

THE *ILLINOIS BRICK* DAMAGES EDIFICE: DEMOLITION OR DECONSTRUCTION?

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When a young economist is introduced to the world of litigation consulting, among the first overarching legal principles she learns is that the purpose of compensatory damages, given that liability has been established, is to return the plaintiff to the economic position it would have been in absent the defendant's unlawful conduct.¹ The compensatory principle appeals to economists, who have a long tradition built around the welfare economics notions of "compensating variation" and "equivalent variation"—measures of the change in an individual's income needed to maintain a given utility level in the face of a change in the price or quality of one or more goods that the individual consumes.²

Later, however, when the eager young economist encounters antitrust litigation, and specifically the framework for calculating damages in a price-fixing case under Section 4 of the Clayton Act, confusion ensues. She is informed that, given the Supreme Court's *Illinois Brick* ruling, only direct purchasers are entitled to recover damages in such cases and that these damages take the form of overcharges on actual purchases.³ Indirect purchasers, including final consumers, are out of luck under federal law. But, the economist asks, how does denying damages to indirect purchasers square with the idea that compensatory damages should return injured parties to the position they would have been in absent the challenged conduct? Well, she is told, limiting damages to direct purchasers and basing direct purchaser damages on overcharges avoids duplicate recovery, saves courts from the complex task of determining the damages sustained by downstream entities in the distribution

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¹ Damage awards' dual roles of compensation and deterrence are discussed below.

² HAL R. VARIAN, *MICROECONOMIC ANALYSIS* 161 (3d ed. 1992).

³ *Illinois Brick Co. v. Illinois*, 431 U.S. 720, 728–29 (1977).

chain, and, by making antitrust litigation more effective, enhances deterrence.⁴ But, the economist points out, the overcharge may not be a good measure of the economic injury the direct purchaser actually sustained, a further apparent departure from compensatory damages.⁵ Yes, the economist is told, but overcharge damages give direct purchasers a stronger incentive to sue and, anyway, do not worry about indirect purchasers because a number of states have enacted “*Illinois Brick* repealer” laws or otherwise allowed indirect purchasers in those states to recover damages.⁶ At this point, the young economist is likely to decide that the framework for awarding damages in overcharge cases in the United States is something of a mess and not the result of a thoughtful, coherent design.

Economists are not alone in questioning how damages are calculated in overcharge cases. Legal scholars and practitioners have also been troubled by the divergence of the *Illinois Brick* framework from the compensatory principle, as well as the shortcomings of the defendant’s overcharge as an appropriate measure of the actual damages.⁷ These concerns are longstanding, dating back to the *Illinois Brick* decision itself, which was controversial when issued⁸ and motivated the enactment of overrides and other measures by state lawmakers.⁹

Despite various efforts to do away with *Illinois Brick*, its approach to how damages are calculated in overcharge cases survives to the current day.¹⁰ With the Supreme Court’s recent *Apple v. Pepper* decision, however, another door may have opened for reconsideration.¹¹ But, what should replace the *Illinois Brick* framework? And what would the implications of replacing it be?

Part I discusses what economics has to say about the economic losses sustained by downstream entities resulting from overcharges imposed by entities at the top of a distribution chain and how the economic losses caused by the

⁴ See, e.g., ABA SECTION OF ANTITRUST LAW, *INDIRECT PURCHASER LITIGATION HANDBOOK* 465–71 (2d ed. 2016).

⁵ To make matters worse, under *Hanover Shoe*, a defendant is prohibited from arguing that the overcharges overstate the direct purchaser’s economic losses because the direct purchaser passed on the overcharges to indirect purchasers. *Hanover Shoe, Inc. v. United Shoe Mach. Corp.*, 392 U.S. 481, 488–90 (1968).

⁶ ABA SECTION OF ANTITRUST LAW, *supra* note 4, at 23–25.

⁷ For recent expressions of these concerns, see Andrew I. Gavil, *Consumer Welfare Without Consumers? Illinois Brick After Apple v. Pepper*, 7 J. ANTITRUST ENFORCEMENT 447 (2019), and Herbert Hovenkamp, *Apple v. Pepper: Rationalizing Antitrust’s Indirect Purchaser Rule*, 120 COLUM. L. REV. FORUM 14 (2020).

⁸ Hovenkamp, *supra* note 7, at 14.

⁹ Gavil, *supra* note 7, at 450.

¹⁰ For example, in 2007, the Antitrust Modernization Commission proposed substantial changes to the way damages are calculated, including the overruling of *Illinois Brick*. ANTITRUST MODERNIZATION COMM’N, *REPORT AND RECOMMENDATIONS* 267 (2007).

¹¹ Gavil, *supra* note 7, at 448–49.

overcharges compare to the overcharges themselves. An important takeaway is that, in realistic settings, economic losses can diverge substantially from overcharges, and in either direction. A second important takeaway is that the extent to which the overcharge is passed on by an intermediary to its downstream customers is not a “summary statistic” for the economic losses sustained by the intermediary.

Part II describes how damages in overcharge cases are calculated under the existing legal framework and explores the implications of changing that framework so that damages align more closely with economic losses.

I. ECONOMIC LOSSES DUE TO AN OVERCHARGE

As noted above, this Part puts aside the existing legal framework and considers, from a purely economic point of view, the nature of the economic losses sustained by downstream entities as the result of overcharges attributable to an antitrust violation by one or more entities at the top of a distribution chain. Examples of antitrust violations that may lead to economic losses are a single firm that has engaged in monopolization or a firm that has conspired with its rivals to fix prices.

I use the term “economic losses” to mean the effect on a downstream entity’s financial position caused by the unlawful overcharges.¹² Thus, by definition, a damages award would be “compensatory” if it was equal to the downstream entity’s economic losses. Importantly, and as discussed below, the way that damages are calculated under the existing legal framework do not necessarily meet this definition.

The issues of concern arise when the defendants sell their products into distribution chains that consist of one or more intermediary entities as well as a “final purchaser.” The first entity in the distribution chain is termed the “direct purchaser.” This is the entity that purchases the product from the defendants at a price that includes an overcharge. The other entities in the distribution chain (including the final purchaser) are called “indirect purchasers.” A direct purchaser or an indirect purchaser may resell the product it purchased from the immediately upstream entity in largely unaltered form, such as a retailer (an indirect purchaser) who purchases a packaged consumer good from a wholesaler (the direct purchaser) and sells it to consumers. Alterna-

¹² Economics literature addressing similar issues includes Frank Verboven & Theon van Dijk, *Cartel Damages Claims and the Passing-On Defense*, 57 J. INDUS. ECON. 457 (2009); Leonardo J. Basso & Thomas W. Ross, *Measuring the True Harm from Price-Fixing to Both Direct and Indirect Purchasers*, 58 J. INDUS. ECON. 895 (2010); George Kosicki & Miles B. Cahill, *Economics of Cost Pass Through and Damages in Indirect Purchaser Antitrust Cases*, 51 ANTI-TRUST BULL. 599 (2006); Martin Hellwig, *Private Damage Claims and the Passing-On Defense in Horizontal Price-Fixing Cases: An Economist’s Perspective* (Sept. 2006) (unpublished manuscript), papers.ssrn.com/sol3/papers.cfm?abstract_id=936153.

tively, a direct purchaser or indirect purchaser may incorporate the product it purchases from the upstream entity as a component in the product it sells downstream, such as a personal computer manufacturer (a direct purchaser) that incorporates a semiconductor product into a personal computer that is then sold to retailers (indirect purchasers). I discuss the economic losses to direct purchasers, other intermediaries, and final purchasers that flow from an overcharge imposed at the top of the distribution chain.

A. DIRECT PURCHASERS

From an economist's point of view, the economic losses sustained by a firm due to an overcharge (or, for that matter, any other unlawful conduct) are its "lost profits," or the difference between the firm's profits in the "but-for" world absent the conduct and the firm's profits in the actual world where it was adversely affected by the conduct.¹³ Assuming the existence of an overcharge to a direct purchaser, I consider the effect this overcharge has on the direct purchaser's profits.

Consider a simple example of a direct purchaser that buys from members of the cartel and sells its own product as a monopolist to downstream final purchasers.¹⁴ The direct purchaser has a marginal cost per unit that is constant regardless of output level and is a function of the prices of the inputs to production, which include the cartelized input as well as other inputs. In that case, the profits of the direct purchaser are equal to its margin of price over marginal cost multiplied by its output, or, $(p - c)Q$, where p is the price charged by the direct purchaser to final purchasers, c is the direct purchaser's marginal cost, and Q is the direct purchaser's quantity sales.¹⁵

Suppose that in the but-for world without an overcharge the direct purchaser's marginal cost was c_{BF} . Given this marginal cost and the demand curve it faced, the direct purchaser would have set its price at p_{BF} and sold quantity Q_{BF} . Thus, its profits would have been $(p_{BF} - c_{BF})Q_{BF}$ in the but-for world. In the actual world, the direct purchaser paid an overcharge for the cartelized input equal to the difference between the price charged to the direct purchaser by the cartel members and the price that would have been charged in the but-for world without the cartel. The direct purchaser's actual profits can be written as $(p_A - c_A)Q_A$. Initially, consider the stylized (and thus generally unrealistic scenario) in which the direct purchaser makes no changes to its own business

¹³ Mark A. Allen, Robert E. Hall & Victoria A. Lazear, *Reference Guide on Estimation of Economic Damages*, in FED. JUD. CTR. & NAT'L RSCH. COUNCIL, REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 425, 440-43 (3d ed. 2011).

¹⁴ Assuming a longer distribution chain with more intermediaries would increase the complexity of the example but offer little increased insight for the purposes of this discussion.

¹⁵ Fixed costs are ignored because they do not play a role in the example.

decisions in response to the overcharge (i.e., it maintains the same price and purchases the same amount of the cartelized input). In that case, the only effect of the overcharge is to increase the direct purchaser's marginal cost.¹⁶ In that case, we can substitute $p_A = p_{BF}$ and $Q_A = Q_{BF}$ in the actual profits formula, yielding $(p_A - c_A)Q_A = (p_{BF} - c_{BF} - \delta)Q_{BF}$, where δ is the overcharge on the cartelized input.¹⁷ Lost profits, or the difference between actual profits and but-for profits, are equal to $\delta \cdot Q_A$, the per unit overcharge multiplied by the number of units of cartelized input purchased. By maintaining its price and output, the direct purchaser entirely absorbs the overcharge—there is zero pass-on of the overcharge to the direct purchaser's price. Final consumers sustain no economic loss in this case because both the price they pay to the direct purchaser and the amount of product they purchase are the same in the actual world as in the but-for world. Note that lost profits, which I will refer to as LP, are equal in this example to the “overcharges,” which I will refer to as OC.¹⁸ More generally, when the direct purchaser completely absorbs the overcharge and its quantity is the same in the actual world as it would have been in the but-for world, $LP = OC$.

However, absorbing the overcharge is not profit-maximizing for the direct purchaser in general, and, in particular, in the example here in which the direct purchaser is a monopolist. Rather, the direct purchaser can take actions in response to the overcharge that result in (weakly) greater profits in the actual world than if it made no changes to its business decisions and just absorbed the overcharge. First, to the extent that the direct purchaser can engage in input substitution in the production of its product, it could substitute away from the cartelized input and toward other inputs. The profit-maximizing choice of input mix when the cartelized input price is at its but-for level in general is no longer profit-maximizing when the cartelized input price is at its higher actual level. Even holding its price constant, the direct purchaser can decrease its marginal cost (and thus increase its profits) by shifting the input mix toward the other inputs. Second, the direct purchaser could increase the

¹⁶ This statement is based on the assumption that the cartel's unlawful conduct does not have other effects that shift the demand curve faced by the direct purchaser. This is more likely in the case, as assumed in this example, in which the direct purchaser is a downstream monopolist. It would also be the case if the direct purchaser had downstream rivals, but those rivals maintained their prices at the but-for level in the face of overcharges. Below, I discuss the more realistic case in which the direct purchaser has downstream rivals and those rivals adjust their prices in response to overcharges they faced as well as any strategic responses to the direct purchaser's actions.

¹⁷ The “units” of the cartelized input can be defined without loss of generality so that one defined “unit” of cartelized input is being used to produce one unit of direct purchaser output quantity.

¹⁸ I will generally use the term “the overcharge” to refer to the dollar amount by which the actual price exceeds the but-for price, while I will use the term “overcharges” to refer to the overcharge multiplied by the direct purchaser's quantity purchases from the defendant.

price it charges to final customers. Although it would lose some quantity as a result, depending on the elasticity of demand, the higher profit margin may more than offset the quantity loss in terms of profits.¹⁹

Moreover, relaxing the assumption that the direct purchaser is a monopolist in the downstream market and instead assuming that it has rivals in the downstream market that may or may not have been subject to overcharges themselves, the direct purchaser's quantity sales could change even if it chose to absorb the overcharge and maintain its price at the but-for level. For example, if the rivals were overcharged and passed on some of the overcharge to downstream customers, the direct purchaser's demand curve would shift outwards, increasing its quantity sales even if it absorbed the overcharge entirely. Thus, in addition to responding to the increase in its own marginal cost, the direct purchaser may respond to shifts in its demand curve caused by changes in the pricing of its rivals.

To keep the exposition simple, I will assume no input substitution is possible for the direct purchaser and focus on lost profits when the direct purchaser's price and quantity sales differ between the actual world and but-for world. The direct purchaser's lost profits can be written as:

$$\begin{aligned}
 LP &= (p_{BF} - c_{BF})Q_{BF} - (p_A - c_A)Q_A \\
 &= \left[1 - \frac{p_A - p_{BF}}{\delta} \right] \delta Q_A + (p_{BF} - c_{BF})(Q_{BF} - Q_A).
 \end{aligned}$$

The first term in the above equation is the lost profits associated with the per unit profit margin being different in the actual world than the but-for world. This term will be positive as long as the pass-on rate (the actual versus but-for difference in the downstream price $p_A - p_{BF}$ divided by the overcharge δ) is less than 100 percent. Note that the first term can be negative, if the direct purchaser's pass-on rate is greater than 100 percent. The second term is the lost profits associated with the direct purchaser's quantity sales being lower in the actual world than in the but-for world. The difference between the but-for and actual quantity sales can be affected by what happens downstream of the direct purchaser. For example, if the direct purchaser passes on part of the overcharge to the next intermediary, but that next intermediary absorbs all of the overcharge it received, the but-for and actual quantity sales could be the same and the second term could be zero. Also, as discussed above, the difference between the but-for and actual quantity sales will, in general, be affected by

¹⁹ The basic economic considerations are similar for a firm subject to exclusionary "raising rivals' costs" conduct by a competitor. Facing a higher cost for an input as a result of the competitor's conduct, the firm may attempt to minimize the impact on its profits by substituting away from the input or by increasing its price (which will result in quantity losses as long as demand is elastic to some extent).

what happens to the direct purchaser's rivals—whether they were overcharged, by how much, and how they respond to the overcharges.

To investigate the relationship between LP and OC, denote the pass-on rate by $\theta = \frac{p_A - p_{BF}}{\delta}$ and rearrange the lost profits formula to be

$$LP = \delta Q_A - \theta \delta Q_A + (p_{BF} - c_{BF}) (Q_{BF} - Q_A) = OC - \theta \delta Q_A + (p_{BF} - c_{BF}) (Q_{BF} - Q_A)$$

As discussed above, in the case of zero pass-on and no quantity change, lost profits damages and traditional overcharge damages are equal (i.e., LP = OC) because the second term is zero when $\theta = 0$ and the third term is zero when quantity is unchanged.²⁰ In general, however, LP diverges from OC. LP may be either smaller or larger than OC.

LP tends to be smaller than OC when the pass-on rate, θ , is relatively large and the quantity loss in the actual world compared to the but-for world is relatively small (in the extreme case where the overcharge is entirely passed through and there is no quantity loss, LP is zero). A scenario in which this can occur is when a group of direct purchasers compete among each other, the market demand is relatively inelastic in the relevant price range, and all the direct purchasers face similar overcharges. In that case, in equilibrium, each direct purchaser may pass on all or most of the overcharge but lose relatively few sales because its rivals have also increased their prices by similar amounts.²¹

Conversely, OC will tend to be smaller than LP when the pass-on rate is relatively small and the quantity loss in the actual world versus the but-for world is relatively large.²² A scenario in which this can occur is when the direct purchaser is a monopolist in the downstream market. Because a monopolist operates on the elastic part of the market demand curve, its quantity loss

²⁰ When the direct purchaser is a downstream monopolist, the direct purchaser's quantity being the same in the actual world as in the but-for world follows directly from zero pass-on (although absorbing the overcharge is likely not profit-maximizing for the direct purchaser). However, in the more general case, in which the direct purchaser faces rivals in the downstream market, the direct purchaser's quantity may be different in the actual world than in the but-for world even if it does not pass through any of the overcharge it faces.

²¹ Verboven & van Dijk, *supra* note 12, at 466 n.12 (making a similar point). The analysis becomes even more complex if the direct purchasers are heterogeneous, e.g., in their costs. In that case, the effects of the overcharge may vary across firms.

²² Returning briefly to the case in which the direct purchaser can substitute away from the cartelized input, the existence of such substitution can result in OC being less than LP. Consider the extreme case of a firm that entirely substitutes away from the cartelized input to a perfect substitute input that was priced above the but-for price of the cartelized input but below the actual price of the cartelized input. Such a firm is no longer, strictly speaking, a direct purchaser, and its OC would be calculated as zero given its lack of actual-world purchases. However, its LP is positive because it is paying more for the substitute input than it would have paid for the cartelized input in the but-for world.

will generally be large for a given amount of pass-on (whereas a group of competing direct purchasers may be operating on the inelastic part of the market demand curve).²³ Another situation in which OC can be smaller than LP is when a direct purchaser competes with rivals downstream but faces a larger overcharge than those rivals. For example, the rivals, but not the subject direct purchaser, may have potential alternative sources of supply for the input (e.g., captive supply); the cartel therefore may not be able to impose as large an overcharge on the rivals as on the subject direct purchaser. In this case, the direct purchaser may be limited in its ability to pass on the overcharge profitably, given that its downstream rivals do not face similar sized overcharges. Large pass-on may result in a direct purchaser losing a relatively large portion of its sales to its rivals.

It may be surprising, but LP can be negative—under certain conditions, a direct purchaser is better off with the overcharges than it would have been in the but-for world. This situation can occur, for example, when the direct purchaser competes with other direct purchasers in the downstream market but faces a smaller overcharge than its competitors.²⁴ Again, asymmetry in the overcharges across direct purchasers can occur, for example, when direct purchasers differ in their ability to substitute for the input sold by cartel members. If the direct purchaser faces a smaller overcharge than its competitors, its price increase may be greater than the overcharge it faces. The greater overcharges faced by the competitors, and their resulting increases in price, can soften the competitive constraint faced by the subject direct purchaser, allowing it to increase its price by more than its relatively small overcharge.²⁵ Moreover, the direct purchaser may achieve a greater share of the industry quantity sales and even a greater absolute level of quantity sales in the actual world than it would have had in the but-for world. With a higher margin of price over marginal cost (due to greater than 100 percent pass-on, greater sales, or both) in the actual world than in the but-for world, such a direct purchaser may earn greater profits as a result of the cartel. In this scenario, the

²³ In a theoretical setting, the profits lost to a monopolist direct purchaser will generally be bracketed below by the overcharge per unit multiplied by the *actual* purchases and above by the overcharge per unit multiplied by the *but-for* purchases. The overcharge per unit multiplied by the actual purchases understates lost profits because it does not take into account the lost profits associated with the decrease in sales compared to the but-for world. The overcharge per unit multiplied by the but-for purchases overstates lost profits because, as discussed in the text, it does not account for the direct purchaser's mitigating responses to the overcharge.

²⁴ More generally, a direct purchaser with greater flexibility to respond to an overcharge than its rivals may actually benefit from the unlawful conduct because the gain from taking sales away from competitors outweighs the loss of having to pay the overcharge.

²⁵ There is a sense in which this is not "pass-on of an overcharge," at least of the overcharge faced by this direct purchaser. It is better thought of as a strategic response to the lessening of rivals' competitiveness due to the overcharge they face. However, regardless of the label applied, this direct purchaser is better off as a result of the defendants' imposition of overcharges, despite being the recipient of an overcharge itself.

direct purchaser may prefer not to bring an action that would bring an end to the cartel, contrary to the underlying assumption of *Illinois Brick* that limiting the right to sue to direct purchasers heightens deterrence.²⁶

It is possible that LP can even be negative for all direct purchasers. For example, suppose there are two symmetric direct purchasers, each facing a constant elasticity demand curve and each receiving the same overcharge. For a given level of firm own elasticity of demand, as long as the cross-elasticity of demand between the two direct purchasers is sufficiently high (which implies that the market elasticity is sufficiently low), those purchasers pass the overcharge on at a high rate (greater than 100 percent) but lose relatively few sales (due to the low market elasticity). The result is higher profits in the actual world than in the but-for world.²⁷ Again, in this scenario, a direct purchaser may not have the incentive to bring an action, contrary to the underlying assumption of *Illinois Brick*.

To illustrate the various cases described above, I provide several numerical examples.²⁸ While these examples are highly stylized (e.g., do not account for real-world phenomena that might limit pass-on), the key takeaway is these examples demonstrate that a wide variety of results can be obtained under a range of reasonable assumptions.

I start with the case of a direct purchaser that sells as a monopolist in the downstream market. I assume a downstream demand curve of a particular type for which the direct purchaser finds it profit-maximizing to pass on 100 percent of the overcharge.²⁹ The results of a 10 percent overcharge being imposed on the direct purchaser with alternative assumptions about the market elasticity of demand are shown in Table 1.³⁰

²⁶ In principle, the direct purchaser would weigh the expected increased profits from a continuation of the cartel (if it did not bring an action) against the expected overcharge damages the direct purchaser could obtain from bringing an action (despite benefiting from the cartel). The direct purchaser's assessment of benefits would account for the uncertainties that would accompany each alternative. For example, even if the direct purchaser chose not to bring an action, the cartel could come to end for other reasons.

²⁷ Verboven & van Dijk, *supra* note 12, at 466 n.12 (making a similar point).

²⁸ For each example, I will assume that direct purchasers sell to final purchasers, that the direct purchasers use one unit of the cartelized input to produce one unit of the downstream product, and that direct purchasers have no marginal costs other than the purchase of the cartelized input.

²⁹ Specifically, I assume that the logarithm of quantity demanded is a linear function of price. A similar pattern of results as those shown in Table 1 would hold for the familiar case of linear demand where the level of the quantity demanded is a linear function of price.

³⁰ I assume the same initial price for the cartelized input for the two cases.

TABLE 1:
EFFECTS OF A 10% OVERCHARGE MONOPOLIST
DIRECT PURCHASER

	Market Elasticity	
	-1.5	-5
Direct Purchaser Lost Profits as a % of But-For Profits	5%	33%
Direct Purchaser Overcharges as a % of Lost Profits	98%	81%

With the lower market elasticity of demand of -1.5 , the direct purchaser loses only 5 percent of its but-for profits as a result of the 10 percent overcharge, and OC is very close to (98 percent of) LP. With the higher elasticity of demand of -5 , however, the direct purchaser loses about one-third of its but-for profits and OC is only 81 percent of LP. As noted above, for both values of the market elasticity, the direct purchaser passes on 100 percent of the overcharge. However, when the market elasticity is higher, the same amount of pass-on causes the direct purchaser to lose a larger percentage of its sales and thus a greater percentage of its but-for profits.³¹

Next, I consider the example of two direct purchasers who compete with differentiated products in the downstream market for final purchasers.³² The duopolists are assumed to be symmetric (pay the same input price, have the same demand function, and face the same overcharge). In addition, at their but-for prices, the direct purchasers are assumed to be operating in the inelastic portion of the market demand curve (specifically, the market elasticity is assumed to be -0.6 at the but-for prices). The outcome of a 10 percent overcharge imposed on both direct purchasers is summarized in Table 2.

TABLE 2:
EFFECT OF A 10% OVERCHARGE SYMMETRIC
DUOPOLIST DIRECT PURCHASERS

Each Direct Purchaser's Lost Profits as a % of But-For Profits	2%
Each Direct Purchaser's Overcharges as a % of Lost Profits	248%

³¹ This outcome is the result of two effects. First, because the but-for downstream price is lower with the higher market elasticity of demand (the direct purchaser earns a thinner margin over the cost of the input, which is assumed to be the same in both cases), the same amount of passed-on overcharge has a larger percentage effect on the downstream price, which then causes a larger decrease in quantity. This effect is compounded by the larger market elasticity itself.

³² The logarithm of quantity demanded for each direct purchaser 1's product is assumed to be a linear function of its own price and the price of the other direct purchaser. The two direct purchasers are assumed to be symmetric. The equilibrium concept is Nash in prices.

Given the symmetry and inelastic market demand, when the direct purchasers pass on 100 percent of the overcharge (again, an implication of the assumed demand curve), they each lose relatively few sales. As a consequence, the profits they lose are only a small percentage (2 percent) of their but-for profits. Notably, OC substantially overstates the direct purchasers' economic losses by about 2.5 times.

I next change the preceding example in only one respect: direct purchaser 1 receives an overcharge of 10 percent, but direct purchaser 2 receives a lower overcharge of only 5 percent. The results for this case are shown in Table 3.

TABLE 3:
EFFECT OF ASYMMETRIC OVERCHARGES DUOPOLIST
DIRECT PURCHASERS

	Direct Purchaser 1	Direct Purchaser 2
Overcharge Received	10%	5%
Quantity % Change	-3%	1%
Lost Profits as a % of But-For Profits	3%	-1%
Overcharges as a % of Lost Profits	140%	-501%

In this example, direct purchaser 1 increases its price by more than direct purchaser 2 because it received a greater overcharge. As a result, some sales switch from direct purchaser 1 to direct purchaser 2. In fact, direct purchaser 2's sales gain at the expense of direct purchaser 1 more than offsets the sales it loses from raising its own downstream price. With its net sales gain (of 1 percent) and the 100 percent pass on (again, as a result of the assumed demand curve), direct purchaser 2 is better off with the overcharges than it would have been in the but-for world. In other words, its lost profits are negative. Direct purchaser 1, on the other hand, is worse off, although as in the previous example, its lost profits are substantially less than its overcharges.

In the last example, I consider the case of two direct purchasers that compete with differentiated products in the downstream market, where each uses a "percentage markup on cost" model of downstream pricing and are otherwise symmetric.³³ In particular, I assume that both direct purchasers set their price equal to a 20 percent markup over the input cost. One feature of this model is that the pass-on rate is more than 100 percent; that is, the change in downstream price as a result of the overcharge exceeds the amount of the over-

³³ This corresponds to each direct purchaser facing a constant elasticity demand curve.

charge.³⁴ In this case, it is possible for the overcharge to make both direct purchasers better off if the market elasticity of demand is sufficiently low. Here, I assume a market elasticity of -0.6 . The results are shown in Table 4.

TABLE 4:
EFFECT OF A 10% OVERCHARGE DUOPOLIST DIRECT
PURCHASERS CONSTANT MARKUP PRICING

	Direct Purchaser 1	Direct Purchaser 2
Overcharge Received	10%	10%
Quantity % Change	-5%	-5%
Lost Profits as a % of But-For Profits	-5%	-5%
Overcharges as a % of Lost Profits	-1056%	-1056%

While both direct purchasers lose about 5 percent of sales, their margin per unit increases sufficiently (given that their downstream prices increase by more than the overcharge) to offset the sales loss, leaving them better off with the overcharges than in the but-for world, i.e., with negative lost profits.³⁵ The overcharges they pay are not even the same sign as their lost profits, let alone the same magnitude.

In conclusion, the economic losses to a direct purchaser resulting from an anticompetitive overcharge depend on much more than the extent to which the direct purchaser passed the overcharge on to indirect purchasers. As a general matter, the economic losses depend on the direct purchaser's ability to substitute away from the overcharged input and the nature of demand, as well as the overcharges faced by its rivals and the rivals' responses to those overcharges. Even with complete pass-on and a monopoly in the downstream market, a direct purchaser can sustain economic losses because it makes fewer sales at the higher downstream price. This is why a singular focus on the extent of pass-on of the overcharge can be highly misleading as to the direct purchaser's economic losses. Moreover, a direct purchaser's economic losses may either exceed or be less than the overcharges it paid, again depending on its economic circumstances.

³⁴ For example, if the direct purchaser sets its downstream price by marking up 20% over the input price, a \$1 increase in the input price will result in a \$1.20 increase in the downstream price.

³⁵ This outcome depends on the market elasticity of demand being sufficiently low. If it is higher, the direct purchasers may lose enough sales to result in lower profits.

B. OTHER INTERMEDIARIES

As defined above, “other intermediaries” are entities in the distribution chain between direct purchasers and final purchasers. In this section, I will again put aside the existing legal framework and discuss, from an economics point of view, the economic losses an “other intermediary” sustains as the result of an overcharge to the direct purchaser.

Using the notation from the previous section, the overcharge paid by the second intermediary (i.e., the amount of the defendant’s overcharge passed through to the second intermediary by the direct purchaser) is $\theta\delta$ and its overcharges are $\theta\delta Q_A$. The overcharges “absorbed” by the second intermediary, on the other hand, are³⁶

$$\text{Absorbed OC} = [\theta\delta - (p_{2,A} - p_{2,BF})] Q_A$$

where $p_{2,A}$ and $p_{2,BF}$ are the actual and but-for prices charged by the second intermediary to the next level of the distribution chain.³⁷ Lost profits for the second intermediary are

$$LP = [1 - \mu] \theta\delta Q_A + (p_{BF} - c_{BF}) (Q_{BF} - Q_A)$$

where $\mu = \frac{p_{2,A} - p_{2,BF}}{\theta\delta}$ is the second intermediary’s pass-on rate (the amount of its downstream price increase divided by the overcharge it paid to the direct purchaser). Again, note that the second term may be zero if downstream intermediaries absorb the overcharge that the second intermediary passes through to the next level down.

The increased complexities for other intermediaries that concerned the *Illinois Brick* Court are apparent from these formulas. For each intermediary, the overcharges it paid depend on what happened with upstream intermediaries; the absorbed overcharges and lost profits depend not only on what happened with upstream intermediaries but also what happens downstream.³⁸ Absorbed

³⁶ I make the simplifying assumption, analogous to the one I made for direct purchasers, that the intermediary in question cannot substitute away from the input it is purchasing from the upstream entity in the distribution chain, i.e., that it is used in fixed proportions with other inputs in production. I further assume that one unit of the direct purchaser’s product is used to make the second intermediary’s product. As a result, the second intermediary’s quantity sales in the actual and but-for worlds are the same as the direct purchaser’s quantity sales in the actual and but-for worlds.

³⁷ As discussed below, under the existing legal framework, direct purchasers may seek damages equal to the overcharges they paid without any adjustment for pass-on or quantity effects. Under at least some state laws, intermediaries are subject to an adjustment for pass-on or “apportionment” of the overcharge. ABA SECTION OF ANTITRUST LAW, *supra* note 4, at 188–90.

³⁸ While the intermediary’s upstream and downstream price changes due to the anticompetitive conduct could be analyzed directly using, for example, a before-after analysis rather than tracing the overcharge through the distribution chain, in principle the economic factors affecting

OC is more complex than OC because of the pass-on adjustment. LP is more complex still.

In the extreme case in which the second intermediary completely absorbs the overcharge it received ($p_{2A} = p_{2BF}$), absorbed OC and LP are equal, as is the case for the direct purchaser. In the case in which the second intermediary practices 100 percent pass-on, however, absorbed OC is zero, while LP is still greater than zero as long as $Q_{BF} > Q_A$. As with a direct purchaser, LP for the second intermediary may be negative under certain conditions—such as 100 percent pass-on and $Q_{BF} < Q_A$, which could occur if the second intermediary's rivals make larger price adjustments in response to the overcharges, so that downstream demand shifted away from the rivals and toward the second intermediary.

C. FINAL PURCHASERS

In this section, again putting aside the existing legal framework, I discuss the economic losses sustained by final purchasers from overcharges imposed on direct purchasers. A final purchaser's economic losses stem from increases in the price it pays for the product that incorporates the defendant's product and any decrease in the consumption of this product. As noted above, economists have developed the "compensating variation" and "equivalent variation" concepts as measures of the income necessary to compensate an individual consumer for changes in the prices or qualities of goods and services. While profits are the natural metric by which to measure a firm's "well-being," "utility" is the metric economists use to measure the well-being of individual consumers. The compensating variation is defined as the income necessary to return an individual to the same level of utility as he or she would have achieved before the price changes to the products.³⁹

The compensating variation associated with the increase in the price to the final purchaser resulting from the defendant's upstream overcharge is an appropriate measure of the economic losses sustained by an individual final consumer. Calculating compensating variation exactly requires knowing the individual's utility function.⁴⁰

The overcharges paid by a final consumer are equal to the quantity purchased by the final consumer in the actual world, Q_A , multiplied by the portion

each level of the distribution chain would need to be taken into account in the before-after analysis.

³⁹ Equivalent variation is the income decrement necessary at the original prices/qualities to decrease utility to the same level as the individual would have achieved at the lower prices/qualities. VARIAN, *supra* note 2, at 161. Compensating and equivalent variation can also be used to evaluate the welfare effects of changes in product quality.

⁴⁰ *Id.*

of the overcharge to the direct purchaser that was passed on through the distribution chain. As a conceptual matter, the passed-on overcharge is equal to the overcharge to the direct purchaser multiplied by the pass-on rates of each of the intermediaries between the defendant and the final purchaser.⁴¹ For example, with a direct purchaser (whose pass-on rate is δ) and a second intermediary (whose pass-on rate is γ), the passed-through overcharge to the final purchaser would be $\gamma\theta\delta$. Thus, for the final purchaser, the overcharges are $OC = \gamma\theta\delta Q_A$. The compensating variation is greater than or equal to OC because the OC calculation does not account for the potential lost utility the individual would receive from consuming a greater quantity of the product at the lower price in the but-for world. Thus, OC would compensate the individual for having to pay more for the Q_A units purchased in the actual world but would not provide any compensation to the individual for forgoing consumption of $Q_{BF} - Q_A$ units in the actual world. The loss associated with lower consumption is sometimes referred to as harm to “allocative efficiency.”⁴²

Under certain circumstances, a business may qualify as a final purchaser rather than an intermediary. Specifically, if the cost of purchasing the direct purchaser’s product represents a fixed cost to the firm that does not affect the firm’s downstream pricing, the firm is a final purchaser as an economic matter.⁴³ For example, if the direct purchaser’s product is a piece of machinery that the firm uses in its production process, the cost of the machine is likely a fixed cost that does not affect the firm’s pricing decisions. In contrast, if the direct purchaser’s product represents a marginal cost to the firm that affects its downstream pricing (for example, a material used to produce the firm’s product), the firm is not the final purchaser that is affected by the cartel overcharge—the final purchaser would be an entity further downstream.⁴⁴ For a

⁴¹ In practice, it may be possible to measure the overcharge paid by the final purchaser directly, e.g., by using a before-after analysis of the price paid by the final purchaser, rather than separately measuring the extent of pass-on at each stage of the distribution chain. However, as noted above for other intermediaries, it is necessary in such an analysis to control for all factors at any stage of the distribution chain that would have affected the price the final purchaser paid.

⁴² See, e.g., Robert H. Lande, *New Options for State Indirect Purchaser Legislation: Protecting the Real Victims of Antitrust Violations*, 61 ALA. L. REV. 447, 489 (2010). Even if the lost units were replaced in whole or in part by units of other products, the consumer preferred the direct purchaser’s product to these replacement products, and thus the replacement in the actual world yields lower utility than the lost units of the direct purchaser’s product would have in the but-for world.

⁴³ This economic condition for being a final purchaser may not be consistent with the commonly used legal definition of a final purchaser as an entity that purchases the cartelized product for its own use and does not “resell” it. Even if not incorporated into the downstream product and resold, an input (e.g., fuel used in the production process) can contribute toward the downstream product’s marginal cost. Thus, an overcharge on the price of such an input (such as an overcharge) could affect entities further downstream.

⁴⁴ Of course, even if the direct purchaser’s product represents a marginal cost to the firm, the firm may not pass on any of the overcharge it paid and thus entities further downstream would not have been injured. In such a case, the firm is the last purchaser in the distribution chain that

firm that is a final purchaser, profits are the basis for determining economic losses from an economics point of view. The passed-on overcharges in the case with two intermediaries between the defendant and the final purchaser is again $OC = \gamma\theta\delta Q_A$. LP will be greater than OC to the extent that the firm has been able to substitute away from the direct purchaser's product toward another product. OC does not account for the firm having to pay a higher cost for the substituted units (and these units must be of higher cost or the firm would have made the substitution in the absence of the passed-on overcharge).

An approximation to the difference between compensating variation or lost profits and OC is $\frac{1}{2}\mu\theta\delta(Q_{BF}-Q_A)$. Note that for a small overcharge, which will yield a small difference between the actual and but-for quantities, this approximation involves multiplying a small number times a small number. For this reason, the approximation is referred to as a second-order effect and will generally be small relative to OC. However, it tends to become larger relative to OC as the overcharge becomes larger.

D. OTHER ISSUES

1. *Entities with Zero Purchases in the Actual World*

Some entities (either intermediaries or final purchasers) may have made purchases at the but-for price but chose not to make any purchases due to the overcharge. Such entities are not accounted for in the OC calculation (or, equivalently, are assigned zero OC because they have zero actual purchases) but are accounted for by the LP calculation. For example, to the extent an entity switched to a more costly alternative input in response to the overcharge on the cartelized input, the entity's lost profits caused by the switch properly would be included in LP.

2. *Pricing of Non-Defendants*

Rivals of the defendant, while not engaging in any anticompetitive conduct themselves, may increase their prices in response to the defendant's anticompetitive overcharges. This is often called "umbrella pricing." Direct purchasers purchasing from the defendants' rivals, and entities in the distribution chain below these direct purchasers, sustain economic losses from the um-

sustained an injury. The "final purchaser" could be defined to be the furthest downstream injured purchaser. However, in my view, it makes more sense for the definition to be based on the marginal versus fixed cost distinction rather than the incidence of injury.

rella pricing of the same type as that caused by the defendant's overcharges.⁴⁵

3. *Heterogeneity Among Entities*

The extent of an intermediary's economic losses can vary substantially depending on the economic conditions it faces.⁴⁶ For example, in a theoretical setting, the extent to which a monopolist intermediary loses profits as a result of an overcharge can vary widely depending on the nature of its demand curve and its input substitution possibilities. Similarly, in a theoretical setting, an oligopolist intermediary's economic losses varies depending on the overcharges imposed on its rivals, the nature of the demand curves faced by both the oligopolist and its rivals, and the input substitution possibilities available to the various firms. Real-world settings introduce further layers of complexity that can affect economic outcomes, including "menu" costs, pricing strategies, and long-term contracts.

4. *Total Downstream Economic Losses Compared to the Defendant's "Unjust Enrichment"*

For the purposes of evaluating deterrence, it is useful to compare the total economic losses caused by the defendant's anticompetitive conduct to the economic gains the defendant achieves from that conduct.⁴⁷ Borrowing from other areas of the law (as the term is less commonly used in antitrust), I refer to the defendant's gains as "unjust enrichment."⁴⁸

Total economic losses are obtained by summing across all downstream entities, i.e., the intermediaries (including direct purchasers) and the final purchasers. In a net calculation, this summation would be performed across all affected entities—including any entities that benefited from the overcharges;

⁴⁵ A legal controversy exists as to whether damages stemming from umbrella pricing are recoverable. *See, e.g., In re Am. Express Anti-Steering Rules Antitrust Litig.*, 19 F.4th 127 (2d Cir. 2021).

⁴⁶ *See, e.g.,* Fei Deng, John H. Johnson & Gregory K. Leonard, *Economic Analysis in Indirect Class Purchaser Class Actions*, ANTITRUST, Fall 2011, at 51.

⁴⁷ The use of penalties to deter anticompetitive conduct was explored in William M. Landes, *Optimal Sanctions for Antitrust Violations*, 50 U. CHI. L. REV. 652 (1983), which in turn built on the framework developed by Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968). Landes considered penalties in the case where the alleged horizontal conduct also had procompetitive effects, focusing on not deterring conduct for which the procompetitive effects exceeded the anticompetitive effects. In this article, I am concerned with the more commonly encountered case of "naked" cartels that do not generate any procompetitive effect.

⁴⁸ Some states allow indirect purchaser plaintiffs in antitrust class actions to seek the defendant's unjust enrichment as damages. ABA SECTION OF ANTITRUST LAW, *supra* note 4, 169–71.

their gains would partially offset the losses sustained by other entities.⁴⁹ To keep things simple, I consider an example consisting of a monopolist direct purchaser, a monopolist second intermediary, and a final purchaser. The total downstream economic losses across these three entities are (after rearranging and combining terms and substituting in the approximation for the second-order effect on the final purchaser):

$$\begin{aligned} \text{Total Losses} = & \delta Q_A + ((p_{1,BF} - c_{1,BF}) + (p_{2,BF} - c_{2,BF}))(Q_{BF} - Q_A) \\ & + \frac{1}{2} \mu \theta \delta (Q_{BF} - Q_A). \end{aligned}$$

Thus, the total economic losses are the sum of (1) the defendant's overcharge multiplied by the actual unit sales, (2) the intermediaries' but-for profit margin applied to the lost unit sales, and (3) the second-order effect on final purchasers (the loss to final purchasers associated with the reduction in purchases at the overcharged price). Note that the total economic losses in the distribution chain exceed the overcharges to the direct purchaser in this example as long as both intermediaries have pass-on rates greater than zero (so that Q_A differs from Q_{BF}). The intuition is that, in aggregate, the entities in the distribution chain lose at least the amount of the overcharges on actual purchases because the overcharges are necessarily fully absorbed at one or more levels of the distribution chain. However, the aggregate loss will be even greater than the overcharges if actual quantity is less than but-for quantity because final purchasers have been forced to switch some purchases to less preferred products and intermediaries have lost profits on the lost sales.

These total economic losses can also be compared to the defendant's unjust enrichment. The latter is approximately equal to

$$\text{Unjust Enrichment} = \delta Q_A - (p_{D,BF} - c_{D,BF})(Q_{BF} - Q_A).$$

The overcharges to the direct purchaser exceed the defendant's unjust enrichment (because the defendant loses the but-for profit on the extra quantity it would have sold at the but-for price). Thus, assuming 100 percent probability of detection, a damages award based on the overcharges to the direct purchaser would be sufficient to deter the conduct.

Total losses for the downstream entities exceed the unjust enrichment as long as both intermediaries have pass-on rates greater than zero. This is just another way of saying that an anticompetitive overcharge reduces total wel-

⁴⁹ I am not aware of a legal mechanism through which these benefits could be recovered from the recipients. If the defendant pays out damages equal to the total losses of those entities with losses (i.e., not netting out any entities with gains), this would be another reason why damages exceed unjust enrichment.

fare because, in this setting, the change in total welfare is equal to the total downstream losses minus the defendant's unjust enrichment. As a general matter, unless some sort of procompetitive effect accompanies the overcharge, total downstream losses will exceed unjust enrichment. Accordingly, assuming 100 percent probability of detection, a total damages award (summed across downstream entities) equal to their total downstream losses would also be sufficient to deter the conduct.

5. *Greater Complexity in the Distribution Chains*

As I noted, the formulas and discussion above made simplifying assumptions regarding entities in the distribution chain, including constant marginal cost and fixed proportions production. Allowing a more complex production technology (such as increasing marginal cost or input substitution) would substantially complicate the analysis, although many of the basic points would continue to hold. For example, allowing for input substitution, it could still be the case that OC could exceed LP, such as in the case of symmetric direct purchasers who compete in market with relatively inelastic market demand.

There are other complexities that may be relevant in a real-world setting. For example, successive intermediaries in the distribution chain may have a more complicated vertical relationship than what I have assumed here—the upstream entity setting a price and the downstream entity deciding how much to purchase at that price. The entities may have negotiated two-part tariffs or other forms of nonlinear pricing. The extent of economic losses may depend on these real-world features of the marketplace at issue.

II. SHOULD THE CURRENT LEGAL FRAMEWORK BE CHANGED?

Under the existing legal framework in the United States, damages to a direct purchaser in an anticompetitive overcharge case are typically calculated as the overcharges they paid on their purchases. However, as discussed in the preceding section, overcharges do not, as a general matter, align with a direct purchaser's economic losses (i.e., its lost profits). This matters because it means that the way damages are calculated for direct purchasers is inconsistent with the principles of compensatory damages. Overcharges may overcompensate or undercompensate direct purchasers for their economic losses.

In states with *Illinois Brick* override laws,⁵⁰ damages for final purchasers are typically calculated as the amount by which final purchasers were

⁵⁰ As noted above, I use this term to encompass all ways in which *Illinois Brick* may be bypassed at the state level.

overcharged for their (final) purchases.⁵¹ This overcharge calculation tends to fall short of being fully compensatory because it does not account for the final purchaser's losses due to purchasing less of the product than it would have preferred at the but-for price. However, the shortfall is typically of second order. In states without *Illinois Brick* overrides or any other procedure by which indirect purchasers may recover, final purchasers have no way to seek any compensation for their economic losses.

Like final purchasers, intermediaries downstream from direct purchasers may seek compensation only in states with *Illinois Brick* overrides. Even in such states, class actions brought on behalf of other intermediaries are less common than class actions brought on behalf of final purchasers. There are several likely reasons for this. First, intraclass conflicts arise when a class is defined to include entities from multiple levels of a distribution chain. Each level has the incentive to argue that it was where the overcharge was absorbed. Such conflicts could undermine certification of such a broad class. Second, damages calculations for intermediaries are typically more complex than for final purchasers. Some state laws recognize the danger of duplicate recovery if an intermediary is entitled to the overcharges it paid without considering how it may have changed its downstream behavior in response to those overcharges.⁵² Thus, to evaluate its damages, an intermediary must analyze not only what happened upstream, but also what happened downstream. For example, an intermediary may be limited in an overcharge damage claim to only the absorbed overcharges. As with direct purchasers, an absorbed overcharge damages calculation may overcompensate or undercompensate intermediaries for their economic losses.

The failure of damages as calculated under the existing legal framework to align with economic losses is problematic because some injured parties are left less than whole while other injured parties receive a windfall. Changing the legal framework so that a plaintiff is entitled to recover as damages its economic losses would, in principle, remedy the problem of under- and over-compensation. However, such a change would have other practical implications that need to be taken into consideration.⁵³

⁵¹ ABA SECTION OF ANTITRUST LAW, *supra* note 4, at 160. Basing damages on lost profits is not necessarily precluded, but using an overcharge approach allows plaintiffs to avoid the greater complexity of lost profits and, in the case of class actions, individualized issues that are more prominent in lost profits analyses. *Id.* at 161. See Joshua P. Davis & Anupama K. Reddy, *Unintended Consequences of Repealing the Direct Purchaser Rule*, *infra* this issue, 84 ANTITRUST L.J. 341 (2022) (in-depth discussion of the complexities that arise in class actions).

⁵² ABA SECTION OF ANTITRUST LAW, *supra* note 4, at 155.

⁵³ There is also the question of how such a change in the legal framework would be accomplished. Some coordination of federal and state laws would be required to create a comprehensive and coherent framework.

A. INCREASED COMPLEXITY OF CALCULATING DAMAGES

One motivation for the Supreme Court's *Illinois Brick* decision was to avoid the complex analysis that would be entailed if courts were required to sort out how the effects of an overcharge to a direct purchaser flowed through the levels of a distribution chain.⁵⁴ Changing the damages framework to align with economic losses would increase the complexity of damages calculations in antitrust litigation.

For example, as the formula in the previous section shows, a direct purchaser's lost profits depend not only on the overcharge the direct purchaser paid, but also on a number of other factors, including the direct purchaser's responses to the overcharge (i.e., the extent to which it changes its own price), the responses of the direct purchaser's rivals, the nature of demand, and even the responses of downstream intermediaries. Analyzing these factors is more involved than analyzing just the overcharge paid by the direct purchaser. However, advances in economic tools, computing power, and available data have better equipped litigants and economic experts to deal with complex damages analyses than was the case when *Illinois Brick* was decided. Various methods exist and are widely used to analyze lost profits, for example.⁵⁵

Moreover, a plaintiff may be able to continue to use an overcharge approach to avoid complexity when it can verify the economic conditions under which overcharges are less than lost profits (or compensating variation in the case of consumers), and thus represent a conservative measure of economic losses. This will generally be the case for final purchasers and can, albeit under a more limited set of conditions, also be the case for direct purchasers and other intermediaries. For example, as discussed above, when a direct purchaser paid a sufficiently greater overcharge than did its competitors, competitive pressure can limit the direct purchaser's ability to pass the overcharge on to its downstream price, and it tends to lose a relatively large portion of its sales for the amount of the overcharge that it chooses to pass on. In such a case, OC is likely to be less than LP. Of course, a plaintiff seeking to use the overcharges as a conservative measure of economic losses would still have to establish that the economic conditions under which OC is less than LP do in fact hold, requiring more proof than is required under the current legal framework. Moreover, a plaintiff would have to evaluate whether the reduction in complexity was worth forgoing a portion of the damages to which it was entitled.

⁵⁴ *Illinois Brick Co. v. Illinois*, 431 U.S. 720, 732–33 (1977).

⁵⁵ See generally ABA SECTION OF ANTITRUST LAW, PROVING ANTITRUST DAMAGES: LEGAL AND ECONOMICS ISSUES (2d ed. 2010).

B. DETERRENCE

The basic economic model of deterrence posits that an entity considering an unlawful act will compare the expected benefits and expected costs that would flow from the act.⁵⁶ In the case of a firm that is contemplating imposing an anticompetitive overcharge on its downstream customers, the expected benefits would be the increased expected profits from the higher price (the unjust enrichment discussed above), while the expected costs would be the probability of being caught multiplied by the sum of the expected damages (or settlement amounts), penalties, and litigation costs conditional on being caught.⁵⁷ The penalties can include, for example, fines, trebling of damages, and prison sentences for company management. All else equal, greater deterrence is achieved the higher are the probability of being caught and the expected costs if caught. A damages award serves both compensatory and deterrence roles.⁵⁸ On the compensatory side, the damage award may offset, in part or in whole, a plaintiff's economic losses. On the deterrence side, the prospect of paying damages serves to decrease a firm's net payoff from the unlawful conduct.⁵⁹

In *Illinois Brick*, the Supreme Court laid out several arguments for why barring indirect purchasers from seeking recovery would increase deterrence by making it more likely that actions would be brought and penalties in the form of damages imposed on violators.⁶⁰ First, the relative simplicity of the direct purchaser's overcharge calculation would make damages easier to prove. Second, entitling a direct purchaser to full recovery of the overcharge would provide strong incentive to bring an action.⁶¹ Third, with their greater knowledge of defendants' behavior learned through direct interaction, direct purchasers would be better positioned to detect violations and bring actions. Changing the legal framework for damages to align with economic losses would, as discussed above, increase the complexity of damages calculations

⁵⁶ See, e.g., Becker, *supra* note 47. This basic framework assumes that the entity is risk-neutral.

⁵⁷ There may also be costs associated with implementing the unlawful conduct, such as costs of reaching agreement with other cartel members or costs of taking actions to hide the unlawful conduct.

⁵⁸ For a wide-ranging discussion of the roles of antitrust damages, see Herbert Hovenkamp, *A Primer on Antitrust Damages* (U. of Pa. Carey L. Sch., Working Paper 2011), scholarship.law.upenn.edu/faculty_scholarship/1846.

⁵⁹ Compensatory damages understate the optimal sanction (with perfect detection) when, for example, there exist injured parties that cannot recover compensatory damages (e.g., with umbrella pricing). Compensatory damages overstate the optimal sanction if some entities benefit from the unlawful conduct and are not netted out of the compensatory damages figure.

⁶⁰ *Illinois Brick Co. v. Illinois*, 431 U.S. 720, 731–34 (1977).

⁶¹ Note that this argument appears to presume that overcharge damages are greater than the alternative. If the alternative is absorbed overcharges, that would be correct. However, if the alternative is lost profits, that is not necessarily correct as discussed above.

for direct purchasers and, in some cases, decrease direct purchasers' damages. Under *Illinois Brick's* reasoning, this could result in decreased incentives for direct purchasers to bring lawsuits.

However, there are several reasons why this concern does not weigh against changing the framework to align with economic losses. First, it has long been argued that *Illinois Brick's* reasoning about direct purchasers' incentive to bring actions is at best incomplete. For example, it has been pointed out that direct purchasers may not want to bring actions against upstream entities with which they have ongoing business relationships.⁶² Moreover, as the discussion above demonstrates, there may be cases in which the direct purchasers benefited from the unlawful conduct, which would reduce their incentives to bring an action.

Second, with the change in the legal framework, the ability to seek damages across the entire United States as opposed to just the *Illinois Brick* override states, all else equal, would increase the incentive of indirect purchasers to bring cases. Third, deterrence can always be addressed through other means. For example, the purpose of trebling damages is to heighten deterrence. The multiplier could be changed to maintain current deterrence levels.⁶³ Indeed, an argument has been made that trebling is insufficient even under the existing framework.⁶⁴ For example, an alternative approach would be to allow the trial court to determine an appropriate multiple for the defendant given the facts of the case. The uncertainty that this would create for violators would provide a further deterrent.

C. INJURY AND STANDING

Under the current legal framework, the incidence of an overcharge is sufficient to establish standing and, relatedly, antitrust injury for a direct purchaser. If the legal framework for damages were changed to align with economic losses, however, a disconnect could arise between standing and injury on the one hand and damages on the other. From an economist's point of view, injury and economic losses are not distinct concepts—injury exists if and only if economic losses exist. Thus, from an economist's point of view, a direct purchaser that benefited from the unlawful conduct (which is possible, as discussed above) was not injured by the unlawful conduct. Should a direct purchaser that sustained no economic losses despite being overcharged have standing to bring an action? This may not be an issue for an individual direct

⁶² ABA SECTION OF ANTITRUST LAW, *supra* note 4, at 470–71.

⁶³ The choice of multiplier should be guided by the deterrent effects of criminal fines, jail sentences, and other costs that result from being caught, where relevant.

⁶⁴ John M. Connor & Robert H. Lande, *Does Crime Pay? Cartel Penalties and Profits*, ANTI-TRUST, Spring 2019, at 29.

purchaser because it might have little incentive to bring an action where it had no damages (economic losses), but it raises questions about class certification, to which I now turn briefly.

D. CLASS CERTIFICATION

The article by Joshua Davis and Anupama Reddy in this Symposium addresses considerations around class certification in detail. I confine myself to one issue closely related to the subject matter here. Proving class-wide injury (and damages) using common evidence (generally viewed as necessary to establish that common questions “predominate”⁶⁵) would be substantially more difficult if the legal framework for injury and damages were changed to align with economic losses. This is because both the existence and amount of lost profits generally are more individualized issues than the existence of an overcharge. For example, as discussed above, it is possible that, despite all being overcharged (i.e., overcharges are class-wide), some direct purchasers benefited from the unlawful conduct, while others were harmed (i.e., the existence of economic losses is individualized). Moreover, even for the same level of overcharge, two different direct purchasers may experience different levels of lost profits, depending on the particular market conditions they face. Thus, individualized proof of the amount of lost profits could raise an obstacle to class certification.

III. CONCLUSION

The existing legal framework for calculating damages in antitrust overcharge cases, which is the product of a rather haphazard and patchwork history, is deficient in a number of respects. Overcharge damages under the existing framework may overstate or understate plaintiffs’ economic losses, creating a disconnect between antitrust damages and the principles of compensatory damages. As a consequence, in the current legal environment, some injured entities may be undercompensated, while others enjoy a windfall. Moreover, under the current law, the line between damages as compensation and damages as a deterrence mechanism is not clearly delineated.

Changing the framework to align damages with economic losses would remedy these problems. However, making such a change is likely to have other consequences. Complexity of damage calculations likely would increase in many cases, which may affect potential plaintiffs’ willingness to bring lawsuits. These were concerns that in part motivated the Supreme Court’s *Illinois Brick* ruling. In addition, proposed classes may find class certification more difficult to achieve. Rather than merely allowing indirect purchasers to re-

⁶⁵ FED. R. CIV. P. 23(b)(3).

cover under federal law, any change to the existing framework should be comprehensive and complete, addressing and weighing the competing concerns. How to change the existing legal framework to align the concept of economic losses with the principles of compensatory damages, however, is well beyond the scope of this article.

