

ARTICLES

Toward an Empirical and Theoretical Assessment of Private Antitrust Enforcement

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The predominant view in the antitrust field has been that private enforcement, and especially class action cases, yields little or no positive results. On the contrary, they are counterproductive. This prevailing belief was well summarized by J. Thomas Rosch, a former commissioner of the Federal Trade Commission, who considered treble damage class action cases “almost as scandalous as the price-fixing cartels that are generally at issue. . . . [T]he plaintiffs’ lawyers . . . stand to win almost regardless of the merits of the case.”¹ Professor Daniel Crane has gone so far as to claim that “often” in private antitrust class actions “administrative costs swallow the entire recovery.”²

In light of these widespread beliefs, former Federal Trade Commission Chairman William E. Kovacic summarized the conventional wis-

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1. See J. Thomas Rosch, Comm’r, Fed. Trade Comm’n, Remarks to the Antitrust Modernization Commission 9–10 (June 8, 2006), available at <http://www.ftc.gov/speeches/rosch/Rosch-AMC%20Remarks.June8.final.pdf>. Similarly, when Steve Newborn, co-head of Weil, Gotshal and Manges’ Antitrust/Competition practice, was asked which areas of antitrust need reform, he replied: “[c]lass actions: they are increasingly beneficial only to plaintiffs’ law firms and not to consumers.” *Q&A with Weil Gotshal’s Steven A. Newborn*, LAW360 (May 26, 2009), <http://competition.law360.com/articles/103359>.

2. Daniel Crane, *Optimizing Private Enforcement*, 63 VAND. L. REV. 675, 683 (2010) [hereinafter Crane, *Optimizing*].

dom about private enforcement succinctly and correctly: “private rights of actions U.S. style are poison.”³ Abbot B. Lipsky, in his testimony before the Antitrust Modernization Commission, likened private antitrust lawsuits to the “Salem Witch trials.”⁴ Additionally, a European academic analogized private antitrust lawsuits to a tort case where a driver allegedly “set the cruise control at 70 mph in his brand new 32-foot Winnebago motor home. When the car crashed after he got himself a cup of coffee at the back of the vehicle, [the driver] sued Winnebago for not having warned him in the manual about the consequences of leaving the drivers [sic] seat.”⁵

Despite these strongly worded opinions, most of the argument about private enforcement of the antitrust laws has been premised on anecdotal, self-serving, and unsubstantiated or insufficiently substantiated claims. Indeed, our 2008 study of forty private antitrust cases appears to constitute the only systematic effort to gather information about how a significant number of private actions have actually proceeded and the results they have produced.⁶

Our 2008 study attracted widespread attention because it so strongly challenged the conventional wisdom. It influenced the decision of the

3. *FTC:WATCH No. 708*, FTC WATCH 4 (Nov. 19, 2007), <http://www.ftcwatch.com/series/708/> (quoting William E. Kovacic speaking at an ABA panel on Exemptions and Immunities where he summarized the conventional wisdom in the field, but was not necessarily agreeing with it).

4. Abbott Lipsky wrote: “[I]t is possible that the treble-damage claims unintentionally assume some of the characteristics of a wealth-transfer program that can be gamed to benefit the undeserving . . . [similar to] other bounty payment mechanisms, including the redistributive and unwise legal methods that produced or at least inflamed the Salem Witch Trials . . .” ABBOTT B. LIPSKY JR., PRIVATE DAMAGES REMEDIES: TREBLE DAMAGES, FEE SHIFTING, PREJUDGMENT INTEREST 4–5 (2005), available at http://govinfo.library.unt.edu/amc/commission_hearings/pdf/Lipsky.pdf.

5. See Angela Wigger, *Revisiting the European Competition Reform: The Toll of Private Self-Enforcement* 1 (Vrije Universiteit Amsterdam Political Sci. Dept., Working Paper No. 2004/07, 2004), available at http://www.fsw.vu.nl/en/Images/Revisiting%20the%20European%20Competition%20Reform_tcm31-42715.pdf (“[This case is] symbolic for an excessive culture of litigation that has run out of control -[sic] a culture of litigation in which ‘accidents’ hardly exist anymore. One might wonder how the above examples are related to the recent overhaul of European competition law. Although there is no immediate reason to assume that the EU moves towards a comparable claimant’s culture found in the US, the abolishment of the notification procedure that came along with the new competition law enforcement regime of 1 May 2004 raises some concerns that point into that direction.”). For additional criticisms of private antitrust enforcement, see Robert H. Lande & Joshua P. Davis, *Benefits from Private Antitrust Enforcement: An Analysis of Forty Cases*, 42 U.S.F. L. Rev. 879, 883–89 (2008) [hereinafter Lande & Davis, *Benefits*].

6. The current article builds upon and incorporates our earlier work. See Lande & Davis, *Benefits*, *supra* note 5, at 883–89. For the forty underlying case studies, see Robert H. Lande & Joshua P. Davis, *Benefits from Antitrust Private Antitrust Enforcement: Forty Individual Case Studies* (Univ. of S.F. Law Research Paper No. 2011-22, 2008) [hereinafter *Forty Case Studies*], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1105523; see also Robert H. Lande & Joshua P. Davis, *Comparative Deterrence from Private Enforcement and Criminal Enforcement of the U.S. Antitrust Laws*, 2011 BYU L. REV. 315 (2011) [hereinafter *Comparative Deterrence*].

European Commission to seek expanded private rights of action in Europe⁷ and was considered by the U.S. Congress when it conducted hearings on the “Open Access to Courts Act of 2009.”⁸ It also was attacked by leading lawyers and economists at the U.S. Department of Justice (DOJ)⁹ and by leading academics as well, including the esteemed antitrust scholar Professor Daniel Crane of the University of Michigan Law School.¹⁰

Given this subject’s importance and controversial nature, we undertook a supplemental study of twenty additional private antitrust cases.¹¹ This Article analyzes these twenty cases, compares and contrasts their analysis with that of our earlier group of forty cases, and draws new insights from the results of all sixty combined. We have done this so that empiricism, rather than conjecture, can inform decision makers about how private enforcement actually works in practice.¹²

The primary purpose of our new study was to determine whether private enforcement provides significant benefits that help further the overall goals of the private litigation system: compensating the victims of illegal behavior and deterring anticompetitive behavior.¹³ To assess these benefits¹⁴ we sought to avoid subjective assessments whenever possible.

7. See EUROPEAN COMM’N, MAKING ANTITRUST DAMAGES ACTIONS MORE EFFECTIVE IN THE EU: WELFARE IMPACT AND POTENTIAL SCENARIOS FINAL REPORT 56 (2007), available at http://ec.europa.eu/competition/antitrust/actionsdamages/files_white_paper/impact_study.pdf (citing an unpublished version of our study); see also E-mail from Dr. David McFadden, Legal Advisor, The Irish Competition Auth., to Joshua P. Davis, Assoc. Dean & Professor of Law, Univ. of S.F. Sch. of Law (July 10, 2012) (on file with author) (explaining that our empirical work provided part of the basis for the decision of the Irish Competition Authority to switch positions and provide a submission to the European Commission welcoming introduction of effective collective private redress under European competition law).

8. See *Open Access to the Courts Act of 2009: Hearing on H.R. 4115 Before the H. Comm. on the Judiciary*, 111th Cong. (2009) (written testimony of Professor Joshua P. Davis), available at <http://judiciary.house.gov/hearings/pdf/Davis091216.pdf>.

9. See Gregory J. Werden, Scott D. Hammond & Belinda A. Barnett, *Deterrence and Detection of Cartels: Using All the Tools and Sanctions*, 56 ANTITRUST BULL. 207, 227–33 (2011) [hereinafter WHB].

10. See DANIEL CRANE, THE INSTITUTIONAL STRUCTURE OF ANTITRUST ENFORCEMENT 168–72 (2011) [hereinafter INSTITUTIONAL STRUCTURE]; Crane, *Optimizing*, *supra* note 2.

11. See Joshua P. Davis & Robert H. Lande, *Summaries of Twenty Cases of Successful Private Antitrust Enforcement*, (Univ. of S.F. Law Research Paper No. 2013-01, 2011) [hereinafter *Twenty Case Studies*], available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1961669.

12. Because almost all of the cases ended in settlements, they were extremely difficult to research. We looked for cases that returned a significant amount of cash to the victims, but we did not look for cases that were per se as opposed to rule of reason, that involved direct instead of indirect purchasers, that did or did not involve coupons or *cy pres* grants, etc. For additional information on our screening criteria, see Lande & Davis, *Benefits*, *supra* note 5, at 889–91.

13. For the compensation and deterrence goals of private antitrust cases, see *id.* at 881–83.

14. It is important to note various limitations on the information analyzed in this Article. We attempted to assess some of the benefits from private enforcement, not to perform an overall cost-benefit analysis. No effort was made to collect a comprehensive or representative sample of cases.

As a result, we focused on cases that returned more than \$50 million in cash to victims.¹⁵ We did not include cases that obtained an injunction as their only or primary form of relief. Also, because of our desire to ascertain whether the cases produced benefits that could be assessed objectively, we excluded coupons, products, rebates, discounts, etc. Even though each of these forms of relief may be extraordinarily valuable, we did not count them at all because their benefits can be difficult to measure.¹⁶

When combined, these two studies demonstrate that private antitrust litigation has provided a substantial amount of compensation for victims of anticompetitive behavior: at least \$33.8 to \$35.8 billion.¹⁷ The combined studies also demonstrate that private antitrust enforcement has had an extremely strong deterrent effect. In fact, this research demonstrates that private enforcement probably deters more anticompetitive behavior than even the appropriately acclaimed anti-cartel program of the DOJ Antitrust Division.¹⁸

Another purpose of our study was to ascertain the important characteristics of private antitrust cases, many of which could help to influence the debate over their efficacy. These characteristics include whether there were indicia that the cases had underlying merit, the significance of recoveries from foreign violators of U.S. antitrust law, and the size of the applicable attorney's fee awards. Our study also helps address other interesting questions, including the relationship between private and public enforcement (do most of the private cases simply follow and mirror public enforcement?); the proportion of per se and rule of reason cases (is the conventional wisdom correct that private plaintiffs prevail only in per

To the contrary, we included a disproportionate number of exceptionally large cases, and this means we were disproportionately likely to select class action cases. Moreover, class action settlements must receive court approval and are a matter of public record. Often parties insist on confidentiality in the non-class action context, making research of non-class action cases much more difficult and, for this reason, less likely to appear in this study. Further, we deliberately selected cases that appear to have had significant merit that can be measured quantitatively (namely, we selected cases that resulted in damages, not just an injunction). For all these reasons it would be inappropriate to generalize from these sixty cases about whether private antitrust actions on the whole tend to be meritorious or that the results that follow are typical of private antitrust cases. For additional qualifications, see Lande & Davis, *Benefits*, *supra* note 5, at 889–91; *Comparative Deterrence*, *supra* note 6, at 345–48.

15. We did, however, study five cases in the \$30–\$50 million dollar range to see whether they might be systematically different from the larger cases. See *infra* Table I.

16. In the Tobacco litigation, for example, the result was an apparent transformation in the tobacco market spanning numerous years and worth an estimated \$484 million. See *Twenty Case Studies*, *supra* note 11, at 70 n.2. None of that sum was included in the analysis below.

17. See *infra* Part I. This figure is a very conservative evaluation of these compensatory benefits for the reasons stated.

18. See *infra* Part II.

se cases?); and the proportion of recoveries by direct purchasers, indirect purchasers, and competitors. Many of our new findings cut against conventional wisdom. For example, in the sixty cases, recoveries in rule of reason cases predominated, undermining the widely held view that private plaintiffs rarely obtain meaningful relief unless they are able to pursue a *per se* theory of liability.

Finally, this Article replies to the criticisms of our earlier study of private enforcement. We are grateful for the attention our work has received from high-ranking DOJ officials and Professor Daniel Crane of the University of Michigan Law School. A focused debate holds the promise for progress in our understanding. For this reason it is important for us to discuss their criticisms concerning our claims about, respectively, deterrence effects and compensation effects. We explain why their criticisms are unfounded, and why our earlier study did indeed demonstrate the truly significant benefits of private antitrust enforcement—a conclusion that our new empirical work reported in this Article confirms and strengthens.

This Article proceeds in three parts. Part I presents the empirical results and our analysis based on the combined studies of private enforcement cases. Part II summarizes and responds to the criticisms of our empirical research into private antitrust enforcement. Part III briefly concludes.

I. RESULTS OF THE COMBINED EMPIRICAL STUDIES

A. *Compensation of Victims of Anticompetitive Behavior*

Private antitrust enforcement provides virtually the only compensation to victims of antitrust violations.¹⁹ To be sure, government actors have mechanisms by which they can seek relief for victims, but these mechanisms are limited and too rarely pursued.²⁰ Thus, it is a great virtue of private enforcement if it is able to wrest ill-gotten gains from violators of the antitrust laws and return them to those to whom they rightly belong. And that is what private enforcement has done. Our empirical work reveals that in the sixty cases we studied the total recoveries for the victims of the anticompetitive activity at issue were \$33.8 to \$35.8 billion.²¹

19. Since the cases were almost all settlements, “alleged victims” would be a more accurate description.

20. There also can be restitution actions, *see infra* Appendix A15, and disgorgement actions by the federal enforcers, but they are relatively rare. In addition, state Attorneys General can file *parens patriae* actions on behalf of victims in their state. *See Lande & Davis, Benefits, supra* note 5, at 884 n.25.

21. Unless specifically noted otherwise, all recoveries, fines, and other figures discussed in this Article have been expressed in 2011 dollars.

The forty cases in our 2008 study revealed a total recovery of \$22.4 to \$24.4 billion.²² Because the study examined only large cases, it was possible that this study exhausted the major private cases since 1990, when this study began.²³

Our new study of an additional twenty cases, however, casts the original study in a new light. The new study reflects \$11.4 billion in additional recoveries, as Table 1 shows.²⁴ The original finding of \$22.4–\$24.4 billion was, then, only a part of the benefits that have arisen from private enforcement. We remain unsure how many more important recent cases remain unanalyzed, but the total may well be substantial.²⁵ And while we make no claims that either the original study or the new study reflects a random selection of private antitrust cases, the fact that the twenty new cases total roughly half as much as the original forty cases could mean the original group of forty cases might not be as anomalous as at first seemed possible.

22. See *infra* Appendix Table A8.

23. If so, the first study provided a rough sense of the total amount of money private plaintiffs recovered. Also, it may well have captured a highly unusual population of private cases, including all of the largest recoveries.

24. All of the damages figures analyzed in this Study were generated by ourselves and our researchers, and their methodology is reported in Lande & Davis, *Benefits*, *supra* note 5, at 889–91. The only exception is for the *Vitamins* cases, where we used the estimates generated by Professor John M. Connor, for U.S. private cases only. John M. Connor, *The Great Global Vitamins Conspiracy: Sanctions and Deterrence* 131, tbl.18 (Am. Antitrust Inst., Working Paper No. 06-02, 2008) (on file with authors), available at <http://www.antitrustinstitute.org/~antitrust/node/10119>.

25. For example, due to a variety of data uncertainties we were not able to include analysis of any of the consumer class action suits against Microsoft or the private cases against Microsoft by AOL Time Warner, even though a highly respected journalist reported that together these cases recovered more than \$2 billion for victims of antitrust violations. See Todd Bishop, *Microsoft Antitrust Payouts, the Grand Total*, SEATTLE POST-INTELLIGENCER (July 7, 2006, 6:50 AM), <http://blog.seattlpi.com/microsoft/2006/07/07/microsoft-antitrust-payouts-the-grand-total/>.

Table 1: Actual (in nominal dollars) and Present Value (in 2011 dollars) of the Recoveries in the Twenty Newly Studied Private Cases²⁶

#	Case Name	Year ²⁷	Actual Recovery Amount (Before CPI/PPI)	2011 \$s (millions) (CPI)
1	3M	2006	136	153
2	Air Cargo	2011	278	278
3	De Beers	2011	295	295
4	Electrical Carbon Fiber	2006	30	34
5	EPDM	2007	107	117
6	High Pressure Laminates	2004	46	55
7	Intel	2009	1250	1322
8	MDL v. Hoffman	2008	33	35
9	Methionine	2002	107	135
10	MSG	2003	123.4	152
11	Mylan(Lorazepam & Clorazepate)	2003	70	86
12	Novell v. Microsoft	2004	536	644
13	Ortho Biotech	2008	200	211
14	OSB	2009	120.7	128
15	Polyester Staple	2008	61	64
16	Scrap Metal	2006	34.5	39
17	Tobacco	2005	310	360
18	Tricor	2009	316	334
19	Visa MC	2008	6813	7180
20	Warfarin	2004	44.5	53
	Total		10909	11675

We emphasize that we made no systematic effort to study the non-monetary relief that private plaintiffs obtained. We did find some indica-

26. Present values calculated using CPI Inflation Calculator. CPI INFLATION CALCULATOR, <http://data.bls.gov/cgi-bin/cpicalc.pl> (last visited Feb. 16, 2013). For the formal names and citations for the cases listed in our Tables, see Appendix Table A1.

27. The year reflects the most recent settlement, if a case involved multiple settlements.

tions, however, that sometimes private enforcement can result in significant changes in business practice. In the *Tobacco* litigation, for example, the private litigation had a profound impact on how tobacco farmers sell tobacco.²⁸ Nonetheless, we took none of these effects into account in assigning a monetary value to the private recoveries.

B. Deterrence Effects of Private Enforcement

Our earlier study of forty private cases documented between \$22 and \$24 billion in cash paid by defendants.²⁹ Although we cannot quantify how much anticompetitive conduct was deterred by this litigation, we can at least place the size of the likely deterrence effects in a comparative context.

In a 2011 article, we demonstrated that these forty private cases probably³⁰ deterred more anticompetitive conduct than the entire operation of the DOJ anti-cartel program during the same period (1990–2007).³¹ To arrive at this conclusion, we added the total DOJ sanctions (corporate fines, individual fines, and restitution payments) from every cartel case that terminated during this period (not just the fines collected in the forty cases in our study). We added to this a value or disvalue for every year a corporate officer was sentenced to prison or house arrest. Treating a year of a prison sentence against an individual employee of a corporation as having the same deterrence effect as forcing the corporation to pay \$6 million and a year of a house arrest as equivalent to forcing a corporation to pay \$3 million,³² we concluded that the DOJ's prosecutions resulted in a total of \$7.737 billion in deterrence effects. This figure, although quite commendable, was only about a third of the deterrence effects from these forty private cases (\$22 billion to \$24 billion).³³

The assumptions we used to undertake this comparison were conservative. This conservatism was reflected in the fact that we analyzed the deterrence effects from only forty of the many private cases filed dur-

28. See *Twenty Case Studies*, *supra* note 11, at 70.

29. See *infra* Appendix Table A8.

30. See *Comparative Deterrence*, *supra* note 6, at 317. We qualified our analysis with the word “probably” for many reasons. For example, some of the private actions were follow-ups to DOJ enforcement actions, and DOJ fairly should be given some of the credit for the deterrence resulting from these private cases. Conversely, DOJ enforcement was helped by the specter of private enforcement. For other complexities and qualifications, which apply to the analysis performed in this Article as well, see *id.* at 315.

31. See *Comparative Deterrence*, *supra* note 6.

32. To simplify calculations, we did not adjust the value of prison or house arrest for inflation. We simply used \$6 million as the disvalue of a year and \$3 million for the disvalue of a year spent under house arrest, even if this occurred in 1990.

33. See *Comparative Deterrence*, *supra* note 6, at 337–38. For qualifications to this conclusion, caveats, and notes, see *id.* at 345–48.

ing this period. Our conservatism was shown also by the equivalent deterrence dollar amount ascribed to a year in prison or house arrest—\$6 million and \$3 million, respectively—and the decision to ignore the costs to defendants of providing injunctive relief,³⁴ products, discounts, or coupons as part of settlements.³⁵ Given the disparity between our conclusions about private and DOJ criminal enforcement, however, even a significantly more conservative approach would yield the same ultimate conclusion. For example, only if prison were disvalued at more than \$43 to \$48 million per year on average would the DOJ cases result in more deterrence than the forty private cases.³⁶

Our twenty newly analyzed private cases provide a larger sample for analysis. One way to take advantage of this new information is to update our original calculations. For example, we have now recorded an additional \$1.828 billion, valued as of 2011, in recoveries during the period from 1990 to 2007. This addition increases the total recovery during that period to \$24.2–\$26.2 billion. This increase means that the DOJ breakeven points calculated in the last paragraph—for example, a year in prison would have to be valued at \$43–\$48 million in order for the DOJ cases to result in more deterrence—should be increased appropriately.³⁷

Alternatively, an updated analysis allows us a longer period in which we can compare the deterrence effects of private and DOJ cases (the original 1990–2007 period now extends through 2011). From 1990 through 2011, the total of DOJ corporate antitrust fines, individual fines, and restitution payments totaled \$8.18 billion.³⁸ Valuing each year of prison at \$6 million and each year of house arrest at \$3 million adds another \$3.588 billion in total deterrence from DOJ's anti-cartel cases.³⁹ This combined DOJ deterrence totals approximately \$11.7 billion. This is an extremely impressive figure and no doubt has deterred a substantial amount of collusion. The DOJ total is, however, significantly less than

34. As noted earlier, injunctive relief secured by these forty cases also was omitted, further understating the deterrence value of these cases. However, the effects of injunctive relief secured by DOJ cases were also excluded. *See Lande & Davis, Benefits, supra* note 5, at 890.

35. In defending against either a private suit or a DOJ criminal action, corporations also incur legal costs and suffer disruption. Because of this commonality we ignored these factors in our analysis.

36. *See Comparative Deterrence, supra* note 6, at 340.

37. These numbers result from increasing the private recovery in our original analysis by an additional \$1.828 billion. *See id.* at 314 & n.89.

38. *See infra* Appendix Table A18.

39. Total incarceration for antitrust offenses from 1990 through 2011 was 539.18 years, *see infra* Appendix Table A16, which we value at \$6 million per year. This totals \$3,235 billion. Other confinement totals 117.69 years, *see infra* Appendix Table A17, which we value at \$3 million per year. This totals another \$353 million. Together, both total \$3.588 billion.

the \$34–\$36 billion resulting from the sixty private cases from the same period.⁴⁰

Even a marked increase in the deterrence value of a prison sentence does not alter the result. For example, instead of our assumed disvalue of \$6 million for a year in prison, one could use an estimated deterrence value of \$12 million for a year in prison, and \$6 million for the deterrence effects of a year of house arrest instead of our \$3 million assumption.⁴¹ Doing this would raise the total estimate of deterrence from the DOJ criminal enforcement program from 1990 to 2011 from \$11.7 billion to \$15.4 billion—an impressive figure, but one that is still only approximately half as large as the \$34–\$36 billion secured by the sixty private cases. It would take an extreme revaluation of the value for the deterrence effects of the Antitrust Division’s entire anti-cartel program from 1990 to 2011 to equal the deterrence effects of the sixty large private cases. Only if the deterrence effect of prison was an incredible \$40–\$45 million per year on average, and the deterrence effects of house arrest were half this large, would the DOJ anti-cartel program produce as much deterrence as these sixty private cases.⁴²

Thus, the conclusion we arrived at following our comparative analysis of the forty large antitrust cases has been reinforced: private enforcement probably deters more anticompetitive conduct than even the venerated DOJ anti-cartel program.⁴³

C. *Indicia of the Merits of the Cases*

The preceding compensation and deterrence analysis implicitly assumes that the cases being studied had merit. After all, compensation is only a virtue if those who recover actually are “victims.” If the cases are without merit, plaintiffs deserve nothing, and any recoveries under these circumstances would be unwarranted and unfair. Similarly, any analysis

40. Since some of the private cases were follow-ups to DOJ actions, however, we repeat our qualification that some portion of the deterrence from these private actions fairly could be ascribed to the initial DOJ investigation, and vice-versa. See *supra* note 30.

41. If we were to use \$12 million for the value of a year in prison and \$6 million for a year of house arrest, the deterrence value of the prison and incarceration would double to \$7.186 billion.

42. The total corporate fines, individual fines, and restitution from every DOJ case from this period together total \$8.18 billion. This means that the private total (\$34–\$36 billion) would have to be offset by the public financial total (\$8.18 billion) plus the effects of prison and house arrest, which means that prison and house arrest would have to offset roughly \$26 to \$28 billion. If 539.18 years of prison were disvalued at \$40 to \$45 million per year, this would equal \$21.56 to \$24.56 billion. If 117.69 years of house arrest disvalued at half this, \$20 to \$22.5 million per year, this would equal another \$2.353 to \$2.646 billion. Together these total \$24.09 to \$26.911 billion. Added to the \$8.18 billion total for corporate, individual fines and restitution, this equals \$32.27 to \$35.091 billion—roughly the same as the private totals of \$34 to \$36 billion.

43. For caveats and qualifications, see *Comparative Deterrence*, *supra* note 6, at 345–48.

of the deterrence effects of antitrust sanctions proceeds under the implicit or explicit assumption that the cases under examination were valid. Punishing innocent corporations would do little or nothing to discourage anticompetitive behavior,⁴⁴ and would, for many reasons, be against the public interest.

As a predicate for this inquiry, a jurisprudential issue warrants some attention. It is difficult to develop an objective measure of merit for purposes of an empirical analysis. If merit means that in some sense the plaintiffs in an antitrust case *should* prevail, it would seem that a substantive analysis of claims would be necessary to determine whether they are meritorious. The study would then require an extensive foray into antitrust law, as well as extremely contestable judgments about how controversial areas of doctrine should be interpreted and how factual disputes should have been resolved.

To avoid this quagmire, we rely for present purposes on a legal positivist understanding of the law—one that relies on prediction, not prescription.⁴⁵ According to this view, one might say that a claim has merit if it stands a substantial probability of success. No inquiry is necessary into whether the plaintiff should win.⁴⁶

Using this definition, the cases we studied on the whole likely had significant merit. First, most of the cases resulted in substantial settlements. The recovery in only a few cases was significantly less than \$50 million, and the smallest was \$30 million. It seems unlikely that defendants would pay such large sums merely, for example, to avoid the costs of litigation. Only the meaningful prospect of losing litigation could explain settlements for such large amounts. We are highly skeptical about claims that defending these suits often costs innocent firms \$10 million

44. Indeed, liability for innocent conduct may well undermine deterrence of illegal behavior, as liability serves as a deterrent only if it can be avoided by abiding by the law. Random liability—imposed equally on legal and illegal conduct—would not discourage illegal behavior at all.

45. Holmes provided a seminal articulation of this approach, “The prophecies of what the courts will do in fact, and nothing more pretentious, are what I mean by law.” Oliver Wendell Holmes Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 460–61 (1897). For a more philosophically sophisticated positivist position—one in part critical of Holmes’s approach—see, e.g., BRIAN LEITER, *NATURALIZING JURISPRUDENCE* 59–80 (2007).

46. Of course, no litigation system can be perfect. Every system of litigation will result in errors. The crucial point for policy purposes is the frequency and severity of these errors. Ideally, we would balance errors of over enforcement with errors of under enforcement—a balance of Type I errors and Type II errors. Type I errors are cases where courts incorrectly sanction conduct that was not anticompetitive. A Type II error is an instance of anticompetitive conduct that is not sanctioned. In addition, public policy also should consider a Type III error, which is the transaction costs to businesses, enforcers, consumers and decision-makers of implementing a policy, includes the litigation costs and the effects of risk and uncertainty. For a discussion of the Type I/Type II/Type III terminology in an antitrust context, see Alan A. Fisher & Robert H. Lande, *Efficiency Considerations in Merger Enforcement*, 71 CALIF. L. REV. 1582, 1670 (1983).

or more, except in the most unusual cases. Regardless, \$50 million should be well above the nuisance value of an unmeritorious case. Moreover, the majority of the cases we studied (thirty-six out of sixty) settled for more than \$100 million.⁴⁷ Because actions that settle for more than \$50 million are not nuisance lawsuits, the recoveries almost surely reflect the defendants' perception that they could well lose on the merits at trial and on appeal.

Second, most of the cases we studied were validated in whole or in part by methods other than the final settlement in private litigation. For the original forty cases, this validation took various forms:

1. In thirteen of the forty cases (32.5%), defendants or their employees were subject to criminal penalties, generally through guilty pleas;
2. In twelve of the forty cases (30%), government enforcers obtained a civil recovery, usually in the form of a consent order;
3. In nine of the forty cases (22.5%), plaintiffs survived or prevailed on a motion for summary judgment (or partial summary judgment);
4. In nine of the forty cases (22.5%), defendants lost at trial in the private litigation or in a closely related case;
5. In at least three out of forty cases (7.5%), plaintiffs survived a motion to dismiss.⁴⁸

In sum, thirty-four of the original forty cases (85%) had at least one indicator that the case was meritorious. Table A2 in the Appendix summarizes this information. Appendix Table A3 lists the specific cases in which the merits received each kind of validation.

We found similar results in our additional twenty cases, although we expanded our analysis of the criteria in a couple of ways. The information we obtained is as follows:

1. In five of the twenty cases (25%), defendants or their employees were subject to criminal penalties, generally through guilty pleas;
2. In five of the twenty cases (25%), government enforcers obtained a civil recovery, often in the form of a consent order;

47. It is difficult for a business to believably claim, in effect: "We are saints who did absolutely nothing wrong. Nevertheless, we paid \$50 million or \$100 million or more just to make the case go away." While we are not asserting this can never happen, this argument loses credibility as the settlements get higher.

48. In fact, the percentage of cases in which plaintiffs survived a motion to dismiss may be higher. We did not consistently note this aspect of the litigation in the original forty cases we studied. The percentages appear to total more than 100% because eight of the forty cases involved more than one basis for validation.

3. In five of the twenty cases (25%), plaintiffs survived or prevailed on a motion for summary judgment (or partial summary judgment or judgment as a matter of law);
4. In four of the twenty cases (20%), defendants lost at trial in the private litigation or in a closely related case;
5. In eleven out of twenty cases (55%), plaintiffs survived a motion to dismiss;⁴⁹
6. In eleven out of twenty cases (55%), a court certified a class for purposes of litigation.

In sum, at least one indicator was present in nineteen out of the twenty new cases (95%). Even if one excludes denials of a motion to dismiss and certification of a litigation class, fourteen out of twenty (70%) of the cases had such indicia. Table A4 in the Appendix explains the basis for this validation.

As to the twenty new cases, we think the higher number—the 95% validation rate—is likely the more appropriate measure because our original study gave limited attention to motions to dismiss and did not consider class certification at all. But recent legal developments suggested a change in approach. As to motions to dismiss, courts have become more demanding on plaintiffs.⁵⁰ Although the current standard for whether a complaint states a claim is murky (to say the least), it seems safe to say that in light of the Supreme Court's recent decisions in *Bell Atlantic Corp. v. Twombly*⁵¹ and *Ashcroft v. Iqbal*,⁵² courts have begun using specificity in pleading as a gauge of whether a plaintiff's claims have merit.⁵³ A court order denying a motion to dismiss is therefore a stronger indication than it was in the past of the probable validity or seriousness of a lawsuit.⁵⁴ The same is true for class certification. Courts have become more willing to gauge the merits in deciding whether to certify a class.⁵⁵ Indeed, a court may be more exacting regarding proof of the mer-

49. This does not, of course, mean that the other 50% failed to survive a motion to dismiss. It only means that such a motion was not made.

50. See Joshua P. Davis & Eric L. Cramer, *Of Vulnerable Monopolists: Questionable Innovation in the Standard for Class Certification in Antitrust Cases*, 41 RUTGERS L.J. 355, 356, 369–74 (2009) [hereinafter *Questionable Innovation*]; see also Joshua P. Davis & Eric L. Cramer, *Antitrust, Class Certification, and the Politics of Procedure*, 17 GEO. MASON L. REV. 969, 969, 978–81 (2010) [hereinafter *Politics of Procedure*].

51. *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544 (2007).

52. *Ashcroft v. Iqbal*, 556 U.S. 662 (2009).

53. See *Politics of Procedure*, *supra* note 50, at 979.

54. See *id.*

55. See *id.* at 976–78; see also *In re Hydrogen Peroxide Antitrust Litig.*, 552 F.3d 305 (3d Cir. 2008); *In re New Motor Vehicles Canadian Car Export Antitrust Litig.*, 522 F.3d 6, 17 (1st Cir. 2008).

its at class certification than at summary judgment.⁵⁶ Certification of a class for purposes of litigation therefore has become a strong indication that the claims in an action have a substantial evidentiary basis.

Third, a large number of the opinions among the forty original cases and the twenty new cases contain generous and gratuitous praise for the plaintiffs' counsel handling the case.⁵⁷ For example, in Judge Nancy G. Edmunds's opinion approving the final settlement in the direct purchaser *Cardizem* case,⁵⁸ she awarded class counsel their full request of attorney's fees—30% of the total recovery of \$110 million—noting that the award was justified by their “excellent performance on behalf of the Class in this hotly contested case.”⁵⁹ Similarly, the Honorable Michael M. Mihm, the judge who oversaw the *In re High Fructose* litigation,⁶⁰ repeatedly praised class counsel:

I've said many times during this litigation that you and the attorneys who represented the defendants here are as good as it gets. Very professional. . . . You've always been cutting to the chase and not wasting my time or each others' time or adding to the cost of the litigation. And this was very difficult litigation. . . . Skill and efficiency of the attorneys. As good as it gets. Complexity and duration of the litigation. It was very complex. We made some new law on more than one occasion. . . .⁶¹

Chief Judge Thomas Hogan in one of the vitamins cases stated in his opening remarks to the jury pool: “[T]his is a very challenging and interesting case . . . involving, I think, some of the finest business litigating lawyers or litigation-type lawyers in the country that are before you that you will have the privilege to listen to.”⁶² After the jury returned a verdict of \$49.5 million in damages for the class plaintiffs, Chief Judge Hogan thanked the jurors for their service and stated: “[T]his is a serious

56. See *Politics of Procedure*, *supra* note 50, at 969 (noting that courts at times now find facts in deciding class certification, something they are permitted to do under the summary judgment standard).

57. The evaluations of counsels' work on the original forty cases are from Lande & Davis, *Benefits*, *supra* note 5, at 903–04.

58. *In re Cardizem CD Antitrust Litig.*, 332 F.3d 896 (6th Cir. 2003).

59. *In re Cardizem CD Antitrust Litig.*, 218 F.R.D. 508, 537–38 (E.D. Mich. 2000) (granting Sherman Act class plaintiffs' motions for final approval of settlement, attorney's fees and expenses, and incentive awards for named plaintiffs), *aff'd*, 332 F.3d 896 (6th Cir. 2003).

60. *In re High Fructose Corn Syrup Antitrust Litig.*, 936 F. Supp. 530 (C.D. Ill. 1996).

61. Transcript of Record at 45–46, *In re High Fructose*, 936 F. Supp. 530 (No. 95-1477). He accordingly awarded class counsel 25% of the settlement fund in fees, in addition to costs, the precise amount that class counsel requested. *Id.*

62. Transcript of Record at 25:1–6, *In re Vitamins Antitrust Litig. v. BASF AG*, 2004 U.S. Dist. LEXIS 6869 (D.D.C. Apr. 5, 2004) (No. 1285).

case, and you had the pleasure of having very excellent lawyers on both sides appear before you.”⁶³

Attorneys in the new cases earned similar praise. In *Air Cargo Shipping Services Antitrust Litigation*,⁶⁴ Judge John Gleeson explained that plaintiffs’ counsel had won a “hard-fought” battle for benefits for the plaintiffs, and the litigation was “irrefutably complex.” The \$85 million settlement sum was “a result that compares favorably to settlements reached in other price-fixing antitrust class actions” and was reasonable in light of “the best possible recovery.”⁶⁵ In noting the “highly experienced” attorneys’ “vigorous” negotiation on behalf of the plaintiffs, Judge Gleeson stated, “Settlement Counsel has been consistently commended in the case deservedly so.”⁶⁶ Judge Diamond, in certifying a litigation class for *In re OSB Antitrust Litigation*,⁶⁷ noted that “[t]o date, Lead and Co-Lead Counsel have vigorously and capably prosecuted this extremely demanding litigation, and I am satisfied they will continue to do so.”⁶⁸ Further, when finally approving the settlement plan Judge Diamond reiterated: “Class counsel have represented their clients with consummate skill and efficiency, bringing this massive matter to conclusion in less than three years.”⁶⁹

63. *Id.* at 1520:8–10. There are numerous other examples of complimentary remarks. *E.g.*, *In re Remeron Direct Purchaser Antitrust Litig.*, No. 03-0085(FSH), 2005 U.S. Dist. LEXIS 27013, at *37 (D.N.J. Nov. 9, 2005) (“The settlement entered with Defendants is a reflection of Class Counsel’s skill and experience.”); *In re Relafen Antitrust Litig.*, 231 F.R.D. 52, 80 (D. Mass. 2005) (The court lauded “the exceptional efforts of class counsel” and pointed out that the settlement was “the result of a great deal of very fine lawyering on behalf of the parties.”); *In re Auto Refinishing Paint Antitrust Litig.*, MDL No. 1426, 2004 U.S. Dist. LEXIS 29162, at *20 (E.D. Pa. Oct. 13, 2004) (“Plaintiffs’ counsel have repeatedly demonstrated their skill in managing” the litigation.); *In re Linerboard Antitrust Litig.*, MDL No. 1261, 2004 WL 1221350, at *6 (E.D. Pa. June 2, 2004) (The court made repeated comments to the effect that “the lawyering in the case at every stage was superb.”); Final Approval Hearing Transcript at 34:2–3, *In re Buspirone Patent Litig.*, 185 F. Supp. 2d 363 (S.D.N.Y. 2003) (“Let me say that the lawyers in this case have done a stupendous job.”). California Attorney General Bill Lockyer praised private counsel in *El Paso*, noting they “were well financed and expert litigators, bringing particular credibility to the [settlement] negotiations,” and stating, “Class counsel were crucial to bringing [the settlement] to fruition.” *Forty Case Studies*, *supra* note 6, at 87 (*El Paso* case summary).

64. *In re Air Cargo Shipping Servs. Antitrust Litig.*, No. 06-MD-1775, 2011 WL 2909162, at *4 (E.D.N.Y. July 15, 2011).

65. *In re Air Cargo Shipping Services Antitrust Litig.*, No. 06-MD-1775, 2009 WL 3077396, at *9 (E.D.N.Y. Sept. 25, 2009) (Judge Gleeson’s memorandum and order approving Lufthansa settlement).

66. *Id.* at *28.

67. *In re OSB Antitrust Litig.*, No. 06-826, 2007 WL 2253419 (E.D. Pa. Aug. 3, 2007).

68. *Id.* at *5.

69. Final Approval Order at 5, *In re OSB Antitrust Litig.*, No. 06-826, 2007 WL 2253419 (E.D. Pa. Aug. 3, 2007), available at <http://amlawdaily.typepad.com/ospfeallocationorder.pdf>.

Finally, in the tobacco litigation, *DeLoach v. Philip Morris Cos.*,⁷⁰ Judge Osteen had high praise for Class Counsel: “Plaintiffs’ Co-Lead Counsel . . . faced the daunting task of litigating against an industry that is one of the most ardently protective of its rights and well-represented in the nation with no guarantee that their investments of time and effort would be repaid.”⁷¹ Judge Osteen also highlighted that “[t]his settlement was the first class action antitrust settlement (and the largest class action settlement of any kind) by these Defendants”⁷² and “the fact there were no objections to the settlement and only 161 timely opt-outs testifies to the value of the settlement in the eyes of the class.”⁷³ Judge Osteen reserved special praise for the efforts of the plaintiffs’ attorneys:

Moreover, Plaintiffs’ Co-Lead Counsel reached this result without the benefit of assistance from numerous other law firms. In many similar cases, numerous law firms join the case by filing related actions that are eventually consolidated into a single case. The fact that no additional firms joined this case may show that the legal community thought this case against these defendants was untenable. It also reinforces the value of the settlement achieved for the class given that Plaintiffs’ Co-Lead Counsel were not assisted by so great a number of additional lawyers.⁷⁴

Contrary to what some might expect, party affiliation does not indicate the likelihood of judicial praise for private antitrust attorneys. As to the original forty cases, of the eight judges from whom we were able to discover explicit and generous praise for the conduct of plaintiffs’ attorneys (in none of the cases did we discover criticism), five were appointed by a Republican president.⁷⁵ Similarly, two of the three judges who praised plaintiffs’ counsel’s efforts in the new studies were appointed by Republicans (again, we found no criticisms).

More generally, the party affiliation of the judges who presided over the cases we studied perhaps provides a fourth and final reason to believe that those cases were generally meritorious. The judges were appointed by both Republican and Democratic presidents. This fact has significance for various reasons. If the judges in the cases we studied somehow were all ideologically aligned with plaintiffs’ attorneys, their praise for the attorneys’ work would not mean as much. One could also suspect—although the suspicion would be implausible—that the cases

70. No. 1:00-CV-1235, 2003 WL 5508762 (M.D.N.C. Dec. 19, 2003).

71. *Id.* at *10.

72. *Id.*

73. *Id.*

74. *Id.*

75. See Lande & Davis, *Benefits*, *supra* note 5, at 903–04 & tbl.10.

succeeded only because of overly sympathetic judges. In other words, judicial ideology rather than the merits might explain the relief private plaintiffs obtained.

Further, even though almost all of the forty cases were settlements, a federal judge approved all of the class action settlements as fair, reasonable, and adequate. While this certainly is not the same as a verdict, this approval by a diverse and generally conservative⁷⁶ group of federal judges has some significance.⁷⁷ We note that of the forty-five federal judges who presided over part or all of the cases we studied, twenty-seven were appointed by a Republican president.⁷⁸ We also note that this litigation occurred during an era when almost every Supreme Court antitrust decision has been decided in favor of the defendant. Fifteen of the last sixteen antitrust decisions, by a Court rated by Judge Posner as the most conservative since 1930,⁷⁹ including every case except one⁸⁰ decided after 1992, ruled against plaintiffs.⁸¹ Since this tide of pro-defendant instruction effectively tells the lower courts how to decide close cases, and given the high percentage of Republican-appointed judges presiding in the litigation we studied, one would not expect praise of the plaintiffs' attorneys' work, undue fear by defendants and their counsel of a biased

76. See William M. Landes & Richard A. Posner, *Rational Judicial Behavior: A Statistical Study* 6–7, 18, 46 tbl. 3 (U. Chi. L. & Econ., Online Working Paper No. 404, 2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1126403. They conclude that the current Supreme Court is the most conservative since at least 1930.

77. We do not mean to put undue weight on this point. Judges are supposed to protect class members—not defendants—in approving class action settlements. So a judge's approval of a class action settlement does not necessarily mean it was meritorious. Indeed, just about any settlement should warrant approval if a class action lacks any merit. Still, judges can make settlement difficult if they believe plaintiffs have pursued a class action with no basis in law or evidence.

78. See *Comparative Deterrence*, *supra* note 6, tbl.10.

79. See Landes & Posner, *supra* note 76.

80. See Andrew I. Gavil, *Antitrust Book Ends: The 2006 Supreme Court Term in Historical Context*, 22 ANTITRUST 21, 22 (Fall 2007). After Professor Gavil published his article the *American Needle* case was decided for plaintiff. *American Needle, Inc. v. Nat'l Football League*, 130 S. Ct. 2201 (2010).

81. *Pacific Bell Tel. Co. v. Linkline Commc'ns, Inc.*, 555 U.S. 438 (2009) (9–0 in the judgment, 5–4 in regard to the Court's opinion); *Leegin Creative Leather Prods. Inc. v. PSKS, Inc.*, 551 U.S. 877 (2007) (5–4 decision); *Credit Suisse Sec. (USA) LLC v. Billing*, 551 U.S. 264 (2007) (7–1 decision); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544 (2007) (7–2 decision); *Weyerhaeuser Co. v. Ross-Simmons Lumber Co.*, 549 U.S. 312 (2007) (9–0 decision); *Ill. Tool Works, Inc. v. Indep. Ink, Inc.*, 547 U.S. 28 (2006) (8–0 decision); *Texaco, Inc. v. Dagher*, 547 U.S. 1 (2006) (8–0 decision); *Volvo Trucks N. Am., Inc. v. Reeder-Simco GMC, Inc.*, 546 U.S. 164 (2006) (7–2 decision); *F. Hoffman-La Roche Ltd. v. Empagran S. A.*, 542 U.S. 155 (2004) (8–0 decision); *U.S. Postal Serv. v. Flamingo Indus. (USA) Ltd.*, 540 U.S. 736 (2004) (9–0 decision); *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398 (2004) (9–0 decision); *Cal. Dental Ass'n v. FTC*, 526 U.S. 756 (1998); *NYNEX Corp. v. Discon, Inc.*, 525 U.S. 128 (1998); *State Oil Co. v. Khan*, 522 U.S. 3 (1997); *Brown v. Pro Football, Inc.*, 518 U.S. 231 (1996); see Gavil, *supra* note 80, at 22 (“The last clear plaintiffs’ victories in the Court occurred in 1992 in two cases, [*Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451 (1992)] and [*FTC v. Tior Title Ins.*, 504 U.S. 621 (1992)].”).

judge, or approval of the class action settlements based on any pre-existing excessive judicial sympathy for plaintiffs' attorneys.⁸²

Each of these reasons is evidence, but not proof, that these private antitrust cases involved anticompetitive behavior. Ultimately, there is no obvious way to prove or fully refute assertions that many or most private cases are unmeritorious and are tantamount to extortion. We submit, however, that the above analysis should at a minimum give rise to a presumption—perhaps even a strong presumption—that the cases involved legitimate claims. There is no evidence, moreover, to believe the opposite.

*D. Recoveries by Direct Purchasers, Indirect Purchasers,
and Competitors*

An interesting shift between the original study and the new study concerns the kind of plaintiff pursuing the litigation. In the original study, direct purchaser actions predominated. Thirty-two of the forty cases involved direct purchasers, six involved indirect purchasers, and six involved competitors. Direct purchasers recovered between \$12 billion and \$13.5 billion compared to \$1.8 billion for indirect purchasers and between \$4 billion and \$4.3 billion for competitors.⁸³

The complexion of the new study is different. As shown in Table 2 below, eleven of the twenty new cases involved direct purchasers, four involved indirect purchasers, six involved competitors, and two involved sellers. While the number of cases involving direct purchasers remained dominant, the margin has narrowed. But in the new study the recoveries in the competitor cases total almost \$9 billion, whereas the direct purchasers recovered cumulatively less than \$1 billion, the indirect purchasers recovered \$150 million, and the sellers (a new category of plaintiffs) recovered \$345 million.

82. See Lande & Davis, *Benefits*, *supra* note 5, tbl.10. We do not mean to suggest that judges act on crass political commitments in presiding over litigation or that party affiliation correlates perfectly with attitudes toward plaintiffs in class actions. Our point is that our analysis is supported to the extent party affiliation might serve as an extremely crude and rough check on whether the judges in the cases we studied were unduly sympathetic to class counsel's efforts.

83. *Id.* at 899–900. These numbers add to more than forty because a single case can involve more than one kind of plaintiff.

Table 2: Recoveries by Category of Plaintiff (\$s million)

<u>Case</u>	<u>Direct Purchaser</u>	<u>Indirect Purchaser</u>	<u>Competitor</u>	<u>Seller</u>
3M	67.6		68.5	
Air Cargo	278			
De Beers	22.5	272.5		
Electrical Carbon Fiber	30			
EPDM	112			
High Pressure Laminates	41	5.2		
Intel			1250	
MDL	33			
Methionine	107			
MSG	123.4			
Mylan	35	35		
Novell			536	
OrthoBiotech			200	
Polyester Staple	61			
Scrap Metal				34.5
Tobacco				310
Tricor	250	65.7		
Visa MC			6813	
Warfarin		44.5		
Total	1,161	378	8944	344.5

It is difficult to know whether the original study, the new study, or a combination of the two is more likely to be representative of private actions as a whole. Perhaps the two large competitor cases in the new study—*Intel*⁸⁴ and, especially, *Visa/MasterCard*⁸⁵—distorted our new findings as to the amount of recoveries that went to the different types of plaintiffs. Alternatively, perhaps cases like *Intel* and *Visa/MasterCard* help to correct for the bias in our analysis toward class actions, which are easier to analyze because they are a matter of public record. In any case, taking the two studies together, direct purchasers and competitors recov-

84. *In re Intel Corp. Microprocessor Antitrust Litig.*, No. MDL 05-1717-JJF, 2005 WL 1838069 (D. Del. 2007).

85. *See infra* note 151.

ered about equal amounts, even though direct purchasers participated in forty-three of the sixty cases and competitors in only twelve.

E. Recoveries from Foreign Violators of U.S. Law

In addition to the total amount of recovery gained through private enforcement of the antitrust laws, it is also of significance to note whom the awards were recovered against. Not only is the total recovery of more than \$30 billion significant, but so is the fact that a substantial portion of the recoveries came from foreign lawbreakers. Without private enforcement of the antitrust laws, these foreign actors could have preyed on participants in the U.S. economy and retained almost all of their spoils.⁸⁶

In regard to recoveries from foreign entities, the two studies reflect an interesting disparity. In the first study, a much larger proportion of the overall recovery came from foreign corporations. In the original forty cases, an amount between \$5.7 and \$7 billion of the total of \$18 to \$19.6 billion (not adjusting for inflation) was recovered from foreign corporations. In other words, about one-third of the recoveries were by victims of foreign violators of the antitrust laws. In the twenty additional cases, we were able to identify with confidence only \$394 million that was recovered from foreign actors, as indicated in Appendix Table A4. An additional \$591 million was recovered from corporate families that include both foreign and U.S. entities, but we could not determine the source of recovery, as shown in Appendix Table A5. In the new study, then, in total only \$394 to \$985 million—between 4% and 9%—was recovered from foreign actors.

This disparity can perhaps be explained in various ways. First, it may be possible that the huge *Vitamins* antitrust litigation skewed our initial analysis. That case by itself was responsible for \$3.9 billion to \$5.3 billion in recovery from foreign actors. Second, the *Visa/MasterCard* antitrust case—which did not involve foreign actors—may have distorted the results of our new study in the opposite direction. It accounted for almost \$7 billion of the total of slightly over \$11 billion in recoveries we evaluated. Third, the additional twenty cases involve on the whole more recent litigation, and the Supreme Court's interpretation of the Foreign Trade Antitrust Improvement Act in *F. Hoffmann-La Roche Ltd. v. Empagran S.A.*⁸⁷ and the reading of that opinion by some lower courts may have increased the difficulty for U.S. plaintiffs to re-

86. Foreign lawbreakers might also have returned some of their overcharges through DOJ restitution actions, FTC disgorgement actions, or state *parens patriae* actions. See generally *supra* note 20. Although we have not attempted to ascertain the amounts involved, we believe they are likely to be small compared to the amounts recovered in private cases.

87. *F. Hoffmann-La Roche Ltd. v. Empagran S.A.*, 542 U.S. 155 (2004).

cover from foreign actors.⁸⁸ The consequence may be that U.S. victims of foreign anticompetitive behavior are having a progressively more difficult time prevailing in court.

F. Per Se, Rule of Reason, and Mixed Cases

An interesting and surprising result from the new study—one that finds significant confirmation in the first study—is that a substantial portion of private recoveries occurred in cases subject to the rule of reason, as well as in cases in which it was unclear whether the rule of reason or a per se rule would apply. In the new study, over \$9 billion was recovered in rule of reason cases, \$619 million in pure per se cases, and \$580 million in mixed cases. These numbers are reflected below in Tables 3, 4, and 5. In other words, the vast majority of the recovery was in rule of reason cases. Even if one eliminates the potentially distorting effect of the huge *Visa/MasterCard* antitrust litigation—a rule of reason case—the total recovery in rule of reason cases remains \$2 billion, more than triple the recovery in either pure per se cases or mixed cases and larger than those two categories combined.

Table 3: Recoveries in Rule of Reason Cases

Case	Recovery (\$s Millions)
3M	136
Intel	1250
MDL	33
Lorazepam & Clorazepate (Mylan)	70
Novell v. Microsoft	536
Tricor	316
Visa MC	6813
Warfarin	44.5
Total	9199

88. *But see* *Minn-Chem, Inc. v. Agrium, Inc.*, 683 F.3d 845 (7th Cir. 2012) (en banc) (reversing a panel opinion reading the FTAIA to restrict lawsuits in the United States).

Table 4: Recoveries in Per Se Cases

<u>Case</u>	<u>Recovery (\$s Millions)</u>
Air Cargo	278
De Beers	295
Electrical Carbon Fiber	30
EPDM	107
High Pressure Laminates	46
Methionine	107
MSG	123.4
OSB	120.7
Polyester Staple	61
Scrap Metal	34.5
Total	1203

Table 5: Recoveries in Mixed Cases (Mix of Per Se and Rule of Reason)

<u>Case</u>	<u>Recovery (\$s Millions)</u>
Ortho Biotech	200
Tobacco	310
Total	510

The first study involved a higher, but not overwhelming, proportion of per se cases: somewhat over \$8 billion in recovery in rule of reason cases, somewhat over \$9–\$10 billion in pure per se cases and somewhat over a billion and a half dollars in mixed cases.⁸⁹ The split, then, was almost even between pure per se cases and those that involved the rule of reason, and slightly less than half the recoveries came in cases involving *only* the rule of reason.

Combining the two studies, we find that pure rule of reason cases predominated. Over \$17 billion of the more than \$30 billion in total recoveries came in rule of reason cases, and over \$2 billion came in mixed cases, leaving only about \$10 billion—or a third of the total—in pure per se cases.

These outcomes upset the standard view. A commonly held understanding is that rule of reason cases so rarely succeed that they are not worth bringing. Consider the empirical work of Professor Michael Carrier. In 2009, he analyzed every final judgment in federal court involving a rule of reason claim that he could find from February 2, 1999, to May 5,

89. See Lande & Davis, *Benefits*, *supra* note 5, at 912–14.

2009.⁹⁰ He concluded that defendants won 221 of 222 cases.⁹¹ Among his other interesting conclusions was that “plaintiffs almost never win under the rule of reason.”⁹²

A difficulty for his study in this regard, however, is that he analyzed only judicial rulings producing final judgments. Most cases settle before a final judgment. Moreover, judicial rulings are likely to result in final judgments in cases where defendants win. A court can enter a final judgment if it grants a motion to dismiss or for summary judgment in a defendant’s favor. But if it denies such a motion, ruling for a plaintiff, the litigation simply continues, often leading to settlement rather than trial. Indeed, as Professor Carrier acknowledged, “Nearly all of the . . . cases [he analyzed] involve[d] courts’ grants of summary judgment and motions to dismiss.”⁹³

Professor Carrier’s study would capture success by plaintiffs only if they won at trial or in the unlikely event they obtained a favorable final judgment by motion for judgment on the pleadings, motion for summary judgment, or the like. Moreover, Carrier considered final judgments after trial only if the rule of reason analysis was conducted by a judge, not a jury.⁹⁴ Given that plaintiffs have a right to try antitrust cases for damages before juries, it is unsurprising that Professor Carrier found only one case in which plaintiffs prevailed. His methodology would be expected to eliminate almost every manner in which plaintiffs would be expected to win.⁹⁵

Due to these methodological problems, Professor Carrier’s conclusion that plaintiffs almost always lose rule of reason cases does not necessarily follow from his analysis. In a significant proportion of rule of reason cases, plaintiffs may survive far enough into litigation to obtain settlements, perhaps even substantial settlements. But without further empirical inquiry, that possibility would be just a matter of theory. The cases Professor Carrier eliminated could resemble the cases he analyzed.

90. Michael Carrier, *The Rule of Reason: An Empirical Update for the 21st Century*, 16 GEO. MASON L. REV. 827, 828–29 (2009).

91. *Id.* at 830.

92. *Id.* We discuss only this finding, even though his analysis also addressed other interesting issues regarding which he reached valuable conclusions.

93. *Id.* at 829.

94. Carrier took this approach because the focus of his interest was on the structure of rule of reason analysis. *Id.* at 827. Note that if judges reason in a systematically different way when they rule in favor of plaintiffs rather than defendants, Carrier’s exclusive focus on final judgments may also undermine his conclusions about the structure of the rule of reason analysis in federal court. We mean to express no view, however, on this issue.

95. Professor Carrier did not, however, eliminate every possible way, as is demonstrated by the bench trial and appeal in *United States v. Visa U.S.A., Inc.*, 344 F.3d 229 (2d Cir. 2003), the one loss by defendants that Carrier identified. See Carrier, *supra* note 90, at 831.

Our empirical work provides evidentiary support for the proposition that plaintiffs succeed more often in rule of reason cases than has been recognized. Again, we make no claim that the cases we studied were typical. But the fact that those cases show plaintiffs recovering more in rule of reason cases than in pure per se cases—a total recovery of more than \$20 billion in the rule of reason cases—suggests that a rule of reason analysis is not necessarily fatal to plaintiffs. This upsets conventional wisdom.

G. The Relationship Between Private and Public Enforcement

The twenty new cases we studied cast further light on the relationship between private and public enforcement. As reflected in Table 6 below, in ten of the twenty newly studied cases, private enforcement was not preceded by government action. Although this number represents 50% of the cases we studied, it reflects only about 11% (slightly over \$1.2 billion of the \$10.7 billion) of the total amounts recovered.

Table 6: Private Litigation Not Preceded by Government Action

<u>Case</u>	<u>Recovery (\$s Millions)</u>
3M	136
High Pressure Laminates	46
MDL v. Hoffman	33
Methionine	107
MSG	123.4
Ortho Biotech	200
OSB	120.7
Tricor	316
Warfarin	44.5
Total	1127

As with the original forty cases, the rest of the story is more complicated. *Intel*, for example, was primarily a government enforcement action, but it also involved a complex and murky interplay between public and private efforts at enforcement.⁹⁶ Further, as indicated in Table 7 below, private action obtained significantly greater relief than government enforcement in three cases. Taking into account these additional four cases, in total private enforcement in twelve of the twenty cases—

96. See *Twenty New Cases*, *supra* note 11.

accounting for \$8.36 billion of the \$10.7 billion in recovery—constituted more than a mere tagalong to government enforcement.

Table 7: Private Recoveries That Were Significantly More Inclusive Than Government Enforcement Action (In Addition to All of the Compensation to Victims Noted in Table I) (Does Not Include the Cases in Table 6 That Were Not Preceded by Government Action)

<u>Case</u>	<u>Recovery (\$s Millions)</u>	<u>Reasons Why Private Remedy Was Signifi- cantly Broader than Government Remedy</u>
EPDM	107	Government investiga- tions but no legal action
Tobacco	310	Government investiga- tion but no legal action
Visa MC	6813	Government action pro- vided only injunction whereas private actions provided compensation
Total	7230	

H. Attorney's Fees

As in our original study, we found an inverse relationship between the size of a recovery and the percentage of the recovery awarded as attorney's fees. Although fee awards varied significantly within each category, in the twenty newer cases counsel tended to recover approximately 30% to 33.3% in cases with recoveries below \$100 million and a similar or smaller percentage in cases with recoveries between \$100 and \$500 million, with the percentage generally declining as the recovery increased. A notable exception to this rule is the *Tricor* case, with a 33.3% award and a recovery of \$316 million. It should be stressed, however, that these percentages ignore any injunctive or non-monetary relief obtained by plaintiffs, or the value of the legal precedent established by the case. To the extent that these could be valued, the legal fees expressed as a percentage of the recoveries should be lowered from the values reported here, perhaps dramatically.

Table 8: Percentage of Recovery Awarded as Attorney's Fees for Recoveries Less than \$100 Million

<u>Case (\$s million in recovery)</u>	<u>Attorney's Fees Percentage</u>
3M	37 (Bradburn); 27.4 (Meijer)
Electrical Carbon Fiber	25–33.3
High Pressure Laminates	33.3
MDL	33.3
Mylan (Lorazepam & Clorazepate) (direct)	30
Polyester	32
Scrap Metal	21 ⁹⁷
Warfarin	24

Table 9: Percentage of Recovery Awarded as Attorney's Fees for Recoveries Between \$100 Million and \$500 million

<u>Case (\$s million in recovery)</u>	<u>Attorney's Fee Percentage</u>
Air Cargo (Lufthansa)	15
De Beers	25
EPDM	21.7–33.3
Methionine	23.3
MSG	19
OrthoBiotech	Unknown
OSB	33.3
Tobacco (Deloach v. Philip Morris)	27
Tricor	33.3
3m v. Meijer	Unknown

Table 10: Percentage of Recovery Awarded as Attorney's Fees for Recoveries Exceeding \$500 Million

<u>Case (\$s million in recovery)</u>	<u>Attorney's Fee Percentage</u>
Intel	Unknown
Novell v. Microsoft	16.4
Visa MC	Unknown

We were able to ascertain the attorney's fees in forty-five of the sixty large private cases we studied. The fees averaged either 14.3% or

97. This percentage may be misleading as the initial attorney's fee award from settlement was 30% and the ultimate award was 21% of treble damages after trial (64% of single damages). See *Twenty New Cases*, *supra* note 11.

25.6%, depending on whether a weighted or unweighted average is used because larger cases tend to produce attorney's fees that are a lower percentage of the settlement.⁹⁸ These results were slightly larger than the results of an earlier study using a different sample, which found mean legal fees of 21.02% and median fees of 9.15% in antitrust class action cases.⁹⁹ As noted earlier, these percentages ignore the value of the injunctive relief, non-monetary recoveries, and precedent secured by the litigation.

Thus, the twenty new cases build on our earlier study to provide powerful empirical corroboration that private antitrust enforcement has provided valuable compensation and deterrence effects, in contravention of the established wisdom. With our original conclusions reinforced, we turn now to our specific response to the critiques of our previous work.

II. CRITICISMS OF OUR EARLIER STUDY AND OUR REPLY

It is perhaps only natural that our provocative position would be subjected to criticisms. High-ranking officials at the DOJ have challenged our views on the relative deterrence effects of private and DOJ antitrust enforcement, and a leading antitrust scholar, Professor Daniel Crane of the University of Michigan Law School, has leveled a similar criticism regarding our stance on compensation. The arguments they make, however, at most temper our conclusions—indeed, they merely confirm the cautions and qualifications we have already made. None of the criticisms of our work survive scrutiny.

A. Criticisms Concerning Deterrence Issues

In a recent issue of *Antitrust Bulletin*, Gregory J. Werden, Scott D. Hammond, and Belinda A. Barnett (WHB) challenge our analysis.¹⁰⁰ They assert that our comparison “is more misleading than informative.”¹⁰¹ Although we understand and admire the instinct of these DOJ employees to proclaim the superiority of the remedies secured by the fine institution to which they have devoted many years of their lives, their specific criticisms fail to undermine our conclusions. In their *Antitrust Bulletin* article, WHB offer six separate critiques of our analysis, which we now consider in turn.

98. See *infra* Appendix Tables A6 & A7.

99. We note the statistics in Theodore Eisenberg & Geoffrey P. Miller, *Attorney Fees and Expenses in Class Action Settlements: 1993–2008*, 7 J. EMPIRICAL LEGAL STUD. 248 (2010). Table 5 contains statistics for seventy-one antitrust cases and finds mean fees of 21.02% and median fees of 9.15%. We believe these figures should be compared to our unweighted average of 25.4%.

100. See WHB, *supra* note 9, at 227–33.

101. *Id.* at 229.

First, one of the items we included in the DOJ's deterrence total was the monetary equivalent of the 330.24 years that cartel defendants were sentenced to prison during the eighteen-year period we studied.¹⁰² WHB complain that we use only \$2 million as the deterrence value (or disvalue) of a year in prison.¹⁰³ They assert this figure is too low, but never provide a higher figure they believe is acceptable.¹⁰⁴ Moreover, the only evidence they provide for their assertion that \$2 million per year is inadequate is their undocumented conclusion that "some" defendants spend more than this in legal fees attempting to stay out of prison and "some" would pay even more to escape prison outright.¹⁰⁵

However, while our article analyzed a number of approximation techniques to arrive at the estimate that a year of prison is "worth" no more than \$2 million,¹⁰⁶ immediately after we did this—in the very next paragraph—we tripled it to \$6 million because of our stated desire to be conservative and our belief that individual sanctions count more than corporate sanctions.¹⁰⁷ In other words, in the next paragraph we use \$6 million as the equivalent value of a year in prison. We accordingly added \$6 million—not \$2 million—times the number of years in prison to the corporate fines and other monetary sanctions to arrive at a total of \$7.737 billion for the deterrence value of DOJ enforcement. This is what we compare to the private total.¹⁰⁸ WHB also fail to mention our "flip" figure. We show that only if one disvalues a year in prison as greater than \$43–\$48 million would DOJ anti-cartel enforcement deter more anti-competitive conduct than private enforcement. This number is based on the deterrence effect of just the forty private cases we analyzed,¹⁰⁹ we

102. See *Comparative Deterrence*, *supra* note 6, at 336.

103. See WHB, *supra* note 9, at 229.

104. *Id.*

105. *Id.* WHB never provided specifics. For example, do they have evidence that individual defendants frequently spend \$5 million in legal fees in an attempt to avoid a potential two-year prison sentence? Or that some individual defendants have paid \$10 million in legal fees when they might face a five-year sentence? WHB presented only assertions.

106. See *Comparative Deterrence*, *supra* note 6, at 335 n.72.

107. *Id.* at 336.

108. *Id.*

109. *Id.* at 340. Further, we compared the private total to an Antitrust Division total that, as WHB concede on page 228 n.84, includes non-antitrust fines secured by the Antitrust Division. WHB surely have access to non-public data showing how much of what the Division reports publicly as "antitrust fines" in fact are related to other crimes that they uncovered during the course of antitrust investigations. WHB should reveal how much of the fines that we, when we performed our study using the data the Antitrust Division published, classified as "DOJ Antitrust fines" actually are non-antitrust fines. Because we included these non-antitrust fines, our analysis was too favorable towards finding a high amount of deterrence effects from DOJ antitrust activity.

Similarly, some of the prison time the publically available Antitrust Division statistics attribute to antitrust offenses could have resulted from non-antitrust crimes, and not every prison sentence

have since documented many hundreds of millions of additional dollars that private actors recovered during the same period.¹¹⁰

We are as mystified over WHB's criticism for our article allegedly using \$2 million as the value of a year in prison as we are curious as to whether they believe that a year in prison on average should be disvalued at more than \$43–\$48 million. After all, the issue is not the highest amount any defendant would pay to avoid prison. For a general comparison, one should examine the value or disvalue of a year in prison to the *average* potential antitrust violator. WHB provide no data on this issue. For the reasons given in our article we believe that the figure we actually used in our analysis—\$6 million per year—is conservative and generous.¹¹¹ Certainly WHB have done nothing to demonstrate that the figure is too low.

Second, WHB complain that we do not value the stigma or lost future income from prison.¹¹² We wish they had provided data on the significance or magnitude of this issue. If they had, we would be glad to include it in our calculations.

In fact, we do have some preliminary, highly tentative evidence that at least some, and perhaps as many as half, of convicted price fixers go back to work in the same industry or even in the same firm after they are released from prison.¹¹³ We also have evidence that sometimes the corporate attitude is that the person who went to prison “took a bullet for the team” and for this reason should be re-hired after their release from prison, perhaps even at a higher salary.¹¹⁴ We also know of anecdotes, such as that involving Alfred Taubman, showing little or no stigma or loss of social status after release from prison for bid rigging.¹¹⁵

Maybe on average the future incomes and social status of convicted price fixers decreases significantly. But maybe not. However, even if their future income decreased by another \$1 million for each year of imprisonment—a figure we strongly doubt—the actual figure we used as the deterrence value of a year in prison, \$6 million, should still be more than high enough. Moreover, even if the deterrence value of prison were increased to make up for lost future wages and social status, we find it

was served in full. We urge WHB to provide data that is as accurate as possible so we all could perform a fairer DOJ/private comparison.

110. See *supra* Table 1.

111. See *Comparative Deterrence*, *supra* note 6, at 335–36.

112. See WHB, *supra* note 9, at 229.

113. See Joshua P. Davis & Robert H. Lande, *Defying Conventional Wisdom: The Case for Private Antitrust Enforcement* 36 (July 30, 2012) (unpublished manuscript) (on file with authors); see also John M. Connor & Robert H. Lande, *Cartels as Rational Business Strategy: Crime Pays*, 34 *CARDOZO L. REV.* 427 (2012).

114. See Connor & Lande, *supra* note 113, at 480.

115. *Id.* at 439 & n.44–45.

inconceivable that a year of prison would have a total disvalue to an individual of more than the \$43–\$48 million required to “flip” our calculations. Only if the yearly deterrence from prison (including lost future income and social status) on average exceeded \$43–\$48 million would DOJ anti-cartel enforcement be found to deter more anticompetitive conduct than these forty private cases.

We urge WHB to perform a study of the issues they raise. We urge WHB to study the stigma issue—What actually happens to social status after price fixers are released from prison? How often do price fixers go back to work for their old firms or for other firms in the same industry? Are their salaries increased or decreased as a result of their imprisonment? Finally, we also urge DOJ to routinely include provisions in plea agreements barring convicted price fixers from ever working in the same industry in which they fixed prices.

Third, WHB state that our use of the standard optimal deterrence model, which assumes risk neutrality, for entire cartels is inappropriate because if the most risk-averse member of a cartel cracks, the cartel will crack.¹¹⁶ For this reason the optimal deterrence target need only be the most risk-averse member of a cartel.

This observation is interesting and correct. But it seems likely that most cartelists are by nature risk seekers. After all, they form cartels even though this subjects them to the risk of getting caught, tried, imprisoned, fined, fired, and also subject to the lower social status and future income that WHB assert are so significant. Accordingly, the appropriate focus of an optimal deterrence calculation actually should be on the most risk-averse member of a risk-seeking group of cartel members. Is this person or corporation a net risk neutral entity, a net risk avoider, or still a net risk seeker? We do not know. Neither do WHB, who provide no data to help analyze this issue.

WHB similarly contend that discouraging a single individual in a single potential cartel member may suffice to prevent the illegal collusive conduct.¹¹⁷ They also assert that criminal penalties may succeed if they prevent firms with a substantial market share from violating the antitrust laws, in part because it may suffice to discourage even a single potential cartel member from participating.¹¹⁸

This point, however, applies equally to both criminal penalties and to the civil liability that arises in private actions. It does not provide a reason to conclude one is more effective at deterrence than the other. Moreover, even if some members of some firms, or even some entire

116. See WHB, *supra* note 9, at 229–30.

117. *Id.* at 229.

118. *Id.* at 229–30.

firms, decline to participate, the cartel nevertheless may still succeed in raising prices. After all, to be largely successful, a cartel need not consist of every firm in a market, much less every employee of every firm.

Fourth, WHB argue that we fail to give proper credit to the Antitrust Division for its role in recoveries:

Lande and Davis also are wrong to credit the entire deterrent effect of damage recoveries to plaintiffs' lawyers on the basis that the recovery would not have occurred without the efforts of plaintiffs' lawyers. In fact the Antitrust Division does a great deal of the work that results in damage recoveries.¹¹⁹

WHB would be right if we credited private plaintiffs with all the deterrence effects from these private cases. We did not. In fact, we explicitly stated that credit should be shared:

The DOJ certainly should get partial credit for the private recoveries obtained in any cases it uncovered or helped to uncover, even if the private parties secured the bulk of the sanctions. Nevertheless, it would not be fair to give the DOJ complete credit for any resulting deterrence, because if there had been no private enforcement, this deterrence never would have arisen. Rather, the fairest thing would be to share credit for this deterrence between the public and private enforcers.¹²⁰

We believe that ten of the forty private cases we studied were follow-ons to DOJ enforcement efforts.¹²¹ This percentage is similar to that obtained in the classic study by Kauper and Snyder, who found that no more than 20% of all private antitrust cases followed DOJ cases.¹²² Even if DOJ were given partial credit for 25% of the deterrence caused by the forty private cases we studied, our overall conclusion would not change significantly.

This is especially true because this relationship is, in some instances, reversed. Our case studies showed that private enforcement sometimes preceded—and thereby may have significantly assisted—DOJ enforcement.¹²³ Indeed, even the much-lauded DOJ leniency program benefits from the threat of private enforcement. As WHB acknowledge, “One inducement to apply for leniency, however, is the potential to significant-

119. *Id.* at 230.

120. See *Comparative Deterrence*, *supra* note 6, at 347.

121. *Id.* at 346. For a discussion of our classification methodology, see Lande & Davis, *Benefits*, *supra* note 5, at 897–99.

122. For a brief discussion of the Kauper & Snyder study, see *Comparative Deterrence*, *supra* note 6, at 346.

123. For an analysis of these issues, see Lande & Davis, *Benefits*, *supra* note 5, at 897–99.

ly limit liability in damages suits.”¹²⁴ In other words, the threat of private enforcement helps to create the leverage necessary to induce antitrust violators to confess to the DOJ.

For all these reasons, the relationship between DOJ and private enforcement is symbiotic. And, as a result, crediting private enforcement for all the money it recovers would be inaccurate, as would crediting the DOJ for all of the penalties it is able to impose through criminal enforcement. Our comparison, then, is a rough proxy that may err somewhat in either direction. The “true” ratio of private deterrence to DOJ deterrence therefore might not be the simple result that followed from our data: $(\$21.9\text{--}\$23.9 \text{ billion in private sanctions})/(\$7.737 \text{ billion in public sanctions})$,¹²⁵ which equals a ratio that is roughly 3:1 in favor of private deterrence. Whether the actual ratio is 2:1 or 4:1 is beside the point; our article’s point is that the ratio for all private cases—not just the forty that we studied—is “probably” greater than 1:1.

Fifth, WHB claim we assert private plaintiffs completely uncovered the conduct responsible for two of the thirteen cartel-based recoveries in our sample “with the government following the private plaintiffs lead or playing no role at all.”¹²⁶ WHB further state: “In fact the Antitrust Division did not ‘follow the private plaintiffs’ lead’ in prosecuting those cartels, and any suggestion that the Division ‘played no role at all’ is ridiculous.”¹²⁷

However, WHB overlook the “or” in the first sentence they quote. We never said the government played no role in these two cases. We said only that the first evidence of collusion was uncovered by private parties. In fact, we explicitly stated in our case summaries—which WHB cite—that the government played an important role in both cases. But WHB fight this “no role” straw man argument by showing that DOJ played an important role.¹²⁸ Our actual summaries of these cases give the government a great deal of credit.

When we decided whether DOJ or a private party took the “lead,” an important piece of evidence was whether DOJ or a private party uncovered the first evidence of collusion (although of course much more is necessary to prove liability). For example, our *Vitamins* analysis contained the caveat:

124. See WHB, *supra* note 9, at 233.

125. As noted earlier, this includes prison time valued at \$6 million per year, not \$2 million per year. See *Comparative Deterrence*, *supra* note 6, at 336.

126. See WHB, *supra* note 9, at 231.

127. *Id.*

128. *Id.* at 232–33.

[M]any of the details of the Department of Justice investigation are non-public, and it is clear that both private counsel and the U.S. Department of Justice were on parallel tracks and discovered much of the critical evidence at around the same time, and that the investigation of each helped that of the other.¹²⁹

Our analysis of the *Vitamins* case fairly relied on the report provided by David Boies, counsel for private plaintiffs. Boies reported that when his firm found the first evidence of a cartel in February 1997 “there was no pending federal investigation.”¹³⁰ WHB never state that Boies is incorrect or unreliable, but WHB do say that there had been an ongoing federal investigation.¹³¹ However, we cited information that the DOJ investigation had stalled before private counsel provided them with important collusion evidence:

“U.S. investigators first got wind of the vitamins cartel and Roche’s role in it in late 1996 from sources at ADM cooperating with the DOJ in its investigation of the citric acid cartel . . .” As a result the FBI interviewed Dr. Kumo Sommer, the head of Roche’s Vitamins division, in March 1997. “Sommer denied the existence of any vitamin cartel, and the DOJ apparently decided to wind down its investigation for the meanwhile. . . .” However, “in late 1997, a partner of the law firm Boies & Schiller . . .” presented the DOJ with evidence that a conspiracy was occurring.¹³²

Moreover, in our *Vitamins* case study we wrote: “We attempted to find a public account of the origin of the vitamins cases written by the Department of Justice Antitrust Division but could not. When we sent them the version contained in this document they would not comment on its accuracy or completeness.”¹³³ Further, on the crucial importance of the early private suit we cited the following:

At the May 21, 1999 press conference in Basel, Switzerland announcing the Roche guilty pleas, Hoffman-La Roche’s CEO, Franz Humer, explained how it was the early 1998 class action lawsuit (and not a government investigation) that prompted a new internal investigation that caused Roche to terminate its conspiratorial conduct and begin to cooperate with the government: “In 1997, responding to the settlement in the citric acid case and to the news of an investigation of the bulk vitamins industry, Roche initiated an in-

129. See *Forty Case Studies*, *supra* note 6, at 237.

130. DAVID BOIES, *COURTING JUSTICE* 231 (1st ed. 2004).

131. See WHB, *supra* note 9, at 232.

132. See *Forty Case Studies*, *supra* note 6, at 237 n.645 (quoting John M. Connor, *supra* note 24, at 25–26).

133. *Id.* at 236 n.642.

ternal inquiry of its own, which at the time did not turn any evidence of wrongdoing. *A second internal inquiry prompted by class action lawsuits filed against Roche and other companies in early 1998 for alleged price-fixing in the bulk vitamins market revealed that further action was needed.* The inquiry was carried out in collaboration with U.S. experts. Internal measures were implemented without delay to ensure an immediate halt to any antitrust violations. The findings this second inquiry formed the basis for Roche's decision to offer, on 1 March this year, its full cooperation in the US Justice Department investigation." (See Exh. 9 to Class Plaintiffs' Memorandum in Support of Motion for Preliminary Approval of Niacin and Biotin Defendants, at 3.)¹³⁴

We therefore stand by our description of the *Vitamins* case as led by a private party based on the evidence that was then—and is now—available.

WHB fail to provide any evidence to support their argument related to the second case involving a commercial explosives cartel. WHB assert:

Lande and Davis credit the detection of one other cartel to plaintiffs' lawyers. They report that an explosives cartel was discovered in the course of private litigation of a noncartel case. They do not indicate when evidence of a cartel emerged, but they do indicate that the antitrust claims leading to significant damage recovery were filed in February and August 1996. But that was after the Division had secured guilty pleas from the conspirators, and evidence uncovered in the private litigation did not prompt the Division's investigation.¹³⁵

Concerning this case we wrote the following: "This litigation and the government investigation that followed apparently arose out of a 1992 private civil suit initiated by Thermex Energy Corporation (Thermex), a Texas manufacturer of commercial explosives, against Atlas Powder Company, owned by Imperial Chemical Industries P.L.C. of Britain (ICI)."¹³⁶ Our case summary certainly gave DOJ a large share of the credit for bringing this cartel to justice: "In September 1995, the Department of Justice secured guilty pleas and fines for two of the defendants in the Commercial Explosives litigation . . ."¹³⁷

If a secret DOJ investigation uncovered evidence of collusion before the 1992 unrelated private action began, then this case should indeed

134. *Id.* at 239–40.

135. See WHB, *supra* note 9, at 232–33.

136. See *Forty Case Studies*, *supra* note 6, at 61.

137. *Id.* at 62.

be removed from the list of cases where private enforcers first discovered the evidence of collusion. But WHB have not provided this evidence. Nor have they asserted that a DOJ investigation discovered evidence of collusion before the 1992 private case. Further, we note WHB implicitly concede that DOJ played no role at all in eleven of the thirteen cases in this group by disputing our factual analysis of only two.

More generally, our article contained the caveats that “reasonable people could dispute who first discovered some of the violations that gave rise to the sample of 40 private cases” or which party actually took the lead, and also that we could use only imperfect publicly available data to perform our study.¹³⁸ It is only natural for DOJ and the private parties to see the facts differently—for both DOJ and the private parties to see ambiguous facts in a way that tends to give themselves more of the credit for uncovering and proving the violations at issue.¹³⁹ Indeed, they might not have always been aware of what the other lawyers were doing, and so naturally assumed that they deserved the bulk of the credit.

Finally, WHB claim that after the Supreme Court’s recent *Twombly* decision, private plaintiffs will be much more reliant on the DOJ to uncover and prosecute antitrust violations.¹⁴⁰ This may well be true. But it would not affect the results of our study, which covered the 1990–2007 period. Moreover, once sufficient time has passed the relative deterrence effects of private and DOJ antitrust enforcement should be re-assessed not by speculation, but on the basis of evidence. Indeed, the antitrust world’s general failure to base policy on evidence has caused great mischief. *Twombly* itself was based on an empirical premise that was both unsubstantiated and implausible—the assumption that the sorts of wealthy and powerful corporations that are the subject of antitrust lawsuits often settle even meritless claims for huge sums.¹⁴¹

In conclusion, WHB provide no reason to doubt our article’s findings. Indeed, the article showed that private enforcement “probably” deters more anticompetitive activity than the DOJ’s anti-cartel program after comparing the deterrence effects of *only forty* of the many private cases filed during an eighteen-year period with the deterrence from *every* DOJ cartel case filed during the same period. *A fortiori*, the deterrence effects from every private enforcement action might well have been

138. See *Comparative Deterrence*, *supra* note 6, at 346.

139. WHB’s complaint over credit for two of the forty cases we studied helps prove the proverb, “Success has many fathers while failure is an orphan.”

140. See WHB, *supra* note 9, at 231.

141. See *Politics of Procedure*, *supra* note 50, at 969, 978–81; *Questionable Innovation*, *supra* note 50, at 356, 369–74; see also Charles Silver, “We’re Scared to Death”: *Class Certification and Blackmail*, 78 N.Y.U. L. REV. 1357 (2003) (rejecting the argument that class actions constitute a form of legalized blackmail).

many times larger than that from the DOJ anti-cartel program. The new case studies presented above demonstrate that our initial study was conservative, as was our overall conclusion that private enforcement “probably” deters more conduct than DOJ private enforcement.¹⁴²

We stress that we did not perform this comparison to denigrate in any manner the excellent work performed by the Antitrust Division, of which we remain huge fans. Indeed, we would like to reemphasize that private enforcement and public enforcement, on the whole, work wonderfully well together and in harmony toward the goal of promoting the public interest.

Rather, we undertook our analysis to determine whether private enforcement is underappreciated and deserves a significant share of the credit for deterring anticompetitive conduct. Although we appreciate that WHB studied our article and we enjoy discussing the details of our analysis, we believe it would be more productive to focus instead on designing ways for private and public enforcement to cooperate to better approximate an optimal level of deterrence for anticompetitive conduct.

B. Criticisms Concerning Compensation Issues

The leading critic of our original study’s conclusions concerning the compensation effects of private antitrust enforcement has been University of Michigan Law Professor Daniel Crane.¹⁴³ Responding directly to our past analysis, he asserted that private enforcement does not provide meaningful compensation to the victims of antitrust violations. His overall claim could not be much more ambitious:

Efforts to correct the perceived infirmities of the U.S. private enforcement system by tweaking the mechanics of enforcement—standing rules, discovery principles, claim aggregation mechanisms, damages rules, and the like—are futile. The shortcomings of private enforcement are existential, not technical. They go to foundational

142. In a related point, WHB argue that private litigation against small cartels often is not viable. WHB, *supra* note 9, at 228 n.82. This is a fair point, and a reason to make private actions less costly and therefore viable in a broader range of cases.

On the other hand, there are also a significant number of cases that the DOJ will not prosecute, either because of a limited DOJ budget, because they are not the kinds of traditional cartel cases that DOJ pursues, or because the odds of the DOJ prevailing are not sufficiently high. In fact, the extraordinary success rate of DOJ prosecutions suggests it is unwilling to take a significant risk of losing in litigation, which means a substantial amount of illegal conduct will go unpunished. For a discussion of these and related points, see Lande & Davis, *Benefits*, *supra* note 5, at 905–07.

In sum, DOJ criminal enforcement works better in some cases and private enforcement works better in others. This is further evidence that public and private enforcement complement one another, both working in the direction of the public good.

143. See INSTITUTIONAL STRUCTURE, *supra* note 10, at 168; Crane, *Optimizing*, *supra* note 2, at 682–95.

assumptions about the goals and purposes of antitrust law and competition policy. Private antitrust enforcement in the United States has rarely advanced the two assumed goals of private antitrust enforcement: namely, deterrence and compensation.¹⁴⁴

Professor Crane's arguments, however, do not come close to supporting his bold position. They suggest, at most, reasons to question whether private antitrust enforcement is as effective as it could be, not to declare it "futile" and to deny the value of its very existence. Because Professor Crane issued a direct challenge only to our analysis of the efficacy of private enforcement as a means of providing compensation, we will address that portion of his argument in this Article.¹⁴⁵

Professor Crane begins his argument by making the sweeping assertion that "issuing [class members] a check is often so expensive that administrative costs swallow the entire recovery."¹⁴⁶ To support this statement Professor Crane cites a single forty-one-year-old Posner article that made a similar claim without empirical support.¹⁴⁷ Nevertheless, Professor Crane continues: "[A]fter lawyers' fees and administrative fees are accounted for, each consumer's share of the recovery is negligible, even though the harm to the class is great."¹⁴⁸ From this kind of statement one might think his conclusion was the result of an empirical survey of twenty cases in which, for example, the average legal fees of 33% and average claims administration expenses of 50% left very little for injured victims, such as only a few dollars each and perhaps only 20% of the settlement fund. However, Professor Crane provides no empirical evidence at all for his assertions.

As support Professor Crane cites only an article by Professor Cavanagh, another highly respected scholar.¹⁴⁹ Professor Cavanagh's article, in turn, provides only anecdotes and hypotheticals involving the

144. See INSTITUTIONAL STRUCTURE, *supra* note 10, at 163; Crane, *Optimizing*, *supra* note 2, at 676–77.

145. Professor Crane also argued that private enforcement does not help deter anticompetitive conduct. Crane, *Optimizing*, *supra* note 2, at 676–77. Since his deterrence argument was not directly responsive to our research, however, we will explain on another occasion why it is similarly unresponsive.

146. *Id.* at 683.

147. *Id.* at 683 n.30.

148. *Id.* at 683. Professor Crane's remark may well reflect the conventional wisdom in antitrust. This belief was ably summarized by Professor Cavanagh: "Many class action suits generate substantial fees for counsel but produce little, if any, benefit to the alleged victims of the wrongdoing." Edward Cavanagh, *Antitrust Remedies Revisited*, 84 OR. L. REV. 147, 214 (2005). Professor Cavanagh, however, provides only an anecdote to support these conclusions. He makes no effort to assess whether the types of settlements he describes are in fact "not atypical." *Id.* He provides no data to show how often antitrust class action cases result in useless remedies.

149. See Crane, *Optimizing*, *supra* note 2, at 683 n.34 (citing Cavanagh, *supra* note 145, at 214).

use of coupons, but not the size of any actual administrative costs. Further, Cavanagh does not offer any data on the size of legal fees or any data concerning the frequency of coupon settlements. Neither scholar provides data showing whether administrative costs average 50% of settlements or 5%. Nor do they offer data revealing whether legal fees average 15% or 33% or whether the residual for victims is 75% or 15%. The difference is, however, crucial. Without evidentiary support, Professor Crane's assertion that legal fees and administrative fees "often swallow the entire recovery" is simply an unsupported opinion that should not be given any weight. The limited information we have been able to assemble, moreover, suggests that his opinion is unlikely to be correct.

As noted above, we were able to ascertain the attorney's fees in forty-five of the sixty large private cases we studied. The mean fees averaged somewhere between 14% (if a weighted average is used) to 26% (using an unweighted average, thus giving each case equal weight).¹⁵⁰ If we are trying to gauge the total amount of compensation that reached the plaintiffs, the weighted average would be more appropriate because it weighs more heavily the larger settlements—which have a larger effect on compensation and involve a lower percentage allocated to attorney's fees.

We did not attempt to ascertain the costs of administering the settlement funds when we analyzed the sixty large private cases in our study. Moreover, even though the required information is a matter of public record, it has been difficult to convince busy attorneys or claims administrators to spend time searching their files for the relevant material. We were, however, able to find two claims administration firms, Rust Consulting and Class Action & Claims Solutions,¹⁵¹ who were willing to assemble and supply relevant data from their recent cases. The thirty-one results they supplied are instructive, although they were for the most part unwilling to identify the cases at issue. We separately obtained information about the *Visa/MasterCard* case.¹⁵² The following Table summarizes the data:

150. See *supra* Tables 4, 5 & 6.

151. We are extremely grateful to Rust Consulting and to Class Action & Claims Solutions for this information.

152. We asked a large number of potential sources, including both claims administration firms and individual attorneys, for the administrative fees associated with as many antitrust class action cases as they could produce. But the most of the potential sources were too busy or for other reasons declined to supply us with this information. We have no way of knowing whether those who did supply us with information are typical.

Table 11: Administrative Expenses

<u>Case</u>	<u>Claim Filing Deadline</u>	<u>Direct or Indirect Purchaser Class</u>	<u>% of Gross Fund Allocated to Administration</u>	<u>Settlement Fund</u>
Case 1	2003	Direct	0.90%	\$35,000,000
Case 2	2004	Direct	1.67%	\$104,600,000
Case 3	2004	Direct	6.96%	\$6,200,000
Case 4	2004	Direct	3.86%	\$202,845,329
Case 5	2004	Direct	3.06%	\$32,000,000
Case 6	2004	Direct	7.95%	\$34,000,000
Case 7	2004	Direct	1.95%	\$31,500,000
Case 8	2004	Direct	2.91%	\$89,194,765
Case 9	2004	Direct	4.07%	\$9,000,000
Case 10	2004	Direct	4.54%	\$9,330,000
Case 11	2004	Direct	2.27%	\$64,000,000
Case 12	2004	Direct	5.86%	\$9,700,000
Case 13	2004	Direct	4.18%	\$21,000,000
Lupron Consumer	2005	Indirect	6.33%	More than \$10 Million
Relafen Consumer	2005	Indirect	5.30%	More than \$10 Million
Case 16	2005	Indirect	4.14%	More than \$10 Million
Case 17	2005	Indirect	2.87%	More than \$10 Million
Case 18	2005	Indirect	5.01%	More than \$10 Million
Case 19	2005	Direct	6.26%	\$22,600,000
Case 20	2006	Direct	4.17%	\$38,700,000
Case 21	2007	Indirect	3.95%	More than \$10 Million
Case 22	2007	Indirect	9.25%	More than \$10 Million
Case 23	2008	Indirect	4.43%	More than \$10 Million
Case 24	2008	Indirect	8.13%	More than \$10 Million

Case 25	2008	Direct	1.85%	\$6,354,441
Case 26	2008	Direct	0.03%	\$250,000,000
Tricor Indirect Purchaser Consumer	2009	Indirect	7.09%	More than \$10 Million
Case 28	2009	Indirect	5.46%	More than \$10 Million
Case 29	2009	Direct	0.38%	\$60,000,000
Case 30	2009	Direct	0.88%	\$14,650,000
Case 31	2010	Direct	1.31%	\$20,000,000
Visa/ Master- Card	2005	Direct	2.34%	\$3,456,000,000
Average			4.10%	

The administrative costs in the cases, all of which had claim filing deadlines between 2003 and 2010, averaged 4% of the recoveries (with the average (mean) calculated by giving each case equal weight). All were less than 10%. These thirty-two cases, moreover, were mostly moderate¹⁵³ in size: twenty-seven involved settlements of \$6–\$70 million each and the largest was \$250 million—except for the massive *Visa/MasterCard* case.¹⁵⁴ There are fixed costs associated with returning overcharges to victims, so it would be logical for the percentage of administrative costs to be smaller for larger cases and to be largest for the smallest recoveries. Indeed, in one of the largest antitrust cases in history, the *Visa/MasterCard* case, the administrative fees were particularly

153. *Id.* Although in many respects \$6–\$70 million is a large settlement, the majority of the sixty cases in our study involved settlements of more than \$100 million, and nine were at least \$700 million.

154. *Id.*

low as a percentage.¹⁵⁵ They required an expenditure of 2.34% of the settlement fund to distribute more than \$3 billion.¹⁵⁶

Thus, the average of the legal fees for the forty-five cases in our sample we were able to ascertain (their weighted average was 14% and their unweighted average was 26%) plus the average of these administrative costs (which were 4% for the sample of thirty-two cases) would total approximately 18% to 30% of the settlements. If these averages apply to our entire sample,¹⁵⁷ this would mean that the victims received 70% to 82% of the settlements.¹⁵⁸ Since the settlements totaled at least \$33.8 to \$35.8 billion (plus products, discounts, etc.) this would mean that the victims in the sixty cases we studied received at least \$23.66 to \$29.4 billion in cash.

To be sure, we make no representation that these thirty-two cases are typical of antitrust class action settlements.¹⁵⁹ We readily concede

155. "The class members received \$3,456,000,000. The attorney fees were \$225,165,006.25. The total expenses were \$88,333,552.89 of which \$57,234,450.87 were for the claims administrator, \$18,716,511.44 were expenses awarded by the Court to the class representatives and class counsel in the decision approving the settlement and awarding fees and costs and \$12,382,590.58 in supplemental expenses approved by the Court which included items such as the objectors' fees, the special master appointed by the court, counsel fees for lawyers and consultants who worked on the securitization, audit fees and supplemental costs incurred by lead counsel . . . [and] \$1,748,505.93 awarded to three Cy Pres recipients." E-mail from Lloyd Constantine, Counsel, Cannon, LLP to Robert H. Lande, Venable Prof. of Law, Univ. of Baltimore Sch. of Law (Nov. 9, 2011, 17:43 EST) (on file with author).

156. Including all the expenses, the administrative costs were \$88.33 million divided by (\$3,456 million plus \$225.17 million attorney's fees plus \$88.33 administrative expenses plus \$1.75 million in cy pres, which equals \$3,771.25 million), which equals 2.34%.

157. We were almost always able to ascertain the legal fees for class action cases, but had problems finding the legal fees for competitor cases. We have no empirical evidence on point, but believe that legal fees in competitor cases may be lower on average. Class action attorneys often have to charge more because they are working on a contingency. Because they receive nothing if they lose, they have to charge a premium to cover their risk of failure. By contrast, attorneys in competitor cases are less likely to be working on a contingency basis.

158. These numbers likely understate the recovery. We did not use a weighted average. Doing so would arguably be appropriate because it would reflect that cases with a greater recovery have a larger impact on the success of private enforcement compensating victims. A weighted average would have lowered the percentage, given that larger cases generally involve a lower percentage of administrative fees.

159. As discussed in note 149 *supra*, we have no way of knowing whether those who did supply us with information are typical. To be sure, the data we collected are suggestive. Eleven of these cases involved payments to indirect purchasers, and these cases averaged 5.6% in administrative costs, while the twenty-one direct purchaser cases averaged 3.1%. Moreover, it makes intuitive sense that direct purchaser classes, which would be expected to have fewer members and about which defendants are likely to have better information and means of communication, would involve lower administrative costs than indirect purchaser classes, which are likely to have more members and gathering information about them and communicating with them is apt to be more difficult. Since the cases were not randomly selected and are few in number, we hesitate to come to a strong conclusion that indirect purchaser cases involve higher administrative costs than direct purchaser cases. More research is needed.

there have been cases necessitating substantially higher administrative costs.¹⁶⁰ Nevertheless, at a minimum we can reach the safe conclusion that there have been a number of antitrust class action cases that, after legal fees and claims administration expenses are subtracted, returned in the range of 70% to 82% of the recovery to victims. And there also have been unusual cases, like the *Visa/MasterCard* case, that returned more than 90% of a settlement to plaintiffs.¹⁶¹

It also should be noted that the victims in the cases we studied sometimes received products, coupons, or discounts. The methodology of our study was to be conservative by *not* counting the compensatory effects of products, coupons, discounts or rate reductions. Due to our omissions we stated that our study was providing only a lower bound on the compensation effects of these cases. If Professor Crane is fairly going to argue that these cases have not meaningfully compensated victims, as opposed to only calculating a lower bound on the benefits of these cases, he should have included these omissions back into the analysis to the extent they were valuable to the victims. For example, the relief in the *Auction House Cases* included \$125 million in coupons,¹⁶² which we conservatively did not count as a cash benefit. These coupons were fully transferable (and were in fact transferred) and fully redeemable in cash if not used for five years.¹⁶³ We would be very interested in knowing why he dismisses these coupons as unworthy of consideration as compensation for the real victims of the collusion at issue.

We certainly would prefer to generalize from larger and better samples. But it should be noted that critics who assert that the total of legal fees and administrative expenses “often swallow the entire recovery” offer no evidence to support their statements.

Another argument by Professor Crane is that compensation “fails” as a goal because the illegal overcharges are passed through various layers in the distribution chain, so the recoveries do not end up with the real victims of the initial overcharges.¹⁶⁴ Professor Crane “proves” this using a “typical” example—a hypothetical dominant medical equipment manufacturer entering into exclusive contracts with hospitals that unlawfully

160. We do not know of a specific example. But surely there have been small class action cases with extremely high administrative costs and 33% attorney’s fees.

161. As noted, the administrative expenses in this case were 2.34%. The attorney’s fees were \$225.17 million, divided by the total of \$3,771.25 million, which equals 5.97%. In 2007 we reported legal fees in this case of 6.5%. We believe the difference is due to the fact that the settlement earned interest before it was distributed. Regardless, the total of legal fees and administrative expenses was less than 10%. See *Twenty Case Studies*, *supra* note 11.

162. See *Forty Cases*, *supra* note 6, at 13–18.

163. These coupons were 20% of the legal fees in this case. *Id.*

164. *Id.*

lock out competitors and allow the manufacturer to charge a monopoly price. In his hypothetical, the distributors originally pay the overcharge, and some, but not all, of that overcharge is passed on to the hospitals. The hospital also passes along some, but not all, of the overcharge to the patients. The patients are not often directly affected, because they pay an insurance co-pay, and so the insurance companies pay the bulk of the overcharge.¹⁶⁵

It is telling that Professor Crane characterizes his lone hypothetical as “typical.” His hypothetical involves monopoly exclusion, but most significant private recoveries are against illegal collusion,¹⁶⁶ which usually is far simpler to analyze. Moreover, the medical industry involves an anomalous market, one in which insurance plays an unusual role and intermediaries often charge based on their costs. Even though Crane could have assembled a group of ten or twenty *actual* cases to analyze, on the basis of his lone exclusive-dealing hypothetical he dismisses the more than \$12 billion paid to direct purchasers in the cases studied in our earlier survey: “Since direct purchasers often pass along a substantial portion of any overcharges downstream, over two-thirds of the recoveries studied [those involving direct purchasers] likely failed to compensate the parties who ultimately absorbed most of the economic injury.”¹⁶⁷

Crucially, Crane does not analyze what happened to the overcharges or the subsequent recoveries in any of the direct purchaser cases in our study (or in any other actual cases). He merely asserts that the direct pur-

165. See Crane, *Optimizing*, *supra* note 2, at 681–82:

To see why private enforcement fails at compensating for wealth transfer, consider the chain of loss-causation in a typical antitrust claim. A dominant durable medical equipment manufacturer enters into exclusive dealing contracts with hospitals and the group purchasing organizations (“GPOs”) that bargain on the hospitals’ behalf. The exclusive contracts unlawfully lock out potential competitors and allow the manufacturer to charge a monopoly price. In the first instance, the monopoly overcharge is paid by distributors that stock goods for the hospitals. The hospitals have complex billing arrangements with the distributors in which some, but not all, of the overcharge is passed on to the hospital. The hospitals then pass along some, but not necessarily all, of this overcharge to their patients.

The patients are often not directly affected by the overcharge. This is because the patients’ co-pay for using hospital services remains initially unaffected; their insurance companies pay the bulk of the passed-on overcharge. The insurance companies may eventually increase their premiums or co-pays, but these future increases may fall on a different set of insured than those who received monopoly-priced services. For large classes of patients such as the indigent and the elderly, any overcharge borne by the hospitals may be passed onto taxpayers in the form of Medicare, Medicaid, or direct hospital subsidization. This complex scenario has countless analogues in the world of manufacturing, sales, and distribution. Thus, a monopoly overcharge often produces numerous ripples in the economy.

166. See Lande & Davis, *Benefits*, *supra* note 5, at Tables 8–10, pp. 912–13.

167. See Crane, *Optimizing*, *supra* note 2, at 682.

chasers “often” pass on “a substantial portion” of the overcharges, so that direct purchaser cases “likely fail[] to compensate the parties who ultimately absorb[] most of the economic injury.”¹⁶⁸ In reality, Crane does not know the percentage of the recoveries that was returned to actual victims in the cases we studied. Yet, on the basis of his conjecture, he completely dismisses more than \$12 billion in overcharges paid to direct purchasers as not having compensated the true victims of antitrust violations.

Crane instead could have analyzed the direct purchaser cases in the study he cites. He could have delved into the facts of the *Auction House Cases*, for example, where firms were convicted of conspiring to raise auction commission rates.¹⁶⁹ We would be extremely interested in the results if he analyzed how much of the \$552 million recovery ultimately went to people who were victimized by the cartel; we would be puzzled unless, not counting the 5.2% that went for attorney’s fees, almost all went to the real victims of the collusion. But Crane does not even consider the possibility that almost all of the direct purchasers could have been end users directly affected by the collusion.

To be sure, in some cases firms surely pass a percentage of the overcharge to direct purchasers to the next level in the distribution chain. But it also is true that direct purchasers often recover in settlement only a fraction of the overcharges they pay, an amount that does not fully compensate them for their losses.¹⁷⁰ Suppose, for example, that a cartel overcharged direct purchasers by \$100 million, and that direct purchasers pass 50% of this overcharge to the next level in the distribution chain. Also suppose that the direct purchasers received only 30% of the amount they were overcharged. Even if a victimized direct purchaser passed on 50% of the overcharge to its own customers, the direct victim still had a net loss, an initial loss of \$50 million that was only 60% compensated by the settlement.¹⁷¹

There is, moreover, another type of harm to direct purchasers that Crane does not consider. When direct purchasers pay higher prices, to the extent they pass on these increases they tend to sell a lower quantity of the product involved. This lower volume reduces their profit. Thus,

168. *Id.* at 684.

169. See *Forty Case Studies*, *supra* note 6, at 13–18.

170. See Connor & Lande, *supra* note 113.

171. See John M. Connor, *Private Recoveries In International Cartel Cases Worldwide: What do the Data Show?* 1, 14 (American Antitrust Institute, Working Paper No. 12-03, 2012), available at <http://www.antitrustinstitute.org/~antitrust/sites/default/files/WorkingPaperNo12-03.pdf> (finding that U.S. victims in a sample of thirty-three international cartels received only 30% of single damages in settlement on average). In this hypothetical the indirect purchaser also absorbed a \$50 million overcharge, but received nothing in the recovery.

even if some direct purchasers initially appeared to receive excessive compensation as a result of an antitrust case, this appearance may well be misleading unless their lost profits also were replaced.

For these reasons Crane's argument should have been that *it is possible* that *some* of the \$12 billion in recoveries received by direct purchasers in the cases we studied *might* not have compensated the actual victims of antitrust violations. But he does not prove that even this actually happened to a significant extent. His arguments certainly do not justify discounting all payments made to direct purchasers.¹⁷²

Professor Crane's analysis of payments made to indirect purchasers in our study is similarly faulty. He writes: "[O]ne should also consider the \$1.815 billion recovered in the six indirect purchaser cases to gauge whether these recoveries help to offset the phenomenon . . . [especially the huge] El Paso litigation, which resulted in a \$1.4 billion recovery for the indirect purchasers. . . . In each case, the settlement pot was further reduced by an attorney's fee award, generally in the 20 to 33 percent range."¹⁷³ However, the attorney's fees in the case Crane primarily analyzes, the *El Paso* case,¹⁷⁴ constituted only 6% of the settlement, a fact Crane strikingly omits from his narrative.¹⁷⁵

Crane has more to say about the *El Paso* case, which yielded \$1.4 billion for indirect purchasers:¹⁷⁶

[T]he settlement provided for a complex scheme of remittances to the California Public Utilities Commission and for natural gas rate reductions over fifteen to twenty years. . . . One may describe the El Paso scheme as compensating consumers as a class, but such a description would be largely inaccurate. This is because consumer injuries occurring in the past correspond only roughly to future consumer gains. Injured consumers who died, moved away from California, or discontinued natural gas service over the rate-reduction period received no compensation, or they received compensation that bore little relation to the amount of their injury. On the other

172. See John E. Lopatka & William H. Page, *Indirect Purchaser Suits and the Consumer Interest*, 48 ANTITRUST BULL. 531, 544 (2003) (suggesting that direct purchasers at times may not be able to pass on overcharges).

173. See Crane, *Optimizing*, *supra* note 2, at 685.

174. See *Forty Case Studies*, *supra* note 6, at 77–87 (analyzing the *El Paso* case).

175. Professor Crane also argues that the \$1.815 billion in indirect purchaser recoveries should be reduced for attorney's fees. Although one might be able justify doing this, it also would make sense to express all values in constant dollars. The *El Paso* settlement was in 2001, but Professor Crane published his article in 2010. If *El Paso's* \$1.427 billion recovery were reduced by 6% for attorney's fees, down to \$1.341 billion, but expressed in 2010 dollars, it would actually be a higher amount: \$1.65 billion. But Professor Crane performs only downward adjustments in the amounts victims recover from lawbreakers.

176. See Crane, *Optimizing*, *supra* note 2, at 685–86.

hand, consumers who moved to California or otherwise began natural gas consumption after the violation received a windfall. In sum, consumers whose consumption patterns or volume changed significantly from the time of the violation to the rate-reduction period were either overcompensated or undercompensated. The El Paso settlement did not amount to a serious effort to identify persons who suffered economic harm and compensate them in proportion to their loss.¹⁷⁷

However, Crane ignores crucial facts in this case, even though he cites to our eleven-page analysis of the facts four times.¹⁷⁸ As we reported, the settlement included \$551 million in upfront cash and stock valued at market rates. Crane omits this in his description of the case's benefits. Surely upfront payments to consumers do a wonderful job of compensating the actual victims of a violation. Moreover, our analysis of this case noted that we (perhaps being overly conservative) did not count the settlement's \$125 million in future rate reductions on electricity as a benefit from the case.¹⁷⁹

The \$876 million in cash payments that will be made to victims in the future are more difficult to analyze. It certainly is true there will not be a perfect correspondence between the 13 million California consumers and 3,000 businesses who were overcharged by El Paso and the future beneficiaries of the settlement. But even if a consumer sells her home soon after the settlement was inked, to the extent the market was efficient—which economists so often assume—the value of the house should have increased accordingly, since the purchaser of the house will be receiving a share of the settlement. The homeowners at the time of the settlement should have reaped the capitalized value of the discounted present value of the settlement when they sold their home.

To the extent the market is not efficient, however, we ultimately do not know, for example, how many California residents will leave the state after they have collected only five years of cash payments. But neither does Professor Crane. Rather, he points out that the correspondence between the overcharge and the recovery is imperfect, speculates about and magnifies this imperfection and, on the basis of a mismatch whose extent is unproven, dismisses the *entire* \$1.427 billion settlement, saying that it would be “largely inaccurate” to say that the settlement compensated the victims. While we agree that the settlement did not produce perfect compensation, Crane has not given us any information on which to dismiss the recovery completely or even “largely.”

177. *Id.*

178. *Id.*

179. See *Forty Case Studies*, *supra* note 6, at 77.

Crane adopts another analytic strategy that causes him to discount the value of the compensation obtained through private antitrust enforcement. “Economists and antitrust scholars increasingly view static consumer injuries as far less significant than dynamic injuries.”¹⁸⁰ In other words, scholarly commentators are much more concerned with the tendency of antitrust violations to stifle innovation than they are with its tendency to increase the prices consumers must pay for existing goods. Crane then contends that antitrust laws fail to compensate consumers adequately because they tend to focus on static injuries—for example, the paying of overcharges—rather than on dynamic injuries—such as a loss of access to new products.

In this regard Professor Crane is mixing apples and oranges. The prevailing view among scholarly commentators has long been that the primary, if not exclusive, focus of antitrust doctrine should be on creating efficient incentives, not on compensating victims.¹⁸¹ Thus, he cites Professor Hovenkamp’s statement that innovation and technological progress contribute more to “economic growth” than does achieving the right level of static efficiency.¹⁸² This view of law as serving to create ideal incentives rather than to redress past wrongs is largely the result of the injection of Chicago School economic analysis into antitrust.¹⁸³ For these commentators, compensating victims is just a means to an end, not an end in itself.

When Crane concludes that dynamic injuries matter more than static injuries, he is improperly importing views about incentives—and deterrence—into a discussion about compensation. When it comes to compensating for injuries from anticompetitive behavior, Crane offers no reason why a consumer suffers any lesser injury from paying an extra \$1,000 for a good than from being deprived of an opportunity to buy a superior good that would be worth an additional \$1,000 to her. Considered prospectively—viewed in terms of economic growth—innovation is much more important than static efficiency, but this does not mean as a matter of retributive justice \$1,000 worth of one sort of harm is any more significant than \$1,000 of another sort of harm. To the contrary, economists assume harms that can properly be measured at \$1,000 are of precisely equal value to a victim, whatever that \$1,000 represents.¹⁸⁴ If Pro-

180. Crane, *Optimizing*, *supra* note 2, at 688.

181. The authors of this Article believe that an important purpose of the antitrust laws is to compensate victims, but we acknowledge that this position may not be the prevailing view among antitrust scholars.

182. Crane, *Optimizing*, *supra* note 2, at 688 n.62.

183. See, e.g., RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW* 23–25 (4th ed. 1992).

184. *Id.*

fessor Crane has a different view, he should develop a theory of compensation in antitrust to justify it.

In sum, this article presented documentation that sixty private cases that ended since 1990 have returned more than \$33 billion in cash, plus additional amounts in coupons, discounts, products, etc., to victims of anticompetitive behavior. Surely this should create a heavy presumption that a significant number of victims have been helped a substantial amount by private litigation. Responsible critics can plausibly argue that *some* of this \$30 billion in recoveries *might* not have compensated the *actual* victims of antitrust violations. We would agree with such a qualification. But neither Crane nor any other critic has shown that this has happened to a predominant extent. Yet, only if it happens to such an extent that it can be shown to “swallow” the \$33 billion—as Professor Crane asserts but does not substantiate—should we dismiss the compensation effects of private litigation.

We believe the overwhelming weight of the evidence shows that antitrust cases have returned huge amounts of compensation to the true victims of antitrust violation (including a significant portion of the \$33 billion documented in this study, plus coupons, products, rate reductions, etc.). We concede it is likely that some of these benefits did not go to the true victims for a host of reasons, but \$33 billion in benefits should not be dismissed or even partially discounted on the basis of opinion, speculation, hypotheticals, or allegations.

III. CONCLUSION

No less august a body than the United States Supreme Court in *Twombly* declared that defendants in antitrust cases sometimes settle meritless cases.¹⁸⁵ Yet the Court relied not on evidence, not on a survey or study, but rather on the unsupported opinion of another appellate court judge.¹⁸⁶ Based on little more than conjecture, the Court made it more difficult for all complaints to survive a motion to dismiss.

This Article is not a responsive cost-benefit analysis of private antitrust enforcement. But it does demonstrate more than \$30 billion of its benefits, which resulted from sixty cases that appear on the whole to have had significant merit. By contrast, critics have not systematically shown any significant costs, relying instead on more anecdotes or unsupported assertions. We know of no study providing evidence that any significant number of cases lacked merit and yet recovered substantial settlements.

185. See *Questionable Innovation*, *supra* note 50, at 370.

186. *Id.* Note that the Supreme Court ignored a trial court judge offering a conflicting opinion. *Id.*

Moreover, as a result of our decision only to count cash recoveries, the information collected in this study provides only a substantial understatement of the benefits that private actions have achieved. This study thus most emphatically does not provide a sense of the most favorable results that private actions may have achieved, or even any notion of how much they probably have achieved or how often or typically they have achieved these results. It is a floor, but definitely not a ceiling, on the benefits of private enforcement.

These findings are enough to create a presumption that private enforcement is in the public interest. Indeed, modern antitrust is in large part a battle over presumptions and burdens of proof. In light of our results, the burden should now shift to the critics. Critics of private antitrust enforcement should now be required to provide some similarly credible systematic evidence to substantiate their positions.

APPENDIX

Table A1: Formal Names and Citations to the Twenty New Cases that this Study Analyzed

1. *Meijer, Inc. v. 3M*, C.A. No. 04-5871 (E.D. Pa. Aug 14, 2006) (“3M”).
2. *In re Air Cargo Shipping Services Antitrust Litig.*, MD 06-1775JGVVP, 2008 WL 5958061 (E.D.N.Y. Sept. 26, 2008), *report and recommendation adopted in part*, 06-MD-1775(JG)(VVP), 2009 WL 3443405 (E.D.N.Y. Aug. 21, 2009) (“Air Cargo”).
3. *Sullivan v. DB Investments, Inc.*, No. 08-2784 et al., 12 (3rd Cir. Dec. 21, 2011) (en banc). *Sullivan v. DB Investments, Inc.*, 667 F.3d 273 (3d Cir. 2011), *cert. denied* 132 S. Ct. 1876, 182 l. Ed. 2d 646 (U.S. 2012), *reh’g denied* 132 S.Ct. 2451 (U.S. 2012) (“DeBeers”).
4. *In re Elec. Carbon Products Antitrust Litig.*, 622 F. Supp. 2d 144 (D.N.J. 2007) (“Electrical Carbon Fiber”).
5. *In re Ethylene Propylene Diene Monomer (EPDM) Antitrust Litig.*, 681 F. Supp. 2d 141 (D. Conn. 2009) (“EPDM”).
6. *In re High Pressure Laminates Antitrust Litig.*, 00 MDL 1368 (CLB), 2006 WL 931692 (S.D.N.Y. Apr. 7, 2006) (“High Pressure Laminates”).
7. *In re Intel Corp. Microprocessor Antitrust Litig.*, MDL 05-1717-JJF, 2005 WL 1838069 (D. Del. 2007) (“Intel”).
8. *In re Polyester Staple Antitrust Litig.*, C.A. No. 3:03-1516 (W.D.N.C. July 19, 2007) (“Polyester Staple”).
9. *Molecular Diagnostics Laboratories v. Hoffmann-La Roche Inc.*, 402 F. Supp. 2d 276 (D.D.C. 2005) (“MDL v. Hoffman”).
10. *In re Methionine Antitrust Litig.*, 204 F.R.D. 161 (N.D. Cal. 2001) (“Methionine”).
11. *In re Monosodium Glutamate Antitrust Litig.*, 2000 U.S. Dist. LEXIS 22521 (D. Minn. Sept. 13, 2000); *In re Monosodium Glutamate Antitrust Litig.*, 205 F.R.D. 229 (D. Minn. 2001) (“MSG”).
12. *In re Lorazepam & Clorazepate Antitrust Litig.*, 205 F.R.D. 369 (D.D.C. Feb. 1, 2002) (“Mylan”).
13. *Novell v. Microsoft* (complaint not filed).

14. Ortho Biotech Products, L.P. v. Amgen Inc., CIV. 05-4850 (SRC), 2006 WL 3392939 (D.N.J. Nov. 21, 2006) (“Ortho Biotech”).
15. *In re* OSB Antitrust Litig., 06-826. 2007 WL 2253419 (E.D. Pa. Aug. 3, 2007) (“OSB”).
16. *In re* Scrap Metal Antitrust Litig., C.A. No. 01:02-0844 (N.D. Ohio 2002) (“Scrap Metal”).
17. Deloach v. Philip Morris Companies, Inc., No. 1:00CV01234, 2004 WL 5508762 (M.D.N.C. Mar. 31, 2005) (“Tobacco”).
18. Teva Pharmaceuticals USA, Inc. v. Abbott Laboratories, 580 F. Supp. 2d 345 (D. Del. 2008) (“Tricor”).
19. United States v. Visa U.S.A., Inc., 163 F. Supp. 2d 322 (S.D.N.Y. 2011), *modified*, 183 F. Supp. 2d 613 (S.D.N.Y. 2001), *aff’d*, 344 F.3d 229 (2d Cir. 2003), *aff’d*, 344 F.3d 229 (2d Cir. 2003), *enforced*, 98 CIV. 7076 (BSJ), 2007 WL 1741885 (S.D.N.Y. June 15, 2007) (“Visa MC”).
20. *In re* Warfarin Sodium Antitrust Litig., 391 F.3d 516 (3d Cir. 2004) (“Warfarin”).

Table A2: Summary of Kinds of Validation in Cases in Original Sample of Forty Cases

<u>Kind of Validation of Merits</u>	<u>Number of Cases</u>
Criminal Penalty	13 out of 40 (32.5%)
Government Obtained Civil Relief	12 out of 40 (30%)
Ds Lost Trial in Same or Related Case	9 out of 40 (22.5%)
Ps Survived or Prevailed at Summary Judgment	9 out of 40 (22.5%)
Ps Survived Motion to Dismiss	3 out 40 (7.5%)
At Least One Basis for Validation	34 out of 40 (85%)
At Least One Basis for Validation, not including surviving motion to dismiss	33 out of 40 (82.5%)

Table A3: Summary of Validation of Merits in Individual Cases for the Twenty Newly Analyzed Cases

<u>Case</u>	<u>Validation of Merits</u>
3M	Ps Survived Motion to Dismiss, Ds Lost Trial in Same or Related Case, Class Certification for Litigation
Air Cargo	Criminal Penalty, Surviving Motion to Dismiss
De Beers	Guilty Plea
Electrical Carbon Fiber	Guilty Pleas, Criminal Penalty, Class Certification for Litigation, Ps Survived Motion to Dismiss
EPDM	Class Certification for Litigation, Ps Survived or Prevailed at Summary Judgment
High Pressure Laminates	Class Certification for Litigation, Plaintiffs Sur- vived Summary Judgment and Judgment as a Mat- ter of Law
Intel v. AMD	Ds Lost Trial in Same or Related Case, Government Settlement/Fine
MDL v. Hoffman	Ps Survived Motion to Dismiss
Methionine	Ps Survived Motion to Dismiss, Class Certification for Litigation
MSG	Ps Survived or Prevailed at Summary Judgment, Class Certified for Litigation, Ps Survived Motion to Dismiss
Mylan (Lorazepam & Clorazepate)	Ds Lost Trial in Same or Related Case, Government Obtained Civil Relief
Novell v. Microsoft	Ds Lost in EU Government Proceeding
Ortho Biotech	
OSB	Ps Survived Motion to Dismiss, Class Certification for Litigation

Polyester Staple	Criminal Penalty, Ps Survived Motion to Dismiss, Class Certification for Litigation
Scrap Metal	Criminal Penalty, Ds Lost Trial in Same or Related Case, Class Certification for Litigation, Ps Survived or Prevailed at Summary Judgment
Tobacco	Ps Survived Motion to Dismiss, Class Certification for Litigation
Tricor	Government Obtained Civil Relief, Class Certification for Litigation, Ps Survived or Prevailed at Summary Judgment, Ps Survived Motion to Dismiss
Visa MC	Government Obtained Civil Relief, Ds Lost Trial in Same or Related Case
Warfarin	Ps Survived Motion to Dismiss, Class Certification for Litigation

Table A4: “Pure” Recoveries from Foreign Cartels and Monopolies

<u>Case</u>	<u>Recovery (\$s Millions)</u>
Air Cargo	273
De Beers	295
Electrical Carbon Fiber	30
MSG	122
OSB	44
Total	764

Table A5: Recoveries from Foreign Cartels and Monopolies Which Cannot Be Separated from Domestic Companies' Recoveries¹⁸⁷

<u>Case</u>	<u>Recovery (\$s Millions)</u>
EPDM	107
Methionine	107
Polyester Staple	61
Tricor	316
Total	591

Table A6: Un-weighted Average Attorney's Fee Percentage

<u>Case (\$ millions in the recovery)</u>	<u>Attorney's Fee Percentage</u>
Airline Ticket Commission (86)	33.3
Augmentin (91)	21.6 ¹⁸⁸
NCAA (74)	26.8
Remeron (75)	33.3
Platinol (50)	33.3
Remeron (75)	33.3
Taxol (66)	30
Drill Bits (53)	30.8
Polypropylene Carpet (50)	33.3
Sorbates (96)	27.5 ¹⁸⁹
Terazosin (74)	33.3
Microcrystalline Cellulose (50)	33.3
Specialty Steel (50)	30
Lysine (65)	7
Commercial Explosives (77)	15
Automotive Refinishing Paint (106)	32.65 ¹⁹⁰
Buspirone (220)	33.3
Cardizem (110)	30
DRAM (326)	25
Flat Glass (122)	32

187. The cases listed in Table A5 involve settlements with multiple defendants in which either the defendants are grouped together with both foreign companies and domestic, making it impossible to tell which part of the recovery comes from the foreign company, or the defendants are subsidiaries of foreign companies operating in the United States.

188. Weighted average of direct (20%) and indirect (25%).

189. Average of 22%–33%.

190. Average of 32%–33.3%.

Linerboard (202)	30
Oil Lease (193)	25
Paxil (165)	25 ¹⁹¹
Relafen (250)	33
Visa/MasterCard (3,383)	6.5
Auction Houses (552)	5.2 ¹⁹²
El Paso (1,427)	6
Fructose (531)	25
NASDAQ (1,027)	13
Total: 9646	Average : 25.64%

Table A7: Weighted Average Attorney's Fee Percentage

<u>Case (\$ millions in the recovery)</u>	<u>Attorney's Fee Percentage</u>	<u>Weighted Value</u> ¹⁹³
Airline Ticket Commission (86)	33.3	2863.8
Augmentin (91)	21.6 ¹⁹⁴	1956.6
NCAA (74)	26.8	1983.2
Remeron (75)	33.3	2497.5
Platinol (50)	33.3	1665
Remeron (75)	33.3	2497.5
Taxol (66)	30	1980
Drill Bits (53)	30.8	1632.4
Polypropylene Carpet (50)	33.3	1665
Sorbates (96)	27.5 ¹⁹⁵	2640
Terazosin (74)	33.3	2464.2
Microcrystalline Cellulose (50)	33.3	1665
Specialty Steel (50)	30	1500
Lysine (65)	7	455
Commercial Explosives (77)	15	1155
Automotive Refinishing Paint (106)	32.65 ¹⁹⁶	3460.9

191. Average of 20% and 30%.

192. Plaintiffs' attorneys received 20% of their fee in coupons—the same percentage that class members got of their recovery in coupons.

193. Case award total multiplied by Attorney's Fee Percentage yields the Weighted Value.

194. Weighted average of direct (20%) and indirect (25%).

195. Average of 22%–33%.

196. Average of 32%–33.3%.

Buspirone (220)	33.3	7326
Cardizem (110)	30	3300
DRAM (326)	25	8150
Flat Glass (122)	32	3904
Linerboard (202)	30	6060
Oil Lease (193)	25	4825
Paxil (165)	25 ¹⁹⁷	4125
Relafen (250)	33	8250
Visa/MasterCard (3,383)	6.5	21989.5
Auction Houses (552)	5.2 ¹⁹⁸	2870.4
El Paso (1,427)	6	8562
Fructose (531)	25	13275
NASDAQ (1,027)	13	13351
Total: 9646		Weighted Average: 14.31% ¹⁹⁹

Table A8: Present Value (in 2011 dollars) of the Recoveries in the Forty Previously Studied Private Cases

#	<u>Case Name</u>	<u>Year</u>	<u>Recovery Amount in Millions (Before CPI/PPI)</u>	<u>2011 \$s (millions) (CPI)</u>
1	Airline Ticket Commission Litigation	1997	86.1	121.71
2	Auction Houses	2000/ 2003 ²⁰⁰	412/40	542.85/49.32
3	Ryan-House	2004	91.5	109.9
4	Automotive Refinishing Paint	2007	105.75	115.72
5	Buspirone	2003	220	271.28
6	Caldera, Inc. v. Microsoft Corp.	2000	275	362.34
7	Cardizem CD	2004	110	132.12

197. Average of 20% and 30%.

198. Plaintiffs' attorneys received 20% of their fee in coupons—the same percentage that class members got of their recovery in coupons.

199. Weighted Value Total (138078) divided by Case Award Total (9646) equals Weighted Average (14.31%).

200. *Auction Houses* included two classes which recovered in different years, a Domestic Class (2000) and a Foreign Class (2003).

8	Citric Acid	1997	86.2	121.86
9	Commercial Explosives	1998	113	157.29
10	Conwood Co. v. U.S. Tobacco, Co.	2000 or 2002 ²⁰¹	1050	1383.57 or 1324.25
11	Dynamic Random Access Memory	2007	326	356.73
12	Natural Gas Antitrust Cases	2003	551/876 ²⁰²	679.43/1080. 19
13	Flat Glass	2005	121.7	141.38
14	Fructose	2004	531	637.79
15	Graphite Electrodes	2003	47	57.96
16	IBM v. Microsoft	2005	775	900.35
17	Insurance	1995	36	53.6
18	Linerboard	2004	202.5	243.22
19	Amino Acid Lysine	1996/1997	45/5/15/15 ²⁰³	65.07/7.07/ 21.2/21.2
20	Microcrystalline Cellulose	2005/2003	25/25	29.04/ 30.83 ²⁰⁴
21	NASDAQ Market-Makers	1998	1027	1429.54
22	Law v. NCAA	2000	74.5	98.16
23	North Shore Hematology & Oncology	2004	50	60.06
24	Lease Oil	1999	193.5	263.52
25	Netscape Comm. Corp. v. Microsoft	2003	750	924.82
26	Oncology & Radiation Associates	2003	65.8	81.14

201. Conwood Co. had the trial in 2000, then an appeal and trebling in 2002, so we calculated both.

202. *Natural Gas Antitrust Cases* included \$551 million in cash and stock and \$876 in semi-annual cash.

203. Amino Acid Lysine had a class for major defendants (1996), a separate case for two defendants (1997), and then estimates for state opt-out plaintiffs and federal class opt-out payments (\$15 million each). See *Comparative Deterrence*, *supra* note 6 at tbl. 14. The \$15 million estimates are calculated based on 1997 dollars.

204. It was uncertain if these were two different recoveries, so both are included in the total.

27	Stop N Shop Supermarket Co.	2005	165	191.69
28	Polypropylene Carpet	2001	49.7	63.67
29	RealNetworks, Inc. v. Microsoft	2005	478 - 761	555.31 – 884.09
30	Red Eagle Resources	1993/ 1994 ²⁰⁵	45.4/8	71.29/12.25
31	Relafen	2004/ 2005 ²⁰⁶	175/75	210.19/87.13
32	Remeron	2005	75	87.13
33	Rubber Chemicals	2005/ 2006 ²⁰⁷	250.4/18.5	290.9/20.82
34	Sorbates Direct Purchaser	2002	96.5	121.71
35	Sun Microsystems v. Microsoft	2004	700	840.77
36	Terazosin Hydrochloride	2002	74.5	93.96
37	Transamerican Refining Corp	1992	50	80.86
38	Urethane	2006	73.3	82.49
39	Visa Check/ MasterMoney	2003	3383	4171.55
40	Vitamins	2003	4200 - 5600 ²⁰⁸	5178.99 – 6905.32
	TOTAL ²⁰⁹			22651.65 – 24766.08

205. *Red Eagle Resources* has two recovery amounts given and no explanation; they are added together in the total.

206. *Relafen* has an Direct class (2004) and an Indirect Class (2005).

207. *Rubber Chemicals* has recovery amounts for Bayer (2005) and Flexsys (2006).

208. *Vitamins* provided a conservative average of settlement dates.

209. The total is calculated first using all the lowest possible numbers where a range is given, then using the higher numbers.

Table A9: Recoveries for the Twenty Newly Studied Cases with a Criminal Penalty as Well

<u>Case</u>	<u>Recovery (\$ millions)</u>
AirCargo	278
De Beers	295
Electrical Carbon Fiber	30
Polyester Staple	61
Scrap Metal	34.5
Total	699

Table A10: Recoveries in the Twenty Newly Studied Cases Validated by Government Action

<u>Case</u>	<u>Validation of Merits in Government Action</u>	<u>Recovery (\$ millions)</u>
AirCargo	Guilty Pleas	278
De Beers	Guilty Plea	295
Electrical Carbon Fiber	Guilty Pleas	30
Intel	Settlement with FTC, EU Fine	1250
Mylan	Settlement with FTC	70
Novell v. Microsoft	EU Fine and Injunctive Relief	536
Polyester Staple	Guilty Pleas, Fines	61
Scrap Metal	Conviction, Guilty Pleas, Fines	34.5
Tricor	Settlement with State Attorneys General	316
Visa MC	DOJ won at trial and on appeal	6813
Total		9684

Table A11: Judges Presiding Over Twenty Newly Studied Private Cases by Appointing President²¹⁰

<u>Judge</u>	<u>Case</u>	<u>Nominated By</u>	<u>Political Party</u>
John Padova	3M	Bush	Republican
Gleeson	Air Cargo	Clinton	Democrat
Chesler	De Beers	Bush	Republican
Simandle	Electrical Carbon Fiber	Bush	Republican
Dorsey/ Underhill	EPDM	Reagan/ Clinton	Republican/ Democrat
Brieant	High Pressure Laminates	Nixon	Republican
Farnan	Intel v. AMD	Reagan	Republican
Henry Kennedy	MDL v. Hoffman	Clinton	Democrat
Breyer	Methionine	Clinton	Democrat
Magnuson	MSG	Reagan	Republican
Hogan	Mylan (Lorazepam & Clorazepate)	Reagan	Republican
Chesler	Ortho Biotech	Bush	Republican
Diamond	OSB	Bush	Republican
Voorhees	Polyester Staple	Reagan	Republican
Nugent	Scrap Metal	Clinton	Democrat
Osteen	Tobacco	Bush	Republican
Robinson	Tricor	Bush	Republican
Jones	Visa MC	Clinton	Democrat
Robinson	Warfarin	Bush	Republican
			Total Republicans: 14 Total Democrats: 6

210. See *Biographical Directory of Federal Judges*, FED. JUDICIAL CTR., <http://www.fjc.gov/history/home.nsf> (last visited Feb. 11, 2013).

Table A12: Summary of Kinds of Validation in Twenty Newly Studied Cases

<u>Kind of Validation of Merits</u>	<u>Number of Cases</u>
Criminal Penalty	5 out of 20 (25%)
Government Obtained Civil Relief	5 out of 20 (25%)
Ds Lost Trial in Same or Related Case	4 out of 20 (20%)
Ps Survived or Prevailed at Summary Judgment or Judgment as a Matter of Law	5 out of 20 (25%)
Ps Survived Motion to Dismiss	11 out of 20 (55%)
Class Certification for Litigation	11 out of 20 (55%)
At Least One Basis for Validation	19 out of 20 (95%)
At Least One Basis for Validation, Not Including Surviving Motion to Dismiss or Certification of Litigation Class	14 out of 20 (70%)

Table A13: Total Corporate Antitrust Fines 1990–2011²¹¹

<u>Year (Fiscal)</u>	<u>Total Corporate Fines (\$000)</u>
1990	22,658
1991	17,573
1992	22,430
1993	40,427
1994	38,996
1995	40,222
1996	25,245
1997	203,931

211. U.S. DEP'T OF JUSTICE, ANTITRUST DIV. WORKLOAD STATISTICS FY 1990–1999 12, available at <http://www.justice.gov/atr/public/246419.pdf> [hereinafter 1990–1999 WORKLOAD]; U.S. DEP'T OF JUSTICE, ANTITRUST DIV. WORKLOAD STATISTICS FY 2000–2009 13, available at <http://www.justice.gov/atr/public/281484.pdf> [hereinafter 2000–2009 WORKLOAD]; U.S. DEP'T OF JUSTICE, ANTITRUST DIV. WORKLOAD STATISTICS FY 2002–2011 11, available at <http://www.justice.gov/atr/public/workload-statistics.pdf> [hereinafter 2002–2011 WORKLOAD].

1998	241,645
1999	959,866
2000	303,241
2001	270,778
2002	93,826
2003	63,752
2004	140,586
2005	595,966
2006	469,805
2007	615,671
2008	695,042
2009	973,740
2010	338,645
2011	380,032
Total	6,554,077

Table A14: Total Individual Antitrust Fines 1990–2011²¹²

<u>Year (Fiscal)</u>	<u>Total Individual Fines (\$000)</u>
1990	917
1991	2,806
1992	1,275
1993	1,868
1994	1,240
1995	1,211
1996	1,572
1997	1,247
1998	2,499

212. 1990–1999 WORKLOAD, *supra* note 211, at 12; 2000–2009 WORKLOAD, *supra* note 211, at 13; 2002–2011 WORKLOAD, *supra* note 211, at 11.

1999	12,273
2000	5,180
2001	2,019
2002	8,685
2003	470
2004	644
2005	4,483
2006	3,650
2007	15,109
2008	1,485
2009	605
2010	4,373
2011	1,522
Total	75,133

Table A15: Total Restitution 1990–2011²¹³

<u>Year</u>	<u>Restitution Imposed in Connection with Criminal Antitrust Cases (\$000)</u>
1990	5,670
1991	3,185
1992	3,550
1993	950
1994	4,220
1995	1,200
1996	799
1997	275
1998	4,250
1999	2,343
2000	1,713
2001	31,083
2002	7,278
2003	15,545
2004	18,776
2005	10,371
2006	2,165
2007	4,790
2008	5,226
2009	17,060
2010	24,271
2011	6,377
Total	171,097

213. See 1990–1999 WORKLOAD, *supra* note 211, at 12; 2000–2009 WORKLOAD, *supra* note 211, at 13; 2002–2011 WORKLOAD, *supra* note 211, at 12.

Table A16: Total Incarceration 1990–2011²¹⁴

<u>Year</u>	<u>Incarceration: Number of Days of Prison Time Sentenced in Anti- trust Division Cases</u>
1990	2,739
1991	6,594
1992	2,488
1993	4,726
1994	1,497
1995	3,902
1996	2,431
1997	789
1998	1,301
1999	6,662
2000	5,584
2001	4,800
2002	10,501
2003	9,341
2004	7,334
2005	13,157
2006	5,383
2007	31,391
2008	14,331
2009	25,396
2010	26,046
2011	10,544
Total	196,937 196,937 ÷ 365.25 = 539.18 years

214. 1990–1999 WORKLOAD, *supra* note 211, at 13; 2000–2009 WORKLOAD, *supra* note 211, at 14; 2002–2011 WORKLOAD, *supra* note 211, at 12.

Table A17: Total of Non-Prison Confinement Days (e.g., House Arrest)
1990–2011²¹⁵

<u>Year</u>	<u>Number of Other Confinement Days Sentenced in Antitrust Division Cases</u>
1990	632
1991	1,519
1992	1,734
1993	3,552
1994	2,475
1995	2,933
1996	1,148
1997	1,270
1998	1,530
1999	2,850
2000	2,567
2001	1,844
2002	3,607
2003	1,025
2004	1,575
2005	1,270
2006	2,760
2007	1,085
2008	2,045
2009	2,195
2010	1,295
2011	2,075
Total	42,986 42986 ÷ 365.25 = 117.69 years

215. 1990–1999 WORKLOAD, *supra* note 211, at 13; 2000–2009 WORKLOAD, *supra* note 211, at 14; 2002–2011 WORKLOAD, *supra* note 211, at 12.

Table A18: Present Value (2011 dollars) of Financial Sanctions Imposed from 1990–2011

#	Year	<u>Sanction²¹⁶</u> <u>Amounts Before</u> <u>CPI (\$000)</u>	<u>2011 Dollars</u> <u>(CPI²¹⁷) (\$000)</u>
1	1990	31,079	53,488
2	1991	29,176	48,185
3	1992	29,805	46,631
4	1993	46,981	73,134
5	1994	46,936	71,240
6	1995	45,055	66,500
7	1996	30,760	44,099
8	1997	207,947	291,435
9	1998	253,392	349,679
10	1999	999,028	1,348,862
11	2000	320,494	418,650
12	2001	307,918	391,094
13	2002	127,159	158,994
14	2003	80,707	98,664
15	2004	161,244	192,007
16	2005	619,786	713,846
17	2006	482,920	538,827
18	2007	665,788	722,293
19	2008	704,723	736,263
20	2009	992,615	1,040,743
21	2010	376,035	387,905
22	2011	390,975	390,978
Totals		6,949,803	8,183,517

216. All data taken from *Comparative Deterrence*, *supra* note 6, Table 15, and updated by 2002–2011 WORKLOAD, *supra* note 211, at 11. These figures represent the combined totals of corporate antitrust fines, individual antitrust fines, and restitution from 1990–2007. The individual antitrust fines were tripled. For explanation, see *Comparative Deterrence*, *supra* note 6, at Section IV.

217. *CPI Inflation Calculator*, U.S. DEP'T OF LABOR, http://www.bls.gov/data/inflation_calculator.htm (last visited Feb. 11, 2013).