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Fines for Abuse of Dominance in "High Tech" Markets

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I. INTRODUCTION

Blockbuster fines have become a trademark of European Commission abuse of dominance cases. Intel's EUR 1 billion fine is currently under appeal,[2] and just a few months ago the General Court largely upheld the EUR 800 million fine imposed on Microsoft for its failure to comply with the licensing remedy in the initial Commission decision, which "supplemented" the EUR 450 million fine imposed in 2004.[3]

The practice of wielding the big stick in Article 102 cases involving high-tech firms has had an impact on the narrative about European competition law. Take the numerous reports in the trade press about the Commission's ongoing Google investigation; they have little to report on substance, but almost invariably emphasize that the tough antitrust enforcers in Brussels could impose a EUR 4 billion fine if they found Google guilty of a violation. That is not small change, even for the Googles of the world. For a firm with a little less cash at hand than Google, the threat of being subject to an investigation by a competition authority with little understanding of high-tech markets and equally little hesitation to consider novel and perhaps experimental conduct to be a "very serious" infringement on par with price-fixing, and thereby impose enormous fines, might be enough reason to change its business conduct when an unhappy rival makes noises about filing a complaint.

This is a worrisome development. The current fining practices in single-firm conduct cases rest on shaky grounds and are potentially harmful. We begin with a brief discussion of core economic concepts that should inform the imposition of corporate fines, in particular in single-firm conduct cases. We then use the Commission's *Intel* and *Microsoft* decisions to illustrate the risks associated with the current ill-designed fining practice in cases involving high-tech sectors. In particular, we note that (i) enforcers may find it impossible to determine whether a conduct was, in fact, inefficient and harmful; (ii) the risk of deterring beneficial conduct is particularly high; and (iii) market participants will typically find it impossible to understand what type of future conduct a fine is supposed to deter, given the rapidly changing market conditions and unclear substantive analytical standards.[4] We conclude by identifying conditions that must be met if a competition authority considers imposing sanctions in single-firm conduct cases. We are not arguing here that corporate fines should never be imposed in cases involving high-tech

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[2] Commission Decision COMP/C-3 /37.990 – Intel (May 13, 2009).

[3] Case T-167/08, Microsoft v. Commission, Judgment of June 27, 2012.

[4] We realize that some of the concerns we discuss in the context of fines equally apply to the substantive assessment of single-firm conduct cases. In this contribution, however, we focus on developing rational standards for fines.

industries, but we doubt that blockbuster fines are a suitable enforcement tool in most single-firm conduct cases.

II. "OPTIMAL" ANTITRUST FINES

There is a fairly well developed economic theory that helps us to determine an appropriate level of corporate fines; it applies core economic concepts that inform substantive analysis to the sanctioning phase of a case. We discuss in this section why they do not support hard-core cartel type fines in most single-firm conduct cases.

Gary Becker's work was instrumental for the view that corporate fines should be set at a level that acts as an effective deterrent.[5] Because violating competition law brings an economic benefit to the perpetrators, corporate fines must be sufficiently costly to give firms an incentive to abide by the rules. Fines are an effective deterrent when the cost-benefit calculus indicates that a violation is not a profitable action.

Becker developed the first economic theory of crime and punishment by observing that law enforcement activities are costly. He postulated that, beyond a certain point, allocating more resources to law enforcement brings only marginal benefit. Adding substantially more police officers to enforce speed limits is unlikely to lead to a corresponding jump in enforcement. Unless they are closely watched many drivers might be tempted to push the gas pedal. A cost effective solution consists of increasing the level of sanction, giving rational economic agents a clear incentive to select the most profitable alternative: drive within the speed limit.

The same logic applies to antitrust laws. Governments need not spend an enormous amount of resources to enforce competition rules. When financial penalties are high enough, firms understand that even though there is a chance they can slip through the net, if they get caught they risk paying dearly for a small gain. Wielding the big stick against antitrust violators can be an effective way to deter firms from infringing competition rules – enforcement activities can remain low and targeted.

In antitrust cases, the optimal level of fine is critically linked to the "net harm" caused by "inefficient" conduct, something Becker's work already indicated. The primary objective of competition policy is to ensure that markets work efficiently, that is, markets deliver the largest output possible given the constraints on the use of scarce resources. This means that antitrust authorities have to define a policy of sanctions to give firms a clear incentive not to engage in inefficient conducts and agreements; in other words, enforcement actions should deter conduct and agreements that thwart the market mechanism from growing "the size of the pie."

Alternatively sanctions become counter-productive when raised beyond the optimal level. That is, high fines may deter efficient conducts or agreements.[6] Applying Becker's approach to

[5] Gary S. Becker, *Crime and Punishment: an Economic Approach*, 76 J. POL. ECON. 169 (1968).

[6] According to this logic, competition authorities should focus on total welfare and not simply consumer welfare. However, in most antitrust cases, when agreements or conducts harm consumer welfare they tend to be inefficient as well, and reduce the size of the pie.

antitrust law, Landes proposed that optimal antitrust fines should be equal to the net harm caused to economic agents except to the antitrust violator.[7]

The optimal fine level also must reflect the likelihood of not getting caught, and must therefore be a multiple of the anticipated gains. Typically, hard-core cartels are clandestine agreements, whose members bank on not being caught. If the fine is a multiple of unlawful gains, the rational firm will have to weigh the benefit of participating in a cartel against the cost, which consists of the fine discounted by the probability of being caught. By way of example, consider that a cartel member expects to pocket EUR 50 million extra every year for about 6 years, and it believes that the probability of being caught is 1 out of 5. In this context, the optimal fine model suggests that it would take a massive fine of slightly more than EUR 1.5 billion to convince a firm not to collude.[8]

This logic can be summarized as follows: If S denotes the level of sanction and H represents net harm, the optimal fine is simply given by the relationship (p x S) = H, where p is the probability that the antitrust violator is caught and convicted. If B denotes the gain to the antitrust violator, then whenever B < H firms are deterred from engaging in conducts or practices that infringe the law. For example, in the case of a price-fixing cartel, price coordination causes net harm, H, which is the loss of consumer welfare. Because the consumer welfare loss is larger than the extra profits that accrue to cartel members, firms would be deterred from fixing prices if the fine were to be set at the "optimal" level; that is B < p x S.[9]

Alternatively, under the optimal fining rule, whenever B > H, the sanctions do not deter firms to infringe the law. Although this might appear suspect at first, this fine is optimal because the gains to the perpetrator outweigh the harm caused to others.[10] Overall, the size of the pie is larger. In principle, the financial penalties could be used to compensate those harmed by the efficient practice.

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[7] William M. Landes, *Optimal Sanctions for Antitrust Violations*, 50 CHICAGO L. REV. 652 (1983).

[8] In fact, in the case of cartels it is not obvious at all that competition authorities have to set fines as a multiple of the net harm. This is because of at least three reasons. First, authorities can undermine the stability of cartels using smaller fines than those predicted by the Becker/Landes model. This is because, at any point in time, cartel fines may give firms an incentive to cheat and report the cartel. Second, authorities can further undermine the stability of cartels by adopting a well-designed leniency program (an ill-designed leniency program may actually sustain cartels). Third, authorities can also undermine cartels by applying sanctions on individuals. This is probably good news because in many cases it would be impossible to collect the fine level predicted by this approach. *See also* Gregory J. Werden & Marilyn J. Simon, *Why price fixers should go to prison*, 32 ANTITRUST BULL. 917 (1987). The optimal fine level can also be reduced if firms or their managers are risk-averse.

[9] Under the optimal fine rule the size of the firm should not affect the optimal amount of corporate fines. The fine should be a function of net harm.

[10] For example, an horizontal agreement between competitors to jointly purchase an important input might lead to a significant cost reduction. By joining forces, the competitors can bargain for a lower price, thereby reducing their respective costs of goods sold. Some or all the cost reduction can be passed on to consumers. But at the same time, this horizontal agreement might enable competitors to exchange strategic information allowing them to coordinate prices above the competitive level. In this case, the agreement can have simultaneously anti- and pro-competitive effects. When the consumer welfare loss is inferior to the parties' profit gain, a fine equals to net harm will not deter firms from coordinating their strategy.

This logic provides support for imposing high fines on hard-core (naked price-fixing) cartels.[11] Hard-core cartels are the most serious infringements because they almost invariably cause harmful effects without countervailing benefits. In order to ensure effectiveness of enforcement, and overcome evidentiary challenges, it is generally accepted to presume that this type of agreements cause significant harm. The economics of punishment provide general support for imposing the toughest sanctions on conduct that is the most undesirable.

Equally, the economics of punishment imply that corporate fines in single-firm conduct cases cannot reach the same level as that of hard-core cartels. This is so for a number of reasons. First, we cannot rely on any general assumptions about harm in single-firm conduct cases, where practices that can generate anticompetitive effects can (and frequently do) also yield efficiency gains. There can be no presumption that any given practice invariably shrinks the pie, nor can we make any general assumptions about the typical amount of harm. Thus, in particular in single-conduct cases where almost any practice at issue can generate significant efficiency gains, the risk is great that fines are increased beyond the optimal level in light of the harm caused by a given practice.

Many potentially exclusionary practices have inter-temporal effects. Practices such as tying, predation, and loyalty rebates initially benefit consumers. They become harmful when they lead to "anticompetitive foreclosure"; that is, when they cause competitors to eventually exit the market or reduce capacity, thereby enabling the dominant firm to restrict output and increase price to the detriment of consumers in the long run.[12] By way of example, consider predatory pricing. In the first phase, predation involves profit sacrifice in the form of low prices that directly benefit consumers and harm competitors. Note that the consumer benefit is always superior to the competitors' loss. The net harm is thus negative. However, the deadweight loss associated with below-cost pricing is fully born by the antitrust violator. Successful predation involves a period of recoupment, during which the dominant firm restricts output and sets price at supra-competitive levels. During the recoupment phase, consumer welfare is reduced, and the net harm becomes positive.

Overall, depending on the outcome of the predatory attack the net harm can either be positive or negative. When predation fails, the dominant firm does not recoup the profit sacrifice. In this case the optimal fine is simply zero. Only when the predation succeeds does the optimal fine become positive.

The difficulty of predicting the extent to which single-firm conduct causes harm is particularly relevant when it comes to high-tech sectors. As the pace of innovation can radically change the market structure, the alleged anticompetitive effects of the practice at issue might often never materialize. This is because new products have come to market (often in spite of the alleged abuse), and with consumers embracing the new technology, anticompetitive effects are unlikely. And if they had been real at a given moment, they have lost then their significance.

[11] We note that this assessment is appropriate for naked price-fixing arrangements, and not for horizontal coordination that potentially could have beneficial effects.

[12] *See* European Commission, *Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings*, O.J. C 45/7 (2009), ¶19.

Overall, consumers might benefit from the practice. As no harm is done, the corporate fine should be zero.

Of course, especially in cases where the conduct has not been implemented over a sufficiently long time period to have discernible effects, competition authorities must make decisions about fines in the face of uncertainty.[13] It is undisputed that even the best competition authorities make enforcement errors, especially where uncertainty about harmful effects is high. Over-zealous competition authorities might make such errors and fine a firm for conduct that benefitted consumers and increased total surplus.[14] To account for the possibility of type I errors, the optimal fining rule must be adjusted accordingly by discounting the net harm. Denote the probability of false conviction by μ, then the formula for optimal fines becomes $(1 - \mu) H = p S$, and the optimal fine $S= (1-\mu) H/p$. If μ is large, then the optimal sanction could be a fraction H. Although we do not know the value of these probabilities in practice, the point is that if the Commission is uncertain about the impact of a practice at issue it should build in an additional (potentially large) discounting factor when considering a fine.

Unfortunately, the European Courts have let the Commission get away with simple, self-serving statements about harm ("markets would be even more competitive without the conduct") that can be neither verified nor falsified. That approach is unsatisfactory and unjustified. It is inconsistent with the Commission's goal of implementing a consumer welfare-focused competition law regime. It is also inconsistent with the fining principles discussed here, which would require the Commission to estimate the damage caused by the abuse.

We also need to consider that, unlike cartel agreements, abuses of dominance appear relatively easy to detect. In Europe, the vast majority of single-conduct investigations are the result of complaints lodged by an alleged "victim," typically a competitor. In fact, there is an abundance of complaints and the authority is forced to select cases that should be given priority. The probability of catching an abuse of dominant position is therefore very high, and it is not clear that the authority should apply any multiplier to make corporate fines an effective deterrent.

We now apply the formula above to illustrate the difference in the level of optimal corporate fine between a hard-core cartel and an abuse of dominant position in a high-tech sector.[15] As we argue above, catching a clandestine cartel agreement is more difficult than convicting for abuse of dominance a giant U.S. corporation involved in the most recent tech sector that is becoming the talk of the town. Therefore, in this example we assume that the probability of detection for a hard-core cartel is very low, say p=0.2, while for a single-firm

[13] Conversely, the same situation exists where the absence of discernible effects is not yet a good indication that conduct is not harmful.

[14] It is also clear that competition authorities can erroneously conclude that a conduct is neutral, or even pro-competitive, while in fact it generates significant anticompetitive effects. These errors are termed false-negatives or type II errors. In the United States, the currently prevailing view considers that the costs of type II errors are far more significant than those of type I errors. *See* Alan Devlin & Michael Jacobs, *Antitrust Error*, 52 WILLIAM & MARY L. REV. 75 (2010).

[15] For a discussion on the difference in the level of fine between cartels and abuse of dominance, *see also* Alberto Heimler & Kirtikumar Mehta, *Violations of Antitrust Provisions: the Optimal Level of Fines for Achieving Deterrence*, 35 WORLD COMP. 103 (2012).

conduct case involving a giant U.S. corporation, the corresponding probability is very high, say p=0.9.

Consider that the cartel is of the worst kind, with little scope for assessment error (once the evidence is unearthed), μ=0.05, while in the high-tech sector, there is a significant chance that the authority gets things way off as the market is subject to constant changes, μ=0.75.[16] For the hard-core cartel, the optimal sanction should be a multiple of the net harm, (S = 4.75 x H), while for the single-firm conduct case it should be a fraction, (S =0.28 x H). This simple example illustrates that an effective sanction policy should consider adopting different scales for corporate fines against cartels and for fines against abuses of dominant position.

III. FINING PRACTICE IN CASES INVOLVING HIGH-TECH MARKETS

In the absence of a clear indication that consumers have been harmed, the framework explained above suggests that high fines will be difficult to justify in many or most single-firm conduct cases. In this section we use the decisions in *Intel* and *Microsoft*, two of the Commission's high-profile cases in the high-tech industry ending with blockbuster fines, to illustrate our concerns.

One reason why we find the fines in *Intel* and *Microsoft* so doubtful is that they were not supported by a credible assessment of harm. In *Intel*, the EUR 1 billion fine was the result of the Commission's assessment that Intel's conditional rebate scheme for processors had anticompetitively foreclosed its main rival, AMD. Even though the Commission has tried to develop a plausible effects-based assessment, the final decision provides little evidence of consumer harm or of AMD's reduced ability to compete. In fact, while there is no conclusive evidence, the currently available information suggests the absence of harm to consumers that we would expect if the incriminating conduct was indeed inefficient. First, markets show rapidly dropping prices and increased speed of innovation giving rise to the development of more powerful processors. And second, a recent analysis of publicly available information concluded that there is no support for a finding that Intel's conduct increased its ability to exercise monopolistic market power or that the conduct had any lasting effects on AMD's financial performance or profitability.[17]

So, if there is no credible evidence of substantial, lasting harm, how is the fine justified? Statements in the Commission's decision that the sector is "of great economic importance," and that conduct in that market "has considerable impact" are not a substitute for a thorough assessment of possible harm to consumers. Sure, the Commission uses the traditional "argument" that markets would be even more competitive without the incriminating conduct. But, as we said above, this is non-verifiable speculation. Moreover, this appears inconsistent with the *Post Danmark* requirement to seriously look at actual events in the market place when determining harmful effects, and to consider the continued ability of rivals to successfully compete, as indication of the absence of harmful effects.[18]

[16] As we will show in the next section, this assumption is not far-fetched.

[17] Joshua D. Wright, *Does Antitrust Enforcement in High Tech Markets Benefit Consumers? Stock Price Evidence from FTC v. Intel*, 38 REV. INDUST. ORG. 387 (2011).

[18] Case C-209/10, Post Danmark A/S v. Konkurrencerådet, Judgment of March 27, 2012.

In *Microsoft*, a major part of the Commission's 2004 decision focused on the integration of the Windows operating system with the MS Media Player and the marketing of the two as one, tied product. Although technological tying was (and remains) very common in the software industry, it was a fairly novel practice for the Commission. There were solid arguments that the practice likely would be beneficial, or at least neutral, to consumers. Despite all this, the Commission "knew" that technology tying was a "very serious" infringement (i.e., as bad as price-fixing) and that the conduct had a significant (negative) impact on consumer welfare.

In contrast, a more realistic and more honest assessment of our limits to understand novel business practices, and a recognition of the importance of experiment, led the Court of Appeals in the U.S. case against Microsoft to the conclusion that a novel practice such as technology tying in the software industry should be analyzed carefully and should be condemned only after a rigorous assessment of efficiencies.[19]

This cautious approach has been validated in the meantime: The remedy imposed by the Commission—an obligation to offer a Windows version without the tied media player—has been so ineffective that *de-facto* the tying has continued to this day. And to this day there is absolutely no indication that Microsoft has leveraged successfully its market power into the media player market. As we showed before, in the absence of evidence of harm the corporate fines should be zero.

High fines are also questionable because the unclear standards used in the substantive assessment undermine any deterrent effect that sanctions should have. Where the substantive analysis is unclear, fines will either not deter harmful conduct, or will deter conduct that is efficient. *Intel* provides a great illustration of this. The uncertainty about substantive standards in this case is the unavoidable result of the Commission's "belt and suspenders" approach to the substantive analysis. First, it found Intel's rebate practice unlawful under the traditional, oft-repeated standard that condemns conditional rebates as anticompetitive under a quasi *per se* type approach. But then it proceeded to demonstrate that the rebates were unlawful also under an equally efficient competitor test that the Commission has been promoting in its Article 82 Guidance paper and that has appeared in several more recent Court cases.

So what is the fine supposed to deter—only strategies that fail the equally efficient competitor test? Or does the Commission view the EUR 1 billion price tag as a signal to the market that conditional rebates continue to be a no-no for successful firms and will attract fines, as the decision suggests? If so, the fine will deter certain pricing conduct that is efficient and beneficial to consumers, as the Commission's own Article 82 Guidance Paper and case law of the Court have recognized. Such overly broad deterrence has substantial costs. It also would be inconsistent with the recent *Post Danmark* judgment where the Court clarified that the equally efficient competitor test exculpates discount practices that are not considered harmful because they do not foreclose equally efficient competitors.[20]

[19] United States v. Microsoft, 253 F.3rd 34 (D.C. Cir. 2001).

[20] But, even under a narrower reading of the case concluding that the fine actually was meant to deter only future conduct that would be considered anticompetitive under an EEC test (difficult to maintain in light of the decision itself), there would be a question whether a fine would make sense given that there was apparently

The 2012 *Microsoft* judgment by the General Court provides more evidence for our argument that unclear substantive standards undermine deterrence.[21] This is the case about the EUR 899 million fine on Microsoft for failure to comply with obligations to provide access to interface information in exchange for a reasonable remuneration. Microsoft's principal argument to challenge the fine focused on the fact that it could not anticipate what remuneration levels would be reasonable enough to comply with the initial Decision. The Court dismissed Microsoft's argument, reasoning that fines could be imposed even if imprecise legal concepts had been used to determine whether Microsoft's conduct was unlawful. If it were otherwise, fines could not be imposed in most cases under Articles 101 and 102 (where similarly imprecise standards were used to determine liability).[22]

This reasoning initially may have some logical appeal, but skips over the fundamental question: Are fines the right tool of intervention in essentially all Article 101 and 102 cases? The Court and Commission broadly assert that this must be so, but do not explain why. There was apparently no industry standard on what innovative, yet non-patented technologies actually were and what the "correct" licensing rate for such technology would be.

As it was apparently impossible to identify *ex ante* at which point an impermissible rate would start (which is exactly the reason why the Commission didn't want to provide guidelines and why MS had agreed on the use of a neutral arbitration forum in case of disagreement with potential licensees), how is the next successful firm facing demands from competitors eager to get their hands on its superior technology supposed to know? Is a tough negotiating position demanding a deliberately high royalty rate already so close to a violation that a dominant firm will be forced to require less than it believes it is entitled to charge, simply because the risk of being fined for being over-demanding is too high? If so, a dominant firm will get less reward from its IP rights than firms that are not likely to be considered dominant.

This is not the only way a competition law enforcer can look at the effect of unclear substantive liability standards in single-firm conduct cases on fines. The Commission's and the GC's views contrast sharply with the recent Competition Appeal Tribunal ("CAT") decision in *Cardiff Bus*, where the CAT accepted that deterrence depended on the ability of firms to anticipate the unlawfulness of their conduct.[23] *Cardiff Bus* was issued in the context of private litigation, but is nonetheless relevant as the CAT had to consider whether exemplary damages—a damage award beyond the actual damage suffered by the plaintiff with a penal/deterrent aspect—were appropriate in Article 102 cases.

The CAT acknowledged that analyzing conduct in Article 102 cases is highly fact specific and a firm may not know at the time it implements a particular practice that it violates competition law. It concluded that damages with a primarily deterrent effect would be

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reasonable disagreement between Intel and the Commission about the contestable share of the market and, therefore, about what price levels would pass the EEC test.

[21] Case T-167/08, Microsoft v. Commission, Judgment of June 27, 2012. For the initially imposed remedy, *see* European Commission, COMP/C-3/37.792, Microsoft (April 21, 2004), Article 5(a).

[22] Case T-167/08, Microsoft v. Commission, ¶¶91, 94.

[23] 2 Travel Group v. Cardiff Bus, [2012] CAT 19 (July 5, 2012).

appropriate only where the firm is aware that its conduct was clearly unlawful or probably unlawful, but not if there was a lesser degree of certainty.

We are not entirely persuaded by the CAT's use of six different degrees of probability that conduct could infringe competition law; the CAT appears to have too much trust in the ability of firms and enforcement agencies to make such distinctions. But we believe that the CAT's emphasis on the connection between deterrence and conduct that is clearly *ex ante* identifiable as unlawful makes an important point. Buses are not exactly a high-tech industry. If concerns about ineffective deterrence when rules are too uncertain are relevant in this sector of the economy, they should be at least as relevant in rapidly developing high-tech industries.

IV. CONCLUSIONS

For well over a decade the Commission has promoted an effects-based approach in competition cases, an analytical framework that relies on key economic concepts such as market power, consumer welfare, and efficiencies. It has started to apply this approach in investigations and decisions, although with inconsistent degrees of rigor and enthusiasm. The effects-based approach must not be limited to the substantive analysis of a case; to be effective, the same principles must inform the approach to sanctions after a violation has been found. That appears to be a fairly uncontroversial principle, but it means different things in hard-core cartel cases than in single-firm conduct cases.

Sanctions are not a trophy for competition authorities, but rather a tool that should, if properly designed, deter future anticompetitive conduct while being mindful of our limited understanding of markets and error costs. Poorly developed and/or wrongly applied principles in the sanctions phase of an abuse of dominance case risk undermining some of the benefits that the effects-based approach is supposed to bring about. Inappropriate fines might deter experiment, new business models, and even new products and services that can bring enormous benefits to consumers.

We believe that a more rigorous extension of an effects-based approach to the sanctions phase, combined with a greater realism about our limited ability to understand future market developments and the potential for mistakes, would lead to much more nuanced sanctions in single-firm conduct cases. Fines in single-firm conduct cases should be imposed only if the following conditions hold: (i) a competition authority has a good explanation that a given conduct has led to substantial consumer harm; (ii) the rules were clear enough to anticipate a probable violation; and (iii) the decision can describe the incriminating conduct with sufficient precision so that other firms will, in the future, stay away from inefficient conduct but engage vigorously in practices that are not deemed harmful to the market.

Under these standards, there can be cases involving high-tech firms where sanctions are appropriate. For example, deterrent corporate fines would be justified when competitors collude on distribution strategies with the declared goal of raising consumer prices,[24] or when Microsoft

[24] In the eBooks case, where investigations continue to date in the United States and in Europe, the publicly available facts suggest that major book publishers, with direct involvement of Apple, colluded to move from an independent distribution model that gave pricing power to distributors (including Amazon) to an agency model that gave the publishers greater control over price. Steve Jobs is quoted as telling publishers that with an agency model

fails to meet its obligation to make a choice of browser available to purchasers of its Windows operating system. But, they are the wrong enforcement tool in many single-firm conduct cases, in particular in high-tech sectors.

"the customer pays a little more, but that's what you want anyway." If the evidence shows that Apple and five publishers have colluded to raise price, and unless the defendants can mount a convincing defense that their agreement generated offsetting efficiency gains, under the optimal fine rule, corporate fines should equal the net harm done.