Platform Exclusion of Competing Sellers

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Most major platforms sell many of their own products, which typically results in direct competition between the platform and its own business users. A firm may exploit its control of a dominant platform to undermine competition in adjacent product markets, such as by excluding competitors from the platform or making their product listings hard to find. Alternatively, it might engage in milder acts of "self-preferencing," such as ranking its own products first in search results. In American antitrust law, antiquated legal doctrine generally places these acts within a special class of unilateral conduct that is almost impossible to challenge. Thus, existing antitrust law does almost nothing to prevent platforms from excluding rivals in adjacent markets, so long as they do so through unilateral conduct.

This Article suggests a new antitrust framework for policing unilateral platform conduct in a practicable way that is consistent with antitrust principles. When it is anticompetitive, the conduct in question typically raises the same concerns as the tying arrangement in the famous Microsoft *case—namely, that a vertically integrated firm is exploiting a dominant platform to foreclose rivals in an adjacent market. As such, courts should evaluate most unilateral platform conduct under a revised liability standard that resembles the one applied in* Microsoft*, rather than the idiosyncratic and inapposite rules applied under existing law. After sketching out the basic proposal, the bulk of the Article focuses on applying it to real-world cases, such as analyzing foreclosure, defining markets, overcoming proof difficulties, and evaluating potential defenses.*

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INTRODUCTION

Antitrust is in the public spotlight amid concerns that it is failing to curb anticompetitive abuses by major tech platforms like Google, Amazon, and Apple. Much of the attention has focused on allegations that these companies discriminate against competitors in adjacent markets that rely on their platforms to reach consumers.[1]

Such acts vary significantly in their potential competitive effects. At the extreme end, rival products may be completely excluded from the platform. For example, the FTC's recent complaint against Facebook alleged that it had selectively refused to grant API access—which is necessary for apps to interconnect with Facebook's social platform—to any firms whose products competed with Facebook products.[2] Similarly, Apple has been accused of removing third-party screen time apps from its App Store shortly after introducing its own screen time app.[3]

At the other end of the spectrum are comparatively mild acts of "self-preferencing." For example, numerous platforms are accused of manipulating search results to list their own products above those of rivals.[4] Similarly, Google is accused of including its own information services (e.g., business reviews or maps) within Google Search results, rather than giving priority to "superior, more relevant competitors' products."[5]

Under existing American antitrust law, such acts generally fall under the umbrella of a *unilateral refusal to deal* (RTD).[6] As the name suggests, this applies when a firm refuses to do business with a competitor, or else deals with it only on adverse or discriminatory terms.[7] Officially, antitrust law prohibits RTDs when they serve to create or maintain a

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1. For academic commentary, see generally John B. Kirkwood, *Tech Giant Exclusion*, 74 FLA. L. REV. 63 (2022); William P. Rogerson & Howard Shelanski, *Antitrust Enforcement, Regulation, and Digital Platforms*, 168 U. PA. L. REV. 1911 (2020); Lina M. Khan, *The Separation of Platforms and Commerce*, 119 COLUM. L. REV. 973 (2019); Spencer Weber Waller, *Antitrust and Social Networking*, 90 N.C. L. REV. 1771 (2012). For a European competition perspective, see generally Christian Bergqvist & Elisa Faustinelli, Leveraging Conducts in the Digital Economy: A Competition and Regulatory Perspective (Sept. 27, 2022) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4148872 [https://perma.cc/9CTR-X2H7].

2. Complaint for Injunctive and Other Equitable Relief, FTC v. Facebook, Inc., No. 20-cv-03590 (D.D.C. Dec. 9, 2020).

3. *See, e.g.*, Sarah Perez, *Apple CEO Tim Cook Questioned over App Store's Removal of Rival Screen Time Apps in Antitrust Hearing*, TECHCRUNCH (July 29, 2020), https://techcrunch.com/2020/07/29/apple-ceo-tim-cook-questioned-over-app-stores-removal-of-rival-screen-time-apps-in-antitrust-hearing [https://perma.cc/5B5F-DBQJ].

4. *See, e.g.*, Adrianne Jeffries & Leon Yin, *Amazon Puts Its Own "Brands" First Above Better-Rated Products*, MARKUP (Oct. 14, 2021), https://themarkup.org/amazons-advantage/2021/10/14/amazon-puts-its-own-brands-first-above-better-rated-products [https://perma.cc/DKT7-9ZFD].

5. *See, e.g.*, STAFF OF H. COMM. ON THE JUDICIARY AND SUBCOMM. ON ANTITRUST, COM., & ADMIN. L., 117TH CONG., INVESTIGATION OF COMPETITION IN DIGITAL MARKETS 156 (Comm. Print 2022).

6. *See infra* Part I.

7. *Id.*

monopoly.[8] As a practical matter, however, this area of antitrust has become toothless. Courts have consistently chipped away at it over the last few decades based on concerns that it might chill investment and that it might be too hard to administer.[9]

As a result, platform RTDs are virtually impossible to challenge under current law.[10] This has spurred many calls for reform, leading a bipartisan group of legislators to propose a new antitrust bill intended to prevent the largest platforms from treating rivals unfairly.[11] However, these proposals are themselves problematic.[12] They do a poor job of limiting antitrust scrutiny to those cases creating a genuine risk of anticompetitive harm. As a result, they would tend to discourage platforms from introducing valuable new products, resulting in widespread collateral damage to competition and innovation.[13]

Building on other recent work,[14] this Article proposes a new antitrust framework for addressing platform RTDs. A central goal is to address the relevant economic issues in the most practical and straightforward way possible. To do so, this Article builds on antitrust concepts that are already familiar to judges and practitioners, avoiding the need for complex new legislation.

Although the rise of dominant platforms is a relatively recent phenomenon, the antitrust concerns raised by platform RTDs are not new. They are essentially the same concerns associated with tying arrangements and similar conduct by dominant firms. In a canonical case of anticompetitive tying, the defendant has monopoly power in some "primary" market, and it also operates in some related "secondary" market, where it faces competition.[15] The tie requires purchasers of the primary product to use the defendant's brand of the secondary product.[16] Because the defendant has monopoly power over the primary product, many consumers will accept the tie even if they would have preferred to use a competing brand of the secondary product. This may foreclose rivals in the secondary market.[17]

Platform RTDs can generate precisely the same competitive effects; they simply do so in a slightly different way. For example, consider the Apple allegations mentioned above. They suggest that Apple may be exploiting its control of a major platform (its App Store) to foreclose rivals in an adjacent market that relies on the platform to reach consumers (the market for screen time apps).[18]

Current RTD doctrine is a bad fit for evaluating platform RTDs because it does not ask the right economic questions. The doctrine is highly idiosyncratic; its animating liability standard looks nothing like those applied to other forms of exclusionary conduct. Rather than focusing on competitive effects, the doctrine fixates on contrived tests of the

8. *Id.*
9. *Id.*
10. For example, in the FTC suit against Facebook, the district court harshly rejected the portion of the complaint focusing on Facebook's refusal to deal with rivals. Fed. Trade Comm'n v. Facebook, Inc., 560 F. Supp. 3d 1, 23 (D.D.C. 2021).
11. American Innovation and Choice Online Act, S. 2992, 117th Cong. (2021).
12. *See infra* Part VIII.
13. *Id.*
14. Erik Hovenkamp, *The Antitrust Duty to Deal in the Age of Big Tech*, 131 YALE L.J. 1483 (2022).
15. In a tying case, the primary and secondary goods are generally complements.
16. *See, e.g.,* Hovenkamp, *supra* note 14 (discussing tying doctrine).
17. That is, it impairs rivals' ability to compete by restraining consumers from buying their products.
18. Perez, *supra* note 3.

defendant's motive.[19] Moreover, it developed primarily from cases involving a single relevant market. The doctrine thus does not contemplate the possibility that the defendant may be exploiting a monopoly in one market to foreclose competition in another.[20]

The *Microsoft* tying case provides a much better model for evaluating platform RTDs.[21] That case similarly involved a defendant that exploited a dominant platform (the Windows operating system[22]) to impair competition in a secondary market (the web browser market).[23] Unfortunately, formalistic legal doctrine currently prevents courts from evaluating platform RTDs through the lens of *Microsoft*. This is because existing law draws a sharp distinction between RTDs and vertical restraints like tying, even if they produce the same economic effects.[24]

I argue that most platform RTDs should be evaluated under a new standard of liability.[25] In a nutshell, if a defendant's RTD exploits a dominant platform to undermine competition in an adjacent product market, then the court should apply a standard resembling the one applied in *Microsoft.* This means that the court would focus mainly on the likelihood of appreciable foreclosure in the secondary market, and on potential procompetitive justifications for the defendant's conduct. By contrast, all other RTD cases (most of which bear no meaningful resemblance to tying) would continue to be evaluated under existing RTD doctrine.

After sketching out this proposal, the balance of this Article focuses on its application to real-world cases involving dominant platforms. Part III considers when platform RTDs may lead to significant foreclosure in a secondary market.[26] In most situations where a rival's product is removed from a platform, it is still possible for consumers to access the excluded good through alternative channels. A key hurdle for the plaintiff is thus to explain why we might expect appreciable foreclosure given this potential for going around the platform. I identify several situations in which this would happen.

Part IV analyzes conditions under which platform RTDs are likely to be a profitable exclusion strategy.[27] This helps to assess the plausibility that a defendant's conduct serves an anticompetitive function. Some familiar results from the industrial organization literature on tying help to shed light on this question.

Part V discusses relevant questions about market definition. The appropriate definition of the platform market (and the defendant's power therein) may depend on the characteristics of the adjacent product market in question. Additionally, in some cases, it may be appropriate to define the adjacent market as a platform-specific aftermarket. Although antitrust experts are typically wary of this kind of aftermarket-based definition—

19. *See infra* Part I.
20. *Id.*
21. United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).
22. An operating system is a type of two-sided platform that connects software developers and software users. *See infra* note 47 and accompanying text.
23. *Microsoft*, 253 F.3d at 45, 47–48.
24. *See* Hovenkamp, *supra* note 14 (discussing the doctrinal origins of this distinction).
25. *See infra* Part II.
26. *See infra* Part III.
27. *See infra* Part IV.

as evidenced by the controversy surrounding the Supreme Court's *Kodak* decision[28]—those concerns may be avoided in some situations involving digital platforms whose business users span many distinct product markets.

I also discuss defenses, proof difficulties, and the potential for platform RTDs to be essentially nakedly anticompetitive. The latter possibility may arise when a defendant removes competing products from its platform, and it seems unlikely that there is a reasonable justification for this (e.g., protecting users' security). As this Part explains, relative to traditional tying cases, it will tend to be more difficult to measure foreclosure in platform RTD cases.[29] But it will also tend to be easier to rule out potential defenses (conditional on the conduct being anticompetitive). As a result, liability determinations may hinge more on ruling out potential justifications and less on quantifying the resulting foreclosure.

I then discuss commonly alleged forms of "self-preferencing," such as when a platform lists its own product first within search results. This can be viewed as a relatively mild RTD. However, such acts are unlikely to generate significant foreclosures insofar as they do not put rivals at a substantial competitive disadvantage. Thus, the proposal advocated in this paper would not typically proscribe mild forms of self-preferencing. This is reinforced by various administrative difficulties that would tend to arise in such cases.

Finally, Part VIII discusses problems with recent legislative proposals and offers some concluding remarks. I argue that the easiest way for this Article's proposal to be adopted would be for the Supreme Court to carve out an exception to existing RTD doctrine—one that applies specifically to platform RTDs that threaten competition in an adjacent market. This avoids the need for the Supreme Court to overturn any of its prior decisions.

I. LEGAL BACKGROUND

Generally, a firm has no duty to deal with anyone, including a rival.[30] However, antitrust recognizes a possible exception in cases where a monopolist's RTD serves a purely exclusionary function.[31] This refusal-to-deal doctrine, and the closely related "essential facilities" doctrine,[32] apply to situations where a dominant firm (1) unilaterally and (2) unconditionally[33] (3) refuses to deal with a rival, or else deals with the rival only on adverse terms.[34]

28. Eastman Kodak Co. v. Image Technical Servs., Inc., 504 U.S. 541 (1992); *see, e.g.*, Dennis W. Carlton, *A General Analysis of Exclusionary Conduct and Refusal to Deal—Why* Aspen *and* Kodak *Are Misguided*, 68 ANTITRUST L.J. 659 (2001) (criticizing the *Kodak* decision).

29. *See infra* Part V.

30. Hovenkamp, *supra* note 14, at 1513 n.158.

31. *Id.* at 1499–1502).

32. I will focus on RTD claims, because the Supreme Court has declined to recognize the essential facilities doctrine as a separate doctrine, and in any case, the limited distinctions between them are immaterial to the arguments in this Article.

33. This excludes cases where a defendant conditionally refuses to deal with customers (e.g., if they purchase goods from the defendant's rival). *See* Hovenkamp, *supra* note 14, at 1537–38.

34. The latter possibility reflects the fact that "[a]n offer to deal with a competitor only on unreasonable terms and conditions can amount to a practical refusal to deal." MetroNet Servs. Corp. v. Qwest Corp., 383 F.3d 1124, 1132 (9th Cir. 2004).

The doctrine is highly controversial. The principal concern is that imposing a duty to deal with rivals would chill investment in new technologies by creating a freeriding problem.[35] For example, suppose Intel obtains a monopoly in the computer chip market by building an advanced (and very expensive) production plant that allows it to produce faster chips than rivals. A rival offers to pay Intel for the right to use the plant (perhaps during the night, when it is usually not in use), which would allow it to sell comparable chips. But Intel refuses. Should antitrust impose a duty to deal in such cases? Surely not. Such a policy would chill investment in new technologies, both by reducing the private returns on investment and by increasing the viability of freeriding as a competitive strategy.

An additional concern is that imposing a duty to deal may be too hard to administer. For example, it could require courts to stipulate the prices or other terms of dealing, which is the kind of specialized task ordinarily delegated to a regulatory authority.[36]

Modern RTD doctrine began with the Supreme Court's 1985 *Aspen* decision.[37] In that case, the Court upheld liability for an RTD based on the jury's finding that it was motivated purely by exclusion.[38] The defendant had previously dealt with the plaintiff-rival voluntarily; but the relationship eventually soured, and the defendant refused to continue dealing.[39] This imperiled its rival's ability to remain operational. In the Court's view, the parties' history of prior voluntary dealings implied that such dealings were profitable for both sides, suggesting that the defendant's termination of those dealings caused it to sacrifice short-term profits.[40] The Court believed that this supported a finding that the RTD was undertaken for purely exclusionary reasons.[41]

Two decades later, the Supreme Court's *Trinko* decision strongly criticized the RTD doctrine.[42] It declined to formally overturn *Aspen*, but it characterized the decision as an extreme outlier.[43] The Court did not attempt to clarify what the operative legal standard was, but it was clear that the scope of liability should be extremely narrow. In response, courts have adopted very stringent evidentiary requirements that effectively narrow the scope of liability around the peculiar facts of *Aspen*.[44]

Specifically, most circuits require a plaintiff to give evidence that (1) there was a history of voluntary dealing between the defendant and its rival prior to the defendant's RTD; (2) the defendant's RTD caused it to sacrifice profits in the short run; and (3) the only conceivable rationale for this sacrifice was to reap monopoly profits in the long run

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35. Verizon Commc'ns Inc. v. L. Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 407–08 (2004) (imposing a duty to deal with rivals may "lessen the incentive . . . to invest").

36. *Id.* at 408 ("Enforced sharing also requires courts to act as central planners, identifying the proper price, quantity, and other terms of dealing . . . .").

37. Aspen Skiing Co. v. Aspen Highlands Skiing Corp., 472 U.S. 585 (1985).

38. *Id.* at 610–11.

39. *Id.* at 588–95.

40. *Id.* at 611.

41. *Id.*

42. Verizon Commc'ns Inc. v. L. Offs. of Curtis V. Trinko, LLP, 540 U.S. 398, 406–09 (2004).

43. *Id.* at 409 ("*Aspen Skiing* is at or near the outer boundary of § 2 liability.").

44. *See, e.g.*, FTC v. Qualcomm Inc., 969 F.3d 974, 994–95 (9th Cir. 2020); Novell, Inc. v. Microsoft Corp., 731 F.3d 1064, 1074–75 (10th Cir. 2013).

by excluding the rival.[45] These proof requirements are exceptionally difficult to satisfy, which is reflected in the fact that no plaintiff has won a case since *Trinko*.[46]

II. RESHAPING THE ANTITRUST ANALYSIS OF PLATFORM RTDS

The basic concern with tying is that the defendant may be exploiting its monopoly in the primary product to impair competition in the secondary market. However, a tying arrangement is just one possible mechanism that can be used to accomplish this. A platform RTD is another possible mechanism.

In a platform RTD, the primary product is a two-sided platform that caters to both consumers and businesses.[47] Businesses use the platform to help commercialize their products.[48] The defendant is also integrated into some "secondary" market whose sellers rely on the platform to reach consumers. The defendant may then exploit its control of the platform to foreclose rivals in the secondary market. And in most such cases, this conduct will fall under the legal definition of an RTD.

This RTD could involve an outright refusal to let rivals access the platform. However, in most cases the defendant need not go that far to foreclose rivals. Instead, the defendant may manipulate its control of the platform in ways that put rivals at a severe disadvantage, substantially reducing their ability to reach consumers over the platform. For example, it could make their product listings hard to find on the platform, or it could force them to pay much higher fees to use the platform, relative to what other (non-competing) businesses pay.[49]

From an economic perspective, there may be no meaningful difference between a platform RTD and a tying arrangement or other vertical restraint. However, formalistic line-drawing prevents courts from acknowledging this fact. A good way to illustrate this problem is to show that a small (and economically insignificant) change in facts can easily transform a tying case into an RTD case, forcing the court to apply a completely different legal standard to an extremely similar set of facts.

For example, consider *Microsoft*.[50] In that case, Microsoft used a combination of vertical agreements and software design features to tie its Internet Explorer browser to its Windows operating system, which foreclosed competing browsers like Netscape.[51] Now consider a slight change to these facts. Suppose that Windows came with its own app store, and that all software programs had to be acquired through it. And rather than explicitly

45. *See* cases cited *supra* note 44.

46. The lone exception, a recent district court judgment for the plaintiff, was overturned on appeal. *Qualcomm Inc.*, 969 F.3d at 994–95.

47. Platforms are often described as "two-sided" (or multi-sided) because they deal with two distinct groups (or "sides") of customers. *See, e.g.*, Jean-Charles Rochet & Jean Tirole, *Platform Competition in Two-Sided Markets*, 1 J. EUR. ECON. ASSN. 990 (2003). In many cases, one side of the platform is business-facing, while the other is consumer-facing. For example, an app store is a platform that deals with both app developers and app consumers. And Amazon Marketplace is a platform that deals with both third-party sellers and consumers.

48. *Id.*

49. This would raise the rivals' costs of doing business on the platform, putting them at a significant competitive disadvantage. Raising rivals' costs is a well-known exclusion strategy. *See* Thomas G. Krattenmaker & Steven C. Salop, *Anticompetitive Exclusion: Raising Rivals' Costs to Achieve Power over Price*, 96 YALE L.J. 209 (1986).

50. United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001).

51. *Id.* at 60.

tying Internet Explorer to Windows, Microsoft simply refused to let competing browsers into its app store.

This generates precisely the same anticompetitive effects as Microsoft's tie.[52] Thus, as an economic matter, this change in facts should not make much difference to how the case is evaluated. But, as a legal matter, it would make an immense difference, as it transforms *Microsoft* into an RTD case. This would require the court to apply the *Trinko*/*Aspen* RTD standard, making the case virtually unwinnable under existing law.

Consider another example. Recall the allegation that Apple excluded all competing screen time apps from its App Store.[53] This is an RTD. Suppose instead that Apple did not offer its own screen time app, and instead the developer of the leading such app paid Apple to remove all competing apps from the store. The case now involves exclusive dealing (a vertical restraint) rather than an RTD, but clearly the competitive effects are identical. However, as in the *Microsoft* hypo, this change in facts would completely change the legal standard applied by the court.[54]

A. Establishing a New Legal Standard for Platform RTDs

At bottom, the problem with current law is that it decides too much based on formalistic line-drawing. Courts mechanically apply the *Trinko*/*Aspen* standard to any case that happens to involve an RTD, even if it bears no meaningful resemblance to *Trinko* or *Aspen*.[55]

To fix this, courts should recognize an exception to existing RTD doctrine. If a platform RTD raises essentially the same economic concerns at issue in *Microsoft* (a requirement I define more concretely below), then the court should not apply the usual *Trinko*/*Aspen* standard. Instead, it should apply a new standard—one that focuses mainly on the foreclosure of secondary-market rivals, as in *Microsoft*.

It is worth clarifying how this would differ from the status quo. At present, the *Trinko*/*Aspen* framework treats all RTDs as a form of predation, analogous to predatory pricing.[56] Unlike most areas of antitrust,[57] the focus of this framework is not on competitive effects, but rather on the defendant's intent or motive.[58] This is why, for example, courts fixate so intently on whether the defendant sacrificed short-term profits. Additionally, RTD doctrine contemplates a single relevant market.[59] That is, it assumes

52. *Id.* Both tactics prevent consumers from using rival browsers on a Windows machine.

53. *See supra* notes 3 & 18 and accompanying text (reporting on allegations regarding Apple's app store).

54. Under section 2, the legal standard applied to exclusive dealing is like that applied to tying arrangements. 15 U.S.C. § 2. Both focus on the likelihood of substantial foreclosure in the relevant market (which, in this hypo, is the market for screen time apps).

55. Erik Hovenkamp, Trinko *Meets* Microsoft*: Leverage and Foreclosure in Platform Refusals to Deal*, 1 ANTITRUST CHRON. 23, 24 (2023).

56. *See, e.g.*, *In re* Dealer Mgmt. Sys. Antitrust Litig., 313 F. Supp. 3d 931, 948 (N.D. Ill. 2018).

57. This symposium, for example, includes commentary of antitrust focusing on competitive effects. *E.g.*, Richard A. Epstein, *The DOJ and FTC's Misguided Attack on Mergers*, 49 J. CORP. L. 275 (2024) (discussing the FTC and DOJ's unwillingness to address the procompetitive benefits of certain mergers).

58. Indeed, in many historical RTD cases the courts would deny liability even though it was obvious that the defendant's refusal would reduce competition by preventing competitive entry. Courts justify this based on a finding that the defendant has a "valid business reason" for the refusal. Thus, an RTD that forestalls competition is not unlawful unless it was undertaken purely for that purpose. *See* Hovenkamp, *supra* note 14, at 1498–1501.

59. *Id.*

that the alleged exclusion occurs in the same market in which the defendant possesses monopoly power.

By contrast, if platform RTDs were evaluated by analogy to *Microsoft*, the existence of separate primary and secondary product markets would be central to the theory of the case. The court's liability determination would hinge on a very different set of considerations. It would not focus myopically on the defendant's motive. Thus, there would be no rigid requirement to show a profit sacrifice or prior voluntary dealing, just as such evidence is not required in ordinary tying cases. Instead, the court would focus mainly on the likelihood of appreciable foreclosure in the secondary market and on potential justifications for the RTD.

B. Determining When the New Standard Applies

One difficulty introduced by this proposal is the need to determine when the new liability standard applies. It is easy to see that not all RTD cases that happen to involve a platform defendant should qualify for the exception.

For example, suppose Google is approached by a prospective rival in the search engine market. The rival's search algorithm is doing a poor job of predicting what results will be relevant to search users. It could improve it with more data on consumer behavior, or with a better-designed algorithm. The rival thus asks Google to sell it access to its search data and to copy its algorithm design, but Google refuses.

Antitrust intervention in this case would raise all the usual problems associated with RTD doctrine generally. The rival, unable to field a viable product on its own, seeks to free ride on Google's technology instead. This is not the right way to stimulate competition. Antitrust intervention would also be hard to administer. There is no "established price" for copying Google's algorithm, since Google is not in the habit of licensing it out. So, the court would presumably have to determine the price and other terms of dealing.

Contrast this hypo with another. Suppose Google removes all competing map apps from its Google Play store. As a result, Android users are effectively forced to use Google Maps. This case seems far more worthy of antitrust scrutiny. As in the *Microsoft* RTD hypo, the defendant is exploiting its control of a dominant platform (its app store) to impede competition in a secondary market (the market for map apps). By contrast, the previous hypo does not raise this concern.

To qualify for the new liability standard, the plaintiff should be required to make two showings. First, as in a tying case, the plaintiff must be able to identify separate primary and secondary products.[60] In a platform RTD case, we can make this more specific. The primary product should be a platform service used by businesses to reach consumers.[61] And the secondary product should be something whose sellers rely on the platform service for that purpose.

Second, the plaintiff must identify an RTD. As noted above, this could involve a complete denial of access to the platform, or it could involve somehow degrading rivals' ability to use the platform to reach consumers. In either case, the service allegedly being

60. *See, e.g.*, Epic Games, Inc. v. Apple, Inc., 67 F.4th 946, 994 (9th Cir. 2023) (discussing the "separate products" requirement in tying claims).

61. For example, it might provide distribution or marketing services.

denied or degraded must be one that the defendant already offers voluntarily to other businesses.[62]

C. Avoiding Investment and Administrability Problems

As noted earlier, RTD doctrine is controversial because of concerns that it will chill investment in new technologies and that it is too hard for courts to administer. Here, I briefly explain why the proposal outlined above is unlikely to raise these problems.

The investment concerns reflect the general view that antitrust should not condemn a firm for obtaining a monopoly "on the merits," such as by developing a higher quality product. Such successes generally require significant innovation or other costly undertakings,[63] and these efforts should be encouraged, not punished. Thus, when a firm obtains a monopoly on the merits, antitrust should not take it away by forcing the firm to share its proprietary technology with rivals.

However, another fundamental antitrust principle asserts that, even if a firm obtains a monopoly on the merits, it may not use that monopoly to impede competition *in a separate market*.[64] This is the principle that underpins antitrust's tying doctrine.

Antitrust limits on platform RTDs, like those on tying, are consistent with both principles. Such limits do not take away the defendant's monopoly over the primary product, and hence do not deprive it of the fruits of its prior investments.[65] Instead, they merely prevent the defendant from exploiting that monopoly to impede competition in other markets.[66]

This proposal is also unlikely to raise significant administrative difficulties. The defendant already offers its platform services to many noncompeting businesses.[67] Thus, a court need not invent the terms of trade from scratch; it can just tell the defendant to offer its rival the same terms it offers everyone else.

III. ASSESSING FORECLOSURE

As illustrated below, the "foreclosure" threatened by a platform RTD can take different forms, depending on the nature of the platform and its conduct. However, the basic concern is that the defendant's RTD may diminish the ability of secondary-market rivals to reach consumers. This requires both that the platform service plays an important

62. There are a few reasons for this requirement. First, it avoids the need for the court to set a price since the platform's dealings with third parties can be used to establish a market price. Second, it avoids the possibility that the defendant might have to create some bespoke technology to accommodate its rivals, which would raise thorny administrative issues. Third, if the relevant platform service is widely sold to third-party businesses, this helps support the finding that it is a "separate product" for antitrust purposes.

63. An exception is so-called "natural monopoly," which arises when market conditions (e.g., large scale economies) make sustained competition impossible. In such cases, a firm may obtain a monopoly simply because it was the first to enter the market. However, natural monopoly is generally addressed through regulation, not antitrust, as in the case of regulated utilities like electricity service. This is because natural monopolies usually require continuous oversight (e.g., to keep their pricing in check), which antitrust is ill-equipped to provide.

64. Hovenkamp, *supra* note 55, at 25.

65. *Id.* at 26.

66. *Id.*

67. For example, in the Google Maps example, Google already allows countless other navigation apps into its app store.

role in facilitating trade in the secondary market,[68] and that the defendant's conduct appreciably limits rivals' ability to utilize that service.[69]

One difference between platform RTDs and literal tying is that, in the latter case, users of the defendant's primary product are contractually obligated to buy its own version of the secondary product.[70] By contrast, when a platform excludes secondary market rivals from its storefront, its users are not legally prohibited from buying a competing brand of the secondary product,[71] but they will have to do it through an alternative channel.[72] A key antitrust question is when this would nevertheless be sufficient to effect significant foreclosure in the secondary market. Below, I consider three such possibilities.

A. Leveraging the Platform's Value Over Alternatives

The first possibility is the most analogous to traditional tying. Consumers may attach significant value to using the defendant's platform to access the secondary product, as opposed to an alternative channel. As a result, if a rival's secondary product is excluded from the platform, a consumer may grudgingly settle for the platform's version despite preferring the excluded one. For example, suppose Microsoft rendered Zoom inoperable on Windows to promote its competing alternative, Microsoft Teams. A consumer who strongly prefers Windows over alternative PC operating systems may then feel compelled to settle for Teams, even though Zoom remains available on less popular operating systems.

A closely related possibility is that excluding rivals may raise rivals' costs of distribution or increase transaction costs more generally.[73] That is, the alternative channels may be more costly or less convenient. For example, suppose that a competing secondary product is removed from Amazon, after which it can only be obtained through the rival's own website. The rival is unlikely to be able to match Amazon's fast shipping or low shipping costs, increasing the cost of the transaction. Many consumers may decide that this cost is prohibitive, leading them to buy Amazon's version of the secondary product instead.[74]

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68. This is a market power requirement. For example, this might be established by showing that a large portion of total sales of the secondary product rely in some way on the defendant's platform.

69. Of course, the latter condition is most easily satisfied in cases where rivals are simply denied access to the platform.

70. *See, e.g.*, Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 12 (1984) ("[T]he essential characteristic of an invalid tying arrangement lies in the seller's exploitation of its control over the tying product to force the buyer into the purchase of a tied product.").

71. For example, suppose that Google introduced a new weather app and then removed rival weather apps from its Google Play Store. Unlike a traditional tying case, there is no contract that conditions access to the Play Store on a user's agreement to use Google's weather app rather than a competitor's. Nevertheless, users may be *effectively* forced to pick Google's weather app insofar as Google's actions prevent them from adopting a competing alternative.

72. In the hypo from the preceding footnote, this alternative channel would involve switching from the Google Play Store to the Apple App Store—which presumably means switching from Android to iPhone. As this hypo illustrates, using the alternative channel may not be very attractive as it may require large switching costs (among other possibilities).

73. Raising rivals' costs is a well-known means of exclusion. *See* Krattenmaker & Salop, *supra* note 49, at 209.

74. This is closely related to the possibility that there could be significant switching costs that discourage consumers from switching to a different platform; that possibility is discussed later. *See infra* Part V.

Note that the theory of exclusion just described is unlikely to apply in cases where most consumers and sellers "multihome"—that is, when they use multiple alternative platforms interchangeably. Rather, these arguments require that either most consumers or most sellers (or both) view the defendant's platform as significantly better than alternative distribution channels, in which case we would not expect to see widespread multihoming on both sides of the market. For the same reason, this strategy described here is unlikely to be feasible unless the defendant is dominant in the primary market.[75]

B. Impairing Consumer Search

A second possible form of exclusion is specific to situations where: (a) consumers have incomplete information about the products available in the secondary market; and (b) many of them rely on the defendant's platform to provide that information. Google Search is an obvious example of a platform that consumers use to search for products. But this is also true of some transaction platforms, such as mobile app stores and Amazon's storefront. In such cases, the platform may manipulate its search results by significantly demoting rivals' ranking in the results, or by excluding them from the search results altogether.[76] Naturally, this would interfere with consumers' ability to identify competing alternatives.[77] This can undermine competition in the secondary market even if the defendant is unable to rely on the leveraging strategy considered in the previous subsection.

For example, suppose that Google integrates into the market for widgets. Half of consumers in the widget market are informed—they already know about the rivals' widgets—but the other half are uninformed. Most uninformed consumers will rely on Google Search (the primary product in this case) to find out what their options are. Informed consumers do not need Google Search to buy rivals' widgets. Because of this, Google Search has no "leverage" over these consumers. However, Google can still foreclose rivals from a large portion of the customer base by delisting the rivals from its search results.

However, because this argument hinges on a large chunk of consumers relying on the defendant's platform for search purposes, it is unlikely to apply if the defendant is not dominant in the primary market.[78]

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75. If most users on one side (or both) of the primary market are loyal to the defendant, then presumably it will hold a dominant share of that market.

76. For further discussion, see, e.g., Kirkwood, *supra* note 1, at 102; Rory Van Loo, *Helping Buyers Beware: The Need for Supervision of Big Retail*, 163 U. PA. L. REV. 1311, 1345 (2015); Geoffrey A. Manne & Joshua D. Wright, *If Search Neutrality Is the Answer, What's the Question?*, 2012 COLUM. BUS. L. REV. 151, 151; Daniel A. Crane, *Search Neutrality as an Antitrust Principle*, 19 GEO. MASON L. REV. 1199, 1199 (2012).

77. In principle, manipulating search rankings could also impair competition by misleading consumers about the relevance or quality of rival product listings (as opposed to concealing those listings altogether). This would be plausible if, for example, there is clear evidence that many consumers treat ranking position as a proxy for quality. In this case, demoting a rival product could distort competition even if it does not prevent most consumers from seeing the rival's product listing.

78. For example, if half of consumers in the secondary market will use a search engine to identify what products are available, and if Bing has a 10% share of the search engine market, then by excluding rivals from its search results, it could hope to foreclose them from at most 5% of the secondary market.

C. Exploiting Lock-In

In some cases, there may be significant switching costs that leave consumers "locked in" to a single platform. Such consumers are strongly discouraged from attempting to access secondary products through a competing platform because of the high cost of transitioning between platforms. For example, when consumers buy iPhones or Android smartphones, they end up locked into their respective app ecosystems. If an app is available on Android but not iOS, an iPhone user will not use it because presumably she is not willing to buy a new Android device just to access a single app. Therefore, when there is significant lock-in in the primary market, excluding secondary products from the defendant's platform may make those products effectively inaccessible to locked-in users.

Importantly, the presence of lock-in does not guarantee that a platform can implement a sustainable exclusion strategy. It is well known in the antitrust literature that lock-in will not enable a successful exclusion campaign if it leads uncommitted buyers (those who are not yet locked in to any brand) to steer clear of the defendant and give their business to a different brand instead.[79] However, as outlined below, there are some platform environments in which this may not occur.

Consider an example. Suppose Apple introduces a new mobile weather app, after which it removes the leading competitor from its iOS app store. Existing iPhone users then have no affordable means of accessing the rival's weather app—they're locked in. The usual argument for why this is not a sustainable exclusion strategy would assert that competition in the smartphone market will discipline Apple's exclusionary conduct in the market for weather apps.[80] However, this is arguably not the case.

For at least two reasons, it is plausible that Apple's exclusion would not have so great an impact on iPhone sales as to render the exclusion unprofitable. First, the iOS app store contains millions of apps, which translates into a huge number of distinct app markets (e.g., the market for map apps).[81] Arguably, a typical consumer is unlikely to inquire into economic conditions in such a large number of markets before choosing a smartphone.[82] Consequently, exclusion in a single such market may go unnoticed by many smartphone buyers. And even among those consumers who do notice the exclusion, it is unlikely that the difference in their valuations for iPhone versus Android is sufficiently small for a map app to steer them from one to the other.

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79. For example, if a printer company excludes all competing sellers of ink cartridges and then raises the prices of ink cartridges above the competitive level, locked-in owners of the printer may feel compelled to pay the higher price. But the strategy ultimately backfires because consumers in the printer market will take notice of the price hike and will stop buying printers from the defendant. *See, e.g.*, Carl Shapiro, *Aftermarkets and Consumer Welfare: Making Sense of* Kodak, 63 ANTITRUST L.J. 483 (1995).

80. Specifically, the argument would be that many consumers in the smartphone market will stop buying iPhones, or at least that they will demand a drop in the price of the phone to compensate for the exclusion of the weather app. *See* Shapiro, *supra* note 79 (addressing similar arguments in the context of *Kodak*).

81. *See, e.g.*, David Curry, *App Store Data (2023)*, BUS. APPS (May 15, 2023), https://www.businessofapps.com/data/app-stores [https://perma.cc/R4P4-TQTS] (reporting that "Apple's App Store has 1.76 million apps" and that "Google Play's App Store has 2.266 million apps").

82. A consumer might inquire into the availability of several of their most favorite apps, such as TikTok or YouTube. But my assumption in this hypo is that few consumers feel this strongly about weather apps. *Cf.* Joseph Farrell, *Some Simple Analytics of Vertically Linked Markets*, 50 REV. INDUS. ORG. 431, 438 (2017) (discussing the possibility that consumers in the primary market may not be fully apprised of goings on in the aftermarket).

Second, it is significant that most apps are free to smartphone users, with all revenues accruing from advertisers instead.[83] As a result, any adverse price effects resulting from the exclusion will fall not on consumers, but on advertisers who have no say over what smartphone a consumer will buy. In fact, for the same reason, it is possible that the profits resulting from the exclusion could be large even if consumers do not view weather apps as especially valuable. For example, it could be that weather apps are particularly lucrative for advertising purposes (e.g., because they often gain access to location data), even though most consumers do not assign much value to weather apps.

The first of these arguments can potentially apply in any context where a platform caters to many distinct secondary markets, making it costly for consumers to monitor conditions in all such markets. The second argument is more specialized, as it hinges on the secondary product being monetized through advertising rather than through ordinary pricing. Finally, notice that neither argument hinges on Apple possessing a dominant position in the smartphone market.[84]

The foregoing arguments do not suggest that a lock-in theory of harm will always be viable in platform RTD cases. The point of this discussion is simply to point out that exploiting lock-in may be a viable exclusion strategy in certain cases.

IV. When Are Exclusionary RTDs Profitable?

In many exclusion cases, it is not obvious whether the defendant's conduct serves an exclusionary purpose or a reasonable one. It then becomes helpful to assess whether the defendant's conduct would be profitable if its only material function were to exclude. If the answer is no, this suggests there is likely a reasonable or benign explanation for the conduct.

In the present context, excluding secondary market rivals could reduce demand for the defendant's platform because the platform's appeal hinges in large part on the number and diversity of secondary products to which it confers access.[85] This is a clear reason why excluding rivals could potentially be unprofitable, which, if true, would militate against antitrust liability.

Profitability considerations had a major impact on antitrust thinking toward tying arrangements during the second half of the 20th century. Authors affiliated with the "Chicago School" argued that using tying to exclude rivals in the secondary market generally would not increase its profits because it can already exploit its monopoly over the primary product to earn the maximal amount profits possible.[86] However, the argument relies on very strong assumptions, such as that the two goods in question are perfect

83. *See, e.g.*, David Curry, *App Store Developers Generated $1.1 Trillion in Total Billings and Sales in the App Store Ecosystem in 2022*, APPLE (May 31, 2023), https://www.apple.com/newsroom/2023/05/developers-generated-one-point-one-trillion-in-the-app-store-ecosystem-in-2022 [https://perma.cc/AV3F-8QPW] (reporting that the "App Store . . . generated . . . $109 billion from in-app advertising").

84. I revisit this point when discussing market definition. *See infra* Part V.

85. However, this may not be the case if the defendant can profitably exploit lock-in, as discussed below.

86. *See, e.g.*, Ward S. Bowman, Jr., *Tying Arrangements and the Leverage Problem*, 67 YALE L.J. 19, 21, 25–27 (1957) ("For example, if the price of bolts were set by a monopolist and the price of nuts were set by competition, tying the sale of nuts to the sale of bolts would not increase the monopoly profit.").

complements and that the secondary market (the "tied market") is perfectly competitive with constant returns to scale.[87]

Today, it is well understood that when these assumptions are relaxed, tying may indeed be a profitable form of anticompetitive exclusion. A well-known article by Michael Whinston identified some of the circumstances under which this is possible.[88] A key example is where: (a) the secondary market is imperfectly competitive with differentiated products and economies of scale; and (b) a portion of buyers of the secondary good attach little or no value to the primary good.[89] Condition (a) implies that the defendant can successfully exclude rivals by reducing their sales below the minimum scale needed to remain profitable. Condition (b) ensures that the defendant's monopoly over the primary product does not allow it to appropriate all the value of the rival's secondary product,[90] and that competition in the secondary market is partially independent of the primary product. This means that excluding the rival can be profitable, even though it might reduce demand for the primary product.[91]

These conditions may easily obtain in the context of platform RTDs. Condition (a) applies whenever a market has differentiated products and entry barriers, both of which are common. Condition (b) is satisfied when a portion of potential buyers of the secondary product are happy to access or acquire it by means other than the defendant's platform.

For example, recall the previous example in which Google Search removes competing sellers of widgets (the secondary product) from its search results.[92] Because half of the consumers in the hypo are uninformed and many of them will use Google Search to learn about their options, Google's exclusion will foreclose rivals from a significant chunk of the consumer base. However, Google Search has no impact on competition for informed consumers. Nevertheless, the lost sales to uninformed consumers may prevent rivals from attaining a sustainable level of scale, leading them to exit the market. And now even informed consumers are forced to buy widgets from Google.

Consider one more example. Suppose Amazon integrates into the widget market. Some Amazon customers are "inframarginal"—they attach high value to buying things on Amazon—as opposed to an alternative retailer.[93] But there are also "marginal" consumers who don't care where they buy widgets. Then, within the inframarginal group, Amazon can leverage its value to induce most or all these consumers to buy its own widget by excluding rival brands from its storefront, but it has no particular power over the marginal

87. *See* Michael Whinston, *Tying, Foreclosure, and Exclusion*, 80 AM. ECON. REV. 837, 841–42 (1990) (discussing the assumptions underlying Chicago school tying arguments).

88. *See generally id.* (outlining several circumstances in which tying may become a profitable form of exclusion).

89. *Id.* at 841–42.

90. That is, absent condition (b), the defendant could maximize its profits by declining to exclude secondary market rivals, and instead use its control of the primary good to extract the value rivals' goods generate for consumers.

91. The drop in demand for the primary product can be overshadowed by the acquisition of monopoly power over those consumers who don't care about the primary product.

92. *See supra* text accompanying note 45 (introducing the example).

93. For example, Amazon Prime members get free two-day shipping, which gives them an extra incentive to pick Amazon. Of course, this does not suggest that Amazon Prime is itself anticompetitive. *Amazon Prime Shipping Benefits*, AMAZON, https://www.amazon.com/gp/help/customer/display.html?nodeId=GRPQFCNVUD YCBG24 [https://perma.cc/2Y5E-ANMA].

buyers. Nevertheless, just like the previous example, foreclosing rivals from the inframarginal segment may be enough to prevent them from reaching a critical level of scale, after which Amazon can exert power over even the marginal buyers.

A second possibility is that, if there is a significant lock-in problem, the defendant may be able to exclude rivals in a secondary market without losing many sales of its primary product. This makes it much more likely that the exclusion would be profitable for the defendant. That this is possible follows from the fact (discussed earlier) that competition between platforms will not necessarily discipline anticompetitive behavior in the secondary market.[94] Of course, if the platform excludes competing secondary products, it loses out on any fees it might otherwise collect on sales of those products.[95] This opportunity cost of exclusion would still arise even if the platform does not lose many sales in in the primary market (as we are presently assuming). But so long as total profits in the secondary market are maximized under monopoly (which is typically the case),[96] it will still be profitable overall to exclude the rivals. And even if this is not the case, it would still be profit-maximizing to discriminate against rivals by charging them higher fees than those charged to noncompetitors.[97]

V. MARKET DEFINITION AND POWER

When defining markets in a platform RTD case, it is essential to assess the degree of substitutability between the defendant's platform and alternative channels through which consumers could access the secondary product. This will have significant implications for both market definition and the analysis of market power.

While most of this Article has cavalierly regarded the primary market as a "platform market," this overlooks some potential complications. The set of other firms that belong in the primary market may depend on the specific secondary product at issue. And, for the same reason, the defendant's power in the primary market may depend on what the secondary product is.

For example, suppose Microsoft acquires the rights to a new game and then removes the leading competitor from its Xbox store (which contains both games and apps). In this case, the primary market would likely be limited to video game consoles. Alternatively, suppose that Microsoft acquires Netflix and then removes Hulu from its Xbox store. Video game consoles are not the only devices (or even the most common ones) that consumers use to watch streaming apps. Thus, in this case, the primary market must contain additional devices, such as streaming sticks. Microsoft would also have less power in this case, given the larger number of relevant substitutes.

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94. *See supra* text accompanying notes 12–13.

95. For example, Google takes a 30% cut from app sales in the Google Play Store, so it would lose these fees when excluding rival apps. *Google Play Store Service Fees*, GOOGLE, https://support.google.com/googleplay/android-developer/answer/112622?hl=en&sjid=8098336066657232068-NA [https://perma.cc/7UCH-N48X].

96. The main exceptions are markets with a particularly high degree of product differentiation.

97. This is much like how, following an anticompetitive vertical merger, the merged firm might opt to stop dealing with downstream rivals altogether, or it might prefer to continue dealing with them but only at higher prices that leave them at a competitive disadvantage. Both possibilities diminish competition and injure consumers.

Another key question is whether the secondary market should be defined as a platform-specific aftermarket. This is potentially appropriate in situations where there are significant switching costs and lock-in in the primary market,[98] if competition in the "foremarket" is unlikely to prevent anticompetitive misconduct in the aftermarket.[99]

To explore this, recall the hypo in which Apple excludes competing weather apps from its iOS app store.[100] Suppose a court concludes that the relevant primary market is the market for smartphones (or perhaps the market for smartphone operating systems).[101] And it finds that iPhones account for only 45% of all smartphone purchases, suggesting Apple lacks a dominant position in the primary market.

If the secondary market is defined to be mobile weather apps (both iPhone and Android), then it is hard to see how one could bring a monopolization case against Apple. Not only does it lack a dominant share of the primary market, but it has no influence at all over what weather apps most smartphone users will choose. It would thus seem to have no chance of acquiring a dominant share of the secondary market.

However, in this case, it might be appropriate to define the secondary market more narrowly as the aftermarket for iOS weather apps (the primary market would be the foremarket). It is not merely the presence of switching costs and lock-in that makes this aftermarket definition potentially appropriate. Rather, it is the fact (emphasized above)[102] that competition in the foremarket may not prevent Apple from engaging in profitable exclusion in the aftermarket. This would imply that Android weather apps are not reasonably close substitutes for iOS weather apps because few consumers will cross from iPhone to Android (or vice versa) based on the competitive conditions surrounding weather apps.

In other possible cases, an aftermarket definition would clearly be inappropriate. For example, suppose Amazon introduces its own batteries and is then accused of degrading the visibility of a competitor's batteries on its platform. The issue here is that there are not significant switching costs. Consumers are not "locked in" to Amazon-brand batteries; they can buy batteries on Walmart.com, or even at grocery stores or gas stations. Thus, there is significant substitutability between the batteries sold on Amazon and the batteries sold by other retailers, suggesting that the latter should be included in the definition of the secondary market.

As these examples indicate, determining whether an aftermarket definition makes sense requires a careful analysis of the relevant commercial context and the relationship

98. *See* discussion *supra* Part III.C.

99. The foremarket is the one in which a consumer's choice of brand determines what aftermarket she will end up in. For example, the market for video game consoles is a foremarket that determines whether a consumer ends up in the aftermarket for Xbox-compatible games or PlayStation-compatible games (which are not interchangeable).

100. *See supra* Part III.C and accompanying text.

101. In Apple's case, the distinction might not matter much since Apple is vertically integrated into the smartphone market and its iOS is exclusive to its own phones. Apple's market share is thus presumably the same in both alternative definitions. The same could not be said for Google, however, since its Android OS is used mainly by third-party phone makers like Samsung. However, one district court recently rejected an operating system definition in a case against Apple, finding it inapposite because Apple does not sell or license its iOS independently of its iPhone. Epic Games, Inc. v. Apple, Inc., 559 F. Supp. 3d 898, 1016 (N.D. Cal. 2021), *aff'd in part, rev'd in part*, 67 F.4th 946 (9th Cir. 2023).

102. *See supra* Part III.C.

between the primary and secondary products. The key issue is the extent to which competitive conditions in the aftermarket would be expected to affect consumer decision-making in the foremarket (which is likely to be the primary product market). If this effect is strong, competition in the foremarket will preclude profitable anticompetitive behavior in the aftermarket, and an aftermarket definition is inappropriate.

As a final point, note that in some cases, the primary market could itself be an aftermarket. For example, in *Microsoft,* the eponymous defendant was accused of tying its Windows OS (the primary product) to its Internet Explorer web browser (secondary).[103] The primary market was defined not as the market for all computer operating systems, but rather as the market for Intel-compatible operating systems.[104] This excluded Apple's Mac operating system.[105] This was reasonable because, as the court noted, there are many factors that go into choosing between a Mac and a PC other than just the operating system.[106]

VI. DEFENSES, PROOF, AND NAKED EXCLUSION

In this Part, I highlight two practical issues that distinguish platform RTDs from traditional tying arrangements. First, it is likely that measuring foreclosure will tend to be somewhat more difficult in platform RTD cases. Second, however, if an RTD is indeed anticompetitive, it will tend to be somewhat easier to rule out possible defenses. The latter point relates to the fact that some platform RTDs may be essentially nakedly anticompetitive, whereas this is almost never true of traditional tying arrangements. As discussed below, these points have important implications for antitrust enforcement.

As to the first point, in a traditional tying case, it is often possible to quantify foreclosure by simply looking at what portion of customers in the secondary market are also buyers of the primary product.[107] Compare this with, for example, an exclusionary strategy that involves burying rivals' product listings deep down in a platform's search results.[108] As noted earlier, such conduct could certainly foreclose rivals.[109] However, it may be difficult to quantify foreclosure, because it may be hard to say how many consumers rely on the platform's search function to learn what their options are. Such information is critical because manipulation of general search results presumably will not affect any consumers who are already informed about rivals' offerings.[110]

As to the second point, the most common justifications asserted in tying cases hinge on the potential efficiencies of selling two complementary goods together.[111] For example, the joint provision of complementary goods is often convenient for consumers. Indeed, any

103. United States v. Microsoft Corp., 253 F.3d 34, 47 (D.C. Cir. 2001).

104. *Id.* at 107.

105. *Id.* at 52.

106. *Id.*

107. This is so whenever (a) the tie is imposed on all purchasers of the primary product; and (b) consumers who already own the defendant's version of the secondary product are unlikely to buy a rival's version.

108. *See supra* Part III.B.

109. *See supra* notes 48–53 and accompanying text.

110. Presumably, informed consumers can just do a brand-specific search to access a rival's product listing directly, suggesting that the platform's conduct will not meaningfully restrain these consumers' purchasing decisions.

111. *See* Hovenkamp, *supra* note 14, at 1548–49.

complex product (e.g., a car) could in principle be viewed as a tie of its many components, but we do not view this as problematic, because there are obvious consumer benefits to buying all the components together in a single preassembled package. Because it is typically hard to rule out some possible benefits of joint provision, tying arrangements are almost never regarded as nakedly anticompetitive (at least in the modern era).[112]

However, this defense generally does not apply to platform RTDs.[113] When a platform removes rivals' products from its storefront or otherwise makes them hard to access, this does not confer any convenience benefit to consumers. It simply limits consumers' options without providing any countervailing benefit.

Instead, the most plausible defenses will tend to hinge on user protection.[114] For example, the platform's actions may be justified if the rival products in question are malicious or harmful, or if they invade users' privacy without permission. Fortunately, this kind of claim is likely to be relatively susceptible to proof, for if it is true, then the platform's actions were presumably driven by some evidence of misbehavior by the rivals in question.[115]

Consequently, when a platform RTD is anticompetitive, it may be harder to obscure this fact, as compared to a case of anticompetitive tying. For example, returning to a now-familiar hypo, if Apple introduces its own weather app and then excludes the leading competitor, this seems highly suspicious on its face. Absent any apparent reason to believe the competitor's app was engaging in misconduct (e.g., stealing user data), Apple's actions would appear to border on naked exclusion. If Apple cannot show any justification for its actions (e.g., misbehavior by the rival), then it may be appropriate to find liability without requiring a detailed measurement of foreclosure.

For a real-world example, some of the FTC's recent allegations against Facebook appear to verge on naked exclusion.[116] According to the complaint, Facebook's policy was that it would not let any third-party apps interoperate with Facebook's social media platform ("Facebook Blue") if they compete with other Facebook products.[117] This allegedly included messaging apps.[118] If one takes the position that the market for messaging apps is separate from the market for social media platforms, this would qualify for the new liability standard proposed above. And, if it is true that Facebook excluded such firms purely because they are rivals, this would seem to qualify as naked exclusion.[119]

These points have important implications for antitrust enforcement. First, they suggest that, when evaluating platform RTDs, it may not be necessary to quantify foreclosure in precise detail. For example, if the defendant excludes rivals' products from its platform

112. *Id.* at 1491.

113. *Id.* at 1548–49.

114. Another possible defense hinges on "metering" of consumer consumption. *See id.* at 1518–19.

115. There is some precedent for this defense. In some joint venture cases, an allegedly exclusionary boycott was in fact a punitive measure levied against a misbehaving member or trading partner. Defendants in such cases can usually avoid liability by furnishing evidence of the relevant misbehavior. Nw. Wholesale Stationers, Inc. v. Pac. Stationery & Printing Co., 472 U.S. 284, 298 (1985).

116. Complaint for Injunctive and Other Equitable Relief, *supra* note 2, at 50.

117. *Id.* at 39.

118. *Id.* at 38–39.

119. This is in sharp contrast to how the district court evaluated these claims. Following the precedents set by *Trinko* and its progeny, the district court dismissed these claims based on formalistic considerations about prior dealing and profit sacrificing. *See* FTC v. Facebook, Inc., 560 F. Supp. 3d 1, 21–30 (D.D.C. 2021).

and there does not appear to be any plausible justification for such action, then a detailed measurement of foreclosure is likely unnecessary.[120] However, if the defendant's asserted justifications appear plausible, then courts should demand stronger evidence that significant foreclosure is likely. This flexible approach is consistent with Supreme Court jurisprudence. As the Court has emphasized, "there is always something of a sliding scale in appraising reasonableness, and as such the quality of proof required should vary with the circumstances."[121]

Second, effective enforcement may be more reliant on the antitrust agencies. Just as it may be difficult to measure foreclosure in such cases, it may be harder to quantify damages. But if damages are not reasonably quantifiable, then they cannot be recovered. This could diminish incentives for private enforcement.

VII. MILD SELF-PREFERENCING

A significant portion of the current debate surrounding platform antitrust centers on so-called "self-preferencing." The most commonly cited example of self-preferencing involves a platform with a search function—such as a search engine, online retail store, or app store—that puts its own products at the top of the search results.[122] I have already argued that significant interference with search results could have appreciable anticompetitive effects in some cases involving dominant platforms.[123] But if indeed the platform's only intervention is to list its own product first, then presumably rival products are demoted at most one spot in the rankings.

Such mild self-preferencing may be unlikely to generate appreciable foreclosure, as it does not materially restrain consumer choice or information.[124] As such, sufficiently mild acts of self-preferencing would not give rise to liability under the antitrust framework advocated in this Article. Some readers may find this unsatisfying. Even if an act of self-preferencing confers only a small unfair advantage, should we not still eliminate it? Should we not just ban such acts without regard to the amount of foreclosure they create?

The problem with this argument is that it implicitly assumes that self-preferencing is akin to naked exclusion in the sense that its malicious nature is readily apparent and thus easy to diagnose. But that is simply not true. When we observe a platform's own product listed first in its search results, can we infer that the platform manipulated its search algorithm to achieve this result? Contrary to what many seem to assume, the answer is

120. By analogy, in a case of naked price fixing, a plaintiff can establish liability without having to quantify the resulting harm.

121. FTC v. Actavis, Inc., 570 U.S. 136, 159 (2013) (internal quotations omitted) (quoting Cal. Dental Ass'n v. FTC, 526 U.S. 756, 780 (1999)).

122. *See, e.g.*, 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 (on file with *The Journal of Corporation Law*) ("But as Apple has become one of the largest competitors on a platform that it controls, suspicions that the company has been tipping the scales in its own favor are at the heart of antitrust complaints.").

123. *See* Part III.B; *see also, e.g.*, Rory Van Loo, *supra* note 76, at 1345–46 (arguing that platforms can obfuscate product information to distort competition).

124. I do not mean to suggest that there are no circumstances under which mild acts of self-preferencing could have appreciable anticompetitive effects. But all else being equal, milder forms of discrimination will tend to have smaller anticompetitive risks.

clearly no. It is also possible that the platform's product was selected for the top spot organically, without improper influence. Even if the platform deliberately gave its own product the top spot, this does not automatically imply any impropriety. For example, the platform's product could be the most relevant to the consumer's search query. Many products sold by platforms are quite popular, so this possibility is hardly far-fetched. It thus becomes necessary to inspect the search algorithm in detail to determine whether it contains any biased or unfair elements.

This points out a serious problem with attempting to ban self-preferencing without regard to its impact on competition: such a policy would call for highly complex inquiries whose costs may vastly exceed their potential benefits. Ideally, we would not undertake such a costly inquiry unless there were reason to believe that intervention might confer a significant benefit to the public. But that is precisely why it is appropriate to withhold antitrust scrutiny unless the defendant's conduct creates a risk of appreciable foreclosure. Indeed, the very same imbalance between costs and benefits is presumably why nobody seems to think we should police mild self-preferencing outside of Big Tech, notwithstanding that it is ubiquitous in virtually all industries.[125]

Finally, even if one is convinced that the law should police mild self-preferencing, antitrust is clearly not the right tool for the job. In contrast to regulation, antitrust runs through the court system, which means not only that it is slow and expensive but also that its key decision-makers (generalist judges) lack expertise in technology markets. If self-preferencing is to be policed through antitrust law, then this task will presumably be left to the courts. For example, the proposed self-preferencing bill refers to "standards mandating the neutral, fair, and nondiscriminatory treatment of all business users."[126] But it says nothing about what those standards actually require, instead leaving it to federal judges to sort out. A regulatory agency, by contrast, could rely on experts to shape its policies, and could enforce those policies more efficiently.[127]

VIII. DISCUSSION AND CONCLUDING REMARKS

Existing antitrust law does not adequately address platform RTDs. In response, Congress has proposed a self-preferencing bill aimed at combatting discrimination by major platforms.[128] However, as many antitrust scholars (including me) have recently argued, these bills are problematic in their own right.[129] They make little effort to

125. For example, grocery stores often give more favorable treatment to their own private-label goods, such as by displaying them more prominently than rival brands.

126. American Innovation and Choice Online Act, S. 2992, 117th Cong. (2022).

127. To reinforce this, it is worth noting that most proponents of net neutrality law—which is perhaps the closest existing analog to platform neutrality proposals—are adamant that it should be implemented through regulation, not antitrust. *See, e.g.*, 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]etwork neutrality advocates have argued that antitrust is neither doctrinally nor institutionally adequate for the task.").

128. American Innovation and Choice Online Act, S. 2992, 117th Cong. (2022).

129. *See, e.g.*, Erik Hovenkamp, *Proposed Antitrust Reforms in Big Tech: What Do They Imply for Competition and Innovation?*, CPI ANTITRUST CHRON. (July 13, 2022), https://www.pymnts.com/cpi_posts/proposed-antitrust-reforms-in-big-tech-what-do-they-imply-for-competition-and-innovation [https://perma.cc/AJR7-36S5].

distinguish anticompetitive practices from reasonable ones. For example, of the ten violations enumerated by the bills, only three require the plaintiff to prove anticompetitive effects.[130] Instead, in most cases, it is the defendant's responsibility to *disprove* anticompetitive effects.[131] It also replaces an analysis of market power with an inquiry into the sheer size of a platform company (in terms of market cap or subscriber count), which is much less useful for antitrust purposes because it does not tell us about the platform's control over the specific product market it is accused of monopolizing.[132]

By contrast, the proposal offered here would allow for meaningful antitrust scrutiny of platform RTDs without requiring a complex web of new legislation. Its basic approach embodies the simple idea that, if unilateral conduct behaves substantially like a vertical restraint, then we should treat it as such. In fact, existing antitrust law already does this when evaluating certain other types of unilateral conduct under section two.[133] However, courts have not yet recognized the value of taking the same approach in cases involving platform RTDs.

If the Supreme Court were so inclined, it could effectuate this policy without having to overturn any of its prior decisions. It would be sufficient to carve out an exception to *Trinko* for cases involving platform RTDs. It could then instruct lower courts to evaluate qualifying cases under a *Microsoft*-like liability standard that focuses on foreclosure in the secondary market, as proposed above.

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130. The self-preferencing bill limits standing to the federal antitrust agencies along with the states. A related proposed bill, which is limited to app stores, similarly imposes no burden to prove harm, but it allows for private enforcement and treble damages. Open App Markets Act, S. 2710, 117th Cong. (2022).

131. *Id.*

132. For additional problems with the bills, see Hovenkamp, *supra* note 129.

133. *See* Hovenkamp, *supra* note 14, at 1535–37. For example, courts already issue "conditional refusals" to deal with *customers* as de-facto vertical restraints. *Id.* at 1537–38. The leading case on this point is *Lorain Journal Co. v. United States*, 342 U.S. 143 (1951).