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# ROUNDTABLE ON THE QUANTIFICATION OF HARM TO COMPETITION BY NATIONAL COURTS AND COMPETITION AGENCIES

**-- Note by the Delegation of the United States --**

*This note is submitted by the delegation of the United States to the Competition Committee FOR DISCUSSION at its forthcoming meeting to be held on 16 February 2011.*

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**ROUNDTABLE ON THE QUANTIFICATION OF HARM TO COMPETITION BY NATIONAL COURTS AND COMPETITION AGENCIES**

**-- Note by the United States --**

1. This paper responds to the Chairman's invitation for written submissions. It discusses the role of quantification of harm in public and private enforcement of the U.S. antitrust laws, standing requirements for private plaintiffs, including causation and indirect injury issues, the types of injury that are compensable under U.S. law, methods for quantifying damages that have been used in U.S. courts, the pass-on defense, data availability issues, and the integration of economics into the legal process. It concludes with some views on the general experience of the Antitrust Division of the U.S. Department of Justice ("Division") and Federal Trade Commission ("FTC") (collectively "the agencies") in this area.

## 1. Role of quantification of harm to competition in public and private enforcement

2. To establish a violation of U.S. antitrust law, the plaintiff—whether the government or a private party—must show actual or threatened harm to the competitive process. Quantification is not required. To recover damages from an antitrust violation in federal court litigation, a plaintiff must quantify its injury, but damages actions are nearly always private, so the U.S. competition agencies normally are not required to quantify effects on competition as a part of enforcing the antitrust laws.[1]

3. In measuring overall agency performance (rather than in an enforcement context), however, the agencies do estimate savings to U.S. consumers from their antitrust enforcement. In connection with cartel enforcement, the Division estimates consumer savings as 10% of the annual U.S. sales in the relevant market, unless the cartel had a duration of less than a year, in which case the estimate is 10% of sales over the life of the cartel.[2] The 10% figure is a conservative estimate of the average price effect of cartels.[3] For horizontal merger enforcement, the agencies' estimate is generated by multiplying the annual U.S. sales in

1 The U.S. Department of Justice does some quantification of injury from cartel activity in determining fines. A provision of U.S. criminal law occasionally relied upon in cartel cases provides that "[i]f any person derives pecuniary gain from the offense, or if the offense results in pecuniary loss to a person other than the defendant, the defendant may be fined not more than the greater of twice the gross gain or twice the gross loss." *See* 18 U.S.C. § 3571(d). To avoid the complication of estimating gains or losses in each case, the base corporate fine for a criminal antitrust violation is set at 20% of the affected volume of commerce. *See* 1 U.S. SENTENCING COMMISSION, FEDERAL SENTENCING GUIDELINES MANUAL § 2R1.1(d)(1) (2010). The use of 20% was explained by the United States Sentencing Commission on the basis that the estimated average gain was about 10% of the volume of commerce, and the corresponding loss to victims was greater than the gain to the violators. *See id.* Application Note 2. The Guidelines favor requiring restitution, but the private damages actions discussed below compensate those injured by antitrust violations. Restitution, however, is a condition of acceptance into the Antitrust Division's leniency program. *See* Antitrust Division, U.S. Department of Justice, Corporate Leniency Policy A.5 (Aug. 10, 1993), *available at* http://www.justice.gov/atr/public/guidelines/0091.pdf.

2 Occasionally, the estimate is instead based on publicly available information about the actual price effect of a particular cartel.

3 *See, e.g.*, John M. Connor, *Price-Fixing Overcharges: Legal and Economic Evidence*, *in* 22 RESEARCH IN LAW AND ECONOMICS 59 (John B. Kirkwood, ed. 2007).

the relevant market by a prediction of the likely price increase the merger would have caused. For a relatively small number of mergers, such a prediction is made in the course of the investigation, but for a substantial majority of mergers, the prediction is made using a simple model of oligopoly and driven largely by market shares. For all other enforcement, the estimate used is 1% of the annual sales in the relevant market, unless the investigation itself generates a more precise estimate.

4. In the course of investigations of proposed mergers, the U.S. competition agencies often develop indications of likely harm, much as the consumer savings estimates are generated, and far more precise estimates sometimes are developed using the detailed evidence obtained in an investigation. In some cases, especially involving horizontal mergers, quantitative predictions of likely price effects are generated. This can be done using models of competitive interaction calibrated to fit the particular industry under investigation. It can also be done on the basis of an econometric analysis of the relationship between market structure and prices. In cases involving horizontal mergers, the U.S. competition agencies also quantify likely efficiencies (based on submissions of the merging parties) and assess whether they are of a type and magnitude such that they would prevent a net increase in price.

5. In the course of investigating a consummated merger – and such investigations are relatively uncommon -- the U.S. competition agencies sometimes conduct detailed statistical analyses of the effects the merger has had on prices.[4]

## 2. Standing to recover damages in private litigation

6. U.S. law provides that "any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue" in federal court and "recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee."[5] Another provision of U.S. antitrust law, referred to as the "statute of limitations," bars a damages action "unless commenced within four years after the cause of action accrued."[6] A cause of action might accrue immediately at the time of the violation,[7] but a cause of action has not yet accrued if the plaintiff's damages remain speculative because the market impact of the violation cannot yet be determined.[8] In addition, the four-year limitations

4 *See, e.g.*, Deborah Haas-Wilson & Christopher Garmon, *Two Hospital Mergers on Chicago's North Shore: A Retrospective Study*, INTERNATIONAL JOURNAL OF THE ECONOMICS OF BUSINESS (forthcoming).

5 This provision is in section 4 of the Clayton Act, 15 U.S.C. § 15, which replaced an almost identical provision contained in section 7 of the 1890 Sherman Act, 26 Stat. 210 (1890). The phrase "business or property" has been interpreted to include all "commercial interests or enterprises." Hawaii v. Standard Oil Co. of California, 405 U.S. 251, 264 (1972). Final consumers also can suffer injury to their "business or property." Reiter v. Sonotone Corp., 442 U.S. 330 (1979).

6 15 U.S.C. § 15b. This statute of limitations is unrelated to the five-year statute of limitations applicable in criminal cartel cases. 18 U.S.C. § 3282.

7 For example, a cause of action for injury from an allegedly unlawful merger normally accrues on the date of the merger. *See* Midwestern Machinery, Inc. v. Northwest Airlines, Inc., 392 F.3d 265, 269–76 (8th Cir. 2004); Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039, 1050–53 (8th Cir. 2000).

8 *See* Zenith Radio Corp. v. Hazeltine Research, Inc., 401 U.S. 321, 339 (1971) ("[R]efusal to award future profits as too speculative is equivalent to holding that no cause of action has yet accrued for any but those damages already suffered. In these instances, the cause of action for future damages, if they ever occur, will accrue only on the date they are suffered; thereafter the plaintiff may sue to recover them at any time within four years from the date they were inflicted."). Damages often are awarded on the basis of "predicted as distinct from realised losses due to the defendant's misconduct," and a plaintiff is not permitted to wait and see how things work out in the marketplace. *See* Brunswick Corp. v. Reigel Textile Corp., 752 F.2d 261, 271 (7th Cir. 1984). *See generally* Herbert J. Hovenkamp, A Primer on Antitrust Damages, at 24-27, University of Iowa Legal Studies Research Paper (Oct. 1, 2010), *available at*

period does not begin to run if the defendant's concealment efforts prevent discovery of the violation.[9] Finally, additional acts in furtherance of the violation can restart the four-year limitations period.[10]

7. As the Supreme Court observed in 1983 in *Associated General Contractors*: "A literal reading of the statute is broad enough to encompass every harm that can be attributed directly or indirectly to the consequences of an antitrust violation."[11] The Court, however, concluded that Congress' intent in enacting the statute was to import "well recognised principles of the common law," including those relating to damages actions.[12] The Court likened "the struggle of federal judges to articulate a precise test to determine whether a party injured by an antitrust violation may recover treble damages" to "the struggle of common-law judges to articulate a precise definition of the concept of 'proximate cause.'"[13] After noting that "the infinite variety of claims that may arise make it virtually impossible to announce a black-letter rule that will dictate the result in every case,"[14] the Court articulated and applied considerations that had been found important in prior cases. In determining whether a particular damages claim is within the scope of the law, lower courts continue to take guidance from this discussion.[15]

8. One consideration the Court cited was "the nature of the plaintiff's alleged injury."[16] The Court indicated that a key issue is "whether a claim rests at bottom on some abstract conception or speculative measure of harm."[17] Such claims present substantial doubt about whether the plaintiff actually suffered a pecuniary injury compensable under the antitrust laws and about the ability of the legal system to verify and quantify the injury.

9. A second consideration was "the chain of causation between the . . . injury and the alleged restraint," in particular "the directness or indirectness of the asserted injury."[18] The Court questioned granting a damages remedy for indirect injuries if there is "an identifiable class of persons whose self-

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http://ssrn.com/abstract=1685919, for a discussion of the accuracy required by the courts for measurement of damages.

9 *See, e.g.*, *In re* Copper Antitrust Litigation, 436 F.3d 782, 791 (7th Cir. 2006); Pinney Dock and Transport Co. v. Penn Central Corp., 838 F.2d 1445, 1465–80 (6d Cir. 1988). For a discussion of the extensive case law on the subject, see 1 ABA SECTION OF ANTITRUST LAW, ANTITRUST LAW DEVELOPMENTS 865–72 (6th ed. 2007); 2 PHILLIP E. AREEDA ET AL., ANTITRUST LAW ¶ 320e, at 318–23 (3d ed. 2007). To take advantage of this doctrine of "fraudulent concealment" a plaintiff must show it "neither knew nor, in the exercise of due diligence, could reasonably have known of the offense." Klehr v. A.O. Smith Corp., 521 U.S. 179, 195 (1997).

10 A new independent act, and not merely a reaffirmation of a previous act, is required to restart the limitations period. *See, e.g.*, Varner v. Peterson Farms, 371 F.3d 1011, 1019 (8th Cir. 2004); DXS, Inc. v. Siemens Medical Systems, Inc., 100 F.3d 462, 467–68 (6th Cir. 1996); Pace Industries, Inc. v. Three Phoenix Co., 813 F.2d 234, 237–39 (9th Cir. 1987).

11 Associated General Contractors of California, Inc. v. California State Council of Carpenters, 459 U.S. 519, 529 (1983).

12 *Id.* at 531–33.

13 *Id.* at 535–36.

14 *Id.* at 536.

15 What follows adopts the organisation of 2A PHILLIP E. AREEDA ET AL., ANTITRUST LAW ¶ 335d, at 66–70 (3d ed. 2007).

16 *Associated General Contractors*, 459 U.S. at 538.

17 *Id.* at 543 (quoting Blue Shield of Virginia v. McCready, 457 U.S. 465, 475 n.11 (1982)).

18 *Id.* at 540.

interest would normally motivate them to vindicate the public interest in antitrust enforcement."[19] The Court also observed that the "strong interest . . . in keeping the scope of complex antitrust trials within judicially manageable limits" militates against entertaining claims based on indirect injuries, as they present "either the risk of duplicate recoveries on the one hand, or the danger of complex apportionment of damages on the other."[20]

10. The Court noted two of its prior decisions avoiding complexities with damages claims involving alleged overcharges. In *Hanover Shoe*, the Court held that direct purchasers that paid overcharges as a consequence of the defendants' antitrust violation could recover the entire overcharge, even if some had been passed on to the plaintiffs' customers.[21] In *Illinois Brick*, the Court held that indirect purchasers could not recover overcharges passed on to them by the direct purchasers.[22]

11. The Court also referred to decisions limiting the permissible scope of damages claims in cases not involving alleged overcharges.[23] These decisions hold that antitrust law does not permit the recovery of damages for injuries that are remote from the antitrust violation. The remoteness doctrine bars a claim for damages not proximately caused by the alleged antitrust violation, in the specific sense that the injury complained of is derivative from that of another party closer to the violation. The doctrine bars, for example, damages claims by a company's employees, shareholders, and suppliers for injuries derived from injury to the company, even if the latter injury was directly caused by conduct violating the antitrust laws.[24]

12. The third consideration the Supreme Court cited was the plaintiff's marketplace relationship to the defendants and, consequently, whether the plaintiff "would be served or disserved by enhanced competition in the market."[25] The Court reaffirmed its *Brunswick* decision, which articulated the concept of *antitrust injury* as a prerequisite for maintaining an action for damages under the antitrust laws.[26] The plaintiff in that case alleged that the defendant's acquisition of the plaintiff's competitor violated the antitrust laws and was awarded damages based on the profits it would have earned had the acquired competitor shut its doors rather than been kept open by the defendant. The Supreme Court unanimously set aside the damage award on the basis that the plaintiff was not injured "by reason of anything forbidden in the antitrust laws," as the statute requires.[27] The Court held that plaintiffs in antitrust damages actions "must prove more than injury causally linked to" an antitrust violation; they must "prove *antitrust* injury, which is to say injury of a type the antitrust laws were intended to prevent and that flows from that which

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19 *Id.* at 542.

20 *Id.* at 543–44. In the most recent consideration of these issues by the Court, three Justices opined that an antitrust plaintiff lacked standing to sue for damages when "there is only an indirect relationship between the defendant's alleged misconduct and the plaintiff's asserted injury." Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 416–17 (2004) (Stevens, J., concurring). The remaining Justices found it unnecessary to address the plaintiff's standing. *See id.* at 416 n.5.

21 Hanover Shoe, Inc. v. United Shoe Machinery Corp., 392 U.S. 481 (1968).

22 Illinois Brick Co. v. Illinois, 431 U.S. 720 (1977). Damages claims can be filed under both federal and state law, and many of the states permit indirect purchasers to recover damages even though they cannot under federal law.

23 *Associated General Contractors*, 459 U.S. at 533–34 (citing Southern Pacific Co. v. Darnell-Taenzer Lumber Co., 245 U.S. 531, 533 (1918); and Loeb v. Eastman Kodak Co., 183 F. 704, 709 (3d Cir. 1910)).

24 *See* 2A PHILLIP E. AREEDA ET AL., ANTITRUST LAW ¶¶ 350, 352–53, at 233–48, 253–68 (3d ed. 2007).

25 *Associated General Contractors*, 459 U.S. at 538–39.

26 Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477 (1977).

27 *Id.* at 488.

makes the defendants' acts unlawful. The injury should reflect the anticompetitive effect either of the violation or of anticompetitive acts made possible by the violation."[28]

13. The antitrust injury requirement is quite important in private antitrust litigation. Defendants frequently seek dismissal of antitrust suits on the basis that the plaintiff failed to plead injury not only to itself but also to competition, and such motions commonly are granted.[29] In *Atlantic Richfield*, the Supreme Court rejected the argument that antitrust injury can be presumed, or need not be shown, when per se illegal conduct by the defendant directly injures the plaintiff.[30] The plaintiff was an independent gasoline retailer that competed with gas stations owned by the defendant and with stations franchised by the defendant. The defendant allegedly cut wholesale prices and forced the pass through of the price cut in its franchised stations through a per se illegal maximum resale price maintenance agreement.[31] The Court concluded that the plaintiff was seeking to recover for losses from intensified competition and that such losses do not constitute antitrust injury.[32] The Court observed that injury from the low prices charged by a competitor is antitrust injury only if those prices are predatory.[33]

### 3. Compensable injuries

14. More than a century ago, the first private U.S. damages action associated with cartel activity resulted in damages for overcharges.[34] The amount of damages was determined by multiplying the quantity the plaintiff purchased by the "estimated difference between the just and fair market price of the goods and the price actually paid."[35] The "general principle that the victim of an overcharge is damaged within the meaning of [the antitrust laws] to the extent of that overcharge"[36] is now firmly ingrained in U.S. antitrust law.

15. This general principle has profound implications that distinguish the legal construct of overcharge damages from the economic effects of antitrust violations. The differences are clear in the important scenario of a cartel selling to manufacturers that then sell to final consumers. The manufacturers might be able to sue for lost profits, but in practice, they always sue for overcharges, and the manufacturers' overcharge damages differ in fundamental ways from their lost profits.

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28 *Id.* at 489. Subsequently, the Court confirmed that a "showing of antitrust injury is necessary" to maintain an antitrust damages claim. Cargill, Inc. v. Monfort of Colorado, Inc., 479 U.S. 104, 110 n.5 (1986). The same decision held that the antitrust injury requirement also applies when only an injunction is sought.

29 Recent cases in which the dismissal was affirmed on appeal include: Warrior Sports, Inc. v. NCAA, 623 F.3d 281, 286 (6th Cir. 2010); Race Tires America, Inc. v. Hoosier Racing Tire Corp., 614 F.3d 57, 83–84 (3d Cir. 2010); Jebaco, Inc. v. Harrah's Operating Co., Inc., 587 F.3d 314, 318–22 (5th Cir. 2009); NicSand, Inc. v. 3M Co., 507 F.3d 442, 450–59 (6th Cir. 2007) (en banc).

30 Atlantic Richfield Co. v. USA Petroleum Co., 495 U.S. 328 (1990).

31 At the time, the arrangement was per se illegal pursuant to *Albrecht v. Herald Co.*, 390 U.S. 145 (1968). The *Albrecht* decision was later overruled by the Court in *State Oil Co. v. Khan*, 522 U.S. 3 (1997).

32 *Atlantic Richfield*, 495 U.S. 336–38.

33 *Id.* at 339–41.

34 City of Atlanta v. Chattanooga Foundry & Pipe Works, 101 F. 900 (C.C.E.D. Tenn. 1900), *aff'd*, 203 U.S. 390 (1906). In the case of a buyers' cartel, the action would be for underpayments rather than overcharges, and such damages actions certainly are permitted under U.S. law.

35 *City of Atlanta*, 101 F. at 901.

36 Hanover Shoe, Inc. v. United Shoe Machinery Corp., 392 U.S. 481, 491 (1968).

16. A host of factors determine the extent to which the cartel overcharge is passed on by the manufacturers, but as a matter of law, they suffer the full overcharge injury and recover the full overcharge damages.[37] Many of the same factors determine the extent to which the manufacturers lose profits on output no longer sold because their prices go up, but as a matter of law, no damage recovery is permitted for input purchases not made. The Supreme Court recognised that economic modeling makes possible, at least in theory, an accounting for all the relevant factors, but the Court perceived substantial difficulty in "measuring the relevant elasticities" and was unwilling to make the "drastic simplifications" economic modeling could require.[38] The Court also concluded that "the longstanding policy of encouraging vigorous private enforcement of the antitrust laws" was advanced by simplifying damages litigation and concentrating the recovery in the direct purchasers.[39]

17. An issue not entirely settled is whether "umbrella" damage claims are permitted in private litigation. Such claims arise, for example, when not all competitors in a market participate in a cartel. Non-participants can be expected to raise price under the umbrella of the cartel, and the customers of the non-participants accordingly are injured. The non-participants are not liable for damages, as they did not violate the antitrust laws, but claims could be made against cartel participants by all customers of the non-participants. Several decisions rejected such claims,[40] but other decisions are to the contrary.[41]

18. In exclusionary conduct cases (and potentially some other cases), damages claims seek lost profits. A firm driven from the market by exclusionary conduct is entitled to recover a reasonable estimate of the entire stream of profits it otherwise would have earned, including future profits. The firm must demonstrate "injury in fact," i.e., that it suffered injury, and the applicable standard of proof is that generally used in civil cases.[42] A plaintiff need not show that its injury was due solely to the alleged antitrust violation, but rather only that the antitrust violation was a material cause of the injury.[43] Courts describe the standard of proof for "injury in fact" as more rigorous than that for the amount of damages.[44] A plaintiff can be denied recovery if it is unable to "disaggregate" the damages by separating the impact of the practices found to violate the antitrust laws from the impacts of lawful competition and the plaintiff's own mismanagement or misfortune.[45]

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37 *Id.* at 494.

38 Illinois Brick Co. v. Illinois, 431 U.S. 720, 742 (1977).

39 *Id.* at 745–46.

40 *E.g.*, Mid-West Paper Products Co. v. Continental Group, Inc., 596 F.2d 573, 583-87 (3d Cir. 1979); *In re* Folding Carton Antitrust Litigation, 88 F.R.D. 211, 218–220 (N.D. Ill. 1980).

41 *E.g.*, *In re* Beef Industry Antitrust Litigation, 600 F.2d 1148, 1166 n.24 (5th Cir. 1979); *In re* Uranium Antitrust Litigation, 552 F. Supp. 517, 523–26 (N.D. Ill. 1982).

42 *See* Bigelow v. RKO Radio Pictures, Inc., 327 U.S. 251, 264–65 (1946) ("[T]he jury could conclude as a matter of just and reasonable inference from the proof of defendants' wrongful acts and their tendency to injure plaintiffs' business, and from the evidence of the decline in prices, profits and values, not shown to be attributable to other causes, that defendants' wrongful acts had caused damage to the plaintiffs.")

43 *See* Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 114 n.9 (1969) ("It is enough that the illegality is shown to be a material cause of the injury; a plaintiff need not exhaust all possible alternative sources of injury in fulfilling his burden of proving compensable injury . . . ."). An antitrust plaintiff has a duty to "mitigate" the damages by taking prudent steps to limit the impact of the defendant's unlawful conduct. *See, e.g.*, Pierce v. Ramsey Winch Co., 753 F.2d 416, 436 (5th Cir. 1985); Litton Systems, Inc. v. AT&T Co., 700 F.2d 785, 820 n.47 (2d Cir. 1983).

44 *See* J. Truett Payne Co. v. Chrysler Motors Corp., 451 U.S. 557, 565–67 (1981).

45 *See, e.g.*, Image Technical Services, Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1224 (9th Cir. 1997);

## 4. Methods for quantifying damages

19. Proof of damages in private litigation entails a comparison of the plaintiff's actual situation to what its situation would have been but for the unlawful conduct. The plaintiff's experts thus construct a but-for world to the extent required to make the relevant comparison. Little is required under U.S. antitrust law when the injury complained of is an overcharge—only estimating the but-for price. For example, in cartel cases the issue is what the defendants would have charged during the cartel period had they not engaged in cartel activity. Litigants are free to estimate the but-for price in any defensible manner they choose.

20. That estimate can be made in many ways, but most methods used in antitrust damages cases in the United States are forms of before-and-after comparison. Such a comparison could be as simple as comparing the average price paid by the plaintiffs during the cartel activity to the average price they paid before it began or after it ended. But prices are affected by many factors relating to conditions of demand and supply, so a comparison that simple likely would be rejected by a court for failing to account for any such factors.[46] To account for such factors, experts typically employ econometric methods.[47]

21. An example relates to a cartel in the supply of frozen perch filets to the U.S. Department of Defense.[48] Purchasing was done through auctions conducted roughly once a week, and a cartel among bidders allocated particular weeks to particular suppliers. To estimate the effect of the cartel on prices paid, the winning bid data were compiled from Defense Department data for the period of the conspiracy and for a year after it ended. To control for the effects of supply and demand conditions, data on fresh perch filets was compiled from public sources. Winning bid prices for frozen perch were then regressed on contemporaneous and lagged prices for fresh perch. Estimation of the cartel's effect was done in two ways. One way estimated a predictive regression equation with data from the cartel period and then forecast prices during the post-cartel period. The other way estimated a predictive regression equation with data for the post-cartel period, then "backcast" prices during the cartel period. Both methods found price effects from the cartel of roughly 20%.

22. If the product in question is simultaneously sold in different locations under both cartel and non-cartel conditions, a "difference-in-differences" estimate can be made by combining the information from price movements over time with the information from price differences across locations.[49] This has been done to estimate the price effects of consummated mergers.[50]

23. In one notable private damages litigation—involving the lysine cartel—neither of the opposing experts employed a before-and-after analysis. The plaintiffs' expert argued that, but for the cartel, the price

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City of Vernon v. Southern California Edison Co., 955 F.2d 1361, 1371–73 (9th Cir. 1992); Farley Transportation Co. v. Santa Fe Trail Transportation Co., 786 F.2d 1342, 1352 (9th Cir. 1985).

46 See the discussion below on the admissibility of expert opinions.

47 For detailed, but not excessively technical discussions, see ABA SECTION OF ANTITRUST LAW, PROVING ANTITRUST DAMAGES 130–74, 180–216 (2d ed. 2010); 2A PHILLIP E. AREEDA ET AL., ANTITRUST LAW ¶¶ 394–95, at 354–400 (3d ed. 2007); PETER DAVIS & ELIANA GARCÉS, QUANTITATIVE TECHNIQUES FOR COMPETITION AND ANTITRUST ANALYSIS 354–59 (2010).

48 *See* Luke M. Froeb, Robert A. Koyak & Gregory J. Werden, *What is the Effect of Bid-Rigging on Prices?*, 42 ECONOMICS LETTERS 419 (1993).

49 *See* ABA SECTION OF ANTITRUST LAW, *supra* note 49, at 174–76.

50 *See, e.g.*, Christopher T. Taylor & Daniel S Hosken, *The Economic Effects of the Marathon-Ashland Joint Venture: The Importance of Industry Supply Shocks and Vertical Market Structure*, 55 JOURNAL OF INDUSTRIAL ECONOMICS 1467 (2007).

would have been equal to marginal cost, and hence predicted the but-for price by estimating marginal cost.[51] The defendants' expert argued that the but-for price would have been well in excess of marginal cost and predicted the but-for price using a standard model of oligopoly.[52] Not surprisingly, the estimates differed substantially. Because the case was settled, we cannot know how a jury would have resolved the dispute.

24. Overcharge damages are sought in many private antitrust cases other than cartel cases, and can be estimated in similar ways in most such cases. However, some antitrust damage actions seek damages of a very different sort, as when the plaintiff alleges that the defendant's unlawful exclusionary conduct forced it out of business or otherwise unlawfully deprived it of profits. As the Supreme Court has observed, "[t]he vagaries of the marketplace usually deny us sure knowledge of what plaintiff's situation would have been in the absence of the defendant's antitrust violation."[53] Thus, the Court has instructed the lower courts to "observe the practical limits of the burden of proof which may be demanded of a treble-damage plaintiff who seeks recovery for injuries from a partial or total exclusion from a market; damage issues in these cases are rarely susceptible of the kind of concrete, detailed proof of injury which is available in other contexts."[54]

25. Damages litigation involving exclusionary conduct has produced little guidance on how lost profits should be estimated. The few cases litigated to judgment are nearly always tried to a jury, which does not produce any commentary on its assessment of damages. Damage awards in these cases have been appealed, but the decisions in those appeals have not articulated limiting principles. One observation from the litigated cases is that plaintiffs typically do not use econometrics or economic modeling to estimate lost profits damages,[55] but rather rely on financial analysis to project what their profits would have been.[56] Such projections can depend a great deal on assumptions regarding future marketplace success of the plaintiffs.

## 5. Pass-on defense

26. The pass-on defense has not been a significant issue in federal litigation in the United States for the last half century. In 1968 the Supreme Court almost entirely precluded this defense.[57] The case

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51 John M. Connor, *"Our Customers Are Our Enemies": The Lysine Cartel of 1992–1995*, 18 REVIEW OF INDUSTRIAL ORGANISATION 5 (2001).

52 Lawrence J. White, *Lysine and Price Fixing: How Long? How Severe?*, 18 REVIEW OF INDUSTRIAL ORGANISATION 23 (2001). For more on the use of models of competitive interaction to estimate but-for prices, see DAVIS & GARCÉS, *supra* note 49, at 353, 364–68.

53 J. Truett Payne Co. v. Chrysler Motors Corp., 451 U.S. 557, 566 (1981).

54 Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 123 (1969).

55 Econometrics was used, however, in one leading case. *See* Conwood Co., L.P. v. United States Tobacco Co., 290 F. 3d 768, 780 (6th Cir. 2002). The damage analysis employed by the plaintiff is discussed in detail and criticised by David H. Kaye, *The Dynamics of* Daubert: *Methodology, Conclusions, and Fit in Statistical and Econometric Studies*, 87 VIRGINIA LAW REVIEW 1933, 1988–2013 (2001); Motion for Leave to File Brief and Brief of Washington Legal Foundation, Stephen E. Fienberg, Franklin M. Fisher, Daniel L. Mcfadden, and Daniel L. Rubinfeld as *Amici Curiae* in Support of Petitioners, United States Tobacco v. Conwood Co., L.P. (No. 02-603), available at http://www.law.berkeley.edu/faculty/rubinfeldd/Profile/publications/rubinfeld_Daubert-Amicus%20Brief.pdf.

56 This analysis is described by ABA SECTION OF ANTITRUST LAW, *supra* note 49, at 89–124; Herbert J. Hovenkamp, A Primer on Antitrust Damages at 41–50, 52–56, University of Iowa Legal Studies Research Paper (Oct. 1, 2010), *available at* http://ssrn.com/abstract=1685919.

57 Hanover Shoe, Inc. v. United Shoe Machinery Corp., 392 U.S. 481 (1968).

concerned overcharges associated with unlawful monopolisation of machinery used to make shoes. The defendant argued that the plaintiff, which manufactured shoes using the machines, suffered no injury because the overcharge had been passed on through higher prices for shoes. The Supreme Court found exceedingly unlikely the prospect that a plaintiff paying an overcharge would suffer no injury at all, and the Court concluded that analysing pass-on would substantially complicate litigation. Consequently, as a general rule, the Court precluded a pass-on defense.

27. The Court entertained a possible exception to this rule in cases in which circumstances make it "easy to prove" the plaintiff "has not been damaged." The Court suggested that an exception might be made if the direct purchaser sold under a "pre-existing 'cost-plus' contract." In a subsequent case, however, the Court rejected making exceptions to the general rule for special cases, including a proposed exception when a regulated public utility passes on 100% of the overcharge.[58] The Court's reasoning in part was that total and immediate pass on is far from assured, so cases involving regulated utilities would involve the complexities it had sought to avoid. The Court again suggested an exception if the direct purchaser sold under a "pre-existing cost-plus contract."[59]

## 6. Data availability

28. The data used in damages cases comes from a variety of sources. The plaintiffs normally have data relating to their purchases, and they have access to various public sources. In addition, they can obtain any relevant data and documents in the possession of the defendants. So far as the U.S. competition agencies are aware, unavailability of data has not been a significant bar to damages recovery. One reason is that significant uncertainty as to the amount of the damages does not stand in the way of recovery: reasonable approximations are sufficient.[60] Long ago, the Supreme Court held that, "while the damages may not be determined by mere speculation or guess, it will be enough if the evidence show the extent of the damages as a matter of just and reasonable inference, although the result be only approximate. The wrongdoer is not entitled to complain that they cannot be measured with the exactness and precision ..."[61]

## 7. Integration of economics into the legal process

29. In antitrust damages litigation, both plaintiffs and defendants offer the opinions of experts, usually economists, who analyse the data and documents. The admissibility of expert opinions is subject to challenge under rules of evidence. Challenges to expert testimony in antitrust cases are common, and many have been successful.[62] Opinions on damages have been excluded because of serious defects in the underlying methodology and because of an apparent absence of any analytic basis for the opinion.[63] In one

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58 Kansas v. Utilicorp United Inc., 497 U.S. 199 (1990).

59 *Id.* at 218.

60 *See* Bigelow v. RKO Radio Pictures, Inc., 327 U.S. 251, 264 (1946) ("[T]he jury may make a just and reasonable estimate of the damage based on relevant data, and render its verdict accordingly. . . . Any other rule would enable the wrongdoer to profit by his wrongdoing at the expense of his victim.").

61 Story Parchment Co. v. Patterson Parchment Paper Co., 282 U.S. 555, 563 (1931).

62 *See generally* Gregory J. Werden, *The Admissibility of Expert Testimony*, *in* ABA SECTION OF ANTITRUST LAW, 1 ISSUES IN COMPETITION LAW AND POLICY 801 (W. Dale Collins ed., 2008).

63 *See, e.g.*, Craftsmen Limousine, Inc. v. Ford Motor Co., 363 F.3d 761, 776–77 (8th Cir. 2004); Blue Dane Simmental Corp. v. American Simmental Association, 178 F.3d 1035, 1040–41 (8th Cir. 1999); Freeland v. AT&T Corp., 238 F.R.D. 130, 143–49 (S.D.N.Y. 2006).

important case, the court of appeals set aside a large damage award on the basis that the expert testimony on which it was based was "not grounded in the economic reality" of the industry.[64]

## 8. General experience

30. In sum, no quantification of harm is needed to prove an antitrust violation under U.S. law. To recover damages, however, a plaintiff must quantify the injury suffered, and the courts have developed rules relating to standing, causation, timeliness (statute of limitations), types of injury that are compensable, and methods of proving injury. Economic experts are actively involved in the litigation of damages, and rules governing the admissibility of expert opinions ensure that only reasonably reliable methods are employed. Although the government can be a plaintiff in a damages action, the vast majority of such cases in the United States involve private parties, and these cases are very common and often successful. Between 1990 and 2007, plaintiffs recovered more than $18 billion in damages.[65]

64 *See* Concord Boat Corp. v. Brunswick Corp., 207 F.3d 1039, 1055–57, 1063 (8th Cir. 2000). The expert's model attributed to the challenged conduct all sales made by the defendant in excess of half of total market sales, even though the defendant made three-quarters of market sales before undertaking the challenged conduct.

65 *See* Robert H. Lande & Joshua P. Davis, *Benefits from Private Enforcement: An Analysis of Forty Cases*, 42 UNIVERSITY OF SAN FRANCISCO LAW REVIEW 879, 891–93 (2008).