School of Law
University of Missouri

Legal Studies Research Paper Series
Research Paper No. 2020-06

THE LIMITS OF ANTITRUST IN THE 21ST CENTURY

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ABSTRACT

In recent months, commentators and policymakers have called for expanded antitrust enforcement to address a number of novel harms. As Judge Frank Easterbrook famously observed in 1984, however, antitrust is an inherently limited enterprise, and improvident antitrust enforcement can create greater harm than benefit. To optimize antitrust's effectiveness, Easterbrook proposed a set of screening mechanisms that would constrain the law's reach.

This Article examines Easterbrook's prescriptions in light of recent economic learning and market developments. It concludes that Easterbrook's overarching prescription—that antitrust policies should be calibrated to minimize the sum of error and decision costs—remains fundamentally sound. However, his assertion that false convictions are systematically worse than false acquittals is questionable, and several of his specific screening mechanisms appear unwarranted.

As courts and enforcers respond to calls for a bigger and bolder antitrust, they should embrace a revised version of Easterbrook's approach and supplement it with four additional screening mechanisms. They should intervene only (1) to address consumer harm (2) stemming from behavior that extends market power, where (3) the harm is unlikely to be addressed in a less distortive manner by another body of law or by private ordering, and (4) the intervention does not require extensive knowledge by central planners or confer a great deal of discretionary authority on government officials.

INTRODUCTION

Antitrust is having a moment. Commentators and policymakers, both progressive and conservative, are calling for increased antitrust enforcement to address all manner of social ills. From technology platforms' power over speech[1] and encroachments on user privacy;[2] to wage stagnation in more concentrated labor markets;[3] to competition-softening from ever-larger index funds;[4] to growing income

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[1] *See, e.g.,* Donald Trump, Jr., *Free speech suppression online builds pressure to break up Big Tech*, THE HILL (Sept. 30, 2019) (available at https://thehill.com/opinion/technology/463631-free-speech-suppression-online-builds-case-to-break-up-big-tech).

[2] *See*, *e.g.*, Dina Srinivasin, *Why Privacy is an Antitrust Issue*, N.Y. TIMES (May 28, 2019).

[3] *See*, *e.g.*, Alan B. Krueger & Eric Posner, *Corporate America Is Suppressing Wages for Many Workers*, N.Y. TIMES (Feb. 28, 2018).

[4] *See*, *e.g.*, Eric Posner, Fiona Scott Morton & Glen Weyl, *A Monopoly Donald Trump Can Pop*, N.Y. TIMES (Dec. 7, 2016).

inequality,[5] reduced innovation,[6] and threats to democracy itself[7]—the list of maladies for which antitrust has been proposed as a remedy goes on and on.

Antitrust enforcers have taken note. From fall 2018 through spring 2019, the U.S. Federal Trade Commission (FTC) held fourteen hearings on Competition and Consumer Protection in the 21st Century.[8] The Commission considered such diverse topics as common ownership by institutional investors, labor market monopsony, consumer privacy, effects of "big data," predatory and exclusionary tactics of technology platforms, algorithms and artificial intelligence, and vertical mergers.[9] In the summer of 2019, the FTC joined the Antitrust Division of the U.S. Department of Justice (DOJ) in announcing probes of Google, Apple, Facebook, and Amazon (colloquially referred to as "GAFA").[10] And the action is not limited to the federal level; more than 46 state attorneys general have joined the fray with their own investigations of Facebook (led by Democrat Letitia James of New York)[11] and Google (led by Republican Ken Paxton of Texas).[12]

In light of policymakers' heightened interest in antitrust and the recent flurry of bipartisan enforcement activity, it is worth stepping back to ask a couple of big-picture questions: What are antitrust's limits in addressing the social harms that

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[5] See, *e.g.*, Jonathan B. Baker & Stephen C. Salop, *Antitrust, Competition Policy, and Inequality*, 104 GEO. L. J. 1 (2015).

[6] *See*, *e.g.*, Derek Thompson, *America's Monopoly Problem: How Big Business Jammed the Wheels of Innovation*, THE ATLANTIC (Oct. 2016) (available at https://www.theatlantic.com/magazine/archive/2016/10/americas-monopoly-problem/497549/).

[7] *See*, *e.g.*, Ganesh Sitaraman, *Unchecked Power: How Monopolies Have Flourished—and Undermined Democracy*, NEW REPUBLIC (Nov. 29, 2018) (available at https://newrepublic.com/article/152294/unchecked-power); TIM WU, THE CURSE OF BIGNESS: ANTITRUST IN THE NEW GILDED AGE (2018).

[8] FEDERAL TRADE COMMISSION, HEARINGS ON COMPETITION AND CONSUMER PROTECTION IN THE 21ST CENTURY (2019) (available at https://www.ftc.gov/policy/hearings-competition-consumer-protection).

[9] *See id*. (cataloguing hearing topics).

[10] *See* Brent Kendall, *Justice Department to Open Broad, New Antitrust Review of Big Tech Companies*, WALL ST. J. (July 23, 2019) (available at https://www.wsj.com/articles/justice-department-to-open-broad-new-antitrust-review-of-big-tech-companies-11563914235); Brian Fung, *FTC ramping up its Big Tech antitrust investigations*, CNN BUSINESS (Sept. 11, 2019) (available at https://www.cnn.com/2019/09/11/tech/ftc-big-tech-antitrust-investigations/index.html).

[11] Tony Romm, *Forty-six attorneys general have joined a New York-led antitrust investigation of Facebook*, WASH. POST (Oct. 22, 2019) (available at https://www.washingtonpost.com/technology/2019/10/22/forty-six-attorneys-general-have-joined-new-york-led-antitrust-investigation-into-facebook).

[12] Lauren Feiner, *Google faces a new antitrust probe by 50 attorneys general*, CNBC (Sept. 9, 2019) (available at https://www.cnbc.com/2019/09/09/texas-attorney-general-leads-google-antitrust-probe.html).

are motivating calls for more aggressive enforcement? And how should enforcers and courts proceed in light of those limits?

These questions are not new. In 1984, Judge (then-Professor) Frank Easterbrook addressed them in an article entitled *The Limits of Antitrust*.[13] Few antitrust articles—or law review articles generally—have had the influence of that writing. Cited more than 600 times in law journals,[14] its central idea appears to underlie most of the U.S. Supreme Court's recent antitrust decisions.[15]

This Article revisits *The Limits of Antitrust* in light of the current antitrust moment. Part I describes the central components of Easterbrook's 1984 proposal and considers, for each, whether and how it should be revised in light of subsequent market developments and advances in economic learning. Part I concludes that Easterbrook's overarching prescription for maximizing antitrust's effectiveness remains fundamentally sound but that his view about the relative harms from over- and under-enforcement, as well as some of the specific screening mechanisms he proposed for optimizing antitrust's effectiveness, require some adjustment.

Part II then builds upon Easterbrook's approach by proposing four new screening mechanisms that could assist 21st Century courts and enforcers in ensuring that antitrust secures as much social welfare as possible, given its intrinsic limitations. The proposed screening mechanisms would limit antitrust intervention to situations in which the complained of conduct (1) causes or threatens harm to consumers, (2) extends market power, (3) is unlikely to be addressed by other bodies of law or privately ordered solutions, and (4) does not involve a remedy requiring a great deal of information or endowing government officials with substantial discretionary authority.

I. Assessing *The Limits of Antitrust*

We begin with a summary of *The Limits of Antitrust* and then turn to assess the merits of its prescriptions in light of 21st Century developments.

a. *Limits'* Three Central Components

[13] Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984).

[14] A Westlaw search of "Law Reviews and Journals" lists 635 journal articles citing Easterbrook's article as of June 2019.

[15] *See* Thomas A. Lambert & Alden Abbott, *Revisiting the Limits of Antitrust: The Roberts Court Versus the Enforcement Agencies,* 11 J. COMPET'N. L. & ECON. 791 (2015); Thomas A. Lambert, *The Roberts Court and the Limits of Antitrust*, 52 B. C. L. REV. 871 (2011).

The approach set forth in *The Limits of Antitrust* included three components. Judge Easterbrook set forth an overarching objective for antitrust courts and enforcers, offered advice on how to weigh different costs in making intervention decisions, and posited a set of specific screening mechanisms that would help achieve antitrust's overarching goal.

1. The Overarching Objective

To understand the objective Easterbrook posited for antitrust courts and enforcers, it may help to consider antitrust's "domain"—i.e., the type of activity it regulates. Antitrust is concerned with business behaviors that generate market power: *coordinated conduct* that leads to collusion[16] and *exclusionary actions* that create monopoly power.[17] The difficulty is that many acts of coordination between firms enhance market output, and many business practices that usurp business from the actor's rivals, and thus "exclude" them from the market, also generate benefits for consumers. For example, resale price maintenance may facilitate collusion but may also encourage dealer-provided services by preventing free-riding;[18] manufacturers' exclusive dealing agreements may raise rivals' costs of distribution but may also spur manufacturer investment in distributors by reducing inter-brand free-riding;[19] extremely low prices may drive rivals from the market, but they offer an obvious and immediate benefit to consumers.[20] These are typical of the behaviors antitrust addresses: They involve both upsides and downsides and thus may be, on net, either output-enhancing (procompetitive) or output-reducing (anticompetitive). They are, in short, mixed bags.

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[16] Such conduct is policed by Section 1 of the Sherman Act, 15 U.S.C. § 1 (forbidding agreements that unreasonably restrain trade), and Section 7 of the Clayton Act, 15 U.S.C. § 18 (forbidding anticompetitive mergers).

[17] Such actions are policed by Section 2 of the Sherman Act, 156 U.S.C. § 2 (forbidding monopolization, attempts to monopolize, and conspiracies to monopolize), and Section 3 of the Clayton Act, 15 U.S.C. § 14 (forbidding exclusive dealing and tying arrangements that reduce market competition).

[18] *See*, *e.g.*, Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 889-94 (2007) (cataloguing potential pro- and anticompetitive effects of minimum resale price maintenance).

[19] *See*, *e.g.,* Benjamin Klein & Andres V. Lerner, *Procompetitive Justifications for Exclusive Dealing: Preventing Free-Riding and Creating Incentives for Undivided Dealer Loyalty* (Nov. 12, 2006) (available at https://www.justice.gov/atr/procompetitive-justifications-exclusive-dealing-preventing-free-riding-and-creating-undivided#2).

[20] Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209, 222-26 (1993) (discussing benefits and potential competitive concerns from extremely low prices and setting liability rule to avoid squelching consumer benefits).

Regulating competitive mixed bags inevitably entails costs.[21] First, there are the costs that result from mistaken judgments.[22] If the regulator wrongly allows conduct that is, on net, anticompetitive, consumers will face higher prices and/or reduced quality, and a deadweight loss will occur. But if the regulator wrongly forbids conduct that is, on balance, procompetitive, market output will be lower than it otherwise would be and, again, consumers will suffer. Both false convictions (Type I errors) and false acquittals (Type II errors) generate losses.

In addition to these so-called "error costs," regulating competitive mixed bags entails significant costs of simply deciding whether contemplated or actual conduct is forbidden or permitted.[23] Such "decision costs" must be borne by business planners (who are attempting to avoid liability), by litigating parties (who are trying to prove their case), and by adjudicators (who must decide whether the law has been broken).

Type I error costs, Type II error costs, and decision costs are intertwined.[24] If policymakers try to reduce the risk of false conviction (Type I error) by making it harder for a plaintiff to establish liability or easier for a defendant to make out a defense, they will increase the risk of false acquittal (Type II error). If they ease a plaintiff's burden or cut back on available defenses to reduce false acquittals, they will tend to enhance the social losses from false convictions. And if they make the rule more nuanced in an effort to condemn the bad without chilling the good, thereby reducing error costs overall, they enhance decision costs. As in a game of whack-a-mole, driving down costs in one area will cause them to rise elsewhere.

In light of antitrust's inevitable and intertwined costs of error and decision—what he called, collectively, the "limits of antitrust"[25]—Easterbrook proposed an overarching goal for antitrust policies: They should be crafted so as to minimize the sum of error and decision costs.[26] Pursuing such an objective, policymakers would not try to prevent every anticompetitive act, allow every procompetitive one, or keep antitrust rules as simple as possible. In keeping with Voltaire's prudent maxim,

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[21] Easterbrook, *supra* note 13, at 4 ("Antitrust is costly. The judges act with imperfect information about the effects of the practices at stake. The costs of action and information are the limits of antitrust.").

[22] These are Easterbrook's "costs of action." *See id.*

[23] These are Easterbrook's "costs of … information." *See supra* note 21.

[24] *See generally* THOMAS A. LAMBERT, HOW TO REGULATE: A GUIDE FOR POLICYMAKERS 10-12 (2017).

[25] *See supra* note 21.

[26] Easterbrook, *supra* note 13, at 16 ("The legal system should be designed to minimize the total costs of (1) anticompetitive practices that escape condemnation, (2) competitive practices that are condemned or deterred, and (3) the system itself.").

"the perfect is the enemy of the good,"[27] they would eschew perfection along any single dimension in favor of overall *optimization*. This would ensure that antitrust, despite its limits, accomplishes as much good as possible.

2. The Notion of Incommensurate Harms

The second key component of Easterbrook's *Limits of Antitrust* was his instruction about how to weigh Type I versus Type II errors. If a procompetitive behavior is wrongly condemned (Type I error), the adverse effect—squandered efficiencies—is not limited to the defendant's market but, because of the precedent created, extends to other markets in which the condemned practice is or would be utilized. Moreover, correcting the erroneous precedent and resulting welfare loss requires a judicial decision that overrules the mistaken condemnation. By contrast, if anticompetitive conduct is wrongly allowed to persist, the result will be the sort of monopoly pricing that invites entry and may thereby self-correct.[28] Accordingly, Easterbrook reasoned, false convictions are "worse" than false acquittals. And that suggests, he argued, that liability rules on questionable practices should be calibrated so as to err in the direction of allowing anticompetitive acts rather than banning or discouraging procompetitive ones.[29]

The U.S. Department of Justice seemingly endorsed Easterbrook's incommensurate harms position in its now-abrogated Section 2 Report, which suggested that exclusionary unilateral conduct not subject to one of the more tailored liability rules in the Report should be condemned only if its likely

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[27] Voltaire, *La Begueule*, 3 Recueil des Meilleurs Contes en vers 77, 77 (1778) ("*Le mieux est ennemi du bien.*").

[28] Easterbrook explained:

> A fundamental difficulty facing the court is the incommensurability of the stakes. If the court errs by condemning a beneficial practice, the benefits may be lost for good. Any other firm that uses the condemned practice faces sanctions in the name of stare decisis, no matter the benefits. If the court errs by permitting a deleterious practice, though, the welfare loss decreases over time. Monopoly is self-destructive. Monopoly prices eventually attract entry. True, this long run may be a long time coming, with loss to society in the interim. The central purpose of antitrust is to speed up the arrival of the long run. But this should not obscure the point: judicial errors that tolerate baleful practices are self-correcting, while erroneous condemnations are not.

Easterbrook, *supra* note 13, at 2-3.

[29] *Id*. at 15 ("In which direction should these rules err? For a number of reasons, errors on the side of excusing questionable practices are preferable."); *id*. (observing that "the economic system corrects monopoly more readily than it corrects judicial errors").

anticompetitive harm would be "substantially disproportionate" to its likely procompetitive benefit.[30]

3. The Screening Mechanisms

If the overall goal is to implement antitrust so as to minimize the sum of error and decision costs, with an understanding that Type I errors typically impose greater costs than Type II errors, how should courts proceed? The third key component of Easterbrook's approach was a set of screening mechanisms designed to help antitrust courts achieve the overarching objective by filtering out challenges to practices that are likely to be procompetitive.

Specifically, Easterbrook proposed five filters:

1. *Market Power*. The court should ask whether the defendant (or group of defendants) has market power. If not, Easterbrook asserted, the challenged conduct is unlikely to create anticompetitive harm and should not be condemned.[31]
2. *Logical Relation Between Profit and Reduced Competition.* The court should ask whether the challenged conduct would increase the defendant's profits by reducing competition. If the alleged reduction in competition would reduce the defendant's profits, there is no need for antitrust to deter the anticompetitive behavior; the market will do so.[32] Moreover, if the challenged practice could enhance the defendant's profits even apart from a reduction in competition, condemnation of the practice could deter procompetitive conduct.[33]
3. *Widespread Adoption of Identical Vertical Practices.* For vertical practices like resale price maintenance (RPM), exclusive dealing, and tying, the court should ask whether "almost all firms in [the defendant's] industry use the same vertical restraints."[34] The reason for this filter, Easterbrook said, "is that every one of the potentially anticompetitive outcomes of

[30] *See* U.S. DEPARTMENT OF JUSTICE, COMPETITION AND MONOPOLY: SINGLE-FIRM CONDUCT UNDER SECTION 2 OF THE SHERMAN ACT 45-46 (2008) (subsequently abrogated; *see* Christine A. Varney, Assistant Attorney General, *Vigorous Antitrust Enforcement in This Challenging Era, Remarks Before the Center for American Progress* (May 12, 2009) (available at https://www.justice.gov/atr/speech/vigorous-antitrust-enforcement-challenging-era).

[31] Easterbrook, *supra* note 13, at 19-23.

[32] *Id*. at 24 ("Unless there is a link between the antitrust injury and the defendant's profit, there is no need for judges to impose a sanction. The sanction imposed by the business losses will clear up the practice in due course.").

[33] *Id*. at 28-29 (explaining how a period of below-cost pricing could enhance the seller's profits even apart from a reduction in competition and asserting that "an antitrust court should handle cases such as this by asking whether profits depended on monopoly").

[34] *Id*. at 30.

vertical arrangements depends on the uniformity of the practice."[35] Easterbrook offered RPM as an example, observing that the potential anticompetitive harms from the practice—facilitation of dealer or manufacturer cartels—can occur only if the practice is widely deployed.[36] Where a vertical practice is used by just one or a few competitors in an industry, Easterbrook reasoned, it is likely employed for procompetitive ends.[37]

4. *Effect on Output and Market Share.* The court should ask whether the defendant's output and market share are falling.[38] If the challenged practice results in a better deal for consumers—perhaps by enhancing the quality of the defendant's offering by enough to offset any price increase—then the defendant's output and market share will grow.[39] By contrast, if the practice is enhancing the defendant's market power, its output will fall; the monopolist enhances its profits by reducing output so as to drive up price. Thus, Easterbrook reasoned, trends in the defendant's output and market share can signal whether its conduct is, on balance, pro- or anticompetitive.
5. *The Identity of the Plaintiff.* Finally, the court should ask whether the plaintiff is a customer or a competitor of the defendant.[40] Customers benefit from enhanced competition in the defendant's market, as when a defendant gains a cost- or quality-advantage over its rivals; customers are

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[35] *Id.*

[36] Easterbrook explained:

> [R]esale price maintenance (RPM) or territorial restraints can facilitate or enforce a cartel only if all firms in the industry use identical practices. If Sylvania uses RPM while GE and Sony do not, the RPM cannot facilitate anyone's cartel. Dealers that want to cheat on a dealers' cartel will sell more GE sets at reduced prices. And if practices are not identical in the manufacturing industry, then RPM cannot facilitate a cartel there. The whole point of a "facilitating practice" is that when everyone does things the same way, this reduces the number of things the cartel must monitor to control cheating. When everyone does *not* do things the same way, nothing can be "facilitated."

Id.

[37] *Id.* at 31 ("Whatever explains a solitary manufacturer's use of RPM, exclusive contracts, ties, or other practices, the practice cannot be anticompetitive.").

[38] *Id.* ("If arrangements are anticompetitive, the output and market share of those using them must fall.").

[39] *Id.* ("If [the defendant firm] both increases the price and increases the quality, it may sell more or less, depending on whether consumers value the improvement at more than the cost. … If its sales increase despite the higher price, we know the change was worth the higher price, and then some, to consumers.").

[40] *Id.* at 33-39.

harmed by reductions in competition. By contrast, competitors are injured when a defendant's conduct gives it a cost- or quality-advantage, and they benefit when market competition eases. A customer plaintiff, then, is likely complaining about reduced competition—antitrust's target—whereas a competitor plaintiff may be complaining of enhanced competition or may be seeking to raise the defendant's cost (and thereby secure its own cost-advantage) by forcing it to defend a lawsuit.[41] The identity of the complaining party, then, can assist courts in determining whether a challenged practice is likely pro- or anti-competitive.

b. Evaluating the Approach Today

More than thirty-five years have passed since Easterbook published *The Limits of Antitrust*. During that time, there have been some major developments in the business world, including, among many others, the advent of the Internet and mobile telephony, the rise of digital social networks and other digital platforms, and, in the world of finance, explosive growth in index investing. There have also been significant advances in economic learning, with scholars gaining a better understanding of how certain business practices can be anti- and/or pro-competitive. How does Easterbrook's late-20th Century approach look in light of 21st Century market developments and advances in economic learning?

Easterbrook's overarching objective for antitrust policy decisions remains fundamentally sound. Since 1984, no developments in market structures or economic learning have altered the mixed-bag nature of the behavior antitrust regulates, the consequent inevitability of error and decision costs, or the fact that efforts to reduce one set of costs will drive up another. Scholars have progressed in their understanding of the circumstances under which particular behaviors may occasion anticompetitive harm (or create procompetitive benefits), and that new knowledge may allow courts to restructure doctrines so as to reduce costs overall.[42] But antitrust remains an inherently limited enterprise, and Easterbrook's overarching prescription for maximizing welfare in light of those limits—craft policies to minimize the sum of error and decision costs—remains as wise as ever.

Easterbrook's instruction on the incommensurate harms from Type I versus Type II errors has fared less well. The claim that false convictions are systematically worse than false acquittals is too categorical.[43] It is true that many

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[41] As Easterbook observed, the costs of antitrust litigation are usually significantly greater for defendants than for plaintiffs. *Id.* at 34.

[42] *See*, *e.g.*, Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 889-94 (2007) (summarizing economic learning on competitive effects of minimum resale price maintenance).

[43] *See generally* Alan Devlin & Michael Jacobs, *Antitrust Error*, 52 WM. & MARY L. REV. 75 (2010).

anticompetitive harms are self-correcting; collusion among competitors, for example, is difficult to maintain and invites entry. Economic learning has revealed, though, that some forms of exclusionary conduct do not automatically self-correct. For example, some actions by a dominant firm—e.g., exclusive dealing that forecloses a manufacturer's competitors from a substantial proportion of available distribution outlets—can prevent rivals from growing enough to attain the scale economies that would enable them to underprice the dominant firm.[44] Indeed, in markets characterized by large economies of scale and network effects (e.g., digital social networking, computer operating systems), entry and underpricing may be particularly unlikely.[45] Easterbrook's incommensurate harms point should thus be softened somewhat: In deciding whether to tilt the liability rule in favor of permitting questionable conduct, courts should ask whether any resulting market power would be transitory (as with collusion) or durable (as with some exclusionary practices in some types of markets). Sometimes a pro-defendant bias will be appropriate, but not always.[46]

Like his instruction on incommensurate harms, Easterbrook's screening mechanisms for filtering out procompetitive behaviors require some adjustment. The first two screens—the requirement that defendants possess market power and that the challenged conduct enhance their profits by reducing competition—have fared well and continue to enjoy support in the case law.[47] The fifth—weeding out competitor complaints—remains useful in some contexts. In challenges to horizontal mergers, for example, complaints by rivals should raise yellow flags, since competitors benefit from reduced competition and are injured when their rivals become more efficient. Developments in economic learning, though, suggest

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[44] *See* Joshua D. Wright, *Moving Beyond Naïve Foreclosure Analysis*, 19 GEO. MASON L. REV. 1163, 1166-71 (2012).

[45] *See* Devlin & Jacobs, *supra* note 43, at 80 ("Recent experience suggests that monopolistic behavior may not always be eliminated by the market in a timely fashion, especially where powerful network effects are present.").

[46] *Id*. at 104-26 (arguing that Type I errors are not always worse than Type II errors and that whether liability rules should be calibrated to favor Type II errors depends on, *inter alia*, the likely durability of the resulting harms).

[47] With respect to the first (market power) filter, monopolization claims under Sherman Act Section 2 still require that the defendant possess monopoly power, *see* Diaz Aviation Corp. v. Airport Aviation Servs., Inc., 716 F.3d 256, 265 (1st Cir. 2013) (citing United States v. Grinnell Corp., 384 U.S. 563, 570-71 (1966)), and the existence of market power is typically required for liability based on concerted conduct that is not per se illegal. *See*, *e.g.*, Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 897 (2007) (observing that market power is necessary for anticompetitive harm, and thus liability, from RPM); Todd v. Exxon, 275 F.3d 191, 199 (2d Cir. 2001) (assessing defendants' market power in considering whether information exchange was illegal under the rule of reason). The antitrust injury requirement helps implement the second filter, for it results in the dismissal of actions in which the complained of harm does not stem from a reduction in competition. *See* Brunswick v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477 (1977).

that the mere fact that the complainant is a competitor does not always signal that the challenged practice is procompetitive. We now understand that many exclusionary practices (e.g., exclusive dealing arrangements involving substantial market foreclosure) may injure competition by raising rivals' costs.[48] Because such practices hurt both consumers and competitors, the fact that a competitor is complaining, standing alone, does not indicate that the challenged practice is procompetitive. The fifth filter is thus useful in some situations but not others. A useful revision would be to say that behaviors drawing competitor *but no consumer* complaints is likely procompetitive.

Easterbrook's third and fourth filters have not stood the test of time. The third, which eliminates challenges to vertical restraints that are not in widespread use throughout the market at issue, rests on a premise that we now understand to be faulty. According to Easterbrook, "[t]he rationale for this [widespread use] filter is that every one of the potentially anticompetitive outcomes of vertical arrangements depends on the uniformity of the practice."[49] We now know, though, that this is not true. A dominant producer's exclusive dealing contract that forecloses its rivals from a substantial proportion of sales opportunities and thereby holds them below minimum efficient scale can injure competition even if no other producers in the market engage in similar arrangements.[50] A single firm's tie-in that results in substantial foreclosure in the tied product market can similarly impair competition in that market.[51] Even RPM, the vertical restraint Easterbrook referenced, can impair competition despite not being widely utilized. As the Supreme Court observed in *Leegin*, a dominant manufacturer can use RPM (with its guaranteed retail mark-up) to induce distributors to exclude rival brands, raising rivals' distribution costs and potentially driving them below minimum efficient scale.[52] And a dominant retailer can protect itself from being undersold by more efficient retailers by insisting that the producers whose brands it carries impose RPM.[53] Neither of these types of anticompetitive harm from RPM requires that the practice be employed by all or most of the producers in a market.

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[48] *See* Thomas G. Krattenmaker & Stephen C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power Over Price*, 96 YALE L. J. 209 (1986)

[49] Easterbrook, *supra* note 13, at 30.

[50] *See generally* Wright, *supra* note 44, at 1166-71 (discussing economics of market foreclosure).

[51] *See* Thomas A. Lambert, *Appropriate Liability Rules for Tying and Bundled Discounting*, 72 OHIO ST. L. J. 909, 922-23 (2011); Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 413-14 (2009).

[52] *Leegin*, 551 U.S. at 893-94.

[53] *Id*.

Easterbrook's fourth filter, which screens out actions against defendants whose output and market share are not dropping, is similarly problematic. This screen may be appropriate when the alleged anticompetitive harm is collusion—some kind of agreement to restrain output so as to increase price and enhance profits. But if the defendant has engaged in unreasonably exclusionary conduct to drive rivals from the market or raise their costs, it will grow its market share and may well see its output rise as well, particularly if market demand is increasing. Thus, in actions alleging unreasonably exclusionary conduct, courts should not dismiss claims solely because the defendant's market share and output are rising.

II. Four Additional Screens for the Current Era

In addition to softening Easterbrook's incommensurate harms principle and revising or eliminating some of his particular screening mechanisms, courts attempting to optimize antitrust's effectiveness in the current antitrust moment should adopt four additional screens. Although the first of these was implicit in Easterbrook's analysis, he did not spell it out explicitly, likely for reasons discussed below. The remaining screens differ somewhat from Easterbrook's original filters in that they are not aimed at discerning whether challenged conduct is procompetitive or anticompetitive but are instead designed to ensure that antitrust *intervention* is likely to be welfare-enhancing. They thus reflect Easterbrook's well-founded concern about Type I error costs.

a. Does the challenged practice entail consumer harm?

An initial 21st Century filter—no imposition of antitrust liability absent consumer harm—would not have seemed worth mentioning when Easterbrook authored his 1984 article. In his influential 1978 book *The Antitrust Paradox: A Policy at War with Itself*, Robert Bork had purported to show that the purpose of the Sherman Act, as revealed in its legislative history, was to enhance consumer welfare, which Bork equated with maximizing efficiency (or, more specifically, minimizing the sum of allocative and productive inefficiencies).[54] While Bork's reading of legislative history has been severely questioned, if not discredited,[55] his

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[54] ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 50-89, 116-29 (2d ed. 1993) (1st ed. published in 1978).

[55] *See*, *e.g.*, Herbert Hovenkamp, *Antitrust's Protected Classes*, 88 MICH. L. REV. 1, 22 (1989) (observing that "Bork's analysis of the legislative history was strained [and] heavily governed by his own ideological agenda" and that "[n]ot a single statement in the legislative history comes close to stating the conclusions that Bork drew"); Robert Lande, *Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged*, 34 HASTINGS L. J. 67, 150 (1982) (examining same legislative history as Bork and concluding that Congress' primary concern was not allocative efficiency but rather wealth transfers away from consumers and to monopolists); Tim Wu, *After Consumer Welfare, Now What? The 'Protection of Competition' Standard in Practice*,

effort to focus the antitrust laws on consumer welfare met with success. In 1979, the U.S. Supreme Court proclaimed the antitrust laws to be a "consumer welfare prescription,"[56] and ever since, the prevailing view among courts has been that antitrust's sole end is consumer welfare, a view known as the "consumer welfare standard" (CWS).[57] It is thus no surprise that Easterbrook did not, in 1984, propose a screening mechanism to weed out antitrust actions aimed at some other objective.

Times have changed. Today, numerous commentators contend that the CWS prevents antitrust from remedying significant social harms that it could, and historically did, address.[58] One such harm, these commentators say, is buyer market power.[59] When purchasers of labor or inputs face little competition from other potential buyers, they can drive wages and input prices below competitive levels, which not only harms laborers and input sellers but also results in allocative inefficiencies as high-quality laborers and input providers, denied competitive prices, cut back on their offerings or divert them to less valuable uses. These social harms do not register under the CWS, critics of the standard say, because driving prices of labor and other inputs below competitive levels does tend to lower output prices, providing an immediate benefit to consumers.

CWS critics also assert that the standard is incapable of addressing innovation harms that, unlike higher prices, are difficult to quantify and prove.[60] They say

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COMPETITION POL'Y INT'L ANTITRUST CHRON. 4 (Apr. 2018) (available at https://scholarship.law.columbia.edu/cgi/viewcontent.cgi?article=3294&context=faculty_scholarship).

[56] Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979).

[57] Kenneth Heyer, *Consumer Welfare and the Legacy of Robert Bork*, 57 J. L. & ECON. S19, S32 (2014) ("On the question of welfare standards for antitrust, however, it is harder to dispute the fact that Bork not only won the battle, he also won the war.").

[58] *See generally* Wu, *supra* note 7; Wu, *supra* note 55; Lina M. Kahn, *Amazon's Antitrust Paradox*, 126 YALE L. J. 710, 737 (2017) ("The undue focus on consumer welfare is misguided. It betrays legislative history, which reveals that Congress passed antitrust laws to promote a host of political economic ends—including our interests as workers, producers, entrepreneurs, and citizens."); MARSHALL STEINBAUM & MAURICE E. STUCKE, THE EFFECTIVE COMPETITION STANDARD: A NEW STANDARD FOR ANTITRUST 1 (2018) (Roosevelt Inst. Report available at https://rooseveltinstitute.org/wp-content/uploads/2018/09/The-Effective-Competition-Standard-FINAL.pdf) ("The consumer welfare standard fails to define 'welfare' and ignores adverse effects on workers, suppliers, quality, and innovation. It is not only ambiguous, but it is also inadequate to the task of preserving competition throughout the supply chain, in the labor market, and in the economy as a whole.").

[59] *See, e.g.,* Jose Azar, Ioana Marinescu & Marshall I. Steinbaum, *Labor Market Concentration*, National Bureau of Economic Research Working Paper 24147 (December 2017) (available at http://www.nber.org/papers/w24147); Carl T. Bogus, *The New Road to Serfdom: The Curse of Bigness and the Failure of Antitrust*, 49 U. MICH. J. L. REFORM 1, 10 (2015).

[60] *See, e.g.*, MARSHALL STEINBAUM, ERIC HARRIS BURMSTEIN & JOSH STURM, POWERLESS: HOW LAX ANTITRUST AND CONCENTRATED MARKET POWER RIG THE ECONOMY AGAINST AMERICAN WORKERS,

that dominant technology platforms like Google, Amazon, Facebook, and Apple threaten innovation for a number of reasons. Their efficiencies have driven out small businesses, which tend to be particularly inventive.[61] Operating in highly concentrated markets, they face little pressure to innovate so as to avoid losing business to rivals. And they are well-positioned to cut back on their own inventive efforts and either usurp others' innovations or buy out the innovators at paltry prices.[62] Because they collect extensive data on their users' Internet activity, both on and off their platforms, they can see what innovations are most valuable and pursue only those opportunities.[63] If the valuable innovations are not subject to intellectual property protections, they can simply copy them.[64] If copying is illegal or infeasible, they can purchase the innovator. Many times, they can gain bargaining leverage over a buyout target by threatening to disadvantage the innovator's offering on their own platforms (e.g., by making it less visible to platform users, hiding favorable reviews, etc.).[65] These factors, CWS critics say, have collectively created a "kill zone" in which venture capitalists will not invest out

CONSUMERS, AND COMMUNITIES 26-29 (2018) (Roosevelt Inst. Report available at https://rooseveltinstitute.org/wp-content/uploads/2018/03/Powerless.pdf).

[61] *See*, *e.g.*, Barry C. Lynn & Phillip Longman, *Who Broke America's Jobs Machine? Why Creeping Consolidation is Crushing American Livelihoods*, WASH. MONTHLY (Mar. 4, 2010) (available at http://www.washingtonmonthly.com/features/2010/1003.lynn-longman.html) ("It is … widely agreed that small businesses tend to be more inventive, producing more patents per employee, for example, than do larger firms.").

[62] *See*, *e.g.*, Steinbaum et al., *supra* note 60, at 7-8 ("Rather than investing in research and development (R&D) to generate innovative products, corporations have relied on lax merger regulation to buy out competitors, or they have employed a litany of anticompetitive practices to prevent them from entering the market in the first place.").

[63] *See*, *e.g.*, Hal Singer, *Inside Tech's "Kill Zone": How to Deal With the Threat to Edge Innovation Posed by Multi-Sided Platforms*, PRO-MARKET (Nov. 21, 2018) (available at https://promarket.org/inside-tech-kill-zone/) ("Dominant tech platforms can also exploit the vast amount of user data made available only to them by monitoring what their users do both on and off their platforms, and then appropriating the best-performing ideas, functionality, and non-patentable products pioneered by independent providers.")

[64] *See id.*

[65] *See*, *e.g.*, Lina M. Kahn, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973, 992 (2019) ("There are numerous means by which Amazon can disfavor any particular merchant: It can suspend or shut down accounts overnight, withhold merchant funds, change page displays, and throttle or block favorable reviews."); Hal Singer, *How to Stop Amazon from Swallowing the Internet*, WASHINGTON BYTES (Jan. 28. 2019) (available at https://www.forbes.com/sites/washingtonbytes/2019/01/28/how-to-stop-amazon-from-swallowing-the-internet/#6b611fcc3664).

of fear that any valuable innovations will be appropriated or purchased on the cheap.[66]

The concern that the CWS cannot address innovation harms is a subset of the broader concern that it is incapable of policing anticompetitive harm in zero-price markets.[67] Because antitrust enforcement occurs in courts, not expert regulatory agencies, evidence of consumer welfare effects must be accessible to and easily processed by juries and generalist, non-expert judges. As a practical matter, evidence concerning short-term price effects tends to be most salient to these factfinders.[68] With firms, like Facebook and Google, that allow consumers to access their services for free, showing consumer harm poses a challenge. Even if a court takes the view that consumers effectively pay for free services by providing the firms with valuable data, proving and quantifying an "overcharge" can be difficult.[69]

CWS critics also assert that the standard's focus on short-term price effects can immunize structural developments (high market concentration, etc.) that cause long-run consumer harm. Criticizing the CWS as applied to Amazon's low pricing, for example, Lina Kahn writes:

> Focusing primarily on price and output undermines effective antitrust enforcement by delaying intervention until market power is being actively exercised, and largely ignoring whether and how it is being acquired. In other words, pegging anticompetitive harm to high prices and/or low output—while disregarding the market structures and competitive process that give rise to this market power—restricts intervention to the moment when a company has already acquired sufficient dominance to distort competition.[70]

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[66] *See* Singer, *supra* note 63; *American tech giants are making life tough for startups*, THE ECONOMIST (June 2, 2018) (available at https://www.economist.com/business/2018/06/02/american-tech-giants-are-making-life-tough-for-startups).

[67] *See*, *e.g.*, John M. Newman, *Antitrust in Zero-Price Markets: Foundations*, 164 U. PA. L. REV. 149, 198 (2015) ("The narrow-minded focus on price competition exhibited throughout much of antitrust law's developmental history has yielded analytical frameworks suited only for use in positive-price product markets.").

[68] *See generally* Kevin Caves & Hal Singer, *When the Econometrician Shrugged: Identifying and Plugging Gaps in the Consumer-Welfare Standard*, 26 GEO. MASON L. REV. 395 (2018) (discussing difficulty of proving and measuring non-price harms).

[69] *See* John M. Newman, *Antitrust in Zero-Price Markets: Applications*, 94 WASH. U. L. REV. 49, 83-84 (2016) (discussing difficulty of assessing damages in zero-price markets).

[70] Kahn, *supra* note 58, at 738.

Finally, a number of commentators, dubbed "Neo-Brandeisians" after Justice Louis Brandeis's essay, *A Curse of Bigness*,[71] contend that the CWS prevents antitrust from addressing non-buyer/seller harms that result from having firms that are just too big. For example, highly efficient, giant businesses can eliminate less efficient, smaller rivals that provide employment opportunities and are the lifeblood of many communities.[72] By generating massive profits for their managers and largest stockholders, giant businesses exacerbate wealth inequality.[73] And because their economic might gives them excessive influence over government officials, their existence tends to undermine democratic values.[74]

In light of the harms purportedly left unaddressed by the CWS—buyer market power, reduced innovation, harms in zero-price markets, long-term consumer harm from increased concentration, job losses, community impairment, wealth inequality, harm to democracy—many contemporary commentators contend that the CWS is myopic.[75] They would not make consumer harm a necessary condition to antitrust intervention and would replace the CWS with some sort of public interest approach that would permit antitrust intervention in the pursuit of other values.[76]

Such a move would be misguided. As an initial matter, jettisoning the CWS is unnecessary, as each of the aforementioned harms is either cognizable under the CWS or better addressed, if at all, by a body of law other than antitrust.[77]

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[71] Louis D. Brandeis, *A Curse of Bigness*, HARPER'S WKLY., Jan. 10, 1914, at 18.

[72] *See*, *e.g.*, Lynn, *supra* note 61.

[73] *See*, *e.g.*, Shi-Ling Hsu, *Antitrust and Inequality: The Problem of Super-Firms*, 63 ANTITRUST BULL. 104 (2018) (available at http://myweb.fsu.edu/shsu/publications/63AntitustBull104.pdf).

[74] *See* Wu, *supra* note 7.

[75] *See*, *e.g.*, Barry Lynn, *The Consumer Welfare Standard in Antitrust: Outdated or a Harbor in a Sea of Doubt?: Hearing Before the Sen. Jud. Comm.* (2017) (available at: https://www.judiciary.senate.gov/imo/media/doc/12-13-17%20Lynn%20Testimony.pdf); Lina Khan, *The New Brandeis Movement: America's Antimonopoly Debate*, 9 J. EUR. COMP. L. & PRACTICE 131, 131-32 (2018).

[76] K. Sabeel Rahman & Lina Kahn, *Restoring Competition in the U.S. Economy* in UNTAMED: HOW TO CHECK CORPORATE, FINANCIAL, AND MONOPOLY POWER 23 (Nell Abernathy, Mike Konczal & Kathryn Milani, eds.) (2016) (available at https://rooseveltinstitute.org/wp-content/uploads/2016/06/Untamed-Final-Single-Pages.pdf); Elizabeth Warren, *Reigniting Competition in the American Economy*, Keynote Remarks at New America's Open Markets Program Event (June 29, 2016) (available at https://awpc.cattcenter.iastate.edu/2017/03/09/reigniting-competition-in-the-american-economy-june-29-2016/) (expressing support for proposal to "adopt a public interest standard for [antitrust] enforcement actions").

[77] *See generally* JOE KENNEDY, WHY THE CONSUMER WELFARE STANDARD SHOULD REMAIN THE BEDROCK OF ANTITRUST POLICY (2018) (available at https://docs.house.gov/meetings/JU/JU05/20181212/108774/HHRG-115-JU05-20181212-SD004.pdf).

It is well-established, for example, that the CWS reaches harms stemming from buyer market power.[78] Properly understood, the standard focuses on harms not just to consumers but to trading parties on the other side of the market from the defendant.[79] The term "consumer" is used because most antitrust defendants are sellers accused of exercising market power to cause their buyers to pay an excessive price or accept inferior quality. A diminution in prices paid to sellers because of a buyer's market power, however, is "consumer" harm for purposes of the CWS.[80] Moreover, even if antitrust required harm to actual end-user consumers, exercises of buyer market power would still create cognizable harms: By artificially lowering input or labor prices, buyers exercising market power drive high-quality inputs and laborers from the market, reducing the quality of their output to the detriment of ultimate consumers. Accordingly, a number of recent court decisions and enforcement actions, all purporting to implement the CWS, have invoked antitrust to prevent buyer market power.[81]

Reduced innovation, non-price harms in zero-price markets, and adverse long-term effects on consumers are also cognizable under the CWS. The consumer welfare-focused Horizontal Merger Guidelines, for example, explicitly direct the antitrust enforcement agencies to consider potential innovation harms when evaluating proposed mergers,[82] and the agencies regularly pursue cases on the basis

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[78] *See* Herbert Hovenkamp, *Whatever* Did *Happen to the Antitrust Movement?*, 94 NOTRE DAME L. REV. 583, 628-36 (2018) (explaining how CWS addresses buyer market power and labor market monopsony).

[79] Herbert Hovenkamp & Carl Shapiro, *Horizontal Mergers, Market Structure, and Burdens of Proof*, 127 YALE L. J. 1996, 2000-01 (2018) ("[A]pplying the 'consumer welfare' standard means that a merger is judged to be anticompetitive if it disrupts the competitive process and harms trading parties on the other side of the market."); *id.* at 2001, n. 14 (observing that trading partners "may be suppliers such as workers or farmers who are harmed by the loss of competition when two large buyers merge").

[80] *See* Hovenkamp, *supra* note 78, at 634-35 ("For the purpose of analyzing wage suppression agreements, the worker stands in the same position on the sell side as the consumer does on the buy side.")

[81] See, e.g., Todd v. Exxon, 275 F.3d 191 (2d Cir. 2001) (reversing dismissal of antitrust claim based on employer information exchange that could have involved exercise of market power to suppress wages); U.S. DEP'T OF JUSTICE, JUSTICE DEPARTMENT REQUIRES SIX HIGH TECH COMPANIES TO STOP ENTERING INTO ANTICOMPETITIVE EMPLOYEE SOLICITATION AGREEMENTS (Sept. 24, 2010 press release) (available at https://www.justice.gov/opa/pr/justice-department-requires-six-high-tech-companies-stop-entering-anticompetitive-employee); Jeff John Roberts, *Tech Workers Will Get Average of $5,770 Under Final Anti-Poaching Settlement*, FORTUNE (September 3, 2015) (available at http://fortune.com/2015/09/03/koh-anti-poach-order/); U.S. DEP'T OF JUSTICE, JUSTICE DEPARTMENT REQUIRES KNORR AND WABTEC TO TERMINATE UNLAWFUL AGREEMENTS NOT TO COMPETE FOR EMPLOYEES (Apr. 3, 2018 press release) (available at https://www.justice.gov/opa/pr/justice-department-requires-knorr-and-wabtec-terminate-unlawful-agreements-not-compete).

[82] U.S. DEP'T OF JUSTICE & FED. TR. COMM'N, HORIZONTAL MERGER GUIDELINES § 6.4 (2010) (agencies may consider whether a proposed merger is "likely to diminish innovation competition by

of harms to innovation.[83] Non-price harms associated with free services are reachable under the CWS because *all* aspects of the transaction—price, quality, accompanying services, etc.—are relevant to the overall surplus consumers enjoy.[84] For this reason, antitrust enforcers have recently affirmed that market power-induced harms to consumer privacy, a matter of service quality, are cognizable under the CWS.[85] And, of course, long-term adverse price effects should always be part of the inquiry under the CWS; to the extent they have not been, the standard has been misapplied.[86]

The non-buyer/seller harms emphasized by the Neo-Brandeisians—job losses, community impairment, wealth inequality, harms to democracy—are better addressed by bodies of law other than antitrust, or perhaps left unremedied.[87] Wealth inequality, for example, is better handled through tax and redistribution schemes; harms to democracy, by campaign finance rules and restrictions on

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encouraging the merged firm to curtail its innovative efforts below the level that would prevail in the absence of the merger").

[83] Between 2004 and 2014, the FTC challenged 164 mergers and alleged harm to innovation in 54 of them. *See* Joshua D. Wright*, Antitrust Provides a More Reasonable Regulatory Framework than Net Neutrality,* George Mason Law & Economics Research Paper No. 17-35, at 11 (August 15, 2017) (available at https://papers.ssrn.com/sol3/abstractid=3020068).

[84] In applying the CWS to abrogate the rule of per se illegality for minimum resale price maintenance (RPM), the Supreme Court made clear that the standard is not exclusively price-focused. *See* Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877 (2007). While minimum RPM typically raises consumer prices, *id*. at 895, the Court observed that the practice is nevertheless frequently procompetitive because it induces services that consumers value by more than the incremental price increase. *Id*. at 890-92, 895. In other words, quality effects may trump price effects under the CWS.

[85] The U.S. Assistant Attorney General for Antitrust recently explained:

> The goal of antitrust law is to ensure that firms compete through superior pricing, innovation, or quality. Price is therefore only one dimension of competition, and non-price factors like innovation and quality are especially important in zero-price markets.
>
> Like other features that make a service appealing to a particular consumer, privacy is an important dimension of quality. For example, robust competition can spur companies to offer more or better privacy protections. Without competition, a dominant firm can more easily reduce quality—such as by decreasing privacy protections—without losing a significant number of users.

Makan Delrahim, *"Blind[ing] Me With Science": Antitrust, Data, and Digital Markets*, Remarks at Harvard Law School & Competition Policy International Conference on "Challenges to Antitrust in a Changing Economy" (Nov. 8, 2019) (available at https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-harvard-law-school-competition).

[86] *See* Kennedy, *supra* note 77, at 9 ("[T]he consumer welfare standard allows regulators and courts to focus on long-term changes. It just requires a sound economic analysis that shows the probability of market power at some later date.").

[87] *Id*. at 14-19.

lobbying (and, most fundamentally, by limiting government so that it cannot be used to procure private advantages for politically connected firms). Job losses and harms to communities from the failure of smaller, less efficient businesses may be somewhat mitigated by job-training programs, community investments, and the relocation of government agencies to economically depressed areas. At the end of the day, though, obsolescence is a consequence of economic development; there will always be some losses when new and better displaces old and less good. Using antitrust to protect economic laggards is sure to reduce welfare in the long run.[88] In the end, then, none of the harms emphasized by CWS critics justifies abandoning the standard in favor of an approach that would pursue multiple goals.

Not only is it unnecessary to abandon the CWS in favor of some sort of public interest standard, doing so would have adverse consequences for consumers and for the rule of law. We know this from experience. During the mid-Twentieth Century, courts did embrace multiple goals for antitrust.[89] They would often interpret the law to be aimed at promoting consumer welfare by encouraging competition so as to lower prices, enhance quality, etc. But they would sometimes impose liability in the absence of consumer harm—in the face of obvious consumer benefit, even—simply to protect smaller competitors from larger, more efficient rivals.[90]

In *Utah Pie*, for example, the Supreme Court upheld a finding of harm to competition when a large, efficient firm entered a market and underpriced a smaller but locally dominant rival.[91] The Court did so *even though* the complaining rival was able to cut its own prices, grow its output, and continue earning profits (albeit at lower margins) on each sale.[92] Reinstating a jury verdict in favor of the rival that was forced to cut its prices, the Court concluded that the jury could have found the requisite harm to competition because "a competitor who is forced to reduce his price to a new all-time low in a market of declining prices will, in time, feel the financial pinch, and will be a less effective competitive force."[93] Thus, consumer concerns *could* be paramount in antitrust cases—unless the court decided to eschew consumer benefit to protect a less efficient rival.

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[88] *Id*. at 18-19.

[89] *See* Joshua D. Wright, Elyse Dorsey, Jonathan Klick, & Jan M. Rybnicek, *Requiem for a Paradox: The Dubious Rise and Inevitable Fall of Hipster Antitrust*, 51 ARIZ. ST. L. J. 293, 301 (2018) (discussing multi-goaled approach of mid-20th Century antitrust).

[90] *Id.* at 300 (observing that "courts viewed the role of antitrust as serving various—often conflicting and even anticompetitive—socio-political goals").

[91] Utah Pie Co. v. Continental Baking Co., 386 U.S. 685 (1967).

[92] *Id*. at 689.

[93] *Id*. at 699-700.

In *Brown Shoe*,[94] the Court all but admitted that it could pick and choose whether to put consumers or competitors first. Having conceded that the merger under review could enhance the merged firm's productive efficiency, the Court wrote:

> Of course, some of the results of large integrated or chain operations are beneficial to consumers. Their expansion is not rendered unlawful by the mere fact that small independent stores may be adversely affected. It is competition, not competitors, which the Act protects. But we cannot fail to recognize Congress' desire to promote competition through the protection of viable, small, locally owned businesses. Congress appreciated that occasional higher costs and prices might result from the maintenance of fragmented industries and markets. It resolved these competing considerations in favor of decentralization. We must give effect to that decision.[95]

As Robert Bork aptly observed, "No matter how many times you read it, that passage states: although mergers are not rendered unlawful by the mere fact that small independent stores may be adversely affected, we must recognize that mergers are unlawful when small independent stores may be adversely affected."[96] Under such an approach, a court could allow a merger that would benefit consumers by enhancing productive efficiency (if the court followed the second and third sentences in the passage above), or it could choose to block the merger (if it followed sentences four through seven). Such leeway naturally trickled down to the enforcement agencies, which could articulate grounds for challenging just about any businesses conduct by emphasizing its adverse effects on either consumers or competitors.

With enforcers and courts free to pick and choose among antitrust's multiple goals in order to condemn or acquit virtually any business behavior, antitrust became less a body of law and more an exercise of raw political power. Bork compared it to the sheriff of a frontier town: "[H]e did not sift the evidence, distinguish between suspects, and solve crimes, but merely walked the main street and every so often pistol-whipped a few people."[97] Even a Supreme Court justice admitted that antitrust had become arbitrary and unprincipled. Dissenting in *Von's Grocery*, a decision that condemned a grocery store merger that generated obvious efficiencies and resulted in a merged firm with a paltry 7.5% market

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[94] Brown Shoe Co. v. United States, 370 U.S. 294 (1962).

[95] *Id*. at 344.

[96] Bork, *supra* note 54, at 216.

[97] *Id*. at 6.

share,[98] Justice Potter Stewart confessed, "The sole consistency that I can find is that, in litigation under [Clayton Act] § 7, the Government always wins."[99]

When government always wins, winning the favor of government officials becomes paramount. For that reason, abandonment of the CWS in favor of a multi-goaled public interest standard would promote politicization of the antitrust enforcement agencies.[100] It would also ensure that consumers, widely dispersed and difficult to organize, regularly lose out to firms and organized interest groups, even when the total harms to consumers from an enforcement decision exceed the benefits to the organized interests promoting it. When the benefits of a government action are concentrated on a well-organized few while the costs are spread over a widely dispersed group, government officials tend to defer to the few over the many, even when the total benefits to the few are less than the total costs to the many.[101]

A multi-goaled antitrust is not needed to address harms emphasized by CWS critics. Adopting such an approach would politicize antitrust enforcement decisions and would likely reduce overall social welfare. Courts should thus resist calls to jettison the CWS, and a demonstration of actual or likely consumer harm should remain a pre-requisite to antitrust intervention.

b. Has the defendant extended market power, or just exercised it to extract greater surplus?

Consumer harm from market power is a necessary, but insufficient, condition for antitrust intervention. A second pre-requisite to intervention should be an extension of market power by the defendant.

Two types of antitrust-related business behavior can harm consumers.[102] The first is an exercise of market power, which is the ability of a firm lacking competitive constraints to enhance its profits by raising its price above its

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[98] United States v. Von's Grocery Co., 384 U.S. 270, 272-79 (1966)

[99] *Id*. at 301 (Stewart, J., dissenting).

[100] *See* Joshua Wright, Elyse Dorsey & Jan Rybnicek, *Hipster Antitrust Meets Public Choice Economics: The Consumer Welfare Standard, Rule of Law, and Rent-Seeking*, CPI ANTITRUST CHRON. (April 2018), at 3-7.

[101] *Id*. at 4 ("Although such decisions result in net losses to society, private interests can successfully extract these rents because the benefits are concentrated among a small number of organized individuals while the costs are diffused across numerous consumers who individually lack the incentive to organize and protect themselves.")

[102] *See* Dennis W. Carlton & Ken Heyer, *Extraction vs. Extension: The Basis for Formulating Antitrust Policy Towards Single-Firm Conduct*, 4 COMPETITION POL'Y INT'L 285, 285 (issue no. 2, Aug. 2008) (available at http://economics.mit.edu/files/4058).

incremental cost.[103] When a firm exercises market power to charge supracompetitive prices, it extracts for itself more of the surplus, or wealth, created by its transactions with its customers.[104] Firms may also cause consumer harm by extending their market power.[105] When nominal competitors agree to act in concert to raise prices—e.g., in a naked price-fixing conspiracy—their collusive agreement creates market power that would not otherwise exist. When two firms merge to monopoly or in a manner that substantially increases the likelihood of future oligopolistic coordination, they similarly extend market power. When a firm engages in unreasonably exclusionary conduct that drives its rivals from the market or somehow raises their costs so as to render them less formidable competitors, its market power grows.

While both surplus extraction and market power extension can occasion consumer harm, there should be no antitrust liability absent the latter.[106] One reason for this is practical. If surplus extraction involving no extension of market power were illegal, adjudicators and business planners would confront an

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[103] *See* HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE 80 (3d ed. 2005) ("Market power is a firm's ability to deviate profitably from marginal cost pricing."). A firm competing in a market in which there are many good substitutes for the firm's product will possess little market power; if it tries to raise price substantially above its incremental cost, it will lose sales to competitors who charge prices closer to their costs. Competition will thus drive prices down near the level of cost. *Id.* at 81. An absence of suitable substitutes for a firm's product, however, may enable the firm to enhance its profits by raising its price above its incremental cost. Marginal consumers—those that attach the lowest value to the firm's offering—may stop buying the product in response to the price increase. But consumers who attach a greater value to the product (infra-marginal consumers) will continue to buy it as long as the inflated price is less than the value they attach to the product and there is no competing product that offers them greater net value. If the increased profits from consumers who continue to buy at the inflated price exceed the lost profits on foregone sales to marginal consumers, the price increase will be profitable. The loss of value from transactions that would have occurred but for the price increase (i.e., from sales to marginal consumers) is an inefficiency—a "deadweight loss" in social welfare—occasioned by supracompetitive pricing. *See id*. at 12-14, 19-20 (explaining monopoly pricing and deadweight loss).

[104] Every voluntary transaction between a buyer and seller involves the creation of surplus (wealth), which is split between the buyer and seller. The total surplus is the difference between the subjective value the buyer attaches to the thing being sold and the seller's cost of producing and selling the item. The seller's surplus is the difference between the price the seller collects and the cost of making and selling the unit sold; the buyer's is the amount by which she subjectively values the unit, less the price she must pay to obtain it. *See id*. at 4-5. Surplus "extraction" occurs when one party usurps for itself a greater proportion of the wealth created by the transaction with its counterparty. *See* Carlton & Heyer, *supra* note 102, at 293.

[105] Carlton & Heyer, *supra* note 102, at 298 (describing market power extension). Note that Carlton & Heyer are concerned solely with single-firm conduct that extends market power. But collusion does so as well: competitors as a group gain market power when they agree not to compete.

[106] *Id*. at 293. ("[A]ntitrust policy could be simplified and, in our view, improved if conduct falling squarely into the extraction category was immune from antitrust attack ").

intractable question: How much extraction is permitted? Every instance of supracompetitive pricing by any firm with any quantum of market power transfers some surplus from consumers to the producer. It would be impracticable for antitrust to forbid all such surplus extraction, so courts would have to draw some sort of line. Given the difficulty of doing so in any non-arbitrary fashion, courts have wisely ruled that the mere charging of monopoly prices is not an antitrust violation, despite the consumer harm from surplus extraction.[107]

A more important reason for immunizing mere surplus extraction from antitrust liability is that doing so promotes dynamic efficiency.[108] First, the prospect of earning supernormal profits due to a lack of competition motivates entrepreneurs to develop unique products and services. As the Supreme Court has acknowledged, "[t]he opportunity to charge monopoly prices—at least for a short period—is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth."[109]

In addition to motivating innovation, the supracompetitive profits gained through surplus extraction often enable it by funding research and development efforts.[110] A glance at the top global spenders on research and development (R&D) reveals that most (11 of 15) are either technology firms derided by many as monopolistic (#1 Amazon, #2 Alphabet/Google, #5 Intel, #6 Microsoft, #7 Apple, and #14 Facebook) or pharmaceutical companies whose patent protections insulate them from competition and allow them to charge supracompetitive prices for their products (#8 Roche, #9 Johnson & Johnson, #10 Merck, #12 Novartis, and #15 Pfizer).[111] This should come as no surprise. Firms that cannot extract surplus—those forced by competition to charge prices near incremental cost—have no money

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[107] Verizon Commun'cns Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398, 407 (2004) (observing that "[t]he mere possession of monopoly power, and the concomitant charging of monopoly prices, is … not unlawful"); Pac. Bell Tel. Co. v. LinkLine Commun'cns, Inc., 555 438 447-48 (2009) (observing that "simply possessing monopoly power and charging monopoly prices does not violate [Sherman Act] § 2").

[108] *See* Carlton & Heyer, *supra* note 102, at 287.

[109] Trinko, 540 U.S. at 407.

[110] *See* PETER THIEL, ZERO TO ONE: NOTES ON STARTUPS, OR HOW TO BUILD THE FUTURE (2014) ("Monopolies drive progress because the promise of years or even decades of monopoly profits provides a powerful incentive to innovate. Then monopolies can keep innovating because profits enable them to make the long-term plans and to finance the ambitious research projects that firms locked in competition can't dream of.").

[111] *See* STATISTA, RANKING OF THE 20 COMPANIES WITH THE HIGHEST SPENDING ON RESEARCH AND DEVELOPMENT IN 2018 (available at https://www.statista.com/statistics/265645/ranking-of-the-20-companies-with-the-highest-spending-on-research-and-development/).

to spend on R&D.[112] Because the static inefficiencies (deadweight losses) occasioned by mere surplus extraction[113] may be dwarfed by the dynamic efficiencies that result from rewarding and financing innovation, antitrust should not forbid practices that extract surplus without also extending market power.[114]

This runs counter to a number of recent proposals to condemn mere surplus extraction under the antitrust laws. Harry First, for example, has argued that simple monopoly pricing may constitute an antitrust violation.[115] Maintaining that "excessive pricing could satisfy the monopolistic conduct requirement" of Sherman Act Section 2,[116] he contends that courts should impose antitrust liability on pharmaceutical companies solely on the basis of their excessive drug pricing.[117]

Other commentators have raised antitrust concerns about algorithmic pricing systems in which digital platforms harness user data to estimate online purchasers' willingness-to-pay and craft personalized prices.[118] Such price discrimination schemes extract additional surplus from consumers, but they do not extend sellers' market power. Compared to the situation in which a seller with market power charges a single supracompetitive price, personalized pricing may enhance total market output and reduce deadweight loss, as buyers who value the product by

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[112] Kennedy, *supra* note 77, at 12 ("Firms need to be able to obtain 'Schumpertarian' profits to reinvest in innovation that is both expensive and uncertain.").

[113] See supra note 103 (describing deadweight loss from supracompetitive pricing).

[114] Carlton & Heyer, supra note 102, at 287 (observing that "[r]igorous measurements by economic scholars have demonstrated that investment and innovation are the dominant forces behind an economy's advances in productivity and growth").

[115] Harry First, *Excessive Drug Pricing as an Antitrust Violation*, 82 ANTITRUST L. J. 701 (2019).

[116] *Id*. at 711. First asserts that "courts should reconsider the ready assumption that Section 2 does not reach excessive pricing . . . because we do actually condemn high prices in many areas of antitrust law." *Id*. at 716. In support of that claim, he points to authorities condemning price increases occasioned by cartels, anticompetitive mergers, and unreasonably exclusionary conduct. *Id*. Of course, in each of those situations the price increase accompanied conduct that *extended* market power (via combination, collusion, or exclusion). First cites no case in which a court has condemned monopoly pricing absent some conduct extending market power.

[117] Id. at 726-40.

[118] *See*, *e.g.*, UNLOCKING DIGITAL COMPETITION: REPORT OF THE DIGITAL COMPETITION EXPERT PANEL 111 (2019) (United Kingdom report on competition in digital platform markets) ("Concerns have been raised that the increasing availability of data and use of algorithms by businesses will enable them to personalise their product and service offerings. At the extreme, personalised pricing could lead to each customer being offered an individual price based on what the business infers they are willing to pay."); CITIZENS ADVICE, A PRICE OF ONE'S OWN: AN INVESTIGATION INTO PERSONALISED PRICING IN ESSENTIAL MARKETS (August 2018) (available at https://www.citizensadvice.org.uk/about-us/policy/policy-research-topics/consumer-policy-research/consumer-policy-research/a-price-of-ones-own-an-investigation-into-personalised-pricing-in-essential-markets/).

more than its incremental cost but less than the single supracompetitive price are brought into the market.[119]

Commentators have also raised antitrust concerns about sharp business practices that, while perhaps unsavory (or even tortious), do not extend market power. John Newman, for example, points to what he calls "digital blackmail."[120] That practice occurs when a digital platform manipulates the publication of information in order to extract value from some group of users. The platform may implicitly threaten either to publish "bad" or to suppress "good" information.[121] Real estate comparison site Zillow allegedly engages in the former sort of digital blackmail; it publishes market value estimates of listed properties, but it will remove those that are below a listed property's sale price (and thus have a depressive effect) in exchange for payments from the listing agent.[122] Restaurant review site Yelp allegedly engages in the "suppress-the-good" version of digital blackmail; it has purportedly threatened to remove or demote favorable reviews of restaurants that decline to purchase advertisements on its site.[123] Both forms of digital blackmail would appear to involve significant business risk for the perpetrator. By manipulating the information presented on their purportedly neutral sites, firms like Zillow and Yelp risk turning off users. Rather than extending their market power, they threaten it by inviting competition from truly neutral rivals.

In the short term, each of the aforementioned behaviors may reduce consumer surplus and enhance the profits of the perpetrator. Some instances might violate other provisions of law (e.g., prohibitions on deceptive trade practices) and could well merit condemnation on non-antitrust grounds. But none of the practices extends market power. Given the impracticability of forbidding, and the dynamic efficiencies that result from allowing, mere surplus extraction, antitrust courts should follow Judge Learned Hand in embracing the maxim *finis opus coronat*—i.e.,

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[119] *See* Carlton & Heyer, *supra* note 102, at 291 ("Antitrust hostility to [surplus-extractive price discrimination] is in some respects quite surprising from the perspective of an economist, given that simple monopoly pricing produces a clear and well-recognized static deadweight loss to the economy, while these other forms of unilateral conduct are believed frequently (though not always) to increase output, provide incentives for more effectively marketing a firm's products, or otherwise enhance[e] welfare.").

[120] John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497, 1535 (2019).

[121] *Id*. ("Digital blackmail can occur when a dominant platform extracts rents by displaying (or threatening to display) unwanted information, then charging victims for its removal or concealment. Digital blackmail may also involve the inverse strategy: threatening to remove desirable information, then charging victims for the 'privilege' of continuing to make it available.").

[122] *Id*. at 1536-37.

[123] *Id*. at 1537.

the end of the work is the crown.[124] They should tolerate mere exercises of market power, reserving antitrust liability for behaviors that extend it.

c. Does another body of law or some sort of private ordering adequately address the potential anticompetitive problem?

A third screening mechanism for 21st Century antitrust attempts to account for the law's unique enforcement structure. Enforceable by private parties, the federal antitrust statutes entitle successful plaintiffs to treble damages.[125] The rationale for damage-trebling is that many antitrust violations—price-fixing conspiracies, etc.—occur in secret and often are not detected and proven: If there is a one-third chance of getting caught, requiring the defendant to pay three times the damage caused will ensure optimal deterrence.

But damage-trebling may lead to overdeterrence when the challenged behavior is (1) "mixed bag" (i.e., sometimes efficient and sometimes inefficient), so that it should not be universally deterred; and (2) not hidden, so that the likelihood that the conduct will be detected and proven is greater than one-in-three.[126] Given the difficulty of parsing pro- from anti-competitive business conduct, mixed bag behavior is often wrongly condemned. If the behavior is open and notorious, it is certain to be detected. Consider, then, a firm contemplating some pro-competitive, non-clandestine conduct that might create difficulties for its competitors and could therefore be wrongly condemned as anticompetitive. The firm will engage in the contemplated conduct only if it would provide the firm with private benefits greater than three times the harm to its rivals, discounted by the likelihood of erroneous conviction. The upshot is that many procompetitive instances of non-clandestine, mixed bag behavior will be wrongly deterred.[127]

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[124] United States v. Aluminum Co. of America, 148 F.2d 416 (2d Cir. 1945) ("[A] strong argument can be made that, although the result may expose the public to the evils of monopoly, the Act does not mean to condemn the resultant of those very forces which it is its prime object to foster: *finis opus coronat*. The successful competitor, having been urged to compete, must not be turned upon when he wins.").

[125] 15 U.S.C. § 15(a).

[126] *See* HERBERT HOVENKAMP, THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION 67 (2005) ("Treble damages make no sense at all when they are assessed for public acts and reasonable minds can differ about substantive illegality."); RICHARD A. POSNER, ANTITRUST LAW 271-73 (2d ed. 2000) (acknowledging that mandatory trebling may over-deter and advocating that damages multiplier be adjusted to account for likelihood of concealment).

[127] Suppose, for example, that the non-clandestine, procompetitive conduct under consideration by a firm would benefit it by $500,000 and consumers by $1.5 million but would cause rival harm of $1 million. If there were a 25% chance of wrongful condemnation, the firm would not engage in the welfare-enhancing conduct. Its expected liability of $750,000 ($3 million * 0.25) would exceed its expected gain. Absent damage-trebling, which is unnecessary here to account for a lack of detection,

To account for potential overdeterrence resulting from trebling the damages occasioned by non-clandestine competitive conduct, antitrust should stay its hand when a potentially anticompetitive behavior occurs in the open and another body of law or some sort of contract is likely to prevent any anticompetitive harm the behavior may produce. The U.S. Supreme Court appears to have endorsed this screening mechanism when some *regulation* would avert anticompetitive concerns.[128] Courts should similarly limit antitrust's reach when common law doctrines and privately ordered solutions are likely to prevent anticompetitive concerns without the distortive effects that may result from damage-trebling.

Application of this filter would likely have prevented several recent enforcement actions against holders of standard essential patents (SEPs). When a patented technology is incorporated into a technology standard (so that the patent becomes "standard essential"), there is a risk that producers utilizing the standard (implementers) will invest extensively and then face unreasonable royalty demands from SEP-holders, who will know that the implementers cannot utilize a different technology without incurring exorbitant switching costs.[129] To avert the risk of such "patent holdup," standard setting organizations (SSOs) typically procure up-front commitments from potential SEP-holders that if their technology is included in the standard they will license it on fair, reasonable, and non-discriminatory (FRAND) terms.[130]

In recent years, the federal enforcement agencies have concluded that antitrust should be used to police patent holdup, despite these privately ordered solutions. For example, in separate actions against Bosch and Motorola (along with its acquirer, Google), the FTC took the position that a SEP-holder's pursuit of injunctive relief amounts to an unfair method of competition.[131] In *In re Negotiated*

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the firm would engage in the conduct. Its expected gain of $500,000 would exceed its expected liability of $250,000 ($1 million * 0.25).

[128] *See*, *e.g.*, Credit Suisse Secs. (USA) LLC v. Billing, 551 U.S. 264, 279-84 (2007) (declining to impose antitrust liability on the basis of initial public offering marketing practices that were arguably unreasonable restraints of trade because practices were regulated by federal securities laws and subject to active monitoring by Securities and Exchange Commission); Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, 540 U.S. 398, 412 (2004) (refusing to impose antitrust duty to deal with rivals when telecommunications statute imposed analogous regulatory duties).

[129] *See*, *e.g.*, Mark Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 1992-93 (2007); Joseph Farrell, John Hayes, Carl Shapiro & Theresa Sullivan, *Standard Setting, Patents, and Hold-Up*, 74 ANTITRUST L. J. 603 (2007).

[130] *See* U.S. DEPARTMENT OF JUSTICE & U.S. FEDERAL TRADE COMMISSION, ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION 46-47 (2007).

[131] *See* Complaint, *In re* Robert Bosch GmbH, ¶ 20, Dkt. No. C-4377, 2012 WL 5944820 (Nov. 21, 2012); Complaint, *In re* Motorola Mobility LLC, ¶¶ 25-26, Dkt. No. C-4410, 2013 WL 3944149 (July 23, 2013). *See also* Joshua D. Wright & Douglas H. Ginsburg, *Whither Symmetry? Antitrust Analysis of Intellectual Property Rights at the FTC and DOJ*, 9 COMPETITION POL'Y INT'L 41 (2013) (observing

Data Solutions, LLC, the Commission reasoned that antitrust precludes a SEP-holder from seeking to renegotiate implementers' royalty agreements.[132] In the pending *Qualcomm* case, which is currently on appeal, the Commission procured a district court ruling that a SEP-holder has an antitrust duty—apart from any FRAND commitment—to license its SEP to all its rivals if, at some point in the past, it has profitably licensed the patent to any rival.[133]

In each of these cases, the allegedly anticompetitive behavior—pursuit of injunctive relief, attempted renegotiation of royalties, refusal to license to a rival—was not conducted in secret. Each challenged behavior can be efficient: a holder of a FRAND-encumbered SEP might seek injunctive relief because the infringer is judgment-proof or has rejected (or expressed the intent to reject) a FRAND royalty; a SEP-holder might legitimately renegotiate royalties in light of some market shift that undermines the original royalty rate; a SEP-holder could refuse to license to its direct rivals to prevent the sort of free-riding that diminishes incentives to innovate. Finally, in each case, the alleged anticompetitive harm could have been addressed—with less distortion from potential treble damages actions—by another body of law:

- *Pursuit of Injunctions and Exclusion Orders:* Anticompetitive hold-up from SEP-holders' pursuit of injunctive relief or exclusion orders would be prevented by patent and tariff laws, both of which require the patent holder to establish that the requested relief is in the public interest.[134] A SEP-holder that was just seeking to gain bargaining leverage to enhance its royalties—rather than seeking the injunction for a legitimate reason, such as the fact that the implementer was judgment-proof or had expressed an intention to reject a FRAND royalty—could not make such a showing.

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that the complaints and consent orders in *Bosch* and *Motorola*, "taken together, logically and necessarily depend upon the presumption that protecting a valid SEP against infringement by obtaining injunctive relief is itself anticompetitive"). The U.S. Department of Justice expressed a similar view about SEP-holders' pursuit of exclusion orders. *See* UNITED STATES DEPARTMENT OF JUSTICE & UNITED STATES PATENT & TRADEMARK OFFICE, POLICY STATEMENT ON REMEDIES FOR STANDARD-ESSENTIAL PATENTS SUBJECT TO VOLUNTARY F/RAND COMMITMENTS 6 (2013) (endorsing the view that an exclusion order based on a SEP generally should not be granted because "[a] decision maker could conclude that the holder of a F/RAND encumbered SEP had attempted to use an exclusion order to pressure an implementer of a standard to accept more onerous licensing terms than the patent holder would be entitled to receive consistent with the F/RAND commitment.").

[132] *See* Complaint, *In re* Negotiated Data Solutions LLC, No. C-4234 (Sept. 22, 2008), available at https://www.ftc.gov/sites/default/files/documents/cases/2008/09/080923ndscomplaint.pdf.

[133] Federal Trade Comm'n v. Qualcomm Inc., 2019 WL 2206013, *81-*85 (N.D. Cal. May 21, 2019).

[134] *See* eBay v. MercExchange, LLC, 547 U.S. 388, 391 (2006) (positing requirements for injunctive relief under patent act); J. Gregory Sidak, *International Trade Commission Exclusion Orders for the Infringement of Standard Essential Patents*, available at https://www.criterioneconomics.com/docs/itc-exclusion-orders-for-standard-essential-patents.pdf (discussing public interest limitations on exclusion orders).

- *Renegotiation Attempts:* The duress defense under contract law polices (by denying the enforceability of) renegotiations induced by the sort of economic pressure involved in a patent holdup situation.[135] Yet, contract law permits good faith renegotiations—the sort of renegotiation a SEP-holder might legitimately seek in light of a market shift that undermines the original royalty rate.[136] Contract law is thus fully capable of preventing anticompetitive, while permitting reasonable, renegotiations of SEP royalties.
- *Refusals to License to Rivals:* A SEP-holder's obligation to license to its rivals can be—and routinely is—imposed by the FRAND commitment it makes to the SSO responsible for the technology standard.[137] (Indeed, the *Qualcomm* court held that Qualcomm had a contractual duty to license its technology to rival chipmakers.[138]) As intended third-party beneficiaries of FRAND agreements, rivals may enforce them.[139] Imposition of an antitrust duty to deal is thus unnecessary, is likely to impair the quality of contracts between SSOs and SEP holders (why contract for a duty if a court is going to impose it under positive law?), and denies SEP-holders and SSOs the freedom to strike other bargains (e.g., limiting the duty to license in appropriate circumstances).

When either another body of law or private ordering via contract is likely to avert competitive harm, the marginal benefit afforded by antitrust intervention will be low. If the behavior at issue is not hidden, so that the likelihood of successful challenge is greater than one-in-three, antitrust will tend to over-deter by chilling borderline procompetitive conduct, which implies that the marginal cost of using antitrust to address the competitive harm will be relatively high. In light of these low marginal benefits and high marginal costs, antitrust should stay its hand when another body of law would likely prevent competitive harms stemming from open and notorious behavior.

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[135] *See*, *e.g.*, RESTATEMENT (SECOND) OF CONTRACTS §§ 175, 176 (1981); Austin Instrument, Inc. v. Loral Corp., 272 N.E.2d 533 (1971) (recognizing defense of economic duress). *Cf.* Alaska Packers Ass'n v. Domenico, 117 F. 99 (1902) (invoking consideration doctrine to police economic duress resulting from holdup).

[136] *See* RESTATEMENT (SECOND) OF CONTRACTS § 89 (1981).

[137] *See generally* Gregory J. Werden & Luke M. Froeb, *Why Patent Hold-Up Does Not Violate Antitrust Law,* 27 TEX. J. INTELL. PROP. L. 1, 2 (2019) (observing that "most major SSOs require or urge all participants to disclose intellectual property rights and commit to license on fair, reasonable, and non-discriminatory (FRAND) terms").

[138] Federal Trade Comm'n v. Qualcomm Inc., 2019 WL 2206013, *75-*81 (N.D. Cal. May 21, 2019)

[139] *See* RESTATEMENT (SECOND) OF CONTRACTS § 304 (1981).

d. Does the contemplated remedy require an excess of particularized knowledge or endow government officials with a great deal of discretionary authority?

A market failure, by itself, does not justify governmental intervention; policymakers should also have confidence that a contemplated intervention will not itself impose losses greater than those stemming from the market failure. This point is implicit in Easterbrook's directive to craft antitrust policies that minimize the sum of error and decision costs: Losses from improvident interventions are Type I (false conviction) error costs that must be balanced against the losses from allowing market power to persist (Type II error costs). A final screening mechanism, which should operate more as a guiding principle than a strict filter, highlights considerations that are particularly important in striking this balance.

Just as markets may systematically fail under certain conditions (e.g., externalities, public goods, market power), so may government interventions.[140] Government failure is particularly likely in two circumstances. First, as F.A. Hayek famously observed, when the contemplated intervention requires central planners to acquire and process troves of information that is widely dispersed among economic actors, losses are likely to occur as the planners, who cannot gather and process such information, misallocate productive resources away from their highest and best ends.[141]

Second, losses are particularly likely when interventions endow government officials with great discretion over the allocation of productive resources. As scholars associated with the "public choice" economic tradition have demonstrated, discretionary authority invites special interest manipulation of governmental power for private ends.[142] Rather than using their authority to maximize social welfare, government officials—who retain their rational, self-interested natures when acting in their official capacities—will frequently exercise state power in a manner that benefits them personally.[143] Organized groups, often incumbent firms, will find

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[140] *See generally* THOMAS A. LAMBERT, HOW TO REGULATE: A GUIDE FOR POLICYMAKERS (2017) (examining systematic market and government failures).

[141] *See* F.A. Hayek, *The Use of Knowledge in Society*, 35 AM. ECON. REV. 519 (1945).

[142] *See generally* JAMES M. BUCHANAN & GORDON TULLOCK, THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY (1962) (available at http://www.econlib.org/library/Buchanan/buchCv3.html). For a succinct summary of the key insights of public choice, *see* William F. Shugart, II, *Public Choice* in DAVID R. HENDERSON, THE CONCISE ENCYCLOPEDIA OF ECONOMICS 427-30 (2007).

[143] *See* Shugart, *supra* note 142, at 428 ("[P]ublic choice, like the economic model of rational behavior on which it rests, assumes that people are guided chiefly by their own self-interests and, more important, that the motivations of people in the political process are no different from those of people in the steak, housing, or car market. They are the same human beings, after all.").

ways to exploit this tendency in their favor (e.g., by lobbying officials or wooing them with the prospect of future employment). The general public, which is injured by this special interest manipulation, typically will not exert a counterbalancing influence over government officials; because the costs of special interest manipulation are widely dispersed, individual members of the public do not have an adequate incentive to mount a response even if their losses, in the aggregate, exceed the benefits that are concentrated on the organized group(s).[144]

In light of the Hayekian knowledge problem and public choice concerns, courts and enforcers should typically avoid antitrust interventions that either require a great deal of particularized knowledge or endow government officials with a large store of discretionary authority. This general guideline calls into question a number of recent antitrust proposals.

One such proposal is to treat the user data collected by digital platforms like an essential facility that must be made available to rivals.[145] In order to preserve the incentive to collect, store, and organize valuable data, firms subject to a sharing duty must receive some sort of compensation. Moreover, because user data vary in both usefulness and difficulty of collection, the firms providing data to their rivals should be entitled to different compensation for different types and quantities of data. This means that a court imposing a duty to share data with rivals would have to create an elaborate price schedule that takes into account such information as the cost of collecting and organizing different sorts of data and the value each sort provides—information that is largely inaccessible and likely to change over time. Courts are ill-equipped to gather and process all that information.

The Hayekian knowledge problem also bedevils recent calls to break up the largest digital platforms—Google, Facebook, and Amazon.[146] A break-up of any firm requires a tremendous amount of knowledge about the operation of the business and its various components, and the record on antitrust break-ups is far from encouraging.[147] Indeed, in a detailed analysis of seven major break-ups under

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[144] *See generally* MANCUR OLSON, JR., THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF AND GROUPS (1965).

[145] *See*, *e.g.*, UNLOCKING DIGITAL COMPETITION, *supra* note 118, at 74-76 (2019); STIGLER CENTER FOR THE STUDY OF THE ECONOMY AND THE STATE, STIGLER COMMITTEE ON DIGITAL PLATFORMS FINAL REPORT 117 (2019) (hereinafter, "Stigler Center Report"); JACQUES CRÉMER, YVES-ALEXANDRE DE MONTJOYE, AND HEIKE SCHWEITZER, COMPETITION POLICY FOR THE DIGITAL ERA: REPORT OF EUROPEAN COMMISSION DIRECTORATE-GENERAL FOR COMPETITION 98-107 (2019).

[146] *See*, *e.g.,* Elizabeth Warren, *Here's How We Can Break Up Big Tech*, Medium (March 8, 2019) (available at https://medium.com/@teamwarren/heres-how-we-can-break-up-big-tech-9ad9e0da324c);

[147] *See* Will Rinehart, *A History of Failure: Government-Imposed Corporate Breakups*, American Action Forum Insight (June 27, 2018) (available at https://www.americanactionforum.org/insight/a-history-of-failure-government-imposed-corporate-breakups/).

Section 2 of the Sherman Act, economist Robert Crandall concluded that only one, the 1984 break-up of AT&T, increased industry output and lowered prices.[148] That unimpressive record is for break-ups of "old economy" firms that divided along natural fault lines. Figuring out how to dissect highly integrated technology firms without causing consumer harm would be far more difficult.

As Will Rinehart has observed, the leading digital platform firms utilize business models, teams, and technologies that greatly complicate their division.[149] With respect to business models, the firms operate multi-sided platforms where the value to users of one side (e.g., advertisers) is largely dependent on the number and intensity of users on the other side (e.g., individuals engaged in search or social networking).[150] Moreover, the firms tend to engage in internal cross-subsidization, using revenues from one line of business (e.g., Google search) to support less profitable services (e.g., Google's YouTube, which is widely assumed not to be profitable on its own).[151] With multi-sided platform businesses engaged in extensive cross-subsidization, an adverse effect on one part of the business due to a government intervention can wreak havoc on other, seemingly unrelated lines of business. To avoid consumer harm, a break-up plan would have to accurately account for a highly complex set of interrelationships.

Breaking up the digital platforms is also complicated by the fact that they employ teams that work across the entire platform.[152] Facebook's software engineers, for example, support Facebook, Messenger, Instagram, and WhatsApp. Google uses common teams to support Google Search, YouTube, Gmail, and more obscure parts of Google's business, such as its artificial intelligence research unit, DeepMind. As Rinehart explains, "The result is a complex webbing of distinct yet

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[148] Robert W. Crandall, *The Failure of Structural Remedies in Sherman Act Monopolization Cases*, AEI-Brookings Joint Center for Regulatory Studies Working Paper 01-05 (March 2001) (available at https://www.brookings.edu/wp-content/uploads/2016/06/03_monopoly_crandall.pdf). Crandall observes that even break-up of AT&T "turns out to be a case of overkill because the same results could have been obtained through a simple regulatory rule, obviating the need for vertical divestiture of AT&T." *Id.* at Executive Summary.

[149] Will Rinehart, *Breaking Up Tech Companies Means Breaking Up Teams and The Underlying Technology*, American Action Forum Insight (July 23, 2018) (available at https://www.americanactionforum.org/insight/breaking-up-tech-means-breaking-up-technology-and-teams/).

[150] *See generally* David S. Evans & Richard Schmalensee, *Markets with Two-Sided Platforms*, *in* 1 ISSUES IN COMPETITION LAW AND POLICY 667 (ABA Section of Antitrust Law 2008).

[151] Rinehart, *supra* note 149, at 3-4.

[152] *Id.* at 4-5.

clearly connected organizational divisions. This webbing makes implementing a Standard Oil-style trust-busting effort difficult at best."[153]

Adding further complexity is the fact that the different parts of each digital platform utilize a common suite of technologies (referred to as the platform's technology "stack").[154] Facebook's stack, for example, includes a number of proprietary technologies designed to assist with common tasks engaged in by all its various services: "BigPipe" serves pages faster, "Haystack" stores billions of photos efficiently, "Unicorn" searches the social graph, "TAO" stores graph information, "Peregrine" assists with querying, and "MysteryMachine" helps with performance analysis.[155] Facebook has also invested billions of dollars in data centers designed to deliver video quickly, and it installed (with Microsoft) an undersea cable to speed up information transmission.[156] Google has similarly developed a suite of technologies that are commonly used by its various business units.[157] As Rinehart observes, this technical integration of the digital platforms raises a vexing question: "Where do you cut these technologies when splitting up the compan[ies]?" Mistakes in technological disintegration are likely to decrease productive efficiencies substantially. As Wordsworth put it, "We murder to dissect."[158]

Whereas proposals to treat user data as an essential facility and to break up major digital platforms involve significant knowledge problems, other recent antitrust proposals would endow government officials with significant discretionary authority and thus raise public choice concerns. One such proposal, discussed above, is to jettison the relatively cabined consumer welfare standard in favor of a more amorphous public interest standard.[159] Another is to create a federal agency with broad powers to regulate digital platforms.[160] A third is a proposal aimed at

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[153] *Id.* at 5.

[154] *Id.*

[155] *Id.*

[156] *Id.*

[157] *Id.* (describing Google's technology stack and back-end integration).

[158] William Wordsworth, *The Tables Turned; An Evening Scene, on the Same Subject*, in WILLIAM WORDSWORTH & SAMUEL T. COLERIDGE, LYRICAL BALLADS, WITH A FEW OTHER POEMS (1798) ("Our meddling intellect / Mis-shapes the beauteous form of things;— / We murder to dissect.") (electronic version available at https://www.gutenberg.org/files/9622/9622-h/9622-h.htm).

[159] *See supra* notes 75-76 and accompanying text.

[160] *See* Neil Chilson, *Creating a New Federal Agency to Regulate Big Tech Would Be a Disaster*, WASH. POST (Oct. 30, 2019) (available at https://www.washingtonpost.com/outlook/2019/10/30/creating-new-federal-agency-regulate-big-tech-would-be-disaster/). Chilson was responding to a proposal by the University of Chicago's Stigler Center for the creation of a new federal Digital Authority. *See* Stigler Center Report, *supra* note 145, at 100-19 (2019).

stemming anticompetitive harms from institutional investors' common ownership of the stock of competing firms.

Responding to claims that horizontal shareholding has increased prices by diminishing the incentive of commonly held firms to compete with each other, Eric Posner, Fiona Scott Morton, and Glen Weyl have proposed that the FTC and DOJ adopt an enforcement policy that would encourage institutional investors to avoid intra-industry diversification in concentrated industries that are susceptible to oligopolistic pricing.[161] Under the proposed policy, the agencies would annually compile a list of oligopolistic industries.[162] Investors in such industries could avoid antitrust liability by holding less than one percent of total industry equity or, if they held more than that amount, by holding stock of only one firm per industry.[163]

Because the term oligopoly (unlike "market" in the antitrust context) lacks any agreed-upon meaning, agency officials would have wide discretion in determining what industries made the list.[164] Moreover, designation as an official oligopoly could have significant consequences beyond the context of common ownership. As Michael Sykuta and I have elsewhere detailed, Posner et al.'s proposal, which would move the FTC and DOJ out of their traditional role as ex post law enforcers and in the direction of ex ante regulators, would create significant public choice concerns:

> If the agencies were to designate entire industries as oligopolistic, … interest groups would almost certainly join the fray. Having their industry designated oligopolistic would raise the antitrust risk firms face from all sorts of practices. … In light of this enhanced antitrust risk (not to mention the risk that official designation as an oligopoly could spark direct regulation), industry participants could be expected to mount a vigorous opposition to any attempt to designate their industry as oligopolistic. At the same time, groups with an interest in

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[161] *See* Eric A. Posner, Fiona Scott Morton, & E. Glen Weyl, *A Proposal to Limit the Anticompetitive Power of Institutional Investors*, 81 ANTITRUST L. J. 669, 669-70 (2017).

[162] The proposed enforcement policy contemplates that

> [p]rior to the start of each calendar year, the DOJ and FTC would make a list of industries constituting oligopolies.... There would be some mechanism to solicit comments from any interested parties. The DOJ and FTC would then finalize the list with at least a month before the beginning of the new year to allow the institutional investors time to rearrange their holdings to comply with the policy.

Id. at 708-09 (emphasis in original).

[163] *Id*.

[164] Thomas A. Lambert & Michael E. Sykuta, *The Case for Doing Nothing About Institutional Investors' Common Ownership of Small Stakes in Competing Firms*, 13 VA. L. & BUS. REV. 213, 260 (2019) ("The term 'industry' … has no … economically informed, tractable definition. … Moreover, once an industry is defined, there will have to be criteria for declaring it to be oligopolistic.").

> heightened antitrust scrutiny within an industry—e.g., consumer groups, vertically related firms that could benefit from greater restriction on industry participants—would invest resources to secure the industry's inclusion on the list of oligopolies. Indeed, the proposal by Posner et al. invites interest group involvement (and the social costs associated therewith) by specifying that "[t]here would be some mechanism to solicit comments from any interested parties."[165]

None of this is to say, of course, that antitrust interventions should never involve complicated fact-finding or confer discretionary authority on government officials. As noted, this final screening mechanism is more a guideline than a strict filter. But just as antitrust courts learn from experience with business practices and adjust presumptions accordingly, courts and policymakers should do the same with experiences of government practices. Because experience has shown that interventions are especially likely to misfire when they entail high knowledge requirements or excessive discretion, such interventions should be examined under a (rebuttable) presumption of error.

Conclusion

As Dan Crane has observed, "Antitrust law stands at its most fluid and negotiable moment in a generation."[166] Popular commentators and scholars alike are questioning such seemingly settled doctrines as the consumer welfare standard. Widespread discontent with various social conditions—from economic inequality, to political polarization, to concerns about data privacy—has generated calls for antitrust to do more.

But antitrust remains a fundamentally limited enterprise, as Judge Easterbrook famously observed. While a few of Easterbrook's specific suggestions require adjustment in light of market developments and advances in economic learning, his overarching directive, and several of his proposed screening mechanisms, remain sound.

As courts and enforcers confront an ever-growing chorus calling for bigger and bolder antitrust, they would do well to embrace Easterbrook's general model, revise some specifics, and supplement it with four additional filters that limit antitrust's reach. In particular, they should limit interventions to instances of consumer harm arising from behavior that extends market power, where no other body of law or instance of private ordering is likely to prevent the harms at issue with less distortive effect, and the remedy imposed does not entail excessive knowledge

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[165] *Id.* at 260-61 (quoting Posner et al., *supra* note 161, at 709).

[166] Daniel A. Crane, *Antitrust's Unconventional Politics*, 104 VA. L. REV. ONLINE 118 (2018).

requirements or conferral of discretionary governmental authority. Such an approach may disappoint those who imagine that antitrust can solve a host of social problems, but it alone will ensure that 21st Century antitrust actually succeeds at the things antitrust in fact does well.