Antitrust Harm and Causation

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**INTRODUCTION**

This article addresses a question at the core of antitrust enforcement: how should government enforcers or other plaintiffs show harm from antitrust violations? The inquiry naturally breaks into two issues: proof of harm and proof of causation. The best criterion for assessing harm is likely or reasonably anticipated output effects. The standard for proof of causation depends in part on two things: the identify of the enforcer and the remedy that the plaintiff is

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seeking. It does not necessarily depend on which antitrust statute the plaintiff is seeking to enforce.¹

For public enforcers such as the Antitrust Division or the Federal Trade Commission, enforcement involves both the condemnation of past harm and the management of future risks. The concern, as in most areas of public enforcement, is with behavior that is likely to have harmful anticompetitive consequences unless it is restrained. While a showing of actual harm can be important evidence, in most cases the public authorities need not show that the harm has actually occurred, but only that the challenged conduct poses an unreasonable danger that it will occur.

By contrast, private enforcers operate under stricter causation requirements that require an actual injury for damages actions, or individually threatened injury for an injunction. These differences are explicit in the various federal statutes that authorize enforcement actions.² They are also similar to the division of requirements in the legal system generally, particularly in the distinction between public criminal law and the private law of tortious conduct.

**ANTITRUST WELFARE AND COMPETITION**

*The Blackboard Economics and Legislative History of Welfare Tradeoffs*

Many practices that are challenged under the antitrust laws can have possible effects that pull in two different directions. On the one hand, they can enhance market power or facilitate its exercise, thus harming consumers as well as other affected groups. On the other hand, they can produce efficiencies that benefit consumers as well as the suppliers of inputs, including labor. If a practice plausibly produces only harmful effects but is unlikely to offer benefits, then antitrust law condemns it with only modest analysis. This is true, for example, of naked price fixing or market division, which are then

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¹ See discussion infra, text at notes __.
² See discussion infra, text at notes __.
said to be illegal per se.\(^3\) At the other extreme, if a practice is highly unlikely to facilitate the exercise of market power and has a serious potential for beneficial effects, then we can approve it with little analysis.

In the middle are worrying cases where a plausible argument can be made that the effect of the restraint can go in either direction. These call for more searching inquiry under a rule of reason. How these potentially offsetting effects should be measured has provoked a great deal of debate. In 1968 Oliver Williamson proposed that we think of these offsetting effects as components in what he termed a “welfare tradeoff” model.\(^4\) On the one hand, a practice might facilitate the creation of monopoly, resulting in a harm to consumers that he identified with the “deadweight loss” of monopoly. On the other hand, the practice might also reduce costs, which is a social benefit. Theoretically one can measure both of these effects and trade them off against each other. We could proclaim a practice as either harmful or beneficial depending on which number is larger.

In 1978 Robert H. Bork borrowed the idea of the welfare tradeoff and popularized it for use by antitrust lawyers, but he also renamed it the “consumer welfare” model.\(^5\) Copying from Williamson, Bork illustrated this model with the figure below, which is taken straight from his book.\(^6\) He hypothesized a merger, joint venture or other practice that simultaneously increased the market power of its participants, producing the shaded deadweight loss area A\(_1\); but it also produced “cost savings,” or efficiencies, designated by shaded area A\(_2\). The unshaded square immediately above the A\(_2\) cost savings is a wealth transfer from consumers to producers. Consistent with neoclassical welfare economics generally, both Williamson and

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\(^3\) See 11 HEBERT HOVENKAMP, ANTITRUST LAW ¶1911 (4th ed. 2018).


\(^6\) Id. at 107.
Bork deemed this to be a wash: it impoverished consumers but benefitted producers by the same amount and thus had no effect on overall welfare.

Bork’s treatment of the issue, which was similar in most respects to Williamson’s treatment, has been extremely influential among antitrust writers, cited more than 800 times in the law review articles alone. It has also been very controversial. People have firmly defended it, completely rejected it, or attempted to revise it.

One thing that has been largely missing, however, is serious discussion of the tradeoff model’s factual robustness. The question is a simple one: what are the circumstances in which a merger or joint venture produces effects that resemble those in the picture? Or is this drawing simply something that Ronald Coase derisively called “blackboard economics” – a phenomenon that exists in an economist’s classroom musings, and that may require great

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7 Based on Westlaw search, Jan. 31, 2021.
intellectual skill to develop, but cannot be found anywhere in the real world.\(^8\)

The real problem in the figure in Bork’s book is not the shaded deadweight loss triangle (A\(_1\)), the cost savings rectangle (A\(_2\)), or the unshaded neutral wealth transfer square. All three of these elements have been mentioned many times in discussions about the social cost of monopoly or about the magnitude and types of efficiency gains. Rather, the problem appears at the very bottom of Bork’s figure, in the relationship between O\(_1\) and O\(_2\), which Bork did not mention and has received little discussion. O\(_1\) in the figure is the output of the firms involved in this merger or joint venture prior to its formation. O\(_2\) represents the output of these same firms after the venture has been formed or the merger has occurred. In Bork’s figure, O\(_2\) is roughly half way between the Origin, or zero output point on the graph, and O\(_1\). That is, this particular merger or joint venture produced both consumer harm (A\(_1\)) and offsetting cost savings (A\(_2\)), but in the process it reduced the output of the firm or firms involved by roughly one-half.

While the figure indicates a 50% output reduction, the actual amount depends on several assumptions and can be either greater than or less than one half. The relevant variables are the magnitude of the efficiencies, the amount of market power both before and after the challenged restraint occurred, and the slope and shape of the demand curve. I do not know why Bork drew the figure as he did. He could have drawn it any way he wanted because, after all, he was


Blackboard economics is undoubtedly an exercise requiring great intellectual ability, and it may have a role in developing the skills of an economist, but it misdirects our attention when thinking about economic policy.

not building a real plant or creating a real merger or joint venture. He was simply pushing some chalk around on a blackboard.

Nevertheless, a little reflection should have provoked this question: when in the real world does a merger or joint venture reduce a firm’s output by half at the same time that it produces such significant cost savings? In the figure the output reduction is 50% and the cost savings appear to be in the neighborhood of 1/3 of the total costs of production.\(^9\) Output prior to the merger or joint venture was at the competitive level. Although costs are lower after this event occurs, output has been reduced to a little more than 1/3 of the competitive level.\(^10\)

By far the most common economy associated with a firm’s production changes is economies of scale.\(^11\) Historically, suboptimal plant capacity has been fairly common in American markets, suggesting that bigger plants could produce lower costs.\(^12\) There are also multiplant economies, which accrue to firms that operate multiple plants.\(^13\) A merger does not make a plant larger, although it could help a firm achieve multiplant economies, such as by enabling it to specialize production in different plants. Nevertheless, a merger of two firms with small plants does not itself produce a bigger plant. Rather, it simply yields one firm that owns two small plants.

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\(^9\) That is the distance from \(P_1\) down to 0.

\(^{10}\) The subsequent competitive level is the point where the demand curve intersects the lowered cost curve, \(AC_2\).

\(^{11}\) See 4A PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW \& POLICY 231 (4th ed. 2016)


Further, these economies almost always occur at higher rather than lower output. The very idea of an economy of scale is a cost that declines as output goes up. Further, any market in which durable monopoly is a serious possibility is virtually certain to have significant fixed costs, including most costs associated with research and development as well as intellectual property. One important characteristic of fixed costs is that they vary inversely with output. That is, if output is cut in half, fixed costs per unit over that range will double. This is so because fixed costs do not change as output changes. Per unit fixed costs are computed by dividing the fixed costs, a stationary number, by the number of units of output. For example, a firm might have fixed costs of $100 and be producing 100 units per time period, so its average fixed costs are $1 per unit. If this firm cuts its output in half, to 50 units, its average fixed costs will rise to $2 per unit. The firm in Bork’s illustration must have been one for which fixed costs were negligible.

To be sure, there are other economies whose relationship to scale is either less direct or that may even be achievable at lower output. For example, firms might merge or form joint ventures in order to acquire better management, equipment or an operational culture more conducive to innovation, a better portfolio of intellectual property rights, governmental licenses, or some other desirable input held by an acquired firm. For the most part, however, these are not the merger specific efficiencies that the law requires.\textsuperscript{14} That is, the firms can attain them by means other than merger.

Further, while a few mergers might facilitate innovation, there is little reason for thinking that mergers that actually lead to high concentration levels or monopolistic output reductions fall into that category. Indeed, theoretical and empirical studies overwhelmingly

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\textsuperscript{14} See 4A AREEDA & HOVENKAMP, supra note __, ¶973.
conclude the opposite; namely, mergers in more concentrated markets are associated with less, not more, innovation.\textsuperscript{15}

In some cases the cost savings may be so large, that they completely offset the price increase caused by the challenged merger or other practice. In that case the result is higher output. Consumers are not harmed at all, however, so there is nothing to trade off. The 2010 Horizontal Merger Guidelines require such situations as a requirement for a successful “efficiency defense” to a merger – that is, the cost savings must be shown to be so significant that the post-merger price will be no higher than it was before the merger.\textsuperscript{16}

Nothing in the statutory language or legislative history of the antitrust laws compels or even discusses the welfare tradeoff. The Sherman Act refers only to agreements in restraint of trade and monopolization. Section 7 of the Clayton Act, where much of the discussion of welfare tradeoffs has been focused, prohibits mergers


where the effect “may be substantially to lessen competition,”17 It never speaks of efficiencies at all, and certainly does not address any kind of efficiency tradeoff or an efficiency defense.

The legislative history is not helpful either. A few scattered passages in the legislative history of the Sherman Act speak about efficiency or product superiority, but always in the absence of competitive harm. For example, in a widely quoted passage in the legislative history of the Sherman Act, Senator John Edward Kenna of West Virginia asked whether a rancher who was better than anyone else at raising shorthorn cattle for sale to Mexico violated the Sherman Act. Senator George F. Edmunds from Vermont responded that the statute would not condemn someone who “got the whole business because nobody could do it as well as he could.”18 Senator George Hoar of Massachusetts, a principal draftsperson of the statute, added to Senator Kenna’s statement:

[If] a man who merely by superior skill and intelligence, a breeder of horses or raiser of cattle, or manufacturer or artisan of any kind, got the whole business because nobody could do it as well as he could was not a monopolist, [unless] it involved something like the use . . . [of improper] competition, like the engrossing, the buying up of all other persons engaged in the same business.”19

Clearly the context was the acquisition of monopoly through pure product superiority without an exclusionary practice.

18 21 Cong. Rec. 3151-3152 (1890).
By contrast, in defending the Robinson-Patman Act four decades later, Representative Wright Patman of Texas argued that “it is one of the first duties of government to protect the weak against the strong and prevent men from injuring one another,” and that “greed should be restrained and the Golden Rule practiced.”

The legislative history of the 1950 (Celler-Kefauver) amendments to the merger statute is more protective of small business, but it also never refers to situations in which a merger might cause actual competitive harm requiring a welfare tradeoff. The closest it comes is an inquiry by Senator Estes Kefauver from Tennessee concerning a merger between two newspapers that combined “in order to save the expense of operating in two separate buildings.” Senator Herbert O’Conor of Maryland replied that the merger would not be unlawful. “It may well be that by effecting a better arrangement for a more profitable undertaking in the manner described, competition would be stimulated rather than lessened.”

There is also a statement in the House Committee Report stating that the statute was not intended to prohibit mergers between two small firms that enabled them to compete more effectively with larger ones.

None of the discussions in the debates or other legislative history refer to situations where conduct caused actual competitive harm that might require proof of an offsetting welfare tradeoff. The first set of Merger Guidelines, issued by the Department of Justice in 1968, rejected an efficiency defense, even though these Guidelines would have condemned mergers under far smaller market shares than we do today. The Guidelines’ statement recognized economies of

2080 Cong. Rec. 3447 (1936).
2296 Cong. Rec. 16456 (1950) (statements of Senators Kefauver and O’Conor).
scale as the only relevant efficiency, and concluded that the given standards would not normally apply to firms so small that they could achieve greater efficiency through merger. While the 1982 revision of the Guidelines took efficiencies more seriously, they also refused to consider “a claim of specific efficiencies as a mitigating factor for a merger that would otherwise be challenged.”

Subsequent editions of the merger Guidelines culminating with the current ones all acknowledge an efficiency defense, although with strict proof requirements. Further, the defense consistently refuses to engage in a welfare tradeoff. Rather, under the current (2010) Guidelines the efficiency must be shown to be so substantial that the merger “is not likely to be anticompetitive in any relevant market.” This means essentially that the efficiency must be large enough to reverse completely any upward price effects resulting from the merger, so that the predicted post-merger price is no higher than the pre-merger price. In that case, there is nothing to trade off. The

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24 *Id.* The 1968 Guidelines’ complete statement on economies is:

§10. **Economies.** Unless there are exceptional circumstances, the Department will not accept as a justification for an acquisition normally subject to challenge under its horizontal merger standards the claim that the merger will produce economies (i.e., improvements in efficiency) because, among other reasons, (i) the Department’s adherence to the standards will usually result in no challenge being made to mergers of the kind most likely to involve companies operating significantly below the size necessary to achieve significant economies of scale; (ii) where substantial economies are potentially available to a firm, they can normally be realized through internal expansion; and (iii) there usually are severe difficulties in accurately establishing the existence and magnitude of economies claimed for a merger.


26 The Antitrust Division maintains archival copies of all editions of the merger guidelines through the current ones. See USDOJ.gov.

2020 Vertical Merger Guidelines deal with efficiencies mainly by incorporating the relevant discussions from the 2010 Horizontal Merger Guidelines.28

Producer Profits as Consumer Welfare

One of the perverse features of the Bork welfare tradeoff model is that, while he renamed it “consumer welfare,” it counted increased producer profits as an element of that consumer welfare. As a result, mergers such as the one illustrated in Bork’s figure presented above could be said to further consumer welfare even though they produced significantly lower output and higher prices. When coupled with Bork’s view that efficiencies cannot be measured in individual cases,29 it meant that decision makers could convince themselves that they were protecting “consumer welfare” when the practice in question harmed actual consumers as consumers, provided that it increased the seller’s profits by even more. This view of consumer welfare has haunted antitrust policy ever since.30

One rationale for counting producer profits as part of “consumer” welfare is the belief that profits eventually get competed away and the benefits go to consumers. In a world in which markets moved more-or-less consistently toward a competitive equilibrium that might be true, and that was in fact the assumption of many Chicago School economists – namely, that the model of competition would triumph. Market imperfections are merely ephemeral hiccups and profits will induce competitive entry. In that case, the argument

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30 See Bork, Paradox, supra note ___ at 126 (problem of measuring efficiencies is “utterly insoluble”).
31 See discussion infra, text at notes __.
goes, ultimately consumers will benefit even from practices the harm them in the short run, provided they produce sufficient profits.31

Today it seems clear, however, that imperfect competition is durable, stable, and a fact of life, certainly in moderately and highly concentrated markets.32 Indeed, over that last three decades price-cost margins have moved steadily upward.33 As a result, today there is no reason to think that the gains from higher margins resulting from a merger will be competed away, and good reason for thinking that is unlikely to happen. Tolerating higher margins at consumers’ expense, trusting that competition would bring output up and benefit consumers in the long run would be naïve and irresponsible.

Nevertheless, the total welfare approach that Bork proposed has managed to evoke a great deal of support because it brings profits to business firms. Consumers are individually small, diverse and poorly organized. Producers, by and large, are not, and for them an interest in high profits is a common denominator. One thing that the Bork formulation offered was a rhetoric of antitrust anti-enforcement that could evoke consumer welfare as its rationale even as its decisions facilitated a great deal of consumer harm. This has emerged as one of the most significant instances of special interest capture in any area of law.

Identifying Antitrust Harm

The federal antitrust laws speak in economic terms about the harms that they prohibit. The Sherman Act is directed toward

32Ibid.
conduct that “restrains trade” or “monopolizes” markets. The Clayton Act prohibits conduct whose effect may be substantially to “lessen competition” or “tend to create a monopoly.” Even so, economic harm can be measured in different ways. While no measure is without its faults, antitrust’s dominant concern with the preservation of competitive markets seems well justified. A competitive market is one in which output is as high and prices as low as are consistent with sustainable competition. High output benefits not only consumers, but also suppliers, including those who supply labor. In general, these groups are better off as output is higher and prices lower. To be sure, not every interest group is better off, competitors in particular. While competitive markets give them their own chance to expand, those who lose out will be injured as their rivals become bigger and more efficient.

This leads to some questions. First, if high sustainable output is the goal, how should we measure it? Second, are there situations in which antitrust should prefer lower output alternatives in order to benefit some particular interest group, such as labor, competitors, or others?

Measuring Relevant Output

Output is not necessarily easy to measure. In its simplest form it refers to the number of identical units of something that a firm produces. Measuring output in that case requires little more than counting. It may also require some basic understanding of production and its costs.

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3415 U.S.C. §1 (prohibiting contracts, combinations, or conspiracies in restraint of trade); 15 U.S.C. §2 (prohibiting those who monopolize or attempt to monopolize commerce).
Measuring “sustainable” output can require a dig into a firm’s cost structure. In order for output to be sustainable the seller must earn enough to cover its costs, earning at least a competitive rate of return. Different costs affect output in different ways. One widely misunderstood example of how costs affect output and pricing is the Amazon eBooks case,\textsuperscript{36} in which the Justice Department successfully prosecuted a cartel of book publishers organized by Apple in order to force Amazon to increase eBook prices. Critics of that decision observed that Amazon’s aggressive pricing of eBooks hurt traditional book sellers, which was true. The attackers also claimed predatory pricing, which was almost certainly not true under existing law.\textsuperscript{37}

Traditional book publishing has a fairly conventional mixture of fixed and variable costs. Acquisition and design costs are largely fixed. They do not change as the number of copies increases or decreases. Production costs, including materials, are largely variable, except for the production equipment itself. Depending on the nature of the agreement with the author, another variable cost is royalties. In a traditional royalty agreement paying the author, say, 10\% of the sales price, that cost is variable: each additional sale incurs this cost. By contrast, if the author is paid a flat rate – say a one time payment of $25,000 – then the royalty is a fixed cost.

Just as so much digital output, the eBook introduced a product for which nearly all costs other than electronic distribution and royalties were fixed. That includes all of the costs of creating an ebook, such as manuscript acquisition, editing, formatting, and production. These are incurred at the front end and do not vary with the number of books that are sold. The ebook largely eliminated


conventional production, shipping and inventory costs. One remaining variable cost is the very small cost of electronic distribution, which covers the processing of orders and transmitting the electronic file to the customer. Another is percentage royalty costs.

In a competitive equilibrium prices are driven toward marginal cost, which consists of variable costs. This means that under competition the price of an ebook would be reduced to little more than distribution and royalty costs. Because books are highly differentiated and protected from copying, one would expect the real world price to be higher than that. That is, pricing behavior would resemble monopolistic competition more than perfect competition. To the extent individual customers preferred one title over another and were willing to pay more, prices would be above marginal cost.

These facts are borne out by examining the price of classic books that have been digitized and for which copyright has expired. As a result, no royalty is due, copying is free and easy, and the market comes closer to perfect competition. For many of these the price is zero, both on Amazon as well as other sellers. By contrast,

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38 Monopolistic competition assumes product differentiation but free entry. By contrast, the copyright laws lead to product differentiation but restrictions on copying. This will lead to prices higher than marginal cost. For a good analysis of the industry, see Marcel Canoy, Jan C. Van Ours, and Frederick Van Der Ploeg, The Economics of Books 722, in 1 HANDBOOK OF THE ECONOMICS OF ART AND CULTURE (Victor A. Ginsburg & David Throsby, eds., 2006).


40For example, at a price of zero an Amazon customer can purchase F. SCOTT FITZGERALD, THE GREAT GATSBY; VIRGINIA WOOLF, THE COMPLETE WORKS; WALT WHITMAN, LEAVES OF GRASS; CHARLES DICKENS, A TALE OF TWO CITIES; and hundreds of others. They can also be obtained at a price of zero from other sources, such as Project Gutenberg (www.gutenberg.org); Free-eBooks (free-ebooks.net); Open Library (openlibrary.org).
books that are under copyright almost always sell at positive prices, although often less than the same title in a traditional format.

Given these significant cost differences, simply observing that Amazon sells ebooks for less money than the same books in hard or soft covers tells us nothing. Further, it is not antitrust’s job to make any kind of preemptive decision excluding ebooks, or preferring a particular publishing format or technology. While antitrust policy has a powerful role in limiting restraints on innovation, it has no power to limit innovations simply because they injure firms dedicated to older technology. Nor does it attempt to limit firms from pricing efficiently under the cost structure that their new technology facilitates. Ultimately the market will determine the place of ebooks in the general book market, and here the jury is still out. Differentiation applies not only to different titles, but also to different technologies. Consumer preferences being what they are, there will likely always be a place for both traditional and electronic books.

“Output” for antitrust purposes may also refer to quality or variety as opposed to numerical units, and these can be very difficult to measure. Antitrust is not often saddled with the task of measuring quality or variety directly, however, but only with determining whether a particular practice restrains quality or variety unreasonably. This is one critical difference between antitrust and sector specific regulation. For example, the United States Department of Agriculture is empowered to set grading standards for

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41 See, e.g., About eBooks, available at https://about.ebooks.com/ebook-industry-news-feed/ (ebooks accounted for about 19% of 2020 books sales by revenue, and 36% by units – suggesting that the price of the average ebook is about ½ the price of an average traditional book; Amazon’s share of ebooks is about 67%).

agricultural products. The antitrust laws do not “grade” products or make substantive quality determination. However, they do frequently intervene when non-public grading entities do so anticompetitively.

For example, if competitors agree with one another to use an inferior product, to exclude certain types or producers of a service, or to resist development of a certain technology, the court need not make its own judgment whether one version or the other is of higher quality. Its function is not to set the standard, but only to ensure that the standard has been set by competitive market forces to the extent this is possible.

For example, the restraint that was challenged in the Allied Tube case was the defendant’s collective exclusion of newly introduced PVC (plastic) electrical conduit, which competed with the defendant’s well established steel conduit. In evaluating that agreement the court did not need to decide that PVC conduit was superior – the market ultimately made that decision -- but only that the agreement interfered with free market forces. This is generally true of antitrust rules evaluating standard setting, where courts try to avoid passing judgment on the substance of the standard. Rather,

44 E.g., Nat’l Macaroni Mfrs. Ass’n v. FTC, 345 F.2d 421 (7th Cir. 1965) (condemning pasta producers’ agreement to use cheaper farina wheat rather than durum semolina wheat in their products).
45 E.g., Wilk v. American Medical Assn., 895 F.2d 352 (7th Cir. 1990) (condemning AMA rules excluding chiropractors from parts of medical practice). See also North Carolina State Board of Dental Examiners v. FTC, 574 U.S. 494 (2015) (similar; teeth whitening by non-dentists, who charged less).
they examine the structure of the standard-setting organization and the process by which the standard was achieved.48

For example, antitrust court’s are rightfully suspicious of situations where the people passing judgment on a standard are competitors of the person who is being excluded and there are not adequate procedural protections in place. That was true in AMA v. Wilk, Allied Tube, and the North Carolina Dental case.49 For example, in Allied Tube the defendant, a competitor of the plaintiff, packed a standard setting meeting with a large number of voting members who were instructed to ignore the merits and simply vote against the plaintiff’s product.50

If the standard setters are not competitors, an antitrust objection is more difficult to find. This is fundamentally a structural inquiry. For example, in Moore v. Boating Industry the court approved the Boating Industry’s exclusion of the plaintiff’s submersible boat trailer light, observing that the trade association did not compete with the plaintiff.51 Its members consisted of trailer manufacturers who were purchasers rather than producers of trailer lights. As a result, they would have no incentive to condemn a superior light but every reason to exclude one that was dangerous.52

A restraint such as the one in Allied Tube operates as a limitation on variety as well as innovation. The antitrust issue in the case was not whether the plaintiff’s PVC conduit would exclude steel conduit in construction codes, but whether PVC conduit could be

50 See the lower court’s opinion: Allied Tube, 817 F.2d 938, 947 (2d Cir. 1987) (noting jury finding that Allied Tube recruited 230 people to pack a standard setting meeting, with neither the knowledge or inclination to vote favorably).
51 Moore v. Boating Indus. Assns., 819 F.2d 693 (7th Cir. 1987).
52 Id. at 703.
used as an alternative in addition to steel conduit. After that, both could be offered, and the market could decide whether one or both would survive. Once again, antitrust’s purpose is not to make substantive decisions about variety, but only to let the market be free to do its work. In Wilk v. AMA the Seventh Circuit held that the AMA violated the antitrust laws by enforcing accreditation rules that largely excluded chiropractors from important parts of the health care market, including accredited hospitals.\textsuperscript{53} While the AMA certainly had authority to exclude dangerous medical procedures it could not limit the variety of procedures so as to exclude a practice that many consumers had come to believe were beneficial. From that point, the market could determine the place of chiropractic in health care. In decisions such as Wilk, limitations on variety are really little more than efforts to exclude lower cost alternatives. That was also true in the North Carolina Dental decision, which struck down a dental board’s rule that prevented non-dentists such as hygienists or cosmetologists from whitening teeth.\textsuperscript{54}

Even in cases where output is measured in simple units, inferences can be drawn from the restraint itself. One example is the Amex case, which involved an unsuccessful antitrust challenge to a credit card anti-steering rule.\textsuperscript{55} Because AmEx charged higher merchant fees than rival credit cards charged, merchants had an incentive to “steer” customer by offering them a price break or some other service in exchange for the customer’s use of a cheaper card. For example, if the Amex merchant fee on a large purchase was $30 while the fee for using a Visa card was only $20, the merchant might offer the customer a $5 discount or other benefit to use the Visa card instead. The customer might accept or decline this offer, depending on whether the incremental benefits she received from using the Amex card were worth more than $5. The customer’s acceptance of

\textsuperscript{53} Wilk v. American Medical Assn., 895 F.2d 352 (7th Cir. 1990).
\textsuperscript{54} North Carolina State Board of Dental Examiners v. FTC, 574 U.S. 494 (2015).
that offer would benefit both the merchant and the customer, but the no-steering rule prevented the merchant from making this offer.\textsuperscript{56}

The steering exchange was a Pareto superior deal that the anti-steering rule prevented. To be sure, it benefitted Amex, who was able to preserve a transaction that harmed both its customer and its merchant, as well as Visa, the competing platform that was denied a profitable sale. That unfavorable deal alone was enough to provide robust support for the inference that the anti-steering rule reduced output, which is an inference drawn from the higher prices.

The most difficult output to measure is innovation. Once again, however, antitrust rarely needs to measure innovation as such. Rather it needs to consider whether a particular practice restrains innovation unreasonably. For example, consider Microsoft’s pressure on Intel to refrain from developing the “JAVA-enabled” microprocessor chip, which could process multiple code languages. The chip was intended to enable Microsoft’s competitors to offer superior products.\textsuperscript{57} In order to condemn this restraint the court did not need to determine that the JAVA-enabled chip was superior to Microsoft’s existing technology, and it certainly did not have to quantify the value of any additional capabilities that the JAVA-enabled chip might produce. Rather, it needed only to determine that Microsoft was imposing a restraint that interfered with Intel’s efforts to develop such a chip. This prevented the excluded product from having a fair chance in the marketplace.

One policy obstacle to the achievement of competitive markets is the fact that competition itself is a public good, particularly where consumers and labor are concerned. Consumers are individually small, not well organized, and have diverse tastes and preferences. Labor is much more poorly organized today than it was two generations ago, and this shows up in its declining share of

\textsuperscript{56} See Hovenkamp, Platforms and the Rule of Reason, supra note ___ at 43-44.

\textsuperscript{57} United States v. Microsoft Corp., 253 F.3d 34, 77-78 (D.C.Cir. 2001)
productive output. By contrast, large firms with high margins have been able to speak to policy makers with a single voice in pursuit of profits. As a result, both consumers and labor have lost out in many policy battles since the 1980s, and underdeterrent antitrust policy has often been a facilitator.

Alternatives to Output as a Criterion of Antitrust Harm

A second question concerning the definition of antitrust harm as reduced output is whether there should be exceptions? Should antitrust law makers sometimes prefer a solution likely to reduce output and raise prices simply because it benefits a particular interest group? For example, should it do more about the declining position of labor in the economy? As noted, an antitrust policy of favoring expanded output generally benefits labor, which profits as greater production creates more job opportunities. Mergers that suppress competition in the labor market are output reducing, just as much as mergers that suppress competition in product markets. The protection of labor should have a greater role in merger policy than it currently does. In addition, antitrust currently prohibits anti-poaching

59See Herbert Hovenkamp and Fiona M. Scott Morton, Framing the Chicago School of Antitrust Analysis, 168 UNIV. PA. L. REV. 1843 (2020).
agreements or other collusive activity targeting labor.\textsuperscript{61} Doing these things does not require a departure from antitrust’s general mandate to expand output.

Beyond that, antitrust policy might conceivably do things that tend to reduce output or whose goals are not related to competitive output expansion. These might include guaranteed minimum wages, better working conditions, freedom from discrimination or harassment, job security, or collective bargaining rights. While these are all important goals, however, they are not antitrust goals. There is no sensible way to include them in the competition-enforcing language of the antitrust laws. Judges asked to do so would be at sea. Like most regulatory goals, they require a degree of legislative or administrative specificity that the antitrust concern for competitive markets does not capture. Even if we agree that these other policies are imperfect, antitrust has neither the mandate nor the toolbox it would need to rule the world.

This issue of concern beyond competitive output is also relevant to discussions about large digital platforms such as Amazon, Apple, Facebook, and Google. Many regard them as too big, too politically powerful or biased, too casual or greedy with private information, or abusive in some other way.\textsuperscript{62} Unless that harm is related to an output reduction, however, it is untethered from the antitrust laws. Antitrust was never intended to control the universe, its statutes do not hint of that, or create any kind of manual for doing so. Excessive private political power, theft of information or intellectual property rights, and the destruction of main street could all be cognizable harms worthy of legal attention. But antitrust is not the appropriate vehicle, unless the harm in question is a consequence of an anticompetitive output reduction.


\textsuperscript{62}E.g., ZEPHYR TEACHOUT, BREAK ‘EM UP: RECOVERING OUR FREEDOM FROM BIG AG, BIG TECH, AND BIG MONEY (2020).
The round of antitrust complaints filed by federal and state enforcers late in 2020 are consistent with this definition. They do not seek to break up either Google or Facebook on the simple theory that they are too large. Rather, they target specific exclusionary practices or, in the case of Facebook, some anticompetitive acquisitions. The requested relief is quite consistent with antitrust’s general goal of preserving large output and low prices.

Antitrust policy has the difficult job of threading the needle between two extremes. On one side are those that overvalue producer profits while understating the value of high output for consumers and labor. On the other side are those who rightfully acknowledge that problems of monopoly exist, but who would correct them by injecting small business protectionism, concerns about large size or political power, or other noneconomic goals into the domain of antitrust.

Consider a statement released by the Biden-Sanders Unity Task Force in July, 2020, which speaks about the need for greater antitrust enforcement in several areas. It expresses concern about health care mergers that raise price, an acknowledged problem that clearly falls within the consumer welfare principle. It does the same thing for anticompetitive outcomes in agricultural processing. It would also “Charge antitrust regulators with systematically incorporating broader criteria into their analytical considerations, including in particular the impact of corporate consolidation on the

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65See Hovenkamp, The Looming Crisis, supra note __.
67Id. at 33.
68Id. at 52, 68.
labor market, underserved communities, and racial equity.”

It also speaks of using the antitrust laws to reverse the impact of Trump-administration mergers “to repair the damage done to working people and to reverse the impact on racial inequity.”

By contrast, a dissenting report to the Democrat-controlled House Judiciary Committee’s statement on platforms disagrees with the majority about many issues, but it shares the concern that something must be done about big tech. In particular, however, it laments that big tech “has used its monopolistic position in the marketplace to censor speech,” and to exercise “overt bias against conservative outlets and personalities.”

All of these concerns expressed by both sides are important goals for legal and economic policy generally. Some are even commendable as antitrust goals. Attaining more competitive markets can address some problems in health care, agricultural processing, and labor to the extent that antitrust is capable of doing so. Even the impact on things such as equality could be justifiable depending on how it is interpreted. Competitive markets should be

69Id. at 67.
70Id. at 74.
   Notably, Google used its dominant advertising technology product to demonetize conservative media outlets, including The Federalist. YouTube, a Google subsidiary, blocked videos from Republican politicians and media groups. Amazon censored conservative organizations, including the Family Research Council and the Alliance Defending Freedom by blocking Americans’ ability to donate to these groups through the AmazonSmile tool. Facebook’s algorithms, advertising policies, and content moderation rules have all combined to discriminate against conservative viewpoints, shadow ban conservative organizations and individuals, and suppress political speech. The majority also left Twitter and its suppression of speech out of the investigation completely.
nondiscriminatory, and discrimination is bad to the extent it results in the rejection of free entry and choice based on economic criteria. More competitive markets are conducive to free speech to the extent that they create alternative channels of communication.

Nevertheless, antitrust policy, in contrast to legal policy generally, is not the appropriate tool for pursuing particular goals of social equality or free speech at the expense of competition. For example, while affirmative action is an essential policy goal in many areas, antitrust policy administered by the courts under the now existing antitrust laws is not the proper vehicle for achieving it.

Ideological exclusion in dominated markets is a problem for speech doctrine in communications. It should also be an antitrust problem because diversity of viewpoints is part of the quality and variety of output that antitrust should encourage.\textsuperscript{72} Here, the Federal Communications Commission reviews mergers that involve the transfer of telecommunications licenses under a “public interest” test that can include affect on the diversity of viewpoints.\textsuperscript{73} If no such license transfer is involved, then the merger is viewed only under the antitrust laws. Antitrust has frankly done an inadequate job of protecting consumers’ right to a diversity of viewpoints, and the FCC’s public interest standard is too vague to be reliable.\textsuperscript{74}

The antitrust laws’ spare language provides an elastic mandate and is directed to the courts. This gives the antitrust statutes great flexibility, and complaints to the effect that they are “outdated”

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are wrongheaded.75 However, this elasticity also creates a danger that they can be used to achieve goals through the judicial system that are more difficult to achieve legislatively. While the language of the antitrust laws sweeps broadly, it is nevertheless limited to concerns for economic competition.

**Consumer Welfare, Prices, and Labor**

Many descriptions of antitrust’s goals of furthering consumer welfare refer to prices: the goal of antitrust should be to combat monopolistic prices. While that is true, articulating the goal in this way raises conceptual problems when we think about suppliers, labor or others involved in production. For example, the antitrust concern with labor is with wage suppression, which means that wages are anticompetitively low.76 This is true of monopsony, or buy side, restraints generally. This seems inconsistent with an antitrust insistence on low prices. It can also fuel a common misperception, which is that low wages or suppressed input prices naturally lead to low consumer prices.

One thing that buyers and sellers have in common, however, is that both are injured by anticompetitive output reductions. While monopoly involves prices that are too high and monopsony involves prices that are too low, both result in lower output. As a result, when consumer welfare is articulated in terms of output rather than price, it protects both buyers and sellers, including sellers of their labor.

When wage suppression is an act of monopsony it is likely to raise output prices in the product market and almost certainly will not lower them. While that result might seem counterintuitive, it is actually robust, and results from the fact that the firm with monopoly power over laborers uses less labor and thus will produce less as

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well. In the unlikely event that firm is a perfect competitor in the product market it will simply sell less, although at the same price. In the more common case where it also has market power in the product market, its prices there will go up even as wages go down.\textsuperscript{77} The basic theory is clear and uncontroversial.

Antitrust policy has a very important but circumscribed role in protecting worker welfare, which is to ensure that product output, and thus job opportunities, are as large as is consistent with the maintenance of competitive markets. While that is a good thing, it is hardly a recipe for fixing all of labor problems. As noted earlier, antitrust law is not a good device for setting minimum wages, for regulating working conditions and occupational safety, protecting pensions or ensuring retirement security, protecting workers from discrimination or harassment in the workplace, or other things related to worker welfare. This is just another way of saying that antitrust’s purpose is not to swallow up all of legal policy respecting labor.

There are other reasons for preferring output rather than price as the primary indicator of consumer welfare. Firms almost always have more control over output than they do over price. This is most true in competitive markets, and less true as markets are more monopolized. A seller in a perfectly competitive market lacks any control over price but almost always controls its own output. For example, a corn farmer cannot meaningfully ask “what price should I charge” for this year’s crop. She will charge the market price. While she has the power to charge less, she has no incentive to do so because she can sell all she produces at the market price. The one absolute power she does have, however, is to determine output

consistent with her own needs for profit. The decision whether to plant 1000 acres in corn, 500, 100 acres or even zero is entirely hers.

The consumer welfare principle in antitrust pursues maximum output consistent with sustainable competition. In a competitive market this occurs when prices equal marginal cost and are sufficient to cover fixed costs as well. More practically and in real world markets, the principle tries to define and identify anticompetitive practices as ones that reduce market wide output below the competitive level. To be sure, output can sometimes go higher than the competitive level, but this would require that at least some prices be below cost. This can happen, for example, during periods of anticompetitive predatory pricing.\textsuperscript{78} As a result, the definition refers to “sustainable” but competitive levels of output. If output is too high, some firms will be losing money and must eventually raise their prices or exit.

Consumer welfare measured as output serves the customer’s interest in low prices and also in markets that produce as wide a variety of goods and services as competition can offer. It also serves the interest of labor, which is best off when production is highest. Concurrently, it benefits input suppliers and other participants in the market process. For example, if the output of toasters increases, consumers benefit from the lower prices. Labor benefits because more toaster production increases the demand for labor. Retailers, suppliers of electric components, shipping companies, taxing authorities and virtually everyone with a stake in the production of toasters benefits as well.

Antitrust is a microeconomic discipline, concerned with the performance of individual markets rather than the economy as a whole. Nevertheless, high output in a particular market contributes to a well-functioning overall economy. Macroeconomic measures such as GDP are based on the aggregate production of goods and

\textsuperscript{78}See 3A PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶724-726 (4\textsuperscript{th} ed. 2015).
services in the entire economy under consideration. All else being equal, when a particular good or service market experiences larger competitive output the overall economy will benefit as well.\textsuperscript{79} That issue is almost never relevant in any particular antitrust case, but it can be important at the legislative or policy level. Increasingly people have observed a link between competition policy – particularly high price-cost margins – and the performance of the economy as a whole.\textsuperscript{80}

If antitrust is faithful to its concern for competitive markets, then what lies outside of its boundaries? First, bigness itself is not an antitrust issue unless it leads to reduced output in some market. That is, the consumer welfare principle is consistent with large firms. It favors economies of scale and scope, provided that the overall structure of the market is competitive.\textsuperscript{81} To be sure, very large firms can injure small firms that have higher costs or lower quality products.

The impact of the consumer welfare principle on small firms is complex, however, and requires close analysis of individual cases.

\textsuperscript{79} For a good discussion, see JOHN BELLAMY FOSTER and ROBERT W. MCCHERSEY, THE ENDLESS CRISIS: HOW MONOPOLY-FINANCE CAPITAL PRODUCES STAGNATION AND UPHEAVAL FROM THE USA TO CHINA (2017).


\textsuperscript{81} An economy of scale is a cost that declines as a firm produces a larger amount. An economy of scope is a cost that declines as someone produces a larger variety of products, or in a larger number of places. For example, because of joint costs a firm might be able to produce toasters and space heaters out of the same plant more cheaply than two firms that each produced one of the two products.
While small competitors of a large, low cost firm can be injured, many other small firms benefit, including suppliers and retailers. A good illustration of this complexity is Amazon, which is a very large retailer that generally sells at low prices and has maintained high consumer satisfaction. Amazon has undoubtedly injured many small firms forced to compete with its prices and distribution. At the same time, however, Amazon acts as broker, or distributor, for millions of small firms who use its retail fulfillment services. In addition, when a very large firm produces more, it creates opportunities for other firms that sell complements, that distribute the products that a large firm produces, or that supply it with inputs. So once again it is important not to paint with too broad a brush. Blowing up Amazon would very likely injure more small businesses than it would help. That does not mean, however, that antitrust is powerless. Amazon may be using anticompetitive agreements with vendors or other trading partners to enhance its own position, and these could be enjoined under the antitrust laws.

As for labor and antitrust, that relationship is also complex and has changed over time. During the early years of Sherman Act enforcement organized labor was widely believed to be a source of monopoly. Many of the earliest antitrust criminal prosecutions were directed at labor unions. Labor organizer Eugene Debs went to

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82See Jon Markman, How Amazon.com Remains the Ruler of Retail, FORBES (Jan. 30, 2020) (Amazon #1 in consumer satisfaction for three consecutive years).

83For statistics, see https://www.feedbackexpress.com/amazon-1029528-new-sellers-year-plus-stats/#:~:text=Amazon%20US%20stats,and%20more%20than%2060%,20countries, (last visited July 20, 2020) (noting that Amazon has 5 million independent sellers, with 1.7 million currently listing products for sale).


prison in 1895 as a result of a conviction under the Sherman Act.\textsuperscript{86} Congress came to labor’s rescue twice, once in §6 of the Clayton Act, passed in 1914,\textsuperscript{87} and then again during the New Deal.\textsuperscript{88} The result was the development of an antitrust immunity for organized labor that today protects most collective bargaining agreements and reaches even agreements among employers, provided that they are part of the collective bargaining process.\textsuperscript{89}

But years of anti-union activity largely deprived the unions of the economic power and turned the tables. Most of the antitrust concerns about labor today are with anticompetitive practices that suppress wages, not with worker power to extract higher wages.\textsuperscript{90} Agreements among employers not to hire away one another’s employees (‘‘anti-poaching” agreements) are unlawful per se\textsuperscript{91} and

\textsuperscript{86}See \textit{in re} Debs, 158 U.S. 564, 596-600 (1895) (denying habeas corpus; upholding Sherman Act conspiracy conviction under Congressional power to control railway commerce) and Hovenkamp, \textit{Labor Conspiracies}, id. at 920.

\textsuperscript{87}15 U.S.C. §16 (“The labor of a human being is not a commodity or article of commerce. Nothing contained in the antitrust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help.”).


\textsuperscript{91}See the Justice Department’s statement, “No More No-Poach: The Antitrust Division Continues to Investigate and Prosecute “No Poach” and
can even be criminal offenses.\textsuperscript{92} Today a fair amount of litigation is directed at overly broad use of labor noncompetition agreements, which are formally vertical but can be subject to antitrust attack when they are used by many firms in a market to impede worker mobility. For example, a fast food franchisor might insert a noncompetition agreement in each of its many contracts with franchisees, forbidding them from hiring away one another’s employees.\textsuperscript{93} The resulting limitations on labor mobility serve to keep vulnerable laborers down.

Are there situations in which a practice that the consumer welfare principle would approve might nevertheless harm labor? Perhaps, when the practice in question reduces the demand for labor as a result of innovation or other cost savings in the product market rather than a decrease in output. If the only two firms in a market merge and reduce output in the product market to monopoly levels, they will harm customers, but they will also suppress competition in the labor market. This loss of jobs would be actionable.

But some mergers might actually increase product market output while reducing the demand for labor. Consider the merger

\textsuperscript{92} See Dept. of Justice press release announcing first criminal indictment for an agreement among employers not to solicit one another’s higher level employees (Jan. 7, 2021), at \url{https://www.justice.gov/opa/pr/health-care-company-indicted-labor-market-collusion}.

between Chrysler and Jeep, two producers of automobiles. The merger was small as automobile mergers go. It very likely did not decrease automobile output and was lawful under the antitrust laws. Nevertheless, a likely result of such a merger would be consolidation of dealerships and some elimination of duplicate jobs. As a result, the demand for labor might go down even as the post-merger firm’s automobile production went up. For example, after the merger it is cheaper for Chrysler and better for consumers if Chryslers and Jeeps are sold through a common dealership. Sales and service can be performed by a common staff, reducing the number of employees to less than the number required by two separate facilities. At the same time, however, the overall automobile market remains competitive on both the consumer side and the input (labor) side. To the extent this consolidation reduces Chrysler/Jeep’s costs, the firm’s output of automobiles would increase.

Most consolidation-driven job reductions fail to raise antitrust issues. Indeed, consolidation reduces the demand for labor even though the firms could not possibly injure competition in any market. For example, if two attorneys in New York City should form a partnership they might decide to share a single secretary or legal assistant. A job would be eliminated, but without any competitive harm to any market. So the consumer welfare principle does not condemn every practice that reduces the demand for labor, but only those practices that do so anticompetitively, by suppressing the

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94 The acquisition, which occurred in 1987, was with American Motors, which at that time had already acquired Jeep. See “Chrysler is Buying American Motors,” NEW YORK TIMES (March 10, 1987), available at https://www.nytimes.com/1987/03/10/business/chrysler-is-buying-american-motors-cost-is-1.5-billion.html.

demand for labor rather than by reducing the amount of it that a firm
needs. It is not antitrust’s purpose to subsidize employment by
requiring firms to use employees that they do not need. The merger
that reduces the demand for labor through efficient consolidation is
no different in principle than any other production change that
requires less labor – for example, when a manufacturer shifts from a
labor intensive assembly process to a more automated one that
requires fewer employees.

If we really wanted to protect jobs from all changes unrelated
to product output that reduce the demand for labor we would do
better to change the patent laws rather than antitrust law. Changes in
technology almost certainly have greater and more explicit effects on
labor than do mergers or other procompetitive antitrust practices. For
example, a “Job Protection from Innovation Act” might provide that
patent applications must show as a condition of patentability that
their invention will not lead to a loss of jobs. No one advocates for
such a statute because its economically harmful implications are too
clear.

One problem is that distinguishing pro- from anti-competitive
reductions in labor is not always easy. Sometimes the difference can
be inferred from market structure. For example, if two small firms in
a large field merge and eliminate a certain number of duplicate jobs
the reason is highly likely to be more efficient use of resources. That
would be true of the two lawyers who formed a partnership in New
York, out of a field of thousands of competitors. As the employee-
side market share of the two firms becomes larger, however,
anticompetitive explanations become more plausible. Then it
becomes necessary for a tribunal to investigate whether efficient
consolidation or inefficient labor suppression is going on. For
example, if the only two hospitals in a town should merge,
suppression of nurses’ wages is a real possibility that should be
investigated. Nevertheless, even these two hospitals might be able to reduce costs through efficient consolidation. For all of these reasons the structural indicators used in the Merger Guidelines are a helpful first step. If applied to labor, they can help enforcers identify threatening levels of labor concentration that might result in downward pressure in wages or working conditions.

Efficient changes that reduce the demand for labor typically result from an identifiable change in product or process design that explains why less labor is necessary. For example, in the Chrysler-Jeep merger case the post-merger firm can point to the physical consolidation of dealerships and elimination of duplicate jobs. Assessing a merger of hospitals in a concentrated market could be more difficult. For example, suppose the only two hospitals in a community should merge and one feared consequence is suppression of nursing wages. Wages may decline because the merger eliminates duplication, as in the Chrysler-Jeep example, but in that case there should be visible evidence of consolidations in operations, such as the use of one facility where formerly there were two.

Antitrust Welfare in the History of Economics

Antitrust policy has not always articulated a consumer welfare principle. However, the measurement of “welfare” has been a lively topic in neoclassical economics for a long time. Most of the

96 Cf. United States v. Anthem, Inc., 855 F.3d 345, 371-374 (D. C. Cir. 2018) (then Circuit judge Kavanaugh, dissenting, noting dispute about whether lower provider rates result from hospital merger would result from increase efficiency or anticompetitive suppression of input prices). See also Elena Prager & Matthew Schmitt, Employer Consolidation and Wages: Evidence from Hospitals (SSRN working paper Jun 2019), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3391889 (citing evidence that hospital mergers in concentrated markets can result in wage suppression for employees such as nurses and that the dominant explanation if employer power over labor).

97 2010 Horizontal Merger Guidelines, supra note ___.

debate concerned variations on the Pareto principle.\footnote{In Vilfredo Pareto, \textit{Manual of Political Economy} (1906; Aldo Montesano, trans., 1971).} The substance of the debate considered how to turn some perception of individual welfare into conclusions about the aggregate welfare of society. Under the Pareto principle no change can be said to improve welfare unless it makes at least one person better off and no one worse off. A voluntary agreement with no effect on anyone else qualifies, because it makes both parties better off. Thus economics’ strong preference for free market exchange. No policy that affects larger groups is a Pareto improvement unless it has unanimous consent.\footnote{For a good introduction to the issues, see Howard F. Chang, \textit{A Liberal Theory of Social Welfare: Fairness, Utility, and the Pareto Principle}, 110 \textit{Yale L.J.} 173 (2000).} Since every government policy produces both gainers and losers, pure Pareto left economic policy with few options.

While the idea of a welfare “tradeoff” first entered antitrust debate in the 1960s and 1970s,\footnote{See discussion \textit{supra}, text at notes \footnote{Nicholas Kaldor, \textit{Welfare Propositions and Inter-personal Comparisons of Utility}, 49 \textit{Econ. J.} 553 (1939); John R. Hicks, \textit{The Foundations of Welfare Economics}, 49 \textit{Econ. J.} 696 (1939). \textit{See also Arthur C. Pigou, \textit{The Economics of Welfare} (1920).} to \footnote{See Jules L. Coleman, \textit{Efficiency, Utility, and Wealth Maximization}, 8 \textit{Hofstra L. Rev.} 509 (1980).}} the notion of a tradeoff involving economic actions that harmed some people while benefitting others had emerged in welfare economics by the 1930s. Nicholas Kaldor and John Hicks tried to find workarounds consistent with the Pareto Principle that might nevertheless permit economic decision making imposed on unwilling actors.\footnote{Nicholas Kaldor, \textit{Welfare Propositions and Inter-personal Comparisons of Utility}, 49 \textit{Econ. J.} 553 (1939); John R. Hicks, \textit{The Foundations of Welfare Economics}, 49 \textit{Econ. J.} 696 (1939). \textit{See also Arthur C. Pigou, \textit{The Economics of Welfare} (1920).}} Under the Kaldor-Hicks approach, a change improves welfare if the gains experienced by gainers is sufficiently large that they are able to compensate the losers fully out of their gains and still be at least as well off.\footnote{See Jules L. Coleman, \textit{Efficiency, Utility, and Wealth Maximization}, 8 \textit{Hofstra L. Rev.} 509 (1980).} Both Pareto and Kaldor-Hicks are attempts at a “general” welfare test, or one that applies to everyone who is affected by the change. Kaldor-Hicks acknowledges the possibility of welfare tradeoffs, while pure Pareto
does not. Kaldor-Hicks also lies at the heart of modern cost-benefit analysis. Unlike pure Pareto, it typically requires cardinal (i.e., quantified) measures of the gains and losses.

A move from competition to monopoly flunks the Kaldor-Hicks principle because the losses (wealth transfer from higher prices plus deadweight loss) would be greater than the gains (higher profits). Thus the idea that welfare "tradeoffs" exist in policy making was well known in economics before Williamson wrote his famous article on welfare tradeoffs in antitrust. What Williamson added was the idea that some creations of monopoly could be accompanied by productive efficiency gains.

One of Williamson’s points was that we should not evaluate monopoly by comparing it to competition under the same cost conditions, which always show monopoly to be bad. Rather, one must look at how the monopoly is created in order to see if there are compensating productive efficiency gains. So the revised statement about monopoly becomes something like “a movement from competition to monopoly is bad only if the resulting deadweight loss exceeds any resulting gains in efficiency.” This is a general welfare test because, it looks at all those who are affected in one way or the other by the creation of monopoly. Impact on output is not decisive because a welfare improvement can conceivably result from practices.

that reduce output as well as those that increase it. The principal difference is that a practice that reduces output will require efficiency gains to make it welfare improving. A practice that simply increases output will improve welfare even if there are no gains in productive efficiency.\textsuperscript{108}

The Williamson proposal would proclaim an antitrust practice such as a merger to be competitively harmful only if the resulting welfare losses from increased monopoly exceeded any welfare gains from increased productive efficiency.\textsuperscript{109} In making this argument, Williamson identified monopoly welfare with the deadweight loss that results from reduced output and higher prices.\textsuperscript{110} As contemporary economist critics pointed out, by the time Williamson was writing it was already clear that this approach seriously understated the social cost of monopoly. In particular, Williamson underestimated the price increases that would result and ignored the social costs of the processes by which monopoly is created.\textsuperscript{111} If a monopoly is worth $100, then a firm would be willing to spend any amount up to $100 to attain it, and those expenditures might be socially costly rent seeking or predatory destruction.\textsuperscript{112}

Also significant was that Williamson performed this analysis by starting out with perfect competition as a baseline and then looked for increased monopoly losses and increased productive efficiency as

\textsuperscript{108} For example, a movement from monopoly toward competition increases welfare even if costs do not change.
\textsuperscript{109} Williamson, \textit{supra} note \textsuperscript{21} at 21 (discussed in BORK, PARADOX, \textit{supra} note \textsuperscript{107}).
\textsuperscript{110} See discussion \textit{supra}, text at notes \textsuperscript{107}.
a market moved from that point to monopoly.\textsuperscript{113} If he had started out with a market that already exhibited significant monopoly and estimated the effects of a further increase in monopoly, he would have come to much different conclusions. In such cases a much greater productive efficiency gain is needed to offset the incremental welfare loss from monopoly.\textsuperscript{114}

“Consumer” welfare is not what Williamson was contemplating in his tradeoff article. It branded practices as efficient, and thus not worthy of antitrust attack, even if they reduced output and harmed consumers. By contrast, “consumer” welfare looks exclusively at the welfare of consumers and is unwilling to make tradeoffs with others. If something harms consumers it decreases consumer welfare. This distinctive concept of consumer welfare also shows up in the economics literature in the first half of the twentieth century, mainly in discussions of welfare economics and tax policy.\textsuperscript{115} In antitrust writing, however, it is largely a creature of the 1960s and after.

\textsuperscript{113} See Williamson, supra note _ at 21 (graph illustrating perfect competition as starting point).
\textsuperscript{114} See Herbert Hovenkamp, Is Antitrust’s Consumer Welfare Principle Imperiled?, 45 J. CORP. L. 65, 70 & n.17 (2019). In the context of mergers in imperfect markets, see HOVENKAMP FEDERAL ANTITRUST POLICY, supra note __, §12.2b.
\textsuperscript{115} See, e.g., John Kenneth Galbraith, Countervailing Power, 44 AM. ECON. REV. 1 (1954) (defending value of consumer welfare as an economic goal, although unclear about the precise meaning); John C. Haranyi, Welfare Economics of Variable Tastes, 21 REV. ECON. STUD. 204 (1953) (discussing how changes in consumer taste affect consumer welfare); R. K. Davidson, The Alleged Excess Burden of an Excise Tax in the Case of an Individual Consumer, 20 REV. ECON. STUD. 209 (1952) (on effect of excise taxes when passed on from merchant to consumer); Alex Hunter, Product Differentiation and Welfare Economics, 69 Q.J. ECON. 533 (1955) (product differentiation increases consumer welfare because consumers prefer a variety of products); Arnold C. Harberger, Monopoly and Resource Allocation, 44 AM. ECON. REV. 77 84 (1954) (monopoly harms consumer welfare); Robert S. Lynd, The Consumer Becomes a “Problem,” 173 ANNALS AM. ACAD. POL. SOC. SCI. 1 (1934) (prominent New Deal era
Bork actually adopted a properly defined consumer welfare approach to antitrust in the 1960s but then backtracked to a Wiliamsonian welfare tradeoff approach when he wrote The Antitrust Paradox in 1978. In 1965 Bork had argued that “the sole appropriate value in this field of antitrust is the maximization of consumer want satisfaction.” Whatever “consumer want satisfaction” might mean, increased producer profits does not seem to capture it. Bork expressly tied his conception of consumer welfare to increases in output. For example, he argued, the two things prohibited by the Sherman Act, collusion and exclusion, were bad because they “enable[ed] the parties to restrict output, thus creating misallocation of resources.” In his thinking at that time, the plausible effects of a competition-affecting practice was either “efficiency or restriction of output,” but not both. He wrote a year later that:

Acceptance of consumer want satisfaction as the law’s ultimate value requires the courts to employ as their primary criterion the impact of any agreement upon output, and thus to determine whether the net effect of the agreement is to

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sociologist decrying shift of government policy concern away from the welfare of consumers and toward that of business). See also Covey T. Oliver, The Fair Trade Acts, 17 Tex. L. Rev. 391 (1939) (arguing that resale price maintenance (“fair trade”) harms consumer welfare). Cf. John A. Hobson, Neo-Classical Economics in Britain, 40 POL. SCI. Q. 337 (1925) (arguing that neoclassicalism rejected classicism’s theory of value based on costs to one that was based on the aggregate welfare of producers and consumers).

117Robert H. Bork, The Rule of Reason and the Per Se Concept: Price Fixing and Market Division, 74 YALE L.J 775, 780 (1965).
118Id. at 781; Robert H. Bork, A Reply to Professors Gould and Yamey, 76 YALE L.J. 731, 740 (1968) (“output effect is a valid criterion because it is related to consumer welfare”).
119Bork, Rule of Reason, supra note __ at 832.
create efficiency, and thereby increase output or, alternatively, to restrict output.120

The entire thrust of Bork’s argument in the 1960s was that the purpose of the antitrust laws was to pursue practices that reduce output. These pieces were all written prior to the publication of Oliver Williamson’s welfare tradeoff article in 1968.

By the time Bork published The Antitrust Paradox a decade later, however, he had read Williamson and had changed his mind.121 Now he was willing to accept that even a practice such as a merger that reduced output significantly could be efficient if the gains from productive efficiency exceeded the welfare losses of the output reduction.

While Bork accepted the welfare tradeoff model in The Antitrust Paradox, he largely limited it to the tradeoff that occurs between consumers and producers, not giving much attention to effects on third parties.122 To illustrate, under this model a price-increasing joint venture that produced $1000 in consumer losses from higher prices, but $1200 in increased producer profits from a combination of cost reductions and higher margins would be counted as a welfare gain and thus should be legal.123 Bork did not even consider the economic harm done to third parties such as excluded competitors, and these can be significant.124

One particularly damaging feature of the welfare tradeoff model as Williamson developed it and Bork paraphrased it was that a relatively small profit increase for producers would be sufficient to

121BORK, ANTITRUST PARADOX, supra note __, 107-112.
122Bork, Id.
124 See Id., §1.3c,d.
offset rather large price increases to consumers. As a result, even practices that reduced output and raised price significantly were thought to promote welfare. Williamson concluded that under typical assumptions about elasticities of demand a cost reduction of 1% - 4% would be sufficient to offset a price increase of about 20%.\textsuperscript{125} “More generally it is evident that a relatively modest cost reduction is usually sufficient to offset relatively large price increases.”\textsuperscript{126} This led Williamson to conclude that “a merger which yields non-trivial real economies must produce substantial market power and result in relatively large price increases for the net allocative effects to be negative.”\textsuperscript{127} This conclusion was controversial.\textsuperscript{128}

Further, both Williamson and Bork acknowledged that interpreting antitrust welfare in this way could result in tolerance of monopolistic margins. As Bork acknowledged, quoting Williamson:

Inasmuch as the income distribution which occurs is usually large relative to the size of the dead-weight loss, attaching even a slight weight to income distribution effects can sometimes influence the overall valuation significantly.\textsuperscript{129}

For example, a practice that produced $1000 in monopoly profits and a corresponding loss of $1000 in consumers’ surplus would be efficient if it produced a $200 deadweight loss offset by $210 in productive efficiency savings. These numbers, which are not unrealistic, entailed that antitrust policy would close its eyes to enormous price increases above cost in the name of unproven efficiencies.

In addition, Williamson did not acknowledge the severe measurement difficulties that would accompany his welfare tradeoff

\textsuperscript{125}Williamson, \textit{Economies}, supra note __ at 22.
\textsuperscript{126}\textit{Ibid}.
\textsuperscript{127}\textit{Id.} at 23.
\textsuperscript{128}See DePrano and Nugent, supra note ____.
model.\textsuperscript{130} The approach that Bork developed in \textit{The Antitrust Paradox} did acknowledge that problem, but it came up with a damaging solution from which antitrust policy has not fully recovered. Not only did he consider the welfare tradeoff to be incapable of measurement, he denied that the efficiencies themselves could be quantified. Using economies of scale as an example, he concluded that the problem of efficiency measurement is “utterly insoluble.”\textsuperscript{131} Rather, efficiencies should be taken on faith. His use of economies of scale as an example is further ironic because he was speaking of practices that reduce output rather than increase it.

\textit{The Measurement of Efficiencies}

Bork’s never explained the basis for his conclusion that productive efficiencies are simply incapable of measurement. The efficiencies in question are production efficiencies, which are cost reductions or quality improvements that attend changes in a firm’s scope, technology, or methods. They are measured by computing savings in production or distribution costs, multiplied by the predicted number of production units to which the new technology will apply. Measurement of these things can be difficult, but to say that the problem of efficiency measurement is “utterly insoluble” suggests that a firm has no means for determining whether an investment in new technology or processes is worthwhile. It also suggests that a competitive firm contemplating acquisition of another firm would never know the size of efficiency gains. As a result, they

\textsuperscript{130} On the measurement difficulties of assessing antitrust practices under a general welfare test, see Hovenkamp, \textit{Imperiled}, supra note __ at 71-72.
\textsuperscript{131} Bork, \textit{Antitrust Paradox}, supra note __ at 126. Bork reached this conclusion by going off on a tangent that had nothing to do with the question at hand, which was how to measure economies of scale. Rather, he looked at all of the factors that affect firm size, including management, finance, and marketing. But the issue is only whether adoption of a particular technological change reduces costs, and by how much. \textit{See id.}, quoting E.A.G. Robinson, \textit{The Structure of Competitive Industry} 12 (1958).
would have no mechanism for estimating how much they should be willing to pay.

But the fact is that firms do these things all the time. A firm that invests, say, $50,000,000 in improved assembly line technology certainly estimates what expected gains must be in order to warrant the conclusion that this is a good investment. Many mergers occur at a substantial premium above current stock prices – an act that is rational only on the assumption that the firm has been able to make at least a serviceable estimate of gains. As with any predictive science, estimating productive efficiency gains from a particular future investment involves assumptions that may not always obtain, but to say that these changes are utterly incapable of measurement, as Bork did, reflects lack of knowledge about how firms make decisions.

Bork did antitrust a significant disservice by sticking with the term “consumer welfare” to describe the approach he took in The Antitrust Paradox, even though it deviated from his earlier writing that had measured consumer welfare appropriately, strictly by relation to higher output and lower prices. This became increasingly troublesome as it operated to justify ever increasing margins and prices, all the while proclaiming them consistent with the consumer welfare principle.

This conception of “consumer welfare” haunts antitrust to this day. Under it, for example, the dissenters in the Supreme Court’s Actavis decision could speak of antitrust as adhering to a consumer welfare principle even as they would have approved a practice (pay-
for-delay) that resulted in very substantially higher prices to consumers. Or the majority in the *American Express* decision could profess adherence to the consumer welfare principle even as they were approving a practice that resulted in higher consumer prices and merchant costs every single time it was applied. In both cases the practice was highly profitable to producers, and that was all that mattered.

Very likely, one of the reasons that the consumer welfare principle has faced so much opposition from the antitrust left is that many people do not understand its meaning. By identifying the principle with Bork, they see high profits and reduced opportunities for labor as its principal products. Of course, this is not true of everyone. Some of the consumer welfare principle’s detractors simply prefer a regime that protects small business or opposes large firms because of their political power or perhaps some other reason.

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135 See FTC v. Actavis, Inc., 570 U.S. 136, 161 (2013) (Roberts, C.J., dissenting, along with Justices Scalia and Thomas). In a pay-for-delay settlement a patentee with a weak patent pays an alleged infringer to stay out of the market. See HOVENKAMP, FEDERAL ANTITRUST POLICY, supra note __, §5.5c3.


137 See Hovenkamp, *Imperiled*, supra note __.

Antitrust Harm

CAUSATION AND REMEDIES

Antitrust enforcement requires both a theory of harm and a theory of causation. The rhetoric of antitrust enforcement often speaks of private plaintiffs as “private attorneys general.”\(^{139}\) In fact, however, both the statutory structure of antitrust’s enforcement provisions as well as nonstatutory doctrine distinguishes sharply between public and private enforcers. For example, the Supreme Court’s *Illinois Brick* decision evoked the “private attorney general” bromide even as it restricted the range of private enforcement to something far less than the power of the enforcement agencies.\(^{140}\)

The distinction between private and public enforcement is reflected mainly in causation requirements, which draw heavily from traditional criminal law and tort theory. Only the private enforcer must show particular causation and individual harm. For example, the police officer can enforce the law against drunk driving even though there is no accident, and no one is hurt. The legal violation is all that is required, because the rationale for the police officer’s duties is management of risk. A private plaintiff, by contrast, ordinarily needs to show some kind of actual or specifically threatened injury caused by the violation.

*Causation in the Antitrust Remedial Provisions*

The antitrust statutes create a tort-like approach to causation in private actions. By contrast, the public enforcement statutes contain no causation requirement at all. Under them, the Attorney General has the authority to “prevent and restrain” antitrust violations, with no expressed requirement that the violation has caused any harm.\(^{141}\) The Federal Trade Commission operates under

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\(^{140}\) *Illinois Brick*, id. at 746 (restricting private damages recoveries to direct purchasers).

\(^{141}\) 15 U.S.C. §25:
similar authority “to prevent” firms “from using unfair methods of competition”—once again, with no causation requirement.\textsuperscript{142}

These provisions stand in sharp contrast to antitrust’s private action provisions. Section 4 of the Clayton Act awards treble damages to a private plaintiff who can prove that he was “injured in his business or property by reason of anything forbidden in the antitrust laws.”\textsuperscript{143} Section 15 of the Clayton Act provides an injunction to a firm who can show “threatened loss or damage by a violation of the antitrust laws….”\textsuperscript{144}

The difference in substantive reach between the private and public equity provisions is also notable. The statute authorizing private antitrust injunctions permits them

“under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity, under the rules governing such proceedings…”\textsuperscript{145}

Those conditions and principles include a showing of an “inadequate remedy at all,” “irreparable harm,” and a balance of interests favoring injunctive relief.\textsuperscript{146}

\begin{flushright}
The several district courts of the United States are invested with jurisdiction to prevent and restrain violations of this Act, and it shall be the duty of the several United States attorneys, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations.
\end{flushright}

\textsuperscript{142} 15 U.S.C. §45(2):
The Commission is hereby empowered and directed to prevent persons … from using unfair methods of competition in or affecting commerce and unfair or deceptive acts or practices in or affecting commerce.

\textsuperscript{145}\textit{Ibid}.
\textsuperscript{146}E.g., eBay, Inc. v. MercExchange, LLC, 547 U.S. 388, 391 (2006) (listing the four requirements for a permanent injunction as (1) irreparable injury; (2) inadequacy of remedies at law, such as damages; (3) that the balance of hardships favors the plaintiff; and (4) that the public interest
By contrast, the statute authorizing the United States as enforcer to obtain an injunction imposes no such limitation. It simply authorizes the government to use the courts to “prevent and restrain” antitrust violations, *simpliciter*.\(^{147}\) The inference is thus strong that Congress did not intend to limit the Antitrust Division’s equity enforcement power to historical principles of equity.\(^{148}\) As Judge Wyzanski once observed, “[i]n the antitrust field the courts have been accorded, by common consent, an authority they have in no other branch of enacted law....”\(^{149}\)

One other causation-related requirement that applies to private parties but not public enforcers is “antitrust injury,” which is a nontextualist limitation on both private damages actions and private suits in equity. Literally, §4 of the Clayton Act says that “any person” who is injured “by reason of anything forbidden in the antitrust laws” has standing to obtain damages.\(^{150}\) That is, it requires only cause-in-fact. The additional requirement of antitrust injury originated with Justice Thurgood Marshall’s opinion in Brunswick v. Pueblo Bowl-O-Mat, a damages action challenging a vertical merger.\(^{151}\) Pueblo, the plaintiff, operated a bowling alley in Pueblo, Colorado. Its competitor Belmont Lanes was in financial distress and deeply indebted to its franchisor, Brunswick.\(^{152}\) Under a program of buying up failing franchisees, Brunswick purchased Belmont Lanes, injected

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\(^{148}\) Section 13(b) of the FTC Act, which authorizes temporary injunctions, is a more limited. It permits the granting of preliminary relief “Upon a proper showing that, weighing the equities and considering the Commission’s likelihood of ultimate success, such action would be in the public interest....” 15 U.S.C. §53(b). At this writing the Supreme Court has agreed to decide whether that provision entitles the FTC to seek disgorgement of improper gains. FTC v. Credit Bureau Center, LLC, 937 F.3d 764 (7th Cir. 2019), cert. granted, 141 S.Ct. 194 (2020).


\(^{152}\) For a fuller statement of the facts, see NBO Indus. Treadway Co., Inc. v. Brunswick Corp., 523 F.2d 262 (3d Cir. 1975), which the Supreme Court reversed.
new money into it, and rehabilitated it. Pueblo’s lawsuit claimed that the acquisition was an unlawful merger, and that it was injured by the need to compete with a rejuvenated rival.

Clearly, Pueblo suffered injury-in-fact that was “caused” by the acquisition. We can generally presume that a firm is injured when its failing competitor is rehabilitated. Whether the acquisition was substantively unlawful under the merger laws is another matter, and the Supreme Court did not resolve it.153 Nevertheless, the facts require a double take: the plaintiff was effectively complaining about more rather than less competition in the Pueblo, Colorado, bowling market. That was too much even for Justice Marshall, a liberal who believed in aggressive antitrust enforcement.154 He concluded for the Court that a private plaintiff must show not merely injury-in-fact caused by an antitrust violation, but also “antitrust injury.” That is, injury “of the type the antitrust laws were intended to prevent and that flows from that which makes defendant’s acts unlawful.”155 Manifestly it was not the purpose of the merger laws to protect firms from being injured by more competition. A few years later the Supreme Court extended Brunswick to private actions seeking an injunction.156 The doctrine does not apply to the government acting as enforcer because, as previously noted, the government need not show injury at all.

Given that antitrust’s remedial statutes articulate these causation requirements, it would seem superfluous to have additional causation requirements in the substantive statutes themselves. In fact, however, the issue is more complicated.

Section 1 of the Sherman Act prohibits contracts in restraint of trade, leaving it to the courts to define that term. After Justice

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153 The Third Circuit did not resolve the legality question either but rejected the defendant’s request for a j.n.o.v. and remanded for a new trial. 523 F.2d 262, 279 (3d Cir. 1975). The district court had approved a jury’s verdict finding a violation. 364 F. Supp. 316 (D.N.J. 1973).
154 E.g., United States v. Topco Assocs., Inc., 405 U.S. 596, 610 (1972) (Marshall, j., applying per se rule against ancillary restraint in joint venture with a small market share after declaring that the antitrust laws are “the Magna Carta of free enterprise”).
155 Brunswick, 429 U.S. at 489.
Peckham’s initial indication in the *Trans-Missouri* case that §1 reaches “every” contract the Court backtracked and concluded that it prohibited only those agreements that restrain trade “unreasonably.” Section 2’s monopolization provision is similarly interpreted to reach only acts that appear to be reasonably capable of monopolizing. Nothing in the statutory language considers exactly what these requirements are, or even whether there need to be any effects at all.

Showing that an agreement restrains trade requires adequate evidence that the agreement is of a type that realistically threatens an output reduction and corresponding price increase. The government as enforcer needs to show that, but it need not show actual injury. The private plaintiff must additionally show individual injury resulting from a restraint of trade. But this is a requirement of the private action provision, §4 of the Clayton Act, not of §1 of the Sherman Act directly. This injury could be an overcharge in the case of damages, or market exclusion in the case of a boycott or exclusive dealing agreement. Section 2 monopolization cases work the same way. The government must show conduct that reasonably seems capable of causing reduced output and increased prices by excluding a rival. The private plaintiff must additionally show an actual effect to support a damages action or an individually threatened effect to support an injunction. The required private effect could be either a higher price which it paid, or lost profits from market exclusion.

The substantive provisions of the Clayton Act differ from the Sherman Act in that they explicitly incorporate an “effects” test. All three of the Clayton Act’s substantive provisions reach conduct only

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157 *United States v. Trans-Missouri Freight Assn.*, 166 U.S. 290, 312-313, 328 (1897) (“the plain and ordinary meaning of such language is not limited to that kind of contract alone which is in unreasonable restraint of trade, but all contracts are included in such language”), qualified by *Standard Oil Co. of New Jersey v. United States*, 221 U.S. 1, 90-92 (1911); and *United States v. Trenton Pottery Co.*, 273 U.S. 392 (1927).


“where the effect may be substantially to lessen competition or tend to create a monopoly.” Section 2 of the Act, later amended by the Robinson-Patman act, prohibits certain price differences “where the effect of such discrimination may be substantially to lessen competition or tend to create a monopoly…”\(^{160}\)

Section 3 of the Clayton Act, which governs exclusive dealing and tying, prohibits sales on the condition that the buyer not deal with a competitor, “where the effect of such … sale … may be to substantially lessen competition or tend to create a monopoly…”\(^{161}\)

Finally §7 of the Clayton Act prohibits covered mergers “where in any line of commerce or in any activity affecting commerce in any section of the country, the effect of such acquisition may be substantially to lessen competition, or to tend to create a monopoly.”\(^{162}\)

For all three Clayton Act provisions, the causation requirement is diluted by the language “where the effect may be,” indicating that certainty is not a requirement. The courts subsequently made clear that this effects language was triggered by “probabilities” rather than “certainties.”\(^{163}\) Clearly, the statutes do not require that the conduct actually raised price or excluded firms from the market, but only that the effect “may be” that they would do. This is a more express invitation to include an element of risk management into public enforcement. For example, it enables such procedures as pre-merger evaluation and condemnation of proposed acquisitions.\(^{164}\) The

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\(^{160}\) 15 U.S.C. §13. The Robinson-Patman amendments, added in 1936 added “or to injure, destroy, or prevent competition with any person who either grants or knowingly receives the benefit of such discrimination….” Ibid.


\(^{163}\) E.g., Brown Shoe Co. v. United States, 370 U.S. 294, 323 (1962) (Congress was indicating “that its concern was with probabilities, not certainties.”). See also FTC v. Procter & Gamble Co., 386 U.S. 568 (1967) (“The section [of the Clayton Act] can deal only with probabilities, not with certainties.”). More recently, see St. Alphonsus Medical Center-Nampa, Inc. v. St. Luke’s Health Sys., Ltd., 778 F.3d 775, 783 (9th Cir. 2015) (“judicial analysis necessarily focuses on ‘probabilities, not certainties.’” quoting Brown Shoe, supra).

\(^{164}\) See 4A PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶990 (4th ed. 2017).
additional requirement imposed on private challengers derives purely from the private action statutes and require actual or individually threatened harm. For example, merely showing a merger that crosses a particular concentration threshold can permit the government to obtain an injunction, but a private plaintiff would have to show some more specific harm, such as higher prices or exclusion.

Public v. Private Enforcement: Causation as Management of Risk

Many of the harms that antitrust law condemns are apparent even though they are difficult to quantify, and certainly in the short run. One good example is the antitrust’s legitimate concern with restraints on innovation. Such restraints are particularly pernicious because the social value of innovation is very high. Indeed, today a broad consensus exists that the economic gains from innovation exceed the gains from increased competition under constant technology, and by a significant amount.\(^{165}\) A corollary is that a restraint on innovation can cause significantly more economic harm than a restraint on price or output of an existing product.

One big problem, however, is that innovation is much less well

disciplined, and thus less predictable in individual cases, than is price competition under constant technology.\textsuperscript{166} Today we have good tools for relating changes in output to price and making predictions about the price effects of mergers or other practices that tend to limit output. Innovation, by contrast, is radically unpredictable.\textsuperscript{167}

Significant risk but uncertain individual prediction is a frequent characteristic of antitrust enforcement, but particularly in highly innovative markets. One consequence of this is differentiated causation requirements depending on who the plaintiff is. For the public enforcer, the principal concern is management of risks, some of which may be uncertain. For the private plaintiff, the concern is actual or individually threatened harm to its own prospects.

A good example is the Microsoft litigation, a case brought by the government and seeking equity relief for conduct that included restraints on innovation. Against the defendant’s argument for stronger proof of causation the court found no case law support for a plaintiff’s requirement to “present direct proof that a defendant’s continued monopoly power is precisely attributable to its anticompetitive conduct.”\textsuperscript{168} Rather, the court held in such a case causation could be inferred “from the fact that a defendant has engaged in anticompetitive conduct that “reasonably appear[s] capable of making a significant contribution to … maintaining monopoly power.”\textsuperscript{169} The court then added,

We may infer causation when exclusionary conduct is aimed at producers of nascent competitive technologies as well as when it is aimed at producers of established substitutes. Admittedly, in the former case there is added uncertainty, inasmuch as nascent threats are merely potential substitutes. But the underlying proof problem is the same—neither plaintiffs nor the court can

\textsuperscript{166}See, e.g., JOSEPH A. SCHUMPETER, THE THEORY OF ECONOMIC DEVELOPMENT, esp. chs. 1 & 2 (1911).


\textsuperscript{168}United States vs. Microsoft Corp., 253 F.3d 34, 79 (D.C. Cir. 2001) (en banc) (per curiam).

\textsuperscript{169}Id., quoting 3 PHILLIP E AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW 651C (3d ed. 1996).
confidently reconstruct a product's hypothetical technological development in a world absent the defendant's exclusionary conduct. To some degree, "the defendant is made to suffer the uncertain consequences of its own undesirable conduct."\(^1\)\(^{70}\)

The issue was whether Microsoft’s conduct had served to restrain the development of a rival internet browser, Netscape Navigator, facilitated by the Java computer language. The court explained:

Given this rather edentulous test for causation, the question in this case is not whether Java or Navigator would actually have developed into viable platform substitutes, but (1) whether as a general matter the exclusion of nascent threats is the type of conduct that is reasonably capable of contributing significantly to a defendant’s continued monopoly power and (2) whether Java and Navigator reasonably constituted nascent threats at the time Microsoft engaged in the anticompetitive conduct at issue. As to the first, suffice it to say that it would be inimical to the purpose of the Sherman Act to allow monopolists free reign to squash nascent, albeit unproven, competitors at will—particularly in industries marked by rapid technological advance and frequent paradigm shifts. As to the second, the District Court made ample findings that both Navigator and Java showed potential as middleware platform threats.\(^1\)\(^{71}\)

These conclusions stand in sharp contrast to those in follow-on private litigation against Microsoft challenging the same conduct. The facts in the Fourth Circuit’s Kloth v. Microsoft decision\(^1\)\(^{72}\) were taken entirely from the government’s litigation. The plaintiffs were purchasers and users of Windows computers claiming that Microsoft’s conduct targeting Java technology restrained innovation and denied them the benefits of a more competitive market by "suppressing competitive technologies."\(^1\)\(^{73}\)

In rejecting that claim the Fourth Circuit agreed with the District Court that:

\(^{170}\) Id., quoting 3 AREEDA & HOVENKAMP, id., ¶651c.

\(^{171}\) Microsoft, 253 F.3d at 79

\(^{172}\) Kloth vs. Microsoft Corp., 444 F.3d 312 (4th Cir. 2006).

\(^{173}\) Id. at 322.

Electronic copy available at: https://ssrn.com/abstract=3771399
It would be entirely speculative and beyond the competence of a judicial proceeding to create in hindsight a technological universe that never came into existence. . . . It would be even more speculative to determine the relevant benefits and detriments that non-Microsoft products would have brought to the market and the relative monetary value . . . to a diffuse population of end users.\textsuperscript{174}

As a result, the court concluded, “the harms that the plaintiffs have alleged with respect to the loss of competitive technologies are so diffuse that they could not possibly be adequately measured.” Further, the problem “is not one of discovery and specific evidence, but of the nature of the injury claimed.”\textsuperscript{175}

Analytically, these two approaches to the same conduct seem stunningly different. The important difference does not lie in the conduct, however, but in the identity of the plaintiff. The plaintiffs in \textit{Kloth} were private persons seeking damages. They had to show not only a violation of §2 of the Sherman Act, but also that they had suffered measurable damages “by reason of” an antitrust violation, as the private enforcement statute required. Quantifying the injury that might result from an innovation that was never developed would be impossible. The court also dismissed a request for an injunction as stale under the doctrine of laches.\textsuperscript{176} The relevant harm was in the past, making an injunction useless.

\textit{The Relationship of Violation, Causation, and Remedy}

The antitrust enforcement statutes are frustratingly silent on questions about remedies, or about the relationship between remedies and various antitrust violations. As previously noted, the public enforcement provision authorizes the Attorney General to “prevent and restrain” violations of “this act,” referring to all of the antitrust laws. Further, the statute does this through an unrestricted grant of equitable power that does not distinguish among the various antitrust statutes and does not relate any particular violation to any particular remedy.

When criminal enforcement is on the table the problem of

\textsuperscript{174} \textit{Id.} at 324.
\textsuperscript{175} \textit{Ibid.}
\textsuperscript{176} \textit{Id.} at 325-326.
indefiniteness is even more severe. For example, both §§1 and 2 of the Sherman Act stipulate that violators “shall be deemed guilty of a felony...”\textsuperscript{177} In fact, the same statutory language covers both criminal and civil violations with no differentiation between them. Further, criminal liability is clearly presumed from the language. For example, §2 states that “Every person who shall monopolize ... shall be deemed guilty of a felony.”\textsuperscript{178}

Notwithstanding that language, today most violations of §1 of the Sherman Act are civil, as are virtually all pure §2 violations. Over the years, the courts and enforcement agencies have evolved a kind of common law of remedies. First, both the Department of Justice\textsuperscript{179} and the Supreme Court\textsuperscript{180} have produced guidance about when criminal liability is appropriate.

Second – and much less explicitly – the courts have evolved some presumptions for relating particular antitrust offenses to particular remedies. For example, outside of the merger context, “structural” (i.e., breakup) relief against single firms is largely restricted to §2 of the Sherman Act. This is a possible explanation of the legal theory behind the various government antitrust complaints filed in late 2020 against Google and Facebook.\textsuperscript{181} The overwhelming majority of practices alleged in the complaints are for various types of agreements. These include simple deals, such as Google’s payment of money to Apple to make Google Search the default browser on iPhones. They also include restrictions in various developmental agreements with app creators, advertisers, or others preventing them from favoring or using competing technologies. Further, they complain about licensing agreements, such as Google restrictions imposed on the manufacturers of Android devices.\textsuperscript{182}

\textsuperscript{177} 15 U.S.C. §§1,2.
\textsuperscript{179} See https://www.justice.gov/atr/criminal-enforcement.
\textsuperscript{180} E.g., United States v. U.S. Gypsum co., 438 U.S. 422 (1978) (criminal §1 case requires proof of mens rea); and see 3 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW §303c3 (5th ed. 2021) (forthcoming).
\textsuperscript{182} The allegations in the various complaints are analyzed in Hovenkamp, Platform Monopoly, supra note ___ at __.
While these practices are diverse, what they all have in common is that they are reachable under §1 of the Sherman Act, and there is a long history of applying §1 in these ways.

Nevertheless, the complaints are brought almost exclusively under §2 of the Sherman Act, with a couple of narrow exceptions. The Antitrust Division’s Google complaint is entirely under §2, as is the “Colorado” state AG complaint. The “Texas” AG complaint does include a count under §1, but that complaint also includes an allegation of a market division or price fixing agreement between Google and Facebook. The Federal Trade Commission’s Facebook complaint proceeds entirely under the principles of §2 of the Sherman Act, even though that complaint challenges Facebook’s acquisitions of Instagram and WhatsApp – practices that are historically challenged as mergers under §7 of the Clayton Act, or unlawful combinations under §1 of the Sherman Act.

In general, it is easier to obtain liability for practices challengeable under §1 of the Sherman Act than it is for §2. Further, the requisite market share minimums are typically lower. For example, exclusionary contracts are generally reachable under §1 on market shares in the range of 30% to 40%, lower than the dominance requirement of §2. This could be an issue in the Facebook case, where the FTC alleges a market share in the low 60s, and the market seems to be rather poorly defined.

One explanation for the Agencies’ and state AGs’ nearly exclusive use of §2 is that it is the preferred vehicle for obtaining structural relief. Historically, that seems to be true. Today we think

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184 While the FTC cannot enforce the Sherman Act direction, § 5 of the Federal Trade Commission Act authorizes the FTC to condemn “unfair methods of competition,” which includes everything covered by the Sherman Act plus an unspecified increment. See FTC v. Brown Shoe Co., Inc., 384 U.S. 316, 321 (1966) (“broad power of the Commission is particularly well established with regard to trade practices which conflict with the basic policies of the Sherman and Clayton Acts even though such practices may not actually violate these laws”); 2 PHILLIP E. AREEDA & HERBERT HOVENKAMP, ANTITRUST LAW ¶302 (5th ed. 2021) (forthcoming).
185 FTC Facebook Complt., supra note __.
of monopolization cases as “structural,” and as §1 cases as involving conduct. As noted earlier, however, there is nothing in the statutes that compels such a distinction.

A better way to think of the remedy problem is to pay little or no attention to which antitrust statute is being invoked and look straight to the issue of justification for and likely effects of a particular remedy. If a firm with a nondominant market share is found to have engaged in unlawful exclusionary contracting the appropriate remedy in most cases is an injunction, whether the action is under §1 or §2 of the Sherman Act.\(^\text{186}\) A forced breakup is a highly disruptive remedy that should be applied only when we are reasonably sure that competition cannot be made to work in a particular market. That is a factual and essentially economic inquiry, not an exercise in statutory interpretation. The statutes do not speak to the issue.

**Conclusion**

The temptation to get judges to do what Congress will not is strong. “I know it when I see it” approaches attempt to combine antitrust’s economic goals with concerns about political power, firm size or industrial concentration for its own sake, or some conception of fairness. While well intended, they threaten to return us to a day when antitrust used very expansive rhetoric but was able to accomplish almost nothing.\(^\text{187}\)

Rolling monopoly profits into a conception of consumer welfare as Bork did does just as much harm, perhaps even more, in the other direction. The result of that policy has been not only higher

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\(^{186}\) For an example of a government §2 case against a contract practice seeking only an injunction, see United States v. Dentsply, Inc., 399 F.3d 181, 184 (3d Cir. 2005) (government requested an injunction against exclusive dealing, even though defendant’s market share was 75-80% and fifteen times larger than any rival).

prices, but also reduced output and innovation, harm to labor and to almost everyone else in the supply chain. In our era price-cost margins are very high, labor’s share of the returns to production has declined sharply, economic growth is significantly less than it was in the mid-twentieth century, and economic inequality is near an all-time high.

Antitrust is not a cure-all for these problems, but it does have its role. It does best when it sticks to its economic purposes and lets other legislative agendas handle the rest. Even so, pushing output back up to competitive levels can do a great deal of good when combined with other policy choices.

Statutory causation requirements favor public enforcement in areas such as technology and restraints on innovation, where many antitrust complaints implicate conduct whose precise effects are difficult to foresee but where the risk of harmful consequences is high. That distinction seems fundamentally appropriate given the private motives that dominate so much of private antitrust litigation. Nevertheless, it places on the public enforcers an obligation to enforce aggressively in areas of reasonable but often uncertain risk.

190See https://tradingeconomics.com/united-states/gdp-growth-annual.