Five Myths About Antitrust Damages

By Robert H. Lande*

A myth is a story, tale, or legend that has never been proven. Myths are often related as if they were true and often are assumed to be true—frequently by interested parties. But there is never any solid evidence that they are true.

By analogy, there might be unicorns, dragons, or abominable snowmen somewhere in the world. But until someone produces one, we are justified to call each only a myth. Similarly, neither the Antitrust Modernization Commission ("AMC") nor anyone else should make judicial or public policy decisions based upon myths, unless of course someone presents solid evidence proving that the myths actually are true.

The principal myths of antitrust damages are:

Myth #1. Antitrust violations give rise to treble damages.

Myth #2. There is "duplication" of antitrust damages because many defendants pay six-fold or more damages.

Myth #3. Courts should go easy on defendants when formulating liability rules or calculating overcharges because the awarded damages from a finding of an antitrust violation are so severe.

Myth #4. The size of the harms caused by antitrust violations, even by such "hardcore" violations as naked cartels,1 is relatively mod-


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est, and criminal penalties resulting from violations are out of proportion to these harms. This causes overdeterrence.

Myth #5. Even though treble damages should be maintained for "hardcore" violations, they should be reduced for some violations, such as rule of reason violations.

If I am correct in identifying these as myths, the AMC and other decision-makers should not make recommendations or decisions to reform the law building upon their purported truth.

I. Myth #1: Antitrust Violations Give Rise to Treble Damages

If you examine antitrust's so-called "treble" damages remedy carefully you will find that it really only amounts to approximately single damages. In part this is true because prejudgment interest is not awarded in antitrust cases. As Judge Easterbrook noted in Fishman v. Estate of Wirtz,

\[ \text{[T]he time value of money works in defendants' favor. Antitrust cases can be long-lived affairs. This one has lasted 14 years, 2 1/2 of which passed between the finding of liability and the award of damages. During all of the time, the defendants held the stakes and earned interest. . . . To deny prejudgment interest is to allow the defendants to profit from their wrong, and because 14 years is a long time the profit may be substantial.} \]

A survey by Judge Posner found that the average cartel probably lasted for six to nine years, with an additional three to four year lag before judgment. The failure of the antitrust laws to provide for prejudgment interest probably means that in cartel cases the so-called "treble" damages are really only approximately double damages.

2. The "rule of reason" is difficult to define accurately and completely. See id. at 253–68. Hovenkamp does, however, provide a succinct definition: "Under the rule of reason, relevant facts are those that tend to establish whether a restraint increases or decreases output, or decreases or increases prices." Id. at 255–56.

3. 807 F.2d 520 (7th Cir. 1986).

4. Id. at 583–84 (Easterbrook, J., dissenting).


6. The precise value of this adjustment depends upon a number of factors. For example, in 1993, I computed that this single factor alone probably would reduce the nominal treble damages multiplier down to a true multiplier between 1.25 and 1.66. See Robert H. Lande, Are Antitrust "Treble" Damages Really Single Damages? 54 OHIO ST. L.J. 115, 134–36 (1993) [hereinafter Lande, "Treble" Damages] ($1.00 turns into between $1.81 and $2.40, thus $3.00 + $2.40 = 1.25, and $3.00 + $1.81 = 1.66) (some of the analysis in this Section is based upon this article). Interest rates change considerably from year to year, however, and
Moreover, antitrust violations give rise to allocative inefficiency—a loss that is never awarded in antitrust cases even though allocative efficiency is at the center of most economic justifications for having antitrust laws.  

How important is this omission? To oversimplify, Judge Easterbrook made a number of standard assumptions and calculated that the allocative inefficiency effects are probably, on average, around half as large as the overcharges from market power. He concluded that due to the omission from damage awards of this factor alone, have been relatively low during the last decade. If this calculation were performed today, it probably would yield a somewhat smaller adjustment.

However, recently the effect of the lack of prejudgment interest was calculated for the vitamins cartel cases, in Brief for Certain Professors of Economics as Amici Curiae Supporting Respondents, F. Hoffmann-La Roche Ltd. v. Empagran, S.A., 542 U.S. 155 (2004) (No. 03-724), 2004 WL 533930. These “Professors of Economics” calculated that the effective payouts should have been multiplied by 2.25 to offset the lack of prejudgment interest. See id. at *10 ($18 billion divided by $8 billion). In other words, due to this factor alone, in the vitamins cases the nominal “treble” damages were really only approximately 1.33 times single damages (3.0 divided by 2.25). This 1.33 result fits comfortably within the 1.25 to 1.66 range that I calculated in 1993.

7. Supracompetitive pricing causes a suboptimal use of societal resources:

To raise prices a monopoly reduces output from the competitive level. The goods no longer sold are worth more to would-be purchasers than they would cost society to produce. This foregone production of goods worth more than their cost is pure social loss and constitutes the “allocative inefficiency” of monopoly. For example, suppose that widgets cost $1.00 in a competitive market (their cost of production plus a competitive profit). Suppose a monopolist would sell them for $2.00. A potential purchaser who would have been willing to pay up to $1.50 will not purchase at the $2.00 level. Since a competitive market would have sold them widgets for less than they were worth to him, the monopolist’s reduced production has decreased the consumer’s satisfaction without producing any countervailing benefits for anyone. This pure loss is termed “allocative inefficiency.”


8. See generally David C. Hjelmfelt & Channing D. Strother, Jr., Antitrust Damages for Consumer Welfare Loss, 39 CLEV. ST. L. REV. 505 (1991). I am unaware of either a more recent article on the subject or any antitrust case where any plaintiff received damages for the allocative inefficiency harms of market power.

9. In other words, Judge Easterbrook calculated that the allocative inefficiency effects were half as large as the transfer effects. See Frank Easterbrook, Destrubling Antitrust Damages, 28 J.L. & Econ. 445, 455 (1985). Other reasonable analysts believe that the ratio is higher, or lower, than Judge Easterbrook’s estimate. “Some thoughtful antitrust analysts predict an average ratio lower than two to one, while others predict that the ratio will usually be four to one or higher, at least under specified conditions.” See Lande, “Treble” Damages, supra note 6, at 152 (citations omitted), for sources. For example, if there is pre-existing market power the relative size of the allocative inefficiency to the transfer will be greater. See id. at 152-53.
"'treble damages' really are [only] double the starting point of overcharge plus allocative loss . . . ."\(^{10}\)

Both of these adjustments should be made to the nominal "treble" damages remedy to determine its true size. Adjusting the so-called "treble" damage awards for their failure to include allocative inefficiency effects would reduce the effective damages multiplier level from three down to two—but so would adjusting for the failure to award prejudgment interest. What would happen if we were to make both adjustments at once?

Before combining these two adjustments, however, one should consider "umbrella effects"—another virtually unawarded damage from market power.\(^{11}\) For example, since 1970 the Organization of Petroleum Exporting Countries ("OPEC") never produced even 60% of the entire world's supply of petroleum and in most years produced less than 50%.\(^{12}\) Yet, when OPEC used its market power to raise the price of the petroleum that its members produced, prices also increased for the petroleum sold by non-cartel members.\(^{13}\) Moreover, these higher oil prices also caused the price of natural gas, which is to some extent a substitute for oil, to rise. Some estimates indicate that a 1% increase in oil prices would lead to increases in natural gas prices of .75% to 1.2%.\(^ {14}\) Natural gas is used approximately 57% as much as

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\(^{10}\) See Easterbrook, supra note 9, at 455 (noting that for administrative simplicity it would be necessary to make reasonable yet simplifying assumptions: "In the simple case of linear demand and supply curves, the allocative loss is half the monopoly overcharge, so a multiplier of 1.5 is in order. These curves doubtless are not linear, but legal rules must be derived from empirical guesses rather than exhaustive investigation. The multiplier of 1.5 thus may be a rough approximation of the lower bound. It takes care of the fact that the non-buyers do not recover damages. A further multiplier is necessary to handle the improbability of proving liability. As uncertainty and the difficulty of prosecution increase, so should the multiplier. From the violator's perspective, "treble" damages really are double the starting point of overcharge plus allocative loss, and thus trebling the overcharge is appropriate when the chance of finding and successfully prosecuting a violation is one in two.").

\(^{11}\) An "umbrella effect" arises when a cartel or monopoly affecting part of a relevant market causes prices in the rest of the market to rise. See 2 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION 384-85, ¶ 347 nn.3, 4 (2d. ed. 2000).

\(^{12}\) See Org. of the Petroleum Exporting Countries, OPEC Annual Statistical Bulletin (2004), http://www.opec.org/library/Annual%20Statistical%20Bulletin/pdf/ASB2004.pdf 22 (last visited Oct. 30, 2005). The highest percentage was 55.4% in 1973, and the lowest percentage was 28.5% in 1985. Id. The most recent figure, for 2004, was 41.9%. Id.

\(^{13}\) See 2 AREEDA & HOVENKAMP, supra note 11, at 384-86.

petroleum in the United States. If a 1% rise in OPEC members' petroleum prices caused the price of non-OPEC oil to rise by 1%, and the price of natural gas to rise by even .75%, then a $1.00 increase in the price of petroleum by OPEC would increase the price of oil and natural gas by an additional combined amount of $1.86. Adjusting the nominal “treble” damages multiplier only for these unawarded umbrella effects of market power (i.e., $3.00/$2.86 = 1.05) would mean that the so-called “treble” damages were actually only 1.05 times the actual damages.

The umbrella effects caused by OPEC’s exercise of market power surely are significantly larger than the average umbrella effect due to the tight supply of, and inelastic demand for, petroleum products. A more realistic estimate might only assume umbrella effects equal in size to the average market share of the fringe firms in monopolization cases, from 10% to 30%.

Moreover, there are five more adjustments to the so-called “treble” damages multiplier that also should be considered when de-
terminating the true "net harms to others" from an antitrust violation (the "net harms to others" benchmark comes from the standard optimal deterrence model). If we make all eight of the appropriate adjustments, awarded antitrust damages are probably only really equal to, at most, the actual harms caused by the violation. Antitrust's "treble" damages are actually only single damages.

However, standard optimal deterrence theory says that the multiplier should be larger than one because not all antitrust violations are detected and proven. If awarded damages are not greater than one, potential violators would have an incentive to engage in anticompetitive conduct. As observed by Judge Easterbrook,

Multiplication is essential to create optimal incentives for would-be violators when unlawful acts are not certain to be prosecuted successfully. Indeed, some multiplication is necessary even when most of the liability-creating acts are open and notorious. The defendants may be able to conceal facts that are essential to liability.

It is sometimes assumed, for example, that only one-third of all cartels are detected and proven. If this is true, then a true multiplier

tiffs' time spent pursuing the case, (4) the costs of the judicial system, and (5) the tax effects. See id. at 136–54.


22. In 1993 I calculated that from an optimal deterrence perspective, antitrust's "treble" damages probably only amounted to between .68 and 1.09 times actual damages. Lande, "Treble" Damages, supra note 6, at 159–60. These results should be approached with caution, however. They are not so precise that we fairly can conclude with certainty that the "true" effective antitrust damage multiplier is either .68 or 1.09 times the actual damages. This range is just an estimate. But it surely is safe to conclude that the true figure is much closer to single damages than to treble damages. Moreover, it is likely that the true level is even less than single damages.


24. Easterbrook, supra note 9, at 454.

25. I am not aware of any current reliable evidence as to what percentage of antitrust violations is detected. The best evidence of which I am aware is the 1986 estimate made by Douglas Ginsburg. Ginsburg testified that the enforcers catch less than 10% of all cartels. See Public Hearing on Sentencing Options: Hearing Before United States Sentencing Comm'n 15
of three is appropriate. Nevertheless, it should be emphasized that this multiplier is separate from the prejudgment interest adjustment and other points made earlier. The central point, moreover, is that the current multiplier is only one at most. It is a myth that antitrust violations give rise to treble damages.

II. Myth #2: There Is "Duplication" of Antitrust Damages Because Many Defendants Pay Six-fold or More Damages

There have been a number of variations of the argument that the combination of "treble" damages for direct purchasers, plus another "three" for indirect purchasers, plus disgorgement, plus fines of two-fold damages, can lead to six-fold, eight-fold, or more overall damages paid by a cartel or monopoly. As Donald Klawiter, Chair of the American Bar Association ("ABA") Antitrust Section, recently warned, "[Indirect purchasers] will be an issue in virtually all treble damage suits going forward. . . . The question is: Can a court sort out all the damages and get it right so [defendants] are not paying six times damages?"

(1986) (statement of Douglas Ginsburg, Assistant Attorney Gen. for Antitrust) (unpublished public hearing on file with Author). If Ginsburg is correct, then due to this factor alone, ten-fold damages are appropriate, not treble damages.

However, the percentage of cartels that are caught and proven probably is significantly higher today due to the Department of Justice amnesty program. See Gary R. Spratling, Detection and Deterrence: Rewarding Informants for Reporting Violations 69 GEO. WASH. L. REV. 798, 817-23 (2001). There is, however, no evidence that currently more than one cartel in three is detected.

26. Judge Easterbrook noted:

Is this [lack of prejudgment interest] small beer, to be made up by the trebling of the damages? Hardly. Any erosion of the trebling on account of a denial of interest undermines the deterrent force of the antitrust law. Trebling makes up for the fact that antitrust violations are hard to detect and prove. . . . The expected damages are the deterrent. Today's decision reduces that deterrent. . . . The denial of prejudgment interest systematically undercompensates victims and underdeters putative offenders. We should allow, indeed require, such awards.

Fishman v. Estate of Wirtz, 807 F.2d 520, 584 (7th Cir. 1986) (Easterbrook, J., dissenting).


The "duplication" or "duplicative recovery" specter, however, is only a theoretical possibility that has never occurred in the real world. There has never been even one case where a cartel's total payouts exceeded three times the damages involved. Moreover, a close reading of the critics reveals that they indicate that duplication "could" happen—without ever showing that it "has" happened. Illinois Brick v. Illinois, which held that indirect purchasers cannot recover damages under the federal antitrust laws, is more than twenty-eight years old, and California v. ARC America Corp., where the Supreme Court held that Illinois Brick did not preempt state laws permitting indirect purchasers to recover, is more than sixteen years old. But defendants' nightmare scenario of six-fold or eight-fold payouts has never happened.

the "key features" of their proposal is that "[t]here would be no duplicative recovery under the new cause of action. By consolidating direct and indirect claims in one forum, where both direct and indirect claimants would have an opportunity to prove their respective damages, the proposed statute would eliminate the possibility of duplicative recovery."). Since there has never been duplicative recovery, this is not much of a benefit.

29. Similarly, I do not know of any monopolist that paid six-fold or more damages. There might, however, be cases where individual members of a cartel paid six or more times the damages attributable to its market share. Every member of a cartel is legally responsible for all of the damages caused by the cartel (a logical rule since each member should be responsible for helping to cause the entirety of a cartel's supracompetitive prices). If one member of a cartel had to pay most or all of the damages caused by the cartel, this easily could total much more than the damages attributable to that firm's sales. It would only, of course, total three times the total damages caused by the cartel. Since the paying firm helped cause all of the damages inflicted by the cartel, however, it would be incorrect to conclude that it paid more than three times the damages that it caused.

30. I cannot prove that something does not exist. But I have looked quite hard and have never found even one example of true duplication for a cartel, as judged by one or more courts. Nor has any critic of the current system ever pointed out such an example. Sooner or later an example may arise. If this happens my conclusion will be proven wrong. But until this happens I stand by my conclusion. There is "duplicative" litigation in the sense that the same defendants often are sued by both direct and indirect purchasers. Harry First, The Vitamins Case: Cartel Prosecutors and the Coming of International Law, 68 Anti-Trust L.J. 711, 713-14 (2001). But there has never been a case of six-fold recovery against a cartel.


32. Id.; see also Indirect Purchasers Actions: Hearing Before the Antitrust Modernization Comm'n 5-6 (2005) (statements of presenters other than Michael L. Denger). If even one such example existed surely one of the learned witnesses on these two panels would have discussed it.

34. 490 U.S. 93 (1989).
35. Id. at 105-06.
I challenge critics of the current system to present a real world example of the mythical six-fold or eight-fold damages. Respectfully, policymakers should only rely upon the conclusions of neutral third parties such as judges or juries, rather than accepting defendants’ assertions concerning this issue. After all, defense lawyers typically claim that their clients never raised prices at all. If this were true,

36. Mr. Denger, one of the nation's leading defense attorneys, who represented defendants in the vitamins cartels cases, testified that “it is not unlikely that the defendants paid fines, settlements and litigation expenses from U.S. criminal and civil litigation which, in the aggregate, averaged over 100% of their U.S. sales.” Denger Statement, supra note 31, at 7 (footnote omitted).

It is difficult to critically evaluate Mr. Denger's assertion, however, because these cases involved separate cartels for a number of different vitamins, which lasted for different periods of time. One would have to compare Mr. Denger's assessments of particular products, time periods, and overcharges with those of the plaintiffs in these cases. This would be a particularly difficult task because, with only one exception, no court has ever ruled on these issues. We would have to compare potentially contradictory plaintiffs' and defendants' allegations—not the most satisfactory method of proceeding. Moreover, United States sales would not be a relevant measure of damages caused by a company's antitrust violations since the focus must be on damages to all of its victims rather than just on the United States sales of the victimizer.

Further, Mr. Denger did not adjust his calculations for antitrust's lack of prejudgment interest. This factor alone would reduce Mr. Denger's 100% figure down to approximately 44%. See supra note 6 for the calculations showing the effect of the lack of prejudgment interest on payouts in the vitamins cartel. In other words, if Mr. Denger had added prejudgment interest to the overcharge figures in his calculations, he would have found that the cartel paid 44% of its United States sales, not 100%.


Moreover, recently Prof. John Connor conducted a comprehensive examination of the sixteen global vitamins cartels and their related antitrust cases. John M. Connor, The Great Global Vitamins Conspiracy: Sanctions and Deterrence 1 (American Antitrust Institute, Working Paper No. 06-02, 2006), available at http://www.antitrustinstitute.org/recent2/485.pdf (last visited Mar. 12, 2006). Prof. Connor concluded: “There is little question that the convicted members of the vitamins cartels were in absolute monetary terms the most heavily sanctioned defendants in the history of antitrust law. Yet, it is equally non-controversial that the impressive corporate monetary sanctions imposed worldwide were inadequate to deter recidivism.” Id. at 1. Specifically, Dr. Connor found that the total payments by cartel members to all governments and plaintiffs, combined, were only 67% of its global overcharges if nominal dollars are used, and only 34% of their overcharges if constant dollars are used—well below single damages. Id. at 80.

Thus, the vitamins cases clearly do not qualify as an example of “duplication” or excessive payouts by defendants.


Equally as important, I think the evidence is going to show that the efforts by those who did meet for the purpose of reaching an agreement to restrict prices or
even a $1 settlement would constitute an infinite percentage of actual damages. Plaintiffs, naturally, disagree sharply. Policymakers, however, should insist upon seeing objective findings by neutral third parties such as judges or juries.

I have issued this challenge to many defense lawyers privately, while making public speeches to legal audiences, and in writing on many occasions. No defense lawyer, however, has ever been able to name a real case involving an actual duplicative damage recovery against a cartel or monopoly. No case involving the payment of sixfold damages by a cartel or a monopoly has ever been unearthed. Moreover, from a public policy perspective, anyone wanting to change the current damages system should have to present not just an isolated example, but a pattern of such evidence that might justify damages reform.

Instead, the following scenario is more typical: Assuming plaintiffs can get the class certified—which is no easy task—defense attorneys negotiate a settlement with direct purchasers of nominal single damages. This settlement is followed by a settlement with indirect purchasers (from many of the twenty-five or more states that permit to allocate markets simply did not succeed. The conspiracy, as it is alleged with regard to pricing, never really came together. It never really came together.

Id.

38. See Lande, Damage Levels, supra note 27, at 341-43.

39. Class certification plays a central role in most antitrust damages suits. The reality is that little or no effective private prosecution of antitrust cases will occur in most cases if a class isn’t certified—and the risk is real that a class will not be certified, even in horizontal price-fixing cases. Moreover, even if a class of direct purchasers is certified, there is a good chance that one or more indirect purchaser classes will not be certified. That possibility has little to do with the merits and yet it provides a strong reason for potential wrongdoers to take a chance on violating the law. From the perspective of a litigator, this is one of the key reasons that treble damages are insufficient to deter antitrust violations.

E-mail from Josh Davis, Professor of Law, Univ. of S.F. Sch. of Law, to Robert Lande, Professor of Law, Univ. of Baltimore Sch. of Law (Oct. 10, 2005) (on file with Author).

40. Several plaintiffs’ lawyers have told me that settlements with direct purchasers as high as single damages are rare. This is in part because both sides know that juries are reluctant to award significant damages to direct purchasers because juries often believe—that the direct purchasers, which can pass on most or all of the overcharge to their customers, were not really hurt. Juries are thought to reason that direct purchasers might have been hurt only slightly or not at all, so despite the judge’s instructions, they compute damages on the low side. In addition, often some victims are excluded from the class for one reason or another—including that their damages are too difficult to compute on a classwide basis. This is another reason why the overall settlement often is less than all of the damages caused by the cartel.
these suits\textsuperscript{41} that aggregate to no more than one-half of nominal damages.\textsuperscript{42} To this amount should be added the criminal fine, which often is negotiated down to one or one and one-half times the supposed damages. Together, this would appear to total roughly nominal treble damages for the cartel: $1 + 1/2 + (1 \text{ to } 1.5) = \text{approximately } 3$.

After appropriate adjustments are made for lack of prejudgment interest and the other factors noted earlier, however, the effective total is likely to be only approximately single damages—certainly not six-fold damages. The "duplicative recovery" or "overdeterrence" argument is mythical, and should be ignored.

Finally, the "duplicative recovery" argument distracts the debate from what should be its primary focus—the optimal deterrence of antitrust violations.\textsuperscript{43} Those who believe that improved economic efficiency is the only legitimate goal of antitrust law and that deterrence (not compensation) is the only appropriate role for antitrust damages, almost unanimously believe that the appropriate measure of damages is the net harm to others caused by the violations multiplied by the probability of detection and proof.\textsuperscript{44} From a deterrence per-


\textsuperscript{42} These estimates might well be high, as I have not seen any solid figures. A fortiori, as Prof. Cavanaugh notes: "I suspect that settlements providing for treble actual damages are rare, if not virtually non-existent." \textit{See Civil Remedies Issues: Hearing Before the Antitrust Modernization Comm'n} 11 (2005) (Statement of Edward D. Cavanaugh), available at http://www.amc.gov/commission_hearings/pdf/Cavanagh.pdf (last visited Mar. 12, 2006) [hereinafter Cavanaugh Statement].

\textsuperscript{43} For an insightful discussion of this issue, see Jonathan B. Baker, \textit{New Horizons in Cartel Detection}, 69 GEO. WASH. L. REV. 824 (2001). This Article will not discuss whether the antitrust laws also should compensate consumers injured by antitrust violations.

\textsuperscript{44} See Landes, \textit{supra} note 20, at 656; \textit{see also} WILLIAM BREIT & KENNETH G. ELZINGA, ANTITRUST PENALTY REFORM 12 (1986). Professors Breit and Elzinga have provided the clearest explanation of the "net harm to others" standard:

The trick to discovering the optimal sanction is to find a rule that will force the potential cartelist to compare any cost saving from his activity with the deadweight loss triangle. If the cost saving were larger than the deadweight loss, it would be in his (and society's) interest to undertake the illegal activity. So after he deducts the monopoly profit rectangle . . . the cartelist will examine the deadweight loss (the remainder of the fine to be paid) and compare it with the value of the cost saving. The fine that is the sum of the deadweight triangle plus the profit rectangle is the correct sanction since it will encourage the "right" amount of illegal antitrust activity. Damages larger than this . . . could lead to overdeterrence . . .

A numerical example may help to clarify the concept of the optimal antitrust sanction. Assume that a potential cartelist calculates that joining a horizontal price-fixing conspiracy will increase his profits by $100 million. He also is aware that the deadweight loss imposed on society by his activity is $50 million. If the
pective it does not matter precisely who gets the recovery;\textsuperscript{45} the focus should be on making sure that someone forces the defendants to pay an optimal amount of damages. It is true that often there are mismatches between those plaintiffs who recover antitrust damages and those who were harmed by antitrust violations.\textsuperscript{46} The antitrust field’s focus, however, should be on the fact that the total payouts from antitrust violations are not nearly large enough to deter antitrust violations optimally. Thus, the debate should be over the best ways to increase this total.\textsuperscript{47} The duplication argument should not distract from the fact that, overall, the awarded antitrust damages are only a fraction as large as they should be to ensure optimal deterrence, and that they should be increased significantly.\textsuperscript{48} 

\begin{itemize}
  \item From a deterrence perspective it does not matter whether direct purchasers or indirect purchasers recover the overcharges. It would be scandalous if defendants were permitted to keep their overcharges due to excessive concern about whether these overcharges should be given to the direct purchasers instead of to the indirect purchasers.
  \item This mismatch can arise because in some cases only direct purchasers will be allowed to recover while indirect purchasers absorb most of the overcharges. The mismatch also can be due to the umbrella effects and other points made earlier in this Article.
  \item The approach advocated by Landes, Breit, Elzinga, and others, supra note 44 and accompanying text, does not attempt to deter all antitrust violations. It only attempts to deter an optimal amount of antitrust violations, whenever so doing would likely be efficient.
  \item Moreover, it is a myth that awarded antitrust damages “overcompensate” plaintiffs. Those injured plaintiffs who recover in private damages suits are not overcompensated. Even in those rare cases where consumer plaintiffs receive nominal “treble” damages, they are only probably compensated between .63 and 1.10 times their losses from price fixing due to the lack of prejudgment interest issue, statute of limitations problems, and other necessary adjustments. See Lande, “Treble” Damages, supra note 6, at 162, for the appropriate calculations.
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III. Myth #3: Courts Should Go Easy on Defendants when Formulating Liability Rules or Calculating Overcharges Because the Awarded Damages from a Finding of an Antitrust Violation Are So Severe

Respected scholars persuasively argue that the very existence of the so-called "treble" damages remedy systematically biases the results of antitrust litigation in defendants' favor because judges regard the remedy as excessive.\(^{49}\) No matter that the statute awards "treble" damages for antitrust violations, judges can find numerous ways to avoid awarding them.\(^{50}\) These scholars assert that the automatic nature of the "treble" damages multiplier might cause some judges to favor defendants when they formulate substantive antitrust rules, when they measure ambiguous factual situations against these rules, or when they devise appropriate standing rules.\(^{51}\) Some courts might be reluc-
tant to "trebly" penalize defendants or "over-reward" plaintiffs unless the activity at issue was truly outrageous. Similarly, in otherwise close cases judges might under-award damages or resolve ambiguities in defendants' favor when they compute damages because they "know" that the resulting award will be trebled. For this reason the automatic trebling feature, designed to encourage plaintiffs to bring suit and to discourage defendants from engaging in anticompetitive behavior, might create the opposite effect.

The irony, of course, is that these judges have been acting upon a false foundation. Myth #1 showed that antitrust's nominal "treble" damages are at most single damages. Antitrust damages levels are in fact significantly lower than they should be for optimal deterrence. Any systematic bias in defendants' favor by judges is perverse.

To the extent that the courts have systematically been biased regarding rules, practices, procedures, and precedents against plaintiffs, these rules, practices, procedures, and precedents now should

nonopolization, horizontal restraints, and vertical restraints might have developed more narrowly because of the effects of damages awards that the courts believed to be treble. Id. at 191-95. He concludes that "class actions probably would be more easily certified were there no trebling." Id. at 197. Professor Calkins also marshals support by demonstrating why "it seems probable that trebling is a factor" in causing courts to "scrutinize[ ] damage claims more rigorously than they once did." Id. at 198. "Plaintiffs would find standing rules more hospitable in a single-damages world." Id.; see also Calkins, Summary Judgment, supra note 49, at 1101; Homer Clark, The Treble Damage Bonanza: New Doctrines of Damages in Private Antitrust Suits, 52 MICH. L. REV. 363, 363 (1954) (concluding that "the mandatory trebling of any recovery has generated a natural reluctance in the courts to impose prodigious damages upon violators of the act . . . ."); John F. Hart, Standing Doctrine in Antitrust Damage Suits, 1890-1975: Statutory Exegesis, Innovation, and the Influence of Doctrinal History, 59 TENN. L. REV. 191, 241-42 (1992).
all be revised in plaintiffs' favor to achieve neutrality. Substantive antitrust rules, class certification rules, and the methodology by which damages are calculated should all be revisited in light of these considerations.

It is possible that this unfortunate outcome arose from perception or articulation problems. Perhaps scholars, policymakers, and plaintiffs' attorneys have been remiss for failing to explain clearly that, when viewed correctly, the current so-called antitrust “treble” damages actually are only single damages. Maybe these people have been remiss in failing to explain that the duplication/duplicative recovery/overdeterrence argument is only a myth. Perhaps they should be faulted for failing to counter defendants’ misinformation concerning these issues. Maybe they simply have not done a satisfactory job explaining why the current levels of antitrust damages should be increased. Unfortunately, those primarily suffering from these failures and misperceptions are the victims of antitrust violations.

IV. Myth #4: The Size of the Harms Caused by Antitrust Violations, Even by Such Hardcore Violations as Naked Cartels, Is Relatively Modest, and Criminal Penalties Resulting from Violations Are Out of Proportion to These Harms. This Causes Overdeterrence.

Some suggest that the average size of the antitrust injury, even from hardcore collusion, is modest. They assert, in effect, that many or most cartels are established out of misguided optimism by naive businesspeople, but collapse so quickly that their harm to the econ-

55. Antitrust rules should be neutral, rather than systematically favor plaintiffs or defendants.

56. Kovacic explained that where courts fear that the remedial scheme (e.g., mandatory treble damages for all offenses) deters legitimate business conduct excessively, the courts will use measures within their control to correct the perceived imbalance. The courts will “equilibrate” the antitrust system in one of three ways[. Judges will]: . . . construct doctrinal tests under the rubric of “standing” or “injury” that make it harder for the private party to pursue its case; or . . . adjust evidentiary requirements that must be satisfied to prove violations; or . . . alter substantive liability rules in ways that make it more difficult for the plaintiff to establish the defendant’s liability.

Kovacic, supra note 49, at 175.

omy usually is ephemeral. If policymakers believe this, then when they design the optimal antitrust remedy system, they should err on the side of laxity because the harms from violations—even cartels—are relatively small, while overdeterrence becomes a relatively greater concern.

The cartel penalties imposed by the United States Sentencing Commission ("U.S. Sent. Comm'n") are based upon a presumption made by the Reagan Administration that cartels raise prices by an average of 10%. This figure has been attacked repeatedly as being too high, or as being without empirical support.

58. Of course, if the 10% estimate discussed in Myth #4 is accurate, it would not constitute a "low" overcharge.

59. As Professor Kovacic noted: "A person who takes two aspirin will cure a headache; a person who swallows the entire bottle will die." Kovacic, supra note 49, at 167.

60. The Reagan Administration's Assistant Attorney General for Antitrust, Douglas Ginsburg, formulated and promulgated this estimate. In a statement to the U.S. Sent. Comm'n, Ginsburg explained that the standard optimal deterrence model means that "the optimal [f]ine for any given act [of price-fixing] is equal to the damage caused by the violation divided by the probability of conviction[;] . . . such a fine would result in the socially optimal level of price fixing, which is in this case zero." Public Hearing on Sentencing Options: Hearing Before the United States Sentencing Comm'n 13–14 (1986) (statement of Douglas Ginsburg) (unpublished public hearing). He also stated his judgment that "price fixing typically results in price increases [ ] that has harmed the consumers in a range of 10 percent of the price." Id. at 15. The U.S. Sent. Comm'n then adopted the 10% presumption. U.S. Sentencing Guidelines Manual § 2Rl.1 cmt. (2004) (Bid-Rigging, Price Fixing or Market-Allocation Agreements Among Competitors).

61. "It is estimated that the average gain from price-fixing is 10 percent of the selling price." U.S. Sentencing Guidelines Manual § 2Rl.1 cmt. n.3 (2004) (Bid-Rigging, Price Fixing or Market-Allocation Agreements Among Competitors). The Guideline's commentary adds:

   The loss from price-fixing exceeds the gain because, among other things, injury is inflicted upon consumers who are unable or for other reasons do not buy the product at the higher prices. Because the loss from price-fixing exceeds the gain, subsection (d)(1) provides that 20 percent of the volume of affected commerce is to be used in lieu of the pecuniary loss under § 8C2.4 (a)(3).

62. The U.S. Sent. Comm'n's 10% presumption was quickly attacked as unreliable and excessive. Cohen and Scheffman concluded: "[T]here is little credible statistical evidence that would justify the Commission's assumptions which underlie the Antitrust Guideline." Mark A. Cohen & David T. Scheffman, The Antitrust Sentencing Guideline: Is the Punishment Worth the Costs?, 27 Am. Crim. L. Rev. 331, 333 (1989). "At least in price-fixing cases involving a substantial volume of commerce, ten percent is almost certainly too high." Id. at 343. During recent years similar criticisms often have been made. Not surprisingly, those who have defended companies accused of collusion have asserted that the 10% presumption has led to penalties so large they caused overdeterrence. For example, Adler and
In a recently published study, however, my co-author, Professor John Connor, and I identified more than 200 serious economic studies of cartels that contained 674 observations of "average" overcharges. Our primary finding is that the median overcharge for all types of cartels has been 25%. This breaks down to 17–19% for domestic cartels, and 30–33% for international cartels. The mean overcharge for all types of cartels was even higher: 49%. Significantly, 79% of the cartels charged, on the average, more than the 10% figure used as the U.S. Sent. Comm'n's presumption, and 60% overcharged by more than 20%. We did not find bid rigging conspiracies to be more harmful than price fixing, and we found no basis for believing that cartels in larger markets overcharged less.

We also attempted to determine the sizes of cartel overcharges by utilizing a very different data set. We studied every final verdict we

Laing concluded that “[t]he fines being imposed against corporate members of international cartels are staggering.” Howard Adler Jr. & David J. Laing, Explosion of International Criminal Antitrust Enforcement, 11 CORP. Couns. 1, 1 (1997). More recently, Crandall and Winston, two researchers at the Brookings Institution, further argued: “We find little empirical evidence that past [antitrust] interventions have provided much direct benefit to consumers or significantly deterred anticompetitive behavior.” Robert W. Crandall & Clifford Winston, Does Antitrust Policy Improve Consumer Welfare? Assessing the Evidence, 17 J. Econ. Persp. 3, 4 (2003). To support their view that cartels are ineffective and the prosecution of overt price fixing is unwise, they cited five empirical studies of overt collusion that found that conspiracies convicted in United States courts had no upward effects on prices. Id. at 14–15. Tefft W. Smith called for lowering the 10% presumption down “to 3 or 5%. That may be (equally) arbitrary but probably more realistic, ‘fair’ and desirable from an enforcement policy perspective.” Criminal Antitrust Remedies: Hearing Before the Antitrust Modernization Comm’n 21 (2005), available at http://www.amc.gov/commission_hearings/pdf/Smith_Statement.pdf (last visited Mar. 12, 2006) (comments of Tefft W. Smith).


The Section has questioned, and continues to question, whether the current presumption in determining criminal fine levels is empirically sound or good public policy. Having reviewed the Sentencing Commission’s analysis of the issue, the Section concluded that the presumption that the “average gain from price-fixing is 10 percent of the selling price” was unsupported by empirical economic evidence.

Id. at 8 (internal citations omitted).

66. The “mean” is the average of all of the overcharges. The “median” figure is greater than half of the overcharges and less than half.
could find in United States collusion cases.\textsuperscript{70} From these, we culled those cases that reported enough information to enable us to compute the percentage by which the cartel raised prices on average.\textsuperscript{71} These results showed a similar pattern: an average median overcharge of 22\% and an average mean overcharge of 31\%.\textsuperscript{72} Since our data sample was small, however, we have not computed separate median or mean figures for domestic or international cartels.\textsuperscript{73}

Thus, median or mean cartel overcharges are at least two or three times as high as the level presumed by the U.S. Sent. Comm’n. Our study shows that cartels actually cause more harm than was traditionally realized,\textsuperscript{74} and that the existing level of cartel fines will do little to deter most cartels.\textsuperscript{75} This research also suggests that existing cartel penalties should be raised significantly because they do not adequately reflect the actual amounts by which cartels typically raise prices.

\begin{itemize}
\item \textsuperscript{70} Id. at 551–57.
\item \textsuperscript{71} Id. at 555–60.
\item \textsuperscript{72} Id. at 560.
\item \textsuperscript{73} Id. at 560–61. We were only able to find twenty-five final cartel verdicts that contained information from which an overcharge percentage could be computed. Of these, twenty exceeded the U.S. Sent. Comm’n Guideline’s presumption. Id.
\item \textsuperscript{74} Id. at 561. We are now only referring to higher prices. See also supra note 21, for other harms caused by cartels. In addition, it might be true that, on occasion, firms learned to cooperate while colluding. Thus, even after the explicit conspiracy ended, the prices failed to return to competitive levels.
V. Myth #5: Even Though Treble Damages Should Be Maintained for Hardcore Violations, They Should Be Reduced for Certain Violations, Such as Rule of Reason Violations

It has often been proposed that damages should be derubled for rule of reason violations or that trebling for rule of reason violations should be made discretionary. Either regime, however, would lead to less deterrence than currently exists, would be more complicated, and, in light of the current uncertain line between per se and rule of reason antitrust violations, would lead to less business certainty.

The following table shows the DOJ's success in prosecuting antitrust violations:

<table>
<thead>
<tr>
<th>Total Criminal Cases</th>
<th>1995</th>
<th>'96</th>
<th>'97</th>
<th>'98</th>
<th>'99</th>
<th>2000</th>
<th>'01</th>
<th>'02</th>
<th>'03</th>
<th>'04</th>
</tr>
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<tbody>
<tr>
<td>Filed</td>
<td>60</td>
<td>42</td>
<td>38</td>
<td>62</td>
<td>57</td>
<td>63</td>
<td>44</td>
<td>33</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td>Won</td>
<td>65</td>
<td>38</td>
<td>40</td>
<td>64</td>
<td>48</td>
<td>52</td>
<td>38</td>
<td>37</td>
<td>32</td>
<td>35</td>
</tr>
<tr>
<td>Lost</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>—</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Pending</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>17</td>
<td>24</td>
<td>35</td>
<td>39</td>
<td>34</td>
<td>42</td>
<td>48</td>
</tr>
<tr>
<td>Appeal Decisions</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>6</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

If there had been little or no effective price fixing during this period, the DOJ has been fooling a lot of grand juries, judges, and juries. During the last five years, over 100 years of imprisonment have been imposed on antitrust offenders, with more than forty defendants receiving jail sentences of one year or longer. Hammond Overview, supra at 3. In 2005, defendants in cases prosecuted by the Antitrust Division were sentenced to a record number of jail days, more than 13,000 days in all. Scott D. Hammond, U.S. Dep't of Justice, Antitrust Div., An Update of the Antitrust Division's Criminal Enforcement Program, Address Before the A.B.A. Section of Antitrust Law Cardel Enforcement Roundtable 1 (Nov. 16, 2005), http://www.usdoj.gov/atr/public/speeches/213247.htm (last visited Jan. 12, 2006). In 2005, the average jail sentence reached a record high of twenty-one months. Hammond Overview, supra, at 3.

76. This myth could be characterized as a policy conclusion that follows from the previous myths.

77. For citations and a discussion of ten derubling options, see generally Edward D. Cavanaugh, Detrebbling Antitrust Damages: An Idea Whose Time Has Come?, 61 TUL. L. REV. 777 (1987) (“In 1983, then Assistant Attorney General William Baxter proposed that damages be derubled in cases governed by the rule of reason but that trebling be retained in per se cases.” Id. at 825. (citing William F. Baxter, Research Joint Ventures: Hearings Before the Subcomm. on Investigations and Oversight of the Subcomm. on Science, Research and Technology of the House Comm. on Science and Technology, 98th Cong. 154, 159 (1983) (testimony of William F. Baxter))). See also Civil Remedies Issues: Hearing Before the Antitrust Modernization Comm'n 10–14 (2005) (statement of Abbott B. Lipsky, Jr.). Some of the discussion in this Section is based upon Lande, Damage Levels, supra note 27, at 343–44.
Moreover, rule of reason violations, like cartels, cause harms in addition to the higher prices that they force consumers to pay—they also are likely to cause allocative inefficiency and umbrella effects. Their victims similarly cannot receive prejudgment interest.\textsuperscript{78} Thus, the "treble" damages awarded for rule of reason violations probably amount to roughly only single damages.

Yet, a multiplier of greater than one is still appropriate for rule of reason situations.\textsuperscript{79} The multiplier of three is used, at least in part, because antitrust violations frequently are hard to detect and to prove to be anticompetitive.\textsuperscript{80} Rule of reason cases on average are easier to detect, but they are much harder to prove than per se cases.\textsuperscript{81} There is no reason why the same overall multiplier should not be used for both rule of reason and per se violations.\textsuperscript{82}

\textsuperscript{78} See Fishman v. Estate of Wirtz, 807 F.2d 520 (7th Cir. 1986) (Easterbrook, J., dissenting). Moreover, as Averitt & Lande, supra note 21, indicate, antitrust violations also can lead to lower short term consumer choice and lower long term rates of innovation. These can, at times, be more harmful to consumer welfare than the price effects of anticompetitive behavior. These factors suggest that cartel penalties should be further increased.

Injunctive relief can also be more important than monetary recoveries by consumers. See, e.g., Wal-Mart Stores, Inc. v. Visa U.S.A. 396 F. 3d 96, 111 (2d Cir. 2005) ("The settlement includes $3,383,400,000 in compensatory relief, plus additional injunctive relief valued at $25 to $87 billion or more.").

\textsuperscript{79} As noted earlier, Judge Easterbrook observed:

\textit{Multiplication is essential to create optimal incentives for would-be violators when unlawful acts are not certain to be prosecuted successfully. Indeed, some multiplication is necessary even when most of the liability-creating acts are open and notorious. The defendants may be able to conceal facts that are essential to liability.}

Easterbrook, supra note 9, at 454.

\textsuperscript{80} Professor Cavanaugh points out:

\textit{Arguably, trebling is too low for concealable offenses such as price-fixing, and too high for unconcealed acts which may be illegal, such as tying and certain merger activity. However, this theoretical approach falters when one attempts to translate it into a legal rule. It would be impractical, if not impossible, to compute the likelihood of detection and hence the proper multiple for each industry for each antitrust violation. Here, trebling provides not only rough justice but also a predictable, workable rule of law.}

See Cavanaugh Statement, supra note 42, at 5–6.

\textsuperscript{81} See Am. Soc'y of Mech. Eng'rs, Inc. v. Hydrolevel Corp., 456 U.S. 556, 575 (1982) ("Treble damages make the remedy meaningful by counter-balancing the difficulty of maintaining a private suit under the antitrust laws." (internal quotation marks and citations omitted)).

\textsuperscript{82} Professor Cavanaugh eloquently and persuasively argues that those favoring a change should have the burden of persuasion: "[F]rom a process perspective, mandatory trebling comes before the AMC with a 115 year history. That history creates a strong presumption in favor of mandatory trebling. Accordingly, opponents of mandatory trebling have a heavy burden to overcome. To date, that burden has not been met." Cavanaugh Statement, supra note 42, at 11.
It is even possible that "treble" damages are more important in rule of reason cases. "Treble" damages were probably adopted, in part, to provide an incentive for private litigants to find and prove violations. Rule of reason cases are tremendously risky, protracted, and expensive. Abolishing "treble" damages in rule of reason cases could effectively decimate rule of reason private antitrust enforcement. The number of rule of reason actions could decrease tremendously, eventually resulting in a substantial number of additional rule of reason violations.

Letting judges decide whether damages will be trebled at the end of trial would impact significantly upon the incentives of law firms to undertake rule of reason cases on a contingency basis. As the risk/reward ratio becomes more uncertain and decreases dramatically, the number of plaintiffs with legitimate complaints who cannot secure effective legal representation will increase. Professors Salop and White showed that making trebling discretionary would increase uncertainty for both plaintiffs and defendants, which is undesirable for a number of reasons, including its likelihood of leading to lower set-

83. As Professor Cavanaugh observes:
At least in the short run, differing standards may emerge in the lower courts as to when trebling is appropriate. Eventually, the Supreme Court would probably step in to provide a uniform standard; but in the meantime, at least some forum shopping would likely occur. This creates the spectre of federal "magnet courts" and may exacerbate rather than alleviate problems of unfairness. Differing standards for imposing multiple damages also would create uncertainty regarding settlement. When one is not sure whether single or treble damages will be imposed, it becomes difficult to evaluate in any meaningful way possible financial risks or gains.

Id. at 10.

84. In some respects the pre-case calculations of plaintiffs' attorneys can be compared to those of venture capitalists. For each case they consider filing, they make their best guess as to their chances of success, the time the case will require until victory, and the expected recovery. If the expected recovery is decreased by two thirds, they will be much less likely to bring the case.

85. Professors Salop and White explain:
A discretionary damages multiple ... increase[s] uncertainty. Uncertainty also might be increased during transitional periods culminating in a new legal standard. . . .

. . . .
Uncertainty affects the plaintiff's willingness to initiate suit, the defendant's willingness to engage in potentially illegal behavior, and the ability of the parties to reach a settlement. . . . Greater uncertainty over the outcome at trial may make the defendant either more or less aggressive in his business conduct. . . . Therefore, the defendant will have less incentive to avoid violations at the margin when his choice of conduct has little effect on the likely outcome. This result occurs because a lower overall likelihood of liability reduces the effect of changes in business conduct on the likelihood of liability. Uncertainty also affects the incen-
Either mandatory or discretionary detrebling also would decrease the "accuracy" of antitrust outcomes because parties tend to devote more effort when the stakes are higher. These problems would be especially acute because criminal penalties are irrelevant in rule of reason cases. The private payouts must supply the full measure of optimal deterrence. In many per se cases, by contrast, some of the optimal deterrence will be supplied by criminal penalties.

Moreover, "treble" damages force companies to be more aware of the possible antitrust consequences of their actions, leading to fewer violations. Even though "treble" damages, when examined properly, are really single damages, if a company believes they might encounter treble damages payouts, they may be deterred from engaging in anticompetitive conduct. On the other hand, single damages combined with an unknown and uncertain, but significantly less than 100% incentives for potential plaintiffs to sue. To the extent that the potential plaintiff is risk averse, uncertainty reduces his incentive to sue by increasing the overall variance of the returns from this strategy.


Settlements are less likely when the parties have differing expectations about the expected value of the outcome. Id. at 1024-26. If trebling were made discretionary this would cause these expectations to diverge. Id. "Perloff and Rubinfeld tried to estimate the effect of detrebling on the settlement rate. Although their results are quite preliminary and by no means certain, they do predict a reduction in the overall settlement rate from detrebling." Steven C. Salop & Lawrence J. White, Treble Damages Reform: Implications of the Georgetown Project, 55 ANTITRUST L.J. 73, 90 (1986) [hereinafter Salop & White, Georgetown Project].

In the absence of the financial incentives from treble damages, plaintiffs may find it uneconomical to plead theories requiring hard evidence. Instead, they are more likely to argue for simplified standards that are less expensive to litigate. And courts are likely to permit abbreviated standards and proof in order to maintain fairness. This leads to a potential conflict between detrebling and sophisticated rule of reason analysis. This is related to the issue of the proper liability standard as well. If it is too expensive, in the absence of the financial incentives provided by a damages multiple, for a plaintiff to prove injury to competition, the courts may be overly willing to infer injury to competition from proof of injury to the competitor. We think this would be a step in the wrong direction . . . . First, increasing the damages multiple gives the parties an incentive to increase litigation costs because more is at stake . . . to the extent that greater litigation effort reduces the rate of incorrect assignment of liability, then this represents a social benefit, though not necessarily equal to the higher costs.

Id. at 89-90 (emphasis in original).
probability of detection and litigation, provide strong incentives to violate the law.\textsuperscript{88}

\section*{Conclusion}

If the AMC decides to recommend any changes in this area, it should not recommend that damage levels be lowered or be made discretionary for certain types of antitrust cases, such as rule of reason offenses. Instead, it should recommend that damage levels be raised so that they are at the real three-fold level for all types of antitrust cases. As an important move towards this goal the AMC should recommend that prevailing plaintiffs should automatically receive prejudgment interest, starting when the antitrust damages first occur. Moreover, firms that are caught and convicted of price fixing often earn a profit despite the existing array of antitrust damages and penalties. For hardcore offenses we are so far from the overdeterrence point that a substantial increase in damages and penalties is warranted. The existing levels of criminal penalties should be raised substantially.

\textsuperscript{88} Nor would criminal sanctions be a deterrent because they are not usually imposed in rule of reason cases. \textit{See} Hovenkamp, \textit{supra} note 1, at 593–94.