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The Antitrust Duty to Deal in the Age of Big Tech

ABSTRACT. The antitrust duty to deal is perhaps the most confounding and controversial form of antitrust intervention. It is sought in situations where a monopolist controls a critical input (or "essential facility") and unilaterally refuses to sell access to rivals. Courts have substantially narrowed the doctrine in recent decades. However, the rise of dominant platforms like Google, Facebook, and Amazon has provoked intense debate over whether the antitrust duty to deal needs a revival. Many such platforms are accused of refusing to deal with (or discriminating against) rivals in adjacent markets.

At present, all unilateral refusals are evaluated under a common standard, which is virtually impossible to satisfy. This paper identifies an important economic distinction between two types of refusal cases; it argues that they raise very different theories of harm and demand different standards of liability. In one line of cases, the defendant's conduct raises essentially the same theory of harm as tying or related vertical restraints. However, formalistic doctrine prevents courts from evaluating them as such. As a result, these cases do not receive meaningful scrutiny. This is problematic, because a large majority of meritorious refusal-to-deal cases fall into this category, as do almost all cases involving dominant platforms.

In a separate line of cases, intervention is much harder to justify on economic policy grounds, as it risks chilling investment in valuable new technologies. Courts often acknowledge this investment concern in dicta, but the liability standard they apply—which focuses myopically on exclusion—ignores it. This has led to a major internal contradiction: courts are emphatic that a duty to deal is almost never warranted, but simple economic arguments show that the refusals in these cases are *routinely* exclusionary in precisely the sense that the law purports to condemn. This contradiction has spurred courts to erect suffocating evidentiary requirements, which now do most of the heavy lifting in practice.

These rules bear little logical connection to exclusion, but they excel at reining in liability. The problem is, they also kill off all the meritorious cases.

This Article argues that any effective reform must begin by disentangling these distinct lines of cases. Subjecting them to different liability standards would help to address many of the key concerns raised on both sides of the debate. The justifications for this approach are manifold. First, it protects investment incentives without needlessly stifling enforcement in meritorious cases. Second, it naturally limits antitrust scrutiny to cases in which intervention is most likely to be administrable. Third, it is exactly analogous to the way antitrust already treats other forms of unilateral conduct. Finally, this approach would allow for meaningful antitrust scrutiny of unilateral conduct by dominant platforms—an objective that has recently received bipartisan support in Congress—while remaining faithful to core antitrust principles.

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INTRODUCTION

As a general proposition, firms are free to choose the parties with whom they do business.[1] Thus, the default rule is that a firm can lawfully refuse to deal with rivals, so long as this choice is unilateral.[2] However, this freedom is subject to certain limitations under antitrust law.[3] Under section 2 of the Sherman Act,[4] a dominant firm's refusal to deal with rivals becomes unlawful when it operates to "monopolize" the market through exclusion—that is, by impairing rivals' ability to compete effectively.[5] Conventionally, this involves a monopolist who controls an important technology, often described as a "bottleneck input" or an "essential facility,"[6] and refuses to let rivals buy access to it, or else grants them access only on discriminatory terms. In such cases, the desired relief is compulsory dealing: an antitrust duty to deal.

This area is one of the most confounding and controversial subjects in antitrust law.[7] Proponents argue that a duty to deal is necessary to prevent dominant firms from exploiting their control over critical inputs to eliminate competition. Opponents argue that it threatens incentives for investment in valuable new technologies, as those technologies are much less lucrative when they must be shared with rivals.[8] Opponents also question courts' ability to administer a duty to deal, as its implementation may require more supervision or expertise than courts can provide.[9]

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1. *See* United States v. Trans-Mo. Freight Ass'n, 166 U.S. 290, 320 (1897) (noting that a firm "can sell to whom he pleases"); United States v. Colgate & Co., 250 U.S. 300, 307 (1919) (acknowledging "the long recognized right of [a firm] . . . to exercise his own independent discretion as to parties with whom he will deal").
2. By contrast, *concerted* refusals to deal (also known as group boycotts) are held to a much stricter standard. *See* Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 410 n.3 (2004) (noting that concerted refusals present "greater anticompetitive concerns").
3. *See Colgate*, 250 U.S. at 307 (holding that a refusal to deal may invite antitrust liability if it serves a "purpose to create or maintain a monopoly").
4. 15 U.S.C. § 2 (2018).
5. *See Trinko*, 540 U.S. at 408 ("Under certain circumstances, a refusal to cooperate with rivals can constitute anticompetitive conduct and violate § 2.").
6. *See infra* notes 53-56 and accompanying text.
7. *See, e.g.*, Byars v. Bluff City News Co., 609 F.2d 843, 846 (6th Cir. 1980) (explaining that whether "a monopolist ha[s] a duty to deal" is "one of the most unsettled and vexatious [issues] in the antitrust field"); John Vickers, *Competition Policy and Property Rights*, 120 ECON. J. 375, 375 (2010) (painting the issue as "[o]ne of the most controversial general questions in current competition policy").
8. *See infra* Section IV.A.
9. *See infra* Section IV.B.

In recent decades, the opponents' arguments have mostly won out in the courts. In its 2004 *Trinko* decision, the Supreme Court weakened the doctrine substantially, although it stopped short of eliminating it altogether.[10] The Court was cryptic in characterizing the underlying standard of liability. But, through strongly worded dicta, it sent a clear message to lower courts that the scope of liability was to be exceedingly narrow.[11] Most federal circuits have responded by erecting hyperstringent proof requirements that make it nearly impossible for plaintiffs to win.[12]

The increased prevalence of dominant platforms has provoked intense debate over whether the antitrust duty to deal needs a revival. There is widespread concern that dominant digital platforms like Google, Facebook, and Amazon exploit their market power to distort competition.[13] The practices that have inspired the most controversy tend to raise thorny refusal-to-deal questions. Most examples involve a platform that vertically integrates into some product market and then allegedly discriminates against competing producers of that product by making it harder for them to reach consumers over the platform (or perhaps by excluding them from the platform altogether).

For example, Apple has been accused of manipulating the iOS App Store to discriminate against third-party apps that compete with Apple's own apps.[14] Similarly, critics accuse Facebook of barring third parties from its platform for trying to compete with it.[15] Amazon allegedly discriminates against competitors who rely on its platform to sell their products.[16] And in ongoing litigation between Epic Games (creator of the popular game Fortnite) and Apple, one relevant question is whether Apple violated the antitrust laws by refusing to let rival-

10. *Trinko*, 540 U.S. 398.

11. *Id.* at 408-09 (describing the "leading case" as "at or near the outer boundary of § 2 liability").

12. *See* discussion *infra* Section I.B.1.

13. *See, e.g.*, William P. Rogerson & Howard Shelanski, *Antitrust Enforcement, Regulation, and Digital Platforms*, 168 U. PA. L. REV. 1911, 1913 (2020).

14. *See* Jack Nicas & Keith Collins, *How Apple's Apps Topped Rivals in the App Store It Controls*, N.Y. TIMES (Sept. 9, 2019), https://www.nytimes.com/interactive/2019/09/09/technology/apple-app-store-competition.html [https://perma.cc/UNX3-ZBSR].

15. *See* Josh Constine, *Facebook Is Done Giving Its Precious Social Graph to Competitors*, TECHCRUNCH (Jan. 24, 2013, 10:51 PM EST), https://techcrunch.com/2013/01/24/my-precious-social-graph [https://perma.cc/KRX8-A6GL]. Facebook's interactions with app developers also figured into a recent antitrust complaint filed by the Federal Trade Commission (FTC) against Facebook. *See* Fed. Trade Comm'n v. Facebook, Inc., No. 1:20-cv-03590 (JEB), 2021 WL 2643627, at *4-7 (D.D.C. June 28, 2021).

16. *See, e.g.*, Leah Nylen, *Dems Are Going After Big Tech. It'll Affect Almost Everything You Do Online*, POLITICO (June 15, 2021, 4:30 AM EDT), https://www.politico.com/news/2021/06/15/big-tech-house-antitrust-changes-494506 [https://perma.cc/PT7C-U5JA].

made app stores on the iPhone.[17] The common thread in such cases is a powerful platform defendant accused of refusing to deal with rivals or otherwise discriminating against them.[18]

These and similar practices by many large tech firms have spurred an outpouring of recent scholarship on antitrust and platforms, much of which focuses on platform refusals to deal and related conduct.[19] Additionally, congressional representatives have recently proposed a number of antitrust bills aimed at platform conduct, including refusals to deal.[20] Although these particular bills may not pass, the issue's growing salience suggests that any eventual legislative reform will include operative changes focused on dominant firms who refuse to deal with rivals.

This Article offers a critical reexamination of antitrust policy toward unilateral refusals to deal. It proposes a framework that would address concerns about investment and administrability while still allowing for procompetitive enforcement in meritorious cases. It places particular emphasis on cases involving digital platforms, although the analysis applies to monopolists of all stripes.

For decades, much of the academic debate surrounding the duty to deal has simply focused on what the operative standard of liability should be.[21] However, I argue that no amount of tweaking the existing standard will provide desirable results until a more fundamental problem is addressed: the longstanding but mistaken assumption that all refusal-to-deal cases raise the same theory of harm

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17. *See* Complaint for Injunctive Relief at 48-49, Epic Games, Inc. v. Apple Inc., 493 F. Supp. 3d 817 (N.D. Cal. 2020) (No. 4:20-cv-05640-YGR) (accusing Apple of unlawful denial of access to an essential facility).

18. I assume for present purposes that these platforms all have monopoly power in their respective markets, so that section 2 potentially applies.

19. *See, e.g.*, Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973, 1024-37 (2019); Brett Frischmann & Spencer Weber Waller, *Revitalizing Essential Facilities*, 75 ANTITRUST L.J. 1, 10-21 (2008); Spencer Weber Waller, *Antitrust and Social Networking*, 90 N.C. L. REV. 1771, 1774-91 (2012); Rogerson & Shelanski, *supra* note 13, at 1917-36; Marina Lao, *Search, Essential Facilities, and the Antitrust Duty to Deal*, 11 NW. J. TECH. & INTELL. PROP. 275, 279-307 (2013); Ingre Graef, Sih Yuliana Wahyuningtyas & Peggy Valcke, *Assessing Data Access Issues in Online Platforms*, 39 TELECOMM. POL'Y 375, 379-85 (2015); Eleanor M. Fox, *Platforms, Power, and the Antitrust Challenge: A Modest Proposal to Narrow the U.S.-Europe Divide*, 98 NEB. L. REV. 297, 304-13 (2019); Nikolas Guggenberger, *Essential Platforms*, 24 STAN. TECH. L. REV. 237, 287-340 (2021); Zachary Abrahamson, Comment, *Essential Data*, 124 YALE L.J. 867, 869-76 (2014).

20. *See* Cecilia Kang & David McCabe, *House Lawmakers Are Considering 6 Bills Aimed at Big Tech*, N.Y. TIMES (June 23, 2021), https://www.nytimes.com/2021/06/23/technology/big-tech-antitrust-bills.html [https://perma.cc/TLB3-6QK3].

21. *See, e.g.*, Phillip Areeda, *Essential Facilities: An Epithet in Need of Limiting Principles*, 58 ANTITRUST L.J. 841, 852-53 (1990) (proposing a number of limitations on liability under the essential facilities doctrine).

and should thus be evaluated under the same legal rules.[22] Based on that assumption, existing law applies a common rubric to all cases accusing a defendant of (1) unilaterally[23] and (2) unconditionally[24] (3) refusing to deal (4) with an actual or potential competitor. That is, all cases satisfying these conditions are evaluated under the same liability standard,[25] which is almost impossible to satisfy.[26]

In this Article, I identify an important economic distinction between two categories of unilateral refusals. Although they both satisfy conditions (1)-(4), they raise very different economic considerations and have no business being evaluated under a common standard. I refer to these as "primary" and "secondary" refusals to deal.

An example helps to illustrate the distinction.[27] Suppose a defendant develops a network of satellites capable of beaming high-speed internet access to consumers. Assume that there are no competing satellite internet service providers and that the satellites were very expensive to develop. The defendant's control over the satellites thus gives it monopoly power in rural areas where residents lack access to conventional high-speed internet service.

In a primary-refusal case, the alleged exclusion occurs in the defendant's primary product market, which in this example is the internet-service market. Suppose prospective rivals want to introduce competing satellite-internet companies, but cannot afford the high costs of constructing their own satellites. Suppose further that they could use the defendant's satellites to deliver their own internet service without inhibiting the defendant's ability to continue providing its own service. But the defendant refuses to sell the rivals the right to use its satellites. This forestalls competition in the satellite-internet market, preserving the defendant's monopoly power.

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22. By analogy, if courts applied the same legal standard to both horizontal and vertical restraints, the results would be problematic regardless of what particular standard was chosen.

23. *See supra* note 2.

24. This excludes "conditional refusals," which involve a defendant who stops dealing with any customers (usually *noncompetitors*) who do not abide by its preferred conditions. As explained later, conditional refusals are usually challengeable as de facto vertical restraints under section 2, allowing plaintiffs to avoid the much stricter standards applied in refusal-to-deal cases. *See* discussion *infra* Section IV.C.3. Some cases involve both a conditional refusal (directed at customers) and an unconditional refusal (directed at competitors), and these cases can usually be brought under a vertical restraint theory as well. *See* discussion *infra* Section III.B.2.

25. Technically, there are two closely related standards, one of which emanates from the "essential facilities doctrine" (which the Supreme Court has declined to recognize). But the differences between them are opaque and largely unimportant. *See* Part II, *infra*.

26. No plaintiff has won a case since *Trinko*.

27. *See infra* Part II for a rigorous definition of the two types of refusals (and many case examples).

By contrast, in a secondary-refusal case, the alleged exclusion occurs in an adjacent ("secondary") market into which the defendant has vertically integrated. Suppose that, in addition to satellite internet, the defendant offers an internet-based telephone service, known as a "voice over internet protocol" (VoIP). There are numerous competing VoIP services that have already been developed by rivals. However, the defendant blocks them from being transmitted over its satellites—that is, it refuses to let rival VoIP services run on its network. Consequently, the defendant's internet subscribers are unable to buy VoIP service from anyone other than the defendant. This gives the defendant a VoIP monopoly in rural areas, whereas there would otherwise be vigorous competition among many VoIP service providers.

In fact, the second hypo raises substantially the same theory of harm as a tying arrangement[28]—namely, that a dominant firm is exploiting its preexisting monopoly in a primary market to foreclose competitors in a secondary market.[29] In tying cases, the plaintiff usually does not dispute that the defendant obtained its primary monopoly on the merits; and its desired remedy (an injunction of the tie) would leave that monopoly intact. It would only prevent the defendant from using its primary-market monopoly to distort competition elsewhere. Similarly, in the secondary-refusal example, a duty to deal would not diminish the defendant's monopoly over satellite internet. It would only prevent the defendant from exploiting it to foreclose competitors in the VoIP market.

By contrast, a primary refusal is not analogous to any traditional type of antitrust violation. Rather, it is most similar to a *hypothetical* violation known as "no-fault monopolization." This doctrine would subject a firm to antitrust liability just for being a monopolist, even if it did not engage in any anticompetitive misconduct. However, antitrust law rejects this theory of liability,[30] mainly because it would harm incentives for investment.[31] Antitrust intervention in primary-refusal cases raises the same concern. The defendant's satellites were expensive to develop, and it may well have decided not to do so if it anticipated an

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28. In a tying arrangement, a firm sells a primary product only on the condition that buyers also purchase a secondary product.

29. *See* discussion *infra* Section III.B.

30. *See, e.g.*, William E. Kovacic, *Failed Expectations: The Troubled Past and Uncertain Future of the Sherman Act as a Tool for Deconcentration*, 74 IOWA L. REV. 1105, 1127, 1137-38 (1989); *cf.* Marina Lao, *No-Fault Digital Platform Monopolization*, 61 WM. & MARY L. REV. 755, 759-71, 789-97 (2020) (discussing and criticizing calls for imposing no-fault monopolization liability on large platforms).

31. There are some relevant exceptions, such as cases of "natural monopoly." In these cases, it is often sensible to curtail the monopolist's power even in the absence of anticompetitive conduct. However, natural monopolies are usually addressed through regulation rather than antitrust (as with price regulation of utilities, for example).

obligation to share them with rivals. After all, the ensuing competition will substantially diminish the profits it earns from its internet service.

It therefore makes sense that the law would strongly disfavor intervention in primary-refusal cases. But secondary refusals do not raise the same concerns.[32] Ideally, secondary cases would be evaluated under a standard that resembles those we apply to tying arrangements and similar restraints. But courts do not permit this.[33] This is grounded not in any principles of antitrust economics, but rather in an unjustified assumption that all types of unilateral refusals are equally deserving of judicial hostility.

Current doctrine's most glaring problems become apparent in its application to primary-refusal cases. There is a profound contradiction between the liability standard courts apply and their oft-stated dictum that the duty to deal should be imposed only in very rare circumstances. Whatever its ambiguities, the prevailing standard of liability is plainly an exclusion-based standard: liability is supposed to hinge on whether or not the defendant's refusal is exclusionary.[34] Although this is the norm in section 2 cases, it leads to major problems when applied to primary refusals.

As I explain, simple economic arguments show that primary refusals by dominant firms are in fact *routinely* exclusionary in the very sense that the law purports to condemn.[35] That is, they are routinely profitable only because they forestall competition by excluding rivals. As such, if an exclusion-based standard were faithfully applied, courts would impose liability quite regularly. But in practice the exclusion-based standard is not faithfully applied. Instead, courts have erected very demanding proof requirements that grossly exaggerate the difficulty of inferring an exclusionary motive, making it nearly impossible for plaintiffs to win.[36] Courts often suggest that these proof requirements are necessary to avoid an undue risk of judicial error.[37] But, on closer inspection, it is clear that these

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32. *See infra* Part IV.

33. *See infra* Section III.B.2. A literal tie involves conditional dealings between the defendant and its customers (e.g., "You can only buy *A* if you also buy *B*"). Even in a section 2 case, courts generally won't entertain a vertical-restraint theory (such as tying) unless some such vertical conditioning is present. *See, e.g.*, Fed. Trade Comm'n v. Facebook, Inc., No. 1:20-cv-03590 (JEB), 2021 WL 2643627, at *23 (D.D.C. June 28, 2021) (stating, in a section 2 case, that "'conditional dealing' schemes are thus categorically different from unilateral conduct that involves only the monopolist's competitors, such as its refusal to deal with them"). See also *infra* Section IV.C.3 for a discussion of conditional refusals to deal with customers.

34. *See infra* Section I.B.1.

35. *See infra* Section III.A. This is a generic implication of the inverse relationship between competition and industry profits.

36. *See infra* Section I.B.1.

37. *See id.*

rules are pretextual, for they bear little logical connection to exclusion. To reinforce this conclusion, I show that the refusals most likely to generate significant exclusionary effects are also the *least* likely to satisfy existing proof requirements.[38]

Applying an exclusion-based standard to primary refusals is problematic because it necessarily ignores the main risk posed by intervention in such cases, which is that it would chill investment in valuable technologies.[39] Indeed, a primary refusal to deal is highly analogous to a situation in which a patent monopolist (e.g., the seller of a patented drug) refuses to license would-be competitors. The obvious inference is that this refusal is intended to preserve the patent owner's monopoly by excluding rivals.[40] Patent law allows this in order to protect incentives for investment in innovation. But a purely exclusion-based standard does not permit this. By its very definition it rejects any "right to exclude."[41]

Thus, in primary-refusal cases, courts are forced to find other ways of withholding liability, leading to the proof requirements mentioned above. But these rules end up preventing meaningful antitrust scrutiny of secondary-refusal cases as well, even though intervention in those cases does not raise the same normative concerns. On the contrary, an exclusion-based standard makes perfect sense in secondary-refusal cases—for the same reason that it makes sense in ordinary tying cases. This is a serious problem for enforcement against platform monopolists, since almost all such cases are secondary.[42]

This Article's main proposal is simple: primary and secondary refusals should be subjected to different legal standards. First, primary refusals should be free from antitrust scrutiny unless an external source of law (most likely intellectual property (IP) or regulatory law) indicates that the defendant should be denied the right to exclude rivals from its input technology.[43] This is because the propriety of intervention in these cases hinges on a complex IP-like balance

38. *See infra* Section III.A.5.

39. This is not to say that courts are unaware of the investment concerns. They routinely discuss them in dicta. *See infra* notes 218-219 and accompanying text. However, these concerns have never been incorporated into the operative standard of liability. Rather, they are cited as a justification for erring strongly on the side of nonintervention when applying the usual exclusion-based standard of liability (such as by imposing stringent proof requirements). *See infra* Section I.B.

40. That the patent immunizes such a refusal does not undermine the veracity of this statement. The patent owner's refusal is lawful not because it is nonexclusionary, but because the patent confers a legal right to exclude.

41. More specifically, it rejects any right to exclude rivals for the sole purpose of protecting monopoly profits by eliminating would-be competitors.

42. *See infra* Part II.

43. For examples of situations in which intellectual property (IP) or regulatory law might justify intervention in a primary-refusal case, see *infra* Section V.E.

between competition and investment, and the practical and institutional characteristics of antitrust law leave it ill equipped to implement such a balancing act.[44] Instead, antitrust would defer to other areas of law that confront the competition/investment tradeoff more directly.

Second, plaintiffs should be able to challenge secondary refusals as de facto ties or similar vertical restraints. As with a tying arrangement, secondary refusals should invite liability only if the plaintiff can show appreciable foreclosure in the secondary market.[45] Thus, the courts would apply a familiar foreclosure-based standard of liability, not the far more stringent (and largely inapposite) standard presently applied in refusal-to-deal cases. Significantly, this aspect of the proposal arguably would not contravene any Supreme Court decisions, as all clearly conflicting precedents come from lower courts.

To be sure, secondary refusals differ from traditional tying arrangements in some significant ways. For example, some important defenses in conventional tying cases will not usually apply in secondary-refusal cases—and vice versa.[46] And secondary-refusal cases are more likely to raise remedial difficulties than are traditional tying cases.[47] However, such difficulties are rarely prohibitive. On the whole, antitrust is well equipped to address secondary-refusal cases by making sensible modifications to existing standards on vertical restraints.

The benefits of this proposal are manifold. First, it provides a reasonable and practicable means of addressing investment concerns without unnecessarily stifling antitrust enforcement in meritorious cases.[48] Second, courts are well positioned to administer this policy, as the most serious administrative difficulties are largely limited to primary cases (in which intervention would remain quite rare).[49] Third, this policy is exactly analogous to the way antitrust already treats other forms of unilateral conduct.[50] And finally, in contrast to the status quo, these changes would allow for meaningful antitrust scrutiny of most platform refusals, including antirival discrimination.

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44. *See infra* Section IV.B.2.

45. Of course, one might argue that there are significant problems with the way antitrust treats ordinary vertical restraints. I am sympathetic to this concern, and nothing in this paper suggests that antitrust standards toward vertical restraints are free of problems. However, because these concerns are independent of the duty to deal, this paper will not explore them in detail.

46. *See infra* Section V.D.

47. *Id.*

48. *See infra* Section IV.A.

49. *See infra* Section IV.B.

50. *See infra* Section IV.C. When assessing other forms of unilateral conduct (e.g., unilateral price setting or changes to product design), courts generally hold that such conduct is immune, but not in cases where it is used to exploit a monopoly in one market to impair competition in another—that is, when it acts like an anticompetitive tie.

The Article is organized as follows. Part I provides a brief overview of how existing antitrust law treats unilateral refusals to deal with competitors. Part II discusses the distinction between primary and secondary refusals and provides many examples of each type. Part III discusses major problems and inconsistencies within current law. Part IV argues that the most serious of these problems could be addressed by subjecting primary and secondary refusals to different standards of liability. Part V discusses a number of considerations relating to the application of the framework proposed in Part IV. Finally, Part VI concludes.

I. REFUSING RIVALS UNDER ANTITRUST LAW

In this Part, I provide a brief overview of the operative standards applied to refusal-to-deal (and essential-facilities) claims. In a typical case, the defendant is a monopolist who controls an important input technology. In most cases, the plaintiff is a rival who sought to buy access to the input but was refused. The complaint alleges that it will be significantly more difficult (if not impossible) for rivals to compete effectively if they are unable to buy access to the input. The input could be a physical good, a service, or a commercial "facility," such as a telecommunications network used to provide phone service to end users. Because all unilateral refusal-to-deal claims arise under section 2 of the Sherman Act,[51] the plaintiff must show that the refusal is an effort to expand or maintain the defendant's monopoly power by excluding rivals.[52]

A refusal to deal with rivals can be challenged under two causes of action, which overlap substantially.[53] A plaintiff can bring a general claim for refusal to deal, or else he can allege a denial of access to an essential facility. The differences between these lines of attack are often unclear,[54] and have become less important

51. Section 2 is generally the only antitrust statute under which a plaintiff can attack unilateral conduct. *See infra* notes 184-190 and accompanying text.

52. *See, e.g.*, United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001) (noting that liability under section 2 requires that the defendant "acquires or maintains, or attempts to acquire or maintain, a monopoly by engaging in exclusionary conduct 'as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident'" (quoting United States v. Grinnell Corp., 384 U.S. 563, 571 (1966))).

53. *See, e.g.*, Morris Commc'ns Corp. v. PGA Tour, Inc., 364 F.3d 1288, 1294 (11th Cir. 2004) ("Two theories exist upon which to predicate a unilateral refusal to deal claim . . . .").

54. *See, e.g.*, Gregory J. Werden, *The Law and Economics of the Essential Facility Doctrine*, 32 ST. LOUIS U. L.J. 433, 441 (1987) ("Which cases are essential facility cases is subject to dispute."). Historically, the essential facilities doctrine focused less on anticompetitive intent and more on the feasibility of sharing access to an important technology. *See id.* at 438-47; Frischmann & Waller, *supra* note 19, at 10.

over time.[55] Moreover, the Supreme Court has never acknowledged the independent existence of the essential facilities doctrine.[56] For these reasons, this Article will not fuss over the differences between the two doctrines.

A. Key Cases: Aspen *and* Trinko

The modern era of refusal-to-deal case law began in the early 1980s. In *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the Supreme Court reviewed a jury verdict against a defendant in a dispute between two competing ski resorts in Aspen, Colorado.[57] For years, the parties had jointly offered a six-day "all-Aspen" pass that permitted consumers to switch freely between the two ski resorts.[58] Following a dispute over how to divide the revenues from these passes, the defendant withdrew its participation in the arrangement. It also rebuffed all efforts by the plaintiff to offer a substitute for the all-Aspen pass, including its offer to pay the defendant full retail price for passes to its ski lifts, which the plaintiff wanted to bundle with its own lift passes.[59]

Not many consumers wanted to be limited to the plaintiff's (much smaller) ski resort. Consequently, the inability to offer an all-Aspen pass was detrimental to the plaintiff's business.[60] The plaintiff's failure would naturally enhance the defendant's market position, since there were no other competitors in the area. The Court ultimately affirmed the jury verdict for the plaintiff, concluding that "the evidence supports an inference that [the defendant] was not motivated by efficiency concerns and that it was willing to sacrifice short-run benefits and consumer goodwill in exchange for a perceived long-run impact on its smaller rival."[61]

The Court expressed a much more skeptical view toward refusal-to-deal claims when it revisited the issue about twenty years later in *Trinko*. There, defendant Verizon already had a regulatory duty to let rivals use its telephone network to facilitate competition in telephone service.[62] However, the operative regulatory scheme also stated that none of its provisions should be interpreted to

55. *See infra* notes 96-98 and accompanying text.

56. *See* Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 411 (2004) (declining "to recognize . . . or to repudiate" the essential facilities doctrine).

57. 472 U.S. 585 (1985).

58. *Id.* at 589.

59. *Id.* at 593-94.

60. *Id.* at 594-95.

61. *Id.* at 610-11.

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

supersede or diminish the applicability of the antitrust laws.[63] Verizon was allegedly flouting its regulatory duties. According to the plaintiff,[64] it was deliberately hampering rivals' ability to use its network effectively, undermining the quality of service they could offer their consumers.[65] If true, this would undermine competition in the telephone service market.

The Court found the plaintiff's complaint deficient for several reasons. First, it held that the plaintiff had not plead facts sufficient to allege monopolistic intent.[66] It reached this conclusion mainly by contrasting the case with *Aspen*. Unlike *Aspen*, the prior dealings between Verizon and its rivals were not voluntary, but rather were compelled by regulation.[67] Further, the rival in *Aspen* sought something (ski passes) that the defendant already routinely sold to third parties, making its refusal to deal with the plaintiff harder to explain. By contrast, Verizon never voluntarily sold anyone access to its telephone network.[68] Finally, the Court held that an antitrust duty to deal is never appropriate in situations where regulatory law already compels the relevant dealings.[69]

The antitrust duty to deal ultimately survived *Trinko*, but just barely. The opinion sharply narrowed the scope of liability and emphasized that refusal-to-deal claims should generally be disfavored. Indeed, the most often cited excerpt from the opinion is its dictum that *Aspen* "is at or near the outer boundary of § 2 liability."[70] As a result, in many federal circuits, refusal-to-deal claims are virtually impossible to win.[71] Indeed, one appellate court recently suggested that *any*

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63. *Id.* at 406.

64. The plaintiff was a local telephone service customer of AT&T—one of the rivals allegedly being impaired by Verizon's conduct. *Id.* at 416.

65. *Id.* at 398.

66. *Id.* at 409 (noting that the alleged facts "shed[] no light upon the motivation of [the defendant's] refusal to deal—upon whether its regulatory lapses were prompted not by competitive zeal but by anticompetitive malice"); *Id.* (noting that the defendant's conduct "tells us nothing about dreams of monopoly").

67. *Id.* ("The complaint does not allege that Verizon . . . would ever have [dealt with rivals] absent statutory compulsion.").

68. *Id.* at 409-10.

69. *Id.* at 411 (concluding that where a regulatory duty to share access exists, an antitrust duty to deal "serves no purpose").

70. *Id.* at 399.

71. To my knowledge, no plaintiff has won a final judgment after *Trinko*. However, a handful of plaintiffs have managed to survive summary judgment or to avoid dismissal on the pleadings. *See, e.g.*, Viamedia, Inc. v. Comcast Corp., 951 F.3d 429 (7th Cir. 2020) (declining to dismiss a refusal-to-deal claim); Steward Health Care Sys., LLC v. Blue Cross & Blue Shield of R.I., 311 F. Supp. 3d 468 (D.R.I. 2018) (denying the defendant's motion for summary judgment); Omni Healthcare Inc. v. Health First, Inc., No. 6:13-cv-01509-RBD-DCI, 2016 WL 4272164, at *30 (M.D. Fla. Aug. 13, 2016) (same).

imposition of a duty to deal necessarily conflicts with *Trinko*'s assertion that such duty should be imposed only rarely.[72]

B. Establishing Liability

1. Exclusionary Purpose

Both *Aspen* and *Trinko* were somewhat cryptic when characterizing the operative standard of liability.[73] But it has always been clear that liability for a refusal to deal requires proof of an exclusionary purpose.[74] Courts and commentators have proposed different tests for inferring this.[75] One is a "profit sacrifice test,"[76] which employs the same kind of logic used in predatory-pricing cases.[77] Under

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72. Fed. Trade Comm'n v. Qualcomm Inc., 969 F.3d 974, 994 (9th Cir. 2020) (reversing the lower court's imposition of a duty to deal because, among other reasons, it "ignores the Supreme Court's . . . warning in *Trinko* that the *Aspen Skiing* exception should be applied only in rare circumstances").

73. As one court put it, "[b]oth *Aspen Skiing* and *Trinko* provide significant guidance on what a refusal-to-deal claim *might* (*Aspen Skiing*) – or *might not* (*Trinko*) – look like. But neither dictated what such a claim *must* look like." *Steward Health Care Sys.*, 311 F. Supp. 3d at 482.

74. United States v. Colgate & Co., 250 U.S. 300, 307 (1919) (imposing no liability absent "any purpose to create or maintain a monopoly"); Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 602 (1985) (emphasizing the relevance of exclusionary intent); *Trinko*, 540 U.S. at 409 (requiring evidence that the defendant's refusal was "prompted not by competitive zeal but by anticompetitive malice"); MCI Commc'ns Corp. v. Am. Tel. & Tel. Co., 708 F.2d 1081, 1133 (7th Cir. 1983) (requiring the absence of a "legitimate business or technical reason" for the refusal to make out an essential-facilities claim); Simon & Simon, PC v. Align Tech., Inc., No. 1:19-cv-00506-LPS, 2020 WL 1975139, at *6 (D. Del. Apr. 24, 2020) (report and recommendation) (requiring evidence indicating an "anticompetitive purpose" before imposing liability).

75. These tests are not limited to unilateral-refusal cases. They can be applied to various kinds of exclusionary conduct. For a critical assessment of traditional definitions of exclusion in monopolization cases generally, see Einer Elhauge, *Defining Better Monopolization Standards*, 56 STAN. L. REV. 253 (2003).

76. *See, e.g.*, A. Douglas Melamed, *Exclusionary Conduct Under the Antitrust Laws: Balancing, Sacrifice, and Refusals to Deal*, 20 BERKELEY TECH. L.J. 1247, 1255 (2005) (discussing the profit-sacrifice test); Elhauge, *supra* note 75, at 274-80.

77. A dominant firm engages in "predatory pricing" when it sets an unprofitably low price (generally below cost) for a period of time in order to drive a smaller rival out of business by making it impossible for the rival to compete. Thus, the firm loses profits in the short term; but it recoups those losses after the rival is excluded.

this test, the plaintiff must show that the defendant's refusal required it to sacrifice profits in the short run and that this sacrifice lacks a benign explanation.[78]

An alternative test designates conduct as exclusionary if it would make no economic sense but for its propensity to exclude rivals. This is the "no economic sense" (NES) test.[79] In the context of unilateral-refusal cases, this means that, if not for the value of excluding the rival, the dominant firm would earn more profits by accepting the deal than by refusing it.[80] An essentially equivalent test asks whether the defendant's refusal lacks a "valid business purpose," where implicitly a "valid" purpose is one whose utility does not hinge on harm to competition.[81] Regardless of the particular terminology, the key question is whether defendant's refusal would be irrational absent its propensity to exclude.

Although related, the NES and profit-sacrifice tests are in fact distinct.[82] This is because exclusionary practices do not always necessitate a sacrifice of short-term profits.[83] As such, the profit-sacrifice test is just a narrower version of the NES test.[84]

Although both *Aspen* and *Trinko* emphasize that a profit sacrifice may help to show an exclusionary purpose,[85] neither opinion states that this is strictly necessary to find a violation. Perhaps because of this ambiguity, subsequent lower court decisions differ in how they assess exclusionary purpose. Today, the trend among circuit courts is to hold that proof of a short-term profit sacrifice is indeed

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78. The latter qualification is necessary because not all short-term sacrifices imply an exclusionary motive. For example, a promotional giveaway will require a short-term profit sacrifice, but it can pay off in the long run by stimulating future sales, and this strategy has nothing to do with exclusion.

79. *See, e.g.*, Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The "No Economic Sense" Test*, 73 ANTITRUST L.J. 413, 413 (2006).

80. *Id.* at 416 (noting that conduct is exclusionary under the "no economic sense" (NES) test if it would be unprofitable but for the "payoff from eliminating competition").

81. *See, e.g.*, Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 597 (1985) (finding no antitrust violation where "valid business reasons exist for [the] refusal").

82. *See, e.g.*, Werden, *supra* note 79, at 423-25.

83. *See, e.g.*, Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209, 224 (1986) (noting that some exclusionary practices are profitable straightaway); Elhauge, *supra* note 75, at 280 (same).

84. Like the NES test, it supports (or rules out) an inference of anticompetitive intent by establishing that the defendant's conduct would be unprofitable absent exclusion. But it requires that this inference be drawn from a particular type of circumstantial evidence: a sacrifice of short-run profits that lacks a valid business explanation. By contrast, the NES test places no rigid restrictions on what types of evidence plaintiffs can rely on.

85. *Aspen*, 472 U.S. at 608; Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 409 (2004).

necessary.[86] In fact, these courts typically insist on proof that the defendant sacrificed profits in a very specific way: by terminating a prior course of voluntary (and thus ostensibly profitable) dealings with a rival, precisely as the plaintiff alleged in *Aspen*.[87] However, a few courts have endorsed the broader NES test, holding that a profit sacrifice may be a useful factor to consider but is not strictly necessary.[88]

Within circuits that adhere to the profit-sacrifice test, courts sometimes misapprehend its role in the antitrust analysis, portraying it as somehow distinct from the inquiry into exclusionary purpose.[89] But most courts correctly recognize that it is just a narrower version of the NES test for exclusionary purpose.[90] Courts typically rationalize this narrowing on the ground that it helps to avoid false positives (erroneous convictions) by erring on the side of nonintervention.

86. *See, e.g.*, Novell, Inc. v. Microsoft Corp., 731 F.3d 1064, 1075 (10th Cir. 2013) (Gorsuch, J.) ("[R]efusal to deal doctrine requires the monopolist to sacrifice short-term profits to be held liable . . . ."); Covad Commc'ns Co. v. Bell Atl. Corp., 398 F.3d 666, 675 (D.C. Cir. 2005) ("[I]n order to prevail . . . [the plaintiff] will have to prove [the defendant's] refusal to deal caused [the defendant] short-term economic loss.").

87. *See, e.g.*, *Novell*, 731 F.3d at 1074-75.

88. *See* Viamedia, Inc. v. Comcast Corp., 951 F.3d 429, 462 (7th Cir. 2020) (stating that a profit sacrifice "is relevant but should not always be dispositive because" such sacrificing "is not necessary for conduct to be exclusionary" (internal quotation omitted)); *see also* Steward Health Care Sys., LLC v. Blue Cross & Blue Shield of R.I., 311 F. Supp. 3d 468, 483 (D.R.I. 2018) (rejecting any strict requirement to prove a termination of prior dealings with rivals); Evergreen Helicopters, Inc. v. Erickson Air-Crane Inc., No. 1:09-cv-03059-PA, 2011 WL 285201, at *6 (D. Or. Jan. 26, 2011) (same).

89. For example, a few courts have asserted that proof of exclusionary intent is "not sufficient alone," because it does not necessarily establish a willingness to sacrifice short-term profits. Aerotec Int'l, Inc. v. Honeywell Int'l, Inc., 836 F.3d 1171, 1184 (9th Cir. 2016) (stating that proof of "intent to foreclose competition" is "not sufficient alone," because "there is only a duty not to refrain from dealing where the only conceivable rationale or purpose is 'to sacrifice short-term benefits in order to obtain higher profits in the long run from the exclusion of competition'" (quoting MetroNet Servs. Corp. v. Qwest Corp., 383 F.3d 1124, 1132 (9th Cir. 2004))). This puts the cart before the horse. A profit sacrifice is not important in its own right. It is potentially relevant only insofar as it may shed light on the motivation behind the defendant's refusal—that is, on whether it serves a valid business purpose or a purely exclusionary one. As such, it does not make sense to speak of the profit-sacrifice test as if it is separate from the need to prove an exclusionary purpose. It is a rule about how plaintiffs must prove such a purpose.

90. *See, e.g.*, Simon & Simon, PC v. Align Tech., Inc., No. 1:19-cv-00506-LPS, 2019 WL 5191068, at *5-6 (D. Del. Oct. 15, 2019) (noting that "[t]o plead an antitrust refusal to deal, the Complaint must contain facts plausibly suggesting that the defendant's conduct made no economic sense but for its anticompetitive purpose," and that this requires allegations suggesting "a willingness to forsake short-term profits" (quoting Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 409 (2004))); *see also id.* at *6 (arguing that the sacrifice test is somewhat narrow in the sense that "it may allow some refusals to deal to evade antitrust scrutiny even when they actually have anticompetitive effects").

A good example is the *Novell* decision, penned by then-Judge Neil Gorsuch.[91] The decision noted that the fundamental question is whether "the monopolist's conduct [would] be irrational but for its anticompetitive effect."[92] This is just the NES test. The court acknowledged that a profit sacrifice is not necessary for conduct to be exclusionary.[93] But it nevertheless held that plaintiffs are required to prove such a sacrifice,[94] because "[i]f the doctrine . . . must err still to some slight degree, perhaps it is better that it should err on the side of firm independence."[95]

Although the preceding discussion applies to general refusal-to-deal claims, essential-facilities claims require a similar showing. Essential-facilities claims do not require plaintiffs to show a profit sacrifice. However, under the leading formulation of the essential facilities doctrine,[96] one element effectively tests for exclusionary purpose, thus diminishing the extent to which essential-facilities claims are distinct. Specifically, one element requires that sharing of the facility would be "feasib[le],"[97] and most courts have interpreted this to mean that the defendant lacks a valid business purpose for its refusal.[98] But as noted above, this inquiry is substantially the same as the NES test.

2. Additional Requirements

There are a few other conditions that must be present for any refusal-to-deal claim to be potentially meritorious. I briefly mention them here. Throughout the Article, I will generally work under the assumption that these conditions are satisfied.

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91. *Novell*, 731 F.3d 1064.

92. *Id.* at 1075.

93. *Id.* at 1075-76 (acknowledging that it is "undoubtedly right" that "a monopolist can find ways to harm competition while still making money").

94. *Id.* at 1074-75.

95. *Id.* at 1076.

96. In *MCI*, the court articulated a four-element standard: "(1) control of the essential facility by a monopolist; (2) a competitor's inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility." MCI Commc'ns Corp. v. Am. Tel. & Tel. Co., 708 F.2d 1081, 1132-33 (7th Cir. 1983).

97. *Id.* at 1133.

98. *See, e.g.*, City of Anaheim v. S. Cal. Edison Co., 955 F.2d 1373, 1380 (9th Cir. 1992); VBR Tours, LLC v. Nat'l R.R. Passenger Corp., No. 1:14-cv-00804, 2015 WL 5693735, at *11 (N.D. Ill. Sept. 28, 2015).

First, the defendant must have monopoly power.[99] Second, the party being refused must be an actual or potential competitor. If the refused dealings would have put the two firms into a purely vertical relationship,[100] then this condition is not satisfied.[101] Third, access to the defendant's input technology must be relevant to competition.[102] Fourth, the defendant's rivals must lack a reasonable alternative means of obtaining access to the relevant input technology.[103] If they do have an alternative option, this casts doubt on the likelihood that the defendant's refusal will harm competition.

Fifth, it must be the case that letting the rival access the input would not undermine the defendant's ability to keep using it.[104] For example, suppose the relevant input is a production plant that the defendant ordinarily uses around the clock. The defendant refuses to let the plaintiff-rival use the plant during nighttime hours. Such a deal would not have increased market output; it would just reallocate some production from one firm to the other. In such cases, imposing a duty to deal would not do any good.[105]

II. TWO TYPES OF REFUSALS

In this Part, I define primary and secondary refusals in more detail and provide examples of cases in each category. The basic purpose of the distinction is to determine whether antitrust intervention would deprive the defendant of a

99. This is a requirement of any section 2 exclusion claim. *See, e.g.*, United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001).

100. A vertical relationship is one between noncompetitors at different levels of a supply chain (e.g., an upstream manufacturer and a downstream retailer).

101. For example, suppose a defendant decides to manufacture its product in-house and thus refuses to hire a third-party manufacturer. This is not a refusal to deal with a rival. The deal in question would not have led to interparty competition; it would just shift the manufacturing work from the defendant to the other party. *Cf.* Int'l Audiotext Network, Inc. v. Am. Tel. & Tel. Co., 62 F.3d 69, 71-72 (2d Cir. 1995) (finding no liability where a defendant commences vertical dealings with a third party rather than the plaintiff).

102. That is, it should be difficult or impossible for rivals to compete effectively without obtaining access to the relevant input.

103. *See, e.g.*, Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 411 (2004) (noting that "the doctrine serves no purpose" if rivals already have access to the relevant technology).

104. A related concern is that the rival's intended use might jeopardize the quality or safety of the defendant's product. *See infra* Section V.E.

105. *See, e.g.*, Illinois *ex rel.* Burris v. Panhandle E. Pipe Line Co., 935 F.2d 1469, 1484 (7th Cir. 1991) (suggesting that a defendant has no duty to aid a rival's production at the expense of the defendant's own production).

monopoly it earned on the merits, or if it would merely prevent the defendant from exploiting that monopoly to impair competition in a separate market.

In all cases, the defendant's control of an important input technology gives it a dominant position over some "primary" product. This is the product whose animating technology is simply the input controlled by the defendant. Thus, to develop an independent version of the primary product would require creating an independent version of the input.

For example, suppose the defendant's input is a system of cell towers, which it uses to provide cell service. Cell service is the primary product, because a rival could not independently develop such a service without building its own towers. By contrast, cell phones are not a primary product, even if the defendant happens to sell them, because other firms can independently develop phones without having to construct cell towers. Thus, the high cost of building cell towers need not act as a barrier to entry in the cell phone market.

In many cases, the defendant is vertically integrated; it also sells some "secondary" product (often a complement to the primary one). Like the cell phones from the previous hypo, this is typically something that rivals are perfectly capable of developing independently. However, in the cases of interest, rivals are unable to distribute or monetize the secondary good effectively unless they are permitted to access or "interconnect" with the primary product in some way;[106] and the defendant can unilaterally block this. Consequently, the defendant can make the high cost of creating the input act like a barrier to entry in not only the primary market, but also the secondary one.

For example, suppose the defendant has a monopoly over video game consoles (the primary product). Then video games are secondary products: they are a complementary but distinct technology that other firms are capable of developing independently. The defendant's control over the console means that it can prevent rival-made games from being playable on its console. In that case, rivals could not market their own games without developing a new console as well.

In a secondary-refusal case, the alleged effect of the defendant's refusal is to exclude competing sellers of the secondary product. That is, the rivals being refused are actual or potential producers of the secondary good, not the primary one.[107] A critical feature of a secondary refusal is that imposing a duty to deal would not extinguish the defendant's monopoly power over the primary product. For instance, in the game console example, suppose the defendant also sells

106. For example, a plaintiff who sells cell phones wants them to be compatible with the defendant's cellular network.

107. There is a slight caveat: it is possible that a defendant could fear that a secondary-market rival will enter the primary market in the future. In that case, the secondary-market competitor can also be viewed as a potential competitor in the primary market.

a baseball game and refuses to let any competing baseball games run on its console. If this refusal were challenged on antitrust grounds, the plaintiff would be alleging exclusion of competing baseball games—not of competing consoles. If a court were to require the defendant to permit competing baseball games on its console, this would diminish or eliminate the defendant's dominant position over baseball games. But it would leave the defendant's console monopoly intact.

As in this example, many secondary-refusal cases involve a vertically integrated platform that is accused of excluding rivals in an adjacent market for some good that relies on the platform.[108] For instance, in *Novell, Inc. v. Microsoft Corp.*, defendant Microsoft had monopoly power over operating systems (the primary product), but also sold various applications (secondary products), such as the Microsoft Office suite.[109] The plaintiff sold WordPerfect, then the leading competitor to Microsoft Word, and sued Microsoft for not providing access to Windows 95 applications programming interfaces (APIs).[110] This refusal would make it more difficult and time-consuming for the plaintiff to develop applications capable of running on Windows 95.[111]

Similarly, in Epic's case against Apple, one of Epic's grievances centers on Apple's refusal to permit rival app stores (a secondary product) on the iPhone (primary).[112] If Apple were ordered to permit competing app stores on its iPhones, this would diminish its market power over app distribution, but not its market power over smartphones.

In some cases, a platform monopolist discriminates against rivals in an adjacent market without fully refusing to deal with them.[113] For example, if a smartphone monopolist also offers specific apps, it might discriminate against competing versions of those apps by making it hard to find them in the defendant's app store. This falls short of a full-blown refusal to deal but, depending on the severity of the discrimination, it may have very similar effects. As explained in a later Section, this kind of discrimination should be viewed as a type of secondary refusal, albeit one that often has a lesser effect on competition than an outright refusal to deal.[114]

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108. *See, e.g.*, Philip J. Weiser, *Regulating Interoperability: Lessons from* AT&T, Microsoft, *and Beyond*, 76 ANTITRUST L.J. 271, 274-86 (2009) (discussing cases in which a platform refuses to let competing application makers interconnect).

109. Novell, Inc. v. Microsoft Corp., 731 F.3d 1064, 1067, 1069 (10th Cir. 2013).

110. *Id.* at 1068-69. Microsoft had provided access to application programming interfaces (APIs) for beta versions of Windows 95, but it chose not to do so for the production version. *Id.* at 1067-68.

111. *Id.* at 1068-69.

112. Complaint for Injunctive Relief, *supra* note 17, at 47-49.

113. *See supra* notes 13-18 and accompanying text.

114. *See infra* Section V.B.

Not all secondary-refusal cases involve platforms, however. In *3Shape Trios A/S v. Align Technology, Inc.*, the defendant was the creator of the popular Invisalign dental aligners for straightening teeth.[115] It was dominant in the aligner market, in part due to its IP holdings. To get fitted for aligners, a patient's dentist had to obtain an impression of her teeth and send it to an aligner manufacturer like the defendant.[116] The defendant also sold iTero, a scanner used to make a digital impression of a patient's teeth.[117] The plaintiff was the creator of the only other digital scanner whose imaging was suitable for creating dental aligners. It brought a refusal-to-deal claim after the defendant stopped accepting the impressions it submitted.[118] According to the plaintiff, this made it hard for dentists to give their clients Invisalign aligners (by far the most popular brand) without also using the defendant's scanner.[119]

By contrast, in a primary-refusal case, the alleged harmful effect of the defendant's refusal is to forestall competition in the primary product market. In these situations, imposing a duty to deal with rivals (on reasonably affordable terms)[120] will extinguish the defendant's monopoly power over the primary product by permitting its rival to sell a competing version of that product.[121] Also, unlike a secondary-refusal case, here the rival is seeking to sell a product whose animating technology (the input technology) was developed by the defendant, not the rival.

Trinko is a good example of a primary refusal. The defendant used its telephone network to provide local phone service (the primary product) to consumers.[122] Rivals wanted to interconnect with this network so that they could offer competing phone service without having to build a new network.[123] If a court or regulator mandates that rivals be permitted to interconnect to the network on reasonable terms, it will eliminate the defendant's monopoly power over local

115. 3Shape Trios A/S v. Align Tech., Inc., No. 1:18-cv-01332-LPS, 2019 WL 3824209, at *1 (D. Del. Aug. 15, 2019), *report and recommendation adopted*, No. 1:18-cv-01332-LPS (D. Del. Sept. 26, 2019).

116. *Id.*

117. *Id.* at *2.

118. *Id.* at *3.

119. *Id.*

120. A duty to deal implicitly requires that the operative dealings occur at a reasonably affordable price, since demanding a prohibitively high price is equivalent to a refusal to deal. *See, e.g.*, MetroNet Servs. Corp. v. Qwest Corp., 383 F.3d 1124, 1132 (9th Cir. 2004) ("An offer to deal with a competitor only on unreasonable terms and conditions can amount to a practical refusal to deal.").

121. Specifically, it will eliminate the monopoly power derived from the input.

122. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 401-04 (2004).

123. *Id.*

phone service. Specifically, the lower the mandated price of interconnection, the greater the erosion of the defendant's monopoly power.[124]

Although many primary cases involve networks,[125] this is by no means necessary. In *Florida Fuels, Inc. v. Belcher Oil Co.*, the relevant market was for Miami-area "bunkers"—varieties of heavy marine fuel used by cruise ships and other large vessels.[126] Ships often require bunker on short notice and in large volumes.[127] As such, it is necessary for a bunker supplier to retain large storage tanks near the port.[128] The defendant had built itself bunker storage tanks on Fisher Island near the Port of Miami. But, for various reasons, there were no other suitable storage areas nearby. The plaintiff brought suit after the defendant refused to lease it tank space on Fisher Island.[129] Such an arrangement would have significantly enhanced the plaintiff's ability to compete in the local bunker market (the primary product market).[130]

In some primary-refusal cases, the plaintiff-rival's lawsuit is a transparent effort to "free ride" on the defendant's investments. For instance, in *Morris Communications Corp. v. PGA Tour, Inc.*, the defendant was the Professional Golfers' Association (PGA), which organizes and promotes golf tournaments among the world's leading golfers.[131] The PGA had developed a sophisticated system for tracking golfers' scores in real time.[132] The system used both computers and trained workers and allowed the PGA to publish live tournament scores online.[133] The plaintiff was a print and online media company.[134] It wanted to

124. When the rivals can interconnect at a lower cost, they can afford to charge lower prices for their own phone service, which diminishes the defendant's ability to charge high prices for its service.

125. In *Unigestion Holdings, S.A. v. UPM Technology, Inc.*, the plaintiff-rival figured out a way to resell the defendant's own cellular service by acquiring many SIM cards associated with the defendant's cellular network and using them to transmit calls over the internet. 412 F. Supp. 3d 1273, 1281 (D. Or. 2019). When the defendant took steps to prevent this, the plaintiff alleged an unlawful denial of access to an essential facility—the defendant's cellular network. *Id.* at 1282. This is a primary-refusal case for the same reason that *Trinko* was.

126. 717 F. Supp. 1528, 1529-30 (S.D. Fla. 1989).

127. *Id.*

128. *Id.*

129. *Id.*

130. The defendant claimed that it was already using its tanks at full capacity. *Id.* If true, this would suggest that the defendant's refusal was not anticompetitive, since the lease sought by the plaintiff would not have increased total output (and therefore would not bring the price level down).

131. Morris Commc'ns Corp. v. PGA Tour, Inc., 364 F.3d 1288 (11th Cir. 2004).

132. *Id.* at 1290.

133. *Id.*

134. *Id.*

be able to publish the live scores (for free) before even the PGA had a chance to do so, and also to sell them to third-party publishers not approved by the PGA[135] (note that these scores are not copyrightable).[136] This would have made the plaintiff the primary beneficiary of the defendant's investment in the score-tracking system. When the PGA refused, the plaintiff alleged an anticompetitive refusal to deal.[137]

The key distinctions between primary and secondary refusals are twofold. The first concerns the impact of antitrust intervention on the scope of the defendant's monopoly power. If imposing a duty to deal would extinguish the defendant's monopoly power over the primary product, then the case involves a primary refusal.

The second key distinction is that in a secondary-refusal case the rival seeks to compete using a product it developed on its own, but which happens to be difficult to commercialize effectively without the defendant's consent to deal. In most such cases, the dealings sought by the rival serve merely to facilitate distribution or marketing of the secondary product, or else to ensure its interoperability with the primary product. By contrast, in a primary-refusal case, the rival seeks to sell a product whose core technology was developed wholly or predominantly by the defendant.[138]

In most cases, a defendant's refusal can be classified as primary or secondary without much difficulty. A later Section discusses cases that may be difficult to classify, or where plaintiffs may attempt to mischaracterize a primary refusal as secondary.[139] It offers a set of concrete criteria that courts can use to resolve such difficulties in practice, analogous to the criteria courts use to identify tying arrangements.

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135. *Id.* at 1291-92.

136. *Id.* at 1292 n.6 (acknowledging this fact).

137. *Id.* at 1293-94. The court of appeals affirmed the lower court's grant of summary judgment for the Professional Golfers' Association (PGA). *Id.* at 1290.

138. A caveat, which is more common in regulated industries, is that the government may have funded the defendant's creation of the relevant input. Under these circumstances, imposing a duty to deal might not harm private incentives for investment. *See, e.g.*, Frischmann & Waller, *supra* note 19, at 32-34 (discussing this point).

139. *See infra* Section V.A.

III. THE TROUBLE WITH CURRENT LAW

Current law does not distinguish between primary and secondary refusals. The same precedents (e.g., *Aspen* and *Trinko*) are applied to both types of refusals. This indiscriminate treatment has led to fundamental problems with how antitrust law presently addresses unilateral refusals to deal.

A first set of problems concerns the law's application to primary-refusal cases. As explained below, primary refusals by dominant firms are routinely made for purely exclusionary reasons. This means that, at least with respect to primary refusals, the exclusion-based theory of liability is far too broad by default. A finding that a primary refusal is exclusionary does not imply that antitrust intervention is a good idea, given the adverse effects such a policy would have on incentives for investment.[140] But rather than addressing this problem by revising the operative theory of liability, courts have enacted suffocating proof requirements that bear little logical connection to the kind of exclusion that the law purports to condemn. The result is a doctrine teeming with pretext and inconsistencies.

A second set of problems relates to the law's application to secondary refusals. As an economic matter, the possible exclusion concerns raised by secondary refusals are substantially the same as those associated with tying arrangements and similar vertical restraints. As a result, the proof requirements applied to unilateral refusals (e.g., the profit sacrifice test) are utterly inapposite in secondary-refusal cases. Further, intervention in secondary-refusal cases does not raise the same concerns about investment or administrability.[141] Thus, there is no good reason why the courts' (often warranted) skepticism toward primary-refusal cases should extend to secondary refusals. This suggests that plaintiffs should be able to challenge secondary refusals under a distinct standard of liability—one that resembles the standards applied in vertical-restraint cases. But courts generally do not permit this. As a result, current law offers no viable options for challenging most secondary refusals.

A. *How Rare Are Exclusionary Refusals?*

Courts insist that unilateral refusals should be evaluated based on whether they are exclusionary,[142] just like most other practices challenged in monopolization cases. But they cannot possibly mean what they say, given their oft-stated

140. *See infra* Section IV.A.

141. *See infra* Sections IV.A-B.

142. *See, e.g.*, Illinois v. Panhandle E. Pipe Line Co., 935 F.2d 1469, 1482 (7th Cir. 1991) (suggesting that liability requires "a scheme designed to exclude competitors").

preference for a narrow duty to deal. Simple economic arguments show that primary refusals by dominant firms will routinely be profitable only because they exclude rivals. Thus, an exclusion-based standard is fundamentally incompatible with a narrow duty to deal – or at least it would be if the standard were faithfully applied. The takeaway is not that more primary-refusal cases should be condemned, but rather that an exclusion-based standard is not the right tool for the job.

Two profit-seeking firms will enter into a transaction voluntarily only if it will increase their joint profits. If this is so, then there will be a range of prices at which the deal would leave both firms better off. By contrast, a hypothetical deal that would reduce their joint profits cannot be mutually beneficial at any price, and hence will be refused. Dealings between a dominant firm and a smaller rival will routinely reduce their joint profits in situations where the deal would materially enhance the rival's ability to compete in the primary product market. That is, the new profits reaped by the rival are outweighed by the losses incurred by the dominant firm. In such cases, there is no price at which the deal would leave both firms better off, even in the short run.

This is an implication of the inverse relationship between competition and industry profits.[143] Competition is bad for profits; that's why firms often attempt to avoid or restrain it. As a result, a monopolist will almost never have an incentive to enter into a deal that would stimulate competition in its own market, even if the deal would be easy to carry out. This ultimately implies that primary refusals by dominant firms will routinely serve a purely exclusionary purpose: they would be irrational but for their propensity to forestall competition by excluding rivals.[144]

1. *Cournot Competition: An Illustration*

An easy way to illustrate the above points is to consider a simple model of Cournot competition, a model of oligopoly competition that is widely used in antitrust economics.[145] In the Appendix, I solve a Cournot model of a primary-refusal case, the results of which are reported here.

143. That is, as a market becomes more competitive, total profits generally decline. Therefore, when an entrant disrupts a monopoly, the profits he gains will be smaller than the monopolist's losses.

144. In terms of economic motive, this is no different from when a patent monopolist excludes would-be rivals by refusing to license any of them.

145. For an overview, see, for example, Andrew F. Daughety, *Cournot Competition*, *in* THE NEW PALGRAVE DICTIONARY OF ECONOMICS 301 (Steven N. Durlauf & Lawrence E. Blume eds., 2008).

The model considers the following scenario: there is a critical input that is necessary for the production of some primary product, which is sold directly to consumers. I assume that one unit of the input is needed to produce each unit of the product. The demand curve in the product market is assumed to be $P = 14 - Q$, where P is total (market-wide) output and Q is the market price for the product.[146] There are two firms: firm 1 and firm 2. Firm 1 (the defendant) is the only producer of the input. I assume that its marginal cost of producing the input is $c = 1$ per unit. Firm 1 also produces the primary product, which requires a separate fabrication cost of $k = 1$. Thus, firm 1's overall cost of producing the product is $c + k = 2$ per unit. On these numbers, if firm 1 were a monopolist in the product market, its total profits would be

$$\textit{Monopoly Profit}:\ \Pi^M = 36.$$

Firm 2 would like to enter the product market. To do this, it will have to acquire the input from firm 1 at some negotiated wholesale price, denoted w. If such a deal occurs, the two firms will engage in Cournot competition in the product market. In that event, I assume that firm 2's fabrication cost would be the same as that of firm 1, namely $k = 1$. Accordingly, firm 2's overall cost of producing the product will be $w + k = w + 1$ per unit. However, if the wholesale price becomes too high, firm 2 will not be able to make profitable sales, and the results will be no different than if firm 1 had simply refused to deal with firm 2. This is captured by a "choke price," denoted w^{choke}. The is the critical value of the wholesale price at which it becomes prohibitive in the sense that it exceeds firm 2's maximal willingness to pay. Thus, firm 2 will enter the market if $w < w^{choke}$, but otherwise firm 2 will stay out of the market and firm 1 will be a monopolist. In this model, one finds

$$\textit{Choke Price:}\ w^{choke} = 7.$$

Notice that the choke price is much larger than the cost of producing the input, which is $c = 1$. Therefore, it is clearly feasible for firm 1 to supply the input to firm 2 at a price that is both above cost and nonprohibitive.

The final important term is the total profits that the firms would earn if they were both active in the product market.[147] These joint profits are denoted $\Pi^D(w)$.[148] These profits depend on the wholesale price level, w. When w is

146. As the Appendix shows, the key results do not depend on the specific numbers assigned to the model's parameters. Here I am assigning simple numbers that make the results easy to read.

147. This includes the profits earned in both the upstream and downstream markets.

148. The superscript D stands for "duopoly."

higher, firm 2 will be at a greater cost disadvantage relative to firm 1; it will produce fewer units and will obtain a smaller market share. This leaves the market less competitive, which affects total profits. For our purposes, what matters is not the bare value of $\Pi^D(w)$ but how it compares to the monopoly profit level, $\Pi^M = 36$. For input sales to firm 2 to be mutually beneficial, a necessary requirement is that there is a price w that would satisfy the following condition:

$$\textit{Joint-Profits Increase: } \Pi^D(w) \geq \Pi^M = 36.$$

In words, the wholesale arrangement must generate more total profits than monopoly. Any price w that fails to do so would be refused by one party or the other. The key result is that there does not exist any (nonprohibitive) price level that would satisfy this condition. This is reflected in Figure 1 below, which reports the joint profits associated with wholesale price levels ranging from $w = c = 1$ up to the choke price $w^{choke} = 7$. Figure 1 also reports the corresponding levels of each firm's output and the market price (P) of the final product.[149]

FIGURE 1. COURNOT EQUILIBRIA AT DIFFERENT WHOLESALE PRICES

WHOLESALE PRICE, w	TOTAL PROFITS, $\Pi^D(w)$	FIRM 1'S OUTPUT	FIRM 2'S OUTPUT	MARKET PRICE, P
1 (= c)	32	4	4	6
2	33.22	4.33	3.33	6.33
3	34.22	4.67	2.67	6.67
4	35	5	2	7
5	35.56	5.33	1.33	7.33
6	35.89	5.67	.67	7.67
7 (= w^{choke})	36 (= Π^M)	6	0	8

As Figure 1 shows, as the wholesale price rises, the product market becomes less competitive: total output falls, the market price rises, and joint profits increase.[150] Crucially, for any nonprohibitive price ($w < w^{choke}$), the resulting joint-profits are strictly lower than the monopoly profit ($\Pi^D(w) < \Pi^M = 36$). For that reason, it is impossible for input sales to be mutually beneficial at any

149. The quantity of input sales made to firm 2 is simply equal to firm 2's downstream output, since each unit of the downstream good requires one unit of the input.

150. Of course, firm 2's profits are decreasing in w, since firm 2's costs necessarily rise with w. But, because an increase in wholesale price lessens competition, it benefits firm 1 more than it harms firm 2.

price. It simply is not profitable to replace monopoly with competition. As such, even firm 2's best offer would be refused.

However, as already noted, firm 2 could easily pay firm 1 more than enough to cover the costs of supplying them with the input. Therefore, the impetus for firm 1's refusal is purely exclusionary: it would be irrational but for its effect in suppressing firm 2's ability to compete. To reinforce this point, the Appendix shows that if some hypothetical noncompetitors had the same demand for the input as firm 2, then firm 1 would gladly sell it to them, and it would charge them a wholesale price of $w = 4$. Hence, its refusal to offer the same price (or any nonprohibitive price) to firm 2 is driven entirely by the value of exclusion.

Note that there is no short-term profit sacrifice by firm 1.[151] Even in the short run, it would not benefit from dealing with firm 2, for such dealings would be less lucrative than exclusion. This illustrates the aforementioned fact that exclusionary conduct need not entail a sacrifice of short-run profits.[152] Indeed, that is generally the case with exclusionary strategies that involve raising rivals' costs,[153] which is effectively what firm 1 is doing by refusing to accept anything less than a prohibitive wholesale price.

2. *Feasibility Considerations*

In a primary-refusal case, the relevant dealings could be infeasible in the sense that the cost of accommodating the rival exceeds the value provided to them. This is a possible nonexclusionary explanation for a refusal to deal with rivals. And it implies that compulsory dealing would not have significant procompetitive effects. However, absent specific evidence of infeasibility, there is no reason to presume it. By contrast, in a case involving a primary refusal by a dominant defendant, we have good reason to presume the opposite, exclusionary motive, because of the inverse relationship between competition and profits. By analogy, when a patent monopolist refuses to license would-be competitors, we infer that it does so in order to protect monopoly profits by excluding rivals—

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151. Indeed, this is a model of static (short-run only) competition, so the results imply that the defendant's refusal is profitable right away.

152. *See supra* Section I.B.1.

153. *See, e.g.*, Krattenmaker & Salop, *supra* note 83, at 224, 230-42 (discussing exclusionary practices that raise rivals' costs).

not because it would be infeasible to confer a license.[154] This is why patent monopolists do not usually license prospective competitors.[155]

Moreover, in contrast to the Supreme Court's suggestion in *Trinko*,[156] that the defendant has not previously sold the relevant input to anyone does not support an inference that such dealings must be infeasible. Absent specific evidence of infeasibility, the most likely explanation remains that the only interested buyers of the input are prospective competitors in the primary product market.[157] In that case, the defendant would likely refuse the lot of them, regardless of whether dealing would be feasible.

3. *Avoiding Circularity Problems*

In assessing competitive effects, we must compare the actual state of the world to the counterfactual "but-for world" in which the defendant had agreed to deal with rivals. However, we must be careful not to make assumptions about the but-for world that are inconsistent with the imposition of a duty to deal. Otherwise the analysis quickly becomes circular.

To illustrate, suppose we assume that the dominant firm could insist upon any price it likes in counterfactual negotiations. Then, by stipulating a prohibitively high price, the firm could maintain its monopoly without expressly refusing to deal. If we take this to be the relevant but-for scenario, then a refusal would not appear anticompetitive by comparison. But this argument is clearly circular: whether the defendant can lawfully demand a prohibitive price depends on whether it has a duty to deal.[158]

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154. That the patent almost surely immunizes such a refusal does not undermine the veracity of this statement. The patent owner's refusal is lawful not because it is nonexclusionary, but because the patent confers a legal right to exclude.

155. Assuming the patent is strong (likely valid), the patentee would only license someone for the purpose of taking over a task (e.g., manufacturing) that the patentee would otherwise do itself. But this is not the same as licensing prospective competitors. Such a license does not stimulate competition; it merely reallocates certain operations from one firm to another.

156. Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 410 (2004) (suggesting that one cannot infer an exclusionary motive for a refusal if "the services allegedly withheld are not otherwise marketed or available to the public").

157. This is likely to be the case when the only valuable use of the input is to facilitate production of the primary product.

158. As the courts recognize, demanding a prohibitively high price is equivalent to an explicit refusal. *See supra* note 120. Therefore, such a demand is lawful only if there is no duty to deal. Pac. Bell Tel. Co. v. Linkline Commc'ns, Inc., 555 U.S. 438, 450 (2009) ("[I]f a firm has no antitrust duty to deal with its competitors at wholesale, it certainly has no duty to deal under terms and conditions that the rivals find commercially advantageous.").

Alternatively, suppose we assume that the dominant firm could insist on whatever contractual restraints it likes in a counterfactual agreement with the rival. For example, the contract might cap the rival's sales or regulate what price it can set. Under such an arrangement, it would no longer be meaningful to describe the two firms as "competitors." Much like a parent company and its subsidiary, the dominant firm could completely control the behavior of its so-called rival.[159] By comparison to this arrangement, a refusal would not appear anticompetitive since both options forestall competition, albeit in different ways.[160]

But once again the analysis is circular. Whether the defendant can lawfully eliminate competition using contractual restraints depends on whether it has an underlying duty to deal. If there is no such duty, then even a highly restrictive agreement might be justified on the ground that it is no worse than an outright refusal, and the refusal would be lawful. But if a court determines that a duty to deal is warranted, then the intended result of that decision is bona fide competition. In that case, using horizontal restraints to eliminate competition would constitute unlawful collusion.[161]

To summarize, when considering how a refusal affects competition relative to a counterfactual agreement, the latter benchmark must not presuppose any hypothetical conduct that would contravene a duty to deal. This can be avoided by reframing the question as whether a court's imposition of a duty to deal could be expected to increase competition, given the constraints this would place on the defendant's conduct.

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159. *See* Dennis W. Carlton, *A General Analysis of Exclusionary Conduct and Refusal to Deal—Why* Aspen *and* Kodak *Are Misguided*, 68 ANTITRUST L.J. 659, 666 (2001) (noting that apparent competition "is illusionary" if the dominant firm can "use any contractual mechanism it wants" to restrain the other firm's behavior).

160. If such restraints were lawful but the defendant nevertheless refused to deal, this would likely indicate that it would be more efficient (e.g., in terms of production costs) for the dominant firm to do all production itself, rather than to split production between itself and the other firm.

161. For example, *Trinko* asserted that, if antitrust compels two firms to deal, any subsequent collusion between them would be a "supreme evil." *Trinko*, 540 U.S. at 408. The Court was concerned that, by bringing two competitors into a contractual relationship, a duty to deal would inadvertently facilitate unlawful collusion; in the Court's view, this undermined the case for imposing such a duty. *Id*. This is a weak rationale for keeping the duty to deal narrow. First, it is undisputed that contractual arrangements between competitors are often procompetitive, provided they do not impose unreasonable restraints on competitive behavior. Presumably the Court did not mean to challenge its prior conclusions to that effect. Second, antitrust does not cease to exist after a duty to deal is imposed; if the firms go on to engage in collusion, then they invite antitrust liability, just like any other colluding firms. Third, if the defendant's rival would not exist but for their dealings, then even the most extreme forms of collusion could be no worse than an outright refusal. Therefore, even if the probability of collusion were unusually high, competition will still increase in expectation.

4. *When Do Exclusionary Refusals Sacrifice Profits?*

Although exclusionary refusals will often be profitable straightaway, this is not categorically true. The exceptions require comparatively specialized facts, however.

To illustrate, suppose that the dominant firm and the plaintiff-rival are not yet close competitors. For instance, it could be that the plaintiff currently sells a product that only a small portion of consumers regard as a substitute for the defendant's primary product. Under these conditions, input sales to the plaintiff may very well be profitable, at least initially.[162] However, the defendant might fear that the rival will eventually become a more direct competitive threat, perhaps by updating its product in a way that competes directly with the defendant's product. It might be possible for the defendant to eliminate this looming threat—or at least to delay it—by refusing to supply the plaintiff in the interim. As a result, the defendant might refuse to deal with the plaintiff even though the deal would have been profitable in the short run.[163]

Accordingly, there are two possible types of exclusionary refusals: (1) those that are profitable straightaway because the refused deal would have immediately invigorated interparty competition and (2) those that sacrifice profits in the short run, but increase expected long-run profits by forestalling a potential increase in *future* competition.[164]

That both of these options are possible is worth emphasizing because courts often erroneously presume that all types of exclusionary practices necessarily involve profit sacrificing.[165] This fallacy almost certainly arises because exclusion is frequently associated with predatory pricing.[166] But predation is just one category of exclusionary conduct, and it works very differently from most unilateral refusals. By definition, predatory pricing involves hyperintense competition in the short term. Since intense competition is unprofitable, this entails a sacrifice of short-run profits. But exclusionary refusals do not involve competition becoming more intense in the short run—quite the opposite.

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162. Of course, if dealing is expected to remain profitable indefinitely, then the firms will do so voluntarily, and no antitrust dispute will arise.

163. *See, e.g.*, Carlton, *supra* note 159, at 668-71 (advancing this kind of claim).

164. These arguments apply to both primary and secondary refusals. As noted below, secondary refusals similarly need not sacrifice profits in order to be exclusionary. *See infra* Section III.B.

165. For example, in *Aspen*, the Supreme Court erroneously suggested that "exclusion" and "predation" are synonyms. Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 602-03 (1985).

166. *See supra* note 77.

5. *The Sacrifice Test Belies the Exclusion Standard*

As noted above, most courts require a refusal-to-deal plaintiff to prove that the defendant sacrificed short-term profits.[167] If, as these courts suggest, this is necessary as a means of erring on the side of caution, then presumably it should act to limit liability to those cases where the exclusionary effects are particularly pronounced and certain, while withholding liability in cases where they are comparatively speculative or remote. After all, under an exclusion-based standard, it is exclusionary effects that supposedly distinguish unlawful refusals from lawful ones.

In fact, making a profit sacrifice into a rigid proof requirement has exactly the opposite effect. All else being equal, the exclusionary effects of a refusal to deal will tend to be comparatively remote and speculative where the refusal entails a short-term profit sacrifice.[168] In these cases, the relevant dealings would have been initially profitable because they would not immediately invigorate interparty competition. But the defendant nevertheless refuses to deal in order to forestall a potential increase in *future* competition.[169] This suggests that any resulting exclusionary effects are more speculative and remote, as their existence hinges on how market conditions would have evolved over time but for the defendant's refusal—an inquiry often fraught with uncertainty.[170]

By contrast, when an exclusionary refusal is profitable straightaway, it is because the deal would have immediately invigorated interparty competition. The exclusionary effects—the deadweight losses associated with foregone competition—can then be inferred much more reliably, for we need not speculate about how market conditions might change far into the future. Thus, nonsensically, the cases involving the most certain and acute exclusionary effects are the least capable of satisfying existing proof requirements.[171] Existing proof requirements

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167. *See supra* Section I.B.1.

168. The magnitude of the exclusionary effects is reflected in the welfare losses resulting from diminished competition.

169. *See supra* notes 162-164 and accompanying text (discussing this possibility).

170. This is very similar to the problem of evaluating acquisitions of startup companies by dominant incumbents. In many such cases, the startup is not yet a direct competitor of the incumbent, but there is a concern that it might grow into one in the future. As a result, evaluating the merger's competitive effect is more speculative than in a traditional merger case between two established competitors. *See, e.g.*, Kevin A. Bryan & Erik Hovenkamp, *Startup Acquisitions, Error Costs, and Antitrust Policy*, 87 U. CHI. L. REV. 331, 347 (2020).

171. For the same reasons, it makes little sense to demand evidence that the defendant terminated a prior course of voluntary dealings with the plaintiff-rival, as occurred in *Aspen*. Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585, 603-05 (1985). The refusals generating the most pronounced exclusionary effects correspond to dealings that would never be taken up voluntarily in the first place.

therefore bear little logical connection to the exclusion that the law purports to condemn.[172]

B. *Exclusion in Secondary-Refusal Cases*

Secondary refusals typically affect competition in a way that is very similar to tying or related vertical restraints. In a conventional tying case, a defendant has monopoly power over some primary product; it then ties that good to a complementary secondary product. Unlike the primary product, competitors are already capable of offering competing versions of the secondary product.[173] The most common theory of harm in a tying case is that the tie serves to exploit (or "leverage") the defendant's monopoly over the primary product to undermine competition in the secondary product.[174] It does this by allegedly foreclosing rivals in the secondary-product market—that is, by impairing their ability to make sales, even if they happen to be offering a higher-quality product or a lower price. This result is possible where consumers are dependent upon the defendant to obtain the primary product, in which case the threat of not getting it may induce them to buy the secondary good from the defendant even if they would have preferred to buy it from someone else. A second, less common theory of harm is that the tie may facilitate monopoly maintenance in the primary product market.[175]

The relief sought by the plaintiff in a tying case is an injunction that breaks up the tie, thus allowing consumers to buy the primary and secondary goods from separate providers. Note, however, that this remedy does not eliminate the defendant's preexisting monopoly over the primary product. In a typical case, the plaintiff does not allege that that monopoly was obtained improperly; rather,

172. Many authors have offered their own critiques of the profit-sacrifice test. *See, e.g.*, Elhauge, *supra* note 75, at 268-94; Werden, *supra* note 79, at 424-25; Steven C. Salop, *Exclusionary Conduct, Effect on Consumers, and the Flawed Profit-Sacrifice Standard*, 73 ANTITRUST L.J. 311, 357-67 (2006).

173. Often the primary and secondary goods are described as the "tying" and "tied" products, respectively.

174. *See, e.g.*, Michael D. Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 837 (1990); Jay Pil Choi & Christodoulos Stefanadis, *Tying, Investment, and the Dynamic Leverage Theory*, 32 RAND J. ECON. 52, 54-55 (2001); Herbert Hovenkamp & Erik Hovenkamp, *Tying Arrangements*, *in* 2 THE OXFORD HANDBOOK OF INTERNATIONAL ANTITRUST ECONOMICS § 14.4.1 (Roger D. Blair & D. Daniel Sokol eds., 2014); Dennis W. Carlton & Michael Waldman, *The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries*, 33 RAND J. ECON. 194, 194-97 (2002).

175. That is, the tie may forestall competitive entry in the primary product market. *See, e.g.*, Hovenkamp & Hovenkamp, *supra* note 174, § 14.4.2. This was the theory of harm in the section 2 claim in *United States v. Microsoft Corp.*, 253 F.3d 34, 55 (D.C. Cir. 2001).

she alleges that it has been exploited to anticompetitive ends in a separate market.

In a secondary-refusal case, the defendant may similarly exclude competing sellers of the secondary product by refusing to let them interconnect with its input technology. And here, too, the desired remedy (compulsory dealing) would not eliminate the defendant's monopoly over the primary product. It would only clear a path for competition over the secondary product.

For example, suppose that Microsoft rewrites its Windows operating system code to make all word-processing applications (other than Microsoft Word) inoperable on Windows. Unlike a literal tie, this does not involve any vertical agreements. But it may nevertheless leverage Microsoft's monopoly over PC operating systems (the primary market) to distort competition in the market for PC word-processing applications. Like an anticompetitive tie, this may foreclose secondary-market rivals from a large portion of the consumer base, undermining their ability to compete even if they offer a higher-quality product or a lower price.

Importantly, there is nothing in the economics of tying that suggests that anticompetitive ties necessitate a sacrifice of short-term profits.[176] This suggests that the profit-sacrifice requirement is just as inapposite in secondary-refusal cases as it is in primary ones.

1. *Possible Nonexclusionary Motivations*

It is generally harder to infer an exclusionary purpose for a secondary refusal than for a primary one. This is because tying can be used for various reasonable or benign purposes.[177] For instance, one often benign motivation for tying is a form of price discrimination known as "metering" that lets firms sell to both low- and high-intensity users profitably.[178] This is frequently used for a pair of complementary goods used in variable proportions, such as a shaver and blades.[179]

For example, suppose a defendant has a monopoly over printers. It also sells ink cartridges, which use a patented container. This prevents competitors from

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176. *See, e.g.*, Christopher R. Leslie, *Cutting Through Tying Theory with Occam's Razor: A Simple Explanation of Tying Arrangements*, 78 TUL. L. REV. 727, 769-70 (2004).

177. However, as noted later, some of the common explanations for conventional ties (e.g., reducing transaction costs) are unlikely to apply in secondary-refusal cases. But, similarly, there are some possible justifications for secondary refusals that do not come up in ordinary tying cases. *See infra* Section V.D.

178. Erik Hovenkamp & Herbert Hovenkamp, *Tying Arrangements and Antitrust Harm*, 52 ARIZ. L. REV. 925, 942-45 (2010).

179. *See, e.g.*, Richard Schmalense, *Monopolistic Two-Part Pricing Arrangements*, 12 BELL J. ECON. 445, 445-48 (1981); Hovenkamp & Hovenkamp, *supra* note 178, at 928.

offering compatible ink cartridges. In this kind of tying arrangement, the defendant will usually sell the printer at a low price (perhaps even below cost) and earn all its profits on the ink cartridge, which is sold at a high markup. This is a price-discrimination strategy intended to let the defendant make profitable sales to both low-intensity users (the ones who do not plan to print much) and high-intensity users. This kind of tie can be profitable even absent significant monopoly power and is not necessarily anticompetitive, as it may benefit low-intensity users by more than it harms high-intensity users.[180]

In fact, Apple has raised a defense along these lines in its antitrust dispute with Epic.[181] The argument can be summarized as follows. Apple earns profits not only from the initial sale of an iPhone, but also from app purchases the buyer makes over the life of the phone. Suppose the latter purchases give Apple an average profit of $100 per iPhone buyer. From Apple's perspective, this is just like receiving a $100 subsidy on its iPhone sales. This will change Apple's profit-maximization calculus, inducing it to offer a lower price for the iPhone in order to sell more units. Thus, if Apple were no longer able to earn significant profits on app sales (as might occur if rival app stores become available), then the subsidy vanishes and Apple will have an incentive to raise the price of its iPhone. If this argument is correct (which Epic disputes), then antitrust intervention might not end up benefitting iPhone customers overall.

2. *Challenging Refusals as Ties?*

If a secondary refusal acts substantially the same as a tie, can a plaintiff just bring a tying claim rather than a refusal-to-deal claim? That would avoid the judicial skepticism toward unilateral-refusal claims. However, courts reject such claims, although their reasoning is mostly arbitrary and formalistic. The exceptions are cases that happen to involve both a tie-like vertical agreement (between the defendant and its customers) *and* a refusal to deal with rivals.[182]

Most ties are challenged under one of two antitrust statutes. The first is section 1 of the Sherman Act,[183] which condemns any "contract, combina-

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180. *Id.* at 944.

181. *See* Defendant and Counterclaimant Apple Inc.'s Answer, Defenses, and Counterclaims in Reply to Epic Games, Inc.'s Complaint for Injunctive Relief at 5, Epic Games, Inc. v. Apple Inc., 493 F. Supp. 3d 817 (N.D. Cal. Sept. 8, 2020) (No. 4:20-cv-05640-YGR).

182. For example, Epic Games alleged both of these things in its recent suit against Apple. *See* Complaint for Injunctive Relief, *supra* note 17, at 48-50 (alleging both denial of access to an essential facility and unlawful tying).

183. 15 U.S.C. § 1 (2018).

tion, . . . or conspiracy" that unreasonably restrains trade. The second is section 3 of the Clayton Act,[184] which prohibits a seller from conditioning a sale on an "agreement, or understanding" that the buyer will not deal with the seller's competitors, where the effect of such conditioning is to harm competition. The language of section 1 is plain that it applies to *agreements*—that is, concerted action among two or more parties.[185] Thus, a section 1 tie requires a vertical agreement between the defendant and its customer(s).[186] Section 3 of the Clayton Act has been interpreted similarly.[187] These statutes therefore do not apply to purely unilateral conduct.[188] Thus, when a dominant firm unilaterally refuses to deal with a rival, an attempt to challenge this as a section 1 tie will generally fail.[189]

This leads to arbitrary distinctions about what kinds of conduct count as a tie. Consider two cases that illustrate this problem. First, in *Eastman Kodak Co. v. Image Technology Services, Inc.*, the defendant sold copy machines, as well as aftermarket parts and repair services for those machines.[190] It refused (unconditionally) to supply its repair parts to competing providers of repair services.[191] Additionally, it sold repair parts to its copy-machine customers, but only on the condition that they would buy any necessary repair services from the defendant.[192] Because the practical consequence of this course of conduct was to compel

184. 15 U.S.C. § 14 (2018).

185. The agreement need not be express, however.

186. For a discussion of the agreement requirement, see generally Louis Kaplow, *The Meaning of Vertical Agreement and the Structure of Competition Law*, 80 ANTITRUST L.J. 563 (2016).

187. *See, e.g.*, Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 24 n.39 (1984) ("[W]ith respect to the definition of tying the standards used by the two statutes are the same."); McElhenney Co. v. W. Auto Supply Co., 269 F.2d 332, 337 (4th Cir. 1959) ("Neither in terms nor inferentially does [section 3 of the Clayton Act] prohibit a unilateral refusal to sell."); Nelson Radio & Supply Co. v. Motorola, Inc., 200 F.2d 911, 915 (5th Cir. 1952) ("There is nothing whatever in [section 3 of] the [Clayton] Act to suggest that it covers a situation where the manufacturer refuses to make a sale or enter into a contract . . . .").

188. This Article takes it as given that the defendant's conduct is indeed unilateral. In some section 1 cases, a plaintiff can establish that the defendant's interactions with its customer(s) were sufficient to create a (nonexpress) vertical agreement, in which case the defendant's conduct was not truly unilateral. *See, e.g.*, Monsanto Co. v. Spray-Rite Serv. Corp., 465 U.S. 752, 765-68 (1984). I will not be considering that possibility here.

189. *See, e.g.*, Cent. Chem. Corp. v. Agrico Chem. Co., 531 F. Supp. 533, 543 (D. Md. 1982) (holding that there is no liability under section 1 of the Sherman Act or section 3 of the Clayton Act unless the anticompetitive effects stem from an executed agreement and that refusal to deal is a distinct cause of action); Unibrand Tire & Prod. Co. v. Armstrong Rubber Co., 429 F. Supp. 470, 474 (W.D.N.Y. 1977) (similar).

190. 504 U.S. 451 (1992).

191. *Id.* at 458.

192. *Id.* at 463.

the copy-machine buyers to use the defendant's repair services as well, the Supreme Court held that the plaintiff could bring a tying claim.[193]

Second, in *Triad Systems Corp. v. Southeastern Express Co.*, the facts were very similar to *Kodak*.[194] The defendant supplied a primary product as well as aftermarket repair services, and it refused to supply aftermarket parts to rival service providers. But in *Triad*, the defendant did not sell aftermarket parts directly to customers (and hence did not engage in any conditional dealings with them). Thus, this case involved a secondary refusal without more. Nevertheless, the refusal to supply rival service providers with necessary parts was sufficient to prevent the defendant's customers from dealing with any such rivals. Although the defendant's conduct effectuated a de facto tie, just as in *Kodak*, in *Triad* the tying claim was deemed invalid because, unlike *Kodak*, there were no tie-like conditional dealings with customers.[195]

Regardless of what one thinks about the merits of these cases, it makes little sense to suggest that one of them should count as a tying case while the other should not.[196] Unfortunately, however, this kind of arbitrary line drawing is entrenched in U.S. tying law.[197] For the same reasons, a "tech tie" is generally not challengeable under section 1 of the Sherman Act or section 3 of the Clayton Act.[198] Because tech ties boil down to a choice of product design, they are generally held to be purely unilateral conduct.

What about section 2 of the Sherman Act? Unlike section 1, all types of exclusionary conduct are within reach of section 2, which proscribes monopolization—acquiring or maintaining monopoly power through anticompetitive conduct. Notably, section 2 does not require an agreement. Thus, it is generally a plaintiff's only viable option for challenging unilateral conduct.

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193. *Id.* at 463 n.8. However, on remand, the plaintiff dropped the tying claim but maintained a monopoly-leveraging claim under section 2 of the Sherman Act. *See* Image Tech. Servs., Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1201 (9th Cir. 1997).

194. Triad Systems Corp. v. Southeastern Express Co., No. C921539-FMS, 1994 WL 446049 (N.D. Cal. Mar. 18, 1994).

195. *Id.* at *14-16.

196. *See* Steven C. Salop, *Refusals to Deal and Price Squeezes by an Unregulated, Vertically Integrated Monopolist*, 76 ANTITRUST L.J. 709, 739-40 (2010) (making a similar point).

197. *See* Christopher R. Leslie, *Unilaterally Imposed Tying Arrangements and Antitrust's Concerted Action Requirement*, 60 OHIO ST. L.J. 1773 (1999) (discussing and criticizing the concerted-action requirement in tying law).

198. This refers to a tie effectuated by designing a primary product so that it is not compatible with competing versions of the secondary good. An example is a Schick shaver and its associated blades.

Plaintiffs do sometimes challenge tying arrangements under section 2.[199] However, there are some significant limitations that make it difficult to challenge a secondary refusal as a tie under section 2. For one thing, the plaintiff will have to prove not merely that the defendant's conduct resulted in *some* exclusion in the secondary-product market, but that it has *monopolized* that market (or dangerously threatens to do so).[200] In other words, unless the defendant's tie is sufficiently anticompetitive to generate a second monopoly, it will not be challengeable under section 2.[201]

Moreover, section 2 tying cases generally involve conditioned sales between the defendant and its customers.[202] I am not aware of any section 2 case involving an unconditional refusal to deal with rivals—without more—in which the court evaluated the refusal as a tying arrangement rather than as a refusal to deal. Such a tying claim is likely to be rejected, as a court is likely to view it as an attempt to circumvent *Aspen*, *Trinko*, and other important precedents on unilateral refusals to deal with competitors. Indeed, this is precisely what the district court concluded in its dismissal of the Federal Trade Commission's recent complaint against Facebook.[203]

A caveat is that some unilateral-refusal cases have been challenged as "monopoly leveraging," which is a distinct term of art with its own body of section 2 case law.[204] A monopoly-leveraging claim asserts that a "defendant who enjoys monopoly power in one market . . . uses such monopoly power to gain unfair advantage in a second market, causing antitrust injury in the second market."[205]

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199. *See, e.g.*, Viamedia, Inc. v. Comcast Corp., 951 F.3d 429, 466-74 (7th Cir. 2020) (evaluating a section 2 tying claim).

200. *See* Spectrum Sports, Inc. v. McQuillan, 506 U.S. 447, 459 (1993) ("[Section] 2 makes the conduct of a single firm unlawful only when it actually monopolizes or dangerously threatens to do so.").

201. *See, e.g.*, Leslie, *supra* note 197, at 1844 (explaining that courts will not find section 2 liability absent a "risk of monopolization in the [secondary] market").

202. For example, this was the case in *Viamedia* and *Microsoft*, both of which evaluated tying arrangements under section 2. *See Viamedia*, 951 F.3d at 468; United States v. Microsoft Corp., 253 F.3d 34, 50-80 (D.C. Cir. 2001) (notwithstanding that in *Microsoft* there was also a section 1 tying claim which centered on the same set of facts). There is overlap between these conditional sales and "conditional refusals" to deal with noncompetitors, which are discussed in a later section. *See infra* Section IV.C.3.

203. Fed. Trade Comm'n v. Facebook, Inc., No. 1:20-cv-03590 (JEB), 2021 WL 2643627, at *23 (D.D.C. June 28, 2021) ("'[C]onditional dealing' schemes are thus categorically different from unilateral conduct that involves only the monopolist's competitors, such as its refusal to deal with them.").

204. *See, e.g.*, Louis Kaplow, *Extension of Monopoly Power Through Leverage,* 85 COLUM. L. REV. 515, 516-17 (1985).

205. Bepco, Inc. v. Allied-Signal, Inc., 106 F. Supp. 2d 814, 833 (M.D.N.C. 2000).

Many claims arising under this doctrine are really just tying claims by another name.[206] For example, in *Kodak*, the plaintiff dropped its tying claim on remand and instead pursued a monopoly-leveraging claim based on the same facts.[207] Additionally, some leveraging cases have centered on tech ties.[208] Depending on the facts, a tech tie might be characterized as a secondary refusal to deal with rival sellers of the secondary product.[209]

In recent decades, however, monopoly leveraging doctrine has been explicitly abandoned in most circuits.[210] Hence, this too is an unpromising option for challenging secondary refusals as ties. Indeed, based on the foregoing analysis, there does not seem to be any promising option under current law, unless the case happens to involve tie-like vertical dealings in addition to a secondary refusal.[211] Instead, cases involving secondary refusals, without more, are evaluated as refusals to deal.[212] In some such cases, the plaintiff attempts to raise an additional claim for tying or similar conduct, but those claims are generally rejected as inapplicable.[213]

Finally, it is worth noting that almost all of the significant precedents just discussed came from circuit and district courts. To my knowledge, there is no

206. *See, e.g.*, Kaplow, *supra* note 204, at 515 ("The most common application of the leverage hypothesis involves tying . . . .").

207. Image Tech. Servs., Inc. v. Eastman Kodak Co., 125 F.3d 1195, 1201 (9th Cir. 1997).

208. For example, in *C.R. Bard*, the defendant redesigned its biopsy gun (which must be used in conjunction with needles) so that it would be compatible only with needles made by the defendant. C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1367 (Fed. Cir. 1998). The plaintiff, a competing needle producer, accused the defendant of leveraging its monopoly in the biopsy-gun market to harm competition in the needle market. *Id.* at 1369.

209. A tech tie may operate similarly to the hypo, *supra* text accompanying notes 106-108, in which a game-console monopolist refuses to let competing baseball games run on its console.

210. *See, e.g.*, Joseph Kattan, *The Decline of the Monopoly Leveraging Doctrine*, 9 ANTITRUST 41, 41 (1994) (explaining that most circuits no longer recognize monopoly leveraging as an independent cause of action under section 2).

211. This was the case in *Viamedia*, which involved both a secondary refusal to deal (with the plaintiff-rival) and tie-like conditioning in vertical dealings between the defendant and its customers. *See* Viamedia, Inc. v. Comcast Corp., 951 F.3d 429 (7th Cir. 2020). *Epic v. Apple* similarly involved vertical agreements in addition to Apple's refusal to allow rival-made app stores or payment systems on the iPhone. *See supra* note 182 and accompanying text.

212. For example, this was the case with the *Novell* and *3Shape* decisions, discussed *supra* notes 108-119 and accompanying text. *See* Novell, Inc. v. Microsoft Corp., 731 F.3d 1064 (10th Cir. 2013); 3Shape Trios A/S v. Align Tech., Inc., No. 1:18-cv-01332-LPS, 2019 WL 3824209 (D. Del. Aug. 15, 2019), *report and recommendation adopted*, No. 1:18-cv-01332-LPS (D. Del. Sept. 26, 2019).

213. *See, e.g.*, Aerotec Int'l, Inc. v. Honeywell Int'l, Inc., 836 F.3d 1171, 1179 (9th Cir. 2016) (rejecting the plaintiff's tying claim); Servicetrends, Inc. v. Siemens Med. Sys., Inc., 870 F. Supp. 1042, 1061 (N.D. Ga. 1994) (same); Alaska Airlines, Inc. v. United Airlines, Inc., 948 F.2d 536, 547 (9th Cir. 1991) (rejecting the plaintiff's monopoly-leveraging claim).

Supreme Court decision indicating that a unilateral refusal to deal with a rival (without more) can never be challenged as a de facto tie under section 2, even if it raises substantially the same theory of harm as conventional tying.[214] In other words, no Supreme Court precedent expressly conflicts with this Article's proposal that primary and secondary refusals be evaluated under different standards.

IV. A BETTER APPROACH

The most important economic reason for avoiding an overbroad duty to deal is that it would chill incentives for investment in the creation of valuable technologies.[215] That is, although condemning traditional forms of exclusionary conduct will virtually always bolster incentives for investment, imposing a widespread duty to deal may harm them.[216] A subordinate but still important reason for limiting liability centers on administrability concerns. Courts have limited ability to design and enforce compulsory agreements, particularly when they are technical or idiosyncratic.[217]

Courts have acknowledged the importance of both concerns.[218] However, such acknowledgment has always been limited to dicta—rationales for erring strongly on the side of nonliability in assessing whether a refusal is exclusionary.

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214. The Court has not said much one way or the other on this point. Its most relevant comment is likely a footnote in *Kodak* remarking that

> Kodak contends that [its] practice is only a unilateral refusal to deal, which does not violate the antitrust laws. . . . Assuming, *arguendo*, that Kodak's refusal to sell parts to [rivals] can be characterized as a unilateral refusal to deal, its alleged sale of parts to third parties on condition that they buy service from Kodak is not.

Eastman Kodak Co. v. Image Tech. Servs., Inc., 504 U.S. 451, 463 n.8 (1992). Here, the Court does not stipulate that a unilateral refusal can never be challenged as a de facto tie. It merely holds that certain aspects of Kodak's conduct constituted (express) tying, not a unilateral refusal to deal.

215. There are countless academic articles making this point. *See, e.g.*, Howard A. Shelanski, *Unilateral Refusals to Deal in Intellectual and Other Property*, 76 ANTITRUST L.J. 369, 380 (2009); Vickers, *supra* note 7, at 375; Thomas F. Cotter, *The Essential Facilities Doctrine*, *in* ANTITRUST LAW AND ECONOMICS 157, 169 (Keith N. Hylton ed., 2008).

216. *See infra* Section IV.A.

217. *See infra* Section IV.B.1.

218. For example, in *Trinko*, the Supreme Court stated:

> Compelling such firms to share the source of their advantage . . . may lessen the incentive . . . to invest in those economically beneficial facilities. Enforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited.

Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407-08 (2004).

That is, the operative standards of liability do not attempt to account for investment or administrability concerns. Consequently, they are substantially overbroad by default, as shown above.[219] Courts have attempted to compensate for this by enacting hyperstringent proof requirements, such as the requirement that defendants sacrifice short-run profits by terminating a prior course of dealing with rivals. It is these rules that do all the work in practice. The result is that the scope of liability is indeed narrow, but it is narrowed along arbitrary lines, leading meritorious cases to be rejected alongside frivolous ones.

Here, I offer a two-part proposal designed to correct the major problems discussed above. It involves subjecting primary and secondary refusals to different standards of liability.

First, primary refusals should generally be presumptively lawful, even when motivated by exclusion—that is, liability should no longer hinge on exclusionary intent.[220] This is because the propriety of intervention hinges on a complex IP-like tradeoff between competition and investment, and, for a number of reasons, antitrust is not well equipped to administer this tradeoff effectively. However, this presumptive immunity can be overridden when an external source of law (such as IP or regulatory law) indicates that the defendant should not be entitled to exclude competitors.[221] In this way, antitrust would defer to other areas of law that confront the competition/investment tradeoff more directly.

Second, courts should permit plaintiffs to challenge secondary refusals as de facto ties or similar restraints, even if they do not satisfy the formalistic criteria usually applied in tying cases.[222] In other words, liability should turn on whether the refusal generates appreciable foreclosure in the secondary market. Thus, these cases should no longer be evaluated under the far more stringent (and largely arbitrary) standard courts presently apply in refusal-to-deal cases. As I explain, antitrust intervention in a secondary-refusal case will not jeopardize investment incentives. On the contrary, it will generally enhance them.[223] It is also much less likely to raise major administrability difficulties, particularly in cases involving platform defendants.[224]

219. *See supra* Section III.A.

220. For this reason, it should be irrelevant whether the defendant has sacrificed profits.

221. I give examples of such situations below. *See infra* Section V.E.

222. There are relevant differences between secondary refusals and literal vertical restraints. For example, they differ in the types of defenses that are most likely to be relevant. But it would not be unreasonably difficult to adjust existing standards to account for these differences. *See infra* Part V.

223. *See infra* Section IV.A.3.

224. *See infra* Section IV.B.1.

In the balance of this Part, I explain why this policy would provide a reasonable means of addressing concerns relating to both investment and administrability. I also show that it is exactly analogous to the way antitrust already treats other forms of unilateral conduct.

A. *Incentives for Investment*

The chief risk of an overbroad duty to deal is that it would chill investment incentives. Importantly, however, this concern is limited to primary-refusal cases. That is, a policy of condemning exclusionary *secondary* refusals will not unreasonably jeopardize incentives for investment. By contrast, a policy of imposing a duty to deal in primary-refusal cases will indeed harm such incentives. This would be so even if courts made no errors when assessing the exclusion element of the offense. As such, even a definitive finding of exclusion is generally not an adequate economic justification for imposing liability in a primary-refusal case.

To illustrate these points, I will consider how three types of exclusionary practices affect incentives for investment. First, as a basis for comparison, I consider traditional exclusionary practices (i.e., practices other than refusals to deal). I then consider primary and secondary refusals separately. Throughout this analysis I assume the defendant's conduct is in fact exclusionary and I focus on how antitrust intervention would affect private incentives for investment.

1. *Traditional Exclusionary Practices*

Traditional types of exclusion generally harm incentives for investment. With these types of exclusionary conduct, a dominant firm artificially impairs smaller rivals' ability to compete effectively. This means that a rival is unable to achieve the level of success it would otherwise attain based on its product quality and production efficiency. These two variables—quality and efficiency—are what primarily determine firms' relative levels of success when they compete "on the merits."[225]

Standard forms of exclusion interfere with this market process. For example, when exclusive dealing is anticompetitive, it is because it artificially extinguishes demand for rivals' products. That is, rivals make few sales not because their products or prices are substantially worse, but because the dominant firm has

225. For example, suppose firms *A* and *B* are equally efficient in production, but firm *A*'s product is of higher quality. Firm *A* will be more successful than firm *B*—it will capture a larger market share and larger profits—because it can afford to price just as competitively as firm *B*, and most consumers will prefer good *A* when they are sold at comparable prices.

cordoned off much of the customer base using contractual restraints. For a rival (or potential entrant), this diminishes the payoff from developing a better or less costly product. The result is that the dominant firm's exclusionary conduct diminishes investment incentives among all actual and potential competitors.[226] Indeed, why invest in creating a better product if prospective buyers are prevented from responding favorably to it?

The dominant firm's investment incentives are likely to diminish as well. Its incentive to invest would ordinarily be driven by its desire to outpace competitors, but its exclusionary conduct is already helping to accomplish that. In other words, from the dominant firm's perspective, exclusion and innovation are substitute mechanisms for staving off rivals. And exclusion is likely to be the cheaper option. By contrast, if antitrust condemns the exclusionary practice, then innovation becomes the dominant firm's only viable means of staying on top.

2. *Primary Refusals*

In a primary-refusal case, the defendant has already developed some important input technology. A rival wishes to pay for access to this technology so that it can sell its own version of the primary product. The defendant's exclusionary act is to refuse this proposal for the sole purpose of preserving its monopoly in the primary product market. In this Section, our focus is on investments in the relevant input technology—that is, the investments required to develop the primary product (or a competing version of it), not investments in the development of a secondary product.[227]

A primary refusal does not artificially diminish the profits that actual or potential rivals could earn by creating a competing version of the primary product. If a rival were to develop one, there is nothing about the defendant's refusal that would restrain the market from responding favorably to it. Indeed, the defendant's refusal becomes irrelevant if a rival can develop its own version of the input. Therefore, the refusal will not artificially diminish rivals' incentives for investment in the relevant input technology.[228] In fact, rivals' incentives for investment

226. *See* Jonathan B. Baker, *Taking the Error out of "Error Cost" Analysis: What's Wrong with Antitrust's Right*, 80 ANTITRUST L.J. 1, 13-14 (2015) (making a similar point).

227. For example, if the primary product is an operating system and the secondary products are software applications, our present focus is on investments in the creation of operating systems.

228. Of course, this does not imply that rivals' investment incentives will be strong. Such incentives will be weak if it is very difficult to develop a competing version of the input technology. But the point is they are not weak as a result of any misconduct by the defendant; they are just naturally weak.

are likely stronger under a policy that withholds liability in primary-refusal cases.[229]

It is easy to see that intervention in primary-refusal cases will chill investment incentives among potential defendants—that is, among the "first movers" that would be monopolists upon entering the primary product market. Whether such a firm would find it worthwhile to develop the input technology depends mainly on the profits it expects to earn on that technology. Those profits will be far lower if the firm is forced to give up its monopoly by letting prospective rivals duplicate its primary product.

It is useful to consider an analogy to IP. We could certainly enhance competition in the short term by eliminating the patent system, or perhaps by eliminating injunctive relief as a remedy for patent infringement. But we have not done these things because we generally believe that the resulting adverse effects on innovation would leave us worse off in the long run. The same arguments apply to primary-refusal cases, even when they do not involve IP.

3. *Secondary Refusals*

Now suppose that the defendant is permitted to keep its monopoly over the primary product and consider a policy that would condemn secondary refusals whenever they are found to be exclusionary. Here we must give separate attention to incentives for investment in the development of primary and secondary products. And in the latter case, we must further consider investment by both the defendant and secondary-market competitors.

It is easy to see that antitrust intervention would enhance incentives for investment in the secondary-product market. This follows from the same arguments showing that traditional exclusionary practices generally diminish incentives for investment in the relevant market. Even if rivals develop high-quality versions of the secondary product and can produce it efficiently, the defendant's refusal will artificially diminish their success. Many consumers will pick the defendant's version of the secondary product not because it is better or less expensive, but because the defendant's refusal has made it harder to buy the rivals' versions of the secondary good. As such, the defendant also has a diminished incentive to invest in improving its own version of the secondary product, since it can outperform rivals without having to offer consumers a better product.

229. A widespread duty to deal in primary-refusal cases could weaken rivals' incentives for investment insofar as it provides a reliable means of free-riding on the creations of large incumbents. *See, e.g.*, Shelanski, *supra* note 215, at 382-83. This risk also highlights the importance of not imposing a duty to deal when rivals could plausibly obtain the relevant input (or an adequate substitute) by other means.

Now consider how intervention would impact the defendant's incentive to invest in the primary product. On the one hand, intervention preserves the defendant's monopoly in this market, which the defendant earned on the merits. This is important, because it means that the defendant is certain to garner a substantial reward for developing the primary product. On the other hand, imposing a duty to deal prevents the defendant from exploiting its primary-market monopoly to impair competition in the secondary market. This will reduce the defendant's profits to some extent. In particular, its control of the primary product will not be as lucrative as it otherwise would be. This could diminish the defendant's incentives for investment in the primary product.

Importantly, however, antitrust intervention *always* reduces defendants' profits. Obtaining a monopoly is necessarily less profitable if it cannot be enlarged or maintained through anticompetitive conduct. Thus, in a tying case, a defendant might argue that its monopoly over the primary product is not a sufficient reward for developing that product—it must also be entitled to exclude competitors in one or more secondary markets. But antitrust rightly rejects this.

In fact, patent and antitrust law agree on this point. Consider the case of a patented good tied to an unpatented complement. In these situations, antitrust applies the same standards as in any other tying case.[230] If it is exclusionary, it will be enjoined. And patent law may similarly declare the tie to constitute "patent misuse."[231] Thus, antitrust and patent law agree that the defendant is not entitled to exclude secondary-market competitors just because it invented the primary product.

The rationales for this policy are clear: (1) intervention does not prevent the defendant from earning a monopoly reward for its creation of the primary product; and (2) intervention would enhance incentives for investment in the secondary market. The same points suggest that condemning exclusionary secondary refusals would not unreasonably hinder incentives for investment.

B. Administrability

Refusal-to-deal claims raise two distinct administrability challenges. The first—the one courts and academics usually focus on—is the difficulty of fashioning an effective remedy and ensuring the defendant's compliance with it. The second centers on the difficulty of attempting to address both competition and

230. 15 U.S.C. § 14 (2018) (prohibition on anticompetitive ties applies "whether patented or unpatented").

231. 35 U.S.C. § 271(d)(5) (2018) (a tie involving a patented good may constitute misuse if the defendant has monopoly power).

investment concerns within a single antitrust rubric. This Article's proposal provides a reasonable solution to both of these challenges.

1. *Existence of a Workable Remedy*

Courts and academics have long noted that it may be difficult to articulate and enforce a suitable remedy in unilateral-refusal cases.[232] Most antitrust cases center on agreements rather than unilateral conduct. By and large, enjoining agreements is easy. But in a unilateral-refusal case, the desired remedy requires the court to *create* an agreement, perhaps from scratch. This can be quite difficult, especially where any agreement must address technical or industry-specific subject matter. Additionally, it may be hard to enforce the defendant's compliance with the mandated agreement. In the most difficult cases, the plaintiff's complaint will effectively ask the court to engage in the kind of activities normally undertaken by a regulator.[233]

If there is no good way to articulate a suitable remedy in a given case, then intervention may be inappropriate. This is most likely to occur if the defendant has never previously sold anyone access to its input technology. In that case, the court would have to come up with all the relevant terms of an agreement. This may not be practicable.

However, this concern is hardly ubiquitous. In fact, the difficulty of fashioning a workable remedy varies widely between cases. In some cases, it is trivial. Indeed, this is the norm in most situations where the defendant already sells access to the input technology to third-party customers. In that case, the court can just order the defendant to deal with the rival on the same terms it offers to third parties. In other words, the court can forbid the defendant from discriminating against the rival.[234] For example, suppose Apple refuses to let a certain app on its App Store (say, because it competes with an app made by Apple). In this secondary-refusal case, the court can simply require Apple to let the rival on the App Store and to charge it the same commission it charges other developers.

232. As Justice Scalia put it in *Trinko*, "[e]nforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited." Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 408 (2004).

233. *See, e.g.*, Areeda, *supra* note 21, at 853 (observing that in some cases a court would have to "assume the day-to-day controls characteristic of a regulatory agency").

234. *See* MetroNet Servs. Corp. v. Qwest Corp., 383 F.3d 1124, 1133 (9th Cir. 2004) ("If the defendant already sells the product . . . to certain customers but merely refuses to sell to its competitors . . . , [t]he court can simply order the defendant to deal with its competitors on the same terms that it already deals with others . . . .").

Consistent with this example, a typical secondary-refusal case is unlikely to present prohibitive remedial difficulties. This is most apparent in cases involving platform defendants. Platforms often deal with businesses spanning many different product markets, but they are vertically integrated into just a few of those markets. For instance, Amazon sells all kinds of different products on its online storefront. It is vertically integrated into some of them, like its Fire TV Stick streaming device. In principle, Amazon might refuse to let competing streaming devices like Roku on its storefront. But it would continue dealing with countless other businesses. And if Roku won an antitrust case against Amazon, the court could use the terms of Amazon's other dealings as the basis for any remedy.

By contrast, in primary-refusal cases, there will often be no third-party dealings on which to base a remedy. This is likely to be the case whenever the only valuable use of the input is to facilitate production or distribution of the primary product. In such cases, the only parties willing to pay for access to the primary product are firms who want to sell a competing version of it. The defendant is then likely to refuse them all in order to protect its monopoly, so there will be no prior dealings for a court to rely on.

There remains a question of when remedial challenges militate in favor of withholding a duty to deal in a secondary-refusal case. A conservative but arguably reasonable approach would decline to intervene in any case where the desired relief would require more than simply ordering the defendant to offer its rival the same terms it already offers to third parties. Under this rule, courts would never have to set prices or specify the technical terms of dealing. A more flexible approach would permit intervention in any case where the plaintiff can demonstrate the existence of a reasonable and practicable means by which the court can specify a price or other terms. Reasonable minds can differ as to which option is better.

2. *Balancing Competition and Investment*

A benefit of this Article's proposal is that it would allow antitrust to address concerns about investment without requiring courts to attempt explicit balancing of competition and investment in individual cases. This is important because any attempt to engage in such balancing would be hopelessly intractable in most real-world cases.

To reinforce this point, consider an example. In *Morris*,[235] whose facts were discussed briefly above,[236] the Eleventh Circuit did something remarkable: it held that antitrust law recognizes a broad IP-like right to exclude (even if it harms competition) notwithstanding the absence of any actual IP rights. Specifically, while acknowledging that the defendant (the PGA) lacked IP rights over its golf-tournament scores,[237] the court nevertheless held that the defendant had a "property interest" in them.[238] It concluded that this gave the defendant a right to exclude others from "free-riding on PGA's [score-tracking] technology." Hence, according to the court, the defendant's refusal was privileged "even if [it] injures competition."[239]

The district court had justified finding a property interest based on a very narrow line of Supreme Court "ticker cases," wherein the Court held that certain (noncopyrightable) commercial data were protected—much like trade secrets—until the information went public.[240] But, on appeal, the Eleventh Circuit did not limit its holding to such "ticker cases." Instead, it stipulated that antitrust will recognize a property interest whenever this is necessary to prevent free riding on a defendant's investment.[241]

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235. Morris Commc'ns Corp. v. PGA Tour, Inc., 364 F.3d 1288 (11th Cir. 2004).

236. *See supra* notes 131–137 and accompanying text. The PGA had developed a technology for tracking the scores of professional golfers in real time during tournament play, which it could use to post the scores online. The plaintiff, a media company, sued the PGA for not giving it free rein to publish the scores immediately and without restriction. *Morris*, 364 F.3d at 1290-92.

237. *Morris*, 364 F.3d at 1298 n.15 ("The [defendant's] property right does not come from copyright law, as copyright law does not protect factual information like golf scores." (quoting Morris Commc'ns Corp. v. PGA Tour, Inc., 235 F. Supp. 2d 1269, 1281 (M.D. Fla. 2002))).

238. *Id.* at 1296 n.13.

239. *Id.* at 1295. The court reached this conclusion based on its determinations that (1) the defendant's "property interest" meant that its refusal had a valid business justification, and (2) any refusal with a valid business justification is privileged even if it is anticompetitive. *Id.*

240. *Morris*, 235 F. Supp. 2d at 1281-83.

241. *Morris*, 364 F.3d at 1295-98 ("[Plaintiff's behavior is] 'free-riding,' the prevention of which, under antitrust law, constitutes a legitimate procompetitive reason for imposing a restriction.").

Morris was problematic. There was no precedent for such an open-ended, IP-like entitlement.[242] Bluntly, it does not exist.[243] Nevertheless, as an economic matter, the court reached the right outcome for essentially the right reasons.[244] Consistent with this Article's arguments, it suggested that a primary refusal should not be condemned just because it is exclusionary, for such a policy would harm incentives for investment.

At the same time, however, the court in *Morris* opened an unmanageable can of worms without realizing it. It asserted the existence of an IP-like property right but said almost nothing about what its scope or limitations might be. For instance, what must a firm show to obtain the relevant property interest? Is any commercial investment sufficient to confer one, or are there some IP-like limitations on eligibility? How broad is the scope of the attendant antitrust immunity? Does the property interest ever expire? The court's opinion was silent on such issues.

In theory, antitrust could attempt to develop its own homegrown system of entitlements designed to effectuate a sophisticated IP-like tradeoff between static competition and dynamic investment. That is perhaps where *Morris* would lead if taken to its logical extreme. But even if one does not reject this approach on normative grounds, practical considerations suggest that it is a supremely bad idea. Antitrust is simply not equipped to administer such a complex tradeoff. It has a hard enough time evaluating competition by itself.

It is important to keep in mind the many structural and institutional differences between antitrust law and the patent system. The latter offers courts extensive and detailed statutory guidance from Congress. These provisions provide relatively specific instructions for administering the various standards and

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242. The court attempted to rely on two prior antitrust cases for its finding of a general property interest in the prevention of free riding. *Id.* at 1295-96. But those cases, *Continental Television, Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36 (1977), and *Consultants & Designers, Inc. v. Butler Service Group, Inc.*, 720 F.2d 1553 (11th Cir. 1983), did nothing of the kind. Those cases did involve restraints that served to prevent some relevant form of free riding. But in both cases this feature was invoked to justify a finding that the relevant restraint *was not anticompetitive*—for example, because it was ancillary to an efficient collaboration. Thus, unlike *Morris*, those cases did not recognize any "property interest" that would immunize anticompetitive conduct.

243. Such an entitlement would conflict with Supreme Court precedent holding that, absent IP rights, free riding on a rival's efforts is usually a perfectly valid form of competition. *See, e.g.*, Fashion Originators' Guild of Am., Inc. v. Fed. Trade Comm'n, 312 U.S. 457, 461, 468 (1941) (prohibiting firms from using contracts to restrain free riders from copying noncopyrightable fashion designs).

244. There are other, independent reasons for withholding liability in this case. For example, it seems very unlikely that the PGA's refusal was anticompetitive. But the Eleventh Circuit indicated that it would be immune either way. *Morris*, 364 F.3d at 1294 & n.11.

limitations that patent law uses to balance competition and innovation. For example, the Patent Act articulates various criteria for determining whether an invention warrants patent protection, how long a patent lasts, and limitations on the lawful use of patents, among many other things. By contrast, antitrust law is almost entirely judge-made. Congress provided no specific instruction about how courts should evaluate anticompetitive activity on its own—let alone the tradeoff between competition and innovation.[245] Thus, for antitrust law to perform a sophisticated IP-like tradeoff, federal judges would have to invent a body of IP-like standards from scratch.[246]

Of course, none of this suggests that antitrust does not care about promoting investment and innovation—it does and it should.[247] But antitrust is simply not capable of addressing the competition/investment tradeoff in as rigorous or precise a manner. As one court put it, "[t]here are no criteria that courts can use to calculate the 'right' amount of innovation, which would maximize social gains and minimize competitive injury."[248] As such, if it is to be reasonably administrable, any policy antitrust adopts in this area will have to be rather crude—certainly much cruder than patent law.

The proposal advocated in this Article is sufficiently simple to work within these practical constraints. It does not require courts to attempt explicit balancing of short-run harms to competition versus long-run benefits from investment. Instead, it addresses this tradeoff in an indirect and simple way. It assumes that the defendant is presumptively entitled to keep its monopoly over the primary product,[249] but not to exploit that monopoly to harm competition in an adjacent market. By design, this is a fairly crude policy. But it is also logical, determinate, and administrable. A more elaborate policy is unlikely to achieve all three consistently. Finally, as the next Section explains, this simple approach to the competition/investment tradeoff is the same one antitrust already maintains when evaluating other types of unilateral conduct.

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245. None of the federal antitrust statutes reference investment or innovation.

246. The patent system also benefits greatly from an army of patent examiners who help to administer the Patent Act's eligibility requirements. There is no analogous administrative resource in antitrust.

247. *See, e.g.*, Richard J. Gilbert & A. Douglas Melamed, *Innovation Under Section 2 of the Sherman Act*, 84 ANTITRUST L.J. 1, 13-18 (2021) (discussing innovation's relevance to antitrust liability).

248. Allied Orthopedic Appliances Inc. v. Tyco Health Care Grp. LP, 592 F.3d 991, 1000 (9th Cir. 2010).

249. I am assuming here that the defendant obtained its monopoly on the merits. If it did not, then of course it is not entitled to any antitrust forbearance.

C. *Comparison to Other Forms of Unilateral Conduct*

When courts evaluate other forms of unilateral conduct, they usually hold that the relevant conduct is beyond antitrust scrutiny. There are exceptions, however. And, as explained below, they collectively embody a simple rule: when unilateral conduct emulates an exclusionary tie or other vertical restraint, courts allow plaintiffs to challenge it as such under section 2. It is only refusal-to-deal cases that are inexplicably excluded from this general rule. As such, this Article's proposed treatment of unilateral refusals is perfectly consistent with how antitrust already treats other forms of unilateral conduct.

1. *Unilateral Price Setting*

It is not an antitrust violation to obtain a monopoly by inventing a better mousetrap. By the same token, it is not a violation for such a firm to set a monopoly price. This rule is based on the same two considerations highlighted above: investment and administrability. First, when a firm earns a monopoly on the merits, this typically means that the firm developed some valuable new technology.[250] Because we want to encourage investment in such technologies, we permit the firm to set high prices and earn large profits. As Judge Hand put it, "[t]he successful competitor, having been urged to compete, must not be turned upon when he wins."[251] Second, even if we think it is a good idea to restrict the firm's pricing in some way—for example, to cap it at a reasonable level—antitrust is not well equipped to perform such a task.[252] Consequently, government-imposed restrictions on price are imposed by regulatory authorities, not antitrust.[253]

However, the right to set one's own price has an important limitation: unilateral price-setting of two distinct products may create antitrust liability when it serves to effectuate a de facto tie. This is usually known as bundled discounting.[254] Under this practice, the defendant sells a primary product (over which it has a monopoly) and a bundle comprising both the primary and a secondary

250. Exceptions involve situations like natural monopoly, where market conditions naturally prevent competition from arising. In these cases, a firm might obtain a monopoly simply because it was the first to enter the market—not because it did anything particularly innovative.

251. United States v. Aluminum Co. of Am., 148 F.2d 416, 430 (2d Cir. 1945).

252. One would first need a conceptual definition of what constitutes a "reasonable price." Then, applying that definition in practice would almost surely require detailed knowledge of the relevant industry and the firm's cost structure.

253. Regulated utilities (e.g., local water service) are a familiar example.

254. *See, e.g.*, Erik Hovenkamp & Herbert Hovenkamp, *Exclusionary Bundled Discounts and the Antitrust Modernization Commission*, 53 ANTITRUST BULL. 517, 517-19 (2008).

product (a complement offered by the defendant and numerous competitors). In potentially meritorious cases, the price of the bundle is only slightly higher than the price of the standalone primary product. This may discourage consumers of the primary product from buying the secondary product from the defendant's competitors, even if they like the competitors' versions better. Courts have permitted plaintiffs to challenge such conduct as de facto tying under section 2.[255]

2. *Unilateral Changes to Product Design*

When a firm changes the design of its product, this could lead rivals in the same or an adjacent market to lose sales as consumers flock to the new product. Although rivals may regard this as harmful, a firm's unilateral choice of how to design its product almost never raises a viable antitrust claim.[256] Once again, this relates to investment and administrability. Courts are concerned about deterring firms from investing in innovative design improvements. Moreover, courts lack the technical expertise to regulate complex product designs. As such, courts generally decline to scrutinize a change in product design if it appears to constitute even a modest improvement over prior designs, regardless of how the change affects competitors.[257]

However, courts will make an exception in situations where a monopolist implements a design change whose only significant function is to impair competition in an adjacent market.[258] In such a case, a firm typically changes the design of its primary product (over which it has monopoly power) in order to make it incompatible with rivals' versions of a secondary product.[259] All consumers are then compelled to buy the secondary product from the defendant. Thus, as with unilateral pricing, design choices are usually immune, but there are exceptions when they behave like an anticompetitive tie.

255. *See, e.g.*, LePage's Inc., v. 3M, 324 F.3d 141, 155-57 (3d Cir. 2003) (citing SmithKline Corp. v. Eli Lilly & Co., 427 F. Supp. 1089 (E.D. Pa. 1976)).

256. Foremost Pro Color, Inc. v. Eastman Kodak Co., 703 F.2d 534, 545 (9th Cir. 1983) ("[A]s a general rule, 'any firm, even a monopolist, may . . . bring its products to market whenever and however it chooses.'" (quoting Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263, 286 (2d Cir. 1979))).

257. *See* Allied Orthopedic Appliances Inc. v. Tyco Health Care Grp. LP, 592 F.3d 991, 1000 (9th Cir. 2010) ("If a monopolist's design change is an improvement, it is necessarily tolerated by the antitrust laws . . . unless the monopolist abuses or leverages its monopoly power in some other way when introducing the product." (internal quotations omitted)).

258. See *id.* at 1002 (identifying possible liability where a change of product design forces customers to buy a separate good from the defendant); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1382-83 (Fed. Cir. 1998) (affirming liability on this basis).

259. As noted earlier, this is a "tech tie." *See supra* Section III.B.2.

It is paradoxical that antitrust permits a tying-like analysis of design changes but not of secondary refusals to deal. The former cases will tend to be more difficult, because design changes often involve a relevant product improvement. By contrast, in a pure refusal-to-deal case, there is no analogous product improvement to weigh against potential anticompetitive effects.

3. *Conditional Refusals to Deal with Noncompetitors*

A distinct type of case involves *conditional* refusals to deal. These differ from the refusals addressed throughout the rest of this paper. First, conditional refusals are usually directed at the defendant's customers, not its competitors. Second, as the name suggests, these refusals are not unconditional; they are a penalty for doing something the defendant doesn't like (e.g., buying from the defendant's rival). Third, conditional refusals are not evaluated under the standards applied to unconditional refusals, but rather are treated as de facto vertical restraints under section 2.[260]

In a conditional-refusal case, the defendant specifies conditions with which it wants its customers to comply. It then stops dealing with any customers who fail to comply. A powerful defendant can thereby induce its customers to abide by its preferred conditions without having to enter into express agreements (which are easier to challenge). Based on longstanding precedent, the courts generally regard this course of conduct as unilateral action,[261] notwithstanding that the results may be indistinguishable from an express vertical restraint.

Consider an example. In *Lorain Journal Co. v. United States*, the defendant operated a local newspaper and had monopoly power over local advertising services.[262] A radio station moved into town, providing an alternative outlet for

260. *See, e.g.*, Fed. Trade Comm'n v. Facebook, Inc., No. 1:20-cv-03590 (JEB), 2021 WL 2643627, at *20 (D.D.C. June 28, 2021) ("'[C]onditional dealing' schemes are thus categorically different from unilateral conduct that involves only the monopolist's competitors, such as its refusal to deal with them."); Viamedia, Inc. v. Comcast Corp., 951 F.3d 429, 468-69 (7th Cir. 2020) (describing examples of cases treating conditional refusals as de facto vertical restraints under section 2).

261. This is the *Colgate* doctrine. United States v. Colgate & Co., 250 U.S. 300, 307 (1919) (holding that there is no agreement where a defendant announces its preferred conditions and then terminates dealings with any customers who fail to comply with them). However, in some cases involving significant one-on-one negotiations or threats between the defendant and noncompliant customers, the Court may find an agreement despite the absence of an explicit contract. *See* Monsanto Co. v. Spray-Rite Serv. Corp., 465 U.S. 752, 762 (1984) (inferring vertical agreement).

262. 342 U.S. 143 (1951).

running ads. To counter this threat, the defendant began to terminate its dealings with any customer who ran ads on the radio station.[263] Given the much greater reach of the defendant's newspaper, this strongly discouraged advertisers from running any radio ads.[264] The Supreme Court found this to be an unlawful attempt to monopolize the local advertising market.[265] Although the Court's opinion never uses the words "exclusive dealing," the defendant's conduct was de facto exclusive dealing.

In principle, conditional refusals can be used to emulate virtually any type of vertical restraint, including a tie.[266] They may thus produce results very similar to those of a secondary refusal. For example, in *Viamedia, Inc. v. Comcast Corp.*, the plaintiff accused defendant Comcast of implementing a de facto tie of "[i]nterconnect services" (over which Comcast is a monopolist) and "advertising representation services."[267] According to the plaintiff, Comcast would refuse to sell interconnect services to customers who bought advertising services from the plaintiff rather than Comcast.[268] The court held that this could be evaluated as a tie under section 2.[269]

In summary, permitting plaintiffs to challenge secondary refusals as de facto ties would be exactly analogous to the way courts treat conditional refusals.

V. APPLICATIONS AND POLICY CONSIDERATIONS

This Part considers a number of practical and economic issues relating to the application of the proposal outlined above. It closes with a discussion of the costs and benefits of using antitrust—as opposed to regulation—to police digital platforms.

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263. *Id.* at 146-50.

264. *Id.*

265. *Id.* at 152-55.

266. Historically, they were mainly used to emulate resale-price maintenance. *E.g.*, *Colgate*, 250 U.S. at 302-03. But such cases are not common anymore following a 2007 Supreme Court decision holding that even explicit resale-price maintenance is generally lawful. Leegin Creative Leather Prods., Inc. v. PSKS, Inc., 551 U.S. 877, 882 (2007).

267. Viamedia, Inc. v. Comcast Corp., 951 F.3d 429, 434 (7th Cir. 2020).

268. *Id.* at 435.

269. *Id.* Incidentally, this case also involved a secondary refusal to deal with the plaintiff-rival. *See id.* at 453-61 (discussing plaintiff's claim that Comcast refused to sell the plaintiff interconnect services as a part of its effort to monopolize the market for advertising representative services).

A. Distinguishing Primary and Secondary Cases

In most cases, it is not difficult to classify a defendant's refusal as either primary or secondary. However, there are some edge cases for which classification may be difficult. Moreover, a plaintiff may attempt to mischaracterize a primary refusal as secondary in order to make the refusal easier to challenge. At bottom, these difficulties stem from the need to determine whether a case involves separate primary and secondary markets (as opposed to a single market) – a difficulty that also arises in conventional tying cases. Tying law has adopted tests for resolving such difficulties.[270] This Section offers an analogous test for distinguishing primary and secondary refusals.

Suppose that a plaintiff-rival characterizes a defendant's refusal as secondary. The court must then determine whether this characterization is apt. As a threshold matter, the rival must identify the relevant primary and secondary products. It will then allege that the defendant has monopoly power over the primary product and that the firms compete over the secondary product.[271] Additionally, if indeed the plaintiff's theory of exclusion hinges on a refusal to deal, then it should generally be the case that the defendant offers these products separately, rather than forcing consumers to take both as a single package or bundle.[272] The court should then accept the rival's characterization and classify the defendant's refusal as secondary if and only if all of the following conditions are satisfied:

(1) The primary and secondary products are not close substitutes;
(2) There is appreciable demand for the primary product among parties other than competing sellers of the secondary product; and
(3) The rival developed its secondary product independently.

Conditions (1) and (2) ensure that imposing a duty to deal would not deprive the defendant of a monopoly it earned on the merits. Condition (2) also helps to screen out spurious complaints in cases where the primary and secondary goods are best viewed as different facets of a single product. Condition (3) is always satisfied in traditional tying cases but may not be satisfied in refusal-to-

270. *See, e.g.*, Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 19-22 (1984).

271. It does not matter which firm was the first to enter the secondary-product market.

272. Otherwise, the plaintiff's antitrust claim is properly predicated on forced package sales (often described as "bundling" or "tech tying"). This is an alternative means by which a defendant may potentially foreclose secondary-market competitors. Courts already evaluate forced package sales as a form of tying. For example, in *Microsoft*, the D.C. Circuit considered Microsoft's practice of "technologically binding" Internet Explorer to Windows, which had the effect of forcing consumers to take both. United States v. Microsoft Corp., 253 F.3d 34, 64 (D.C. Cir. 2001). In the court's section 2 analysis, it evaluated this as a tech tie. *Id.* at 64-71 (finding section 2 liability based on Microsoft's "integration of [Internet Explorer] and Windows").

deal cases.[273] It fails when the rival is seeking to sell a product whose animating technology was developed mainly by the defendant. This creates a free-riding concern that breaks the analogy with traditional tying. Below, I also consider a possible fourth condition that would make classification extremely easy at the expense of excluding some potentially meritorious cases.

Condition (1) ensures that the primary and secondary products are not direct competitors. If this condition fails, then the primary and secondary goods belong to the same market. Then the defendant's monopoly over the product is not insulated from competition over the secondary product.[274]

Condition (2) addresses a difficulty that arises in conventional tying cases, which is that clever plaintiffs may portray a single product as a tie by characterizing its components as distinct products.[275] Courts address this problem by maintaining a "separate products" requirement in tying cases.[276] Condition (2) serves the same function. It screens out cases where the supposed "primary product" is not actually a distinct product, but merely an important input in the secondary product. In such cases, there is in fact only one relevant product and one relevant market. These cases should therefore be classified as primary, not secondary.

For example, returning to a hypo from the Introduction,[277] suppose a defendant's satellite array gives it a monopoly over internet service in rural areas. It refuses to let a rival use the satellites to offer its own competing internet service.

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273. In a tying case, the tie would be superfluous if rivals were incapable of developing their own competing versions of the secondary product. The tie has bite only if there are competing options available to consumers.

274. For example, in the FTC's complaint against Facebook, it alleged that Facebook withheld critical APIs from certain third-party app makers, preventing them from interoperating with "Facebook Blue" (Facebook's social media platform). One of them was a social-networking app called Path. Fed. Trade Comm'n v. Facebook, Inc., No. 1:20-cv-03590 (JEB), 2021 WL 2643627, at *6 (D.D.C. June 28, 2021). This refusal-to-deal claim would fail condition (1), because Path "directly compet[ed]" with Facebook Blue. However, the complaint also alleged exclusion of apps that competed with Facebook in a secondary market (mobile messaging). *Id*. These claims would satisfy condition (1), because social media apps (the primary product) and messaging apps are not close competitors.

275. As Justice O'Connor explained in *Jefferson Parish*,

> [T]here must be a coherent economic basis for treating the tying and tied products as distinct. All but the simplest products can be broken down into two or more components that are "tied together" in the final sale. Unless it is to be illegal to sell cars with engines or cameras with lenses, this analysis must be guided by some limiting principle.

Jefferson Par., 466 U.S. at 39 (O'Connor, J., concurring).

276. *Id.* at 19-22 (majority op.) (discussing the requirement).

277. *See supra* notes 27-31 and accompanying text.

I classified this as a primary refusal. But suppose the plaintiff-rival argues otherwise as follows: the "downstream" satellite-internet-service market is not the primary market, but rather the secondary one; the primary market is instead the "upstream" market for the rights to use the satellites. This fails condition (2), because the "upstream product" identified by the plaintiff is just an input in satellite-internet service. As such, it is not desirable to anyone other than prospective rivals in the internet-service market.

Such cases are properly viewed as primary because there is no way to stimulate competition without depriving the defendant of a monopoly it earned on the merits. On the one hand, the defendant could preserve most or all of its monopoly profits by charging its rival high prices for satellite usage, perhaps accompanied by contractual restraints that force the rival to set price at the monopoly level.[278] But this arrangement does not stimulate competition at all, for the rival is intensely restrained and cannot behave competitively.[279] On the other hand, if a duty to deal did invigorate competition in the downstream market, then there would be no way the defendant could continue earning a monopoly profit upstream. If the downstream price level is competitive, then the rival will not pay a monopoly rate for satellite usage.

Some cases satisfying conditions (1) and (2) may nevertheless be poor candidates for intervention because they raise the same free-riding concerns as primary-refusal cases. For example, suppose that Apple introduces a new app that tells users about the air quality in a given area in real time. The app relies on specialized sensors that Apple has installed at thousands of locations across the country. A rival wants to launch a competing air-quality app and sell it in Apple's App Store. But it does not have its own sensors, and Apple refuses to let the rival use its sensors. Consequently, the rival is unable to develop its own air-quality app.

In this case, the primary product is Apple's App Store and the secondary product is air-quality apps. The case clearly satisfies conditions (1) and (2). But it fails condition (3), because the rival has not independently developed a competing version of the secondary product. Instead, it is effectively asking the defendant to help it build a product that it is unable to build on its own.[280] The argument for treating secondary refusals as de facto ties relies on the assumption

278. With such a restraint in place, the defendant could extract the full monopoly profit by charging the rival very high fees for satellite usage.

279. Thus, as argued earlier, this arrangement would contravene a duty to deal, since the duty is imposed for the purpose of stimulating competition. *See supra* Section III.A.3.

280. We could say the same about the rival in the satellite hypo: it wants to sell satellite-internet service without having to build its own satellites.

that the rivals in question are independent developers of the secondary product, as in ordinary tying cases.[281] As such, cases like this are best classified as primary.

Importantly, many cases will satisfy condition (3) even though rivals are in some sense seeking to utilize a technology made by the defendant. For example, suppose the relevant interfirm dealings would involve Facebook sharing its APIs with an app maker, which would make the latter firm's apps interoperable with the Facebook platform. Here the secondary product is the app, and the rival developed this on its own; the APIs are merely a tool for making secondary products interoperable with the primary one. Similarly, suppose that rivals seek to use a defendant's platform for distribution or marketing—for example, to have their products listed on Amazon's storefront. Here too the rivals are in some sense seeking to utilize the defendant's technology (its sales platform), and yet it is clear that condition (3) is satisfied.

In the large majority of secondary-refusal cases, a duty to deal would merely require the defendant to offer rivals something that it already offers to third parties.[282] One might argue that it should be included as a fourth condition for classifying a refusal as secondary:

> (4) The defendant voluntarily sells the primary product, or the right to interconnect with it, to third-party firms.

In other words, the defendant voluntarily deals with third parties in the same manner that it refuses to deal with rivals.[283] Including this condition has costs and benefits. The benefits are twofold. First, it provides a more foolproof way to establish the existence of separate primary and secondary products by establishing that the defendant sells the primary product alone to some third parties. If the condition is satisfied, this makes it hard to argue that the primary product is merely an input in the secondary product. For example, the complaints from the

281. Most notably, this assumption is essential to the argument that condemning exclusionary secondary refusals is likely to enhance rather than harm incentives for investment. *See supra* Section IV.A.3.

282. *See supra* Section IV.B.1.

283. Consider an example illustrating the distinction. Suppose the defendant erects a digital billboard on the side of the interstate, which it uses to run ads for its own hotel. A plaintiff-rival has built a competing hotel nearby and wants to run some ads on the defendant's billboard, but the defendant refuses. We might view billboard-advertising services as the primary market and hotel services as the secondary market. But this fails condition (4), because the defendant does not sell ad services to anyone. But now suppose that the defendant operates many billboards in the region (in addition to running its hotel) and it displays ads for many different companies. In this case, condition (4) is satisfied.

previous two hypos clearly fail condition (4).[284] Second, as discussed previously, condition (4) ensures that imposing a duty to deal would be easy to implement.[285]

The downside of adding condition (4) is that it would reject some cases that arguably deserve to be classified as secondary because they act just like ties. For example, suppose the primary product is cable TV service and the secondary product is a set-top box used to navigate the channels and record shows. The defendant refuses to let any competing set-top boxes interconnect with its cable service. This fails condition (4), because the defendant does not let any other third-party products interconnect either. Nevertheless, it likely makes more sense to view this case as secondary. After all, if the defendant had achieved the same result through vertical agreement—contracts in which cable customers agree to use the defendant's set-top box—a court would evaluate this as a tying arrangement.[286]

Therefore, as a matter of antitrust economics, the failure of condition (4) does not necessarily imply that a case should be evaluated as primary. However, administrability considerations could arguably weigh in favor of including condition (4) anyway. For these reasons, reasonable minds could differ on whether condition (4) should be strictly required, or merely a useful factor for identifying secondary cases.

Before concluding this Section, it is worth keeping in mind that the kinds of difficulties considered above are ubiquitous in antitrust. For example, it is frequently difficult to determine the best way to define the "relevant market,"[287] and yet this choice routinely has a major impact on case outcomes. Similarly, when a dominant incumbent acquires a young startup company, it may be difficult to classify the merger as horizontal or vertical, as the startup's future "trajectory" may not yet be clear.[288] And it is often hard to say whether a given interaction

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284. In the satellite hypo, the defendant does not voluntary sell anyone the right to use its satellites. Similarly, in the air-quality app hypo, Apple (we assume) does not let anyone else use its sensors.

285. *See supra* Section IV.B.1.

286. *Cf. In re* Cox Enters., Inc. Set-Top Cable Television Box Antitrust Litig., No. 5:09-ml-02048, 2011 WL 6826813, at *7 (W.D. Okla. Dec. 28, 2011) (finding that cable service and a set-top box constitute separate products for purposes of a tying claim, although dismissing the complaint on other grounds).

287. For discussions of the challenges of market definition, see generally Jonathan B. Baker, *Market Definition: An Analytical Overview*, 74 ANTITRUST L.J. 129 (2007); and Louis Kaplow, *Why (Ever) Define Markets?*, 124 HARV. L. REV. 437 (2010).

288. *See, e.g.*, Kevin A. Bryan & Erik Hovenkamp, *Antitrust Limits on Startup Acquisitions*, 56 REV. INDUS. ORG. 615, 615 (2020).

between two firms should qualify as an "agreement" for antitrust purposes.[289] These kinds of difficulties are inevitable when courts apply clean concepts to messy facts.

B. Platform Discrimination Against Rivals

Suppose that a defendant does not outright refuse to deal with rivals, but nevertheless discriminates against them in some way. Such conduct has provoked considerable scholarly debate over the last two decades.[290] The discussion focuses mainly on discrimination by platforms, particularly internet search engines and other platforms that consumers rely on to search for goods or services like app stores and Amazon's online storefront. If the platform is vertically integrated into a secondary-product market, then it might have an incentive to use its platform to thwart rivals in that market. And it might do so without kicking them off the platform entirely. For example, it might make it harder for consumers to locate rivals using the platform or it might charge rivals higher fees to use the platform.[291]

This can be viewed as a type of secondary refusal. Consider an example.[292] Suppose Google integrates into the market for "widgets." It then decides to discriminate against its chief rival in the widget market by altering its search algorithm to bury the rival's listing: when a consumer looks up "widgets" on Google, the rival's business will not appear until the third page of results.[293] As a result, many consumers end up buying Google's version of the widget not because they

289. *See, e.g.*, Kaplow, *supra* note 186, at 563-65; Louis Kaplow, *On the Meaning of Horizontal Agreements in Competition Law*, 99 CALIF. L. REV. 683, 685 (2011).

290. *See, e.g.*, Khan, *supra* note 19; Feng Zhu & Qihong Liu, *Competing with Complementors: An Empirical Look at Amazon.com*, 39 STRATEGIC MGMT. J. 2618 (2018); Rogerson & Shelanski, *supra* note 13; Daniel A. Crane, *Search Neutrality as an Antitrust Principle*, 19 GEO. MASON L. REV. 1199 (2012); Lao, *supra* note 19; Geoffrey A. Manne & Joshua D. Wright, *If Search Neutrality Is the Answer, What's the Question?*, 2012 COLUM. BUS. L. REV. 151; Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. & TECH. 85 (2003); Guggenberger, *supra* note 19; Thomas E. Kadri, *Digital Gatekeepers*, 99 TEX. L. REV. 951 (2021). The subject has also received significant attention in the mainstream press. *See, e.g.*, Tripp Mickle, *Apple Dominates App Store Search Results, Thwarting Competitors*, WALL ST. J. (July 23, 2019, 11:53 AM ET), https://www.wsj.com/articles/apple-dominates-app-store-search-results-thwarting-competitors-11563897221 [https://perma.cc/9VHL-98VP].

291. *See supra* text accompanying notes 113-114 for an example of the latter situation.

292. This example is loosely based on *Dreamstime.com, LLC v. Google, LLC*, No. 3:18-cv-01910-WHA, 2019 WL 341579 (N.D. Cal. Jan. 28, 2019), which alleged anticompetitive discrimination by Google's Search.

293. Assume that the rival would ordinarily appear at or near the top of the first page.

like it more or because it is priced more competitively, but because they did not know about the rival's offering.

To start, consider the superficial ways in which this hypo deviates from a conventional tying arrangement.[294] We will see that these deviations may not matter very much. First, the two products in question—a search engine and a widget—are presumably not complements in the usual sense. Second, there is no vertical agreement between Google and its users. Third, Google's users are not forced to buy widgets from Google. They can still buy the rival's widget, although of course that would require that they are aware of its existence and know where to find it.

Nevertheless, the operative theory of harm is essentially the same as in other secondary-refusal cases. The defendant is using its monopoly in the primary market (internet search) to foreclose a rival from a significant portion of the consumer base in the secondary (widget) market—namely, the portion that will rely on Google Search to decide what widget they want to buy.

For example, suppose that 50% of all consumers seeking to buy a widget will rely on an internet search to determine what their options are; that 80% of internet-search users will not make it to the third page of search results; and that Google has a 90% share of the internet-search market. These numbers imply a foreclosure share of 50% × 80% × 90% = 36%.[295] That is, about 36% of prospective widget buyers are effectively prevented from ever considering the rival's widget, even though many of them might have preferred it over Google's version. This impairs competition by artificially suppressing how much success the rival can achieve based on its product quality and production efficiency.

In a conventional tying case, a 36% foreclosure share could very well be large enough to find a violation.[296] But the case for liability in this hypo may be even stronger than in a conventional tying case because none of the usual procompetitive justifications for tying arrangements apply here.[297] In this hypo, Google went out of its way to modify its algorithm in a way that does nothing other than distort the rival's position in Google Search results. This ostensibly constitutes "naked exclusion"—it serves no material purpose other than to impair a rival's

294. For these reasons, discrimination against rivals will generally be quite difficult to challenge as anything other than a refusal to deal under current law. *See supra* Section III.B.2 (discussing the doctrinal reasons for this).

295. If, instead, Google had completely banished the rival from Google Search results, then the foreclosure share would be 50% × 90% = 45%. As this shows, the difference between an outright refusal and mere discrimination may not be all that significant.

296. *See, e.g.*, Minn. Mining & Mfg. Co. v. Appleton Papers Inc., 35 F. Supp. 2d 1138, 1143 (D. Minn. 1999) ("Generally speaking, a foreclosure rate of at least 30 percent to 40 percent must be found to support a violation of the antitrust laws.").

297. *See supra* Section III.B.1 (discussing common justifications for tying).

ability to compete.[298] In such cases, the bar for antitrust intervention should be significantly lower.

Note also that antitrust intervention in this case would likely be straightforward. By hypothesis, Google made specific alterations to its algorithm to bury the rival in the results. A court could remedy this by simply ordering Google to undo those specific alterations.

This hypo deliberately involves extreme facts. In practice, most instances of platform discrimination will not be so transparently anticompetitive. For example, a defendant may have a plausible argument that the relevant discrimination is ancillary to some reasonable change in the design of its platform. However, such difficulties are common in essentially all types of exclusion cases.[299]

C. *Avoiding Misdiagnoses in Discrimination Cases*

Some forms of "self-preferencing" may facially resemble the kind of potentially exclusionary discrimination discussed above when in fact they do not raise any antitrust concerns at all. To avoid a misdiagnosis in such situations, it is useful to keep in mind that dealing with rivals on discriminatory or self-preferential terms can never be worse for competition than a refusal to deal with them at all.[300] Therefore, if an outright refusal would not be anticompetitive, then discriminatory dealings cannot be anticompetitive either.

A useful example centers on Amazon's "Buy Box." Upon clicking on a product on Amazon.com, there is usually a box on the right-hand side of the screen that allows the user to either put the product in her cart or buy it with a click.[301] For a given product, the Buy Box is "won" by a single reseller—either Amazon or a third-party merchant.[302] When a consumer uses the Buy Box to place an order, the current "winner" of the Buy Box is automatically selected to make the sale and fulfill (package and ship) the order.[303] The winner is chosen based on how low its price offering is (lower is better) and various indicators of its quality and

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298. *See, e.g.*, Crane, *supra* note 290, at 1208 (making a similar point).

299. *See, e.g.*, C. Scott Hemphill, *Less Restrictive Alternatives in Antitrust Law*, 116 COLUM. L. REV. 927, 927 (2016) (noting that many rule-of-reason cases involve plausible countervailing arguments for pro- and anticompetitive effects).

300. In other words, an outright refusal is just the extreme case of discrimination.

301. *See* Dave Hamrick, *How to Win the Amazon Buy Box*, JUNGLE SCOUT (Jan. 4, 2021), https://www.junglescout.com/blog/how-to-win-the-buy-box [https://perma.cc/9MHW-85LT].

302. Amazon does not itself sell all of the products on its platform. In all such cases the Buy Box winner will necessarily be a third-party merchant.

303. Hamrick, *supra* note 301.

reliability in fulfilment, such as its shipping speeds and customer reviews. A customer can opt to have the order fulfilled by someone other than the current Buy Box winner, but only a small minority of customers ever do this. Thus, although winning the Buy Box merely makes a firm the default reseller, this ends up being quite consequential, since almost everyone sticks with the default.[304]

Amazon gives itself a perfect score on fulfilment services. As such, when Amazon resells a given product, it is likely to win the Buy Box unless a third-party merchant is offering a significantly lower price in addition to having very good fulfillment service indicators such as fast shipping and good reviews.[305] As a consequence, Amazon often wins the Buy Box, despite the fact that one or more third-party merchants are offering a lower price.[306] This has led some commentators to criticize Amazon's Buy Box system on antitrust grounds, with some even suggesting that it is grounds for a breakup.[307]

Some of Amazon's business practices may indeed raise serious antitrust concerns,[308] but the Buy Box system is not one of them. To see this, it is sufficient to show that Amazon would not be guilty of anticompetitive conduct even if it categorically refused to let third-party merchants execute any sales at all. This sheds light on the right way of thinking about the Buy Box system—namely, that it is a form of selective outsourcing that is presumptively procompetitive.

Consider a hypo. A defendant-wholesaler buys products from upstream manufacturers and resells them to small retailers throughout the region. It also operates a fleet of trucks that manage this distribution process. Now suppose a plaintiff—the owner of a distribution company—sues the defendant for not hiring him to handle the defendant's distribution. It is easy to see that the defendant's refusal does not raise any antitrust concerns. Even if the plaintiff took over the defendant's distribution, this would not invigorate competition in the distribution market (nor any other). It would just reallocate the distribution work

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304. *See, e.g.*, Stacy Mitchell & Shaoul Sussman, *How Amazon Rigs Its Shopping Algorithm*, PROMARKET (Nov. 6, 2019), https://promarket.org/2019/11/06/how-amazon-rigs-its-shopping-algorithm [https://perma.cc/B88F-W68Q].

305. *Id.*

306. *See, e.g.*, Julia Angwin & Surya Mattu, *Amazon Says It Puts Customers First. But Its Pricing Algorithm Doesn't*, PROPUBLICA (Sept. 20, 2016), https://www.propublica.org/article/amazon-says-it-puts-customers-first-but-its-pricing-algorithm-doesnt [https://perma.cc/ZM24-C8E6].

307. *See, e.g.*, Mitchell & Sussman, *supra* note 304.

308. *See* Jon Brodkin, *Amazon's Most-Favored Nation Clauses Slammed in Lawsuit Filed by Washington, DC*, ARS TECHNICA (May 25, 2021), https://arstechnica.com/tech-policy/2021/05/amazon-sued-over-policies-that-forbid-lower-prices-on-other-websites [https://perma.cc/5TW5-4JLW] (discussing a recent antitrust suit accusing Amazon of using anticompetitive "most-favored nation" restrictions).

from the defendant to the plaintiff.[309] Impliedly, therefore, the defendant's refusal has nothing to do with suppressing competition. Rather, we infer that the defendant believes it is more efficient to conduct its distribution internally than to outsource it to the plaintiff.

Similarly, Amazon could in principle handle the resale and fulfillment (R&F) of all product sales internally.[310] A third-party merchant might then sue Amazon, seeking to take over its R&F services. But this claim is without merit. What Amazon actually does is a compromise between doing all of the R&F work internally and outsourcing all of it to third parties. It permits third parties to handle the R&F in some cases (by awarding them the Buy Box) but not in others. As in the previous hypo, we infer that Amazon outsources the R&F work to third parties when (but only when) it predicts that they will be more efficient R&F providers than Amazon for a given product at a given time. This suggests that the Buy Box system is in fact presumptively procompetitive.

D. Defenses in Secondary-Refusal Cases

Although the theory of harm in a secondary-refusal case is largely the same as for traditional tying, there are important differences in the slate of relevant defenses. First, some traditional tying defenses are less likely to apply in secondary-refusal cases.[311] Most notably, defenses relating to the joint provision of the two goods—likely the most common justifications for traditional ties—will not usually apply in secondary-refusal cases. Such defenses argue that most consumers want both goods anyway (usually because they are close complements) and thus, by supplying them as a pair, the seller can reduce transaction costs. However, in a secondary-refusal case the primary and secondary products are generally not supplied jointly.[312] Buyers of the primary product are typically not compelled to buy the defendant's secondary good at all; they are merely restrained from buying a competing version.[313]

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309. Hence, this is neither a primary nor a secondary refusal because the relevant dealings would not have led the parties to compete in any market.

310. Many online retailers (e.g., Walmart) do exactly this.

311. This is not true of all traditional defenses, however. For example, as noted earlier, a common defense is that a tie may simply effectuate a benign price-discrimination scheme (via "metering"), and this may be relevant in many secondary-refusal cases too. *See supra* Section III.B.1.

312. If the defendant forces consumers to buy both products together, the plaintiff's complaint is properly predicated on traditional bundling, not refusal to deal. *See supra* note 272 and accompanying text.

313. For example, suppose Apple kicks the Kindle app (for reading eBooks purchased from Amazon) out of the Apple App Store. Its goal is to induce iPhone users to start buying eBooks

Second, secondary-refusal cases may require consideration of certain novel defenses that simply don't apply in traditional tying cases. These relate to various difficulties that would likely arise if a court were to impose a duty to deal. For one thing, as already noted, it may not be feasible for a court to articulate a suitable remedy in some cases, such as where there are no third-party transactions to use as a template for compulsory dealings between the defendant and its rivals.[314] This should be regarded as a relevant defense.[315]

Additionally, intervention is likely to be inappropriate if it would entail making adverse changes to the defendant's product. A likelihood of such effects cuts against a finding that antitrust intervention would do more good than harm. For example, if a duty to deal would materially diminish the quality of the defendant's primary product, then no such duty should be imposed.[316] The same applies if intervention would undermine the safety or security of the defendant's product.[317] For example, in *Epic*, Apple has argued that letting rival app stores on the iPhone would create security risks, since it would limit Apple's ability to block harmful apps.[318] If this is true—and if such risks could not reasonably be avoided—then intervention is likely inappropriate.

E. Liability for Primary Refusals?

Based on concerns relating to investment—and the difficulties of attempting to balance them against anticompetitive harm—I have argued that antitrust should generally not intervene in primary-refusal cases. The exceptions should be limited to those cases where an external source of law (most likely IP or regulatory law) indicates that the defendant should be denied a right to exclude

from Apple. This would not force iPhone users to buy any eBooks from Apple, however. It just means they are discouraged from buying eBooks from Amazon.

314. *See supra* Section IV.B.1.

315. It is important for this to be recognized as a defense. Otherwise, in cases where intervention is likely unworkable, courts may feel forced to come up with pretextual reasons for withholding liability. And the resulting precedents could end up needlessly stifling enforcement in meritorious cases that do not raise the same remedial challenges.

316. For example, in *Cyber Promotions*, the plaintiff sued after the defendant AOL (which operated an email service) refused to let the plaintiff send spam emails to the defendant's customers without being blocked or filtered out. Cyber Promotions, Inc. v. Am. Online, Inc., 948 F. Supp. 456, 457-58 (E.D. Pa. 1996); *see also id.* at 464-65 (rejecting the plaintiff's motion for a temporary restraining order).

317. *Cf.* Kramer v. Pollock-Krasner Found., 890 F. Supp. 250, 253, 259 (S.D.N.Y. 1995) (dismissing plaintiff's claims against an auction house that refused to sell an art piece without prior authentication of the piece).

318. *See* Defendant and Counter-Claimant Apple Inc.'s Answer, Defenses, and Counterclaims in Reply to Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 181, at 17, 43-44, 48.

competitors. This is a way of deferring to other areas of law that have more specific legislative mandates bearing on the tradeoff between competition and investment.

This policy also helps to clarify the allocation of responsibility between antitrust and other areas of law that have similar normative goals. For example, if Congress is implementing a regulatory scheme in a particular industry and is concerned about a regulated monopolist potentially refusing to deal with rivals, then it is helpful for legislators to understand whether antitrust could reliably curtail such efforts or whether they need to include specific protections in the new bill. Current antitrust doctrine is too open-ended and nebulous to supply much clarity on this question.[319]

Below, I discuss how a court might find that IP or regulatory law justify antitrust intervention in a primary-refusal case.

1. *IP Law and Refusals to License*

In this Section, my focus is mainly on primary-refusal cases involving a refusal to deal in IP, such as a refusal to license a patent or to sell a patented product.[320] The Patent Act expressly states that no patent owner shall be found guilty of patent "misuse" for refusing to license its patent.[321] However, the Act never indicates that such refusals are immune from antitrust liability (nor does any copyright provision). Thus, there are no explicit statutory barriers to finding antitrust liability for a refusal to deal in IP. Nor has the Supreme Court given much guidance on this point. As a result, circuit courts differ on the viability of antitrust claims for refusal to deal in IP.[322] Some courts have explicitly rejected the suggestion that such refusals can never violate the antitrust laws.[323] Others have

319. Ironically, this open-endedness may lead to less intervention, even though it facially suggests a broad scope of antitrust oversight. Legislators and regulators who are not very familiar with antitrust may assume that the essential facilities doctrine is a viable path to intervention, when in fact it is almost always a losing strategy. This may lead lawmakers to conclude that novel regulatory protections are unnecessary.

320. For a more in-depth discussion of antitrust law and refusals to license IP, see generally Shelanski, *supra* note 215; Marina Lao, *Unilateral Refusals to Sell or License Intellectual Property and the Antitrust Duty to Deal*, 9 CORNELL J.L. & PUB. POL'Y 193 (1999); and Thomas F. Cotter, *Intellectual Property and the Essential Facilities Doctrine*, 44 ANTITRUST BULL. 211 (1999).

321. 35 U.S.C. § 271(d)(4) (2018).

322. *See, e.g.*, Shelanski, *supra* note 215, at 374-78 (discussing the approaches taken by different courts).

323. Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1147, 1185 (1st Cir. 1994), *abrogated on other grounds by* Reed Elsevier, Inc. v. Muchnick, 559 U.S. 154, 159-60 (2010).

adopted a standard of de facto antitrust immunity.[324] In what follows, I will not attempt to parse existing doctrine, but will rather focus on the normative question of when antitrust intervention might be justified based on principles of IP.

A refusal to deal in IP should be immune from antitrust scrutiny whenever the defendant would likely be entitled to an injunction in the hypothetical event that its rival had obtained its desired access to the defendant's IP without permission.[325] More generally, antitrust should not impose a duty to deal that directly conflicts with IP law on the question of whether the defendant is entitled to exclude its competitor. This is not because I believe IP law will necessarily give a normatively sensible answer. That has nothing to do with it. Rather, such deference is necessary to avoid an intolerable situation in which two distinct areas of law give contradictory answers to the exact same question. At bottom, both IP law and antitrust care about the same things when assessing whether the dominant firm should have a right to exclude rivals from using its technology. It boils down to the tradeoff between static competition and dynamic innovation. But in terms of policing this tradeoff, IP law obviously has a far more specific mandate, so it is natural that antitrust should defer to it on such questions.

Importantly, however, the mere existence of an IP right does not guarantee that its owner is entitled to exclude competitors from using its technology. The right to injunctive relief is qualified by equitable considerations, including the requirement that an injunction not be awarded when it would disserve the public interest.[326] Moreover, in some situations a court may decline to find infringement liability notwithstanding that the basic elements of an infringement claim have all been established. Such possibilities could justify antitrust intervention by establishing that IP law does not support the defendant's right to exclude in the case at hand.

324. CSU, L.L.C. v. Xerox Corp., 203 F.3d 1322, 1328-29 (Fed. Cir. 2000) (holding that a refusal to license a patent, without more, cannot trigger antitrust liability). For a critical assessment of this case, see generally A. Douglas Melamed & Ali M. Stoeppelwerth, *The* CSU *Case: Facts, Formalism, and the Intersection of Antitrust and Intellectual Property Law*, 10 GEO. MASON L. REV. 407 (2002). *See also* Servicetrends, Inc. v. Siemens Med. Sys., Inc., 870 F. Supp. 1042, 1056 (N.D. Ga. 1994) ("No court has ever held that the antitrust laws require a patent holder to forfeit the exclusionary power inherent in his patent the instant his patent monopoly affords him monopoly power over a relevant product market." (quoting SCM Corp. v. Xerox Corp., 645 F.2d 1195, 1204 (2d Cir. 1981))).

325. For example, if a defendant refuses to sell a patented product, one would ask about whether the defendant would be entitled to injunctive relief if the rival had begun manufacturing an infringing version of the patented product.

326. *See* eBay Inc. v. MercExchange, L.L.C., 547 U.S. 388, 391 (2006).

Consider an example, which is based on a number of similar cases involving pharmaceuticals.[327] The defendant is a monopoly seller of a patented drug and the plaintiff-rival is a generic drug maker. To obtain FDA approval, the rival needs a few doses of the defendant's brand-name drug in order to administer tests that will show its own generic drug to be equivalent. However, the defendant refuses to sell the rival the necessary samples, and the rival has no other lawful means of obtaining them. This will prevent the rival from being able to launch a generic soon after the patent expires.[328] As such, the plaintiff claims that the defendant's refusal restrains competition in the relevant drug market (the primary product market) by delaying competitive entry beyond the date of patent expiration.

This is a nice example of a primary-refusal case in which antitrust intervention makes a lot of sense. It checks all the right boxes. First, at least in the pharmaceutical context, patent law often declines to find infringement liability for an unauthorized use of a patented article if such use is limited to research and testing used to obtain regulatory approval.[329] The implication is that patent law does not condone exclusion in such cases. It makes sense, then, for antitrust to follow suit. More generally, in light of the relief sought by the rival, there is no legal basis for worrying about undue harm to innovation incentives. In passing the Patent Act, Congress stipulated that a twenty-year monopoly is a sufficient reward for the defendant's invention, and the plaintiff's desired remedy would not prevent the defendant from receiving that reward. Rather, imposing a duty to deal would merely prevent the defendant from extending its monopoly beyond twenty years. Finally, this case presents no administrative difficulties—the defendant already sells the drug to ordinary consumers all the time.

327. *E.g.*, Natco Pharma Ltd. v. Gilead Scis., Inc., No. 14-cv-03247-DFW-JSM, 2015 WL 5718398, at *2 (D. Minn. Sept. 29, 2015); URL Pharma, Inc. v. Reckitt Benckiser, Inc., No. 2:15-cv-00505-PBT, 2015 WL 5042911, at *2 (E.D. Pa. Aug. 25, 2015). For scholarly discussion of such cases, see generally, for example, Michael A. Carrier, *Sharing, Samples, and Generics: An Antitrust Framework*, 103 CORNELL L. REV. 1 (2017).

328. If the defendant obtained samples early, it could launch a generic very soon after the patent expires. But due to the defendant's refusal, it will have to wait a year or more after expiration to perform the necessary tests. *See* Carrier, *supra* note 327, at 33.

329. *See* 35 U.S.C. § 271(e)(1) (2018) (stating that it is not "an act of [patent] infringement to . . . use . . . or import into the United States a patented invention . . . solely for uses reasonably related to the development and submission of information under a Federal law which regulates the . . . use . . . of drugs").

2. *Regulatory Law*

Regulated monopolists are sometimes obliged to deal with everyone on fair terms, including competitors.[330] When regulatory policy favors compulsory sharing of access to an important technology, this has important implications for potential antitrust intervention. It implies a determination (by regulatory law) that imposing a duty to deal would not unreasonably chill incentives for investment. Therefore, when such a regulatory policy is present,[331] antitrust intervention may be justified even in a primary-refusal case.[332]

This kind of reliance on regulatory policy is consistent with the Supreme Court's decision in *Otter Tail Power Co. v. United States*.[333] The defendant was a power company that served many small towns. When its contracts expired, some of these towns sought to create their own electricity providers, which would require that the defendant sell them power and "wheel" (i.e., deliver) it to them. When the defendant refused to do so, the Department of Justice alleged an anticompetitive refusal to deal.[334] The relevant regulatory scheme did not explicitly mandate a duty to wheel power to other electricity providers,[335] but such duties were consistent with standard regulatory policy toward natural monopolists like municipal utilities. Additionally, there was no indication that the relevant regulatory statutes sought to displace antitrust jurisdiction. These findings figured prominently into the Court's affirmance of liability for the defendant's refusal.

One can think of *Otter Tail* as a case in which antitrust essentially filled in a hole within a regulatory scheme. The antitrust remedy was consistent with regulatory policy, although such remedy could not be obtained through regulatory law directly. But what if there is already an explicit regulatory duty to deal? In

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330. *See, e.g.*, Vickers, *supra* note 7, at 391 ("[R]egulated dominant firms often have regulatory duties to supply wholesale services to rivals . . . .").

331. *See, e.g.*, Keith N. Hylton, *Economic Rents and Essential Facilities*, 1991 BYU L. REV. 1243, 1267-68 (1991) (making a similar argument).

332. Here I am assuming that the applicable body of regulatory law does not eliminate antitrust's jurisdiction over the matter (as sometimes happens in regulated settings).

333. 410 U.S. 366, 378-82 (1973) (affirming liability on a refusal-to-deal claim).

334. *Id.* at 368.

335. *See id.* at 375-76.

Trinko, the Supreme Court held that this precludes antitrust liability, as an antitrust duty to deal would be redundant.[336] It reached this conclusion notwithstanding that the relevant regulations explicitly stated they should not be interpreted to limit the scope of antitrust liability in any way.[337]

The Court's argument on this point was precarious. The relevant regulatory statutes expressly indicated that antitrust jurisdiction was to remain fully intact, and yet the Court's decision had the practical effect of eliminating antitrust oversight, at least for refusal-to-deal claims. One might justify this by arguing that, considering the availability of remedies under regulatory law, the defendant's refusal is unlikely to cause anticompetitive harm—in which case it is not an antitrust violation. However, the fact that a regulatory scheme creates a duty to deal does not automatically imply that it affords sufficient remedies to enforce that duty effectively. If a plaintiff can show that the regulatory duty to deal cannot be effectively enforced through regulatory channels, and if antitrust remedies could plausibly do a better job, then antitrust intervention may be a perfectly reasonable solution. Indeed, on these facts it is ostensibly the only way to give Congress the results it asked for.

F. Policing Digital Platforms: Antitrust or Regulation?

Like other antitrust doctrines, this paper's proposed framework would be relatively modest in terms of its interference in markets. It would intervene in discrete cases of demonstrable anticompetitive harm but would otherwise be hands-off. By contrast, in situations where the law seeks to impose intricate behavioral restrictions on firms within a particular industry, the preferred policy instrument is typically industrial regulation (e.g., telecom regulation), not antitrust.[338] A regulatory scheme can afford to enact more specific rules and to enforce them more efficiently (such as through specialized administrative proceedings).

By contrast, antitrust operates in all industries by default, and this necessarily limits how effective it can be in any one of them. It must maintain very general rules and standards to ensure they can be applied universally. And nearly every enforcement action requires full-blown litigation in an Article III court, which can take years to reach a final judgment. Finally, antitrust liability is limited to

336. *See* Verizon Commc'ns Inc. v. Law Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 411 (2004) (holding that antitrust intervention "serves no purpose" if there is already a regulatory duty to deal).

337. *Id.* at 406-07.

338. *Cf.* Howard A. Shelanski, *The Case for Rebalancing Antitrust and Regulation*, 109 MICH. L. REV. 683, 718-29 (2011) (discussing the comparative strengths and weaknesses of antitrust versus regulation).

actions that are "anticompetitive" in the sense that they deprive the public of the economic benefits of competition. But some undesirable commercial practices are undesirable for different reasons, in which case antitrust is ill-suited to combat them.[339]

Accordingly, a regulatory approach is likely to be a more effective instrument for implementing complex behavioral restrictions targeted at a relatively small group of firms (e.g., search engines or social media companies).[340] By analogy, we could—in principle—attempt to police industrial pollution with tort law rather than an independent body of statutory environmental regulations. After all, many old nuisance cases were brought by farmers or other residents who lived near industrial defendants that were polluting the air.[341] But this is obviously not the best way to address pollution. Like antitrust, tort law operates entirely through the court system and has its own limited conception of actionable harm. Thus, enforcement against polluters would be slow and costly, and not all harmful pollution would be reachable.

Net neutrality is a useful case study. Net neutrality is a policy under which internet service providers are prohibited from discriminating against specific providers of online content, such as by blocking their content.[342] Such discrimination may constitute a secondary refusal if it is aimed at a competitor in an adjacent market.[343] Thus, at least in some instances, violations of net neutrality could be reachable under antitrust law. However, proponents of net neutrality have mostly advocated for a regulatory approach.[344] For example, there is a widespread view that many possible forms of undesirable discrimination would not

339. For example, data-privacy concerns are widespread in the digital-platform context. But it is not clear that they could form the basis of a viable antitrust action. *See, e.g.*, D. Daniel Sokol & Roisin Comerford, *Antitrust and Regulating Big Data*, 23 GEO. MASON L. REV. 1129, 1161 (2016).

340. *See, e.g.*, Rogerson & Shelanski, *supra* note 13, at 1912-15 (making a similar argument).

341. *See, e.g.*, Jost v. Dairyland Power Coop., 172 N.W.2d 647 (Wis. 1969).

342. Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141, 141 (2003); *see also* Shane Greenstein, Martin Peitz & Tommaso Valletti, *Net Neutrality: A Fast Lane to Understanding the Trade-Offs*, 30 J. ECON. PERSPS. 127, 129-33 (2016) (discussing the public debate about net neutrality).

343. An example would be if Comcast (which is an internet service provider that also offers cable TV service) restricted its internet customers' access to Netflix, which competes with Comcast's TV service to some extent.

344. James B. Speta, *Unintentional Antitrust: The FCC's Only (and Better) Way Forward with Net Neutrality After the Mess of* Verizon v. FCC, 66 FED. COMMC'NS L.J. 491, 492 (2014) ("[N]et neutrality advocates have argued that antitrust is neither doctrinally nor institutionally adequate for the task.").

be actionable under antitrust, because they are harmful in ways that antitrust is not sensitive to.[345]

However, the superiority of a *hypothetical* regulatory regime is not a good justification for preemptively withdrawing antitrust scrutiny. There is no guarantee that Congress will pass a regulatory statute just because it would be more efficient than antitrust. And even if an existing regulatory agency has the authority to impose suitable restrictions, it might not do so.[346] In such cases, antitrust should remain on the table even if it is not the ideal form of intervention.

While antitrust can in principle help to compensate for the absence of regulation, this is not a good reason to support extremely open-ended and indeterminate standards of liability, such as the essential facilities doctrine in its original form. This is not a stable solution, and in the long run it is likely to have an overall negative effect on antitrust-enforcement efforts. Courts are deeply uncomfortable with standards that lack discernable or administrable limitations on liability. And, as history shows, they respond to the absence of such limitations by creating their own, often by enacting arbitrary or pretextual proof requirements. Such limitations then wind up killing off meritorious cases alongside frivolous ones.

CONCLUSION

The antitrust duty to deal and its accompanying case law has always been controversial and unclear. But many of the problems with current law stem from the fact that it applies the same legal standards to two very different lines of cases that raise distinct normative concerns. Secondary-refusal cases raise essentially the same theory of harm as a tie or similar restraint. By contrast, primary refusals are not analogous to any conventional type of antitrust violation; rather, they resemble the hypothetical doctrine of no-fault monopoly.

These two lines of cases demand different liability standards. Any attempt to apply a common standard is bound to produce serious problems in one line or the other. I have argued that secondary refusals should be challengeable as de facto vertical restraints. By contrast, primary refusals should generally be immune unless an external source of law (most likely IP or regulatory law) suggests that the defendant should be denied a right to exclude rivals from its input technology.

345. *Id.* at 494.

346. For example, the Federal Communications Commission repealed its net-neutrality policies under the Trump administration.

This proposal offers many benefits. Most importantly, it provides a reasonable way of addressing investment concerns without needlessly undermining antitrust enforcement. It ensures that a firm that obtains a monopoly on the merits is not obliged to give it up; the firm is only prohibited from exploiting that monopoly to foreclose competitors in other markets. The proposal is also unlikely to raise significant administrability challenges, for such difficulties are much less common in secondary-refusal cases. Additionally, this proposed framework would be highly analogous to the way antitrust already treats other forms of unilateral conduct. Finally, this proposal would offer meaningful antitrust scrutiny of platform conduct without requiring any departure from bedrock antitrust principles.

APPENDIX

Let inverse demand be $P = a - Q$, where $Q = q_1 + q_2$ is total output. Profits are $\pi_1 = (P - k - c)q_1 + (w - c)q_2$ for firm 1 and $\pi_2 = (P - k - w)q_2$ for firm 2. We assume $a > k + c$.[347] Conditional on w, the Nash-Cournot equilibrium is

$$q_1^*(w) = \frac{a - k - 2c + w}{3}, \quad q_2^*(w) = \frac{a - k + c - 2w}{3}.$$

This yields a market price $P^*(w) = (a + 2k + c + w)/3$. The first order conditions imply $q_1^* = P^* - k - c$ and $q_2^* = P^* - k - w$. Thus, equilibrium profits can be expressed as

$$\pi_1^*(w) = [q_1^*(w)]^2 + q_2^*(w)(w - c), \ \ \pi_2^*(w) = [q_2^*(w)]^2.$$

With this, it is easy to verify that $\frac{d}{dw}[\pi_1^*(w) + \pi_2^*(w)] > 0$ whenever $w < w^{choke}$, where $w^{choke} \equiv (a - k + c)/2$ is pinned down by $q_2^*(w^{choke}) = 0$. Since any prohibitive price ($w \geq w^{choke}$) results in monopoly, this implies that the firms cannot mutually benefit from dealing at any nonprohibitive price. Such dealing would necessarily raise output above the monopoly level, making the market more competitive and thus reducing total profits.

Now consider what wholesale price firm 1 would charge to a hypothetical noncompetitor with the same demand for the input as firm 2. This can be thought of as an upstream customer whose demand function is $D(w) = q_2^*(w)$. Firm 1 will choose w to maximize $q_2^*(w)(w - c)$. The solution is $w^* = (a - k + 3c)/4$. It is easy to verify that $w^* < w^{choke}$ if and only if $a > k + c$, which is true. Thus, firm 1 would offer a nonprohibitive price to the hypothetical noncompetitor.

Using the results above, one can plug in the values $a = 14$ and $c = k = 1$ to obtain the numerical results from the main text.

347. This is necessary to ensure that there will be nonzero output in equilibrium.