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APPLE VS. PEPPER: RATIONALIZING ANTITRUST'S INDIRECT PURCHASER RULE

Herbert Hovenkamp*

In *Apple v. Pepper* the Supreme Court held that consumers who allegedly paid too much for apps sold on Apple's iStore because of an antitrust violation could sue Apple for damages because they were "direct purchasers."¹ The decision sidesteps most of the bizarre complexities that have resulted from the Supreme Court's 1977 decision in *Illinois Brick v. Illinois*, which held that indirect purchasers could not sue for passed-on overcharge injuries under the federal antitrust laws.²

The *Illinois Brick* decision itself was factually straightforward, although its reasoning was controversial. Makers of construction blocks fixed their prices and sold them to contractors who built buildings for the State of Illinois.³ No one seriously doubted that when a cartel sells something at a higher price to an intermediary that firm will pass on at least part of the price increase to its own customers, and so on down the line. The legal question was how the antitrust laws should recognize that fact in determining the right to collect damages. Purchaser damages in cartel cases are ordinarily measured by the amount of the price increase, or "overcharge." Roughly speaking, this is the difference between the actual cartel price and the

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¹ *Apple, Inc. v. Pepper*, 139 S. Ct. 1514 (2019).

² *Illinois Brick Co. v. Illinois* 431 U.S. 720 (1977). The decision was a logical complement to the Court's previous decision in *Hanover Shoe v. United Shoe Machinery corp.*, 392 U.S. 481 (1968), which held that a defendant could not have its damages reduced by the amount that the plaintiff passed on to its own customers. The *Illinois Brick* decision and its complex aftermath is analyzed in 2A PHILLIP E. AREEDA & HERBERT HOVENKAMP, *ANTITRUST LAW* ¶346 (4th ed. 2015).

³*Illinois Brick*, 431 U.S. at 726-747.

price that would have prevailed had there not been any price fixing. *Illinois Brick* held that the first purchaser in line, or the direct purchaser, should obtain the entire overcharge as damages, without any reduction for the amount that it had passed on to purchasers beneath it in the distribution chain. Accordingly, indirect purchasers would not be able to claim any damages, since they were already recovered in full by the direct purchaser. This rule, the Court noted, was not one of “standing” but rather of entitlement to damages.⁴

The Supreme Court recognized some qualifications, indicating that its concern was with the computation of passed-on damages. For example, purchasers under a pre-existing contract that fixed both the quantity and markup could obtain damages, for in such cases the entire overcharge was passed on.⁵ Other exceptions were not mentioned by the Supreme Court but flowed naturally from the Court’s focus on passed-on damages. For example, the lower courts have held that *Illinois Brick* does not preclude an action for an injunction, because no calculation of passed on damages is necessary.⁶ In its noneconomic

⁴ *Illinois Brick*, 431 U.S. at 718 n. 7:

Because we find *Hanover Shoe* dispositive here, we do not address the standing issue, except to note, as did the Court of Appeals below, that the question of which persons have been injured by an illegal overcharge for purposes of § 4 [of the Clayton Act] is analytically distinct from the question of which persons have sustained injuries too remote to give them standing to sue for damages under §4.

⁵ *See id.* at 736. *See also* *Hanover Shoe, Inc. v. United Shoe Mach. Corp.*, 392 U.S. 481, 494 (1968), which also recognized the exception; *and see* AREEDA AND HOVENKAMP, *supra* note __, ¶346e (discussing exception for pre-existing fixed-cost, fixed quantity contract).

⁶ *See, e.g.* *Warfarin Sodium Antitrust Litig.*, 214 F.3d 395 (3d Cir. 2000), *on remand*, 212 F.R.D. 231 (D. Del. 2002), *aff’d*, 391 F.3d 516 (3d Cir. 2004); *and see* 2A AREEDA AND HOVENKAMP, *supra* note __, ¶346d.

approach based on proximate cause, the *Apple* dissenters doubted standing for plaintiffs seeking only an injunction.⁷

The Supreme Court also held in *Kansas v. Utilicorp United, Inc.*,⁸ that the indirect purchaser rule applied even when the direct purchaser passed on 100% of its overcharge. The direct purchaser in that case was a price regulated utility which operated under a state statute that computed rates as including a 1-to-1 pass through of all variable costs. Indeed, as the dissenters pointed out, the state regulatory provision required complete pass through of the overcharge, which appeared as a surcharge on each customer's utility bill.⁹ Nevertheless, the Court concluded, the utility itself was the direct purchaser and the customers, who paid the entire overcharge, were merely indirect purchasers.¹⁰ Finally, about half of the states have either amended or interpreted their own antitrust statutes so as to permit indirect purchaser damages actions, and the Supreme Court has approved such provisions.¹¹

⁷*Apple*, 139 S.Ct. at 1525-1528 (Gorsuch, j., dissenting). See discussion *infra*, text at notes ___.

⁸ 497 U.S. 199 (1990). See also *Simon v. KeySpan Corp.*, 694 F.3d 196 (2d Cir. 2012), cert. denied, 133 S. Ct. 1998 (2013) (retail electric consumer complaining of price-fixing in wholesale electricity market was indirect purchaser)

⁹*Id.* at 222-223.

¹⁰ The decision rejected a carefully reasoned opinion by Judge Posner in a related case, who observed not only that there was perfect 100% pass through but also that there was almost no output reduction resulting from the price fix. See *State of Illinois ex rel. Hartigan v. Panhandle Eastern Pipe Line Co.*, 852 F.2d 891 (7th Cir. 1988). Cf. *Eastern Air Lines, Inc. v. Atl. Richfield Co.*, 609 F.2d 497 (Temp. Emer. Ct. App. 1979) (no passing-on defense for fuel supplier; quantity unspecified though price governed by pre-set formula).

¹¹ *California v. ARC Amer. Corp.*, 490 U.S. 93 (1989). For a comprehensive survey of state law indirect purchaser provisions, see 14 HERBERT HOVENKAMP, *ANTITRUST LAW* ¶2412d (4th ed. 2019).

The facts of *Apple v. Pepper* were more complex than those of *Illinois Brick*, and illustrate some of the difficulties that the courts have faced in applying the indirect purchaser rule. The owners of Apple's iPhones are very largely required to purchase programs, or "apps," on Apple's App Store, which is itself an app that can be found on the iPhone screen. Apple's App Store is thus a bottleneck through which the Apps producers must pass if they are to reach Apple iPhone users. In this consumer class action brought by iPhone owners, Apple was accused of monopolizing the market for Apple iPhone sales, both through this exclusivity requirement and by charging a very high commission of 30 percent of the App's sale price.¹² The margin was alleged to be extremely high in relation to cost, because Apple does very little in its role of distributor of these apps sold by others.

In this case, unlike *Illinois Brick*, the customers paid their money and purchased directly from Apple. "There is no intermediary in the distribution chain between Apple and the consumer."¹³ The Supreme Court majority found this to be "dispositive" of the result -- namely, that the plaintiffs paid their money directly to the defendants.

This would all seem clear enough were it not for the fact that in the forty-year history of *Illinois Brick* jurisprudence other courts had characterized this same problem differently. A case in point was *Ticketmaster*, which was very similar to *Apple*, although neither the district court nor either of the Supreme Court opinions in *Apple* discussed it. The Ninth Circuit had addressed it at some length.¹⁴ The

¹² *Apple*, 139 S.Ct. at 1518-1519.

¹³ *Id.* at 1521.

¹⁴ *Campos v. Ticketmaster Corp.*, 140 F.3d 1166 (8th Cir. 1998). For the Ninth Circuit's discussion of *Ticketmaster*, *see in re Apple Iphone Antitrust Litig.*, 846 F.3d 313, 323-325 (9th Cir. 2017). Other decisions raising similar issues include *McCarthy v. Recordex Serv.*, 80 F.3d 842 (3d Cir.), cert. denied, 519 U.S. 825 (1996) (alleged price fixing by photocopiers; lawyers who purchased the copies were the direct purchasers, even though they passed on the entire price to the clients, who were the plaintiffs); *Durkin v. Major League Baseball*, 85 F.3d 611, 1996-1 Trade Cas. ¶71,421 (3d Cir. Apr. 30, 1996, unpub.),

defendant, Ticketmaster, was accused of monopolizing event ticket sales. The purchasers were event goers who bought their tickets directly from Ticketmaster, paying high processing and handling fees. Ticketmaster itself set the final ticket price. The court held, however, that the concert promoters were direct purchasers of “ticket distribution services” from Ticketmaster,¹⁵ and that the actual ticket buyers were only indirect purchasers of these services. This was true, the court reasoned, because there was “an antecedent transaction between the monopolist and another, independent purchaser” that was in a position to absorb part or all of the overcharge.¹⁶ Significantly, the concert promoters behaved as most intermediaries behaved: they passed on Ticketmaster’s high markups by charging higher prices for the tickets. The final purchasers, who used the tickets, were the only ones unable to pass anything on.

Ticketmaster produces the perverse result that the buyer who is able to pass on all or part of the overcharge is treated as the direct purchaser and can sue for damages, while the buyer who is at the end of the line and must absorb the entire overcharge passed on to it has no damages claim, even though it purchased directly from the

cert. denied, 519 U.S. 825 (1996) (cable television subscribers were indirect purchasers with respect to their claim of price fixing among sports teams and cable channels and programmers when these prices were charged to local cable television companies and then passed on to subscribers); *Hyland v. Homeservices of Am., Inc.*, 2006 WL 3498569, 2006-2 Trade Cas. ¶75,517 (W.D. Ky. Dec. 1, 2006) (*Illinois Brick* barred challenge to real estate broker commission fixing brought by home buyers; in this case the commissions were paid by the home sellers, and any overcharge paid by buyers would have shown up only in higher purchase prices for homes). See also *ATM Fee Antitrust Litig.*, 686 F.3d 741 (9th Cir. 2012), cert. denied, 134 S. Ct. 257 (2013) (ATM machine operators allegedly fixed transaction fee prices and charged these to the banks, who passed them on 100% to the bank’s customers using the ATM card; nevertheless, the card users were found to be indirect purchasers).

¹⁵*Campos*, 140 F.3d at 1168-1169.

¹⁶See *iPhone*, 846 F.2d at 323, quoting *Ticketmaster*, 140 F.3d at 1169.

defendant. As in *Apple*, the consumers paid the violator directly, but the court found them to be “indirect” purchasers. The *Apple* decision effectively overruled *Ticketmaster sub silentio*. The majority created an apparently categorical rule that whoever pays the money directly to the defendant should be counted as the direct purchaser.

Illinois Brick’s indirect purchaser rule was problematic from the beginning, and for a number of reasons that the *Apple* majority did not address and certainly did not fix. *First*, it was plainly inconsistent with the antitrust damages statute, which gives an action to “any person who shall be injured in his business or property” by an antitrust violation.¹⁷ That hardly sounds like a limitation to direct purchasers.

Second, the *Illinois Brick* Court exaggerated the difficulty of “tracing” indirect purchaser damages. Computing how damages are passed on at each stage of a distribution chain requires “incidence” analysis, which economists use to compute how a tax or other expenditure is passed along through the economy. Indeed, the earliest explicit Supreme Court applications of economic analysis to a legal problem occurred in the 1920s and 1930s, and involved computation of how a tax might be passed on from one entity to another.¹⁸ The

¹⁷ 15 U.S.C. §15:

any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney’s fee....

¹⁸*E.g.*, *Indian Motorcycle Co. v. United States*, 283 U.S. 570, 581 & n.5 (1931) (incidence of a sales tax). The economist who contributed nearly all of the citations was Edwin R.A. Seligman. See EDWIN R.A. SELIGMAN, *THE SHIFTING AND INCIDENCE OF TAXATION* (New York: Macmillan, 1896; rev. ed. 1899); Seligman, *On the Shifting and Incidence of Taxation*, 7 PUB. AM. ECON. ASSN. 7, 119 (1892); Seligman, *The General Property Tax*, 5 POL. SCI. Q. 24 (1890); Seligman, *The Taxation of Corporations*, 5 POL. SCI. Q. 269, 438

Illinois Brick decision acknowledged its relevance,¹⁹ although later decisions held that the effect of the decision was to forbid the use of incidence analysis in the estimation of passed on antitrust damages.²⁰

To illustrate, if a farmer is taxed on wheat she may absorb part of that tax but pass a portion on to the wholesale bread baker, who may in turn pass some of it on to the grocer, who will then pass part of it on to the consumer. The technical quantification of pass-on is quite demanding, requiring determination of the elasticities of supply and demand facing each individual firms in the distribution chain.²¹ However, in most cases antitrust experts can assess damages without computing pass on.²² For example, under the “before and after” method the expert looks at a market just prior to the violation, just subsequent, or both, comparing prices during the violation and nonviolation periods. The “yardstick” method of estimating damages compares prices in the violation market with those in a similar “yardstick” market where the violation is thought not to be occurring. In both cases, one does not need to estimate pass on at each stage. Rather, the expert compares the price in the cartel market with the

(1890). On the use of early law and economics to deal with problems of tax incidence, *see* HERBERT HOVENKAMP, *THE OPENING OF AMERICAN LAW*, *supra* note __, Ch. 5.

¹⁹*Illinois Brick*, 431 U.S. at 741-742 n. 25.

²⁰*See, e.g., In re Brand Name Prescription Drugs Antitrust Litig.*, 123 F.3d 599, 606 (7th Cir. 1997) (*Illinois Brick* bars the use of incidence analysis in the computation of passed on damages); *in re Beef Indus. Antitrust Litig.*, 600 F.2d 1148, 1166 (5th Cir. 1979) (similar). *See* also Charles E. McLure, *Incidence Analysis and the Supreme Court: Examination of Four Cases from the 1980 Term*, 1 SUP. CT. ECON. REV. 69 (1982); Herbert Hovenkamp, *The Indirect Purchaser Rule and Cost-Plus Sales*, 103 HARV. L. REV. 1717, 1721 (1990).

²¹ *See* William M. Landes & Richard A. Posner, *Should Indirect Purchasers Have Standing to Sue Under the Antitrust Laws/ An Economic Analysis of the Rule of Illinois Brick*, 46 UNI. CHI. L. REV. 602 (1979).

²²*See* AREEDA & HOVENKAMP, *supra* note __, ¶346k.

price in some reasonably similar “yardstick” market that was not affected by the cartel.²³

For example, suppose that dairies are fixing prices, raising the wholesale price of milk from \$2.00 to \$3.00 per gallon. The milk is sold to distributors, who sell it to grocers, who finally sell it to consumers. Computing the amount passed on by each of these would be difficult. But suppose we can identify a “yardstick” market, similar to the cartel market but without price fixing. In that market the dairies’ wholesale price is \$2.00, as it should be. Ignoring the distributors and grocers, who are not parties, we also observe that retail prices in this competitive market are \$2.90, while retail prices in the cartel market are \$3.75. If consumers sue, we do not need to know how much of the overcharge was passed on at each level. These numbers tell us that although not all of the overcharge was passed on, consumers in the cartel market paid 85 cents more for their milk. This represents *their* overcharge, regardless of how much was absorbed at each link along the way.²⁴ Notably, these methodologies are frequently used for estimating overcharge damages under state antitrust laws, many of which permit indirect purchaser damages actions.²⁵ Courts have

²³Illustrating the methodology is *Greenhaw v. Lubbock Cnty. Beverage Ass’n*, 721 F.2d 1019, 1026 (5th Cir. 1983). See HERBERT HOVENKAMP, *FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE* §17.5b (6th ed. 2020) (in press).

²⁴*Ibid.* For a situation where computation of pass-on was not required, see *Drug Mart Pharmacy Corp. v. Am. Home Prods. Corp.*, 2002 WL 31528625, 2002-2 Trade Cas. ¶73,850 (E.D.N.Y. Aug. 21, 2002). The plaintiff pharmacies were indirect purchasers of pharmaceuticals complaining that a charge-back system effectively required them to pay more for pharmaceuticals than did favored purchasers, such as HMOs. The plaintiffs’ claimed injury was mainly loss in their ability to compete with the favored purchasers. In this case overcharge damages could be computed by comparing the net price paid by the pharmacies with that paid by other purchasers at the same distribution level; in any event, diversion of sales rather than the overcharge better captures the plaintiffs’ injuries).

²⁵ See discussion *supra*, text at notes ___.

approved these incidence-avoiding methodologies in such cases.²⁶ As one court observed, “the before-and-after ‘yardstick’ methodology has been accepted by courts as a means to measuring damages in both indirect and indirect purchaser antitrust actions.”²⁷

²⁶*E.g.*, *In re Terazosin Hydrochloride Antitrust Litigation*, 220 F.R.D. 672, 699 (S.D. Fla. 2004) (approving the methodology); *In re Flonase Antitrust Litig.*, 284 F.R.D. 207, 231-233 (E.D.Pa. 2012). *See also in re Class 8 Transmission Indirect Purchaser Antitrust Litigation*, 140 Supp.3d 339 (D. Del. 2015), *vacated on other grds.*, 679 Fed. Appx. 137 (3d Cir. 2017). *Cf. Melnick v. Microsoft*, 2001 WL 1012261 (Me. Sup. Ct. Aug. 24, 2001) (expressing doubt about the methodology when the defendant sold at a wide variety of prices).

²⁷*Flonase*, 284 F.R.D. at 233. *See also in re Asacol Antitrust Litig.*, 2017 WL 53695 (D. Ma. Jan. 4, 2017) (observing but not passing judgment on the plaintiff’s proposed methodology for estimating passed on damages):

According to the EPPs [“End Payor Plaintiffs,” or the last purchasers in line], they are not calculating “injury or damages by relying on a top-down vertical ‘pass-through’ economic analysis[.]” Rather, “EPPs will use a ‘yardstick’ damages and impact methodology to examine the retail price of the drugs EPPs were forced to purchase” in comparison “to the forecasted price (and volume) of the drug that should have been available but-for Defendants’ misconduct[.]”). *See also In re Cardizem CD Antitrust Litig.*, 200 F.R.D. 326, 344 (E.D. Mich. 2001) (court recognizes that indirect purchasers “intend to use a ‘bottom across’ approach which obviates the complexities Defendants cite in their ‘top down’ approach. ‘Bottom across’ means that the overcharge is determined by examining the price differential between the generic and the brand drug at the retail level only. Thus, there will be no need to review ‘pass-through’ variations.”). In short, under the plaintiffs’ legal theories, the defendants’ are seeking legally irrelevant information.

Third, if we were going to give the overcharge to a single set of buyers it should be the end users, not the direct purchasers. The end user is the only person in the distribution chain who is unable to pass anything on.²⁸ The impact varies from one situation to another, but in many cases the largest losses are those absorbed by end users, and often they absorb the entire overcharge. Many intermediaries use markup formulas that are standardized across products. Consider the dairy example. Suppose that the milk retailer is Kroger, which routinely computes a 10% markup on its dairy products. If it pays \$2.50 at wholesale in a competitive market it adds 10%, or 25 cents. However, if it pays \$3.50 it also adds 10%, which is now 35 cents. Instead of “absorbing” part of the overcharge, Kroger actually exacts a higher markup when the milk is price-fixed, reflecting its standardized percentage of the higher cartel price. The consumer gets hit even harder. However, the Supreme Court has applied the indirect purchaser rule even to situations, such as price regulated industries, where it is clear that pass through is 100%.²⁹

This is not to say that Kroger in the above example is not injured by the price fixing. Its injury results mainly from lost volume rather than the overcharge. Under collusion, sales volume goes down. This suggests an important principle: the real injury to direct purchasers and other intermediaries in the distribution chain is *not from the overcharge at all*; rather, it is from the loss of sales volume. As a result the “overcharge” is not even the theoretically correct measure of damages for an intermediary who passes on at least part of an overcharge.

If we really wanted to reward damages based on injury to a buyer’s business or property, as the statute requires, we would

See also Thomas A. Lambert, *Tweaking Antitrust’s Business Model*, 85 TEX. L. REV. 153, 187 (2006).

²⁸On this point, *see* 2A AREEDA & HOVENKAMP, ANTITRUST LAW, *supra* note __ at ¶346a,b,c, & k.

²⁹*E.g.*, *Kansas v. Utilicorp United, Inc.*, 497 U.S. 199 (1990). *See* discussion *supra* text at notes __.

compute damages as lost profits for all intermediaries, including the direct purchaser. Only the final purchaser, or consumer, should obtain damages for the amount of the overcharge passed on to it. Lost profit damages do not present problems of computing pass on. To be sure, in common with all commercial damages formulas they do impose some complexities, but these are not different in substance from those experienced by the victims of exclusionary practices generally.³⁰

While pass-on must be allocated individually for each successive link in the distribution chain, loss of output is often simpler because the same loss passes from one entity to the next. For example, if a cartel of wheat growers reduces output by thirty percent, wholesale bakers will bake 30% less bread and retailers will sell 30% fewer loaves. Of course, complexities in the distribution chain, including the ability of intermediaries to substitute, can complicate these numbers.

Finally, as the discussion of *Ticketmaster* indicates,³¹ the *Illinois Brick* rule is excessively subject to manipulation in complex distribution channels.

The *Apple* dissenters adopted a distinctively noneconomic approach that dispensed with the pass-on problem entirely. Indeed, they were not even concerned about who is injured. They reasoned that only the direct purchaser had an injury that was “proximately caused” by the defendant’s antitrust violation. This view harkens back to a nineteenth century tort law concept that was used by some courts to limit tort liability, particularly in railroad cases.³² Under this rule only a single entity could be said to have an injury that was

³⁰ On lost profit damages for exclusionary practices, see 2B PHILLIP E. AREEDA, HERBERT HOVENKAMP, ROGER D. BLAIR, & CHRISTINE PIETTE DURRANCE, *ANTITRUST LAW* ¶397 (4th ed. 2014).

³¹ See discussion *supra*, text at notes ____.

³² *E.g.*, *Stone v Boston & Albany RR*, 51 N.E. 1 (Ma. 1898); *Blythe v. Denver & Rio Grande Railway Co.*, 25 P. 702 (Colo. 1891); See HERBERT HOVENKAMP, *THE OPENING OF AMERICAN LAW: NEOCLASSICAL LEGAL THOUGHT, 1870-1970*, Ch. 6 (Oxford, 2015).

proximately caused by the defendant's conduct. That approach was rejected already by John Stuart Mill in the mid-nineteenth century and consistently rejected by marginalist economists thereafter.³³ In the legal system, it was properly abandoned in tort cases and should be laid to rest. It was very largely upended by the marginalist revolution in economics, which first provided serious tools to investigating how economic disruptions are passed through the economy.³⁴ It makes even less sense in antitrust cases.

Even on its own terms it seems hard to justify a conclusion that only the direct purchaser has an injury "proximately caused" by the violation when in many cases it suffered no overcharge injury at all.

Conclusion

Working within the context of the existing *Illinois Brick* rule, the majority reached the right conclusion about its application in *Apple v. Pepper*. While that eliminates some of the irrationalities of the indirect purchaser rule as it has been applied, it is hardly a solution to the problem. The correct solution is more consistent with the statutory "any person who shall be injured" language,³⁵ and it addresses a serious and widely recognized problem that the current policy toward price fixing is underdeterrent.³⁶ End user purchasers

³³ See JOHN STUART MILL, *A SYSTEM OF LOGIC, RATIOCINATIVE AND INDUCTIVE* 241, 378 (1843). A sharp debate ensued in the United States with Francis Wharton, an orthodox cleric who wrote on legal subjects and adhered to strictly pre-marginalist views. See FRANCIS WHARTON, *A SUGGESTION AS TO CAUSATION* (1874); FRANCIS WHARTON, *THE LIABILITY OF RAILWAY COMPANIES FOR REMOTE FIRES: PROXIMATE AND REMOTE CAUSE* 5, 17, 18 (1878).

³⁴ See HOVENKAMP, *OPENING*, *supra* note __ at Ch. 7.

³⁵ 15 U.S.C. §15. See discussion *supra*, text at notes __.

³⁶ See e.g., Louis Kaplow, *An Economic Approach to Price Fixing*, 77 *ANTITRUST L.J.* 343 (2011); Joseph E. Harrington, Jr. & Yanhao Wei, *What Can the Duration of Discovered Cartels Tell Us About the Duration of All Cartels?*, 127 *ECON. J.* 1977 (2017); John M. Connor & Robert H. Lande, *Cartels as Rational Business Strategy: Crime Pays*, 34 *CARDOZO L. REV.* 427, 435-42 (2012); John M.

who are not in a position to pass anything on should be awarded overcharge damages for the full overcharge they paid. All intermediaries beginning with the direct purchaser should be awarded damages for lost profits, which represents injuries from both absorbed overcharges and loss of sales that always accompany collusion. None of these recoveries is “duplicative,” and none require complex apportioning of pass-ed on damages.

Connor, *Price-Fixing Overcharges: Legal and Economic Evidence*, 22 RES. L. & ECON. 59 (2007); Gregory J. Werden, *Sanctioning Cartel Activity: Let the Punishment Fit the Crime*, EUR. COMP. J. 19 (2009); OECD, CARTEL SANCTIONS AGAINST INDIVIDUALS (2003). Peter G. Bryant & E. Woodrow Eckard, *Price Fixing: The Probability of Getting Caught*, 73 REV. ECON. & STAT. 531 (1991); see also HOVENKAMP, FEDERAL ANTITRUST POLICY, *supra* note ___, Chs. 4, 17.