal Competition Office (FCO)[122] and governed by the ARC itself, the Code on Administrative Offences and the Code on Criminal Procedure. The latter two are applied in more serious cases that give rise to fining decisions. The FCO actively investigates infringements of the ARC. It has far-reaching investigatory powers at its disposal, including the power to request information, conduct interviews with witnesses, inspect premises and seize documents (subject to court approval).

Fine determination

A.103 This section deals with administrative fines imposed by the FCO for infringements of the provisions of the ARC. Fines issued in criminal cases are discussed in a separate section below. According to Section 17(4) of the Act on Administrative Offences, administrative fines shall exceed gains made as a result of the infringement[123]. Under the ARC, there are three ways in which infringements of competition rules can be fined:

- Pure punitive fine (Fining Guidelines paragraph 2).
- Punitive fine with added compensation for excess gains (ARC Section 81(5)).
- Punitive fine and separate administrative procedure to compensate for excess gains (ARC Section 34(1)), where the authority's proceedings are subordinate to any private claims (ARC Section 34(2)).

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[122] See ARC Section 48. Due to Germany's federal structure, there are in fact state cartel offices in each federal state. However, the ARC as a federal law, is enforced by the FCO, unless the ARC specifically names other bodies (apart from the state cartel offices, the Federal Ministry of the Economy also has certain responsibilities under the ARC.)

[123] The Act on Administrative Offences sets out the general principles of penalty-setting for administrative offences, the ARC represents the *lex specialis* in respect of competition offences.

A.104 The ARC sets the framework for the fining decisions of the FCO. Section 81(4) specifies that infringements of the main prohibitions (ARC Sections 1 and 19 and Articles 81 and 82 of the Treaty) can be punished with a fine of up to 10 per cent of annual global turnover.[124] Less severe infringements carry a fine of up to €100,000.[125] Duration and gravity of the infringement are to be taken into account in any fining decision.

A.105 The ARC provides guidance on how the turnover on which the fine is based should be calculated: it is the combined global turnover of all natural and legal persons that together form an economic unit, in the business year preceding the fining decision.

A.106 By Section 34(1) the FCO can also confiscate excess profits obtained by organisations committing an infringement.

Non-monetary sanctions

A.107 Offences under competition law are recorded in the Trade and Industry Register, access to which is limited to courts and public authorities. Agreements violating Section 1 of the ARC are also void.[126] No other administrative sanctions are available under German law. Criminal sanctions are discussed in a separate section.

Guidelines and policy documents

A.108 The FCO published its Guidelines on the Setting of Fines according to Article 81(4) of the ARC on 15 September 2006.[127] The Guidelines provide the framework within which the FCO can exercise discretion in setting fines for cartel offences,

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[124] This is in line with Regulation 1/2003. Previously in Germany the maximum fine was set to three times the excess gain achieved through the infringement (6th Amendment of the ARC, 1999).

[125] Up from €25,000 (6th Amendment of the ARC, 1999).

[126] Compare Article 81(2) of the Treaty.

[127] www.bundeskartellamt.de/wDeutsch/download/pdf/Bussgeldleitlinien.pdf.

abuse of dominance offences, merger offences and others, within the statutory limits set by ARC Section 81(4). The Guidelines aim to guarantee

- transparency
- predictability
- legal certainty, and
- uniform practice

A.109 The Guidelines apply to punitive fines only.[128] The guidelines describe the procedure that is followed in setting a fine. First, the relevant turnover is assessed. The fine can amount to up to 30 per cent of the relevant turnover of the company (or subsidiary) in question, and is determined with respect to gravity and duration of the infringement.

A.110 A multiplier (up to x2) can be applied in addition for reasons of deterrence. The fine is capped at 10 per cent of total turnover.[129] Finally, discounts may be given, either following a leniency application, or due to the defendant's 'lack of economic capacity' (inability to pay).

A.111 Up to the upper limit of 30 per cent, the size of the fine depends on

- type of the infringement
- actual harm
- market share of the defendant, and
- size and importance of the relevant market.

A.112 After these considerations, the fine can be halved if the infringement is found to have resulted from negligence, rather than intention.

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[128] Paragraph 2.

[129] Paragraph 19, following ARC Section 81(4).

A.113 In certain ways, the German guidelines appear more lenient than the current EC guidelines. In particular, there is no minimum fee of 15-25 per cent of annual turnover ('entry fee'). There is also more freedom in the way duration is taken into account. Whereas the EC guidelines foresee a multiplication of the base fine with the number of years during which the infringement went on, the German guidelines only demand that duration is taken into consideration. Moreover, the deterrence multiplier is capped at two in Germany, but not in the EC.

A.114 Administrative fines under the ARC can be very large. The highest fine to date amounted to €251.5 million and was imposed on Heidelberg Cement after the company had been found guilty of participation in a long-running cartel that allocated territories and fixed prices in the German cement market. Five other cartel members were also punished with fines ranging from €12 to €142 million.

Sanctions on individuals

Monetary sanctions

A.115 Under Section 81(4) of the ARC individuals can be punished for infringements of the main prohibitions (ARC Sections 1 and 19 and Articles 81 and 82 of the Treaty) with a fine of up to €1 million.[130]

Non-monetary sanctions

A.116 Bid-rigging has been a criminal offence in Germany since 1997. It was added to the Criminal Code under Section 298.[131] To date it remains the only type of anti-competitive behaviour that is a crime under German law. All other infringements of competition law continue to carry only administrative penalties (fines).[132]

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[130] Up from €500,000 (6th Amendment of the ARC, 1999).

[131] See Vollmer, C. in Cseres et al. (Eds), 2006.

[132] Some forms of collusive behaviour that are outside the scope of both the ARC and Section 298 of the Criminal Code, for example, bid rigging conspiracies in which the procurer colludes with only one of the bidders, may also be prosecuted as common fraud under Section 263 of the Criminal Code, or bribery, under Section 299.

A.117 The most important consequence of criminalising bid-rigging is a different set of sanctions that includes custodial sentences of up to five years.[133] Fines can also be imposed, but they differ from administrative fines in one important respect: criminal fines are payable in daily instalments, where for each sentence the number of instalments is at least five, but cannot exceed 360.[134] The amount payable in each instalment can range from €1 to €5,000, so that the maximum total fine for offences under the Criminal Code is 360 x € 5,000 = €1.8 million.[135] In contrast, administrative fines can be much higher (10 per cent of global turnover for competition law infringements) and fines of hundreds of millions of Euros have been imposed. When determining the severity of criminal penalties the courts take into account the harmfulness of the conduct and issues of culpability (for example, if the offence involved an abuse of official powers).

A.118 In addition to fines and prison terms the courts can order preventative or reforming measures, such as the confiscation (CC Section 74) or forfeiture (CC Section 73) of gains made as a result of the crime and impose disqualification orders (CC Section 70).

A.119 In another difference to administrative penalties, the names of infringers under CC Section 298 are placed on the Federal Central Register where the criminal records are then viewable (for example by potential employers).

A.120 For the purpose of the law 'bid-rigging' is defined as the submission[136] of an offer based on an illegal agreement,[137] whose aim is to bring the tenderer to accept a certain offer. It is the submission of a bid that would not have been submitted but

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[133] Imprisonment is rare in cases where the sentence does not exceed 2 years (CC Sections 56(1)-56(2)).

[134] ARC Section 40(1).

[135] ARC Section 401(2).

[136] This is, a submission that allows the tenderer the consideration of the bid in accordance with the rules of the tender.

[137] The illegality of the agreement is determined in accordance with the provisions of the Law against Restrictions of Competition (GWB).

for the existence of the agreement that constitutes the crime, not the agreement itself (in contrast to the prohibition of anticompetitive agreements under the ARC).

A.121 The law is applicable to public tenders and private tenders, insofar as they conform to the rules applied to public tenders.[138] The sanction also applies to bidders that are not directly party to the agreement as such. Consider the case where a competitor learns about a bid-rigging agreement between third parties and increases his own price accordingly.[139]

A.122 The special status of bid-rigging in German law has been explained by the fact that of all anticompetitive acts it most resembles common fraud.[140] In addition, German lawmakers wanted to address the apparent failure of existing laws to curb the widespread corruption in the public tendering process, in particular in the construction sector, where collusion between bidders for public contracts was perceived to be rampant.[141]

Leniency for companies

A.123 The FCO has issued two leniency notices so far: one in 2000 and the current one in 2006. The 2006 Notice on Immunity and Reduction of Fines Cartel Cases[142] is modelled on the 2002 EC Leniency Notice.

A.124 Cartel members that come forward first and make a decisive contribution to the detection of a cartel can be granted immunity or a reduction of the fine imposed by the FCO. Other conditions that have to be met to qualify are

- cessation of the infringement
- no leading role in the cartel

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[138] The extent of the conformity is a matter of debate. See Pasewaldt (2008), p. 86.

[139] Ibid., p. 89.

[140] See Vollmer (2006), p. 262.

[141] Ibid., p. 263.

[142] FCO Notice No. 9/2006 of 7 March 2006.

- no coercion of other members, and
- continuing and full cooperation with the FCO during the investigation

A.125 Applicants can register their willingness to make use of the leniency programme before providing comprehensive evidence, and thereby secure their status as first reporter (receive a 'marker'). Subsequent applicants are eligible to a reduction in their fines of up to 50 per cent. The Notice also provides protection against third parties gaining access to evidence submitted as part of the leniency application.[143] However, companies benefiting from leniency are not immune against civil damages claims by parties injured by the cartel.[144]

Leniency for individuals

A.126 Employees in companies that approach the FCO with evidence can benefit from derivative immunity. Individuals can also apply in a personal capacity, but this again deprives companies who subsequently approach the FCO of their 'first-reporter' status.

A.127 There is no scope for leniency in criminal proceedings. Criminal offences in Germany are subject to mandatory prosecution by the public prosecutor (Section 152 Criminal Procedure Code). Consequently, a fault line exists in cases where individuals face criminal penalties under Section 298 of the Criminal Code. Such individuals face criminal penalties, while their companies, being prosecuted for an administrative offence under the ARC, can avoid punishment through the Federal Cartel Office's leniency scheme

A.128 Given that the personnel that are the object of the criminal prosecution typically consist of the persons best placed to provide the authorities with information that could trigger leniency for their companies, the intersection of the two routes to prosecution is likely to blunt the positive effect on detection that is the aim of the leniency programme.

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[143] Paragraph 22.

[144] Paragraph 24.

Settlement

A.129 In Germany there is no formal settlement procedure outside the leniency process described further below. However, parties that do not contest FCO objections, or do not appeal FCO decisions may incur lower fines.[145]

Private enforcement

A.130 There are no legal obstacles to third-party claims for damages resulting from anti-competitive behaviour in Germany. Section 33(3) of the ARC specifies that parties guilty of an infringement are liable for compensation. Private actions can be based on the ARC provisions, or on Articles 81 and 82.[146] However, cases, especially against cartel members, have been relatively rare.[147]

A.131 Currently, third-party actions mainly involve SMEs suing for injunctions against discriminatory behaviour and other abuses by dominant undertakings, or undertakings with a superior market position.[148] Another frequent source of private claims is Section 21(1), which prohibits boycotts (refusals to supply or purchase from certain undertakings with the intent of harming them) in manner similar to that seen in Australia.

A.132 Facilitating private enforcement was one of the intentions behind the 2005 Amendment of the ARC. Rinne and Mühlbach (2008) report that the number of cases has increased with the increase in opportunities to launch follow-on actions.

A.133 All parties affected by the infringement are entitled to claim damages. This includes competitors, purchasers and suppliers in the first instance, but the

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[145] Global Legal Group (2008), p. 97.

[146] By Regulation 1/2003, see the chapter on the EC regime.

[147] Rinne and Mühlbach (2008). Damages claims in cases involving abuses of dominance seem to be more common.

[148] 'Superior market position' is a wider concept than single firm dominance as used in EC law.

concept can extend to comprise end-users (indirect purchaser standing).[149] Even companies that participated in an infringement can claim damages.

A.134 The passing-on defence is available, but the burden of proof rests on the accused party. The mere argument that a claimant has resold the goods or services in question is not sufficient to raise the passing-on defence,[150] and proving passing-on is consequently very difficult. Moreover, the passing-on defence is not available in cases where this would confer an unjustified benefit on the defendant, for example, in cases where the ultimate harm rests with consumers, who are unlikely to bring damages claims of their own, especially since there are no class actions in Germany.

A.135 While class-actions are not available, individual claims by concerned parties can be submitted by third-parties that are not themselves affected by the infringement. A damages claim against members of a cement cartel that was fined by the FCO in 2003 was recently brought by a company that was established specifically for this purpose, and to which the affected parties had assigned their individual claims in exchange for an upfront payment.[151]

A.136 Third-party actions can interfere with administrative penalties. This can occur because the FCO can order undertakings to pay back the illicit gains made as a result of an infringement under Section 34(1) of the ARC (the payment in this case is made to the State). This provision does not apply when the undertaking in question already paid out damages following a private action (Section 34(2)). Where a private damages claim is made after the FCO has received the payment, the FCO has to reimburse the undertaking to prevent it from paying out twice.

A.137 There is also a potential conflict between private actions and leniency. Paragraph 24 of the 2006 Leniency Notice states that leniency applicants are not immune from damages claims in follow-on actions.

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[149] This is in line with the European Court of Justice's view that there is a universal right to compensation.

[150] ARC Section 33(3).

[151] Rinne and Mühlbach (2008).

A.138 A number of further provisions are designed to facilitate civil claims for damages. In line with the suggestions of the Commission White Paper on private actions, German courts consider decisions made by the Commission, the FCO and other national competition authorities in the EU as binding in follow-on actions.[152] Civil claimants (or their lawyers) also have far-reaching rights to access records obtained during an FCO investigation.[153]

[152] Moreover, the courts are bound only by positive decisions - that is, decisions that find an infringement. In theory, claimants can prove the existence of an infringement independently. However, in practice, this is unlikely.

[153] Leniency applicants enjoy some additional protection, see paragraph 22 of the 2006 Leniency Notice.

The Netherlands

Provisions and enforcement of the antitrust prohibitions

A.139 The Dutch Competition Act (DCA) entered into force on 1st January 1998 and simultaneously the Netherlands Competition Authority (NMa), started its operations. The Netherlands Competition Act was adopted by the Dutch Parliament in 1997 and provided a legislative basis for all competition policy. The Act is based on a prohibition system very similar to that of Articles 81 and 82 of the EC Treaty.

A.140 According to Article 6 of the Dutch Competition Act, agreements, decisions and concerted practices are prohibited if they have as their objective or effect the prevention, restriction or distortion of competition.

A.141 According to Article 24 of the Dutch Competition Act undertakings are prohibited from abusing a dominant position. The criteria of Article 82 of the EC Treaty apply.

Procedure

A.142 The NMa is an autonomous administrative authority and independent from the Ministry of Economic Affairs. It is responsible for the monitoring and enforcement of the DCA and has extensive powers to trace and intervene in cartels. For example, it may search premises and computers in order to find proof of illegal cartel activity and take far-ranging measures to prevent cartel activity. In October 2007 a legislative modification has further extended these powers. The new powers of the NMa include the possibility to impose fines on natural persons and to search private homes without the permission of the occupant in the context of national investigations (the NMa already had the power to search private homes while assisting the European Commission).

Fine determination

A.143 In the event of an infringement of the DCA the NMa is empowered to:

- impose an order for incremental penalty payments
- impose a fine, and
- impose a binding order to comply with the DCA without imposing a penalty.

A.144 The latter is a milder form of enforcement in the form of a binding instruction. When the order is violated, the NMa is still entitled to impose a fine or an order for incremental penalty payments. A binding order may be imposed by the NMa ex officio or on request.

A.145 Fines imposed on legal entities in the case of an infringement of the cartel prohibition may be up to €450,000 or up to 10 per cent of the total net annual turnover of the undertakings involved (whichever is the higher). Fines imposed on natural persons may be up to €450,000. A natural person can only be fined when he or she directed the prohibited action or omitted to take measures to prevent the prohibited behaviour despite being empowered and reasonably bound to do so. To deliberately promote prohibited behaviour is also fineable behaviour. Fines for neglecting procedural obligations (like the obligation to cooperate with the NMa) may be up to €500,000 and can be imposed on legal entities as well as natural persons.

A.146 The NMa may also impose fines on members of associations of undertakings (for example, trade associations) if the relevant association has violated competition rules but is unable to pay the fine within the specified term. The provision does not require the members to be aware of the violation of the competition rules. The amount that can be claimed off the individual members cannot be higher than 10 per cent of their net annual turnover. Members will not be fined if they are able to demonstrate that they did not carry out the decision of the association and that they were not aware of that decision or that they proactively distanced themselves from that decision prior to the start of the investigations

The 2007 Dutch Fining Code (Sections 6 and 24 of the Competition Act and Articles 81 and 82 EC Treaty)

A.147 The 2007 Dutch Fining Code provides insight into the way fines are calculated by the NMa. The fining methodology is largely the same as the methodology used by the European Commission.

A.148 The basic formula for the derivation of fines is as follows:

A.149 Starting point x [seriousness factor (x duration factor)] + increase/ decrease for additional circumstances.

A.150 This means that the starting point[154] for the calculation is the 'base amount', which varies from case to case. For instance, infringements of sections 6 and 24 of the Competition Act and Articles 81 and 82 EC Treaty, the NMa will determine the starting point on the basis of the relevant turnover equal to 10 per cent of the relevant turnover of the infringer.

A.151 The relevant turnover is defined as the value of all transactions obtained by the infringer for the total duration of the infringement through the sale of goods and the delivery of services to which the infringement relates, after deducting turnover taxes.

Seriousness

A.152 Subsequently, the NMa will multiply this amount with a factor representing the seriousness and duration of the infringement (the NMA does not determine a separate factor for duration as this is incorporated into the starting point). The outcome of this product equals the 'base amount'.

A.153 In determining the seriousness factor (S) of the infringement, the NMa distinguishes between three types of infringements: very grave, grave and less grave infringements. Far-reaching horizontal restrictions and forms of abuse of dominant position by infringers in a monopolistic or all but monopolistic position will be qualified as very grave. Examples of very grave infringements are:

- horizontal price agreements
- collective vertical price fixing
- collective boycotts

[154] For infringements of sections 6 and 24 of the Competition Act and Articles 81 and 82 EC Treaty, the starting point is derived from the relevant turnover. The starting point will therefore be adjusted for the duration and size of the economic activities involved in the infringement, as well as the intended (potential) economic impact of the infringement. Furthermore, in case of more than one party participating in the infringement, the (potential) economic impact will reflect the share of individual infringers. In combination, this will contribute to a proportional fine with a deterring effect.

- horizontal agreements aimed at market sharing and quota schemes (including allocation
- restrictions and prohibited tendering agreements – 'bid-rigging'
- forms of abuse of a dominant position aimed at driving out or excluding an undertaking from the market.

A.154 Horizontal schemes (in part or in full), in particular, which cannot be regarded as very grave infringements, are regarded as grave infringements. Forms of abuse of a dominant position, such as discrimination and tied sales, which may not be qualified as very grave infringements, are regarded as grave infringements. Schemes that distort competition to a limited degree are regarded as less grave infringements. As a rule, vertical schemes will be deemed to be less grave infringements. Branch schemes that restrict competition (and do not have prices and sales opportunities as their object) are deemed to be less grave infringements.

A.155 The factor (S) will be determined as follows:

- For a less grave infringement, this factor is set at a maximum value of 1
- For a grave infringement, this factor is set at a maximum value of 2
- For a very grave infringement, this factor at between 1.5 and 3.

A.156 In other words, in the event of a very grave infringement, the fine may therefore increase to 30 per cent of relevant turnover. From the perspective of the desired preventive effect, the starting point may be adjusted with a view to the size of the infringer, expressed in the total annual turnover of this infringer in the Netherlands in the business year preceding the fining decision. This may result in a multiplication of the base amount.

Aggravating and Mitigating Circumstances

A.157 Aggravating circumstances and mitigating circumstances may adjust the fine though he NMa is obliged to observe the statutory maximum.

A.158 Aggravating circumstances include:

- the infringer previously committed the same or a similar infringement

- the infringer hindered the NMa investigation
- the infringer instigated or played a leading role in committing the offence, and
- the infringer controlled or enforced compliance with illegal conduct.

A.159 Mitigating circumstances include:

- the infringer cooperated extensively in the NMa's investigation beyond his legal obligation to do so
- the infringer terminated the offence of his own accord (greater weight will be given to termination of an offence prior to the commencement of an NMa investigation as compared to termination in the course of the investigation), and
- the infringer of his own accord provided compensation to the injured party/ injured parties.

A.160 There is no specific information in the fining guidelines on how these aggravating and mitigating factors adjust the base amount.

Sanctions on individuals

Monetary sanction

A.161 The NMa also sets guidelines for the imposition of fines in individuals. The starting point is determined in respect to the bandwidths set out below:

- €10,000-€200,000 for giving instructions or exercising leadership of an infringement in breach of §25b1 or 25b2 (record keeping), §35 (failure to cooperate), §42 (provision of information), §43 (provision of information), §59a(3) (provision of information), §70b or §77a(3) (provision of information in relation to other undertakings) or infringing §5.20 of the General Administrative Law Act (failure to co-operate)
- €50,000-€400,000 for giving instructions or exercising leadership of an infringement involved in activity in contravention of Articles 81 and 82 of EC Treaty (and equivalent national legislation).

A.162 The starting point is adjusted (by the NMa) to take into account the seriousness and duration of the infringement. The NMa may also incorporate the specific aggravating and mitigating circumstances associated with the infringement, as well as the individual's involvement in committing the violation and the individual's position within the undertaking or association of undertakings.

Non-monetary sanctions

A.163 The NMa also has the power to impose an order subject to a penalty or a decision obliging the infringing person to act in accordance with the cartel prohibition.

Leniency for companies

A.164 There is an extensive system of fine reductions for those who are prepared to cooperate with the NMa's investigations. Fundamentally, legal entities and persons who provide information about a cartel can obtain a reduction of, or even a complete dispensation from fines. Important requirements are that the information is of substantial additional value (as opposed to the information already available to the NMa) and that all cooperation will be provided on request

Leniency for individuals

A.165 Individuals who exercised de facto leadership in an infringement of the cartel prohibition can apply for leniency under the same conditions as their company.

Settlements

A.166 Negotiated settlements between the NMa and the infringers are increasingly common. The agreements entail that the NMa will discontinue its investigation into, or proceedings against, the involved (association of) undertakings or persons in exchange for appropriate measures or commitments. In case of a negotiated settlement, no decision is issued as to the lawfulness of the conduct. This can be an advantage to the infringer if it fears civil actions, as the probability of success of a civil action is significantly higher if the NMa has already decided that the defendant participated in a cartel.

Private enforcement

A.167 According to Dutch law a company, another entity or a natural person who suffered losses due to a cartel can initiate a civil lawsuit in attempt to recover these losses. A claim submitted to the civil courts can be based on wrongful act, unjustifiable enrichment and undue payment. In theory it should also be possible to recover 'scattered losses' (many individual small losses caused by a single cartel) through the civil courts.

Australia

Provisions and enforcement of the antitrust prohibitions

A.168 The main competition laws in Australia are contained in Part IV of the Trade Practices Act (TPA) of 1974.[155] It contains the prohibitions of anti-competitive agreements, including price fixing (section 45) and misuse of market power (section 46), as well as more specific prohibitions, for example, secondary boycotts (sections 45DA, 45DB) and resale price maintenance (Section 48).

A.169 Part IV forms the Competition Code of Australia in conjunction with Part XIA, where Part XIA facilitates the application of the Code by the participating Territories and States. This construct is necessary because the Federal government faces certain constitutional restrictions when legislating in relation to competition. The main problem overcome by the Code is that the addressees of the prohibitions of the TPA are generally only corporate entities,[156] whereas under the Code, the prohibitions also apply to the conduct of natural persons.

Procedure

A.170 The Australian competition authority is the Australian Competition and Consumer Commission (ACCC). It is established under the TPA (Section 6A) and tasked with its enforcement. The ACCC actively investigates suspected violations of competition rules. Where it considers that a violation has occurred, it can accept

[155] Trade Practices Act 1974 (Cth).

[156] See Section 51 of the Australian constitution.

formal undertakings (Section 87B) instead of seeking a court ruling. In cases where a violation results in a net public benefit, it can grant legal immunity from the prohibitions.

A.171 In contrast with the other jurisdictions we have looked at (with the exception of the US), Australia has a dual adjudication system. Specifically, whether particular conduct contravenes the prohibitions of Part IV of the TPA is determined by the Federal Courts, not the competition authority. In addition, the ACCC cannot issue penalties under its own authority, but must seek the imposition of penalties through a civil action before the Federal Court.

Fine determination

A.172 Penalties available for violations of the prohibitions of Part IV are circumscribed by the provisions of Part VI of the TPA, which deals with enforcement and remedies. For companies found to have acted in contravention of the prohibitions under Part IV, the penalties provided for by the TPA are the highest of:

A.173 AUS$10 million (€5.03 million),

A.174 three times the value of the benefit enjoyed by the undertaking as a result of the infringement,[157]

A.175 10 per cent of annual turnover.[158]

A.176 Certain types of less serious anticompetitive conduct incur a maximum fine of AUS$750,000 (€377,565).[159] The maximum penalty applies to each individual infringement of the TPA, so that several penalties can be imposed for conduct within the context of a single cartel.

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[157] As from 1 January 2007. See *Trade Practices Legislation Amendment Act (No. 1)* 2006 (Cth).

[158] TPA Section 76(1A)(b) as of 1 January 2007, see above. 'Annual turnover' is defined as the 'annual turnover of the body corporate during the period (the turnover period) of 12 months ending at the end of the month in which the act or omission occurred'.

[159] Such as secondary boycotts for the purpose of causing substantial loss or damage (Section 45D), boycotts affecting trade or commerce (Section 45DB), contracts, arrangements or understandings affecting the supply or acquisition of goods or services (Section 45E). See TPA Section 76(1A)(a).

A.177 The maximum penalties laid down by the TPA have increased considerably over time. The AUS$10 million (€5.03 million) limit on fines for corporations was raised to this level in 1993, which was a 40-fold increase from the previous limit of AUS$250,000 (€125,855), while in 1994, the maximum penalty for individuals saw a tenfold increase from AUS$50,000 (€25,171) to its current level.[160] The alternative reference points for the maximum penalty for corporations, which can exceed AUS$10 million (€5.034 million), were put in place only in 2006.[161]

A.178 The quantum of a fine is determined by the Court with reference to the statutory guidance provided in Section 76(1) of the TPA. According to the TPA the court may set fines having regard to all relevant matters including:

A.179 the nature and extent of the act or omission

A.180 any loss or damage suffered as a result of the act or omission

A.181 the circumstances in which the act or omission took place, and

A.182 whether the person has been found by the court in previous proceedings under the TPA to have engaged in any similar conduct.

A.183 The language of the TPA makes it clear that the Court enjoys considerable discretion in decisions on fine levels in competition cases. As a result, a number of Court decisions have addressed the operation of Section 76.[162] These judgements provide a (non-exhaustive) list of the criteria the Court evaluates in its determination of fine levels.

A.184 They include:

- size of the contravening company

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[160] See Section 10 of the Trade Practices Legislation Amendment Act 1992 (Cth) and Section 46 of the Industrial Relations Reform Act 1993 (Cth).

[161] Effective as of 1 January 2007. See Trade Practices Legislation Amendment Act (No.1) 2006 (Cth).

[162] See TPC v CSR Ltd [1991] ATPR 41-076 ('CSR') and ACCC v Visy Industries Holdings Pty Limited (No 3) [2007] FCA 1617. See also the discussion in Clarke (2005).

- market share and ease of entry into the market
- deliberateness of the contravention and duration of infringement
- involvement of senior management
- corporate compliance programme
- co-operation
- similar conduct in the past
- financial position, and
- deterrent effect.

A.185 Ordinary sentencing principles also apply. Such principles are of a general nature. As an example, the Sentencing Act for the State of Victoria,[163] explains that sentences should be calibrated so as to

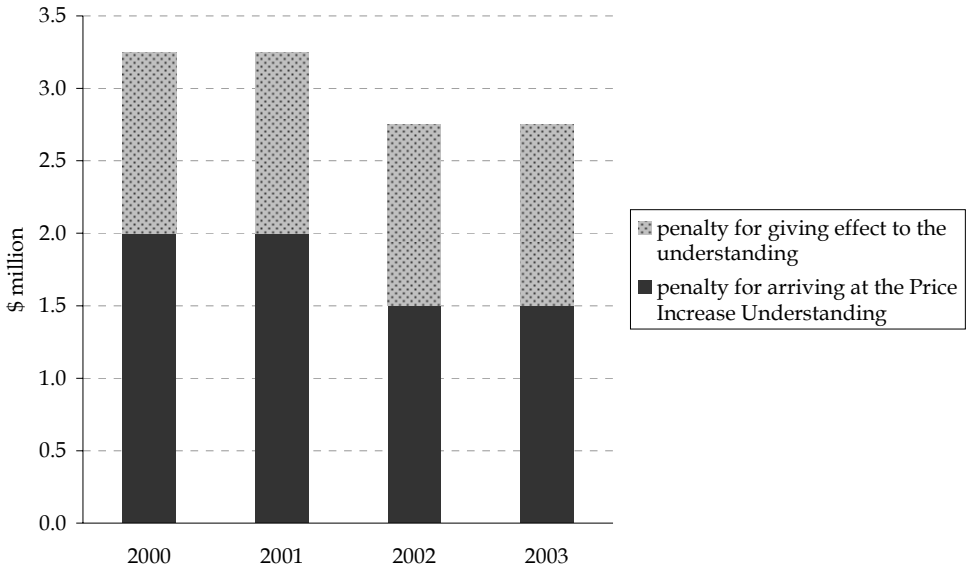
- punish the infringer to an extent and in a manner that is just in all of the circumstances or
- to deter the infringer or other persons from committing offences of the same or a similar character or
- to manifest the denunciation by the court of the type of conduct in which the infringer engaged, etc.

A.186 Note that under Australian law, individual violations within the same cartel incur separate fines. For example, in ACCC v Visy Industries Holdings Pty Limited (2007), which involved a major price-fixing cartel, the act of reaching an understanding about price increases and the implementation of this agreement were penalised separately (Figure A.2).

[163] Sentencing Act 1991 (Vic).

A.187 Thus, theoretically, had Visy failed to implement the agreed price increases, this would have reduced the penalty by between 38 per cent in 2000-2001 and 45 per cent in 2002-2003, which can be seen as an effective discount for non-implementation. For other violations in the context of the cartel, the discount would have been as high as 50 per cent.

A.2 Fines for the 4 annual Price Increase Understandings in ACCC v Visy Industries Holdings Pty Limited (2007)



Source: London Economics.

A.188 Moreover, the fact that each new agreement and each new implementation is treated as a new violation in each year means that the duration of the cartel conduct does not necessarily enter the penalty calculation in a straightforward linear fashion. However, had the gravity of the violation been judged the same in each year, this would have resulted in a linear schedule in which the base amount of the fine is multiplied by the duration (in years) of the violation.

A.189 Overall, the method for setting fines for infringements of competition law in Australia is relatively opaque.[164] While the maximum level of fines is fixed by statute, the courts retain a large amount of discretion.

Non-monetary sanctions

A.190 Following an application by the ACCC, the Federal court can impose non-monetary penalties for violations of the TPA. The non-monetary sanction most relevant for serious violations, such as cartels, is the power to issue director-disqualification orders, which is available for infringements that occurred after1 January 2007. Such orders disqualify a person from managing corporations 'for a period that the Court considers appropriate'.[165]

A.191 Adverse publicity orders are an innovative non-monetary sanction available in Australia. Under Section 86D of the TPA, the court can order persons (natural and legal) that have been fined under Section 76 (that is, including persons guilty of infringements of Part IV) to disclose publicly any information the Court considers appropriate, with the details and form of publication to be determined by the Court.

Fining guidelines

A.192 The determination of fine levels in competition cases is a matter for the Federal Court. Statutory guidance is provided in Section 76(1) of the TPA. Further guidance exists only in case law. Ordinary sentencing guidelines apply.

Sanctions on individuals

Monetary sanctions

A.193 Under the TPA The maximum penalty for individuals is AUS$500,000 (€251,750).

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[164] TPC v TNT [1995] ATPR 41-375, 40,165 (Burchett J). contains the following, instructive quote: 'the fixing of the quantum of penalty is not an exact science. It is not done by the application of a formula, and, within a certain range, courts have always recognised that one precise figure cannot be incontestably said to be preferable to another'.

[165] TPA Part VI Section 86E.

Non monetary sanctions

A.194 The Trade Practices (Cartel Conduct and Other Measures) Bill 2008 represents the long-awaited attempt to update the Australian competition regime enshrined in the 1974 TPA. A stated objective of the new law is to bring Australia in line with other OECD jurisdictions.

A.195 Among the most important of the proposed changes is the introduction of criminal sanctions for serious cartel conduct.[166] These will include maximum penalties for individuals of up to 10 years imprisonment and penalties of up to AUS$220,000 (€110,752). The new penalties will apply to serious cartel conduct, which includes agreements to fix prices, restrict output, allocate markets, as well as bid-rigging offences.

A.196 Criminal cases will be brought by the Commonwealth Director of Public Prosecutions (CDPP). The CDPP and the ACCC will establish procedures for the investigation of cartel offences and the circumstances in which the ACCC will refer a case to the CDPP for prosecution. The proposed law also strengthens the ACCC's investigative powers by allowing the use of intercept telecommunications, and the protection of whistleblowers. Finally it will simplify the language of the TPA, especially in relation to cartel provisions, which will now be used in jury trials under the Australian criminal law system.

Leniency for companies

A.197 The ACCC currently operates an Immunity Policy and a Cooperation Policy in parallel. While both offer potentially full immunity from litigation, they differ in scope. Whereas one of the main aims of the Immunity Policy is the detection of cartels, the Cooperation Policy mainly tries to reduce the cost of investigations by offering incentives to cartel members to provide information and reducing the cost of litigation through negotiated settlements (which are still put before the court for adjudication).

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[166] As of January 2009, no criminal sanctions are available in competition proceedings in Australia. The TPA prohibits the imposition of criminal penalties for contraventions of the competition provisions in Section 78 of the TPA.

2002 Cooperation Policy

A.198 In recognition of the fact that it is unable to pursue all potential or alleged breaches of the TPA, the ACCC operates a Cooperation Policy, which it published in 2002. Under the policy, the ACCC can offer full or partial immunity from civil prosecution for companies and individuals that

- might be engaged in conduct in contravention of the TPA, and
- come forward to assist the ACCC in its investigation.

A.199 Rewards for cooperation can also include applications for a reduction in fine levels (if cases are brought to court), or out-of-court administrative settlements.

A.200 Leniency in exchange for cooperation is granted on a number of conditions. The individuals or companies that come forward must provide information of which the ACCC would otherwise have been unaware, provide full and frank disclosure, including relevant evidence, of the unlawful activities they were involved in, and did not act as ringleaders in the infringement, nor took steps to compel others to participate in it. Companies are also obliged to terminate the contravening conduct, be prepared to compensate injured parties and undertake steps to ensure future compliance. Immunity in exchange for cooperation is not available to repeat infringers.

A.201 Where companies or individuals are not eligible for immunity, but have nonetheless aided the ACCC's investigation in a substantial way, the ACCC can choose to make a joint submission to the court together with the accused party for a reduction in the penalty. For its decision whether to reach such a settlement, the ACCC takes into account criteria similar to those evaluated by the Court in its fining decisions.

A.202 In practice, the Cooperation Policy is used as an inducement to cooperate for companies or individuals that are not eligible for full immunity under the Immunity Policy (for example because they acted as ringleaders in the violation) because the ACCC already had sufficient evidence to start judicial proceedings, or because another party was first to approach the ACCC with a plea for immunity.

2005 Immunity Policy

A.203 The Immunity Policy offers full or partial immunity for whoever is the first company or individual to provide the ACCC with evidence that allows the opening of court proceedings for violations of Part IV of the TPA. Granting of immunity is tied to the following conditions:

A.204 the corporation is or was a party to a cartel

A.205 the corporation admits that its conduct may constitute a contravention of the TPA

- the corporation is the first to apply for immunity
- the corporation was not the ringleader and has not coerced other parties to participate
- the corporation ceases its involvement in the cartel
- the corporation's admissions are a 'truly corporate act' (as opposed to isolated confessions of individual representatives), and
- at the time of the application the ACCC does not have sufficient evidence to commence proceedings in relation to the reported violation.

A.206 With the exception of the stipulation that the admission must be a corporate act, the same conditions apply to individuals seeking immunity. Immunity is first granted on a conditional basis, and only be made final when court cases against other cartel participants have been closed.

A.207 The Immunity Policy together with the accompanying Guidelines also provide for procedural refinements, such as the possibility for individuals or companies willing to take advantage of the policy to make hypothetical inquiries as to the availability of first-reporter status in respect of a particular cartel, or to request a 'marker' to guarantee their first-reporter status for a certain amount of time.

A.208 Another important feature of the Immunity Policy is that it offers 'amnesty plus', where the ACCC will recommend a reduction in the penalty for participation in a cartel even for companies who are not the first to report, if they provide the ACCC with evidence of the existence of a further cartel it had not hitherto been aware of.

Leniency for individuals

A.209 The Cooperation Policy of 2002 and the Immunity Policy of 2005 provide only for immunity from the civil consequences of participation in a cartel for companies and their employees. Individuals can apply for leniency in a personal capacity, but this jeopardises the position of their employers, who can no longer benefit from being the first to report an infringement after an individual application has been received by the ACCC.

A.210 To provide for the eventuality that the proposals to introduce criminal sanctions become law, the ACCC published revised versions of the Immunity Policy and the accompanying Guidelines on 1 December 2008.

A.211 The revised guidelines envisage that the ACCC will apply the same principles that determine eligibility under the current Immunity Policy when making recommendations to the Commonwealth Director of Public Prosecutions.

Settlement

A.212 The ACCC can negotiate with parties to agree penalties and other orders to be submitted to the court. The process is purely informal and is available for companies who benefit from the ACCC's Cooperation Policy (see further below).

Private enforcement

A.213 Australian law provides for actions for damages by parties injured by anti-competitive conduct. Section 82 of the TPA states that 'a person who suffers loss or damage by conduct of another person in contravention of a provision of Part IV, IVA, IVB or V or Section 51AC may recover the amount of the loss or damage by action against that other person or against any person involved in the contravention'. Damages awarded in third-party actions are thus purely compensatory. No punitive surcharge is applied.

A.214 Where there has been a contravention of Part IV,[167] the ACCC can take representative action for damages on behalf of third parties.

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[167] Not including secondary boycott provisions (Sections 45D to 45DE).

A.215 Opt-out class actions are available in Australia and, together with corporate litigation funding, are increasingly common in Australian cartel litigation. Large class actions are currently being brought against Qantas and the Amcor/Visy cartel. This development has led to concerns on the part of the ACCC about the effect on its leniency programme. For example, the ACCC had to release information supplied by a leniency applicant (Amcor) in the Amcor/Visy cartel to a claimant in a follow-on action.

B DESCRIPTIVE STATISTICS OF DIFFERENT JURISDICTIONS' FINING PRACTICES

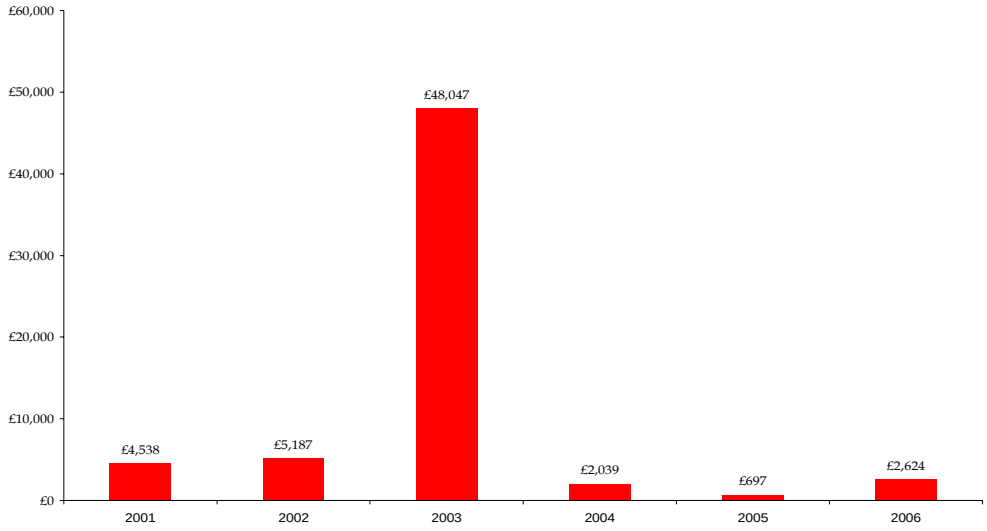
Descriptive Statistics of the United Kingdom's fining practice

B.1 This part of the analysis updates and summarises the administrative fines imposed by the OFT over the years 2001-2006. Based on fining decisions in 19 cases involving 77 firms, the analysis here examines the distribution of fines and the pattern of fine determination process by the OFT.

Total fines and types of infringement

B.2 Between 2001 and 2006, the OFT imposed £63.1 million (€71.6 million) in antitrust fines. In 2003, following the successful detection of and enforcement action in relation to the 'Toys' and 'Replica Kit' cartels, and the 'Genzyme' exclusionary practice, the OFT imposed approximately £48 million (€54.59m) in antitrust fines (pre appeal), which accounts for more than half of the total fines collected from 2001 to 2006 (see Figure B.1).

B.1 Pre appeal fines imposed by the OFT over time (2001-2006)



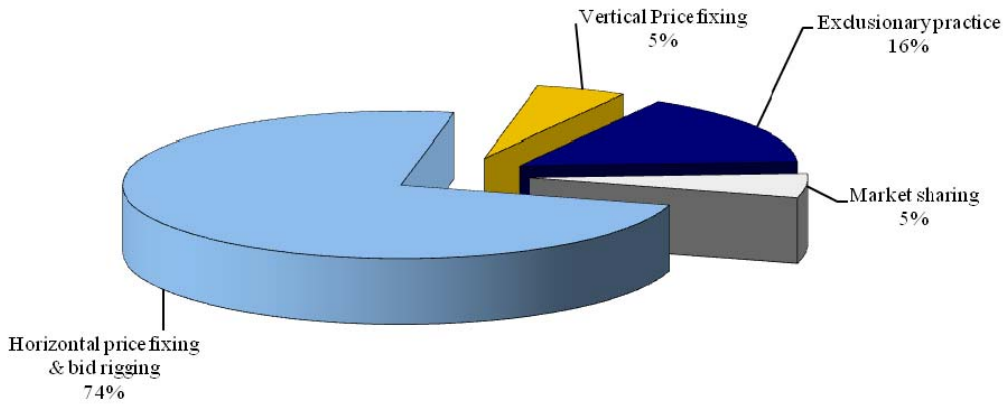
Source: London Economics' analysis of OFT data

B.3 The average fine per case over the period was £4.7 million (€5.34 million) before the leniency reductions and £3.3 million (€3.75 million) after leniency reductions

(pre appeal). The average fine per firm was £1.3 million (€1.47 million) before leniency reductions falling to £0.96 million (€1.09 million) after leniency reductions (pre appeal). The largest fine on any one firm was £17.2 million (€19.5 million) (Argos in 'Toys'). Thirty organisations were fined less than £20,000 (€22,747) over the period.

B.4 We present in Figure B.2 the distribution of prosecuted infringements by the nature of the infringement. On average, a prosecuted cartel in the UK has 5.5 participating firms and operated for 15 months. The largest cartel in terms of the number of firms involved had 13 members and operated for 12 months ('England and Scotland Roofing'). Approximately 79 per cent of the prosecuted infringements are horizontal agreements incorporating price-fixing, market sharing and bid-rigging. A small fraction of prosecuted cases consist of exclusionary practice (16 per cent) and vertical price fixing (five per cent).

B.2 Distribution of prosecuted infringements by type of infringement (2001-2006)



Source: London Economics' analysis of OFT data

Average fines and average fine to turnover ratios

B.5 In this section, we present some analysis in relation to the average fine and average fine to turnover ratios. Figure B.3 provides an overview for average fines as well as of average fine-turnover ratios for each stage of the fine determination process. When considering the average fine ratios, it is important to understand the weighting factors that have been adopted, as well as the measures of turnover or market size. In this analysis, we present information on simple arithmetic

averages, as well as weighted averages (where the weights adopted relate to the size of the infringement (that is, duration adjusted relevant turnover or affected commerce). Throughout, we consider either average or weighted average fines as a proportion of size of the infringement (that is, duration adjusted relevant turnover or affected commerce).

B.6 The analysis illustrates the importance of selecting and understanding the alternative metrics that might be considered. In particular, when considering the average fine as a proportion of affected commerce, the estimates indicate that the fine escalates substantially more rapidly (especially as a result of the deterrence stage of the fine determination process) than when considering the weighted average. In part, the use of simple averages (rather than weighted averages) results in a disproportionate weight being placed on possible outliers in the analysis. As such, we focus on weighted averages, which provide a more consistent assessment of fine determination.

B.3 Fines imposed by the Office of Fair Trading 2001-2006

	Fines £ million (€ million)	Fine/Affected Commerce	
	Mean	Average	Weighted Average
Starting point	0.723 (€0.822)	11.0	7.9
Adjustment for duration	0.848 (€0.964)	11.9	9.3
Adjustment for deterrence	1.101 (€1.252)	40.7	12.1
Agg. & Miti. Circumstances	1.157 (€1.315)	39.9	12.7
Statuary limit	1.149 (€1.306)	39.7	12.6
Leniency	0.820 (€0.932)	34.2	9.0
Appeal	0.671 (€0.763)	32.3	7.3

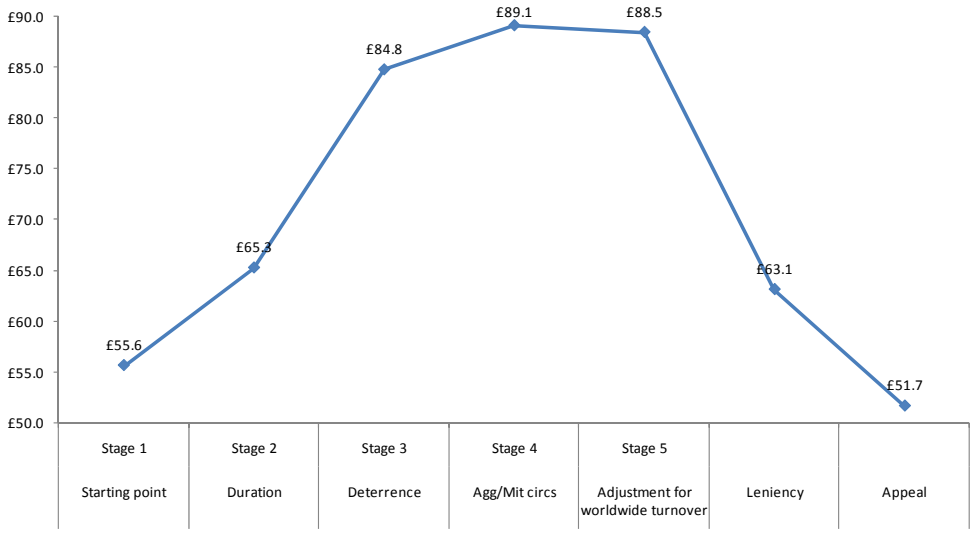
Source: London Economics' analysis of OFT data

The Fining Process

B.7 Figure B.4 provides some indicative information on the weighted average fine levied on firms at different stages in the process, while Figure B.3 illustrates how the total fines build up over the five steps of fine determination. Once the starting

point of the fines has been set, the total fines levied increase by 17 per cent as a result of adjustment for duration (from £55.6 million (€63.2 million) to £65.2 million (€74.2 million)). It then increases sharply (by nearly 30 per cent) and reaches £84.8 million (€96.4 million) as a result of adjustment for sufficient deterrence. This indicates that the deterrence effect carries considerable weight in the OFT's penalty calculating process.

B.4 Total OFT fines during each stage of fine determination (2001-2006: £ million)



Source: London Economics' analysis of OFT data

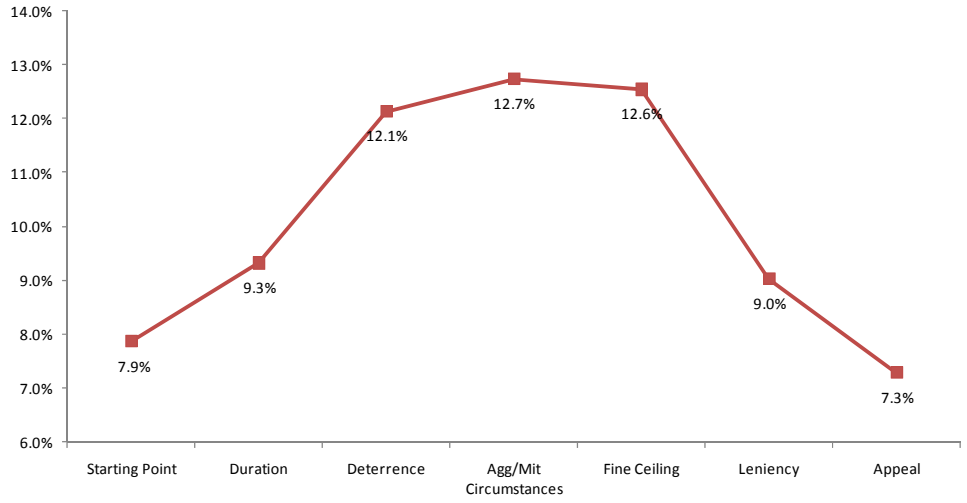
B.8 In relation to aggravating and mitigating circumstances, there is a moderate net increase in the aggregate level of fines when aggravating and mitigating circumstances are taken into account. Unfortunately, given the level of information available in relation to specific aggravating and mitigating circumstances, it is not possible to disaggregate the information further and identify the impact of aggravating circumstances and mitigating circumstances separately.

B.9 There is a marginal reduction in the total level of fine imposed as a result of the fine ceiling step of the fine determination (from £89.1 million (€101.3 million) to

£88.5 million (€100.6 million)). However, leniency results in the largest adjustment to the total level of fines imposed. Specifically, the leniency element results in a reduction in total fines levied by almost 29 per cent (from £88.5 million (€100.6 million) to £63.1 million (€71.7 million)) over the period. Appeals had the effect of reducing the total fine level by 18 per cent to £51.7 million (€58.8 million) over the period.

B.10 It is also possible to consider the average level of fine as a proportion of relevant turnover in the last business year. This information is presented in Figure B.5. The evidence suggests that once the initial starting point is adjusted for duration, the weighted average of the fine imposed as a proportion of affected commerce is approximately 9.3 per cent. Following the trends presented in Figure B.5 in relation to the levying of fines for deterrence purposes, the ratio of weighted average fine to affected commerce increases sharply and reaches 12.1 per cent.

B.5 Weighted average OFT fine as a percentage of affected commerce (2001-2006)



Source: London Economics' analysis of OFT data

B.11 This reiterates the earlier finding that deterrence correction carries considerable weight in the OFT's fining decisions. There is a moderate net increase in the ratio when aggravating and mitigating circumstances are taken into account (0.8 percentage points), and the adjustment for statuary limits slightly decreases the ratio (by 0.1 percentage points). The minimal reduction during this step of fine

determination implies that that fines set by the OFT rarely exceed the statutory limits.

B.12 The most striking aspect is the significant jump in the ratio of the weighted average fine to affected commerce for firms as a result of the deterrence step. The increase from 9.3 per cent to 12.1 per cent appears very high, however closer inspection of the OFT case data indicates why this jump is so significant. In particular, there are a number of cases where after the determination of the starting point and duration adjustment, the absolute level of the fine determined is relatively small, however, following the imposition of the deterrence step, the fine increases substantially (in relative terms).[168]

Descriptive Statistics of the DoJ's fining practice

Introduction

B.13 This part of the analysis summarises the criminal and civil enforcement by the DOJ over the years 1955-2007. Four sources of data are used: U.S. Department of Justice Antitrust Division Workload Statistics (DoJ WS), Gallo et al. (2000) and the DOJ's Antitrust Case Filings (2006-2008). The DoJ WS contains information (covering the period 1998-2007) on the total fines imposed on individuals and corporations each year, the number of individuals and corporation prosecuted, the number of individuals sentenced to jail, and total number of days of incarceration imposed by the court. The data gathered from the DOJ's Antitrust Case Filings (2006-2008) contain information on the types of infringement, the amount of fine imposed on each firm, the duration of infringement, and the details on the fine adjusting process. Finally, we use data gathered by Connor and Helmers (2006) on sanctions imposed on 45 recent international cartels. This dataset contains information on the sanctions imposed on each cartel, the number of firms and

[168] For instance, the Arriva/First Group fine after stage 2 of the fine determination process stood at £18,175 (€20,671) while the deterrence stage increased the fine by £300,000 (€341,204). Similarly, Walkers (Scottish Roofing CA98/1/2005) saw their fine increase from £1,708 to £15,708 (€1,943 to €17,865), Makers' fine (English and Scottish Roofing CA98/1/2006) increased from £6,500 to £526,500 (€7,393 to €598,813), Prater's fine (English and Scottish Roofing CA98/1/2006) increased from £9,665 to £284,665 (€10,992 to €323,763) and Bemrose's fine (Stock Check Pads CA98/3/2006) from just over £629,000 to £1,888,600 (€715,391 to €2.147 million).

infringements, the affected sales, the level of cartel overcharges and most importantly the fine to sales ratio and fine to overcharge ratio for each infringement, which may serve as indictors for the levels of competition enforcement.

Total fines and types of infringement

B.14 From 2001 to 2007, Sherman Act violations prosecuted by the DOJ have yielded $3,810 million (€2,986 million) in antitrust fines from 178 corporations and 247 individuals.[169] Total corporate fines stand at $3,755 million (€2,926 million) and total individual fines at $55million (€43 million). In particular, Sherman Act violations prosecuted by the DOJ have yielded 56 corporate fines of $10 million (€7.79 million) or more, including 11 fines of $100 million (€77.9 million) or more, of which three[170] were fines of $300 million (€234 million) and one of $500 million (€390 million).[171]

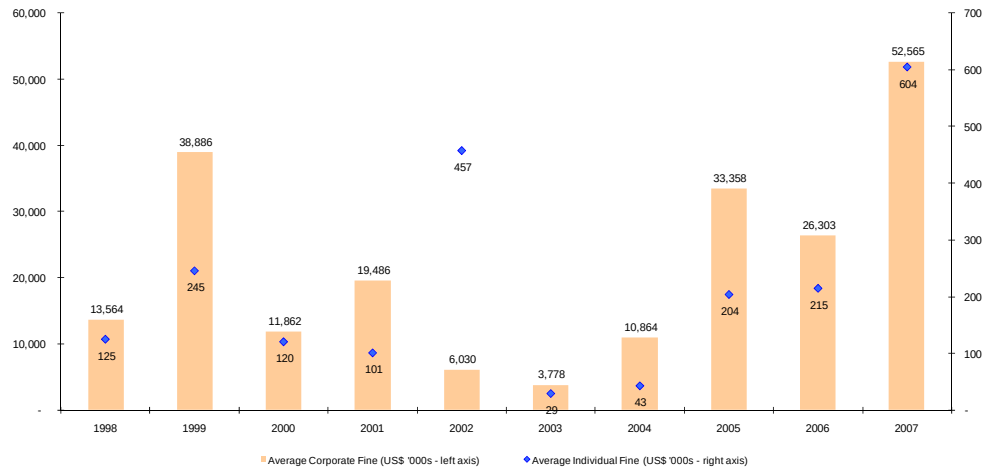
B.15 In general, the average corporate fine has increased over time from $13.5 million (€11 million) in 1998 to over $52 million (€40.5 million) in 2007. The average individual fine per person was approximately $200,000 (€171,000) and has also increased sharply over time. In 1998, the average fine per individual stood at approximately $125,000 (€97,000), while in 2007, the average fine exceeded $600,000 (€467,000). In addition to the generally increasing financial penalties being imposed on individuals, it is also the case that the severity of non financial penalties is increasing.

[169] Dollar figures are amounts imposed during the fiscal year.

[170] Samsung (2006), Korean Air Lines (2007), and British Airways (2007).

[171] F. Hoffmann-La Roche (1999).

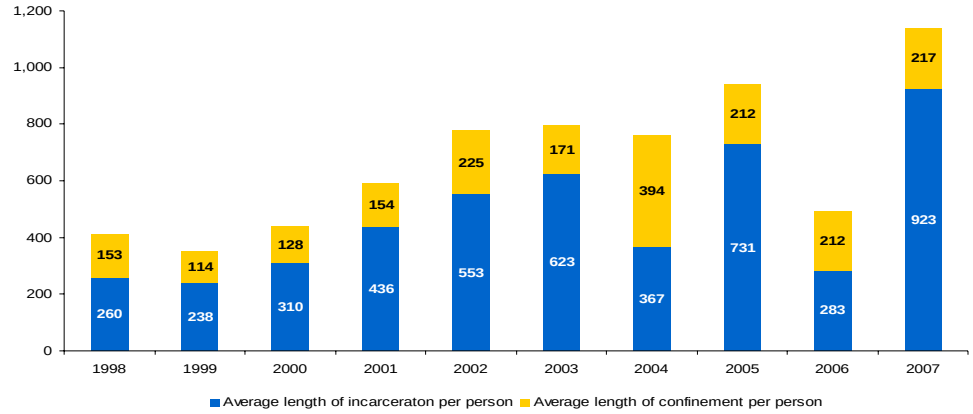
B.6 Average size of fine against corporations and individuals (1998-2007)



Source: U.S. Department of Justice, Antitrust Division Workload Statistics (1998 – 2007)

B.16 In Figure B.7, we present information on the average total number of incarceration and confinement days imposed by courts.

B.7 Average sentence length imposed on individuals – incarceration and confinement days (1998-2007)



Source: U.S. Department of Justice, Antitrust Division Workload Statistics (1998 – 2007)

B.17 Again, the information indicates that there appears to be a general upward trend (increasing from 260 days in 1998 to 923 days in 2007). It is also the case that the total number of individuals receiving jail terms has more than doubled over the

period. A similar outcome is illustrated in relation to the average (and incidence) of confinement days.

Range of average fines and range of average fine to affected commerce ratios

B.18 We present some analysis in relation to the average fine and average fine to volume of affected commerce ratios. Table B8 below provides an overview for the fining-decision sample of average fines as well as of average fine-affected ratios based on DOJ's Antitrust Case Filings (2006-2008).

The Fining Process

B.19 Although we have provided some indicative information on the average fine levied on firms at different stages in the process, Figure B.9 illustrates how the total fines build up over the various steps (for which analysis can be undertaken) of the fine calculation process.

B.20 We start with examining the base fine imposed on organisations involved in anti-competitive behaviour. The base level of the fine range depends on the nature of the infringement and the minimum and maximum fines range between 20 per cent and 40 per cent of affected commerce. The average fine increases by to between 33 per cent and 66 per cent of affected commerce as a result of adjustment for organisation size.

B.21 It is possible to assess some of the individual aggravating and mitigating circumstances and how these affect the final fines imposed on firms. From the information available between 2006 and 2008, we estimate that the adjustment for repeated offences, average firm fine as a proportion of commerce affected increases to between 34 per cent and 68 per cent. In relation to obstruction of justice and tolerance of criminal behaviour there is a moderate increase in the aggregate level of fines when it is taken into account (ranging between 35 per cent and 70 per cent).

B.22 In relation to mitigating circumstances, the full co-operation of the organisations involved has the effect of reducing the average fine as a proportion of affected commerce to between 28 per cent and 56 per cent in those cases for which information exists. Although the sentencing guidelines explicitly allow for the

reduction in the culpability score of undertakings through the adoption of effective compliance and ethics programmes, in the cases that we considered, no firms received any reduction in the fine range for this reason.

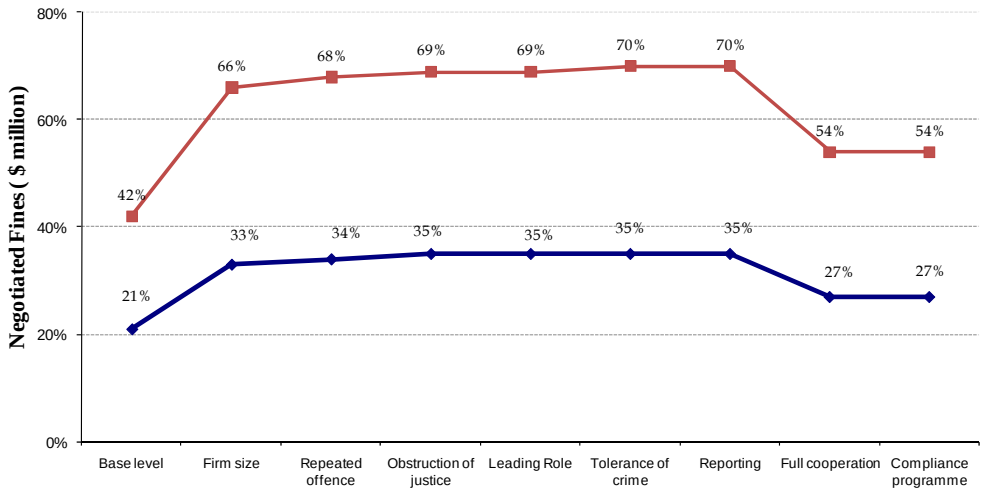
B.23 It is important to reiterate that the information on cases in the US between 2006 and 2008 relates to plea agreements and that often the information provided is not sufficiently comprehensive to undertake a more granular analysis.

B.8 Fines imposed by DOJ 2006-2008

	Fines (US$ million (€million))				Fine / affected commerce (%)			
	Min	max	min. St Dev	max. St Dev	min	Max	min. St Dev	max. St Dev
Base level	62.2 (48.5)	124.3 (96.8)	85.3	170.6	20.0%	40.0%	4.5%	8.9%
Firm size	116.6 (90.8)	233.3 (181.7)	171.3	342.6	33.2%	66.4%	9.5%	18.9%
Repeated offence	117.0 (91.1)	234.0 (182.3)	171.1	342.3	34.0%	68.0%	11.1%	22.3%
Obstruction of justice	117.0 (91.1)	234.0 (182.3)	171.1	342.3	34.6%	69.2%	13.2%	26.4%
Leading Role	117.0 (91.1)	234.0 (182.3)	171.1	342.3	34.6%	69.2%	13.2%	26.4%
Tolerance of crime	118.4 (92.2)	236.7 (184.4)	170.7	341.4	35.4%	70.8%	12.5%	25.1%
Full cooperation	94.4 (73.5)	188.9 (147.2)	136.5	272.9	28.2%	56.4%	13.1%	26.3%
Compliance programme	94.4 (73.5)	188.9 (147.2)	136.5	272.9	28.2%	56.4%	13.1%	26.3%
Observations (firms)	20				20			

Source: London Economics analysis of US Department of Justice Information.

B.9 Average fine as a proportion of affected commerce during each stage of fine determination – midpoint (2006-2008)



Source: London Economics' analysis of DOJ's Antitrust Case Filings (2006-2008)

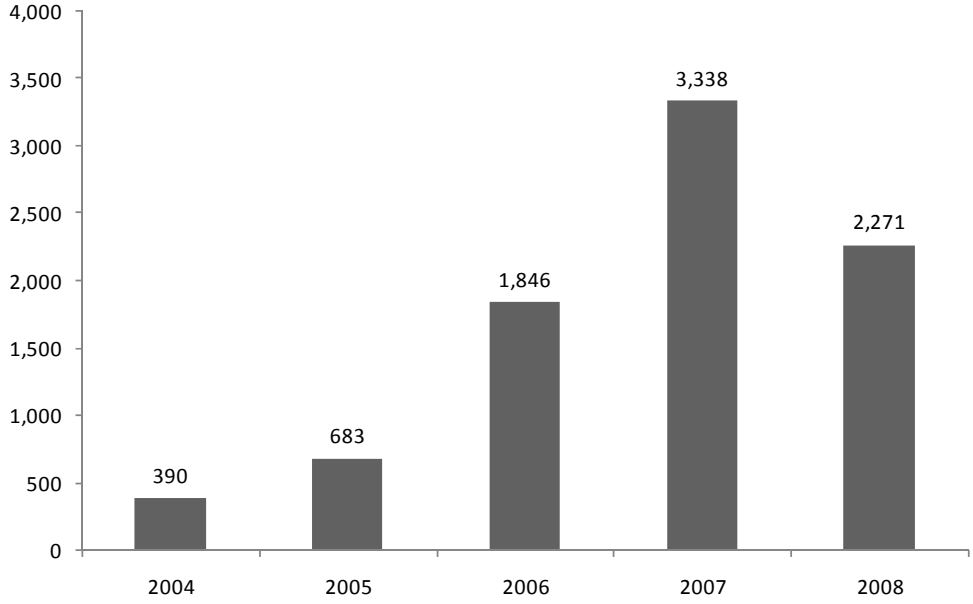
Descriptive Statistics of the European Commissions' fining practice

Introduction

B.24 This part of the analysis summarises the administrative fines imposed by the European Commission between 2005 and 2007. The analysis here examines the distribution of fines and the pattern of fine determination process by the European Commission.

B.25 The Commission has issued only a handful of decisions in each year, around 7 on average since 2004. Per year those cases involved between 29 and 45 individual undertakings. The total fines imposed in cartel cases can be very large. In 2007 the Commission imposed fines totalling over €3.3 billion, the maximum amount of any year of analysis. In each of the last three years, the total exceeded €1.5 billion per annum.

B.10 Total fines imposed by the EC (2004-2008, € million)



Source: EC DG Competition

B.26 This level of fining activity is unprecedented in the EU and represents a very significant escalation compared with past practice. Total fines imposed since 2004 are higher than fines imposed over the previous 10 years by a factor of 1.7.

B.27 Figure B.11 and B.12 further illustrate the significance of the fines faced by cartel participants in the EU. The maximum fine in an individual case totalled more than €1.3 billion, with the largest fine for an individual company (imposed in the same case) standing at €896 million.

B.11 Ten highest EC cartel fines per case

Year	Case	Fine (€ million)*
2008	Car glass	1,383.8
2007	Elevators and escalators	992.3
2001	Vitamins	790.5
2007	Gas insulated switchgear	750.7
2008	Candle waxes	676.0
2006	BR/ESBR	519.0
2007	Flat glass	486.9
2002	Plasterboard	458.5
2006	Hydrogen peroxide and perborate	388.1
2006	Methacrylates	344.5

Note: Amounts corrected for changes following judgements of the CFI and ECJ.
Source: EC DG Comp.

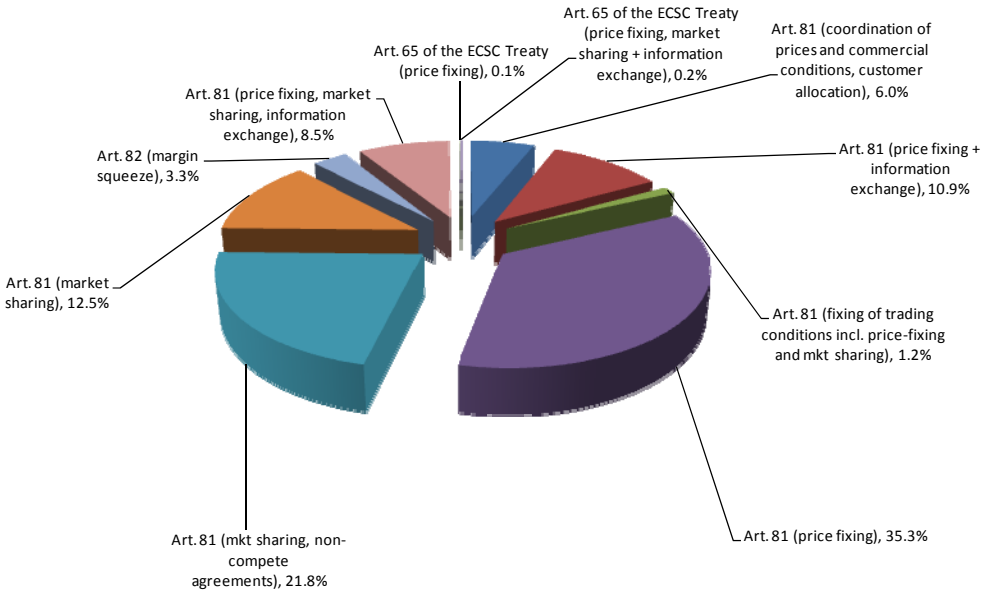
B.12 Ten highest EC cartel fines per undertaking

Year	Undertaking	Case	Fine (€million)*
2008	Saint Gobain	Car glass	896.0
2007	ThyssenKrupp	Elevators and escalators	479.6
2001	F. Hoffmann-La Roche AG	Vitamins	462.0
2007	Siemens AG	Gas insulated switchgear	396.5
2008	Pilkington	Car glass	370.0
2008	Sasol Ltd	Candle waxes	318.2
2006	Eni SpA	BR/ESBR	272.2
2002	Lafarge SA	Plasterboard	249.6
2001	BASF AG	Vitamins	236.8
2007	Otis	Elevators and escalators	224.9

Note: Amounts corrected for changes following judgements of the CFI and ECJ.
Source: EC DG Comp.

B.28 Figure B.13 illustrates that a significant proportion of the fines levied relate to price fixing (either solely or in conjunction with other infringements). Specifically, just over 35 per cent of the total fines levies relate to price fixing (solely), with an additional 20 per cent involving some element of price fixing activity (alongside market sharing and/or information exchange). Of the remaining fines levied, market sharing and non-compete agreements account for 21.8 per cent of fines, market sharing (solely) accounts for 12.5 per cent, margin squeeze (3.3 per cent), and co-ordination of prices and commercial conditions and customer allocation (6.0 per cent)

B.13 Distribution of prosecuted infringements by type of infringement (2005-2007)



Source: London Economics' analysis of EC data

Analysis of four specific cartel cases

B.29 Information on the specific fining outcomes in EC cases is limited. Although there have been a relatively large number of cases that have resulted in fines being paid, the publication of the specific details relating to the fine determination has a considerable lag and as such we have relied on publicly available information

relating to decisions made between 2005 and 2006. From the detailed information collected on four specific cases between 2005 and 2006 for which information exists relating to the individual elements of the fine determination process, it is possible to assess the average fine per firm at each stage of the process, as well as the average fine as a proportion of relevant turnover. This should not be considered as representative of all EC cases, but it is illustrative of fining practice at each of the stages.

B.30 We have considered the available information (specifically relating to turnover) relating to 31 fines imposed in the following cases: Rubber Chemicals (2005), Methacrylates (2006), Hydrogen Peroxide and Perborate (2006) and Industrial Bags (2005).

B.14 Determining factors in 4 EC fining decisions (2005/2006)

Stage	Factor	Instances
Gravity	Minor	-
	Serious	-
	Very serious	31
Sufficient deterrence		11
Duration	Short (<1yr)	1
	Medium (1-5 yrs)	7
	Long (>5 yrs)	23
Aggravating circumstances	1 (repeat infringement of the same type by the same undertaking)	8
	2 (refusal to cooperate or attempts to obstruct the Commission in carrying out its investigation)	1
	3 (role of leader in, or instigator of the infringement)	-
	4 (retaliatory practices against other undertakings with a view to enforcing practices which constitute an infringement)	-
	5 (need to increase the penalty in order to exceed the amount of gains improperly made as a result of the infringement when it is objectively possible to estimate the amount)	-
	6 (other)	-
Mitigating circum	1 (exclusively passive or 'follow-my-leader role in the infringement)	3

Stage	Factor	Instances
	2 (non-implementation in practice of the offending agreements or practices)	-
	3 (termination of the infringement as soon as the Commission intervenes (in particular when it carries out checks)	-
	4 (existence of reasonable doubt on the part of the undertaking as to whether the restrictive conduct does indeed constitute an infringement)	-
	5 (infringements committed as a result of negligence or unintentionally)	-
	6 (effective cooperation by the undertaking in the proceedings, outside the scope of the Notice of 18 July 1996 on the non-imposition or reduction of fines in cartel cases)	-
	7 (other)	-
Ability to pay		-
10 % turnover cap		10
1996 Leniency Notice	Section B (at least 75% reduction)	1
	Section C (50-75% reduction)	-
	Section D (10-50% reduction)	6
2002 Leniency	Section A (immunity)	3
	Section B (reduced fine)	-

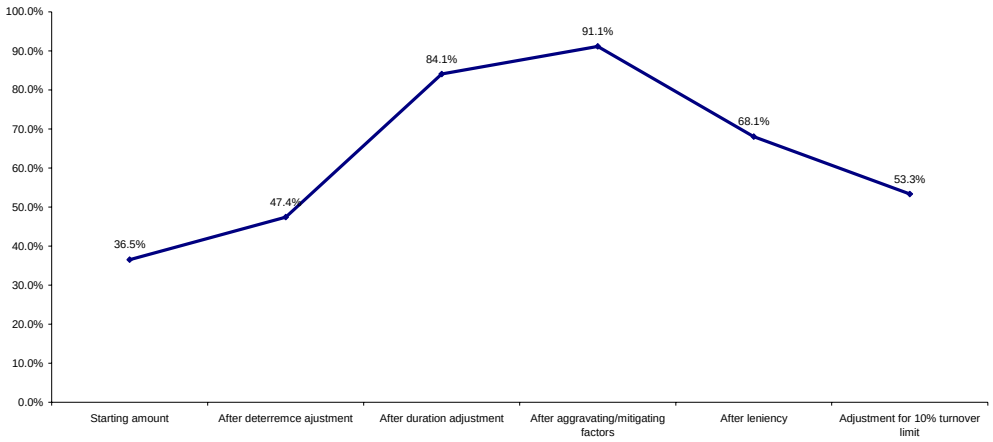
Source: EC DG Competition. Note: Based on 31 fines imposed in the following cases: Rubber Chemicals (2005), Methacrylates (2006), Hydrogen Peroxide and Perborate (2006) and Industrial Bags (2005).

B.31 As can be seen from Figure B.14, which presents the characteristics of the particular cases, all 31 of the firms were involved in 'very serious' anti-competitive behaviour.

B.32 The analysis presented in Figure B.15 suggests that at the starting stage, the average fine as a proportion of relevant turnover imposed on these firms stands at 36.5 per cent (equivalent to €22.1 million), which increases to 47.4 per cent after the deterrence adjustment (equivalent to €33.2 million). The greatest increase occurs after the adjustment for duration, which increases the average firm fine as a proportion of single year relevant turnover to 84.1 per cent (equivalent to €57.6 million). The relatively large increase in the average fine as a result of duration reflects the fact that 23 of the 31 firms investigated were involved in cartel

activity for a period of five years (with the maximum duration exceeding 20 years). It is also important to note that the treatment of duration under the current Commission guidelines is substantially more severe that might be indicated from the information presented here. Specifically, under the pre 2006 fining guidelines, the size of the fine was increased by 10 per cent for each full year for which the cartel operated and five per cent for each period between six months and one year. This compares with a 100 per cent increase for each year the cartel was in operation under the current guidelines.

B.15 Average fine as a percentage of relevant turnover x duration in 4 EC decisions (2005/2006)



Source: EC DG Competition. Note: Based on 31 fines imposed in the following cases: Rubber Chemicals (2005), Methacrylates (2006), Hydrogen Peroxide and Perborate (2006) and Industrial Bags (2005).

B.33 The impact of aggravating and mitigating circumstances increases the average fine as a proportion of relevant turnover by seven percentage points to an average of 91.1 per cent (equivalent to €68.6 million). From the specific case information we have been able to collect on 31 firms, the Commission considered eight firms to have been guilty of repeat infringement of the same type, with a single incidence of non-cooperation. In relation to mitigating circumstances, the decisions indicate that three firms received a reduction in fines given their passive role in the cartel. The impact of leniency – which occurred in 10 cases – reduced the average fine as a proportion of relevant turnover to 68.1 per cent (equivalent to €40.5 million). There were 10 firms that received a reduction in their fine as a result of the imposition of the fining cap. The effect of this final stage of fine determination was to reduce the average fine in these cases as a proportion of relevant turnover to 53.3 per cent - equivalent to an average firm fine of €36.5 million.

Incidence of different factors in cartel cases

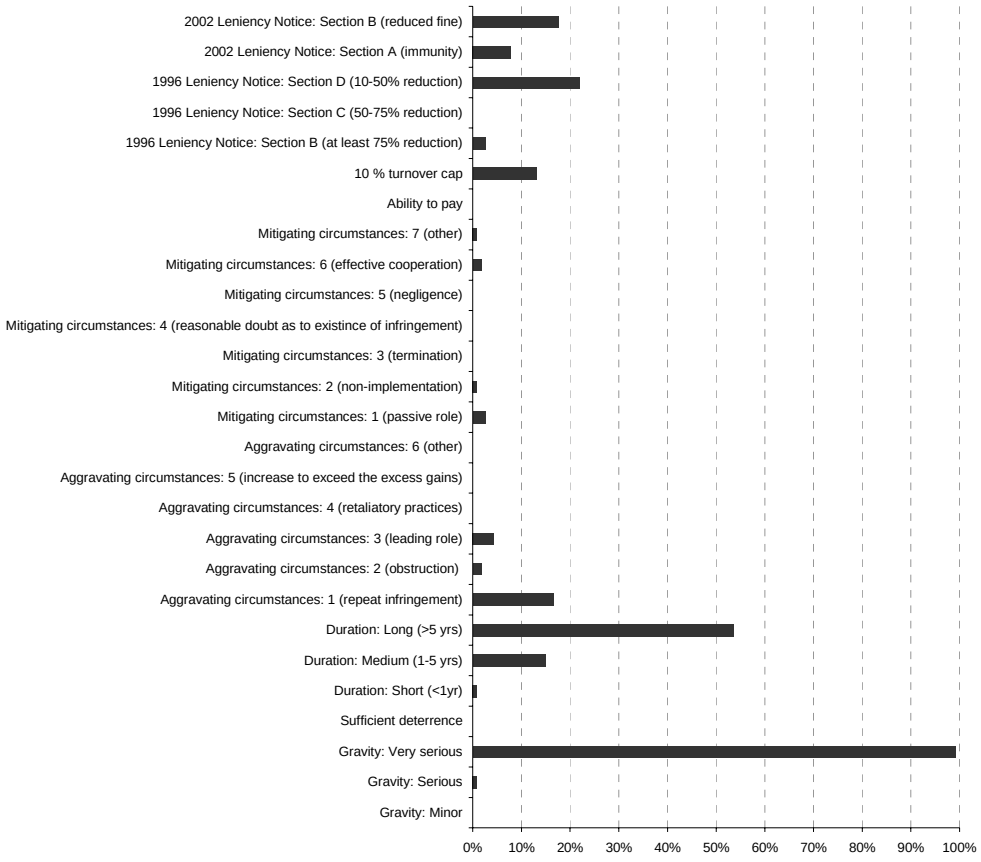
B.34 The frequency with which different factors play a role in the EC's decisions is shown in Figure B.16 below. It is based on 14 cases in which decisions were issued between 2005 and 2007.

B.35 Hardcore cartels (that is, very serious infringements) account for over 90 per cent of cases. The majority of infringements (54 per cent) lasted longer than five years. It is striking that aggravating and mitigating circumstances enter the fine determination process relatively rarely (only 29 per cent of companies). Aggravating factors (23 per cent) are found more frequently than mitigating factors (six per cent). Of the aggravating factors, the existence of previous offences, which can cause a large increase in fines, was found most frequently and affected 19 per cent of companies in the sample. The next most frequent aggravating factor was a leading role in the infringement, which affected four per cent of companies. An exclusively passive role was the most common mitigating factor, but it benefited only three per cent of companies in the sample.

B.36 The cap on fines at 10 per cent of worldwide turnover was binding in 15 cases (13 per cent of the total). Moreover, the majority of companies (63 per cent) received reductions in their fines under the Commission's leniency programme. However, only nine companies in total (<1 per cent) received full immunity from fines under the 2002 leniency notice.

B.37 Overall we see that aggravating and mitigating circumstances did not play a very important role in determining the fines imposed by the Commission since 2005. At the same time, the take-up of leniency is very significant, which signals the effectiveness of the programme.

B.16 Factors taken into account in determining fines in 14 EC decisions (2005-2007)



Note: Based on 114 fines imposed in the following 14 cases: Rubber Chemicals (2005), Methacrylates (2006), Hydrogen Peroxide and Perborate (2006) and Industrial Bags (2005), Wanadoo España v Telefónica (2007), Steel Beams (2006), PO/Thread (2005), Alloy Surcharge (2006), Flat glass (2007), Elevators and Escalators (2007), Bitumen (2006), BR/ESBR (2006), Gas Insulated Switchgear (2007), MCAA (2005).
Source: EC DG Competition.

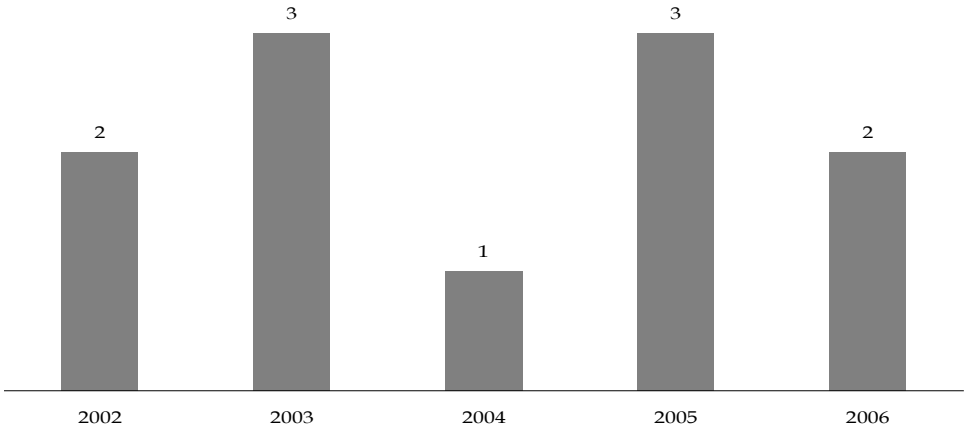
Descriptive statistics of Germany's fining practice

B.38 The FCO publishes its decisions only for a subset of cases. Moreover, published decisions contain little detail on the process by which fines are determined.[172] At

[172] The relevant turnover and market share of the companies involved in an infringement (on which the starting point for the calculation of fines is based) is removed from the published decisions.

the same time, fining decisions in cartel cases are quite rare in Germany, as are other types of infringements. There were no fines for abuse of dominance between 2001 and 2006. Occasionally, fines are imposed for other abuse practices, such as obstruction of competitors and discrimination.

B.17 Fining decisions in cartel cases in Germany (2002-2006)



Note: There were no fining decisions in cartel cases in 2001. The decisions in 2005 and 2006 concern hardcore cartels, information on the type of cartel was not provided for decisions in 2002-2004.
Source: Annual Reports of the Federal Cartel Office, 2001/02-2005/06.

The total fines imposed by the FCO nonetheless add up to considerable sums, although, given the small number of cases, year-on-year variation is very large.

B.18 Sample of 14 FCO fining decisions (2000-2008) – total fine per case

2001	2002	2003	2004	2005	2006
21.3	4.5	717	58	163.9	4.5

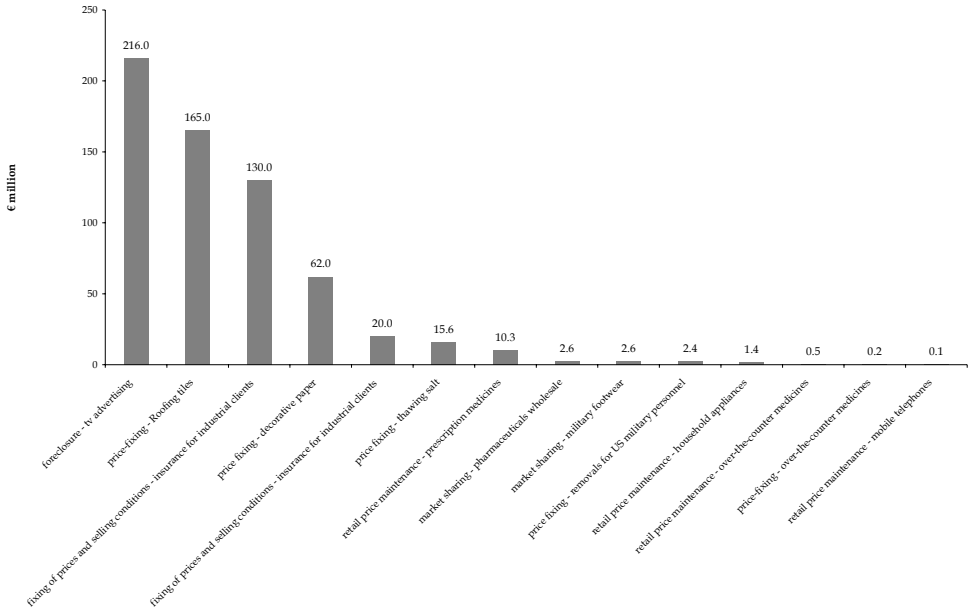
Note: includes all fines issued by the FCO.
Source: Federal Cartel Office, press releases 2000-2008.

B.39 The following statistics are based on the FCO's press releases on decision made against undertakings in cartel and abuse cases. We present information on 14 cases, going back to 2000. While the FCO regularly imposes high total fines,

which are widely reported, the actual fine per undertaking only rarely exceeds €100 million.[173]

B.40 In part, this pattern reflects the size of the markets affected by the infringements, which are national or sub-national, so that fines can be expected to be lower than in EC decisions. In addition, the FCO deals with a high number of small cases, in which the party guilty of an infringement might possess market power only relative to small (SME) competitors.

B.19 Sample of 14 FCO fining decisions (2000-2008) – average fine per undertaking



Source: Federal Cartel Office, press releases 2000-2008.

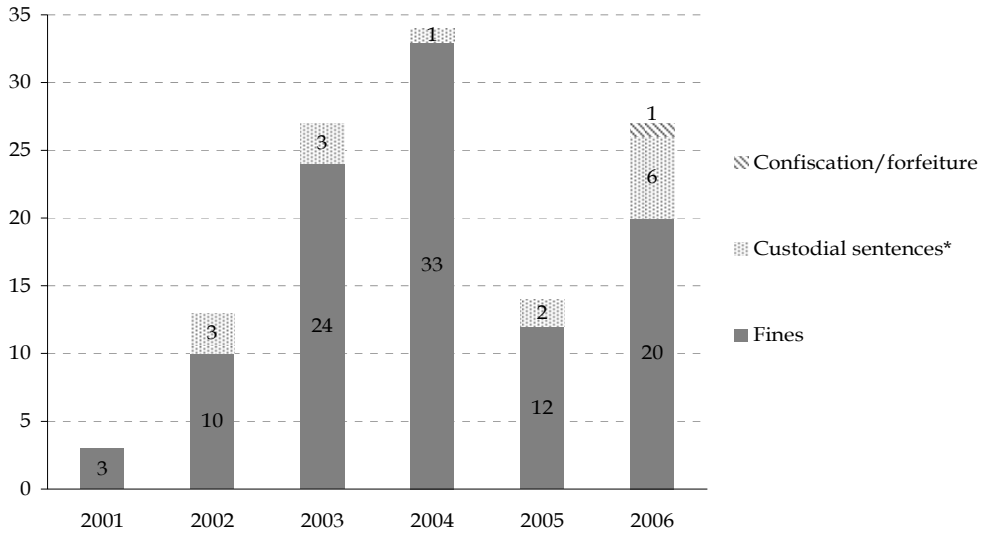
[173] Cases like the cement cartel that received a €660 million fine in 2003, or the TV advertising case displayed in **Error! Reference source not found.** are rare exceptions.

Penalties in bid-rigging cases

B.41 Bid-rigging has a special status in the German competition law system as the only offence of a criminal nature. Consequently, the penalties on for individuals that can be imposed for bid rigging are different from those seen in other infringements of (administrative) competition law. Besides fines, they include prison sentences of up to five years. The following statistics on criminal punishments in bid-rigging cases are taken from the law enforcement statistics of the German Federal Statistics Office.[174]

B.42 The number of individual convictions – some of which occurred within the context of the same infringement – varies quite considerably, from just 3 in 2001 to 34 in 2004. Fines are the most common punishment, although custodial sentences are also regularly passed. Since 2001, all custodial sentences were suspended.

B.20 Sentencing for collusive tendering/bid-rigging offences under CC Section 298 (2001-2006)

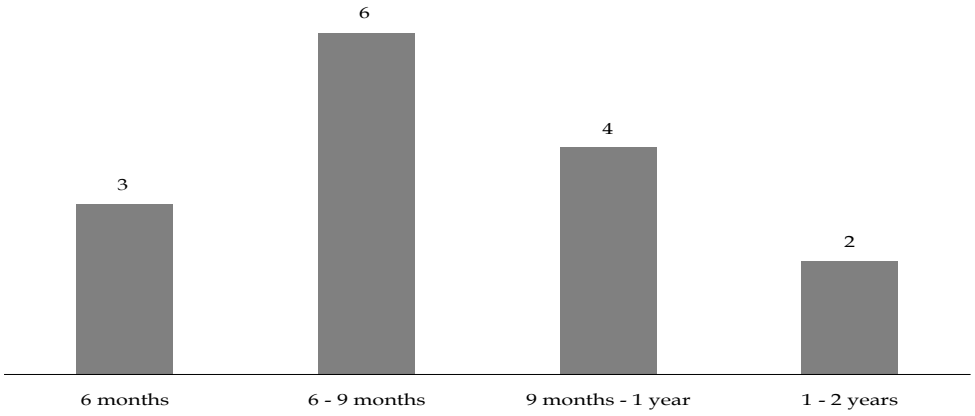


Note: * over the period 2001-2006 all custodial sentences were suspended.
Source: Federal Statistics Office (DE).

[174] Statistisches Bundesamt, Fachserie 10 Reihe 3, Rechtspflege – Strafverfolgung. Issues 2004-2007.

B.43 None of the prison terms imposed since 2002 reached the legal maximum of five years. The majority of infringers received suspended sentences of between six months and one year in length.

B.21 Length of (suspended) custodial sentences imposed for offences under CC Section 298 (2002-2006)*



Note: * there were no custodial sentences in 2001. Source: Federal Statistics Office (DE).

C DEFINITIONS OF TURNOVER

C.1 Definition of turnover for the purpose of calculating the base level

Jurisdiction	Definition
AU	Not applicable
DE	**2006 Fining Guidelines** 5. The **turnover achieved from the infringement** is the domestic turnover achieved by the undertaking concerned with the products or services connected with the infringement. Where due to the nature of the infringement (for example, in the case of market-sharing cartels) or an unforeseen course of development (for example, bid rigging agreements, where only some of the agreed bids have yet been awarded or a third party has been awarded the contract), the undertaking concerned has not achieved the expected turnover, the turnover used for the calculation will be the turnover the undertaking would have achieved in the absence of the infringement or in the absence of the unforeseen course of development with the products or services connected with the infringement. 6. For the calculation of the turnover achieved from the infringement the Bundeskartellamt shall apply Section 38 (1) GWB. Turnover revenues achieved from the supply of goods and services between affiliated undertakings shall be considered as turnover achieved from the infringement where they are in connection with the infringement. The special provision for undertakings from the credit and insurance industry (Section 38 (4) of the GWB) shall apply. 7. The Bundeskartellamt may estimate the turnover achieved from the infringement.
EC	**2006 Fining Guidelines** **A. Calculation of the value of sales** 13. In determining the base amount of the fine to be imposed, the Commission will take **the value of the undertaking's sales of goods or services to which the infringement directly or indirectly* relates in the relevant geographic area within the EEA**. It will normally take the sales made by the undertaking during the last full business year of its participation in the infringement (hereafter 'value of sales'). 14. Where the infringement by an association of undertakings relates to the activities of its members, the value of sales will generally correspond to the sum of the value of sales by its members. 15. In determining the value of sales by an undertaking, the Commission will take that undertaking's best available figures. 16. Where the figures made available by an undertaking are incomplete or not reliable, the Commission may determine the value of its sales on the basis of the partial figures it has obtained and/or any other information which it regards as relevant and appropriate. 17. The value of sales will be determined before VAT and other taxes directly related to the sales. 18. Where the geographic scope of an infringement extends beyond the

Jurisdiction	Definition
	EEA (for example, worldwide cartels), the relevant sales of the undertakings within the EEA may not properly reflect the weight of each undertaking in the infringement. This may be the case in particular with worldwide market sharing arrangements. In such circumstances, in order to reflect both the aggregate size of the relevant sales within the EEA and the relative weight of each undertaking in the infringement, the Commission may assess the total value of the sales of goods or services to which the infringement relates in the relevant geographic area (wider than the EEA), may determine the share of the sales of each undertaking party to the infringement on that market and may apply this share to the aggregate sales within the EEA of the undertakings concerned. The result will be taken as the value of sales for the purpose of setting the base amount of the fine. * Such will be the case for instance for horizontal price fixing arrangements on a given product, where the price of that product then serves as a basis for the price of lower or higher quality products
NL	**2007 Fining Guidelines** 1(d) **relevant turnover**: the value of all transactions, obtained by the infringer for the total duration of the infringement through the sale of goods and/or the delivery of services to which the infringement relates, after deducting turnover taxes, 24. The relevant turnover cannot in all cases be determined on the basis of the definition provision. In such cases, the turnover of the infringer on the protected market for the duration of the infringement, though at least for the duration of one year, may be deemed to be the relevant turnover. In the case of a prohibited tendering agreement ('bid-rigging'), the Board may consider the relevant turnover for each participant individually to be (a proportionate part of) the turnover that may be realised on the basis of the bid for which the contract was awarded.
UK	**2004 Fining Guidelines** 2.7 The **relevant turnover** is 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* * Relevant turnover will be calculated after deduction of sales rebates, value added tax and other taxes directly related to turnover. business year' means a period of more than six months in respect of which an undertaking publishes accounts or, if no such accounts have been published for the period, prepares accounts,
US	**Federal Sentencing Guidelines Manual** §2R1.1.(b)(2): For purposes of this guideline, the **volume of commerce** attributable to an individual participant in a conspiracy is the volume of commerce done by him 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 offence level.

Notes: DE: Notice no. 38/2006 on the imposition of fines under Section 81 (4) sentence 2 of the German Act against Restraints of Competition (GWB) against undertakings and associations of undertakings - Guidelines on the setting of fines - of 15 September 2006, UK: Statutory Instrument 2000 No. 309 - The Competition Act 1998 (Determination of Turnover for Penalties) Order 2000, Statutory Instrument 2004 No. 1259 -The Competition Act 1998 (Determination of Turnover for Penalties) (Amendment) Order 2004 EC: Guidelines on the method of setting fines imposed pursuant to Article 23(2)(a) of Regulation No 1/2003 (OJ 2006/C 210/02). Sources: EC, FCO, NMa, OFT, US DoJ.

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