The Essence of an Antitrust Violation

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Judicial embrace of the consumer welfare standard reduced the indeterminacy and political manipulability of U.S. antitrust law. Continual invocations of antitrust's consumer welfare focus, however, have created the misimpression that consumer harm is a sufficient, not merely a necessary, condition for condemning antitrust-relevant behaviors like agreements in restraint of trade and exclusion-causing unilateral acts. Such a "consumer harm sufficiency" view underlay the plaintiffs' claims in Epic Games v. Apple and FTC v. Qualcomm and has inspired scholarly proposals to condemn various antitrust-relevant behaviors simply because they occasion consumer harm.

Antitrust economics and dynamic efficiency considerations call for rejecting the consumer harm sufficiency view in favor of an approach that condemns antitrust-relevant conduct only when it (1) enhances the surplus-extractive power of the defendant or its co-conspirator (2) by weakening competitive constraints and (3) is not reasonably necessary to secure efficiencies sufficient to produce a net increase in market output. This Article contends that these three components collectively comprise the essence of an antitrust violation and are each necessary for condemning antitrust-relevant conduct.

This view, termed "antitrust essentialism," is consistent with every major antitrust liability rule except one: the rule of per se liability for certain tying arrangements. The justification offered for condemning tie-ins that do not involve all three essential elements is that they may nevertheless reduce consumer welfare, an argument that embraces the consumer harm sufficiency view.

To reconcile its inconsistent caselaw, ensure that antitrust doctrine optimally protects consumer welfare, and reduce the administrative costs of antitrust litigation, the U.S. Supreme Court should: (1) abandon the per se rule against certain tie-ins in favor of a rule of reason that requires substantial tied market foreclosure, a standard consistent with antitrust essentialism; (2) declare expressly that antitrust liability requires the three elements cataloged above; (3) allocate proof burdens on the elements, with the plaintiff having the burden to plead and prove the first two and the defendant having the initial burden to show an absence of the third; and (4) impose a generally applicable "market power enhancement" requirement akin to the existing antitrust injury requirement. Such an antitrust essentialist approach would have led to the swift disposition of misguided and costly cases like Epic Games and Qualcomm and would resolve a pending circuit split concerning liability for misrepresentation in the standard-setting process.

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INTRODUCTION

Scholars are again debating the purpose, or perhaps purposes, of the antitrust laws.[1] The matter, a point of contention in the mid-twentieth century, appears to be settled in the caselaw: Antitrust's exclusive objective is to promote the welfare of "consumers"[2]—defined broadly to include all parties on the opposite side of the transaction from a defendant[3]—through the protection of output-enhancing market competition.[4] "Neo-Brandeisian" commentators contend, however, that antitrust should also pursue ends other than harm to trading partners from diminished competition.[5] Those additional objectives

1. *See* Daniel A. Crane, *Antitrust's Unconventional Politics*, 104 VA. L. REV. ONLINE 118, 118 (2018) ("The bipartisan consensus that antitrust should solely focus on economic efficiency and consumer welfare has quite suddenly come under attack from prominent voices calling for a dramatically enhanced role for antitrust law in mediating a variety of social, economic, and political friction points . . . .").

2. Reiter v. Sonotone Corp., 442 U.S. 330, 343 (1979) ("Congress designed the Sherman Act as a 'consumer welfare prescription.'" (quoting ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 66 (1st ed. 1978))); Herbert Hovenkamp, *Implementing Antitrust's Welfare Goals*, 81 FORDHAM L. REV. 2471, 2476 (2013) ("[C]ourts almost invariably apply a consumer welfare test.").

3. 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."); *see also id*. at 2001 n.14 (observing that trading partners "may be final consumers or businesses purchasing intermediate goods" or "suppliers such as workers or farmers who are harmed by the loss of competition when two large buyers merge").

4. *See, e.g.*, Schor v. Abbott Labs., 457 F.3d 608, 612 (7th Cir. 2006) ("[I]f a manufacturer cannot make itself better off by injuring consumers through lower output and higher prices, there is no role for antitrust law to play."); Menasha Corp. v. News Am. Mktg. In-Store, Inc., 354 F.3d 661, 663 (7th Cir. 2004) (identifying that "lower output and the associated welfare losses" as "those injuries . . . that matter under the federal antitrust laws"); Morrison v. Murray Biscuit Co., 797 F.2d 1430, 1437 (7th Cir. 1986) ("The purpose of antitrust law, at least as articulated in the modern cases, is to protect the competitive process as a means of promoting economic efficiency.").

5. Drawing their preferred moniker from Justice Louis Brandeis, whose writings emphasized various social ills from corporate concentration, see, for example, LOUIS D. BRANDEIS, THE CURSE OF BIGNESS: MISCELLANEOUS PAPERS OF LOUIS D. BRANDEIS (Osmond K. Fraenkel ed., 1934), Neo-Brandeisians maintain that when business enterprises get too large or come to possess a high enough market share, they may create social harms warranting antitrust sanction even if they have not reduced consumer welfare by impairing market competition. *See, e.g.*, Lina Khan, *The New Brandeis Movement: America's Antimonopoly Debate*, 9 J. EUR. COMPETITION L. & PRAC. 131, 132 (2018) ("The fixation on efficiency . . . has largely blinded enforcers to many of the harms caused by undue market power, including on workers, suppliers, innovators, and independent entrepreneurs—all harms that Congress intended for the antitrust laws to prevent."); Sandeep Vaheesan, *The Twilight of Technocrats' Monopoly on Antitrust*, 127 YALE L.J.F. 980, 984 (2018) ("Powerful businesses are using their might to hurt Americans in myriad ways, and consumer welfare captures at most a subset of these public harms.").

include wealth equality,[6] democratic functioning,[7] high levels of worker employment,[8] racial equity,[9] and the protection of small businesses.[10]

This Article does not engage the Neo-Brandeisian challenge to the prevailing consumer welfare-focused approach to antitrust. For reasons this author and others have set forth elsewhere, the Neo-Brandeisian challenge appears unpersuasive.[11] Antitrust's prevailing consumer welfare standard, properly conceived, allows the law to reach several of the harms Neo-Brandeisians emphasize, such as artificially low wages and input prices resulting from monopsony.[12] The remaining "bigness-induced" harms that Neo-Brandeisians identify are better addressed via other bodies of law or, in some cases (as with job losses resulting from enhanced efficiency), left unremedied.[13] And, as past experience with a multi-goaled antitrust regime has shown, expanding antitrust to pursue goals in addition to consumer welfare would injure consumers and generate a level of indeterminacy that would inspire rent-seeking

6. *See* Lina Khan & Sandeep Vaheesan, *Market Power and Inequality: The Antitrust Counterrevolution and Its Discontents*, 11 HARV. L. & POL'Y REV. 235, 238 (2017).

7. Khan, *supra* note 5, at 131 ("Antimonopoly is a key tool and philosophical underpinning for structuring society on a democratic foundation."); Lina Khan, *The Ideological Roots of America's Market Power Problem*, 127 YALE L.J.F. 960, 966 (2018) ("Lawmakers recognized that unchecked monopoly power threatened core liberties and precluded true democracy.").

8. Sarah Miller & Krista Brown, *To Save Jobs and Slow Inequality, Stop the Merger Frenzy*, AM. ECON. LIBERTIES PROJECT 7 (Jan. 2022), https://www.economicliberties.us/wp-content/uploads/2022/01/Stop-the-Merger-Frenzy_Quick-Take_Final_1.10.pdf.

9. Khushita Vasant, *US FTC's Mark Says Antitrust Enforcers Should Ensure Decisions Consider Sustainability, Racial Inequality*, MLEX (Oct. 17, 2023, 12:47 AM), https://mlexmarketinsight.com/news/insight/us-ftc-s-mark-says-antitrust-enforcers-should-ensure-decisions-consider-sustainability-racial-inequality.

10. *See, e.g.*, *Strong Antitrust Enforcement Is Good for Entrepreneurs & Small Business: Hearing on Online Platforms and Market Power, Part 2: Innovation and Entrepreneurship Before the Subcomm. on Antitrust, Com. & Admin. L.*, 116th Cong. (2019) (statement of the Open Markets Institute); Barry C. Lynn & Phillip Longman, *Who Broke America's Jobs Machine? Why Creeping Consolidation Is Crushing American Livelihoods.*, WASH. MONTHLY (Mar. 30, 2010), http://www.washingtonmonthly.com/features/2010/1003.lynn-longman.html; *A Progressive Vision for Antitrust Enforcement to Protect the Opportunities for Small Businesses and to Protect Consumers: Hearing on Small Business Competition Policy: Are Markets Open for Entrepreneurs? Before the H. Small Bus. Comm.*, 110th Cong. 2 (2008) (testimony of David A. Balto, Senior Fellow, Center for American Progress Action Fund).

11. *See generally* Thomas A. Lambert, *The Limits of Antitrust in the 21st Century*, 68 U. KAN. L. REV. 1097, 1109–18 (2020) ("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."); 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, 294–96 (2019) (discussing the "Hipster Antitrust Movement" and its conflicts with the Chicago School free markets approach); Herbert Hovenkamp, *Whatever Did Happen to the Antitrust Movement?*, 94 NOTRE DAME L. REV. 583, 592 (2018) ("Promiscuous application of the antitrust laws . . . could cause irreparable harm, not only to consumers, but to the entire economy."); JOE KENNEDY, INFO. TECH. & INNOVATION FOUND., WHY THE CONSUMER WELFARE STANDARD SHOULD REMAIN THE BEDROCK OF ANTITRUST POLICY 1 (2018), https://docs.house.gov/meetings/JU/JU05/20181212/108774/HHRG-115-JU05-20181212-SD004.pdf ("[T]here is no legitimate case for abandoning the consumer welfare standard in favor of a vague and hard-to-enforce alternative that represents an amalgam of conflicting goals, some of which would work against progress and the national interest.").

12. *See* Lambert, *supra* note 11, at 1113–15.

13. *See id.* at 1115.

and ultimately offend rule of law values.[14] Accordingly, this Article assumes that courts will continue to embrace some version of antitrust's consumer welfare standard.[15]

But even if one concurs with prevailing caselaw that antitrust's sole goal should be the furtherance of consumer welfare broadly defined, a fundamental question remains: What is the essence of an antitrust violation? An unfortunate side effect of the judiciary's embrace of the consumer welfare standard—on the whole, a salutary development—is that antitrust's ambit has been somewhat obscured. Courts' and commentators' continual invocations of antitrust's consumer focus have created the impression that the law condemns antitrust-relevant business behaviors—chiefly trade-restraining agreements and combinations (the subject of Sherman Act section 1[16] and Clayton Act section 7[17]) and exclusion-causing unilateral acts by firms with market power (the primary focus of Sherman Act section 2[18])—if they reduce consumer welfare. After all, antitrust forbids *unreasonable* restraints of trade and *unreasonably* exclusionary conduct by dominant firms,[19] and the consumer welfare standard maintains that the reasonableness of a competition-related practice turns on its effect on defendants' trading partners.[20] This could imply that once there is an action that triggers antitrust scrutiny—a trade-restraining agreement, a merger, or a dominant firm's exclusion-causing conduct—the mere fact that the action is likely to reduce consumer welfare is sufficient to condemn the action.

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14. *See id.* at 1115–18; Thomas A. Lambert & Tate Cooper, *Neo-Brandeisianism's Democracy Paradox*, 49 J. CORP. L. 347, 357–59 (2024) (explaining how multi-goaled antitrust enforcement in the mid-20th century made the law unpredictable, increased enforcement discretion, and thereby undermined rule of law values).

15. *See* Herbert Hovenkamp, *The Slogans and Goals of Antitrust Law*, 25 N.Y.U. J. LEGIS. & PUB. POL'Y 705, 711 (2023) ("[T]he idea that antitrust should be concerned with some conception of welfare very likely remains dominant as an articulation of antitrust's goals.").

16. 15 U.S.C. § 1 ("Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal.").

17. *Id.* § 18 (forbidding business combinations where the effect "may be substantially to lessen competition, or to tend to create a monopoly" in a market). A business combination via merger or acquisition is a particular type of trade-restraining agreement. *See* United States v. First Nat'l Bank & Tr. Co. of Lexington, 376 U.S. 665, 674–75 (1964) ("[W]here merging companies are major competitive factors in a relevant market, the elimination of significant competition between them, by merger or consolidation, itself constitutes a violation of § 1 of the Sherman Act."); *see also* United States v. S. Pac. Co., 259 U.S. 214, 230–31 (1922) (business combination was agreement in restraint of trade); United States v. Reading Co., 253 U.S. 26, 59 (1920) (same); United States v. Union Pac. R.R. Co., 226 U.S. 61, 88 (1912) (same); N. Sec. Co. v. United States, 193 U.S. 197, 326–31 (1904) (same).

18. 15 U.S.C. § 2 (making it illegal to monopolize or attempt to monopolize a market). Monopolization requires that the defendant possess monopoly power and engage in exclusionary conduct. United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966); United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001). Attempted monopolization requires that the defendant possess market power (so that it has a "dangerous probability" of securing monopoly power), and engage in exclusionary conduct with a specific intent to monopolize. Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 454–55 (1993); HERBERT HOVENKAMP, FEDERAL ANTITRUST POLICY: THE LAW OF COMPETITION AND ITS PRACTICE § 6.5b2, at 309 (4th ed. 2011) (observing that "dangerous probability" of securing monopoly power requires possession of market power).

19. *See infra* notes 35–41 and accompanying text.

20. *See supra* notes 3–5 and accompanying text.

Such a "consumer harm sufficiency" view has recently motivated several high-profile antitrust actions. For example, Epic Games, the producer of the popular *Fortnite* video game, challenged Apple's and Google's app store policies on the ground that they caused consumer harm, even though the policies did not enhance the defendants' market power.[21] Similarly, the U.S. Federal Trade Commission (FTC) attacked microchip producer Qualcomm's patent-licensing practices, even though they did not weaken the competition Qualcomm was facing, because the practices enabled Qualcomm to charge higher royalties and thereby raise chipset and device prices.[22] In both the *Epic Games* and *Qualcomm* cases, adjudicators engaged in extensive fact-finding on the consumer welfare effects of the challenged practices and assessed liability solely on the basis of those effects.[23] Embracing this consumer harm sufficiency view, scholars have recently recommended antitrust liability for a number of consumer-injuring, but not market power-enhancing, business practices. Examples include charging excessive prices for prescription drugs,[24] using digital algorithms to set individualized prices reflecting buyers' willingness to pay,[25] and engaging in "digital blackmail" by threatening to publish or remove information from one's dominant digital platform unless paid a fee.[26]

This Article contends that actual or likely harm to consumers is not a sufficient condition for condemning trade-restraining agreements or exclusionary acts by dominant firms. Put differently, the essence of an antitrust violation consists of more than a reduction in consumer welfare. It is instead comprised of three necessary components: (1) an increase in the ability of the defendant or one of its co-conspirators to extract surplus from its transactional counterparties, where (2) that increase is occasioned by a weakening of competitive constraints, and (3) the behavior that enhances the defendant's surplus-extractive power is not reasonably necessary to secure efficiencies that are sufficient to offset the consumer harm from that increase in power. This

21. *See infra* notes 278–287 and accompanying text (citing Epic Games, Inc. v. Apple, Inc., 559 F. Supp. 3d 898 (N.D. Cal. 2021), *aff'd in part, rev'd in part, and remanded*, 67 F.4th 946 (9th Cir. 2023), *and cert. denied*, 144 S. Ct. 682 (2024) (mem.), and Complaint for Injunctive Relief at 1–10, *In re* Google Play Store Antitrust Litigation, No. 3:20-cv-05671-JD, 2024 WL 4438249 (N.D. Cal. Aug. 13, 2020)).

22. *See infra* notes 341–364 and accompanying text (discussing FTC v. Qualcomm, 411 F. Supp. 3d 658 (N.D. Cal. 2019), *rev'd*, 969 F.3d 974 (9th Cir. 2020)).

23. *See infra* notes 280–309, 365–368, and accompanying text.

24. Harry First, *Excessive Drug Pricing as an Antitrust Violation*, 82 ANTITRUST L.J. 701, 716 (2019) ("[C]ourts 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.").

25. Ramsi A. Woodcock, *Personalized Pricing as Monopolization*, 51 CONN. L. REV. 311, 371 (2019) ("The courts should treat the act of personalizing prices as a free-standing violation of Section 2 of the Sherman Act, tied perhaps to the general language of Section 2, which prohibits 'monopoliz[ation]' without defining the term.") (alteration in original); *id.* at 372 ("There is no reason for which the consumer welfare standard should only be used to restrict the ambit of antitrust rules, sparing some conduct for the sake of expanding consumer welfare, but should never be used to expand the ambit of antitrust rules, by extending them to condemn new categories of conduct, such as personalized pricing.").

26. *See* John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497, 1535–37 (2019).

Article uses the term "antitrust essentialism" to refer to an approach that imposes antitrust liability only when antitrust-relevant conduct entails all three of these components.

While the U.S. Supreme Court has never precisely set forth the essence of an antitrust violation, nearly every prevailing antitrust liability rule is consistent with antitrust essentialism.[27] There is one exception: the rule on per se illegal tie-ins.[28] Strictly applied, that rule condemns some actions that do not entail all three components this Article identifies as essential to an antitrust violation.[29] Moreover, dicta in a number of Supreme Court tying opinions suggest that a likelihood that consumer harm will result may in fact be a sufficient condition for condemnation of trade-restraining agreements.[30] Recent features of the Court's tying jurisprudence, however, undermine the view that net consumer harm by itself warrants antitrust condemnation of tie-ins.[31]

The remainder of this Article sets forth the case for defining the essence of an antitrust violation as stated above. Part II explains how the economic theory that has long fleshed out the bare-boned antitrust statutes supports the view that each of the three aforementioned elements—an increase in surplus-extractive power, via the weakening of competitive constraints, without justification as a reasonably necessary means of securing an offsetting increase in output—should be a prerequisite to antitrust liability. Part II also explains (1) why the mere exercise of surplus-extractive power, behavior that admittedly produces short-term consumer harm, should not occasion antitrust liability, and (2) why liability should require an increase in surplus-extractive power even when the defendant has weakened competitive constraints.

Part III turns to the caselaw, demonstrating that all but one of antitrust's major liability rules are consistent with the view that antitrust violations have this tripartite essence. With respect to that outlier—the rule of per se illegality for certain tying arrangements—Part III documents developments that appear to be bringing the anomalous doctrine into conformity with the rest of antitrust law.

Part IV recommends that the Supreme Court do four things to implement antitrust essentialism. First, the Court should abandon the per se rule against certain tie-ins and replace it with a rule of reason that conditions tying liability on substantial tied market foreclosure, a rule that is consistent with antitrust essentialism. Second, having thus cleared the way for a categorical statement about the essence of an antitrust violation, the Court should expressly declare

27. *See infra* notes 130–165 and accompanying text.

28. Under prevailing doctrine, a seller's refusal to sell one product, the "tying" product, unless the buyer also purchases from the sellers a second "tied" product is per se illegal if (1) the tying and tied products are truly separate products (as opposed to components of a single product), (2) the seller possesses market power over the tying product, and (3) the tie-in effects a not insubstantial dollar volume of commerce in the tied product market. United States v. Microsoft Corp., 253 F.3d 34, 85 (D.C. Cir. 2001).

29. *See infra* notes 188–191 and accompanying text.

30. *See infra* notes 210–230 and accompanying text.

31. *See infra* notes 231–248 and accompanying text.

that antitrust liability requires the three components identified above. Third, the Court should then allocate the parties' burdens with respect to the three essential components; it should require the plaintiff to plead and ultimately prove the first two components while placing the initial burden on the defendant to establish the absence of the third. Finally, the Court should set forth procedural rules, including a "market power enhancement" requirement akin to the existing requirement of antitrust injury,[32] to expedite the disposition of antitrust attacks on behaviors that lack an essential element of an antitrust violation.

Part V shows how a proper understanding of the essence of an antitrust violation would have led to the swift disposition of misguided and costly antitrust lawsuits such as the *Epic Games* cases (which did not involve an increase in the defendants' surplus-extractive power) and *FTC v. Qualcomm* (which did not involve a weakening of competitive constraints). Part V also shows how antitrust essentialism would resolve an existing circuit split concerning antitrust liability for misrepresentation in the standard-setting process.

Part VI concludes.

II. ECONOMIC THEORY, THE ANTITRUST STATUTES, AND THE TRIPARTITE ESSENCE OF AN ANTITRUST VIOLATION

Economic considerations have always been central to a consumer welfare-focused interpretation of the antitrust statutes. Economics teaches that market competition benefits consumers, as firms vying for sales must sweeten the deal by lowering their prices or enhancing the quality of their offerings.[33] An economically-based antitrust regime should therefore focus on the two situations in which market competition breaks down: when a market features only one significant seller or buyer (monopoly or monopsony), and when nominal competitors in a market agree not to compete (collusion).

The two primary provisions of the Sherman Act do just that. Section 1, which declares illegal "[e]very contract, combination in the form of trust or

32. The antitrust injury doctrine requires that an antitrust plaintiff plead and ultimately prove that the defendant's conduct caused the plaintiff to suffer an injury of the type the antitrust laws were intended to avert. *See* Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 489 (1977) ("Plaintiffs must prove *antitrust* injury, which is to say injury of the type the antitrust laws were intended to prevent and that flows from that which makes defendants' acts unlawful."); Cargill, Inc. v. Monfort of Colo., Inc., 479 U.S. 104, 113 (1986) (extending antitrust injury requirement to actions seeking injunctive relief).

33. *See generally* FTC, COMPETITION COUNTS: HOW CONSUMERS WIN WHEN BUSINESSES COMPETE (2015) ("Competition in America is about price, selection, and service. It benefits consumers by keeping prices low and the quality and choice of goods and services."). On the buy side, firms competing to purchase goods or services must sweeten the deal for sellers by offering better price or non-price terms. For the sake of simplicity, this section focuses solely on the effects of diminished competition among sellers, but economics teaches that impaired competition among buyers also reduces social welfare. *See generally* Roger D. Blair & Jeffrey L. Harrison, *Antitrust Policy and Monopsony*, 76 CORNELL L. REV. 297, 301 (1991) ("[T]he economist objects to the exercise of monopsony power for the same reason she objects to the exercise of monopoly power—both cause social welfare losses.").

otherwise, or conspiracy . . . in restraint of trade or commerce,"[34] addresses collusion. Section 2 addresses monopoly, making it illegal to "monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States."[35]

From the beginning, the sparse language of the Sherman Act has created interpretive difficulties for courts. Read literally, section 1 would outlaw the vast majority of contracts, for, as the Supreme Court quickly recognized, "[e]very agreement concerning trade . . . restrains. To bind, to restrain, is of their very essence."[36] Accordingly, the Court early on interpreted section 1 to preclude only *unreasonable* restraints of trade.[37]

Section 2 posed interpretive difficulties because neither the statute nor the common law at the time of enactment defined "monopolize."[38] The Supreme Court eventually held that monopolization requires (1) the possession of monopoly power in a market and (2) some sort of exclusionary conduct.[39] But even that definition is indeterminate, as many pro-consumer behaviors by a dominant firm—for example, price cuts and quality enhancements—win sales from rivals and thereby "exclude" them from the market. The exclusionary conduct element of a section 2 violation has therefore been interpreted to require *unreasonably* exclusionary conduct, a concept courts and commentators have struggled to define with precision.[40] A violation of the Sherman Act thus requires an unreasonable act by the defendant: either an unreasonable agreement in restraint of trade or unreasonably exclusionary unilateral conduct.

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34. 15 U.S.C. § 1.

35. *Id.* § 2.

36. Bd. of Trade of Chi. v. United States, 246 U.S. 231, 238 (1918).

37. *See* Arizona v. Maricopa Med. Soc'y, 457 U.S. 332, 343 (1982) ("[S]ince *Standard Oil Co. of New Jersey v. United States*, 221 U.S. 1, 31 (1911), we have analyzed most restraints under the so-called 'rule of reason' . . . [which] requires the factfinder to decide whether under all the circumstances of the case the restrictive practice imposes an unreasonable restraint on competition.").

38. *See* HOVENKAMP, *supra* note 18, § 2.1b, at 62 (discussing lack of statutory definitions in Sherman Act); Glen O. Robinson, *Explaining Vertical Agreements: The* Colgate *Puzzle and Antitrust Method*, 80 VA. L. REV. 577, 594 n.69 (1994) (observing that offense of monopolization in Sherman Act "had no common law counterpart") (citing WILLIAM L. LETWIN, LAW AND ECONOMIC POLICY IN AMERICA 98 (1965)).

39. United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966) ("The offense of monopoly under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."). The second element *Grinnell* prescribes is usually referred to as "exclusionary" conduct. *See, e.g.*, PHILLIP E. AREEDA & HERBERT HOVENKAMP, 3 ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION ¶ 618, at 66 (3d ed. 2008) ("The § 2 monopolizing offense requires something more than the existence of monopoly power. The 'something more' is generally referred to as an 'exclusionary practice.'").

40. *See* Thomas A. Lambert, *Defining Unreasonably Exclusionary Conduct: The "Exclusion of a Competitive Rival" Approach*, 92 N.C. L. REV. 1175, 1177 (2014) ("[T]he element common to the unilateral offenses of monopolization and attempted monopolization—'exclusionary conduct'—remains essentially undefined."); Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253, 255 (2003) ("[M]onopolization doctrine has been governed by standards that are not just vague but vacuous . . . [because they] are utterly conclusory, failing to identify a coherent norm that provides any real help in distinguishing bad behavior from good or even in knowing which way certain factual conclusions cut.").

If one starts with the premise that antitrust's exclusive goal is the promotion of consumer welfare, as the prevailing consumer welfare standard does,[41] it is tempting to assess the reasonableness, and thus the legality, of antitrust-relevant conduct solely in terms of its likely effect on consumer welfare. All an antitrust plaintiff would have to plead and prove, then, would be a behavior that triggers antitrust scrutiny—such as a trade-restraining agreement or business combination, or a unilateral exclusionary act by a dominant firm—and a resulting reduction in likely or actual consumer welfare. Consideration of antitrust economics, however, suggests that liability should be reserved for antitrust-relevant behavior that (1) enhances the defendant's surplus-extractive power (2) via the weakening of competitive constraints and (3) is not reasonably necessary to secure an output enhancement sufficient to offset consumer harm from the increase in the defendant's surplus-extractive power.

A. WHY EACH COMPONENT IS NECESSARY

1. An Enhancement in the Power to Extract Surplus from Transactions

Monopoly and collusion harm consumers in several different ways. All those consumer harms, though, stem from defendants' efforts to extract additional surplus from their trading partners. To see why that is so, consider the familiar economics of competitive and monopoly pricing. (The following five paragraphs return to basics; readers familiar with the monopoly pricing model may wish to skip to the text immediately following Figure B.)

Every voluntary transaction between a buyer and seller involves the creation of wealth, or surplus, which is divided between the buyer and seller. The total surplus created by a transaction is the difference between the subjective value the buyer attaches to the thing being purchased and the seller's cost of producing and selling the item.[42] The buyer's surplus is the difference between the amount by which the buyer subjectively values the unit and the price the buyer must pay to obtain it;[43] the seller's is the difference between the price the seller collects and the cost of making and selling the unit sold.[44]

Vigorous market competition maximizes surplus and distributes most of it to buyers.[45] Buyers compete for available units by offering higher prices. As additional units are produced, the price a buyer must pay to obtain one of the

41. *See supra* notes 3–5 and accompanying text.

42. Thomas O. Barnett, *Maximizing Welfare Through Technological Innovation*, 15 GEO. MASON L. REV. 1191, 1191 (2008) ("Total surplus is the difference between what it costs society to produce a good (or service) and the value that society places on that completed product.").

43. *Id.* at 1191–92 ("Consumer surplus is the difference between what a consumer actually pays for a good and the maximum he or she would be willing to pay.").

44. *Id.* at 1192 ("Producer surplus is the difference between what a producer receives for selling a product and the costs of producing it.").

45. *See* THOMAS A. LAMBERT, HOW TO REGULATE: A GUIDE FOR POLICYMAKERS 16–21 (2017) (explaining how competitive markets maximize surplus); *id.* at 136–37 (explaining how competitive markets distribute most surplus to consumers).

available units drops, generating a downward-sloping demand curve as in Figure A.[46] The demand curve reflects, for different levels of output, the marginal consumer's willingness to pay—that is, the amount the last person to buy a unit would have to pay if only that number of units were produced and the units were auctioned off one by one.[47] If there were a large number of purchasers competing for the units, that amount would approach the amount by which each buyer subjectively valued the unit, which means that the demand curve reflects the actual value each unit of output would generate it if were produced.[48]

Sellers compete for sales by lowering their prices, eventually to the cost of the last unit produced (marginal cost).[49] Because continued production requires the use of less readily available inputs, marginal cost eventually rises as more units are produced, generating an upward-sloping marginal cost (MC) curve as in Figure A.[50] Because producers will be willing to supply a unit if they can command a price for it that exceeds the added cost of producing it, the marginal cost curve is also the supply curve.[51]

In the aggregate, producers will produce to the point at which the marginal cost of the last unit produced (reflected by the supply curve) just equals the maximum amount the buyer who most values that last unit would be willing to pay for it (reflected by the demand curve).[52] At that level of output (Q_C), the price competing buyers would have to pay to obtain an available unit is P_C. That is the market price, which, if competition is intensely vigorous, no individual seller is able to influence.[53] This outcome maximizes available surplus because all—but only—those units that create value (reflected by the demand curve) in excess of their incremental cost (reflected by the supply curve, which in turn reflects the value that could be created if the resources used to produce the units were redeployed to their next best uses) are produced.[54] In Figure A, the surplus produced is reflected by triangle ACD, and most of that surplus goes to consumers, as seen by comparing triangles ACB (consumer surplus) and BCD (producer surplus).

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46. *Id.* at 17.

47. *Id.*

48. *Id.* at 18.

49. *See* Elizabeth E. Bailey & William J. Baumol, *Deregulation and the Theory of Contestable Markets*, 1 YALE J. REG. 111, 116 (1984) ("[P]erfect competition drives firms to equate marginal costs and prices . . . .").

50. *See* LAMBERT, *supra* note 45, at 19.

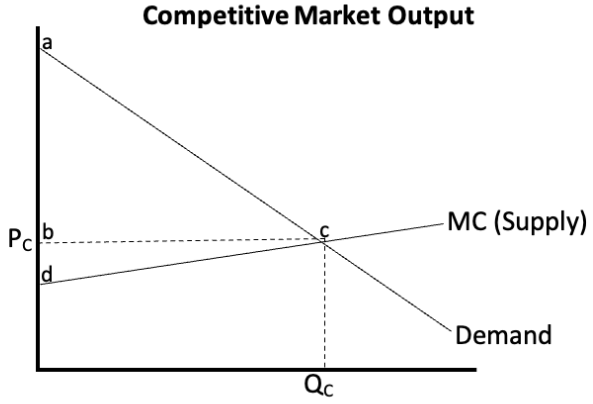
51. *Id.* at 20.

52. *Id.* at 20–21.

53. *See* Bailey & Baumol, *supra* note 49, at 112–13 ("[A] perfectly competitive [industry] . . . is made up of a very large number of firms, each of which provides so negligible a proportion of the industry's total output that no one firm's output decisions can have any discernible effect on price[] . . . .").

54. *See* LAMBERT, *supra* note 45, at 21. Economically, costs are foregone opportunities, so the MC (Supply) curve reflects the maximum value the resources expended on supplying an offering could produce if they were redeployed to their next best use. *Id.*

Figure A:
Competitive Market Output



When a producer does not face competition from rivals, the situation changes. Whereas a producer in a competitive market cannot affect market price by reducing or expanding its output, a monopolist can do so.[55] By producing more units, the monopolist will increase its sales opportunities, but it will simultaneously reduce the market-clearing price of its product (the price at which all produced units will secure buyers), causing its profit per sale to fall.[56] If the monopolist cannot price discriminate among buyers, which is normally the case,[57] it will have to charge the lower price occasioned by its increase in output on all sales, not just on the ones made possible by the additional production. This implies that the monopolist's additional revenue from each added unit of production—the market-clearing price for that unit *less* the reduction in revenues on sales of all other units (which will be sold at a lower price)—will fall more than the market-clearing price will fall as more units are produced.[58] In Figure B, this is reflected by the fact that the monopolist's marginal revenue curve (MR), reflecting the incremental revenue the monopolist earns from additional units produced, is steeper than the demand curve, which reflects the degree to which the market-clearing price will fall as more units are produced. A profit-maximizing monopolist produces to the point at which its marginal revenue equals its marginal cost, point Q_M.[59] At that level of output, the market-clearing price will be P_M. Consumer surplus in the monopolist's market will equal the

55. *Id.* at 141–42.

56. *Id.*

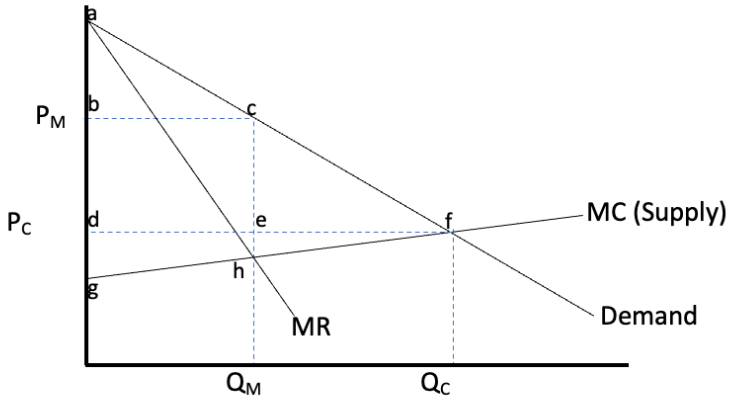
57. *Id.* at 138 ("[P]roducers' ignorance of consumers' reservation prices and the threat of arbitrage make perfect price discrimination impracticable.").

58. *Id.* at 141–42.

59. *Id.* at 142–43.

area of the ACB triangle; producer surplus, the area of quadrilateral BCHG; total surplus, the area of quadrilateral ACHG.

Figure B:
Monopoly Market Output



The juxtaposition of Figures A and B illustrates two obvious welfare effects of a monopoly. One is a redistribution of surplus from consumers to the producer: Much of the consumer surplus in Figure A (represented by triangle ACB in that figure) is transferred to the producer in Figure B.[60] (The transferred surplus is represented by quadrilateral BCED.) This is the "surplus-extractive" effect of monopoly. A second obvious effect is a reduction in overall social welfare. Each unit between Q_M and Q_C in Figure B would confer value (indicated by the demand curve) in excess of its cost of production (indicated by the marginal cost curve). The monopolist will not produce those units, however, because reducing its output is required to drive up the market-clearing price to a point that will maximize the monopolist's profits. Failure to produce units that create value in excess of their cost is the "deadweight loss" effect of monopoly.[61] In Figure B, that deadweight loss is reflected in triangle CFH.

In addition to these two obvious effects, monopoly may generate two other adverse welfare effects that are more subtle. As a comparison of producer surplus in Figures A and B reveals (triangle BCD in Figure A versus quadrilateral BCHG in Figure B), the possession of monopoly power enhances producer profits. Accordingly, a producer will invest resources to attain such power. Some such investments—for example, research and development to create a new product for which there are not close substitutes—will be socially productive. But many expenditures to achieve monopoly status—such as

60. *Id.* at 143.
61. HOVENKAMP, *supra* note 18, § 1.3b, at 20.

lobbying the government for rules insulating oneself from competition—create no wealth. Diverting productive resources from value-creating ends reduces both total and consumer welfare.[62]

In addition to this "rent-seeking" harm,[63] efforts to attain monopoly power may create losses by squandering rivals' non-recoverable investments. For example, if a firm has installed specialized equipment but then finds itself driven out of business by some sort of exclusionary act or protectionist regulation, the value of its equipment may be lost. Scholars refer to losses of this sort as "WL3 losses."[64]

While all of these harms from monopoly adversely affect consumer welfare, the fundamental culprit is the power to extract surplus. Obviously, such power occasions the redistribution of surplus from consumers to the monopolist. But the way the monopolist accomplishes such redistribution is by artificially driving up the price of its offering by limiting its production, thereby generating deadweight loss. And wasteful rent-seeking and WL3 losses result from efforts to attain surplus-extractive power, the source of monopoly profits. For these reasons, antitrust law should police the creation of a firm's power to extract surplus from its trading partners—that is, the enhancement of a firm's (or its co-conspirator's) surplus-extractive power.

Antitrust should not, however, forbid conduct that merely *exercises* surplus-extractive power without enhancing it.[65] While banning the mere exercise of such power would preclude the first two consumer harms from monopoly—redistribution of surplus from consumers to producers and deadweight loss—there are several reasons for acquitting behavior that extracts surplus but does not augment the actor's (or its co-conspirator's) power to do so.

Most importantly, permitting non-power-expanding exercises of surplus-extractive power furthers long-term consumer welfare.[66] Allowing firms to extract greater surplus by exercising their legitimately obtained market power

62. *See id.* § 1.3c, at 21–23 (discussing welfare losses from rent-seeking behavior aimed at securing or entrenching monopoly).

63. Rent-seeking is effort by a private party to enhance its profits not by producing value but by co-opting government's monopoly on the legitimate use of force. *See* Thomas A. Lambert, *Rent-Seeking and Public Choice in Digital Markets*, *in* GLOBAL ANTITRUST INSTITUTE, REPORT ON THE DIGITAL ECONOMY 498, 500 (Joshua D. Wright & Douglas H. Ginsburg ed., 2020); David R. Henderson, *Rent Seeking*, *in* THE CONCISE ENCYCLOPEDIA OF ECONOMICS 445, 445–46 (David R. Henderson ed., 2008).

64. *See* Herbert Hovenkamp, *Antitrust's Protected Classes*, 88 MICH. L. REV. 1, 18–19 (1989) (describing "WL3 losses" from monopoly rent-seeking). "WL3" stands for welfare loss 3. WL1 and WL2 refer, respectively, to deadweight loss and losses from rent-seeking efforts. *See id.* at 20–21.

65. *See generally* 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, 286 (2008) ("Conduct merely to extract surplus that the firm has created independently of the conduct's effect on rivals should be permitted.").

66. *See* Thomas A. Lambert, *Appropriate Liability Rules for Tying and Bundled Discounting*, 72 OHIO ST. L.J. 909, 953–59 (2011) (explaining how permitting surplus extraction by monopolists may benefit consumers by enhancing dynamic efficiency); Steven Semeraro, *Should Antitrust Condemn Tying Arrangements That Increase Price Without Restraining Competition?*, 123 HARV. L. REV. F. 30, 30 (2010) ("[G]ranting firms with market power broad leeway to exploit that power actually benefits consumers over time so long as competing firms are not restrained.").

promotes dynamic efficiency—that is, welfare gain that accrues over time from the development of new and improved products, services, and production processes.[67] Dynamic efficiency results from innovation,[68] which entails costs and risks for the innovator.[69] Entrepreneurs are more willing to accept such costs and risks as their potential payoff for success rises, and a major source of such payoff is the supracompetitive profits an innovator may be able to earn because its innovation is unique and therefore does not face vigorous competition.[70]

Allowing the innovator to collect those profits also helps mitigate a problem resulting from the fact that "the benefits of innovation to society as a whole greatly exceed the benefits to the firms that develop the innovation."[71] Because an innovator typically bears all the cost of its innovative efforts while capturing only a fraction of the benefits produced (many of which are enjoyed by the public at large),[72] innovators may not be adequately motivated to make every effort that is likely to generate a marginal benefit in excess of its marginal cost.[73] Allowing innovators to earn supracompetitive profits off their unique

67. Dynamic efficiency may be contrasted to "static" efficiency, which is a gain in welfare at a particular moment in time. Static efficiency results from reallocating existing resources to current uses in which they are more highly valued or by lowering the cost of producing some quantum of value from a given set of inputs, as when a producer increases its output capacity to achieve a reduction in its average cost of producing a unit (that is, economies of scale). Static efficiency is maximized by minimizing, at a particular moment in time, the sum of allocative and productive inefficiencies. Dynamic efficiency, by contrast, is produced over time. *See* Howard A. Shelanski & J. Gregory Sidak, *Antitrust Divestiture in Network Industries*, 68 U. CHI. L. REV. 1, 18 (2001) ("Dynamic efficiency refers to decisions made over time and includes efficiencies in investment and technological innovation.").

68. *See id.*; Carlton & Heyer, *supra* note 65, at 287 ("Rigorous measurements by economic scholars have demonstrated that investment and innovation are the dominant forces behind an economy's advances in productivity and growth.").

69. Herbert Hovenkamp, *The Monopolization Offense*, 61 OHIO ST. L.J. 1035, 1046 (2000) ("[I]nnovation is risky and undertaken under great uncertainty. Many planned innovations do not meet with market success.").

70. The U.S. Supreme Court has recognized this point, observing that

> [t]he mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The 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.

Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004). Indeed, a key justification for the patent system is to spur innovation by enabling innovators to earn monopoly profits for a limited time. Qualitex Co. v. Jacobson Prods. Co., 514 U.S. 159, 164 (1995) ("It is the province of patent law . . . to encourage invention by granting inventors a monopoly over new product designs or functions for a limited time . . . .").

71. Jonathan B. Baker, *Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation*, 74 ANTITRUST L.J. 575, 576 (2007).

72. *See* Benjamin Klein & John Shepard Wiley Jr., *Competitive Price Discrimination as an Antitrust Justification for Intellectual Property Refusals to Deal*, 70 ANTITRUST L.J. 599, 618 (2003) ("The inability of investors to appropriate the full value of such innovations (because of incomplete property rights, free riding, and the inability of prices to capture the full surplus) then is likely to make the private value of the research investment smaller than the social value.").

73. Producers, including innovators, typically do the easy, high pay-off things first and eventually transition to actions that are costlier and offer less incremental benefit. Optimal production occurs at the point at which the (rising) incremental cost of an effort just equals the (falling) incremental benefit it produces. While

creations helps internalize the positive externalities resulting from innovation and thereby promotes a closer-to-optimal level of innovative effort.

Not only do supracompetitive profits extracted through the exercise of legitimately obtained market power motivate innovation, they also enable it by helping to fund innovative efforts.[74] According to an extensive survey by a consulting arm of professional services firm PricewaterhouseCoopers LLP, eleven of the top fifteen global spenders on research and development (R&D) from 2012 to 2018 were either technology firms often accused of possessing monopoly power—(1) Apple, (2) Alphabet/Google, (5) Intel, (6) Microsoft, (7) Apple, and (14) Meta/Facebook—or pharmaceutical companies whose patent protections insulate their products from competition and enable supracompetitive pricing—(8) Roche, (9) Johnson & Johnson, (10) Merck, (12) Novartis, and (15) Pfizer.[75] More recent studies report similar findings.[76] This should come as no surprise: Whereas businesses that are forced by competition to charge prices near their incremental costs must secure external funding for significant R&D efforts, firms collecting supracompetitive returns can finance R&D internally.[77]

In addition to fostering dynamic efficiency, a policy acquitting non-power-enhancing exercises of market power allows courts to avoid an intractable question: Which instances of mere surplus extraction should be precluded?

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efforts beyond that point cost more than the benefits they create, all efforts up to that point create benefit in excess of their cost. If a producer is bearing all the cost of its efforts but capturing only a portion of the benefits created, it will stop its productive efforts too soon.

74. *See* PETER THIEL, ZERO TO ONE: NOTES ON STARTUPS, OR HOW TO BUILD THE FUTURE 33 (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.").

75. *See* Barry Jaruzelski, Robert Chwalik & Brad Goehle, *What the Top Innovators Get Right*, STRATEGY + BUS. (Oct. 30, 2018), https://www.strategy-business.com/feature/What-the-Top-Innovators-Get-Right (discussing data from Strategy&'s Global Innovation 1000 Study.

76. *See* Ruchi Gupta, *20 Largest R&D Companies in the World*, INSIDER MONKEY (May 4, 2023, 5:54 AM), https://www.insidermonkey.com/blog/20-largest-rd-companies-in-the-world-1144181/#google_vignette (reporting data based on "the latest published annual reports of the companies for the calendar year 2022" and focusing on the sixth through twentieth top R&D spenders globally); Ruchi Gupta, *5 Largest R&D Companies in the World*, INSIDER MONKEY (May 4, 2023, 5:52 AM), https://www.insidermonkey.com/blog/5-largest-rd-companies-in-the-world-1144182/#google_vignette (reporting data on the first through fifth top R&D spenders globally). The five companies reporting the highest R&D expenditures in 2022 were (1) Alphabet ($28.8 billion), (2) Apple ($26.251 billion), (3) Huawei Technologies ($23.2 billion), (4) Microsoft ($22.7 billion), (5) Samsung ($18.174 billion). *Id.* The remaining companies in the top 20 were (6) Tencent Holdings ($17.7 billion), (7) Intel ($17.53 billion), (8) Volkswagen Group ($17.1 billion), (9) Alibaba ($17 billion), (10) Roche Holding ($15.15 billion), (11) Johnson & Johnson ($14.603 billion), (12) Pfizer ($11.4 billion), (13) Bristol-Myers Squibb ($11.1 billion), (14) Mercedes Benz Group ($10.66 billion), (15) Merck & Co. ($10.1 billion), (16) Novartis ($10 billion), (17) General Motors ($9.8 billion), (18) Meta/Facebook ($9.8 billion), (19) Toyota ($9.79 billion), (20) AstraZeneca ($9.762 billion). Gupta, *20 Largest R&D Companies in the World*, *supra*.

77. *See* KENNEDY, *supra* note 11, at 12 ("Firms need to be able to obtain 'Schumpertarian' profits to reinvest in innovation that is both expensive and uncertain.").

Forbidding all instances—a position the Supreme Court has wisely rejected[78]—would generate an intolerable amount of antitrust liability, as above-cost pricing by firms with niche products or effective brand differentiation is ubiquitous throughout the economy.[79] Courts could try to distinguish between pricing power from brand differentiation and "real" market power,[80] but such an effort would require difficult determinations about when a brand has become so differentiated that it is effectively a separate product.

An alternative would be to prohibit any instance of mere surplus extraction occasioned by something more than simple monopoly pricing—say, by a requirement that a buyer of one product also purchase or utilize another product or service.[81] But condemning such instances of mere surplus extraction while permitting simple monopoly pricing is both arbitrary and backward. Such a policy is arbitrary because allowing supracompetitive profits from legitimately obtained market power motivates and enables innovation regardless of the means used to extract surplus.[82] The policy is backward because, while simple monopoly pricing always reduces overall market output (as output reduction is the very means by which the producer causes the price to rise), more complicated methods of extracting surplus often enhance market output and overall social welfare.[83] For example, by allowing a firm with market power to price discriminate according to consumers' expected willingness to pay, variable proportion requirements tie-ins (discussed below)[84] enable the firm to produce more units that create greater value than they cost to produce without worrying that such a high level of production will cause the firm to lose profits by reducing the prices it can charge consumers who attach a high value to its products.[85]

78. *See* Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004) ("The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system."); Pac. Bell Tel. Co. v. LinkLine Commc'ns, Inc., 555 U.S. 438, 447–48 (2009) ("Simply possessing monopoly power and charging monopoly prices does not violate § 2[] . . . .").

79. *See* Klein & Wiley Jr., *supra* note 72, at 609 ("In nearly every real-world competitive market, products are differentiated to some degree . . . [and] [o]nce products are differentiated rather than fungible, the theoretical model of perfect competition no longer applies.").

80. *See id.* at 631 (distinguishing the ability to profitably charge above-cost prices from the ability to control market prices and observing that only the latter constitutes antitrust market power).

81. *See* Einer Elhauge, *Rehabilitating* Jefferson Parish*: Why Ties Without a Substantial Foreclosure Share Should Not Be Per Se Legal*, 80 ANTITRUST L.J. 463, 510 (2016) (distinguishing exploitation of market power by pricing versus tying).

82. Carlton & Heyer, *supra* note 65, at 290 ("Extraction of surplus through means other than simple monopoly pricing is equally as 'legitimate' as monopoly pricing, based principally on its impact on dynamic efficiency.").

83. *Id.* at 291 ("[S]imple monopoly pricing produces a clear and well-recognized static deadweight loss to the economy, while these other forms of unilateral conduct [that extract surplus for the producer] are believed frequently (though not always) to increase output, provide incentives for more effectively marketing a firm's products, or otherwise enhanc[e] welfare.").

84. *See infra* notes 194–197 and accompanying text.

85. *See* Klein & Wiley Jr., *supra* note 72, at 612–13 (explaining how aftermarket metering via variable proportion tie-ins usually enhances market output).

A third option would be to preclude exercising market power to extract more surplus than is necessary to motivate and enable innovation.[86] That position, however, would require a court to determine how much surplus extraction is required to induce innovative efforts. That amount is surely more than the cost of those efforts plus a "reasonable return," whatever that means. Consider, for example, a firm considering a $5 million investment that might return up to $50 million.[87] Suppose the managers of the firm weighed expected costs and benefits and decided the risky gamble was just worth taking. If the gamble paid off but a court stepped in and capped the firm's returns at $20 million—a seemingly generous quadrupling of the firm's investment—future firms in the same position would not make similar investments. After all, the firm here thought this gamble was just barely worth taking, given the high risk of failure, when available returns were $50 million. Courts are poorly positioned to determine how large available returns must be to induce risky innovative efforts.

Because surplus-extractive power is the ultimate culprit behind monopoly's adverse effects—redistribution of wealth from consumers to producers, deadweight loss, wasteful rent-seeking, and WL3 losses—antitrust should police its enhancement (including both its creation and its maintenance). But because the mere exercise of legitimately obtained surplus-extractive power motivates and enables innovation and cannot be policed without confronting an intractable line-drawing problem, it should not generate antitrust liability.

2. The Surplus-Extractive Power Was Enhanced by Weakening Competitive Constraints

A firm may enhance its ability to extract surplus from its transaction partners in at least five different ways. First, it may exclude existing rivals from its market or impair their efficiency (that is, raise their costs) so that they cannot undersell it if it raises its price to capture additional surplus from consumers.[88] Second, it may erect barriers to entry for potential competitors. Doing so enables it to charge higher prices or otherwise extract consumer surplus without causing new firms to enter the market and win over consumers with a better deal.[89] Third, it may enter agreements with its actual or potential competitors to limit competition among themselves. This allows it and its co-conspirators to capture

86. *See* Elhauge, *supra* note 81 ("[W]hat we want to do is give innovators the fraction of total surplus that maximizes net value—i.e., that maximizes the difference between the value that consumers get from the innovation and the cost of creating that innovation.").

87. This example is from Carlton & Heyer, *supra* note 65, at 289–290.

88. *See* Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209, 215–16 (1986) ("[Antitrust cases involving] exclusion all begin and end at the same point. In each, the expressed fear is that . . . the challenged practice may destroy competition by providing a few firms with advantageous access to goods, markets, or customers, thereby enabling the advantaged few to gain power over price, quality, or output.").

89. Hovenkamp, *supra* note 64, at 19 (discussing how entry barriers enhance and maintain surplus-extractive power).

more surplus from consumers without inducing a competitive response.[90] Fourth, it may develop a new or improved offering for which there are no close substitutes.[91] If consumers have no access to an alternative offering, they are more likely to accept terms that allocate a higher proportion of surplus to the seller. Finally, the firm may devise means of inducing individual consumers to pay prices closer to their reservation price—that is, the amount by which they value the offering, and thus, the highest amount they would pay to obtain it.[92]

If the exclusive goal of antitrust is to promote consumer welfare, it should police only the first three of these means of increasing surplus-extractive power. Creating new or improved offerings for which there are no close substitutes (the fourth strategy) obviously benefits consumers and should be beyond reproach.[93] If antitrust were to police all efforts to induce consumers to pay prices closer to their subjective valuation of the offerings at issue (the fifth strategy), even if those efforts in no way weakened the response of actual or potential competitors, its tentacles would reach a huge swath of run-of-the-mill business behavior. After all, businesses primarily do two things: (1) develop and produce goods and services people desire and (2) come up with ways to capture as much surplus as possible in selling those offerings. If simply devising new means of surplus extraction creates potential antitrust liability, business innovation would be severely chilled, especially since, as noted, the prospect of surplus extraction motivates innovation,[94] and enhanced profits from such extraction often finance innovative efforts.[95]

For these reasons, antitrust should police only those behaviors that increase surplus-extractive power *by weakening competitive constraints*. Most such behaviors involve either excluding rivals or impairing their efficiency ("raising rivals' costs"), erecting barriers to entry, or agreeing not to compete on some offering aspect (collusion).

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90. HOVENKAMP, *supra* note 18, § 4.1, at 158 ("[F]irms acting in concert can earn monopoly profits just as a single-firm monopolist.").

91. Frederic M. Scherer, *Technological Innovation and Monopolization* 1 (Harv. Univ. John F. Kennedy Sch. of Gov't Working Paper, Paper No. RWP07-043, 2007), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1019023 ("Especially in industrial product markets, dominant positions are often achieved as a consequence of innovation.").

92. HOVENKAMP, *supra* note 18, § 14.4, at 624 (observing that if a firm "can identify and charge each customer its reservation price," it can capture all available consumer surplus for itself).

93. Carlton & Heyer, *supra* note 65, at 300 ("Under virtually any coherent competition policy regime, the creation of market power achieved through the introduction of a better product ought to be viewed as legitimate—indeed, laudable. The provision of better and less costly goods and services constitutes virtually the essence of competition itself . . . .").

94. *See supra* notes 70–76 and accompanying text.

95. *See supra* notes 77–80 and accompanying text.

3. The Challenged Behavior Was Not Reasonably Necessary to Achieve Output-Enhancing Efficiencies

Some business behaviors that weaken competitive constraints and thereby enhance a firm's ability to extract surplus also enable the attainment of efficiencies.[96] A market power-enhancing behavior may reduce a firm's production cost so that the cost-saving exceeds the deadweight loss occasioned by the newly created surplus-extractive power.[97] Alternatively, the behavior could enhance the quality of a firm's offering, thereby raising consumers' subjective valuation of the offering by more than the deadweight loss stemming from the reduction in competition.[98] In either case, the behavior at issue increases overall social welfare.

Figure C, a version of Oliver Williamson's famous welfare trade-off model,[99] illustrates the first scenario. Prior to the market power-enhancing behavior, the business operates in a competitive market, where market output is Q_C and price is P_C, the marginal cost of the last unit produced. The challenged conduct has two effects. First, it renders the producer a monopolist, so that the producer now faces a marginal revenue curve that is steeper than the demand curve (accounting for the fact that increases in its output reduce the market-clearing price on all units it sells). Second, the conduct enables the firm to attain productive efficiencies so that its marginal cost falls from MC_1 to MC_2. As rational firms produce to the point at which their marginal cost just equals their marginal revenue,[100] the firm will reduce its output from Q_C to Q_M, and price will rise from P_C to P_M. This will produce an incremental deadweight loss as reflected in triangle CEG. The producer's cost-savings, though, will increase the surplus from its production and sale by an amount reflected by quadrilateral FGIH, an area that is larger than CEG, indicating a net gain in overall welfare.

96. *See* HERBERT HOVENKAMP, THE ANTITRUST ENTERPRISE: PRINCIPLE AND EXECUTION 26 (2005) ("[C]ombinations of actors promise[] significant efficiency gains, but . . . raise the potential for harming competition by reducing the number of firms in a market or facilitating price-fixing."); Oliver E. Williamson, *Economies as an Antitrust Defense: The Welfare Tradeoffs*, 58 AM. ECON. REV. 18, 18 n.2 (1968).

97. *See* Germán Bet & Roger D. Blair, *Williamson's Welfare Trade-off Around the World*, 55 REV. INDUS. ORG. 515, 516–18 (2019).

98. *Id.* at 522–23 (extending welfare tradeoff model to quality improvements that enhance demand).

99. Williamson, *supra* note 96, at 21.

100. Stopping production short of this point or producing beyond it would reduce a firm's profit.

Figure C:
Market Power-Enhancing Conduct that Reduces Costs

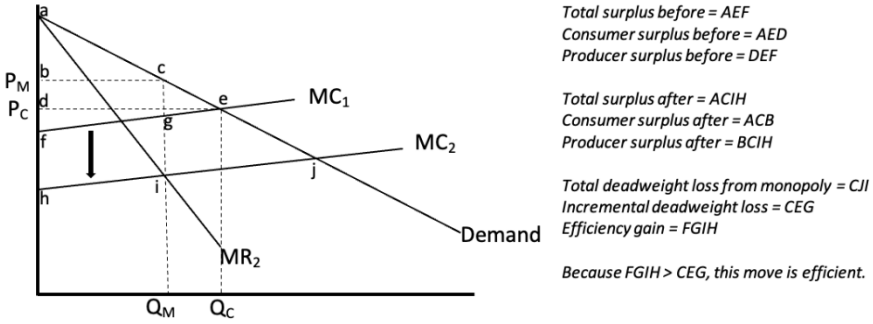
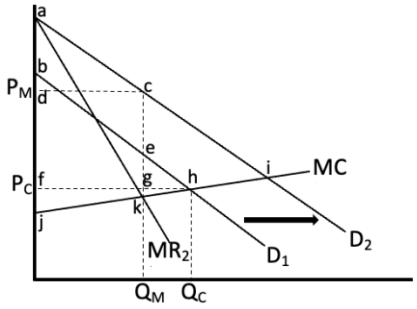


Figure D illustrates the analogous situation in which the challenged conduct does not reduce production cost but enhances the quality of the offering at the same cost of production.[101] Again, the conduct at issue—say, an innovation resulting in a more attractive product for which there are no good substitutes—transforms the actor into a monopolist, generating a steep marginal revenue curve. At the same time, the innovation increases the amount consumers are willing to pay for the product, shifting the demand curve to the right (from D_1 to D_2). Output falls from Q_C to Q_M (the point at which the producer's incremental revenue from continued production just equals its incremental cost), generating incremental deadweight loss reflected by the EHK triangle.[102] Because that amount is less than the gain in the value consumers receive from the improved products, represented by quadrilateral ACEB, overall welfare is enhanced.

101. *See* Bet & Blair, *supra* note 97, at 522–24.

102. The total deadweight loss from monopoly following the conduct at issue is CIK, but because the value between D_1 and D_2 is not created prior to the conduct, the conduct does not cause the loss of CIHE.

Figure D:
Market Power-Enhancing Conduct that Enhances Demand



Total surplus before = BHJ
Consumer surplus before = BHF
Producer surplus before = FHJ

Total surplus after = ACKJ
Consumer surplus after = ACD
Producer surplus after = DCKJ

Total deadweight loss from monopoly = CIK
Incremental deadweight loss = EHK
Efficiency gain = ACEB

Because ACEB > EHK, this move is efficient.

While the behaviors modeled in Figures C and D are efficient in that they increase total welfare, they reduce benefits to consumers in the short run. In Figure C, the conduct at issue reduces consumer welfare by quadrilateral BCED. In Figure D, consumer welfare is reduced by the difference between triangles BHF (consumer welfare before the conduct at issue) and ACD (consumer welfare after the conduct). In both scenarios, overall gain results from the producer surplus increasing by more than consumer surplus shrinks.

Given that most people have some interest in the welfare of producers—whether as employees, investors, or the dependents of either—it may make sense for antitrust to acquit behavior that enhances total welfare even when consumer surplus is reduced. Robert Bork famously took that position, advocating a "consumer" welfare standard that equated consumer welfare with total welfare.[103] Numerous antitrust scholars,[104] and at least one recent member of the Federal Trade Commission,[105] have agreed with Bork on that matter. Federal

103. *See* Herbert Hovenkamp, *On the Meaning of Antitrust's Consumer Welfare Principle*, NETWORK L. REV. (formerly REVUE CONCURRENTIALISTE) (Jan. 17, 2020), https://www.networklawreview.org/herbert-hovenkamp-meaning-consumer-welfare ("[Bork] defined 'consumer welfare' in antitrust as referring to 'the wealth of the nation,' by which he meant the sum of consumer and producer welfare [or] . . . something that most economists refer to as 'general welfare' or 'total welfare.'").

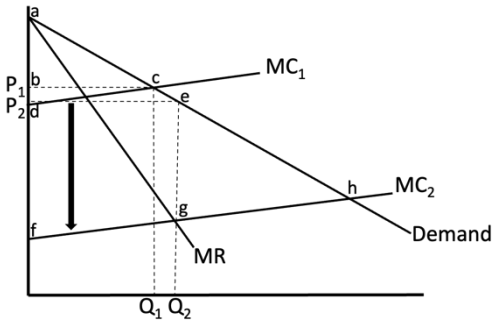
104. RICHARD A. POSNER, ANTITRUST LAW ix (2d ed. 2001); Dennis W. Carlton, *Does Antitrust Need To Be Modernized?*, 21 J. ECON. PERSPS. 155, 157 (2007); Kenneth G. Elzinga, *The Goals of Antitrust: Other Than Competition and Efficiency, What Else Counts?*, 125 U. PA. L. REV. 1191, 1194–95 (1977); Joseph Farrell & Michael L. Katz, *The Economics of Welfare Standards in Antitrust*, 2 COMPETITION POL'Y INT'L 3, 4 (2006); Ken Heyer, *Welfare Standards and Merger Analysis: Why Not the Best?*, 2 COMPETITION POL'Y INT'L 29, 31 (2006); Alan J. Meese, *Debunking the Purchaser Welfare Account of Section 2 of the Sherman Act: How Harvard Brought Us a Total Welfare Standard and Why We Should Keep It*, 85 N.Y.U. L. REV. 659, 665–67 (2010); Roger D. Blair & D. Daniel Sokol, *The Rule of Reason and the Goals of Antitrust: An Economic Approach*, 78 ANTITRUST L.J. 471, 473 (2012).

105. Christine S. Wilson, Comm'r, FTC, Welfare Standards Underlying Antitrust Enforcement: What You Measure Is What You Get, Luncheon Keynote Address at George Mason Law Review 22nd Annual Antitrust Symposium: Antitrust at the Crossroads? (Feb. 15, 2019),

courts and enforcers, however, have generally concluded that effects on actual consumer welfare, not total social welfare, should be the key consideration in antitrust cases.[106]

But even if the law focuses on a practice's effect on consumers *qua* consumers, efficiencies resulting from a challenged practice are a relevant consideration. Some behaviors increase surplus-extractive power by weakening competitive constraints but *so greatly* reduce costs or enhance product quality that consumers themselves benefit despite the reduction in competition. In Figure E, for example, the behavior at issue reduces costs so much (from MC_1 to MC_2) that consumer welfare grows even though the market moves from competitive to monopolized. (Compare pre- and post-conduct consumer welfare, as reflected in triangles ACB and AEP_2, respectively.) And in Figure F, the consumer surplus is greater after the challenged behavior pushes the demand curve from D_1 to D_2 and the producer's profit-maximizing price from P_1 to P_2. (Compare DFE to ACB.)[107]

Figure E: Market-Power Enhancing Conduct that Reduces Costs



Total surplus before = ACD
Consumer surplus before = ACB
Producer surplus before = BCD

Total surplus after = AEGF
Consumer surplus after = AEP_2
Producer surplus after = P_2EGF

Total deadweight loss from monopoly = EHG
Incremental deadweight loss = None
Efficiency gain = DCEGF

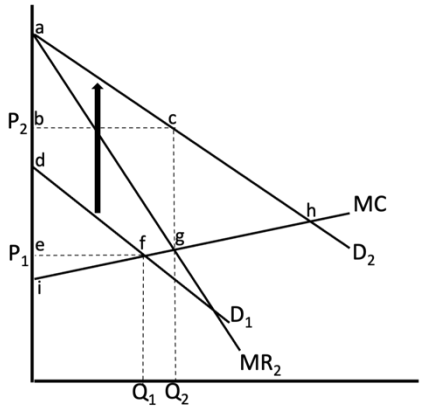
Because DCEGF > 0, this move is efficient. And because AEP_2 > ACB, it enhances consumer welfare.

https://www.ftc.gov/system/files/documents/public_statements/1455663/welfare_standard_speech_-_cmr-wilson.pdf.

106. Herbert Hovenkamp, *Implementing Antitrust's Welfare Goals*, 81 FORDHAM L. REV. 2471, 2476 (2013) ("[C]ourts almost invariably apply a consumer welfare test."); JONATHAN M. JACOBSON, THE ANTITRUST SOURCE, ANOTHER TAKE ON THE RELEVANT WELFARE STANDARD FOR ANTITRUST 1 (2015), https://www.wsgr.com/PDFSearch/jacobson-0815.pdf ("Th[e] consumer welfare standard is the standard understood to be employed in practice by the federal enforcement agencies."); Bet & Blair, *supra* note 97, at 523 ("The antitrust agencies in the U.S., the E.U., and most other jurisdictions focus on consumer welfare rather than social welfare.").

107. Models C through F all involve behavior that transforms a competitive market into a monopoly. Most markets, though, are somewhere between perfectly competitive and fully monopolized. A more realistic situation is one in which antitrust-relevant behavior transforms an imperfectly competitive market into one that is even less competitive, though not totally monopolized. That could lead to a deleterious increase in the price-cost margin, but if the behavior sufficiently reduced the actor's costs or enhanced its product quality, consumers could nevertheless experience a net benefit. Thus, consideration of offsetting efficiencies is particularly pertinent in cases involving an increase in market power but something less than a full transition from a perfectly competitive to a thoroughly monopolized market.

Figure F: Market-Power Enhancing Conduct that Increases Demand



Total surplus before = DFI
Consumer surplus before = DFE
Producer surplus before = EFI

Total surplus after = ACGI
Consumer surplus after = ACB
Producer surplus after = BCGI

Total deadweight loss from monopoly = CHG
Incremental deadweight loss = None
Efficiency gain = ACGFD

Because ACGFD > 0, this move is efficient. Because ACB > DFE, it enhances consumer welfare.

Of course, it is difficult to ascertain exactly how a challenged behavior shifts the demand and marginal cost curves in any particular market. It would thus be impracticable to conduct some sort of "metes and bounds" assessment of a challenged practice's effects on consumer welfare.[108] Courts can, though, use a proxy for determining whether consumers have experienced net harm or benefit from a practice that has increased the actor's surplus-extractive power by weakening competitive constraints but has also lowered its costs or enhanced its product quality: market output.[109] If the challenged practice expands market output, the practice likely enhances consumer welfare. If market output constricts, consumer welfare—though perhaps not total welfare—is likely harmed.[110]

But even if a behavior that increases surplus-extractive power by weakening competitive constraints also creates efficiencies sufficient to enhance overall market output, it may yet deserve antitrust condemnation. If an alternative course of conduct would generate like efficiencies with less weakening of competition, consumers would be better off if the defendant

108. *See* Herbert Hovenkamp, *Is Antitrust's Consumer Welfare Principle Imperiled?*, 45 J. CORP. L. 66, 71–72 (2019) (discussing difficulty of measuring welfare effects).

109. *Id.* at 72.

110. As Herbert Hovenkamp observed, focusing on market output in assessing whether consumers are injured or benefited has a number of additional advantages: Viewing the consumer welfare principle as output-maximization has the effects of (1) protecting the consumer interest in low prices; (2) protecting intermediaries all the way down the distribution chain because high output tends to benefit all of them; (3) protecting competitive labor and other supplier markets, because these are also best off when output is maximized and wages are unrestrained. In the process, one might add an additional value, which is that maximum output is also consistent with most definitions of economic productivity or measures of economic growth. Hovenkamp, *supra* note 106, at 2471–72, 2479.

pursued it instead; the more restrictive conduct is not reasonably necessary.[111] Putting all this together suggests that a third essential component of an antitrust violation should be that the behavior at issue is not reasonably necessary to achieve output-enhancing efficiencies.

If antitrust's aim is to maximize market output for the benefit of consumers, then, courts should recognize that antitrust violations have a tripartite essence: Conduct triggering antitrust scrutiny—a trade-restraining agreement, business combination, or exclusion-causing unilateral act—should be condemned only when it (1) enhances the surplus-extractive power of the actor or its co-conspirator (2) by weakening competitive constraints and (3) is not reasonably necessary to secure output-enhancing efficiencies.

B. WHY NOT FORBID CONDUCT THAT WEAKENS COMPETITIVE CONSTRAINTS BUT DOES NOT INCREASE THE DEFENDANT'S SURPLUS-EXTRACTIVE POWER?

We considered above why the mere exercise of surplus-extractive power (without its enhancement) should not generate antitrust liability.[112] One might ask, though, why an increase in the defendant's surplus-extractive power should be required at all. If challenged behavior weakens the competitive constraints in a market (element two) and is not reasonably necessary to secure an output-enhancing efficiency (element three), it would seem to harm competition without justification. Why, then, should the liability test also require that the behavior at issue enhance the defendant's (or its co-conspirator's) surplus-extractive power? The answer is that reserving antitrust liability for practices that enhance the surplus-extractive power of the defendant or its co-conspirator(s) facilitates the expeditious acquittal of output-enhancing behaviors.

Because the primary point of protecting market competition is to maximize market output and thereby benefit defendants' trading partners,[113] antitrust should refrain from condemning output-enhancing practices. The third essential element of an antitrust violation—the requirement that challenged conduct not be reasonably necessary to secure an output-enhancing efficiency—helps to achieve that end. But the inquiry into whether a challenged behavior is reasonably necessary to secure output-enhancing efficiencies occurs relatively late in antitrust adjudication.[114] Because the defendant typically possesses better evidence concerning the efficiencies achieved by challenged conduct, it should

111. HOVENKAMP, *supra* note 96, at 30 ("[Conduct] with a significant anticompetitive potential is justified by efficiencies only if the particular [conduct] is necessary to create them. Many efficiencies are readily created by less restrictive alternatives.").

112. *See supra* notes 68–90 and accompanying text.

113. *See supra* notes 3–5 and accompanying text.

114. *See infra* notes 265–266 and accompanying text (explaining that after plaintiff establishes first two essential elements of an antitrust violation, burden should shift to defendant to prove that challenged conduct was reasonably necessary to secure output-enhancing benefit).

bear the burden of proving such efficiencies, which means that output-enhancing efficiencies cannot be used to screen out antitrust claims at the pleading stage or, in most cases, prior to the close of discovery (which is typically extensive in antitrust disputes).[115] A requirement that the plaintiff plead and prove that the behavior at issue enhances the defendant's or its co-conspirator's surplus-extractive power provides an earlier screen for acquitting challenged conduct that is unlikely to reduce market output and thereby injure consumers.

There are two reasons a profit-maximizing firm may engage in conduct that weakens competitive constraints. Most obviously, weakening competitive constraints could enable the firm to extract a greater proportion of surplus from its transaction partners.[116] However, some actions that weaken competitive constraints can enhance the actor's profits not by allowing the firm to extract a larger share of available surplus but by increasing either the total surplus created by its individual transactions or the number of surplus-creating transactions in which it participates. For example, a joint venture among competitors may entail agreements to limit their competition along some dimension to produce a valuable offering that otherwise would not be available.[117] Or a manufacturer might impose vertical restraints that weaken competition among its distributors (for example, resale price maintenance or territorial restrictions) to induce dealer services that make the manufacturer's offering more attractive and increase its sales.[118] If a firm weakening competitive constraints thereby enhances the value of its offering or the number of sales it makes, the firm will enhance its profits even if the proportion of surplus it extracts on each transaction remains constant.

These alternative reasons for weakening competitive constraints—to enhance surplus-extractive power or to increase available surplus—have different output effects. When a firm weakens competitive constraints to enhance its or its co-conspirator's surplus-extractive power, achieving its ultimate objective (extraction of a greater proportion of available surplus) entails reducing market output.[119] But if the firm's weakening of competitive constraints does not enhance its or its conspirator's surplus-extractive power, its conduct is likely aimed at increasing the total surplus produced by its transactions. Thus, an efficient means of screening out behaviors that weaken competitive constraints but enhance market output is to reserve liability for

115. *See infra* note 266 and accompanying text.

116. *See supra* notes 91–93 and accompanying text.

117. *See, e.g.*, Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 22 (1979) (observing that joint venture enabled creation of "a different product"); Nat'l Collegiate Athletic Ass'n v. Bd. of Regents of Univ. of Okla., 468 U.S. 85, 101 (1984) ("[T]his case involves an industry in which horizontal restraints on competition are essential if the product is to be available at all.").

118. *See* Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 890–92 (2007) (explaining how a manufacturer's limits on price competition among the retailers that sell its brand may stimulate retailer services that enhance overall sales of the manufacturer's product).

119. Recall that, absent price discrimination, a firm exercises its surplus-extractive power by suppressing market output. *See supra* notes 58–62 and accompanying text.

behaviors that increase the actor's (or its co-conspirator's) surplus-extractive power.

But if the first essential element of an antitrust violation accomplishes such a screening function, why also require the third (that is, that the challenged conduct not be reasonably necessary to secure an output-enhancing efficiency)? The answer is that the first element provides only an incomplete screen: it does not acquit conduct that increases the defendant's surplus-extractive power but also enhances efficiency sufficiently to offset the adverse effect on market output occasioned by the increase in surplus-extractive power.

Compare, for example, two different competitor joint ventures. In the first, the arrangement reduces participants' competition along some dimension but does not enhance their surplus-extractive power. In the second, the arrangement reduces competition along some dimension and does enhance participants' market power *but also* increases output by lowering costs or enhancing quality.[120] In the former situation, the competitor joint venture would be acquitted because the first element is not satisfied. In the latter, the first element would be satisfied, but the venture would pass muster because the third element is not.

Or consider two hypothetical instances of minimum resale price maintenance (RPM) imposed by manufacturers that compete in unconcentrated markets that are not susceptible to cartelization.[121] Suppose that one manufacturer imposes RPM on dealers participating in a competitive, non-cartelizable dealer market,[122] and the other imposes RPM on dealers in a market featuring a dominant dealer.[123] In the former case, the manufacturer's imposition of RPM weakens competitive constraints in the dealer market by eliminating one dimension of dealer competition (price), but it does not enhance the surplus-extractive power of either the manufacturer or its dealers (who are technically the manufacturer's co-conspirators). Instead, the RPM stimulates the dealers to provide output-enhancing services.[124] Suppose that in the latter case, the RPM prevents lower-cost dealers from challenging the dominant dealer by charging

120. *See, e.g.*, HOVENKAMP, *supra* note 96 ("[C]ombinations of actors promise[] significant efficiency gains, but . . . raise the potential for harming competition by reducing the number of firms in a market or facilitating price-fixing.").

121. In neither case could the RPM be used to facilitate a manufacturer-level cartel or as an exclusionary device for a dominant manufacturer. *See Leegin*, 551 U.S. at 897 ("When only a few manufacturers lacking market power adopt the practice, there is little likelihood it is facilitating a manufacturer cartel."); *id.* at 898 ("[T]hat a dominant manufacturer or retailer can abuse resale price maintenance for anticompetitive purposes may not be a serious concern unless the relevant entity has market power.").

122. Such RPM could not be used to facilitate a dealer-level cartel or as an exclusionary device for a dominant retailer. *See id.* at 898.

123. A dominant dealer may seek imposition of RPM to avoid price competition from more efficient dealer rivals. *See id.* at 893 ("A dominant retailer, for example, might request resale price maintenance to forestall innovation in distribution that decreases costs."); McDonough v. Toys-R-Us, Inc., 638 F. Supp. 2d 461, 481–82 (E.D. Pa. 2009) (explaining use of RPM as exclusionary device for dominant retailer).

124. *See Leegin*, 551 U.S. at 890–92 (explaining how minimum RPM can encourage sales-enhancing dealer services).

lower prices,[125] increasing that dealer's surplus-extractive power, but ultimately enhances market output by encouraging point-of-sale dealer services that otherwise would not be provided because of free-riding by cut-rate dealers.[126] Both hypothesized instances of RPM are output-enhancing and should be acquitted. The former would be screened out by the first essential element of an antitrust violation; the latter, by the third. Thus, both the first and third elements play important roles in identifying which antitrust-relevant behaviors are unlikely to reduce market output and should, therefore, be acquitted.

III. ANTITRUST ESSENTIALISM AND THE CASELAW

While the Supreme Court has never expressly identified the essence of an antitrust violation, a survey of the antitrust liability standards that now govern different business practices reveals that nearly all condemn conduct only when it entails the three components described above: (1) an enhancement of the defendant's or its co-conspirator's surplus-extractive power, (2) occasioned by a weakening of competitive constraints, (3) where the power-enhancing conduct was not reasonably necessary to secure output-enhancing efficiencies. The one major exception is the law on per se illegal tie-ins. Even in their treatment of tying arrangements, however, the federal courts are beginning to embrace the view that antitrust liability requires the three stated elements.

Subpart A provides a "whirlwind tour" through prevailing antitrust liability standards to show that for nearly every major category of antitrust-relevant business behavior, the three components described above are essential to a violation. Subpart B then examines the anomalous per se rule against certain types of tying arrangements.

A. PREVAILING LIABILITY STANDARDS' GENERAL CONSISTENCY WITH ANTITRUST ESSENTIALISM

Under current legal doctrine, nearly all antitrust-relevant business behaviors—single firm exclusionary acts, business mergers, horizontal restraints of trade, vertical intrabrand trade restraints, and most vertical interbrand restraints—generate antitrust liability only when they entail the three essential components described above.

1. Unilateral Acts

Single-firm exclusionary conduct like predatory pricing or a unilateral refusal to deal with rivals is governed by Sherman Act section 2,[127] which the Supreme Court has interpreted to forbid "the willful acquisition or maintenance

125. *See McDonough*, 638 F. Supp. 2d at 481 (explaining how dominant dealer may allow dominant dealer to avoid price competition from more efficient dealer rivals).

126. *See Leegin*, 551 U.S. at 890–91 (discussing how minimum RPM promotes dealer provision of free-rideable services).

127. 15 U.S.C. § 2 (making it illegal to "monopolize" or "attempt to monopolize" a market).

of [monopoly] power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident."[128] "Acquisition" and "maintenance" entail an increase in surplus-extractive power over the level that would persist but for the complained of conduct. Exempting monopoly occasioned by "a superior product, business acumen, or historic accident" implies that the surplus-extractive power must result from a weakening of competition, a conclusion confirmed by the Supreme Court's observation that section 2 liability requires "an element of anticompetitive *conduct*."[129] And even if the plaintiff shows an anticompetitive effect, the defendant may avoid liability by establishing that the conduct at issue was reasonably necessary to achieve cost-savings or quality improvements resulting in a net increase in output despite its anticompetitive harms.[130]

2. Business Combinations

Prevailing law on business combinations similarly recognizes the tripartite essence of an antitrust violation. Section 7 of the Clayton Act forbids mergers and acquisitions where the effect "may be substantially to lessen competition, or to tend to create a monopoly" in a line of commerce,[131] a standard that suggests an enhancement of market power.[132] A horizontal merger may be illegal if it is likely to enhance collusion or oligopolistic coordination among the firms

128. United States v. Grinnell Corp., 384 U.S. 563, 570–71 (1966).

129. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407 (2004).

130. *See* United States v. Microsoft Corp., 253 F.3d 34, 59 (D.C. Cir. 2001) ("[I]f a plaintiff successfully establishes a *prima facie* case under § 2 by demonstrating anticompetitive effect, then the monopolist may proffer a 'procompetitive justification' for its conduct"—that is, "a nonpretextual claim that its conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal"—and that the plaintiff would then have to show "that the anticompetitive harm of the conduct outweighs the procompetitive benefit.").

131. 15 U.S.C. § 18.

132. The Horizontal Merger Guidelines jointly issued in 2010 by the FTC and the Antitrust Division of the U.S. Department of Justice (DOJ) emphasize that an enhancement of market power (that is, an increase in surplus-extractive power occasioned by a weakening of competitive constraints) is the touchstone for condemning a merger. *See* U.S. DEP'T OF JUST. & FTC, HORIZONTAL MERGER GUIDELINES 2 (Aug. 19, 2010) [hereinafter 2010 HORIZONTAL MERGER GUIDELINES] ("[M]ergers should not be permitted to create, enhance, or entrench market power or to facilitate its exercise."). While the 2010 Guidelines state enforcement policies, not the law itself, they have been remarkably influential in the courts. *See* Carl Shapiro & Howard Shelanski, *Judicial Response to the 2010 Horizontal Merger Guidelines*, 58 REV. INDUS. ORG. 51, 52–53 (2021) (documenting judicial acceptance of 2010 Guidelines). In late 2023, the FTC and DOJ issued new merger guidelines. U.S. DEP'T OF JUST. & FTC, MERGER GUIDELINES 1 (Dec. 18, 2023) [hereinafter 2023 MERGER GUIDELINES]. The new Guidelines depart substantially from prior versions and have not yet been judicially tested. *See* Herbert Hovenkamp, *The 2023 Merger Guidelines: Law, Fact, and Method*, 65 REV. INDUS. ORG. 39, 41 (Feb. 6, 2024) ("[E]ven in final form the new Merger Guidelines are a revisionist document. One issue they must confront is attaining judicial acceptance."). Accordingly, the discussion here relies primarily on the 2010 Guidelines. Even the 2023 Guidelines, however, observe at the outset that "[m]ergers that substantially lessen competition or tend to create a monopoly increase, extend, or entrench market power," 2023 MERGER GUIDELINES, *supra*, at 1, and they acknowledge that merger-induced efficiencies may prevent a merger from substantially lessening competition. *Id*. at 33. Those observations are consistent with antitrust essentialism.

remaining in the market[133] or to enable the combined firm to raise the price or reduce the quality of a product of one merging entity because the resulting lost sales will be diverted to a product sold by the other merging entity.[134] A vertical merger may be condemned if it would enable the combined firm to exclude or raise the costs of its rivals in the market in which one of the merging firms participates by forcing them to accept less favorable terms in the market in which the other merging firm participates,[135] or if it would facilitate horizontal price coordination.[136] In all these situations, the merger would increase surplus-extractive power by weakening competitive constraints. For both types of merger, the merging party can avoid liability by showing that the merger is reasonably necessary to achieve output-enhancing efficiencies.[137] Thus, both horizontal and vertical mergers are condemned only if they are likely to result in an increase in surplus extractive power via the weakening of competitive constraints and are not reasonably necessary to secure output-enhancing efficiencies.

3. Horizontal Restraints of Trade

Trade-restraining agreements between competing firms are unreasonable and thus illegal when they are likely to enable the participants to extract greater surplus than they otherwise could because they have limited competition among themselves, but such restraints are not condemned when they are reasonably necessary to secure output-enhancing efficiencies. So naked price-fixing,[138] market division,[139] and bid-rigging agreements[140] are per se illegal (they increase surplus-extractive power by weakening competitive constraints and

133. *See generally* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 132, at § 7 (discussing the effect of coordinated interaction among firms).

134. *See generally id.* § 6 (discussing several common types of unilateral effects).

135. *See* U.S. DEP'T OF JUST. & FTC, VERTICAL MERGER GUIDELINES 4 (June 30, 2020) [hereinafter 2020 VERTICAL MERGER GUIDELINES]. In September 2021, the FTC voted 3-2 to withdraw its approval of the 2020 VERTICAL MERGER GUIDELINES. *See* Press Release, FTC, Federal Trade Commission Withdraws Vertical Merger Guidelines and Commentary (Sept. 15, 2021), https://www.ftc.gov/news-events/news/press-releases/2021/09/federal-trade-commission-withdraws-vertical-merger-guidelines-commentary. The 2023 MERGER GUIDELINES, however, recognize this ground for vertical merger condemnation. *See* 2023 MERGER GUIDELINES, *supra* note 132, at 13 ("Mergers Can Violate the Law When They Create a Firm that May Limit Access to Products or Services That Its Rivals Use to Compete.").

136. *See* 2020 VERTICAL MERGER GUIDELINES, *supra* note 135, at 10; 2023 MERGER GUIDELINES, *supra* note 132, at 8 ("Mergers Can Violate the Law When They Increase the Risk of Coordination.").

137. *See* 2010 HORIZONTAL MERGER GUIDELINES, *supra* note 132, at 30–31; 2020 VERTICAL MERGER GUIDELINES, *supra* note 135, at 11; 2023 MERGER GUIDELINES, *supra* note 132, at 32.

138. United States v. Socony-Vacuum Oil Co., 310 U.S. 150, 218 (1940) ("[F]or over forty years this Court has consistently and without deviation adhered to the principle that price-fixing agreements are unlawful per se under the Sherman Act . . . .").

139. United States v. Topco Assocs., Inc., 405 U.S. 596, 608 (1972) ("One of the classic examples of a per se violation of § 1 is an agreement between competitors at the same level of the market structure to allocate territories in order to minimize competition.").

140. *See, e.g.*, United States v. Aiyer, 33 F.4th 97, 115 (2d Cir. 2022) ("[B]id rigging—which is simply another 'form of horizontal price fixing'—is a *per se* violation of the Sherman Act."); United States v. Joyce, 895 F.3d 673, 677 (9th Cir. 2018); United States v. Fenzl, 670 F.3d 778, 780 (7th Cir. 2012).

produce no offsetting efficiencies), and more complicated horizontal restraints like competitor joint ventures are subject to a rule of reason that assesses the degree to which the arrangement is likely to enhance surplus-extractive power by weakening competition,[141] any offsetting efficiencies produced,[142] and the possibility of achieving any such efficiencies less restrictively.[143]

4. Vertical Intrabrand Restraints

All agreements by which an upstream producer restrains downstream trading in its own brand (all "vertical intrabrand restraints")[144] are now judged under a rule of reason that assesses whether the restraint is likely to enhance surplus-extractive power by weakening competitive constraints or instead to boost market output.[145] For example, in abrogating a 96-year-old rule of per se illegality and holding that the rule of reason shall henceforth govern minimum resale price maintenance (RPM)—that is, agreements between manufacturers and downstream dealers setting minimum resale prices for the manufacturers' products—the Supreme Court reasoned that RPM agreements could be anticompetitive, and thus unreasonable or illegal, when they shore up a cartel among either manufacturers[146] or dealers,[147] or when they operate as an exclusionary device for either a dominant dealer[148] or a dominant manufacturer.[149] Any of those four illicit uses of RPM would enhance the surplus-extractive power of the defendant or a co-conspirator by weakening competitive constraints. The Court further reasoned that RPM arrangements

141. Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 20–21 (1979) (holding that competitor joint ventures are subject to the rule of reason); Nat'l Collegiate Athletic Ass'n v. Bd. of Regents of Univ. of Okla., 468 U.S. 85, 107 (1984) (considering as a part of a rule of reason analysis whether the restraint had anticompetitive consequences, specifically whether prices increased and output decreased).

142. *Broad. Music*, 441 U.S. at 20 (considering whether the restraint produced efficiencies) ("The blanket license, as we see it, is not a naked restrain[t] of trade with no purpose except stifling of competition, but rather accompanies the integration of sales, monitoring, and enforcement against unauthorized copyright use.").

143. Nat'l Collegiate Athletic Ass'n v. Alston, 594 U.S. 69, 102 (2021) (considering whether "substantially less restrictive alternatives exist capable of delivering the same procompetitive benefit as [the] current [restraint]" in applying the rule of reason).

144. *See* HOVENKAMP, *supra* note 96, at 183 (distinguishing vertical intrabrand restraints like resale price maintenance from vertical interbrand restraints like exclusive dealing and tying).

145. *See* Cont'l T.V., Inc. v. GTE Sylvania Inc., 433 U.S. 36, 54 (1977) (holding that vertical intrabrand non-price restraints are subject to rule of reason); State Oil Co. v. Khan, 522 U.S. 3, 4 (1997) (holding that maximum resale price maintenance agreements are subject to rule of reason); Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 882 (2007) (holding that minimum resale price maintenance agreements are subject to rule of reason).

146. *Leegin*, 551 U.S. at 892 ("Resale price maintenance may, for example, facilitate a manufacturer cartel.").

147. *Id.* at 893 ("A group of retailers might collude to fix prices to consumers and then compel a manufacturer to aid the unlawful arrangement with resale price maintenance.").

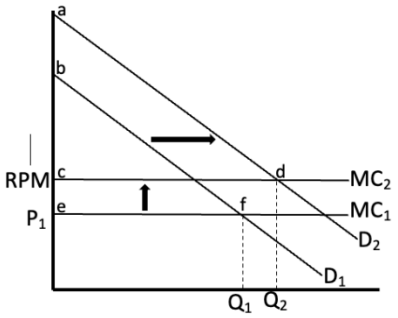
148. *Id.* at 893–94 ("A dominant retailer, for example, might request resale price maintenance to forestall innovation in distribution that decreases costs. A manufacturer might consider it has little choice but to accommodate the retailer's demands for vertical price restraints if the manufacturer believes it needs access to the retailer's distribution network.").

149. *Id.* at 894 ("A manufacturer with market power, by comparison, might use resale price maintenance to give retailers an incentive not to sell the products of smaller rivals or new entrants.").

would enhance competition, and thus be reasonable and legal, when they increase overall market output by encouraging dealer services that are subject to free-riding by cut-rate dealers[150] or are difficult to secure via contract,[151] and when they are used to facilitate the entry of new brands.[152] Such uses of RPM raise consumer prices, but they increase defendants' profits *other than* by enhancing surplus-extractive power via the weakening of competitive constraints. The governing liability rule thus creates liability when the weakening of competitive constraints is likely to enhance surplus-extractive power without resulting in an increase in overall market output.

Notably, the governing rule of reason for minimum RPM acquits some instances of the practice that reduce consumer welfare. The rule approves RPM agreements that are used to encourage output-enhancing dealer services (for example, attractive showrooms, customer education, and favorable product placement). Such services increase output by enhancing consumers' willingness to pay for the manufacturer's product, shifting the demand curve outward.[153] Despite the higher price resulting from imposition of RPM, this can increase consumer welfare, as depicted in Figure G:

Figure G:
RPM That Enhances Output and Consumer Welfare



Given consumer demand of D_1, unfettered dealer competition would drive retail prices to dealers' marginal cost (MC_1), with output of Q_1. When the manufacturer imposes RPM, dealers compete for profitable sales by increasing services, raising dealer marginal cost to MC_2. Enhanced dealer service in turn increases consumer demand from D_1 to D_2, driving output from Q_1 to Q_2. Consumer surplus increases from triangle BFE to triangle ADC.

An increase in consumer welfare is not inevitable, however. Many dealer services are most valued by purchasers who attach a lower value to the product at issue; such services may provide little or no value to purchasers who most

150. *Id.* at 890–91 (explaining how minimum RPM can enhance interbrand competition by encouraging dealer services that are susceptible to free-riding).

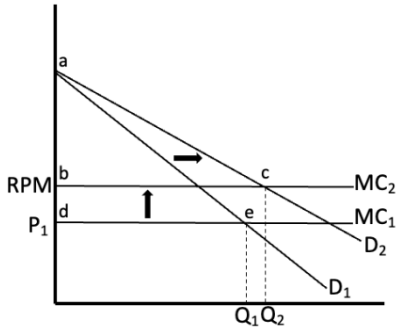
151. *Id.* at 892 ("It may be difficult and inefficient for a manufacturer to make and enforce a contract with a retailer specifying the different services the retailer must perform. Offeing the retailer a guaranteed margin and threatening termination if it does not live up to expectations may be the most efficient way . . . .").

152. *Id.* at 891 ("Resale price maintenance, in addition, can increase interbrand competition by facilitating market entry for new firms and brands."); *id.* at 913 (Breyer, J., dissenting) (explaining how RPM can facilitate entry of new brands).

153. *See* HOVENKAMP, *supra* note 18, § 11.3a1, at 403.

value the product.[154] Customer education on how to use a complicated piece of office equipment, for example, may be highly valued by an individual setting up a home office as a supplement to her normal workplace, but not valued at all by a business purchaser that is already familiar with the equipment. The business purchaser, though, is likely to wring more value from the equipment and would thus be willing to pay more for it. The business purchaser is therefore represented on the left of the demand curve and the individual purchaser on the right, and the RPM raises price and induces dealer services that shift out the demand curve only on the right (that is, only for "marginal" consumers like the individual purchasers and not for "inframarginal" consumers like the business).[155] The upshot, as reflected in Figure H, is that RPM may increase output (from Q_1 to Q_2) but reduce consumer surplus (from AED to ACB). Yet, under the prevailing rule of reason, the RPM would pass muster.[156] That outcome is inconsistent with the consumer harm sufficiency understanding of the essence of an antitrust violation. But because RPM that spurs output-enhancing dealer services and neither facilitates a dealer- or manufacturer-level conspiracy nor acts as an exclusionary device for a dominant manufacturer or dealer does not enhance surplus-extractive power via the weakening of competitive constraints, the rule is consistent with antitrust essentialism.

Figure H:
RPM That Enhances Output but Reduces Consumer Welfare



Given consumer demand of D1, unfettered dealer competition would drive retail prices to dealers' marginal cost (MC_1). When the manufacturer imposes RPM, dealers compete for profitable sales by increasing services, raising marginal cost to MC_2. Enhanced dealer service increases consumer demand in inverse proportion to reservation prices (that is, demand increase is greatest among consumers valuing the product the least). Output increases from Q_1 to Q_2, but consumer surplus decreases from triangle AED to triangle ACB.

5. Most Vertical Interbrand Restraints

Most, but not all, of the liability rules governing vertical interbrand restraints—arrangements in which one firm restrains a vertically related firm's

154. *See id.* § 11.3c, at 408.

155. *See id.*

156. *See Leegin*, 551 U.S. at 907 (holding that minimum RPM is subject to analysis under rule of reason); *id.* at 890–92 (identifying stimulation of output-enhancing dealer services as a procompetitive use of RPM).

dealing in brands other than the first firm's brand[157]—are consistent with antitrust essentialism. Exclusive dealing arrangements (those in which a firm sells on the condition that the buyer not purchase from the seller's competitors) are now governed by a "qualitative foreclosure" rule in which the court first assesses the degree to which the challenged arrangement forecloses sales opportunities for the defendant's rivals, potentially raising their costs by relegating them to less desirable sales outlets or so reducing their sales that they fall below minimum efficient scale.[158] The court also assesses whether the exclusive dealing arrangement at issue may facilitate collusion or oligopolistic pricing by reducing the incidence of competitive bidding among rivals.[159] If the court determines that the challenged arrangement could exclude rivals, raise their costs, or facilitate collusion, it considers whether the challenged arrangement occasions countervailing efficiencies that enhance overall market output and, if so, whether they could be achieved less restrictively.[160] Thus, the rule assigns liability only if the arrangement at issue increases the defendant's surplus-extractive power via the weakening of competitive constraints and is not reasonably necessary to secure output-enhancing efficiencies.

For tying arrangements—those in which a seller requires buyers of one of its products (the "tying" product) also to purchase another of its offerings (the "tied" product)—the liability rule sometimes, but not always, recognizes the tripartite essence of an antitrust violation. When the seller lacks market power over the tying product, the tying arrangement is assessed under a rule of reason similar to that governing exclusive dealing arrangements.[161] The court assesses whether the tied market foreclosure occasioned by the tie-in is likely to enhance the defendant's surplus-extractive power by weakening tied market rivals and,

157. *See* HOVENKAMP, *supra* note 96, at 183 (distinguishing vertical interbrand restraints like exclusive dealing and tying from vertical intrabrand restraints like resale price maintenance).

158. *See* Tampa Elec. Co. v. Nashville Coal Co., 365 U.S. 320, 327–28 (1961) (directing courts to begin assessment of exclusive dealing arrangements by defining product and geographic market and determining degree of market foreclosed to rivals by challenged arrangements); McWane, Inc. v. FTC, 783 F.3d 814, 816 (11th Cir. 2014) ("[A]n exclusive dealing arrangement can be harmful when it allows a monopolist to maintain its monopoly power by raising its rivals' costs sufficiently to prevent them from growing into effective competitors."); Joshua D. Wright, *Antitrust Analysis of Category Management:* Conwood v. United States Tobacco Co., 17 S. CT. ECON. REV. 311, 324 (2009) ("Exclusive dealing jurisprudence has generally adopted a standard largely consistent with identifying those arrangements which satisfy the necessary conditions for anticompetitive outcomes. This rule of reason analysis requires a demonstration of the defendant's market power [and] quantitative and qualitative foreclosure sufficient to generate an anticompetitive effect in light of the duration of the contracts and entry conditions.").

159. *See* AREEDA & HOVENKAMP, *supra* note 39, ¶ 1805.

160. *See, e.g.*, Chuck's Feed & Seed Co. v. Ralston Purina Co., 810 F.2d 1289, 1293–94 (4th Cir. 1987) (observing that after assessing adverse effects of foreclosure "the court should consider any procompetitive effects of the exclusive dealing arrangements that would justify their use"); *McWane*, 783 F.3d at 833 ("If the government succeeds in demonstrating this anticompetitive harm, the burden then shifts to the defendant to present procompetitive justifications for the exclusive conduct, which the government can refute."); Wright, *supra* note 158, at 324 (observing that rule of reason governing exclusive dealing requires "consideration of plausible procompetitive justifications").

161. Elhauge, *supra* note 81, at 466 (observing that rule of reason governing non-per se illegal tie-ins "parallels the rule of reason used for exclusive dealing").

if so, whether the tie-in is reasonably necessary to achieve output-enhancing efficiencies.[162] Such an evaluative approach is consistent with antitrust essentialism. The governing approach is different, though, when the defendant possesses market power in the tying product market.

B. THE ANOMALOUS PER SE RULE AGAINST CERTAIN TYING ARRANGEMENTS

Tie-ins in which the defendant possesses market power over the tying product are subject to a "quasi-per se rule" that is inconsistent with antitrust essentialism. This Subpart describes the current rule and its evolution (Part III.B.1), explains why the rule is inconsistent with antitrust essentialism (Part III.B.2), and highlights Supreme Court dicta suggesting—contra this Article's thesis—that consumer harm is a sufficient condition for condemning antitrust-relevant business behavior (Part III.B.3). The Subpart concludes by documenting a salutary trend in tying cases away from the consumer harm sufficiency view and toward antitrust essentialism (Part III.B.4).

1. Genesis and Description of the Rule

The Supreme Court has long been skeptical of tying arrangements, though its hostility toward them has softened in recent decades. As recently as 1969, the Court affirmed that tying arrangements "generally serve[] no legitimate business purpose that cannot be achieved in some less restrictive way."[163] During the time in which that view held sway, the Court declared tying arrangements to be illegal per se.[164] By the early 1980s, a significant volume of academic commentary had demonstrated that tie-ins may enhance economic efficiency in a number of ways,[165] and the Court backpedaled on its earlier remark that tying arrangements rarely have a legitimate business justification. In its 1984 *Jefferson Parish* decision, the Court acknowledged that "every refusal to sell two products separately cannot be said to restrain competition,"[166] observing that "[b]uyers often find package sales attractive; a seller's decision to offer such packages can merely be an attempt to compete effectively—conduct that is entirely consistent

162. *Id.* ("The second branch of the bifurcated rule of reason condemns ties that foreclose a substantial tied market *share* and lack an offsetting procompetitive justification."). *See* Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 29 (1984) (observing that "in the absence of per se liability," tying plaintiff must show that tie-in "unreasonably restrained competition," which "necessarily involves an inquiry into the actual effect of the exclusive contract on competition [in the tied market]").

163. Fortner Enters., Inc. v. U.S. Steel Corp., 394 U.S. 495, 503 (1969).

164. Int'l Salt Co. v. United States, 332 U.S. 392, 396 (1947) (condemning tying of salt to patented machinery because "it is unreasonable, per se, to foreclose competitors from any substantial market" and volume of tied salt sales "[could not] be said to be insignificant or insubstantial").

165. *See, e.g.*, ROBERT H. BORK, THE ANTITRUST PARADOX: A POLICY AT WAR WITH ITSELF 372–75 (rev. ed. 1993); Richard A. Posner, *The Chicago School of Antitrust Analysis*, 127 U. PA. L. REV. 925, 927 (1979); Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19, 28 (1957); Aaron Director & Edward H. Levi, *Law and the Future: Trade Regulation*, 51 NW. U. L. REV. 281, 284 (1956).

166. *Jefferson Par.*, 466 U.S. at 11.

with the Sherman Act."[167] Stare decisis concerns, though, rendered the Court unwilling to overturn a long-standing per se rule against at least some set of tie-ins, with the majority concluding, "It is far too late in the history of our antitrust jurisprudence to question the proposition that certain tying arrangements pose an unacceptable risk of stifling competition and therefore are unreasonable 'per se.'"[168]

The Court resolved the tension between its recognition that tie-ins can be procompetitive and its respect for precedent by emphasizing the limits on the per se rule's applicability. To come within the per se prohibition, a tying arrangement must meet three elements: (1) it must tie together two genuinely separate products;[169] (2) the defendant imposing the tie-in must possess market power in the tying product market;[170] and (3) the tie-in must affect a not insubstantial dollar volume—though not percentage—of sales in the tied product market.[171] The first two of these requirements help prevent the condemnation of efficient tie-ins. (The third element, which is easily satisfied, does not.)[172]

With respect to the two products requirement, the *Jefferson Parish* majority focused on whether there was separate demand for the tying and tied products.[173] That seems a poor test, given that many single products contain discrete components for which there is separate demand.[174] A better test, suggested by the *Jefferson Parish* concurrence[175] and followed by many lower courts, focuses on whether there are obvious efficiencies in packaging the components together—as with left and right shoes or tires with cars—in which case they

167. *Id.* at 12.

168. *Id.* at 9.

169. *Id.* at 21 ("[A] tying arrangement cannot exist unless two separate product markets have been linked.").

170. *Id.* at 13–14 ("[W]e have condemned tying arrangements when the seller has some special ability—usually called 'market power'—to force a purchaser to do something that he would not do in a competitive market.").

171. *Id.* at 16 ("[W]e have refused to condemn tying arrangements unless a substantial volume of commerce is foreclosed thereby."); *see* N. Pac. Ry. Co. v. United States, 356 U.S. 1, 6 (1958) ("[T]ying arrangements . . . are unreasonable in and of themselves whenever a party has sufficient economic power with respect to the tying product to appreciably restrain free competition in the market for the tied product and a 'not insubstantial' amount of interstate commerce is affected."); Fortner Enters., Inc. v. U.S. Steel Corp., 394 U.S. 495, 501 (1969) ("[T]he requirement that a 'not insubstantial' amount of commerce be involved makes no reference to the scope of any particular market or to the share of that market foreclosed by the tie, and . . . normally the controlling consideration is simply whether a total amount of business, substantial enough in terms of dollar-volume so as not to be merely de minimis, is foreclosed to competitors by the tie.").

172. HOVENKAMP, *supra* note 18, § 10.1, at 352 ("[T]he [last] element of the test for *per se* illegality—a 'not insubstantial' amount of commerce in the tied product market—is pure formalism.").

173. *Jefferson Par.*, 466 U.S. at 19 ("[T]he answer to the question whether one or two products are involved turns not on the functional relation between them, but rather on the character of the demand for the two items.").

174. *See* Jack Walters & Sons Corp. v. Morton Bldg., Inc., 737 F.2d 698, 704 (7th Cir. 1984) (criticizing the *Jefferson Parish* "separate demand" test by observing that "[t]here are separate markets for sugar and for sugarless breakfast cereals, but it would be surprising to find that a sugary cereal was a tie-in (sugar tied to cereal), assuming the seller refused to sell a sugar-free version").

175. *Jefferson Par.*, 466 U.S. at 40 (O'Connor, J., concurring) ("When the economic advantages of joint packaging are substantial the package is not appropriately viewed as two products, and that should be the end of the tying inquiry.").

comprise a single product.[176] So understood, the two-product requirement serves to acquit many apparent tying arrangements that are efficient.[177]

The requirement that the defendant possess market power in the tying product market also saves many efficient tie-ins from condemnation. Absent tying market power, sellers generally cannot force a tie-in on consumers, who will respond to the tying requirement by taking their business elsewhere.[178] If a tie-in persists when customers could easily refuse it—that is, when the seller lacks tying market power—it is likely producing net consumer value by reducing the producer's cost (and thus its price) or enhancing the quality of its offering. Thus, tie-ins in which the seller does not possess tying market power are not per se illegal and may be condemned only if the plaintiff proves a level of tied market foreclosure sufficient to reduce competition in the tied product market (by driving tied market rivals below minimum efficient scale) or possibly in the tying market (if the tied market foreclosure weakens tied rivals that otherwise might enter the tying market).[179]

In addition to incorporating efficiency considerations into the test for per se illegal tie-ins, the courts have adjusted the per se illegality concept in tying cases so as to acquit some efficient arrangements that involve the three requirements for per se condemnation. Per se illegality normally entails condemnation without consideration of asserted justifications.[180] With per se illegal tie-ins, however, courts have been willing to consider procompetitive justifications.[181] The upshot is that the rule of per se illegality for qualifying tie-ins is more akin to the "quick look" rule of reason that applies to some horizontal restraints of trade—those for which "an observer with even a rudimentary understanding of economics could conclude that the arrangements in question

176. *See, e.g.*, *Jack Walters*, 737 F.2d at 703 ("The practice has been to classify a product as a single product if there are rather obvious economies of joint provision, as in the left-shoe-right-shoe example.").

177. *Id.* ("Although this approach seems to take what would otherwise be a matter of defense and make its absence a threshold requirement of the offense, it does serve to screen out many silly cases.").

178. *See* HOVENKAMP, *supra* note 18, § 10.3a, at 354 ("[A] seller in competition could not impose an unwanted second product on a buyer unless the seller compensated the buyer for taking the product."); *Jefferson Par.*, 466 U.S. at 11–12 ("If each of the products may be purchased separately in a competitive market, one seller's decision to sell the two in a single package imposes no unreasonable restraint on either market, particularly if competing suppliers are free to sell either the entire package or its several parts.").

179. *See* Elhauge, *supra* note 81, at 466 (observing that tie-ins that are not per se illegal are subject to rule of reason that "condemns ties that foreclose a substantial tied market share and lack an offsetting procompetitive justification").

180. *See* Arizona v. Maricopa Cnty. Med. Soc'y, 457 U.S. 332, 349 (1982) (observing that defendants' assertion of procompetitive justifications for maximum price-fixing "indicates a misunderstanding of the *per se* concept," that "the anticompetitive potential inherent in all price-fixing agreements justifies their facial invalidation even if procompetitive justifications are offered for some," and that "claims of enhanced competition are so unlikely to prove significant in any particular case [involving a per se illegal practice] that we adhere to the rule of law that is justified in its general application").

181. *See* AREEDA & HOVENKAMP, *supra* note 39, ¶ 1760b ("Notwithstanding its development of a 'per se' rule against tying, the Supreme Court has almost always been willing to consider a defendant's offered justifications.").

would have an anticompetitive effect on customers and markets."[182] Such restraints are effectively presumed unreasonable and thus illegal, but the defendant may rebut the presumption of unreasonableness by proving offsetting procompetitive benefits.[183] So, too, with per se illegal tie-ins.[184]

2. The Rule's Inconsistency with Antitrust Essentialism

Despite features that acquit many efficient tie-ins, the prevailing per se rule does condemn business behaviors that do not entail all three essential elements of an antitrust violation—particularly, a weakening of competitive constraints. Unlike the rule of reason applicable to non-per se illegal tie-ins, the per se rule approved in *Jefferson Parish* does not require that the tie-in occasion sufficient foreclosure in the tied product market to impair the efficiency of tied product rivals.[185] Such a degree of foreclosure would obviously weaken competitive constraints in the tied product market,[186] and it could also do so in the tying product market if a tied rival was likely to enter the tying market or if the offerings of tied product rivals could act as substitutes for the tying product.[187] A tie-in that does not foreclose rivals from a substantial proportion of marketing opportunities in the tied product market, however, does not weaken competitive constraints in that market and actually makes it easier for rivals to compete in the tying product market, as the tie-in enhances tying rivals' attractiveness to consumers who do not wish to buy the tied product. Yet, such a tie-in is presumptively forbidden if the three elements of per se illegality are satisfied.[188]

Defenders of the prevailing per se rule maintain that this is appropriate because such tie-ins may injure consumers.[189] They point to three situations in

182. Cal. Dental Ass'n v. FTC, 526 U.S. 756, 757 (1999).

183. *See id.* at 775 n.12 (observing that quick look analysis effectively requires "shifting to a defendant the burden to show empirical evidence of procompetitive effects").

184. Elhauge, *supra* note 81, at 490 ("The quasi-per se rule presumptively condemns ties with market power, placing the burden on the defendant of proving an offsetting procompetitive justification.").

185. *Id.* at 467 (observing that per se rule applicable to tying "requires proof of tying power and a substantial dollar amount of foreclosed sales but does not require proof of a substantial foreclosure share").

186. Einer Elhauge, *Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theory*, 123 HARV. L. REV. 397, 413 (2009) ("If foreclosure decreases [tied] rival efficiency . . . it will worsen the market options available to buyers and lessen the constraint on the tying firm's market power in the tied market.").

187. *Id.* at 417–19. This was one of the government's theories of liability in the *Microsoft* case, where Microsoft was accused of tying its Internet Explorer web browser to its monopoly Windows operating system in order to foreclose rival browsers (primarily Netscape Navigator) so that they could not, perhaps in combination with a middleware product, provide a substitute for, and thus challenge, Microsoft's dominant operating system. *See* United States v. Microsoft Corp., 253 F.3d 34, 60 (D.C. Cir. 2001); WILLIAM H. PAGE & JOHN E. LOPATKA, THE MICROSOFT CASE: ANTITRUST, HIGH TECHNOLOGY, AND CONSUMER WELFARE 29–32 (2007) (describing the "guiding narrative" of *Microsoft* case).

188. *See supra* note 187 and accompanying text.

189. *See* Elhauge, *supra* note 81, at 467 (defending per se rule because tie-ins that meet requirements for per se illegality "can—and usually do—reduce both consumer welfare and total welfare" and observing that "consumer welfare is and should be the legal standard"); Elhauge, *supra* note 186, at 420 ("Tying by a firm with tying market power typically does increase monopoly profits even when the tie has no efficiencies. Such tying also usually harms consumer and total welfare absent offsetting efficiencies.").

which a tie-in that does not involve substantial tied market foreclosure may nevertheless reduce consumer welfare.[190] One such situation exists when the tied product is a necessary complement of the tying product but is not used with that product in fixed proportions.[191] In a "variable proportion requirements tie," a producer possessing market power over one product (such as a technologically unique printer) requires purchasers also to buy their requirements of a necessary complement that consumers use in varying amounts (such as ink).[192] If the producer lowers the price of the tying product (the printer) to near the competitive level (marginal cost) and then charges supracompetitive prices on the tied product (ink), it can effectively usurp greater surplus from higher-volume users of its tying product.[193] Assuming users' reservation prices for the tying product correlate with the degree to which they use it, and thus to their consumption of the supracompetitively priced complement, a variable proportion tie-in of this sort may come to resemble—albeit imperfectly—a first-degree price discrimination scheme in which consumers are charged their individualized reservation prices and receive none of the surplus generated by their purchases.[194]

A second situation in which tie-ins that do not occasion substantial tied market foreclosure may nevertheless reduce consumer welfare occurs when (1) the producer possesses some market power over both the tying and tied products (so that it may charge an above-cost price for each) and (2) demand for the two products is not positively correlated.[195] If the producer sells the products separately, its pricing power over each will be constrained by the willingness to pay of the most price-sensitive consumers—that is, those exhibiting a high elasticity of demand.[196] By tying the products together, the seller may evade this constraint on its pricing power.[197]

Economist George Stigler employed the following example to illustrate this use of tying (referred to henceforward as "Stigler-type bundling").[198] A firm

190. Elhauge, *supra* note 81, at 467 ("Ties without a substantial foreclosure share can have three possible anticompetitive effects: (1) intra-consumer surplus extraction; (2) inter-product price discrimination; and (3) intra-product price discrimination.").

191. *Id.* at 480.

192. *Id.* at 477–80.

193. Bowman, *supra* note 165, at 23–24; HOVENKAMP, *supra* note 18, § 10.6e, at 467.

194. *See* HOVENKAMP, *supra* note 18, § 10.6e, at 469 ("In first degree [or 'perfect'] price discrimination a seller obtains the full amount that each buyer is willing to pay for each unit in question."); Elhauge, *supra* note 81, at 477 ("Perfect price discrimination, which charges each buyer the price for the tying product that equals its valuation of that product, clearly reduces consumer welfare" but "ties cannot produce perfect price discrimination because, although charging based on usage tends to correlate with buyer valuations of the tying product, that correlation is imperfect because those buyer valuations reflect not only the amount of usage, but also how much the buyer values each usage.").

195. Elhauge, *supra* note 186, at 405–07; Elhauge, *supra* note 81, at 477.

196. *See* POSNER, *supra* note 104, at 235 ("When the products are priced separately, the price is depressed by the buyer who values each one less than the other buyer does; the bundling eliminates this effect.").

197. Elhauge, *supra* note 186, at 405–07; Elhauge, *supra* note 81, at 486–87.

198. *See* George J. Stigler, United States v. Loew's Inc.*: A Note on Block Booking*, 1963 SUP. CT. REV. 152, 153.

sells two unique products, *X* and *Y*, to which its two customers, *A* and *B*, attach different values. The marginal cost of both products—say, licenses to exhibit different films—is zero. Customer *A* values product *X* at $8000 and product *Y* at $2500, and Customer *B* values product *X* at $7000 and product *Y* at $3000:

	***A*'s Reservation Price**	***B*'s Reservation Price**
Product *X*	$8000	$7000
Product *Y*	$2500	$3000

Under these assumptions, the optimal strategy of the producer, were it to sell the products separately, would be to charge $7000 for product *X* and $2500 for product *Y*.[199] At those prices, which are the maximum separate prices at which it could sell both products to each customer, its profit (given its marginal cost of zero) would be $19,000.[200] Total consumer surplus would be $1500, with customer *A* receiving $1000 in surplus and customer *B* receiving $500. Stigler observed that the firm could enhance its profit by tying products *X* and *Y* and selling the bundle for $10,000, the maximum price the customer who values the bundle least (customer *B*) would pay.[201] That strategy would permit the firm to profit by $20,000 but would reduce total consumer surplus from $1500 to $500.

A third situation in which tie-ins may cause consumer harm even if they do not occasion substantial tied market foreclosure occurs when consumers purchase multiple units of the tying product.[202] Because buyers typically put a purchased unit to whatever use generates the most value, as buyers purchase more units, each produces less value for the buyer. The last unit the buyer purchases should produce value just equal to the price paid, with the buyer receiving some surplus (value minus price) on all previous purchases.[203] Assuming the seller charges its profit-maximizing price, any price increase aimed at capturing some of the buyer's surplus would so reduce sales as to bring down the seller's profits. Nor could the seller extract surplus by tying in another product in fixed proportions with the tying product, for that would be tantamount to raising the price of the tying product above profit-maximizing levels.[204]

The seller could, however, extract surplus by implementing an effective two-part tariff: charge the buyer a fee up to the amount of the buyer surplus that would exist if the buyer bought all the units it wanted at the seller's profit-maximizing price, for the right to buy those units at that price. As long as the fee

199. *Id.*

200. *Id.*

201. *Id.*

202. Elhauge, *supra* note 186, at 407–13; Elhauge, *supra* note 81, at 469–71.

203. Elhauge, *supra* note 81, at 469 ("Each individual consumer will keep buying units until the value of the marginal unit purchased matches [the seller's profit-maximizing price]. For all the prior (or inframarginal) units, each individual consumer will enjoy some value in excess of that price, which gives each individual a positive consumer surplus.").

204. Bowman, *supra* note 165, at 20–21.

was below the total surplus the buyer would enjoy from purchasing all units desired at the seller's profit-maximizing price, the buyer would pay the fee. And the seller could effectively impose such a fee by requiring the buyer to purchase some other good—though not in fixed proportions with the tying product—at a supracompetitive price.[205] As long as the buyer's lost surplus from having to buy this supracompetitively priced tied product was less than the surplus the seller would get from buying all desired units at the seller's profit-maximizing single price, the buyer would make the purchase. We may refer to this strategy as "Burstein-style tying" after the scholar who first documented it.[206]

Variable proportion requirements tie-ins, Stigler-type bundling, and Burstein-style tying all harm consumers in the short term by enabling sellers to extract greater surplus than they otherwise could. However, when such strategies are employed without occasioning sufficient tied market foreclosure to impair the efficiency of rivals in the tied market, they do not weaken competitive constraints. Such instances of tying thus do not entail a component that is a necessary prerequisite to condemnation under antitrust essentialism—and under every other antitrust liability rule.

3. Dicta Suggesting Consumer Harm From Surplus Extraction Is Sufficient for Condemnation of Tie-Ins

Dicta in several Supreme Court tying opinions suggest that the surplus-extractive effect of variable proportion requirements tie-ins, Stigler-type bundling, and Burstein-style tying justifies their condemnation under the antitrust laws. Dissenting from the Supreme Court's 1969 decision in *Fortner Enterprises, Inc. v. U.S. Steel Corp.* ("*Fortner I*"),[207] Justice White invoked "the rationale on which the illegality of tying arrangements is based."[208] He first observed that tying arrangements "may work significant restraints on competition in the tied product" market by foreclosing sales opportunities for tied product rivals and raising their costs.[209] He then continued, "In addition to these anticompetitive effects in the tied product, tying arrangements . . . may be used as a counting device to effect price discrimination; and they may be used to force a full line of products on the customer so as to extract more easily from him a monopoly return on one unique product in the line."[210] The first of these strategies—"a counting device to effect price discrimination"—refers to variable proportion requirements tie-ins.[211] The second—forcing a full line of

205. Elhauge, *supra* note 81, at 465 (offering example of tying to extract surplus on inframarginal units).

206. *See* M. L. Burstein, *The Economics of Tie-In Sales*, 42 REV. ECON. & STAT. 68, 69 (1960); M. L. Burstein, *A Theory of Full-Line Forcing*, 55 NW. U. L. REV. 62, 73–91 (1960).

207. 394 U.S. 495 (1969).

208. *Id.* at 512 (White, J., dissenting).

209. *Id.* at 513.

210. *Id.* at 513–14.

211. In referring to "a counting device to effect price discrimination," Justice White cites Bowman. *See* Bowman, *supra* note 165, at 21–23. The cited passage describes a variable proportions requirements tie as "a counting device to measure how intensively the [tying] product is being used." *Id.* at 23.

products on consumers to extract greater monopoly return—appears to embrace both Stigler-type bundling and Burstein-style tying. (Indeed, Justice White cites Burstein.)[212]

When the case returned to the Supreme Court following trial and appeal to the Sixth Circuit, the majority suggested that price discrimination resulting from variable proportion tie-ins could warrant antitrust condemnation. In its unanimous 1977 decision in *U.S. Steel Corp. v. Fortner Enterprises, Inc.* ("*Fortner II*"),[213] the Court asserted that "[i]f, as some economists have suggested, the purpose of a tie-in is often to facilitate price discrimination, such evidence would imply the existence of power that a free market would not tolerate."[214] It then observed that the tying in the case before it was not a variable proportion requirements tie and therefore could not involve "the kind of 'leverage' found in some of the Court's prior decisions condemning tying arrangements."[215] The Court thus insinuated that price discrimination resulting from a variable proportion requirements tie is the kind of effect that triggers antitrust liability.

In its 1984 *Jefferson Parish* decision, the Supreme Court declined to overturn the rule that tie-ins by firms with tying market power are per se illegal.[216] Delivering the opinion of the Court on behalf of five justices, Justice Stevens observed that such tie-ins may impair competition in the tied product market "and can increase the social costs of market power by facilitating price discrimination, thereby increasing monopoly profits over what they would be absent the tie."[217] The footnote following that observation then described variable proportion requirements ties[218] and cited the scholarship in which Stigler and Burstein described how tying could be used to extract consumer surplus.[219] The Court thus indicated again that the surplus-extractive effects of variable proportion requirements ties, Stigler-type bundling, and Burstein-style tying are the sorts of harms that give rise to antitrust liability.

Notably, a four-justice coalition in *Jefferson Parish* would have abrogated tying doctrine's per se rule in favor of a rule of reason approach that would have

212. *Fortner I*, 394 U.S. at 513 n.8 (White, J., dissenting) (citing Burstein, *A Theory of Full-Line Forcing*, *supra* note 206.

213. 429 U.S. 610 (1977).

214. *Id.* at 617.

215. *Id.* at 617–18.

216. Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 9 (1984) ("It is far too late in the history of our antitrust jurisprudence to question the proposition that certain tying arrangements pose an unacceptable risk of stifling competition and therefore are unreasonable 'per se.'").

217. *Id.* at 14–15 (citing *Fortner II*, 429 U.S. at 617).

218. *Id.* at 15 n.23 ("Sales of the tied item can be used to measure demand for the tying item; purchasers with greater needs for the tied item make larger purchases and in effect must pay a higher price to obtain the tying item."); *see also id.* at 19 n.30 ("[I]n some situations the functional link between the [tying and tied] items may enable the seller to maximize its monopoly return on the tying item as a means of charging a higher rent or purchase price to a larger user of the tying item.").

219. *Id.* at 15 n.23 (first citing Burstein, *A Theory of Full-Line Forcing*, *supra* note 206; then citing Stigler, *supra* note 198).

required as a condition for liability that the tie-in impose "a substantial threat of market power in the tied product."[220] Such a threat would exist only if the tie-in resulted in substantial foreclosure of sales opportunities for tied market rivals.[221] The rule would thus align the doctrine on tying and exclusive dealing and would, as explained above, cohere with the antitrust essentialist view that antitrust violations must enhance surplus-extractive power via a weakening of competitive constraints.[222]

Interestingly, the author of the *Jefferson Parish* concurrence that would have conditioned tying liability on an enhancement of surplus-extractive power, Justice O'Connor, later joined a dissenting opinion suggesting that tying doctrine condemns surplus extraction itself, not simply the enhancement of surplus-extractive power via the weakening of competitive constraints. The dissent was from the Court's 1992 decision in *Eastman Kodak Co. v. Image Technical Services, Inc.*[223] Authored by Justice Scalia and joined by Justices O'Connor and Thomas, the dissent repeatedly suggested that the sort of surplus extraction accomplished by variable proportion requirements ties, Stigler-type bundling, and Burstein-style tying itself warrants antitrust condemnation. It identified price discrimination and surplus extraction—along with market power extension—as part of "the stated rationale for our *per se* rule" and as "reasons" for condemning tie-ins.[224] It suggested that "price discriminat[ion] by charging each customer a 'system' price equal to the system's economic value to that customer" is among "[t]he evils against which the tying prohibition is directed."[225] It referred to "the leveraging and price discrimination concerns behind the *per se* tying prohibition."[226] The dissent noted that the Court had previously applied the *per se* rule to condemn tie-ins "when the manufacturer's monopoly power in [] equipment, coupled with the use of derivative [tied] sales as 'counting devices' to measure the intensity of customer equipment usage, enabled the manufacturer to engage in price discrimination, and thereby more fully exploit its interbrand power."[227] And it observed that the tying arrangement under consideration "d[id] next to nothing to improve [the defendant's] ability to extract monopoly rents from its customers."[228] These statements suggest that

220. *Id.* at 41 (O'Connor, J., concurring) (observing that "three conditions—market power in the tying product, a substantial threat of market power in the tied product, and a coherent economic basis for treating the products as distinct—are only threshold requirements" for liability and that any benefits resulting from a tie-in "should enter the rule-of-reason balance").

221. *See* Erik Hovenkamp & Herbert Hovenkamp, *Tying Arrangements and Antitrust Harm*, 52 ARIZ. L. REV. 925, 930 (2010) ("Nonforeclosing ties . . . do not cause competitive harm by excluding rivals . . . .").

222. *See supra* notes 161–165 and accompanying text (discussing how liability standards governing exclusive dealing and non-per se illegal tie-ins are consistent with antitrust essentialism).

223. 504 U.S. 451 (1992).

224. *Id.* at 487–88 (Scalia, J., dissenting).

225. *Id.* at 491.

226. *Id.* at 494.

227. *Id.* at 499.

228. *Id.*

consumer-injuring surplus extraction is a sufficient basis for condemning tie-ins, even if the arrangement under review does not enhance the defendant's surplus-extractive power via weakening competitive constraints.

4. More Recent Court Reasoning Suggesting that Surplus Extraction Alone Does Not Warrant Condemnation

Despite the foregoing dicta, the actual reasoning of modern Supreme Court tying decisions suggests that the surplus-extractive effect of tie-ins does not, by itself, warrant their condemnation under the antitrust laws. Consider *Jefferson Parish*. Following the Court's pronouncement that per se condemnation of a tie-in may result if "the existence of forcing is probable" due to the defendant's tying market power, it added a qualifier: "Of course, as a threshold matter there must be a substantial potential for impact on competition in order to justify per se condemnation."[229] The Court then identified two tying scenarios in which the requisite "substantial potential for impact on competition" would not exist:

> If only a single purchaser were 'forced' with respect to the purchase of a tied item, the resultant impact on competition would not be sufficient to warrant the concern of antitrust law. It is for this reason that we have refused to condemn tying arrangements unless a substantial volume of commerce is foreclosed thereby. Similarly, when a purchaser is 'forced' to buy a product he would not otherwise have bought even from another seller in the tied product market, there can be no adverse impact on competition because no portion of the market which would otherwise have been available to other sellers has been foreclosed.[230]

A tie-in can extract consumer surplus under each of these non-liability-creating scenarios.[231] A seller with market power over one product could extract additional surplus by requiring that a single buyer with an abnormally high reservation price also purchase, at a supracompetitive price, a second product from the seller. While this would be tantamount to a price increase on the tying product for that single buyer, the seller might prefer to impose the tie-in, rather than to charge the targeted purchaser a higher single-product price for the tying product, for several reasons. It may, for example, wish to avoid the appearance of price-gouging or to comply with some rule regulating the price of the tying product. Regardless of the reason for doing so, the seller would be using tying to extract additional surplus even if the tie-in applied to a single buyer.

Tying can also extract surplus "when a purchaser is 'forced' to buy a product he would not have otherwise bought even from another seller in the tied product market."[232] Recall that in Burstein-style tie-ins, the seller attempts to

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229. Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 15–16 (1984).

230. *Id.* at 16 (citations omitted).

231. *See* Lambert, *supra* note 66, at 931 (explaining how surplus extraction can occur via both (1) a tie-in imposed on a single purchaser and (2) a tie-in involving a tied product the purchaser otherwise would not have purchased even from another seller).

232. *Jefferson Par.*, 466 U.S. at 16.

extract some of the surplus that a purchaser who buys multiple units of a tying product enjoys on inframarginal purchases (that is, early purchases that are put to higher-valued ends).[233] The seller does so by tying in another product that is not used in fixed proportions with the tying product. The lack of fixed-proportion use prevents the tie-in from functioning as an effective increase in the unit price of the tying product, thereby reducing tying product sales. The tie-in instead operates as a two-part tariff in which the purchaser sacrifices surplus on some quantity of tied purchases to earn the right to purchase units of the tying product at a price that generates buyer surplus on inframarginal purchases.[234] Such a strategy does not require that the tied product be one that the purchaser otherwise would have bought from another seller. The tie-in can thus extract surplus without usurping any sales from tied market rivals.

Consumer welfare-reducing surplus extraction can therefore occur via both (1) a tie-in imposed on a single purchaser and (2) a tie-in involving a tied product the purchaser otherwise would not have purchased even from another seller. And yet, the *Jefferson Parish* Court reasoned that such tie-ins do not pose the "substantial potential for impact on competition" that is required for condemnation under the antitrust laws.[235] This implies that antitrust liability must require more than just an antitrust-relevant act (for example, a trade-restraining agreement like a tying arrangement) and resulting consumer harm. The requirement that the tie-in involve "a substantial potential for impact on competition" suggests that the tie-in must also enhance the defendant's surplus extractive power by foreclosing sufficient tied market sales to dampen competitive vigor by rendering rivals less efficient (for example, by driving them below minimum efficient scale) or subjecting them to additional costs (such as the need to enter two markets). Unfortunately, the *Jefferson Parish* Court inaccurately suggested this requirement would be met if "a substantial volume of commerce is foreclosed" by the tie-in at issue.[236] That would be true only if the volume of commerce foreclosed comprised a substantial *proportion* of tied product sales opportunities, not simply a substantial *dollar volume* of tied product sales.[237] The law is clear, though, that only the latter is required for liability under the per se tying rule.[238] The Court was sloppy here. But the fact

233. *See supra* notes 205–209 and accompanying text.

234. *See supra* notes 207–209 and accompanying text.

235. *Jefferson Par.*, 466 U.S. at 16.

236. *Id.* ("If only a single purchaser were 'forced' with respect to the purchase of a tied item, the resultant impact on competition would not be sufficient to warrant the concern of antitrust law. *It is for this reason that we have refused to condemn tying arrangements unless a substantial volume of commerce is foreclosed thereby.*" (emphasis added)).

237. *See* HOVENKAMP, *supra* note 18, § 10.1, at 436 ("To the extent that tying law is concerned with limits on competition facilitated by foreclosure or increased collusion, the correct number should be some *percentage* of a relevant market foreclosed by the arrangement.").

238. *See* Fortner Enters., Inc. v. U.S. Steel Corp., 394 U.S. 495, 501 (1969) ("The requirement that a 'not insubstantial' amount of commerce be involved makes no reference to the scope of any particular market or to the share of that market foreclosed by the tie.").

remains that it emphasized the necessity, for antitrust liability, of "a substantial potential for impact on competition" and then expressly exempted two categories of tie-ins that could occasion consumer harm in the form of enhanced surplus extraction.[239] This suggests that even the doctrine on per se illegal tie-ins—the lone doctrinal holdout—implicitly rejects the consumer harm sufficiency view and conditions liability on an increase in surplus-extractive power occasioned by a weakening of competitive constraints.

The reasoning of the Court's 2006 decision in *Illinois Tool Works Inc. v. Independent Ink, Inc.* further suggests that surplus extraction via effective price discrimination is not a sufficient basis for condemning a tie-in.[240] Defendant Illinois Tool Works, which manufactured patented components used in commercial printing systems, sold the components on the condition that buyers also purchase the ink used in the printing systems.[241] The arrangement was a classic variable proportion requirements tie-in—the sort used to measure demand for the tying product according to tied product use and, by charging a supracompetitive price for the tied product, charge higher effective prices to high-use (and presumably high-reservation price) customers.[242]

The primary issue before the *Independent Ink* Court was whether, as the lower court had held, the mere existence of a patent on a tying product—the patented printer components—creates a presumption of market power in the tying product market.[243] The Court held that it does not.[244] More significantly, for our purposes, the Court also rejected a narrower basis for upholding the lower court's imposition of antitrust liability. The plaintiff-respondents and their amici had urged the Court to hold, at a minimum, that "a tying arrangement involving the purchase of unpatented goods over a period of time, a so-called 'requirements tie,'" evinces, and thus creates a presumption, of tying market power.[245] In pressing for that alternative holding, the amici had emphasized that variable proportion requirements ties enable greater surplus extraction by the seller and thereby injure consumers, even when they are efficient.[246] In rejecting

239. *Jefferson Par.*, 466 U.S. at 16.

240. 547 U.S. 28 (2006).

241. *Id.* at 31–32.

242. *See supra* notes 195–197 and accompanying text (describing variable proportion requirements ties).

243. *Ill. Tool Works Inc.*, 547 U.S. at 31 ("The question presented to us today is whether the presumption of market power in a patented product should survive as a matter of antitrust law despite its demise in patent law.").

244. *Id.* ("We conclude that the mere fact that a tying product is patented does not support such a presumption.").

245. *Id.* at 44.

246. Brief of Professors Barry Nalebuff, Ian Ayres & Lawrence Sullivan as Amici Curiae Supporting Respondent at 19, *Ill. Tool Works, Inc.*, 547 U.S. 28 (No. 04-1329) ("The gain to the monopolist from price discrimination [via a variable proportion requirements tie] comes from increased sales and from an increased ability to capture surplus from consumers. Thus, while the monopolist gains, consumers lose."); *id.* ("The expected harm to consumers should result in striking down the tied contract even if there is a net gain in economic efficiency."); *id.* at 27 ("The predominant explanation for such contracts is price discrimination via metering. Such metering will typically lead to reductions in consumer welfare.").

the amici's proposed holding, the Supreme Court observed that "it is generally recognized that [price discrimination] . . . occurs in fully competitive markets" and that "[m]any tying arrangements, even those involving patents and requirements ties, are fully consistent with a free, competitive market."[247] The Court thus reasoned that mere price discrimination and surplus extraction, even when accomplished through some sort of contractual arrangement like a tie-in, are not by themselves anticompetitive harms warranting antitrust's condemnation.

Lower courts, too, appear to be recognizing that tie-ins that occasion surplus extraction but do not enhance market power by weakening competitive constraints do not warrant antitrust condemnation. In *Brantley v. NBC Universal, Inc.*, a class of cable and satellite television subscribers brought a tying claim against television programmers (content providers) and distributors.[248] Plaintiffs alleged that the programmer defendants tied their "must-have" channels to low-demand channels, forcing distributors to license the latter to get the former.[249] Each distributor defendant then required plaintiff subscribers to purchase all of the offerings the distributor licensed from a programmer, again tying each programmer's low-demand offerings to its high-demand programming.[250]

In affirming the district court's dismissal of the subscribers' complaint, the Ninth Circuit assumed that "high-demand and low-demand channels are actually separate products" so that plaintiffs had alleged a true tie-in.[251] The court recognized that plaintiffs had alleged both that programmers have market power over the tying product—their "must-have" channels—and that they "exploit this market power" by requiring distributors also to license low-demand offerings.[252] The court further acknowledged that plaintiffs alleged that the tie-in had harmed them by reducing their choices and increasing the effective price they were required to pay for the channels they desired.[253] The court nevertheless held that plaintiffs had failed to state a claim under the antitrust laws.[254] The complaint was legally deficient because plaintiffs had not alleged that the tie-in harmed competition by foreclosing rivals from the programming market.[255] While the alleged increase in effective price may have extracted consumer surplus, that alone was not a harm to competition upon which antitrust liability could be based.[256] The court thus reasoned that an arrangement that extracts greater

247. *Ill. Tool Works, Inc.*, 547 U.S. at 45.
248. 675 F.3d 1192, 1195 (9th Cir. 2012).
249. *Id.* at 1195–96, 1200–01.
250. *Id.*
251. *Id.* at 1201 n.8.
252. *Id.* at 1195.
253. *Id.* at 1201.
254. *Id.* at 1202, 1204.
255. *Id.* at 1203.
256. *Id.*

surplus but does not weaken competitive constraints and thereby enhance the defendant's ability to extract future surplus does not violate the antitrust laws.

Some commentators have sought to downplay the significance of *Brantley* by observing that the plaintiffs had attacked the tying at issue under the rule of reason rather than the per se rule.[257] While the *Brantley* court indeed had no occasion to weigh in on the per se rule, the important point is that the court's reasoning undermined the rationale for condemning tie-ins that do not occasion substantial tied market foreclosure and thereby weaken competitive constraints. That rationale is that such tie-ins may harm consumers by extracting greater surplus for the producer.[258] But *Brantley* involved classic Stigler-type bundling that extracts consumer surplus,[259] and yet the court dismissed the complaint for failure to allege harm to competition.[260] The court thus rejected the consumer harm sufficiency view that underlies the tying per se rule.

IV. IMPLEMENTING ANTITRUST ESSENTIALISM

Part II of this Article set forth the policy case for recognizing the tripartite essence of an antitrust violation. Part III then showed that most of the major antitrust liability rules—all but one—impose liability only when all three components are present. This Part recommends four steps the Supreme Court should take to reconcile its inconsistent caselaw and fully embrace antitrust essentialism.

First, the Court should overrule *Jefferson Parish.* By abolishing the rule that tie-ins involving tying market power and a not insubstantial dollar volume of tied market commerce are per se illegal[261] and clarifying, in accordance with Justice O'Connor's *Jefferson Parish* concurrence, that illegality requires a level of tied market foreclosure sufficient to impair the efficiency of tied market rivals,[262] the Court would align tying doctrine with all other antitrust liability rules: Liability would be reserved for tie-ins that enhance the tying defendant's surplus-extractive power in some market by weakening competitive constraints.[263]

Second, having cleared the way for a categorical statement about the essence of an antitrust violation, the Court should expressly declare that antitrust liability requires antitrust-relevant conduct (for example, a trade-restraining agreement, a business combination, or an exclusion-causing act by a dominant firm) that (1) enhances the defendant's surplus-extractive power (2) via the

257. *See* Elhauge, *supra* note 81, at 509.

258. *See supra* notes 192–209 and accompanying text.

259. *See* Thomas A. Lambert, *Ninth Circuit Moves Tying Doctrine in the Right Direction. Will SCOTUS Follow?*, TRUTH ON THE MARKET (June 7, 2011), https://truthonthemarket.com/2011/06/07/ninth-circuit-moves-tying-doctrine-in-the-right-direction-will-scotus-follow.

260. *Brantley*, 675 F.3d at 1201–02.

261. *See supra* notes 171–174 and accompanying text (describing per se rule of *Jefferson Parish*).

262. *See supra* notes 223–224 and accompanying text.

263. *See supra* notes 130–165 and accompanying text.

weakening of competitive constraints, and (3) is not reasonably necessary to secure an overall enhancement in market output.[264]

Third, the Court should allocate proof burdens on each of these necessary components. The plaintiff—including the government in public enforcement actions—should have the burden to plead and prove the first two components, which must be addressed in every antitrust case and do not involve facts and evidence that are more likely to be in the defendant's possession. Because the third component of a violation will come into play only if the complained-of behavior has some output-enhancing effect, and the defendant will typically have greater access to information on that matter, the defendant should bear the burden of showing that the behavior at issue secures an offsetting increase in market output.[265] If, however, the defendant makes such a showing, the burden should shift to the plaintiff to show that the output increase could have been achieved in a substantially less restrictive manner so that the behavior at issue was not reasonably necessary to achieve the proven output enhancement.

This allocation of proof burdens resembles the traditional rule of reason, under which the plaintiff bears the initial burden of showing anticompetitive harm, the defendant may then prove offsetting procompetitive benefits, and the plaintiff may respond by showing that those efficiencies could be achieved in a substantially less restrictive manner.[266] However, the recommended approach differs from the traditional rule of reason in a couple of respects.

For one thing, whereas the rule of reason is typically thought of as *something other than* the per se rule and the "quick look" used in cases involving inherently suspect behavior, the proposed approach incorporates those other modes of antitrust analysis. Because experience has shown that per se illegal practices like naked price fixing and market division always or almost always enhance the defendant's surplus-extractive power via the weakening of competitive constraints,[267] a plaintiff could plead and prove the first two components of an antitrust violation simply by pleading and proving that the defendant engaged in such an act. For per se illegal behavior, then, the plaintiff would not need to plead and prove how the practice enhances the defendant's surplus-extractive power by weakening competitive constraints. Moreover, with

264. *See supra* notes 45–129 and accompanying text (setting forth policy argument for recognizing that antitrust violations have tripartite essence).

265. *See* Nat'l Commc'ns Ass'n v. AT&T Corp., 238 F.3d 124, 130 (2d Cir. 2001) ("[A]ll else being equal, the burden is better placed on the party with easier access to relevant information."); Ralph K. Winter, Jr., *The Jury and the Risk of Nonpersuasion*, 5 LAW & SOC'Y REV. 335, 335 (1971) ("Where there is a belief that on a particular issue . . . one party . . . generally has the better access to the material evidence, the burden may be placed on that party, whether or not he is the plaintiff.").

266. *See* Nat'l Collegiate Athletic Ass'n v. Alston (*NCAA*), 594 U.S. 69, 96–97 (2021); Ohio v. Am. Express Co., 585 U.S. 529, 541–42 (2018).

267. *See* Broad. Music, Inc. v. Columbia Broad. Sys., Inc., 441 U.S. 1, 19–20 (1979) (noting practice is per se illegal only if "the practice facially appears to be one that would always or almost always tend to restrict competition and decrease output"); *id.* at 9 ("[I]t is only after considerable experience with certain business relationships that courts classify them as per se violations . . . ." (quoting United States v. Topco Assocs., Inc., 405 U.S. 596, 607–08 (1972))).

per se illegal practices, courts could refuse to consider evidence on offsetting efficiencies on the ground that experience has shown that the practices are almost never reasonably necessary to attain a net increase in market output.[268]

For inherently suspect practices subject to "quick look" analysis, the behavior strongly suggests a high risk of enhancing the defendant's surplus extractive power via a weakening of competitive constraints, so the plaintiff could again discharge its initial burden by pleading and proving merely that the behavior occurred.[269] The defendant, though, could avoid liability by proving that the behavior was reasonably necessary to achieve a net increase in market output.[270] The proposed approach would thus unify antitrust's traditional modes of analysis—per se illegality, the quick look, and the rule of reason—which is consistent with Supreme Court instruction that the distinction between these modes is artificial and that what is required is "an enquiry meet for the case."[271]

The proposed approach also differs from the rule of reason with respect to the plaintiff's initial burden. Under the traditional rule of reason, the plaintiff discharges that burden by showing anticompetitive harm flowing from the defendant's action, and such harm has been taken to include any sort of adverse consumer effect that typically results when competition is limited—for example, higher prices or reduced consumer choice.[272] Embracing antitrust essentialism, by contrast, would require the plaintiff to establish more than just consumer harm, which could result from conduct that merely extracts consumer surplus. Under the proposed approach, a plaintiff would have to show that the challenged behavior enhanced the defendant's surplus extractive power via the weakening of competitive constraints. An adverse consumer effect like higher prices could help establish that the defendant has enhanced its surplus-extractive power, but such an effect is insufficient in itself; the plaintiff must connect the dots to show how the adverse effect reflects an actual enhancement in surplus-extractive power occasioned by weakening competition.

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268. *See* Arizona v. Maricopa Cnty. Med. Soc'y, 457 U.S. 332, 351 (1982) ("The anticompetitive potential inherent in all [per se illegal practices] justifies their facial invalidation even if procompetitive justifications are offered for some. Those claims of enhanced competition are so unlikely to prove significant in any particular case that we adhere to the rule of law that is justified in its general application.").

269. *See* United States v. Brown Univ., 5 F.3d 658, 669 (3d Cir. 1993) (observing that presumptive condemnation under quick look "applies in cases where *per se* condemnation is inappropriate, but where 'no elaborate industry analysis is required to demonstrate the anticompetitive character' of an inherently suspect restraint" (quoting Nat'l Soc'y of Pro. Eng'rs v. United States, 435 U.S. 679, 692 (1978))).

270. *Id.* (observing that for inherently suspect practice subject to quick look, "competitive harm is presumed" but defendant may "promulgate 'some competitive justification'" for the practice (quoting *NCAA*, 468 U.S. at 110)).

271. Cal. Dental Ass'n v. FTC, 526 U.S. 756, 781 (1999).

272. *See* Ohio v. Am. Express Co., 585 U.S. 529, 542 (2018) (observing that plaintiff can meet initial burden under rule of reason by showing "reduced output, increased prices, or decreased quality in the relevant market"); MacDermid Printing Sols. LLC v. Cortron Corp., 833 F.3d 172, 183 (2d Cir. 2016) ("We have suggested that actions that reduce consumer choice are inherently anticompetitive."); Realcomp II, Ltd. v. FTC, 635 F.3d 815, 829–31 (6th Cir. 2011) (affirming finding that "restrictions on consumer choice," specifically "restricting consumer access to discount listings," is "likely to have an adverse impact on competition").

Fourth and finally, to streamline antitrust litigation, the Court should announce procedural rules that recognize the tripartite essence of an antitrust violation. Such rules would impose a threshold "market power enhancement" requirement akin to the antitrust injury requirement that applies in private enforcement actions.[273] If a plaintiff, including the government in public enforcement actions, fails to plead that the complained of behavior is likely to enhance the defendant's surplus-extractive power via a weakening of competitive constraints, the complaint should be dismissed. Consistent with its *Twombly* decision, the Court should require that the market power enhancement allegations be plausible for the complaint to survive a motion to dismiss.[274] This would require the plaintiff to go beyond conclusory allegations and set forth a plausible theory as to how the complained of behavior enhances the defendant's surplus-extractive power via a weakening of competitive constraints.[275] The Court should further clarify that if a plaintiff initially asserts plausible market power enhancement allegations but then does not produce evidence in discovery, permitting a reasonable jury to conclude that market power enhancement is likely, summary judgment should be granted in favor of the defendant.[276] By focusing at every step of the lawsuit on whether the essential features of an antitrust violation in fact exist, these procedural rules would allow for expeditious disposition of meritless actions; deter strike suits initiated for the purpose of extracting a settlement; prevent antitrust suits from becoming fishing expeditions; and channel pleadings, discovery, and arguments to facilitate efficient antitrust trials.

V. HOW ANTITRUST ESSENTIALISM COULD HAVE SIMPLIFIED RECENT DISPUTES

Under antitrust essentialism, the plaintiff bears the burden of pleading (at the motion to dismiss stage), producing sufficient evidence (at the summary judgment stage), and ultimately proving (at trial) that the defendant enhanced its market power. This means that at each stage of the lawsuit, the plaintiff must establish a "yes" answer to two questions:

> As a result of the challenged behavior, does the defendant or its co-conspirator have greater power to extract surplus from its trading partners than it otherwise would have had?; and

273. *See supra* note 33.

274. *See* Bell Atlantic Corp. v. Twombly, 550 U.S. 544, 557 (2007) (referring to "[t]he need at the pleading stage for allegations plausibly suggesting (not merely consistent with)" the essential element of antitrust claim).

275. *See id.* (observing that "a conclusory allegation" of a required element of an antitrust claim "does not supply facts adequate to show illegality").

276. *Cf.* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586–88 (1986) (holding that to survive a motion for summary judgment, an antitrust plaintiff attempting to establish conspiracy on the basis of consciously parallel conduct must produce sufficient evidence that tends to exclude the possibility of independent action).

> Is the reason for that increase in surplus-extractive power that market competition is less vigorous than it would have been absent the challenged conduct?

This Part examines several recent, highly complex antitrust disputes and shows how each could have been resolved far more simply under an antitrust essentialist approach that focuses continually on these two questions.

A. RESTRICTIONS ON APP DISTRIBUTION AND IN-APP PAYMENT PROCESSING: *EPIC GAMES V. APPLE*

An antitrust essentialist approach would have greatly streamlined resolution of *Epic Games, Inc. v. Apple Inc*.[277] That case involved extensive discovery resulting in the production of more than 3.6 million Apple documents;[278] a sixteen-day bench trial in which the court heard testimony from dozens of witnesses and reviewed nine hundred exhibits;[279] a 185-page, fact-intensive opinion by the district court, which ruled largely for defendant Apple;[280] and a 91-page opinion from the Ninth Circuit affirming the lower court's antitrust rulings.[281] Given the tripartite essence of an antitrust violation, however, the case was fairly simple and could have been resolved on a motion to dismiss or, at most, on summary judgment. That is because plaintiff Epic neither pled nor produced evidence that defendant Apple enhanced its surplus-extractive power in any market.

Epic challenged two policies Apple imposes on developers of the digital applications ("apps") that run on iOS, the operating system used in Apple's popular iPhones and iPads.[282] One policy—the "closed App Store" policy—

277. *See* Epic Games Inc. v. Apple Inc., 559 F. Supp. 3d 898 (N.D. Cal. 2021), *aff'd in part*, *rev'd in part*, 67 F.4th 946 (9th Cir. 2023), *and cert. denied*, 144 S. Ct. 682 (2024) (mem.).

278. *See* Joint Case Management Statement at 11, *Epic Games*, 559 F. Supp. 3d. 898 (No. 4:20-cv-05640-YGR).

279. *See Epic Games*, 67 F.4th at 966.

280. *Epic Games*, 559 F. Supp. 3d at 1068–69.

281. *Epic Games*, 67 F.4th at 1004.

282. Complaint for Injunctive Relief at 1, *Epic Games*, 559 F. Supp. 3d. 898 (No. 4:20-cv-05640-YGR) [hereinafter Epic v. Apple Complaint]. On the same day it sued Apple, Epic filed a similar lawsuit against Google, producer of the Android operating system used in smartphones and tablets that compete with Apple's products. *See* Complaint for Injunctive Relief at 1–10, *In re* Google Play Store Antitrust Litigation, No. 3:20-cv-05671-JD, 2024 WL 4438249 (N.D. Cal. Aug. 13, 2020) [hereinafter Epic v. Google Complaint]. In the Apple case, Epic lost on its antitrust claims at trial and on appeal. *See Epic Games*, 559 F. Supp. 3d at 921–22; *Epic Games*, 67 F.4th at 966. In the Google case, the jury found for Epic on its antitrust claims. *See* Meghan Bobrowsky & Miles Kruppa, *Google Loses Antitrust Case Brought by Epic Games*, WALL ST. J. (Dec. 11, 2023, 11:35 PM ET), https://www.wsj.com/tech/google-loses-antitrust-case-brought-by-epic-games-651f5987. Google appealed the verdict and the trial court's remedial order. *See* Lee-Anne Mulholland, *Why We're Appealing the Epic Games Verdict*, GOOGLE (Oct. 7, 2024), https://blog.google/outreach-initiatives/public-policy/epic-games-verdict-appeal. However, a Ninth Circuit panel affirmed both the verdict and remedial order. Sean Hollister, *Epic Just Won Its Google Lawsuit Again, and Android May Never Be the Same*, THE VERGE (July 31, 2025, 10:14 AM PDT), https://www.theverge.com/news/716856/epic-v-google-win-in-appeals-court. The contradictory trial outcomes in the Apple and Google cases are ironic because the acquitted Apple policies are actually more restrictive than the (thus far) condemned Google policies. *Compare* Epic v. Apple Complaint,

requires app developers to distribute their iOS apps exclusively through Apple's proprietary App Store.[283] The other—the "IAP exclusivity" policy—requires developers to utilize only Apple's own In-App Purchase system ("IAP") for processing any payments app users make while using an iOS app.[284] Apple then retains a share, typically 30 percent, of the revenues from App Store sales and from app users' purchases of digital goods using IAP.[285] Epic alleged that these policies enable Apple to impose an effective "tax" on all iOS app transactions and constitute illegal monopoly maintenance and unreasonable restraint of trade in two markets: the market for distribution of iOS apps (the "iOS app distribution market") and the market for processing payments made while using an iOS app (the "iOS in-app payment processing market").[286]

The district court ruled in favor of Apple on Epic's monopoly maintenance and restraint of trade claims.[287] It first rejected Epic's proposed market definitions.[288] Both of the markets Epic identified were "aftermarkets"—that is, markets for products or services that are used with durable equipment (here, iPhones and iPads) but purchased after the consumer has bought that equipment in a "foremarket" transaction.[289] Because competition in foremarkets will usually prevent foremarket sellers from taking action that would injure their buyers in aftermarket transactions, antitrust plaintiffs normally cannot base a claim on aftermarket harm when the foremarket (here, the market for smartphones and tablets) is competitive. The Supreme Court has, however, allowed antitrust challenges to restrictions of aftermarket competition when consumers were not aware of such restrictions when they entered their foremarket transactions.[290] Because Epic failed to show that buyers of Apple's iPhones and iPads are typically unaware of Apple's restrictive policies on app sales and in-app purchases, the district court concluded that Epic's market definitions based on aftermarkets would not suffice.[291] The court instead ruled

supra, ¶¶ 64–81 (alleging that Apple forbids distributing apps outside its proprietary app store), *with* Epic v. Google Complaint, *supra*, ¶¶ 94–105 (alleging that Google permits but discourages app distribution outside its proprietary app store). Given the similarity of the two cases and the lack (as of the time of this writing) of a written liability decision in *Epic Games v. Google*, the discussion herein focuses on *Epic Games v. Apple*. Notably, however, both cases would be resolved the same way under antitrust essentialism: each would be dismissed for failure to plead or produce evidence of an increase in the defendant's surplus-extractive power.

283. Epic v. Apple Complaint, *supra* note 282, ¶¶ 64–81.

284. *Id.* ¶¶ 128–34.

285. *Id.* ¶¶ 97–98, 148–49.

286. *Id.* ¶¶ 184–92, 207–32. Epic also asserted a Section 1 tying claim, *id.* ¶¶ 233–45, and a claim for violation of California's Unfair Competition Law (UCL). *Id.* ¶¶ 285–91. The discussion in the text focuses only on the Epic's Sherman Act claims subject to rule of reason analysis.

287. *Epic Games*, 559 F. Supp. 3d at 1068.

288. *Id.* at 1015–26.

289. *See* Epic Games, Inc. v. Apple Inc., 67 F.4th 946, 976 (9th Cir. 2023) (describing aftermarket as market in which "demand for [the product at issue] is entirely dependent on the prior purchase of a durable good in a *foremarket*").

290. *Epic Games*, 559 F. Supp. 3d at 1021–22 (citing Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 466–77 (1992)).

291. *Id.* at 1026.

that the relevant market was a broader market for "mobile gaming transactions."[292]

Having so defined the relevant market, the district court assessed the two challenged restraints under the traditional three-step rule of reason.[293] In step one, the court concluded that Epic had proven substantial anticompetitive harms through both direct and indirect evidence.[294] With respect to direct evidence, Epic had shown that Apple earns "extraordinary profits," with operating margins on app transactions exceeding 75 percent.[295] As for indirect evidence, the court observed that Apple's share of the mobile gaming transactions market is 52 to 57 percent, that network effects create barriers to entry, and that Apple has used its market power to prevent would-be competitors from entering the market.[296]

At step two of the rule of reason, the district court concluded that Apple had established procompetitive rationales for the challenged restrictions.[297] The court first credited Apple's rationale that its closed App Store enhances the consumer appeal of its mobile products by enabling it to pre-screen all iOS apps and thereby protect users from apps that could threaten their privacy or the security and functioning of their Apple devices.[298] The court partially credited Apple's rationale that its closed App Store and IAP exclusivity policies permit it to earn compensation, in the form of commissions on app transactions, for its intellectual property (IP).[299] The court agreed that the restrictions allow Apple to collect IP compensation, some level of which is deserved, but it concluded that Apple had not established that a 30 percent commission on app transactions is an appropriate amount of compensation.[300]

Turning to the rule of reason's third step, the district court concluded that Epic had not shown that the procompetitive benefits the challenged restrictions secure could be achieved in a substantially less restrictive manner.[301] Epic proposed a "notarization model" as an alternative means of securing the privacy and security benefits of Apple's closed App Store.[302] Under that model, which Apple uses for its desktop and laptop operating system (macOS), Apple would

292. *Id.* at 1019.

293. *Id.* at 1036. The district court evaluated Epic's Section 1 restraint of trade and Section 2 monopolization claims separately, but it adopted the same basic rule of reason analysis, described in the text above, for each. *Id.* at 1027 (observing that "the Court reviews Sections 1 and 2 Sherman Act claims together"); *see also id.* at 1044.

294. *Id.* at 1037–38. Direct proof of substantial anticompetitive effect is proof of actual detrimental market effect, such as increased prices, reduced output, or decreased offering quality. Ohio v. Am. Express Co., 585 U.S. 529, 542 (2018). Antitrust plaintiffs may prove substantial anticompetitive effects indirectly by showing that the defendant has market power and presenting "some evidence that the challenged restraint harms competition." *Id.*

295. *Epic Games*, 559 F. Supp. 3d at 1037.

296. *Id.* at 1031–32, 1037–38.

297. *Id.* at 1038–39.

298. *Id.* at 1038.

299. *Id.* at 1039.

300. *Id.*

301. *Id.* at 1040–41.

302. *Id.* at 1040.

permit distribution of iOS apps through outlets other than its App Store but would attach a warning that the app had not been vetted for safety unless the developer first submitted the app to computerized review by Apple.[303] Users who value Apple's review could thus avoid unscreened apps.[304] The district court rejected this less restrictive alternative upon finding that Apple's human review for the App Store provides benefits that the notarization model's computerized review cannot secure.[305] With respect to Apple's requirement that only IAP be used for in-app purchases, Epic's proposed less restrictive alternative was simply to allow access to competing payment processors.[306] The district court rejected that alternative because it would not permit Apple to achieve the procompetitive benefit of IP compensation as cost-effectively as the current system.[307] (Apple would have to audit developers to ensure compliance with any obligation to pay commissions on app transactions.)[308]

On appeal, the Ninth Circuit agreed with Epic that the district court had made some errors in its analysis of Epic's proposed aftermarkets,[309] but it deemed those errors harmless and affirmed the conclusion that Epic had failed to establish cognizable aftermarkets.[310] Because Apple did not contest the district court's definition of the relevant market as mobile games transactions, the Ninth Circuit allowed that market definition to stand on appeal.[311] The Ninth Circuit then approved the lower court's analysis of the challenged policies under the rule of reason and affirmed the judgment in favor of Apple on Epic's Sherman Act claims.[312]

Although there is much to admire in the district court's and Ninth Circuit's analyses of Epic's Sherman Act claims, and both courts ultimately reached the right conclusion, the analyses are unsatisfying. For one thing, they are remarkably fact-intensive and complex and, for that reason, provide little guidance to firms contemplating novel business models like Apple's. Moreover, the analyses turn heavily on how the case was litigated. The outcome could have been different had Epic put more effort into fleshing out its less restrictive alternatives at trial. Simply incorporating human app review, paid for by developers, into the proposed notarization model would have permitted that approach to count as a less restrictive means of securing the procompetitive

303. *Id.*

304. *Id.*

305. *Id.* at 1041.

306. *Id.* at 1042.

307. *Id.*

308. *See id.*

309. Epic Games, Inc. v. Apple Inc., 67 F.4th 946, 978 (9th Cir. 2023) ("[T]he district court erred by imposing a categorical rule that an antitrust market [here, foremarket] can *never* relate to a product that is not licensed or sold—here smartphone operating systems.").

310. *Id.* at 978–81.

311. *Id.* at 981 ("Epic's proposed aftermarkets fail, and Apple did not cross-appeal the district court's rejection of its proposed market. The district court's middle-ground market of mobile-games transaction[s] thus stands on appeal . . . .").

312. *Id.* at 983–99.

benefit of enhanced security and privacy protection.[313] And it would not seem difficult to propose an alternative means of compensating Apple for its IP; for example, Apple might code iOS to monitor the use of individual apps, charge developers a fee based on the usage of their apps, and render apps inoperable if their developers fell behind on required payments. Epic simply presented no evidence as to how a tiered licensing scheme would work.

Deciding this case on the basis of Epic's litigation failures unsettles the courts' ultimate conclusion. Other plaintiffs will continue to challenge Apple's app policies and similar policies imposed by other firms. Indeed, classes of consumers and app developers have been attacking the Apple policies Epic challenged.[314] Epic is currently challenging similar policies implemented by Google on its Android operating system, the primary alternative to Apple's iOS.[315] If other plaintiffs learn from Epic's trial mistakes, they may prevail. Despite massive litigation expenditures and significant consumption of judicial resources, then, *Epic Games v. Apple* did not settle the question of whether app policies like those Apple implements violate the antitrust laws.

The analysis would have been much simpler, and the precedent more determinate, had the courts embraced antitrust essentialism: Epic's Sherman Act claims would have been dismissed, or perhaps disposed of on summary judgment, for failure to plead or produce evidence sufficient to show that Apple had enhanced its surplus-extractive power in any of the markets in which it participates.

Most notably (and dispositively for purposes of Epic's claims), the challenged policies do not enhance Apple's surplus-extractive power in the putative markets in which Epic alleged anticompetitive harm. Epic averred that Apple's policies monopolize or create unreasonable restraints of trade in the markets for "iOS app distribution" and "iOS in-app payment processing."[316] While the district court and Ninth Circuit rejected Epic's proposed market definitions on the ground that Epic had not established cognizable aftermarkets for iOS-specific services,[317] Epic would have fared no better under an antitrust essentialist approach had its proposed market definitions been accepted.

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313. *Id.* at 971 ("Critically, the macOS notarization model does not contain a layer of human review as iOS app review does. Given this discrepancy, the district court found that such a model would not be as effective as Apple's current model in achieving Apple's security and privacy goals.").

314. *See* Jonathan Stempel, *Judge Certifies Apple App Store Class Action*, REUTERS (Feb. 2, 2024, 2:19 PM PST), https://www.reuters.com/legal/judge-certifies-apple-app-store-class-action-2024-02-02 (discussing consumer class action); Foo Yun Chee, *Apple Faces $1 Billion UK Lawsuit by Apps Developers over App Store Fees*, REUTERS (July 24, 2023, 3:46 PM PDT), https://www.reuters.com/technology/apple-faces-1-bln-uk-lawsuit-by-apps-developers-over-app-store-fees-2023-07-24 (discussing UK lawsuit by app developers); Mark Gurman, *Apple Settles with App Developers Without Making Major Concessions*, BLOOMBERG (Aug. 27, 2021, 7:54 AM PDT), https://www.bloomberg.com/news/articles/2021-08-27/apple-settlement-lets-app-developers-advertise-outside-payments (discussing US class action by app developers).

315. *See supra* note 282 (discussing Epic lawsuit against Google).

316. *See* Epic v. Apple Complaint, *supra* note 282, ¶ 6.

317. Epic Games, Inc. v. Apple Inc., 559 F. Supp. 3d 898, 1024–26 (N.D. Cal. 2021) (rejecting proposed market definition); *Epic Games*, 67 F.4th at 980–81 (affirming rejection).

As the creator and custodian of the iOS operating system used in iPhones and iPads, Apple has always possessed the ability to control which applications will run on those products. Developers seeking to create iOS apps need Apple to grant them access to the Application Programming Interfaces (APIs) required to enable the operating system's and hardware's functionality.[318] Accordingly, Apple could extract the same proportion of surplus it currently usurps from iOS app sales and in-app purchases even without the policies Epic is challenging. It could simply withhold access to the APIs needed to run iOS apps unless developers promised to pay it 30 percent of their revenues from app sales and in-app purchases of digital goods.[319] The challenged policies, therefore, do not enhance Apple's surplus-extractive power in the iOS-specific markets Epic proposed.

Nor do the policies enhance Apple's market power in broader putative markets for mobile app distribution, mobile in-app payment processing, or "mobile gaming transactions" (the market defined by the district court).[320] Because Apple does not distribute apps to users of non-iOS platforms or process in-app payments made within non-iOS apps, the only app-related transactions from which Apple could extract surplus are purchases of or within iOS apps. For reasons just stated, Apple can extract the same proportion of surplus from those transactions even without the challenged policies.[321] Even if Apple were to begin distributing non-iOS apps (for example, by selling Android apps in its App Store) or processing non-iOS in-app purchases (for example, by allowing app developers to utilize its IAP system in their Android apps), the challenged policies would not enhance its ability to earn supracompetitive profits on those transactions. There are multiple app stores and payment processors for non-iOS

318. *See Epic Games*, 559 F. Supp. 3d at 993 ("Technically, Apple prevents unauthorized apps from downloading on the iPhone. It does so by granting certificates to developers; no certificate means the code will not run." (citing Transcript of Direct Examination of Plaintiff's Witness, Trystan Kosmynka at 986:9–22, *Epic Games*, 559 F. Supp. 3d 898 (No. 4:20-cv-05640-YGR); Transcript of Testimony of Defendant's Witness, Craig Federighi—Direct Examination at 3373:17–25, 3388:11–3389:12, *Epic Games*, 559 F. Supp. 3d 898 (No. 4:20-cv-05640-YGR))).

319. In foreign nations that have required operators of mobile operating systems to allow alternative processors of in-app payments, both Apple and Google have responded by requiring app developers that select another payment option to pay a significant commission—26% or 27%—on the in-app purchase. The 30% commission is reduced slightly to account for the operating system's cost-saving from not having to process the payment at issue. *See, e.g.*, *Distributing Apps Using a Third-party Payment Provider in South Korea*, APPLE DEVELOPER, https://developer.apple.com/support/storekit-external-entitlement-kr (last visited Apr. 4, 2025); *Changes to Google Play's Billing Requirements for Developers Serving Users in South Korea*, GOOGLE, https://support.google.com/googleplay/android-developer/answer/11222040?sjid=9479715659828605790-NC (last visited Apr. 4, 2025). These developments show that the ability of Apple and Google to extract significant surplus from app sales and in-app purchases arises not from their restrictive app store and in-app payment policies but from their control of access to their respective operating systems. The policies Epic challenged thus do not enhance Apple's and Google's surplus-extractive power, though they may boost the companies' app-related profits by enhancing the total app-related surplus available for extraction. *See infra* notes 331–339 and accompanying text.

320. *Epic Games*, 559 F. Supp. 3d at 921.

321. *See supra* notes 319–320 and accompanying text.

app transactions,[322] including giants Google Play (the dominant Android app store) and Google Play Billing (the dominant provider of in-app payment processing for Android apps).[323] The existence of those formidable rivals would preclude Apple from driving up prices for distributing non-iOS apps or processing in-app payments for such apps. It is implausible—and Epic did not allege—that Apple's challenged policies could somehow weaken the dominant providers of non-iOS app distribution and in-app payment processing by, say, driving them below minimum efficient scale.[324]

The challenged policies also do not enable Apple to enhance or shore up its market power in any other market in which it participates, such as the markets for smartphones, tablets, or mobile operating systems. In theory, a firm can protect its market power in one market by reducing competition in a related market if rivals in that related market might begin to challenge it in the first market.[325] In *United States v. Microsoft*, for example, the government claimed that Microsoft had integrated its Internet Explorer web browser into its dominant Windows Operating System, reducing the scale and competitiveness of web browser rivals, to preclude rival browser producers from gaining sufficient market share to pose a threat to Microsoft in the operating system market.[326] Similarly, it is theoretically possible that Apple's requirements that iOS users download apps only from its App Store and make all in-app purchases using its proprietary payment system could foreclose so much business from rival app distributors and payment processors that they could not emerge as formidable rivals in another market in which Apple possesses market power. Epic, however, did not allege or produce evidence suggesting that a rival app store or processor of in-app payments could plausibly begin to challenge Apple in mobile operating systems or in any other market in which Apple may possess market power.

But why should Epic's failure to plead an enhancement of Apple's surplus-extractive power damn its claims? Epic pled and proved that Apple's policies

322. *See* Joe Hindy, *10 Best Third-Party App Stores for Android*, ANDROID AUTH. (Mar. 10, 2025), https://www.androidauthority.com/best-app-stores-936652; Karrin Sehmbi & Hillary Crawford, *9 Best Online Payment Processing Services of April 2025*, NERDWALLET, https://www.nerdwallet.com/best/small-business/online-payment-processing-services#what_is_online_payment_processing_ (Jan. 2, 2025).

323. *See How Google Play Works*, GOOGLE PLAY, https://play.google/howplayworks (last visited Apr. 4, 2025); *Google Play's Billing System*, DEVELOPERS (Oct. 11, 2024), https://developer.android.com/google/play/billing.

324. Tying and similar arrangements may create market power in the tied product market if they enable the firm imposing the tie-in to usurp so much business from its rivals in the tied product market that they fall below minimum efficient scale and thus face higher average costs. *See* Lambert, *supra* note 66, at 922–23 (explaining how tying can reduce rival competitiveness in the tied market). Epic did not allege the factual prerequisites to this theory of anticompetitive harm. *See* Epic v. Apple Complaint, *supra* note 282.

325. *See id.* at 923–24 (explaining how tie-ins may protect tying market power by weakening competition in the tied product market).

326. *See* United States v. Microsoft Corp., 253 F.3d 34, 60 (D.C. Cir. 2001) ("Microsoft's efforts to gain market share in one market (browsers) served to meet the threat to Microsoft's monopoly in another market (operating systems) by keeping rival browsers from gaining the critical mass of users necessary to attract developer attention away from Windows as the platform for software development.").

reduce—indeed, altogether preclude—competition in the distribution of iOS apps and the processing of in-app payments on iOS.[327] But for Apple's restrictive policies, competition among iOS app stores and payment processors would spur innovation in app distribution and in-app payment processing services, enhancing their quality and/or reducing their prices.[328] Why is that not a sufficient basis for condemning the challenged policies unless Apple proves that they are reasonably necessary to secure output-enhancing benefits? In other words, why must Epic also establish that the challenged policies somehow enhance Apple's surplus-extractive power?

The answer, as explained above, is that requiring an increase in surplus-extractive power insulates at the outset competition-constraining conduct that is likely to expand overall market output.[329] The fact that Apple's policies do not enhance its surplus-extractive power suggests that they increase overall market output and should be expeditiously acquitted.

Apple is a producer in markets (smartphones and tablets) that are vertically related to the markets in which Epic alleged anticompetitive harm (iOS app distribution and iOS in-app payment processing).[330] Typically, then, Apple benefits when the prices and quality of the offerings in those related markets are as attractive to consumers as possible, an outcome that is furthered by vigorous market competition. Apple could nevertheless gain from limiting competition in those markets if doing so would either (a) enable it to extract a greater proportion of surplus from the transactions it enters or (b) expand the total surplus from which extraction is possible by increasing its transaction volume or enhancing the surplus resulting from individual transactions. If Apple constrains competition in vertically related markets and does not thereby enhance its surplus-extractive power (Option A), it must be doing so to grow its sales or the surplus generated from its individual transactions (Option B).

Apple earns revenues on device sales and on iOS app transactions, and the two challenged policies promote both. Apple's closed App Store policy permits it to screen all iOS apps for security, privacy, and reliability.[331] That generates more iOS app sales and in-app purchases and enhances the attractiveness, and thus sales, of Apple devices. Apple's IAP exclusivity policy allows it to collect revenue-based compensation for its IP efficiently: it need not incur the costs of recovering a portion of the revenues third-party app developers have received, nor must it audit developers to ensure their compliance with a revenue-based

327. Epic v. Apple Complaint, *supra* note 282, ¶¶ 3–13.

328. *Id.* ¶¶ 89–102 (cataloguing consumer welfare benefits from allowing competition in app distribution); *id.* ¶¶ 139–55 (cataloguing consumer welfare benefits from allowing competition in in-app payment processing).

329. *See supra* notes 115–129 and accompanying text.

330. Consumers of Apple's smartphones and tablets must utilize services in the markets in which competition has been limited, so those services are an effective "input" for Apple's mobile devices.

331. Epic Games, Inc. v. Apple Inc., 559 F. Supp. 3d 898, 1002–07 (N.D. Cal. 2021).

royalty provision.[332] Apple's cost savings then permit it to charge lower prices for its devices and IP, again boosting sales.

Apple could achieve iOS app security and IP compensation without its closed App Store and IAP exclusivity policies. It could employ a notarization model to identify trustworthy apps,[333] and it could obtain compensation for its IP by charging app developers a revenue-based royalty for access to critical APIs.[334] Those options, though, have downsides: The notarization model is less trustworthy than the human review Apple's App Store uses,[335] and charging a revenue-based royalty would entail collection and audit costs that do not exist under Apple's current model.[336] The output effects of Apple's policies thus depend on whether competition in iOS app distribution and in-app payment processing would enhance the quality and/or reduce the price of those services enough to offset the downsides of impaired app security and higher costs of collecting IP compensation.

That question would be addressed in determining whether the third essential component of an antitrust violation is present: If a notarization model and revenue-based royalty scheme would generate the same level of device sales and app transactions as Apple's current policies, then the current policies are not reasonably necessary to secure output-enhancing efficiencies. But the fact that Apple's policies do not enhance its surplus-extractive power obviates the need to consider the third essential element of an antitrust violation, an inquiry that would not occur until late in the litigation.[337] As explained above, Apple has no incentive to weaken competitive constraints in markets that are vertically related to its primary market (device sales) *unless* doing so either (a) enhances the proportion of surplus it can extract from its transactions or (b) increases available surplus by boosting the number of Apple's transactions and/or the amount of surplus they create.[338] If Apple's chosen policies do not enhance the proportion of surplus it can extract from transactions, Apple must believe that they increase transaction volume or the amount of surplus generated. In either case, they are likely output-enhancing and should be acquitted. The court, therefore, could have resolved this case in favor of Apple simply by determining that the policies complained of do not enhance Apple's surplus-extractive power in any market in which it participates.

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332. *Id.* at 1012–13, 1042 n.617.

333. *Id.* at 1008.

334. *Id.* at 1010 (noting how "[n]or is there any evidence that Apple could not create a tiered licensing scheme" for its intellectual property); *id.* at 1039 ("Apple is entitled to license its intellectual property for a fee, and to guard its intellectual property from uncompensated use by others.").

335. *Id.* at 1041.

336. *Id.* at 1042, 1042 n.617.

337. *See supra* notes 117–118, 265–266 and accompanying text.

338. *See supra* notes 331–332, 119–120 and accompanying text.

B. NO LICENSE, NO CHIPS: *FTC V. QUALCOMM*

Unlike the Apple policies Epic challenged, the complained of conduct in *FTC v. Qualcomm* did enhance the defendant's ability to extract surplus from its trading partners.[339] However, the increase in the defendant's surplus-extractive power did not result from a weakening of competitive constraints. Because that fact was apparent from the FTC's complaint,[340] the complicated *Qualcomm* case would have been resolved far more expeditiously under an antitrust essentialist approach.

Qualcomm held patents to certain technologies that were incorporated into standardized technology protocols utilized by producers of mobile telephones and other communication devices.[341] Those producers—original equipment manufacturers ("OEMs") like Samsung and Motorola—use standardized technologies to ensure that their devices are interoperable with those of other producers. So-called standard-setting organizations ("SSOs") comprised of IP owners and implementers determine which technologies will be incorporated into a particular standard.[342]

Once a patented technology is incorporated into a standard, the patent holder gains significant bargaining leverage.[343] Knowing that producers implementing the standard must license its patent, the patent holder may "hold up" such producers for exorbitant license fees after they have sunk costs into producing the products at issue.[344] In light of this possibility, before incorporating a patented technology into a standard, an SSO typically procures a contractual commitment from the patent holder to license its technology on fair, reasonable, and non-discriminatory ("FRAND") terms.[345] Qualcomm had made FRAND commitments for the "standard essential patents" ("SEPs") at issue in this case.[346] Those patents were used in chipsets incorporated into mobile devices.

Qualcomm was also the dominant, but not the only, producer of those chipsets.[347] Qualcomm, therefore, could have received compensation for its SEPs by (1) incorporating an effective surcharge for their use into the price of its own chipsets[348] and (2) collecting a license fee from competing chipset

339. FTC v. Qualcomm Inc., 411 F. Supp. 3d 658, 686 (N.D. Cal. 2019), *rev'd*, 969 F.3d 974 (9th Cir. 2020).

340. *See infra* notes 373–376 and accompanying text.

341. *Qualcomm*, 969 F.3d at 982.

342. *Id.* at 982–83.

343. *See* Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 310 (3d Cir. 2007) (describing "hold up" by holders of standard essential patents).

344. *Id.*

345. *Id.* at 313.

346. FTC v. Qualcomm Inc., 411 F. Supp. 3d 658, 672 (N.D. Cal. 2019).

347. *Qualcomm*, 969 F.3d at 983.

348. Federal Trade Commission's Complaint for Equitable Relief ¶ 65, *Qualcomm*, 411 F. Supp. 3d 658 (No. 5:17-cv-00220) [hereinafter Qualcomm Complaint] ("Other component suppliers rely on component sales,

producers that implemented the patents.[349] That approach, the FTC alleged, is how SEP holders that also produce products implementing the relevant standard normally monetize their patent rights.[350]

Qualcomm, however, took a different tack. It required OEMs to license its SEPs for a separate fee as a condition to purchasing its own chipsets.[351] It also refused to license its SEPs to competing chipset producers but agreed to indemnify those competitors against patent infringement liability if they sold chipsets only to OEMs that had obtained a license from Qualcomm.[352] The upshot was that OEMs had to license Qualcomm's patents to obtain the chipsets they needed, regardless of whether they bought the chipsets from Qualcomm or one of its rivals. Qualcomm thus implemented a "no license, no chips" policy that applied equally to its own chipsets and to those produced by its rivals.[353]

The FTC sued Qualcomm, contending that the way it licenses its SEPs was exclusionary and raised prices for both chipsets and the mobile devices that use them.[354] The Commission maintained that by imposing its "no license, no chips" policy on OEMs, rather than monetizing its IP by building an implicit surcharge into its own chipset price and licensing its SEPs to competing chipset producers for a fee, Qualcomm can evade a constraint on the license fees it can charge.[355] If Qualcomm went the normal IP-monetization route and licensed its SEPs to rival chipmakers, any chipmaker could respond to an unreasonably high royalty demand by simply infringing the patents.[356] Qualcomm would sue for infringement, the infringing rival would respond that Qualcomm's demanded royalties exceed FRAND rates, and a court or arbitrator would resolve the matter by quantifying the FRAND royalties to which Qualcomm is entitled.[357] Because judicially determined FRAND royalties tend to be significantly lower than negotiated rates,[358] the possibility of infringement and a judicial determination

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rather than separate patent licenses, to convey to their OEM customers the intellectual property rights that those customers need in order to use or resell the components they have purchased."). Under the doctrine of patent exhaustion, Qualcomm's sale of its own chipsets would extinguish its right to control the patented technology. *See id.* ¶¶ 66–67; Quanta Comput., Inc. v. LG Elecs., Inc., 553 U.S. 617, 625 (2008) ("The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item.").

349. Qualcomm Complaint, *supra* note 348, ¶¶ 69–74 (describing normal approach to licensing SEPs).

350. *Id.* ¶¶ 64–75.

351. *Qualcomm*, 969 F.3d at 985 ("Qualcomm refuses to sell modem chips to OEMs that do not take licenses to practice Qualcomm's SEPs.").

352. *Id.* at 984 (observing that "Qualcomm licenses its patent portfolios exclusively at the OEM level" but agrees not to assert its patents against rival chip manufacturers that sell only to licensed OEMs).

353. *Id.* at 985.

354. Qualcomm Complaint, *supra* note 348, ¶¶ 1–7.

355. *Id.* ¶¶ 4, 76–84.

356. *Id.* ¶ 70.

357. *Id.*

358. *See, e.g.*, Microsoft Corp. v. Motorola, Inc., No. C10-1823JLR, 2013 WL 2111217, at *99–101 (W.D. Wash. Apr. 25, 2013) (setting FRAND rate for SEPs at $0.04 per gaming console after SEP holder had demanded per-console royalties of between $6 and $8); Realtek Semiconductor, Corp. v. LSI Corp., No. C-12-3451-RMW,

of appropriate royalties would constrain Qualcomm's royalty demands *ex ante*.[359] In other words, if Qualcomm must bargain in the shadow of a potential judicial determination of FRAND rates, its ability to negotiate high royalties will be limited.[360]

Under Qualcomm's policy of licensing only to OEMs on a "no license, no chips" basis, by contrast, the party challenging an unreasonable royalty demand would be an OEM. Qualcomm would likely respond to the OEM's lawsuit by withholding its chipsets.[361] Whereas an infringing chipset-producing rival could continue to access the property it needs from Qualcomm during the pendency of any lawsuit (that is, the rival could just infringe Qualcomm's patents), an OEM challenging Qualcomm's royalties would lose access to the property it needs: Qualcomm's chipsets. And given Qualcomm's dominance in chipsets, OEMs would unlikely sue over Qualcomm's high royalty demands.[362] Thus, royalty negotiations with OEMs, unlike those with rival chipset makers, would not occur in the shadow of a potential judicial determination of FRAND rates, and royalties would, therefore, be higher than they otherwise would be.[363] Moreover, by licensing to OEMs rather than to rival chipset makers, Qualcomm's policy ensured that royalties would be based on the value of end-product handsets (produced by OEMs) rather than the lower value of component chipsets (produced by rival chipmakers).[364] Accordingly, the FTC alleged, Qualcomm's atypical licensing policies would result in greater royalties for Qualcomm, raising the price of chipsets and handsets.[365]

The FTC filed its action against Qualcomm in January 2017, and Qualcomm moved to dismiss.[366] Following denial of Qualcomm's motion, the parties engaged in extensive discovery, and, in January 2019, the district court held a ten-day bench trial on the FTC's claims.[367] Two months later, the court issued a detailed opinion comprising 166 pages in the Federal Supplement.[368] The court concluded that Qualcomm's eschewal of the traditional method of monetizing SEPs in favor of a policy of licensing exclusively to OEMs on a "no license, no chips" basis enabled it to collect higher royalties for its intellectual property, driving up chipset and handset prices and violating sections 1 and 2 of

2014 WL 2738226, at *6 (N.D. Cal. June 16, 2014) (determining that cumulative FRAND royalty for patents at issue was 0.19% of the selling price of standard-compliant products after SEP holder demanded royalties exceeding selling price of the standard-compliant products).

359. Qualcomm Complaint, *supra* note 348, ¶¶ 71–75.

360. *Id.*

361. *Id.* ¶ 79.

362. *Id.* ¶¶ 80–83.

363. *Id.* ¶¶ 84–86.

364. *Id.* ¶ 77(b).

365. *Id.* ¶ 63.

366. Order Denying Motion to Dismiss at 15, FTC v. Qualcomm Inc., 411 F. Supp. 3d 658 (N.D. Cal. 2019) (No. 5:17-cv-00220).

367. FTC v. Qualcomm Inc., 411 F. Supp. 3d 658, 669 (N.D. Cal. 2019).

368. *Id.* at 658–824.

the Sherman Act and section 5 of the FTC Act.[369] On appeal, the Ninth Circuit reversed.[370]

As with the *Epic Games* case, resolution of *Qualcomm* would have been much simpler under an antitrust essentialist approach, albeit for a different reason. Whereas Epic's challenges to Apple's app policies were deficient because the policies did not give Apple any surplus-extractive power it did not already possess,[371] the FTC did allege that Qualcomm's conduct enhanced its surplus-extractive power by enabling it to obtain higher royalties than it otherwise could collect.[372] The FTC did not, however, allege or prove the second essential component of an antitrust violation: that the enhancement of surplus-extractive power was occasioned by a weakening of competitive constraints. Qualcomm's surplus-extractive power was increased by (1) raising the cost of securing a judicial determination of fair and reasonable royalty rates[373] and (2) changing the royalty base to a higher-valued product.[374] Qualcomm did not enhance its royalties by weakening rival chipmakers, raising their costs, or otherwise dampening competition. Because Qualcomm agreed to indemnify infringing rivals who sold only to OEMs that had obtained a license from Qualcomm, rival chipmakers were free to sell in competition with Qualcomm.[375] And because OEMs had to acquire a Qualcomm license to purchase chips from

369. *Id.* at 698, 773, 812.

370. FTC v. Qualcomm Inc., 969 F.3d 974, 982 (9th Cir. 2020). The Ninth Circuit reasoned that Qualcomm's no license, no chips policy did not violate the antitrust laws because it was "chip neutral"—that is, it applied to chipsets sold by Qualcomm's competitors and Qualcomm itself—and thus "d[id] not distort the 'area of effective competition' or impact competitors. *Id.* at 1002. While the Ninth Circuit reached the right conclusion under an antitrust essentialist view (for reasons set forth in the text following this note), some of its reasoning suggested that harm to competitors is the *sine qua non* of antitrust liability. *See id.* (asserting that unreasonable pricing resulting from Qualcomm's conduct "involves potential harms to Qualcomm's *customers*, not its competitors, and thus falls outside the relevant antitrust markets"); *id.* at 999 (observing that complained of harms "were to OEMs who agreed to pay Qualcomm's royalty rates—that is, Qualcomm's *customers*, not its *competitors*"). While the Ninth Circuit appeared to be emphasizing a central point of antitrust essentialism—that there can be no antitrust violation unless the defendant enhances surplus-extractive power *via the weakening of competitive constraints*—the court's insinuation that competitor harm is a prerequisite to liability is unfortunate and is inconsistent with the well settled doctrine that antitrust protects competition, not competitors. *See* Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc., 429 U.S. 477, 488 (1977) ("The antitrust laws, however, were enacted for 'the protection of competition not competitors.'" (quoting Brown Shoe Co. v. United States, 370 U.S. 294, 320 (1962))); *see also* Herbert Hovenkamp, *FRAND and Antitrust*, 105 CORNELL L. REV. 1683, 1687 (2020) (criticizing Ninth Circuit's insinuation that harm to competitors in the relevant market is necessary for antitrust liability).

371. *See supra* notes 317–327 and accompanying text.

372. *See* Qualcomm Complaint, *supra* note 348, ¶¶ 69–86.

373. *Id.* ¶¶ 78–80.

374. *Id.* ¶ 77(b); *Qualcomm*, 969 F.3d at 998 ("[T]he district court[] f[ound] that Qualcomm's royalty rates are [] 'unreasonably high' because they are improperly based on Qualcomm's monopoly chip market share and handset price instead of the 'fair value of Qualcomm's patents,' . . . .").

375. *Qualcomm*, 969 F.3d at 984–85 (observing that Qualcomm agreed not to assert its patents against infringing rival chipmakers that sold chipsets only to OEMs that had secured patent licenses from Qualcomm).

Qualcomm's rivals *or from Qualcomm itself* (that is, its policy was "chip-neutral"), the policy imposed no cost disadvantage on rivals.[376]

The increase in Qualcomm's surplus-extractive power, then, was not occasioned by a weakening of competitive constraints. That fact was apparent from the pleadings. An antitrust essentialist approach, therefore, would have resolved this case far more expeditiously.

C. MISREPRESENTATION AND NON-DISCLOSURE IN THE STANDARD-SETTING PROCESS: *BROADCOM*, *AVANCI*, AND *RAMBUS*

As explained above, standard-setting organizations (SSOs) attempt to prevent patent hold-up by refusing to include patented features in a technology standard unless the relevant patent holders agree up front to license their patents on fair, reasonable, and non-discriminatory (FRAND) terms.[377] But suppose a patent holder either misrepresents its intention to abide by a FRAND commitment or prevents the SSO from demanding such a commitment by failing to disclose that it possesses, or plans to obtain, standard essential patents. Courts are divided on whether such conduct violates the antitrust laws. Antitrust essentialism resolves the divide.

The federal circuits are currently split on whether misrepresentation by a patent holder that results in the inclusion of its patent in a technology standard violates the antitrust laws. In the leading case addressing that matter, *Broadcom v. Qualcomm*, the U.S. Court of Appeals for the Third Circuit concluded that antitrust liability was appropriate.[378] Once again, the defendant was chipset manufacturer Qualcomm, which held patents to a technology called Wideband Code Division Multiple Access ("WCDMA").[379] According to the complaint by rival chipset maker Broadcom, Qualcomm fraudulently induced an SSO to include WCDMA in the Universal Mobile Telecommunications System ("UMTS") standard that many mobile telephones utilize.[380] Specifically, Qualcomm falsely agreed, contrary to its true intentions, to license its standard essential patents on FRAND terms.[381] Had Qualcomm not lied about its plans, Broadcom averred, its WCDMA technology would not have been included in the relevant standard, and it would not have gained the ability to extract supracompetitive royalties from firms that had committed resources to producing standard-compliant products.[382] Broadcom contended that

376. *Id.* at 1002–03 ("'[N]o license, no chips' is chip-neutral: it makes no difference whether an OEM buys Qualcomm's chip or a rival's chip.").

377. *See supra* notes 342–345 and accompanying text.

378. Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 314–15 (3d Cir. 2007).

379. *Id.* at 304.

380. *Id.*

381. *Id.*

382. *Id.*

Qualcomm's deceptive conduct constituted monopolization of markets for WCDMA technology, violating section 2 of the Sherman Act.[383]

The district court dismissed Broadcom's monopolization count for failure to a state claim.[384] The court reasoned that Qualcomm already possessed a monopoly on WCDMA technology by virtue of its patents and that its alleged deception could not have harmed competition because the inevitable result of the standard-setting process is to eliminate competition from technologies that are not included in the standard.[385] Had competition not been eliminated in favor of Qualcomm, the court observed, it would have been eliminated in favor of another patent holder.

On appeal, the Third Circuit reversed, concluding that Broadcom had alleged both elements of a section 2 claim: the possession of monopoly power in a properly defined antitrust market and anticompetitive conduct to secure or maintain such power.[386] With respect to the first element, Qualcomm argued that approving the complaint's market definition—Qualcomm's patented WCDMA technology—would have the effect of deeming every patent holder a monopolist.[387] The Court of Appeals rejected that argument on the ground that it was the inclusion of WCDMA in the UMTS standard, not merely Qualcomm's possession of patents on the technology, that precluded competing technologies from acting as substitutes and thereby erected market boundaries.[388] WCDMA technology was thus a cognizable antitrust market, and one in which Qualcomm obviously possessed monopoly power.

Turning to the second element, the Third Circuit concluded that Broadcom had alleged anticompetitive conduct in the form of reliance-inducing deception of SSOs.[389] Qualcomm's "intentional false promise that [it] would license its WCDMA technology on FRAND terms," the court reasoned, "induced relevant [SSOs] to incorporate a technology into the UMTS standard that they would not have considered absent a FRAND commitment."[390] The court rejected Qualcomm's argument that the complaint was deficient because it had not alleged that there were viable alternative technologies that could have been included in the UMTS standard.[391] The court observed that the complaint

383. *Id.* at 305, 315.

384. Broadcom Corp. v. Qualcomm Inc., No. 05-3350, 2006 WL 2528545, at *19 (D.N.J. Aug. 31, 2006).

385. *Id.* at *9.

386. *Broadcom*, 501 F.3d at 315–16.

387. *Id.* at 315 ("Qualcomm objects to a relevant market definition that is congruent with the scope of its WCDMA patents, arguing that such a definition would result in every patent holder being condemned as a monopolist.").

388. *Id.* ("It is the incorporation of a patent into a standard—not the mere issuance of a patent—that makes the scope of the relevant market congruent with that of the patent.").

389. *Id.* ("[T]he alleged anticompetitive conduct was the intentional false promise that Qualcomm would license its WCDMA technology on FRAND terms, on which promise the relevant SDOs [standard-development organizations] relied in choosing the WCDMA technology for inclusion in the UMTS standard, followed by Qualcomm's insistence on non-FRAND licensing terms." (citations to complaint omitted)).

390. *Id.* (citations to complaint omitted).

391. *Id.* at 316.

alleged that adoption of a standard eliminates competing technologies, and the district court had reasonably inferred that the SSOs selected Qualcomm's WCDMA technology "to the detriment of those patent-holders competing to have their patents incorporated into the standard."[392] The complaint had thus alleged that WCDMA's inclusion in the standard was not inevitable and that Qualcomm's deceptive conduct had endowed it with market power it would not otherwise have possessed.[393] That was enough, the court concluded, to satisfy the anticompetitive conduct element of a section 2 claim. The court summarized its holding on that element as follows:

> We hold that (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an [SSO's] reliance on that promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct.[394]

While numerous courts have followed this rule,[395] a federal district court in Texas recently held that the four elements of a so-called "*Broadcom* claim" are not sufficient to establish the anticompetitive conduct required for section 2 liability.[396] The plaintiff in that case, Continental Automotive, produced telematics control units (TCUs) for automobile manufacturers.[397] The TCUs utilized a standard that included patented technologies,[398] and SEP holders had made FRAND commitments to secure inclusion of their proprietary technologies in the standard.[399] Continental sued various SEP holders, asserting that they had violated section 2 of the Sherman Act by "making fraudulent FRAND declarations to the SSOs that induced the SSOs to include Defendants' SEPs in their standards."[400] Inclusion in the standards, Continental asserted, gave defendants the power to hike up royalty rates and extract greater surplus

392. *Id.* (quoting Broadcom Corp. v. Qualcomm Inc., No. 05-3350, 2006 WL 2528545, at *9 (D.N.J. Aug. 31, 2006)).

393. *Id.*

394. *Id.* at 314.

395. *See, e.g.*, Wi-LAN Inc. v. LG Elecs., Inc., 382 F. Supp. 3d 1012, 1023 (S.D. Cal. 2019) ("Courts have recognized that fraudulent FRAND declarations that are used to induce SSOs to adopt standards essential patents can be monopoly conduct for the purposes of establishing a Section 2 claim." (citation omitted)); Rsch. In Motion Ltd. v. Motorola, Inc., 644 F. Supp. 2d 788, 796–97 (N.D. Tex. 2008) (denying motion to dismiss section 2 claim because plaintiff alleged that defendant "obtained its position of power in the market not as a consequence of a superior product, business acumen or historic accident, but by misrepresenting its intentions"); Apple Inc. v. Samsung Elecs. Co., No. 11-CV-01846, 2011 WL 4948567, at *4 (N.D. Cal. Oct. 18, 2011) ("[I]ntentionally false promises to SSOs regarding licenses with FRAND terms can give rise to actionable claims under Section 2 of the Sherman Act.").

396. Cont'l Auto. Sys., Inc. v. Avanci, L.L.C., 485 F. Supp. 3d 712, 735 (N.D. Tex. 2020) ("The Court does not agree with those cases concluding that deception of an SSO constitutes the type of anticompetitive conduct required to support a §2 claim.").

397. *Id.* at 722.

398. *Id.*

399. *Id.* at 722–23.

400. *Id.* at 734.

once implementers were locked into the standards.[401] The defendant SEP holders moved to dismiss Continental's section 2 claims.[402]

Pointing to *Broadcom*, the district court acknowledged that "[s]ome courts have held that unlawful monopolization occurs when a SEP holder obtains a monopoly through anticompetitive misconduct and fraud toward the SSO."[403] The court, however, "d[id] not agree with those cases concluding that deception of an SSO constitutes the type of anticompetitive conduct required to support a § 2 claim."[404] The court distinguished "deception simply to obtain higher prices" from deception that would "exclude rivals and thus [] diminish competition."[405] The court emphasized that it was the diminution of market competition—not the mere exclusion of a rival—that could create potential antitrust liability, noting that "[e]ven if such deception had also excluded Defendants' competitors from being included in the standard, such harms to competitors, rather than to the competitive process itself, are not anticompetitive."[406] The court then concluded that fraudulent FRAND declarations to secure inclusion in a technology standard, standing alone, do not "harm the competitive process."[407] It thus dismissed Continental's section 2 claims.[408]

On appeal, the U.S. Court of Appeals for the Fifth Circuit initially vacated and remanded the decision on the ground that the district court did not have subject matter jurisdiction due to Continental's lack of Article III standing.[409] Eventually, however, the panel vacated that order and issued a short, unpublished per curiam opinion affirming the district court's dismissal of Continental's claims under sections 1 and 2 of the Sherman Act for failure to state a claim.[410] This means the circuits are now split on whether

> (1) in a consensus-oriented private standard-setting environment, (2) a patent holder's intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO's reliance on that

401. *Id.* at 733 ("Plaintiff asserts that Defendants have 'attempted to abuse their monopoly power arising from the standardization process to exclude certain implementers from practicing the standards and extract supra-competitive royalty rates after companies are locked into the standardized technology.'" (citation omitted)).

402. *Id.* at 723.

403. *Id.* at 734 (citing, with parenthetical, Broadcom Corp. v. Qualcomm, Inc., 501 F.3d 297, 314 (3d Cir. 2007) ("Deception in a consensus-driven private standard-setting environment harms the competitive process by obscuring the costs of including proprietary technology in a standard and increasing the likelihood that patent rights will confer monopoly power on the patent holder.")).

404. *Cont'l Auto. Sys.*, 485 F. Supp. 3d at 735.

405. *Id.* (quotation marks omitted).

406. *Id.*

407. *Id.*

408. *Id.*

409. Cont'l Auto. Sys., Inc. v. Avanci, L.L.C., 27 F.4th 326, 336 (5th Cir. 2022).

410. Cont'l Auto. Sys., Inc. v. Avanci, L.L.C., No. 20-11032, 2022 WL 2205469, at *1 (5th Cir. June 21, 2022) ("Having reviewed the district court's detailed order, and considered the oral arguments and briefs filed by the parties and amicus curiae, we AFFIRM the judgment of the district court that Continental failed to state claims under Sections 1 and 2 of the Sherman Act.").

> promise when including the technology in a standard, and (4) the patent holder's subsequent breach of that promise, is actionable anticompetitive conduct.[411]

A proper understanding of the essence of an antitrust violation resolves the split in favor of the Fifth Circuit. When the four elements of a *Broadcom* claim are satisfied, the defendant does enhance its surplus-extractive power, meeting the first requirement for antitrust liability. It is possible, however, for all four *Broadcom* elements to exist without any weakening of competitive constraints. If, but for the defendant's misrepresentation regarding its intentions to license on FRAND terms, the SSO still would have selected a proprietary technology—either defendant's or that of another patent holder—to perform the function at issue, then the misrepresentation would not have caused competitive constraints to be any weaker than they otherwise would have been. With or without the defendant's misrepresentation, there would be only one potential supplier of a license required for implementation of the standard. The alternative licensor, unlike the defendant, might actually abide by its FRAND commitment. But if the defendant's misrepresentation simply precluded selection of another patented technology whose patent holder would not have breached its contract, then the misrepresentation would have increased the defendant's surplus-extractive power via the weakening of *contractual*—not competitive—constraints.

The four elements of a *Broadcom* claim are therefore insufficient to establish anticompetitive conduct under an antitrust essentialist approach. The plaintiff should also have to show that but for the defendant's misrepresentation, the SSO would have selected a *non-proprietary* technology to accomplish the relevant function or eliminated that function from the standard. While the record in *Broadcom* may have suggested that SSOs selected Qualcomm's technology "to the detriment of those patent-holders competing to have their patents incorporated into the standard,"[412] there was no finding that, in the absence of Qualcomm's misrepresentations, the SSOs would have selected a non-proprietary technology or abandoned the relevant part of the standard.[413] Accordingly, the record did not establish that competitive constraints would have been stronger absent Qualcomm's actions—that is, that Qualcomm enhanced its surplus-extractive power via the weakening of competitive constraints. *Broadcom* was thus wrongly decided under an antitrust essentialist view.

The reasoning here resembles that adopted by the D.C. Circuit in *Rambus Inc. v. FTC*.[414] In that case, the FTC sued Rambus for deceptively failing to disclose that it had various patent interests in four technologies that were

411. Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 314 (3d Cir. 2007).

412. Broadcom Corp. v. Qualcomm Inc., No. 05-3350, 2006 WL 2528545, at *9 (D.N.J. Aug. 31, 2006).

413. *Id.* ("The elimination of competition in the WCDMA technology market, however, would result regardless of how the [SSO] decided which patents would comprise the standard.").

414. 522 F.3d 456 (D.C. Cir. 2008).

incorporated into a technology standard.[415] According to the Commission, Rambus's failure to disclose those interests, which ranged from "issued patents, to pending patent applications, to plans to amend those patent applications to add new claims," violated the rules of the relevant SSO and resulted in the incorporation of Rambus's proprietary technology without an accompanying FRAND commitment.[416] Including its technology in the relevant standard gave Rambus power to extract greater royalties from implementers that had sunk costs into producing standard-compliant products. The Commission maintained that Rambus's behavior constituted unlawful monopolization under section 2 of the Sherman Act and therefore amounted to an unfair method of competition under section 5 of the FTC Act.[417]

The Commission proceeded against Rambus in its administrative tribunal, but the administrative law judge (ALJ) dismissed its complaint.[418] The ALJ concluded that Rambus had not impermissibly withheld information about its patent interests from the SSO and that, in any event, the evidence did not establish that Rambus's proprietary technologies would not have been selected for the standard at issue had Rambus disclosed the allegedly required information.[419]

The Commission vacated the ALJ's decision.[420] It concluded that Rambus had violated disclosure obligations and intentionally misled the SSO[421] and that but for Rambus's deceptive behavior, the SSO either would have excluded Rambus's patented technologies from the relevant standard or would have demanded a FRAND commitment from Rambus as a condition to its technologies' inclusion.[422] In either event, Rambus would have had less ability to collect high royalty rates from implementers of the standard at issue. Accordingly, the Commission reasoned, Rambus's conduct enhanced its surplus-extractive power and therefore violated section 2 of the Sherman Act and section 5 of the FTC Act.[423]

Rambus appealed to the D.C. Circuit, which reversed the Commission.[424] The court reasoned that because the FTC had concluded that two different

415. *Id.* at 459.

416. *Id.* at 459, 461.

417. *Id.* at 461 ("[T]he Federal Trade Commission filed a complaint under § 5(b) of the FTC Act, 15 U.S.C. § 45(b), charging that Rambus engaged in unfair methods of competition . . . ."); *id.* at 462 ("In this case under § 5 of the FTC Act, the Commission expressly limited its theory of liability to Rambus's unlawful monopolization of four markets in violation of § 2 of the Sherman Act.").

418. *Id.* at 461.

419. *Id.*

420. *In re* Rambus, Inc., Docket No. 9302, at 21 (FTC Aug. 2, 2006), available at https://www.ftc.gov/sites/default/files/documents/cases/2006/08/060802commissionopinion.pdf.

421. *Id.* at 51–59, 66.

422. *Id.* at 74 ("[B]ut for Rambus's deceptive course of conduct, [the SSO] either would have excluded Rambus's patented technologies from the [SSO's] DRAM standards, or would have demanded RAND assurances, with an opportunity for *ex ante* licensing negotiations."); *see also id.* at 77, 118–19.

423. *Id.* at 3, 118.

424. *Rambus*, 522 F.3d at 459.

outcomes might have occurred had Rambus not engaged in the complained of behavior, imposing liability would require showing that Rambus's behavior produced anticompetitive harm under both possible outcomes.[425]

Under the first counterfactual—where Rambus's disclosure of its patent interests prevented its technologies from being included in the relevant standard—Rambus's failure to disclose may have increased its surplus-extractive power by weakening competitive constraints. That would be so if Rambus's disclosure had led the SSO to include non-proprietary technologies instead of Rambus's patented technologies.[426]

But under the second counterfactual—where Rambus's disclosure of its patent interests led to inclusion of its technologies, but with an accompanying FRAND commitment—the situation is different. The FRAND commitment would have contractually constrained Rambus from holding up implementers for higher royalties, so its *right* to extract surplus would have been weaker. But it would have had the same *power* to extract surplus, and the only limitation on exercising of that power would be a contract, not enhanced competitive constraints. Thus, if Rambus's disclosure of its patent interests would have led to the inclusion of its patented technologies but with a FRAND commitment on its part, then its non-disclosure of its patent interests did not enhance its surplus-extractive power via the weakening of competitive constraints.[427] And because the FTC found that this counterfactual was one of two alternative outcomes that would have resulted had Rambus disclosed its patent interests, the record did not establish that Rambus's non-disclosure entailed the essential elements of an antitrust violation. Unlike *Broadcom*, then, the D.C. Circuit's *Rambus* decision is consistent with antitrust essentialism.

CONCLUSION

Judicial embrace of the consumer welfare standard rescued U.S. antitrust law from a level of indeterminacy and manipulability that inspired a sitting Supreme Court justice to declare, "The sole consistency that I can find is that in

425. *Id.* at 463 ("The Commission's conclusion that Rambus's conduct was exclusionary depends, therefore, on a syllogism: Rambus avoided one of two outcomes by not disclosing its patent interests; the avoidance of either of those outcomes was anticompetitive; therefore Rambus's nondisclosure was anticompetitive.").

426. *Id.* ("We assume without deciding that . . . if Rambus's more complete disclosure would have caused [the SSO] to adopt a different (open, non-proprietary) standard, then its failure to disclose harmed competition and would support a monopolization claim."). If Rambus's disclosure would have led the SSO to include an alternative *proprietary* technology, competitive constraints would have been equally weak with or without Rambus's non-disclosure; there still would have been one patent holder on the prescribed technology, and it would have possessed the same hold-up power Rambus enjoyed. *See supra* notes 410–412 and accompanying text.

427. *Rambus*, 522 F.3d at 466 ("But loss of such a [FRAND] commitment is not a harm to competition from alternative technologies in the relevant markets."); *id.* (rejecting contention that "any conduct that permits a monopolist to avoid constraints on the exercise of [monopoly] power must be anticompetitive" and observing that "an otherwise monopolist's end-run around price constraints, even when deceptive or fraudulent, does not alone present a harm to competition in the monopolized marketplace").

litigation under [Clayton Act] § 7, the Government always wins."[428] To avoid returning to those bad old days, federal courts will likely retain the consumer welfare standard despite the growing chorus of activists calling for its abandonment. That is a good thing.

There is a danger, though, that in continually emphasizing consumer welfare effects in antitrust analysis, courts will create the impression that consumer harm is a sufficient, not merely a necessary, condition to antitrust liability. The *Epic Games* and *Qualcomm* cases suggest that sophisticated private litigants and at least some federal enforcers have embraced this consumer harm sufficiency view. Scholarly proposals to impose antitrust liability for practices like excessive drug pricing, algorithmic price discrimination, and digital blackmail—practices that may harm consumers but do not enhance the actors' market power—suggest that the view persists among the antitrust professoriate.[429]

Consumer harm alone, however, does not justify condemnation of antitrust-relevant behaviors like trade restraining agreements and exclusion-causing acts by dominant firms. Such behaviors merit antitrust condemnation only when they (1) increase the surplus-extractive power of the defendant or its co-conspirator (2) by weakening competitive constraints, and (3) are not reasonably necessary to secure a net increase in market output. Those three elements, taken together, comprise the essence of an antitrust violation. All the major antitrust liability rules save one—the rule on per se illegal tie-ins—are consistent with this view.

To simplify antitrust analysis, conform the doctrine more closely to economic learning on market power and dynamic efficiency, and provide greater guidance to business planners contemplating novel revenue models, the U.S. Supreme Court should do four things: (1) abandon its rule on per se illegal tie-ins in favor of a rule of reason based on competitive effects; (2) expressly declare that true antitrust violations have the tripartite essence described above; (3) allocate proof burdens so that the plaintiff bears the responsibility of pleading and proving the first two elements, with the defendant having the initial burden of showing the absence of the third; and (4) impose a threshold "market power enhancement" requirement (consisting of the first two elements) in antitrust litigation.

428. United States v. Von's Grocery Co., 384 U.S. 270, 301 (1966) (Stewart, J. & Harlan, J., dissenting).

429. *See supra* notes 26–28 and accompanying text.