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Cover Page Footnote

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EPIC GAMES V. APPLE: TECH-TYING AND THE FUTURE OF ANTITRUST*

Emma C. Smizer†

Antitrust and "Big Tech" firms are under renewed scrutiny, in part due to the dispute between Epic Games and Apple. This lawsuit strikes at the heart of the growing phenomenon of "tech-tying," a form of vertical integration in digital aftermarkets where monopolistic tech firms condition the use of their operating systems on the added use of other complimentary software or services. Judicial attitude toward claims of tying has shifted considerably over recent decades, resulting in lax enforcement against vertical integration arrangements. This Comment argues that Apple's conduct constitutes "tech-tying" and that competitors should be permitted to enter the aftermarkets of both iOS app distribution and iOS in-app payments processing. Antitrust laws must evolve from its industrial-era origins to account for today's high-tech industry by expanding to protect competition.

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† J.D. Candidate at Loyola Marymount University, Loyola Law School, Class of 2022. The author would like to thank Professor Lauren Willis, Associate Dean for Research at Loyola Law School, for her invaluable feedback and exhaustive editing. The author would also like to thank David Kesselman, Professor of Antitrust Law at Loyola Law School, for being generous with his time and insights. She would like to express her gratitude to the staff and editors of the *Loyola of Los Angeles Entertainment Law Review* for their assistance and patience. Lastly, the author would like to thank her friends and family who listened, nodded, and looked interested.

I. INTRODUCTION

On the afternoon of July 29, 2020, Tim Cook raised his right hand and swore his testimony would be true and correct, so help him, God.[1] In his opening statement before the Congressional antitrust hearings, Cook asserted that Apple users give the iPhone a "99% satisfaction rating," even while facing "fierce competition" in the smartphone market.[2] "We do not have a dominant share in any market or any product category where we do business," claimed Cook.[3] Yet in 2019, Apple earned 66% of the global profit share in the handset market.[4] Cook also stated that app developers do not pay for any metaphorical "shelf space" in the iOS App Store, despite charging a 30% fee to developers on any purchases made through the App Store.[5] Shortly after the close of these hearings, Apple became the world's most valuable publicly traded company, reaching a $2 trillion market cap.[6]

Antitrust has been thrust into the spotlight yet again as the United States government grapples with whether these tech giants have unfairly dominated the market. In light of the hearings, Congress released a "blockbuster" antitrust report in October 2020, with more than 440 pages devoted to criticizing the business practices of big tech companies, including Apple, and suggesting a new path for antitrust laws.[7] The House Subcommittee on Antitrust

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1. CNET, *Google, Apple, and ALL the Tech Billionaires Fight Antitrust Against Congress (full hearing)*, YOUTUBE (July 29, 2020), https://www.youtube.com/watch?v=ht-zdeMwxbw&ab_channel=CNET [https://perma.cc/4G5Q-732F].

2. *Id.*

3. *Id.*

4. William Gallagher, *Apple Earned 66% of the Entire Smartphone Market's Profits in 2019*, APPLE INSIDER (Dec. 19, 2019), https://appleinsider.com/articles/19/12/19/apple-earned-66-of-the-entire-smartphone-markets-profits-in-2019#:~:text=The%20global%20profits%20from%20cell,66%25%20or%20almost%20%248%20billion [https://perma.cc/C5JD-YP2T].

5. CNET, *supra* note 1; Jack Nicas et al., *Fortnite Creator Sues Apple and Google After Ban From App Stores*, N.Y. TIMES (Oct. 9, 2020), https://www.nytimes.com/2020/08/13/technology/apple-fortnite-ban.html [https://perma.cc/A5X2-U75H].

6. Sergei Klebnikov, *Apple Becomes First U.S. Company Worth More Than $2 Trillion*, FORBES (Aug. 19, 2020, 3:43 PM), https://www.forbes.com/sites/sergeiklebnikov/2020/08/19/apple-becomes-first-us-company-worth-more-than-2-trillion/#5435c2bc66e6 [perma.cc/A3F8-P86W].

7. Adi Robertson & Russell Brandom, *Congress Releases Blockbuster Tech Antitrust Report*, VERGE (Oct. 6, 2020, 4:53 PM), https://www.theverge.com/2020/10/6/21504814/congress-

expressed concerns over Apple's "durable" market power, maintained through "high switching costs, ecosystem lock-in, and brand loyalty."[8] The report goes on to suggest various solutions, such as "reasserting the original intent" of antitrust laws to include protection for "not just consumers, but also workers, entrepreneurs, independent businesses, open markets, a fair economy, and democratic ideals."[9]

In August 2020, Apple faced renewed scrutiny in a lawsuit brought by video-game developer, Epic Games, Inc. ("Epic") in the Northern District Court of California.[10] Earlier that month, Epic violated Apple's terms of service when Epic permitted its users to bypass Apple's internal payment processing mechanism, In-App Purchase ("IAP"), by using their own direct payment system.[11] Epic gave a 20% discount to customers who used its own direct payment system and asserted that this change in price reflected potential consumer savings if Epic was no longer required to give 30% of its earnings on in-app purchases to Apple.[12] Apple promptly removed Fortnite from the iOS App Store, triggering a carefully constructed media campaign from Epic that mimicked Apple's own advertisement homage to the dystopian future portrayed in George Orwell's *1984*.[13] Epic's campaign video tracks Apple's own commercial nearly frame-for-frame, making an explicit suggestion that Apple has now become the dystopic autocrat.[14] The two tech

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antitrust-report-house-judiciary-committee-apple-google-amazon-facebook [https://perma.cc/9SMK-WEZ7].

8. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, 116TH CONG., INVESTIGATION OF COMPETITION IN DIGITAL MARKETS 334 (Comm. Print 2020).

9. *Id.* at 392.

10. Nicas et al., *supra* note 5.

11. *Id.*

12. Complaint at 7, Epic Games, Inc. v. Apple, Inc., No. 4:20-cv-05640 (N.D. Cal. Aug. 13, 2020), 2020 WL 5073937.

13. The Fortnite Team, *#FreeFortnite*, EPIC GAMES (Nov. 17, 2020), https://www.epicgames.com/fortnite/en-US/news/freefortnite [https://perma.cc/WEB4-9F4L]; Reuters Staff, *Apple's Famous '1984' Video Parodied by Fortnite Game Maker*, REUTERS (Aug. 13, 2020, 3:24 PM), https://www.reuters.com/article/us-apple-epic-games-1984/apples-famous-1984-video-parodied-by-fortnite-game-maker-idUSKCN25935X [https://perma.cc/4MAE-MGUZ].

14. Reuters Staff, *supra* note 13.

companies have since locked horns in the courts, with Epic filing its complaint for antitrust violations against Apple.[15]

In its complaint, Epic alleged that Apple has created an illegal "tying" arrangement by linking the use of its smartphones to both its App Store and subsequently Apple's IAP system.[16] To understand how #FreeFortnite began trending on Twitter, it is important to examine how the U.S. antitrust jurisprudence led us here, and how the Northern District's decision is leading us forward.

This Comment focuses on the inconsistent treatment of tying claims by U.S. courts[17] and the issue of tying presented in *Epic Games, Inc. v. Apple, Inc.* Part II defines tying arrangements and examines the relationship between tying and market power. Part II then explores the subtle distinction between conduct judged under per se and rule of reason standards. The U.S. government and its courts have a complex, and often contradictory, relationship with antitrust laws, undergoing a gradual yet dramatic shift adjudicating claims of tying. Part III expands upon the instant case, *Epic Games v. Apple*, and explains what arguments may propel Epic's case forward. Part III additionally compares *Epic Games v. Apple* with two watershed decisions dealing with tying and bundling in digital markets. Part IV argues that Apple's conduct constitutes an illegal tying arrangement which has and continues to unreasonably restrain virtual trade. Part IV also assesses how Apple's conduct is effective through its significant leverage in iOS aftermarkets and lacks any legitimate procompetitive justifications that may challenge Epic's tying claims.

The antitrust laws of the early 20th century must be construed to protect competition in order to promote a healthy, functioning economy. Therefore, this Comment suggests that the scope of antitrust laws should be expanded to protect small businesses, entrepreneurs, and workers, rather than focus solely on consumer welfare. With an estimated value of $17.3 billion, Epic is not a small business[18]—yet the principles the company seeks to vindicate

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15. The Fortnite Team, *supra* note 13.

16. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 57.

17. E. THOMAS SULLIVAN & JEFFREY L. HARRISON, UNDERSTANDING ANTITRUST AND ITS ECONOMIC IMPLICATIONS § 5.02 (Carolina Acad. Press 7th ed. 2019).

18. Ryan Browne, *Fortnite Creator Epic Games is Now Valued at $17.3 Billion After Blockbuster Funding Deal*, CNBC (Aug. 6, 2020, 10:12 AM), https://www.cnbc.com/2020/08/06/fortnite-creator-epic-games-is-now-valued-at-17point3-billion.html [https://perma.cc/5VKS-ZGDY].

could benefit many small players that otherwise would not be willing or able to shoulder such costly litigation. This Comment posits that, in the case of *Epic Games v. Apple*, Apple's conduct constitutes illicit "tech-tying" and thus, Apple's control in the aftermarkets of both iOS app distribution and in-app payments processing must be limited.

II. BACKGROUND

In the early 20th century, capitalism flourished in the United States, virtually unfettered by the budding attempts at antitrust regulation.[19] Although robust antitrust enforcement briefly followed this period of economic growth, judicial attitude toward antitrust laws has fluctuated considerably over the past century.[20] Antitrust laws generally prohibit firms with market power from engaging in anticompetitive conduct, such as creating vertical restraints or tying agreements, the practice of controlling distinct links within the production or distribution chain.[21] The doctrine of tying has experienced "the greatest change in the last 50 years" when compared to other areas of antitrust law.[22] Courts judge claims of antitrust violations under either per se illegality or the rule of reason standard, but these analyses have a unique relationship to tying arrangements.[23] The following subsections define these relevant terms dealing with tying arrangements in antitrust laws and expand upon the varying treatment of tying claims by the courts through history into the modern era.

A. Tying and Market Power Defined

Tying occurs when a party sells one product, known as the "tying" product, with the added condition that the consumer also purchase a separate

19. Maurice E. Stucke & Ariel Ezrachi, *The Rise, Fall, and Rebirth of the U.S. Antirust Movement*, HARVARD BUS. REV. (Dec. 15, 2017), https://hbr.org/2017/12/the-rise-fall-and-rebirth-of-the-u-s-antitrust-movement [https://perma.cc/9TRZ-VVN4].

20. *Id.*

21. SULLIVAN & HARRISON, *supra* note 17, at § 5.01.

22. *Id.*

23. Mark A. Lemley & Christopher R. Leslie, *Categorical Analysis in Antitrust Jurisprudence*, 93 IOWA L. REV. 1207, 1248–49 (2008).

or "tied" product.[24] In effect, the buyer cannot purchase the first good or service without also purchasing or utilizing the second good or service from the seller.[25] Tying arrangements are a form of vertical restraint where one firm creates interdependent agreements between markets, for example, by conditioning the purchase of a lamp with the added condition of also buying a lamp shade from the same firm.[26] In the case of tying, one firm may foreclose inter-brand competition by bundling certain tied goods or services with the tying product.[27]

The practice of tying "undermines competition on the merits by enabling a firm with market power in one market to privilege products or services in a distinct market."[28] Federal law attempts to prevent anticompetitive conduct by prohibiting firms with sufficient market power from exploiting these vertical restraints.[29] However, not all tying arrangements are illegal[30] and vertical restraints are generally considered less inherently anticompetitive, making it difficult for claimants to prevail on claims of tying.[31] Further, as a prerequisite, claimants must also establish that the defendant possesses sufficient market power in the tying product market.[32]

A firm's market power is essential to tying claims.[33] A firm must have "appreciable economic power" within the tying product market, otherwise

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24. SULLIVAN & HARRISON, *supra* note 17, at § 5.01.

25. *Id.*

26. *Id.*

27. *Id.* at 37–38.

28. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 398.

29. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02; Scott Mah et. al., *Antitrust Violations*, 57 AM. CRIM. L. REV. 413, 422 (2020).

30. Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 11 (1984) ("It is clear, however, that not every refusal to sell two products separately can be said to restrain competition.").

31. SULLIVAN & HARRISON, *supra* note 17, at § 5.01.

32. United States v. Microsoft Corp., 253 F.3d 34, 85 (D.C. Cir. 2001).

33. *See* Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 12 (1984) ("Our cases have concluded that the 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 that the buyer either did not want at all, or might have preferred to purchase elsewhere on different

consumers face little pressure to purchase the firm's tied products.[34] Courts define "market power" as a firm's capacity to raise prices above competitive levels or to exclude competition.[35] Market power can often be inferred by a firm's "possession of a predominant share of the market"[36] or through more precise mathematic formulas.[37] Determining market power also requires defining the relevant product and the geographic market.[38] For example, a firm may possess market power domestically in the U.S. but lack the same power worldwide.[39] Further, courts have recognized that a single product may provide its own relevant market for antitrust purposes within a secondary market for parts or services.[40] After proving market power, claimants must then fulfil specific elements of tying claims to prevail.

B. Per Se Illegality and its Misleading Relationship to Tying

American jurisprudence has carved two distinct and well-worn paths of antitrust analyses: per se illegality and conduct judged under the "rule of reason" standard.[41] The per se approach applies to conduct that, on its face, has such a detrimental effect on competition that it is presumed to violate antitrust laws without the need for a robust inquiry into the alleged harm.[42] To improve judicial efficiency and economy, courts use the per se categorical

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terms. When such 'forcing' is present, competition on the merits in the market for the tied item is restrained and the Sherman Act is violated."); *see also* Pepsico, Inc. v. Coca-Cola Co., 315 F.3d 101, 107 (2d Cir. 2001) ("The core element of a monopolization claim is market power, which is defined as "the ability to raise price by restricting output.").

34. Eastman Kodak Co. v. Image Tech. Servs., 504 U.S. 451, 464 (1992).

35. United States v. E.I. Du Pont de Nemours & Co., 351 U.S. 377, 391 (1956).

36. *Eastman Kodak Co.*, 504 U.S. at 464.

37. *E.g.*, SULLIVAN & HARRISON, *supra* note 17, at § 2.06.

38. *Id.*

39. *See id.*

40. *See* SULLIVAN & HARRISON, *supra* note 17, at § 2.06; *see also Eastman Kodak Co.*, 504 U.S. at 471.

41. Lemley & Leslie, *supra* note 23, at 1212.

42. *Id.* at 1213–14.

approach for "manifestly anticompetitive"[43] conduct and are not concerned with a fact-driven analysis of a firm's actions or possible competitive justifications.[44]

To further complicate matters, the application of per se analysis to claims of tying dramatically departs from the typical categorical approach of other antitrust claims.[45] The approach of per se tying sets a high threshold for parties seeking redress, requiring a claimant to prove: (1) the tied products are two separate products, (2) the defendant has sufficient market power in the market of the tied product, (3) the defendant affords the consumer no choice but to purchase the tied product, and (4) a substantial amount of commerce is foreclosed by the tied product.[46] Unlike "true" or typical per se scenarios that are resolved without any in-depth factual inquiry,[47] a claimant must prove these elements to prevail on a claim of per se tying.[48] Further, per se defendants are not normally allowed to argue any "business rationales which validate their conduct."[49] Yet, courts generally tend to resolve claims of antitrust violations under the rule of reason analysis which, in contrast to per se illegality, relies heavily upon an ad-hoc analysis of whether the alleged conduct unreasonably restricts trade.[50]

Therefore, per se tying is only nominally per se because it requires a factual inquiry to adjudicate tying claims.[51] If a plaintiff cannot prove all four elements of per se tying, they may still recover under the rule of reason

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43. Gary Myers, *Tying Arrangements and the Computer Industry: Digidyne Corp. v. Data General Corp.*, 1985 DUKE L.J. 1027, 1028 (1985).

44. Lemley & Leslie, *supra* note 23, at 1213–14.

45. *Id.* at 1217.

46. United States v. Microsoft Corp., 253 F.3d 34, 85 (D.C. Cir. 2001); *see also* Lemley & Leslie, *supra* note 23, at 1249.

47. Lemley & Leslie, *supra* note 23, at 1249.

48. SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

49. Lemley & Leslie, *supra* note 23, at 1249.

50. *Id.* at 1214–15 ("The vast majority of trade-restraint categories receive rule of reason treatment. In contrast to the per se rule, which eschews in-depth investigation, in rule of reason cases 'the factfinder weighs all of the circumstances of a case in deciding whether a restrictive practice should be prohibited as imposing an unreasonable restraint on competition.'").

51. *Id.* at 1249.

standard, though this is not typically a "promising alternative."[52] Here, Epic pled in the alternative that Apple's conduct should be judged under the rule of reason standard.[53]

C. Rule of Reason Tying

The delineation between per se and rule of reason analysis blurs significantly when applied to claims of tying.[54] Courts continue to use the per se label when adjudicating tying claims but have modified per se tying by adding elements that strongly resemble the typical rule of reason standard.[55] While claimants must still prove the same elements of per se tying in alleging rule of reason tying, there is one important distinction: Courts must also weigh the procompetitive benefits of the defendant's conduct against the potential for anticompetitive harm.[56] In cases involving tying, the rule of reason standard allows courts to measure the potentially chilling effect on innovation against actual anticompetitive effects within the market at issue.[57]

Thus, tying claims evaluated under the rule of reason standard are often dismissed on the grounds that the claimant has failed to demonstrate a "significant anticompetitive effect" caused by the defendant's conduct.[58] When dealing with digital markets, courts may be reticent to use the per se label, and instead opt to apply the rule of reason standard.[59] However, for claims of tying, no clear preference between per se and rule of reason analysis exists

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52. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

53. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 54.

54. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02 ("Given the Court's more recent tying decisions there is a question of whether tying has finally slipped from a 'soft' *per se* to a rule of reason analysis. At this point it appears that it has not, at least not quite."); Lemley & Leslie, *supra* note 23, at 1250 ("While it may seem of no moment whether tie-ins are called per se illegal so long as they are evaluated under their own modified rule of reason, the miscategorization of tying arrangements has consequences.").

55. Lemley & Leslie, *supra* note 23, at 1250.

56. *Id.* at 1251.

57. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

58. Lemley & Leslie, *supra* note 23, at 1251.

59. John M. Newman, *Antitrust in Digital Markets*, 72 VAND. L. REV. 1497, 1500–02 (2019).

where digital markets are implicated,[60] perhaps in part due to the "ill-placed"[61] label of per se. The future of tying law remains unclear as the amorphous category of per se tying shifts ever closer to resemble rule of reason tying.[62]

D. The Development of Tying Jurisprudence

Judicial enforcement of antitrust laws against tying arrangements has waxed and waned markedly throughout the past century.[63] The Sherman Act, enacted in 1890, was designed to impede companies from monopolizing their respective markets and undermining competition.[64] Only two sentences long, section 1 of the Sherman Act explicitly outlaws any "contract, combination in the form of trust or otherwise, or conspiracy" that restricts or restrains trade either among states or internationally.[65] Section 2 of the Sherman Act further outlaws any actual monopolization, attempted monopolization, and conspiracy between parties to monopolize trade.[66] In 1914, the U.S. government strengthened its antitrust laws through the Clayton Act, supplementing the Sherman Act by prohibiting specific anticompetitive behavior.[67] Similarly, the California Cartwright Act also prohibits trusts, which are defined as a "combination of capital, skill or acts by two or more persons" that restrict or limit commerce.[68] Yet, courts have been

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60. *Id.* at 1499–500 ("No explicitly different rules for digital markets emerged in subsequent years, and there is widespread agreement that none are needed. Of course, analysts continue to take the unique characteristics of each relevant market into account on a case-by-case basis. But the rules themselves do not (in theory, at least) vary based on the type of market at issue.").

61. Lemley & Leslie, *supra* note 23, at 1250.

62. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

63. Stucke & Ezrachi, *supra* note 19, at 2.

64. *Id.* at 3.

65. 15 U.S.C. § 1 (2004).

66. *Id.*

67. Gregory T. Jenkins & Robert W. Bing, Abstract, *Microsoft's Monopoly: Anti-Competitive Behavior, Predatory Tactics, And The Failure Of Governmental Will*, 5 J. BUS. & ECON. RESEARCH 11, 12 (2007).

68. CAL. BUS. & PROF. CODE § 16720 (1941).

reluctant to enforce these antitrust laws[69] as judicial attitude toward tying arrangements has changed considerably over the years.[70]

In 1936, the Supreme Court found illicit tying where IBM conditioned the leasing of its machines on the added lease of its tabulating cards, because IBM's conduct "substantially lessened competition," and thus violated section 3 of the Clayton Act.[71] In *International Salt Company v. United States*, the Supreme Court went on to strengthen its position on tying arrangements in 1947 when it affirmed summary judgment against a salt machine manufacturer for tying the use of its patented machines to the purchase of its own salt product.[72] The *International Salt Company* court held that it was "unreasonable, per se, to foreclose competitors from any substantial market."[73] Again in 1958, the Supreme Court found that the North Pacific Railway Company had violated antitrust laws by conditioning the leasing of its land upon the lessee's use of North Pacific for all shipping needs.[74] Here, the Court clarified that tying arrangements are "unreasonable in and of themselves" when a firm has "sufficient economic power" to "appreciably restrain free competition in the market for the tied product."[75]

However, antitrust enforcement experienced a marked decline by the late 1970s,[76] preceded by the 1969 Supreme Court decision in *Fortner Enterprises v. United States Steel* ("*Fortner I*").[77] The issue before the *Fortner I* court was whether tying credit toward the purchase of land to the condition of building prefabricated homes created by the lender's parent company

69. Spencer Weber Waller, *The Antitrust Legacy of Thurman Arnold*, 78 ST. JOHN'S L. REV. 569, 577 (2004).

70. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

71. Int'l Bus. Machs. Corp. v. United States, 298 U.S. 131, 135 (1936).

72. Int'l Salt Co. v. United States, 332 U.S. 392, 402 (1947).

73. *Id.* at 396.

74. N. Pac. Ry. Co. v. United States, 356 U.S. 1, 7 (1958).

75. *Id.* at 6.

76. Stucke & Ezrachi, *supra* note 19.

77. Fortner Enters. v. United States Steel Corp., 394 U.S. 495 (1969).

violated section 1 of the Sherman Act.[78] The Court reversed summary judgment in favor of the defendant and remanded to resolve the issue of market power.[79] *Fortner I* effectively reasserted the necessity of market power in the tying product market as a prerequisite to prevail on claims of tying.[80] Eight years later, the Supreme Court returned to this issue in *Fortner II*, holding the evidence did not support the assertion that the defendant possessed sufficient market power in the credit market.[81]

In 1984, the Supreme Court dealt with tying again when an anesthesiologist brought suit against Jefferson Hospital for contracting exclusively with an anesthesiologist firm, thus conditioning the use of its hospital services to the anesthesiologic services.[82] The Supreme Court reversed the Circuit decision, which initially had found the agreement to be per se tying, and indicated in its holding that 30% market share would *not* constitute market power for the purposes of per se tying.[83] In Justice O'Connor's concurrence, she argued that "[t]he time has therefore come to abandon the "per se" label," urging the court to instead examine the potential anticompetitive effects of a defendant's conduct rather than outright condemn such vertical restraints.[84] However, the majority of Court asserted it was "far too late" in the history of the Court's antitrust jurisprudence to treat tying arrangements as anything but per se illegal, and thus kept the per se label despite adopting rule of reason elements.[85]

The *Fortner* and *Jefferson Hospital* cases were part of a broader ideological shift toward "self-correcting markets" and away from prohibiting

78. *Id.* at 497; *see also* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

79. *Fortner Enters.*, 394 U.S. at 505–07.

80. *See* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

81. SULLIVAN & HARRISON, *supra* note 17, at § 5.02; *see also* United States Steel Corp. v. Fortner Enterprises, Inc., 429 U.S. 610 (1977).

82. Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 5 (1984); *see also* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

83. *Hyde*, 466 U.S. at 26; *see also* SULLIVAN & HARRISON, supra note 17, at § 5.02.

84. *Hyde*, 466 U.S. at 35 (O'Connor, concurring).

85. Lemley & Leslie, *supra* note 23, at 1249–50.

vertical restraints.[86] The prevailing theory at this time posited there was no need for additional antitrust enforcement to "maintain the conditions necessary" for competition; rather, these markets would naturally self-regulate even with the emergence of monopoly powers.[87]

E. Antitrust in the Modern Era

Antitrust laws were written at a time when technology was still undergoing rapid development. Critics of antitrust regulation in the technology sector suggest that the "pace of technological change is so swift . . . no firm can hold monopoly power in a high technology market for a meaningful period."[88] Courts have also established a "confusing and inconsistent standard" when applying antitrust laws to the high technology industry and digital markets.[89] This lack of consistent antitrust enforcement could deter new companies from entering certain technological markets due to the "exclusionary conduct" from "individual firms with monopoly power."[90] Today, the U.S. continues to grapple with free-market dogma and its competing antitrust interests under increasingly outdated laws.[91]

In 2006, the Supreme Court returned to the antitrust doctrine of tying when a defendant tied its unpatented ink to the use of its patented printheads and ink containers.[92] In its opinion, the Court openly observed that "[o]ver the years, this Court's strong disapproval of tying arrangements has substantially diminished[,]" solidifying the marked departure of American courts from past years of antitrust regulation.[93] The Court clarified that the

86. Stucke & Ezrachi, *supra* note 19; *see generally* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

87. Stucke & Ezrachi, *supra* note 19.

88. Thomas A. Piraino, Jr., Article, *A Proposed Antitrust Approach to High Technology Competition*, 44 WM. & MARY L. REV. 65, 70 (2002).

89. *Id.* at 72.

90. *Id.*

91. *See generally* STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8.

92. Ill. Tool Works Inc. v. Indep. Ink, Inc., 547 U.S. 28, 31–32 (2006); *see also* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

93. *Ill. Tool Works Inc.*, 547 U.S. at 35.

application of so-called per se tying would only extend to instances where there is a "probability of anticompetitive consequences."[94]

In the modern era of antitrust, government regulation has ebbed significantly, continuing to rely on a "distorted" belief of self-correcting markets.[95] Recently, in 2019, Apple CEO Tim Cook disclosed that Apple bought twenty to twenty-five smaller businesses over a six-month period and, on average, Apple acquires a new company every two to three weeks.[96] Nonetheless, Apple tends to purchase smaller companies, perhaps avoiding large acquisitions that may draw unwanted government attention.[97]

The sheer dominance of tech companies may finally be motivating a shift back to a "progressive, anti-monopoly, New Brandeis School" approach to antitrust regulation.[98] In February 2020, the Federal Trade Commission announced it would require Apple and other tech giants to "provide information about prior acquisitions not reported to the antitrust agencies" dating back ten years.[99] The U.S. Department of Justice also recently filed an antitrust lawsuit against Google in what has been described as the "most aggressive U.S. legal challenge" in more than two decades.[100] Antitrust regulation may be especially needed in digital markets where "a few key gatekeepers" maintain a vice-like grip on the industry, making it "hard, if not impossible," for entrants to compete with these "dominant super-platforms."[101] The House Subcommittee on Antitrust recommends in its recent report that the legislature reassert that "conditioning access to a product or service in which

94. *Id.* at 37.

95. Stucke & Ezrachi, *supra* note 19.

96. Lauren Feiner, *Apple Buys a Company Every Few Weeks, Says CEO Tim Cook*, CNBC (May 6, 2019, 8:59 AM), https://www.cnbc.com/2019/05/06/apple-buys-a-company-every-few-weeks-says-ceo-tim-cook.html [https://perma.cc/XF4T-45K2].

97. *Id.*

98. Stucke & Ezrachi, *supra* note 19.

99. *FTC to Examine Past Acquisitions by Large Technology Companies*, FED. TRADE COMM'N., (Feb. 11, 2020), https://www.ftc.gov/news-events/press-releases/2020/02/ftc-examine-past-acquisitions-large-technology-companies [https://perma.cc/57WX-5YP6].

100. Brent Kendall & Rob Copeland, *Justice Department Hits Google With Antitrust Lawsuit*, WALL ST. J., (Oct. 20, 2020, 8:08 PM), https://www.wsj.com/articles/justice-department-to-file-long-awaited-antitrust-suit-against-google-11603195203 [https://perma.cc/4LN8-CQUM].

101. Stucke & Ezrachi, *supra* note 19.

a firm has market power to the purchase or use of a separate product or service *is* anticompetitive."[102] This mounting scrutiny may ultimately play out in Epic's favor as the courts and legislature move toward a new age of antitrust enforcement against such "Big Tech" giants. As the jurisprudence of tying stands now, the definition of the tying product market may be outcome-determinative for Epic's success or failure.

III. TECH-TYING IN DIGITAL AFTERMARKETS

On August 13, 2020, Epic Games, Inc. filed its complaint against Apple, alleging Apple engaged in anti-competitive conduct and thus violated both California state and federal law by exerting monopolistic control over the iOS app distribution market and the in-app payment processing market.[103] The lawsuit came after Apple removed Fortnite, Epic's popular battle-royal game, from its App Store for violating Apple's terms of service by offering a payment system that bypassed Apple's IAP system.[104] Epic's lawsuit alleged a total of ten counts against Apple, with six originating from the Sherman Act and three violations of California's Cartwright Act.[105] At the heart of Epic's lawsuit is the complex issue of tying in digital markets, raising important questions as to how antitrust in the modern era should be construed.[106]

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102. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 398.

103. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 44–60.

104. Nicas et al., *supra* note 5.

105. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 44–61.

106. Steven Pearlstein, *Beating Up on Big Tech is Fun and Easy. Restraining it Will Require Rewriting the Law*, WASH. POST (July 30, 2020, 9:48 AM), https://www.washingtonpost.com/business/2020/07/30/antitrust-amazon-apple-facebook-google [https://perma.cc/49WT-UUPG]; Ian Sherr, *Apple's Battle With Epic Games Could Lead to Big Changes in iPhone Apps*, CNET (Sept. 27, 2020, 5:00 AM), https://www.cnet.com/news/apples-battle-with-epic-games-could-lead-to-big-changes-in-iphone-apps/ [https://perma.cc/4K78-24Z6].

A. Mobile Operating Systems and App Store Mechanics

Mobile devices, such as iPhones and Androids, use mobile application stores ("app stores") to distribute software applications ("apps").[107] These app stores allow users to browse various apps, install compatible apps, and view or leave feedback on an app's performance.[108] For third-party app developers, app stores are the primary or sole means of distribution for their apps. Each app store dictates which apps are permitted, how app users pay for their in-app purchases of digital goods, and what distribution of that in-app purchase's revenue the app developer will receive.[109] In addition, some apps charge a price for downloading the app itself or for subscribing to an app, and the app store determines what portion of the download or subscription price the app developer will receive.[110] Mobile device companies, such as Apple and Google, provide developers with the tools and support to build compatible apps for their respective mobile operating systems.[111]

A device's mobile operating system ("OS"), like Android or iOS, will determine which app store and apps are accessible to the user.[112] For example, a smartphone using Google's Android OS will have access to the Google Play Store, the primary app store for Android devices, and other Android-compatible app stores, such as Amazon's Appstore, Aptoide, F-Droid, and the Samsung Galaxy Store.[113] In contrast, Apple's App Store is the only app store available for iOS smartphones.[114] Additionally, an app designed for Android OS is not interoperable on Apple's iOS; rather, an app developer

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107. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 93.

108. *Id.*

109. *Id.*

110. *Id.* at 339.

111. *Id.* at 93.

112. *Id.* at 94.

113. *Id.* at 95.

114. *Id.*

that wants its app to be available on both operating systems must create two identical apps which are compatible with each distinctive mobile OS.[115]

When a user makes an in-app purchase for digital goods from an app, mobile app stores collect a "commission."[116] Apple and Google have created payment processing mechanisms linked to their app stores in order to collect this commission whenever in-app purchases occur.[117] Yet, Apple and Google do not collect any commissions on physical goods sold through apps in their app stores.[118] For example, a user may purchase physical shoes from an online retailer through an app on their mobile device. This purchase would not be subject to any commission from the app store. However, if a user purchases digital shoes for a virtual character through a mobile app, the app store charges the third-party app developer a commission on each digital goods sale. Apple charges the app developer a commission of 30% on every in-app digital goods sale on Apple's mobile devices.[119]

B. Epic Games v. Apple

In its complaint, Epic alleged that Apple requires all app developers to sign a contract where 30% of all in-app purchases of "digital goods and services"[120] must be paid to Apple.[121] The contract also prohibits app developers from devising any way to skirt Apple's IAP system[122] and forbids developers from informing their iOS users that the app or its related digital goods

115. *Id.* at 94–95.

116. *Id.* at 98.

117. *Id.*

118. Matthew Ball, *Apple, Its Control Over the iPhone, the Internet, and the Metaverse*, MATTHEWBALL.VC (Feb. 2, 2021), https://www.matthewball.vc/all/applemetaverse [https://perma.cc/94PN-4R6L]; STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 98–99.

119. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 98.

120. *Id.* at 339.

121. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 1.

122. *Id.* at 1–2.

may be available for purchase at lower prices outside Apple's App Store.[123] Apple also prohibits app developers from providing their iOS users with "links outside of the app that may lead users to find alternative subscription and payment methods."[124] Plainly, all purchases of digital goods made by iOS users must go through Apple, and Apple must be given its 30% commission.[125] If an app developer disagrees with these terms, they risk losing access to the nearly 1 billion global iOS user base.[126] In its Answer to Epic's Complaint, Apple painted a different picture, claiming Epic engaged in "subterfuge" by uploading a "Trojan horse" version of Fortnite to the Apple App Store equipped with new "commission-theft functionality."[127]

Meanwhile, Epic argued that Apple, through its "dominant position in the mobile app store market and monopoly power over distribution of software applications on iOS devices,"[128] unlawfully tied the use of its iOS to the Apple App Store and subsequently the IAP system.[129] In its Motion for Preliminary Injunction, Epic asserted that they seek only "the freedom *not* to use Apple's App Store or IAP, and instead to use and offer *competing* services."[130] Epic argued that software distribution should be "as open and competitive as it is on personal computers."[131] However, U.S. District Judge Yvonne Gonzalez Rogers denied Epic's Motion for Preliminary Injunction

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123. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 339.

124. *Id.*

125. *See generally* Nicas et al., *supra* note 5; STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 339.

126. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 3.

127. Defendant and Counterclaimant Apple, Inc.'s Answer, Defenses, and Counterclaims in Reply to Epic Games, Inc.'s Complaint for Injunctive Relief at 2, *Epic Games, Inc. v. Apple, Inc.*, No. 4:20-cv-05640-YGR (N.D. Cal. 2020).

128. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334.

129. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 53.

130. Plaintiff Epic Games, Inc.'s Notice of Motion and Motion for a Preliminary Injunction and Memorandum of Points and Authorities in Support Thereof at 3, *Epic Games, Inc. v. Apple, Inc.*, No. 4:20-cv-05640-YGR (N.D. Cal. 2020).

131. *Id.* at 8.

to reinstate Fortnite in Apple's App Store.[132] Judge Rogers reasoned it would be unfair to reinstate Epic's game after Epic willfully breached its contract with Apple.[133] Both parties agreed to a bench trial, set to begin on May 3, 2021.[134]

In its complaint, Epic alleged that Apple violates the Sherman Act by tying the use of its iOS mobile device software to Apple's App Store, and thus to Apple's IAP system. Epic claimed that Apple possesses durable market power and engages in exclusionary "gatekeeping" conduct in its iOS app distribution market and in-app payment processing market.[135] Epic further argued that Apple's conduct rises to the level of per se tying and pled, in the alternative, that Apple's conduct violates the rule of reason standard of tying arrangements.[136]

To prevail on its per se tying claim, Epic would need to establish the following: (1) the iOS system, the Apple App Store, and Apple's IAP system are separate products; (2) Apple has sufficient market power in the markets of the tied products, iOS app distribution and iOS in-app payment processing; (3) consumers have no choice but to use both Apple's App Store and IAP system when using iOS mobile devices; and (4) Apple's conduct forecloses a substantial amount of commerce by tying the iOS mobile devices to the App Store, and thus to Apple's IAP system. In the alternative, under the rule of reason standard, Epic would not only need to satisfy the above elements, but also demonstrate that any procompetitive benefits are outweighed by anticompetitive harm from Apple's tying arrangements. However, the question as to whether Apple possesses the requisite market

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132. Order Granting In Part And Denying In Part Motion For Preliminary Injunction at 38, *Epic Games, Inc. v. Apple, Inc.*, No. 4:20-cv-05640-YGR (N.D. Cal. 2020) (Epic's Motion for Preliminary Injunction sought to both reinstate Fortnite in Apple's App Store and protect access for Epic Affiliates' developer accounts and tools, such as the Unreal Engine. The Court denied Epic's motion in part, deciding Fortnite would not be reinstated in Apple's App Store, and granted in part Epic's request to protect Epic Affiliates and enjoin Apple from taking any adverse action that would suspend, restrict or terminate with Epic Affiliates' status in Apple's Developer Program.).

133. *Id.* at 29–30.

134. Case Scheduling and Pretrial Order at 2, *Epic Games, Inc. v. Apple, Inc.*, No. 4:20-cv-05640-YGR (N.D. Cal. 2020).

135. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334.

136. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 54.

power will be determined by how the market at issue is ultimately defined. To better understand Epic's position, this case must be measured against two key watershed cases from the U.S. Supreme Court and the D.C. Circuit Court, respectively, dealing with tying arrangements.

C. Aftermarket Liability: The Kodak Decision

When consumers buy equipment from an original equipment maker ("OEM"), a secondary market or "aftermarket" may be created for complementary parts or services for the equipment.[137] By purchasing the original equipment, some consumers are locked into or dependent upon the OEM's aftermarket for parts or service.[138] The *Jefferson Hospital* court previously concluded that tying can also include "functionally linked products [where] at least one of which is useless without the other."[139] Essentially, a plaintiff must demonstrate that the defendant "tied the sale of the two products" and has "appreciable economic power in the tying market."[140]

In 1992, the U.S. Supreme Court decided a landmark case dealing with tying, expanding antitrust liability into derivative aftermarkets.[141] In *Eastman Kodak Company v. Image Technical Services* ("*Kodak*"), an independent service organization ("ISO") brought suit against copy-machine manufacturer, Eastman Kodak, for enacting policies that made it more difficult for ISOs to compete with Kodak for servicing Kodak's copying machine

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137. Salil Kumar, *Parts and Service Included: An Information-Centered Approach to Kodak and the Problem of Aftermarket Monopolies*, 62 U. CHI. L. REV. 1521, 1521 (1995) ("Durable goods ranging from farm machinery to computer hardware invariably require service, supplies, or replacement parts after their initial sale. The influence of original equipment makers ('OEMs') in the secondary market (or 'aftermarket') for such complementary goods has attracted recent legal attention.").

138. SULLIVAN & HARRISON, *supra* note 17, at § 5.01. "More recently, courts have been concerned with the issue of market power when buyers are arguably locked into a market by virtue of a prior purchase in a market in which the defendant did not have market power." *Id.*

139. *Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451, 463 (1992) (citing Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 19 n.30 (1984)) ("We have often found arrangements involving functionally linked products at least one of which is useless without the other to be prohibited tying devices.").

140. *Id.* at 462–64.

141. *Id.* at 451.

equipment.[142] First, the ISO plaintiff successfully argued that while the products and services were "functionally linked," separate markets existed for each, similarly to separate markets existing for cameras and film, and computers and software.[143] Second, the ISO plaintiff argued "Kodak has more than sufficient power in the parts market to force unwanted purchases of the tied market, service," due to Kodak's conduct of restricting the availability of parts and pressuring customers to use only Kodak servicing.[144] The Court noted that a company possesses "market power" when it can "force a purchaser to do something [they] would not do in a competitive market."[145]

The Supreme Court agreed that Kodak possessed sufficient market power in the parts market to unlawfully influence the service aftermarket.[146] Further, the Court observed that, in theory, the extent to which a primary market influences the aftermarket "depends on the extent to which consumers will change their consumption of one product in response to a price change in another," known as the "'cross-elasticity of demand.'"[147] However, consumers may still continue to purchase products at a higher price and may not strictly follow this theoretical rule.[148] Siding with the ISO plaintiff, the Supreme Court held that even a natural monopolist may not "exploit his dominant position in one market to expand his empire" into a derivative market.[149]

This case mirrors Epic's suit against Apple in a number of ways. Like the *Kodak* ISO, Epic took issue with Apple's anticompetitive conduct of

142. *Id.*

143. *Id.* at 463.

144. *Id.* at 464–65.

145. *Id.* at 489.

146. *Id*. at 470.

147. *Id*. at 469 (quoting *United States v. E.I. Du Pont de Nemours & Co.*, 351 U.S. 377, 400 (1956)).

148. *Id*. at 474. "Even if competitors had the relevant information, it is not clear that their interests would be advanced by providing such information to consumers. Moreover, even if consumers were capable of acquiring and processing the complex body of information, they may choose not to do so." *Id.*

149. *Id*. at 479 n.29 (quoting Times-Picayune Pub. Co. v. United States, 345 U.S. 594, 611 (1953)).

tying iOS mobile devices to both the App Store and Apple's IAP system, effectively controlling both aftermarkets.[150] Similar to the Court's approach in *Kodak*, market definition will also be central to Epic's case. The Court rejected Kodak's argument that by not possessing market power in the original equipment market, Kodak customers could switch to competing products from other OEMs.[151] Instead, the Court held that Kodak could raise prices within the parts and service aftermarkets without losing meaningful sales in the primary equipment market.[152] This ability to maintain customers, the Court reasoned, was based on Kodak's high switching costs imposed upon their customers by purchasing Kodak equipment, creating a "captive market" in Kodak's parts and service aftermarkets.[153] Here, Epic similarly argues the relevant tying product market is the aftermarket of iOS app distribution, rather than mobile operating systems at large.[154]

Apple, like Kodak, has perhaps found an "optimal price" where they may charge monopoly prices without "ruinous" consequences.[155] Once a consumer purchases an iOS mobile device, they are effectively locked in to both Apple's App Store and Apple's IAP system to purchase any digital goods.[156] Apple does not permit iOS mobile users to sideload apps.[157] Furthermore, consumers face "significant barriers" when switching their mobile devices, such as high costs, learning a new unfamiliar interface, and the difficulty of transferring data between devices.[158] Switching costs remain high for iOS users because iOS and other compatible products are not available

150. *See generally* Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 1–2.

151. SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

152. *Id.*

153. *Id.*

154. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 56.

155. *Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451, 470–71 (1992).

156. *See generally* STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334.

157. *Id.* at 97.

158. *Id.* at 102–03.

on non-iOS devices, resulting in product "lock-in" for iOS users.[159] Apple's smartphone pricing consistently soars above the global average selling price of smartphones, yet 91% of iOS users indicate they would continue to use Apple products.[160] This is further evidenced by studies showing that 90% of iOS users remain with Apple when purchasing a new smartphone device, rather than switch to another operating system, such as Android.[161] Unlike Kodak, Apple possesses between 50% and 60% of the U.S. market share of the mobile operating system market.[162] In both the iOS app distribution market and iOS in-app payment processing market, Apple effectively controls 100% by prohibiting other means for consumers to download apps or make in-app purchases.[163] Tackling a similar scenario of software bundling, the D.C. Circuit Court returned to the issue of aftermarket tying in digital marketplaces and came to a considerably different decision.[164]

D. Bundling Products: The Microsoft Decision

In 1998, the Department of Justice and twenty other states brought suit against Microsoft, alleging that Microsoft had violated antitrust laws by tying the web browser, Internet Explorer, to its Windows operating system.[165] In 2000, the trial court ruled that, as a consequence of violating the antitrust laws, Microsoft would be split into two companies—one for the Windows OS and one for its software applications.[166] The *Microsoft* decision dealt with the then-novel issue of bundling an operating system with another separate software, a web browser.[167]

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159. *Id.* at 102.

160. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 43.

161. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 102.

162. *Id.*

163. *Id.* at 97.

164. *See generally United States v. Microsoft Corp.*, 253 F.3d 34 (D.C. Cir. 2001).

165. Jenkins & Bing, *supra* note 67, at 12.

166. *Id.* at 13–14.

167. *Microsoft Corp.,* 253 F.3d at 34.

Microsoft users received the Windows operating system with Internet Explorer pre-installed and were not allowed to uninstall it.[168] Microsoft customers demanded other web browsing options and the freedom to use a competing internet browsing software instead of Internet Explorer.[169] On appeal, the D.C. Circuit Court weighed the potential impact of bundling on consumer demand for other competing products, and made the following observation: "assuming choice is available at zero cost, consumers will prefer it to no choice."[170]

Yet, the appellate court overturned the ordered split and disagreed as to the previous tying verdict, holding that although Microsoft may not "be absolved of tying liability," Microsoft was not liable under per se tying.[171] On this basis, the court held that due to a lack of empirical evidence and meaningful experience adjudicating antitrust claims within the technology space, the trial court incorrectly applied the per se label to Microsoft's conduct.[172] The court remanded for the tying claim to be construed under the rule of reason analysis where the plaintiffs must demonstrate Microsoft's anticompetitive conduct outweighed any procompetitive justifications.[173]

Market definition again played a pivotal role in the *Microsoft* decision.[174] Microsoft argued that the trial court defined the primary market too narrowly by examining only the worldwide market of Intel-compatible operating systems and excluding other operating systems, such as Mac OS from Apple.[175] Yet, the appellate court ultimately rejected this argument because consumers were unlikely to migrate from Windows OS to Mac OS due to

168. *Id.* at 84.

169. *Id.* at 88.

170. *Id.* at 87.

171. *Id.* at 89.

172. *Id.* at 94–95.

173. *Id.* at 95.

174. SULLIVAN & HARRISON, *supra* note 17, at § 5.02. ("In appealing the district court holding, Microsoft made a number of arguments contesting this market definition and the inference that it was indicative of market power. The first was that the market was defined too narrowly by virtue of excluding the Apple Computer operating system Mac OS, operating systems for non-PC devices like handheld units, and middleware.").

175. *Microsoft Corp.*, 253 F.3d at 52.

high switching costs, incompatibilities between each OS, and the effort involved in learning the configuration of a new OS.[176] Further, the court reasoned that a firm cannot possess market power unless the market is also protected by "significant barriers to entry" from other competitors.[177]

As discussed, Apple consumers face similar problems when changing their mobile devices. Additionally, other potential competitors in either the iOS app distribution market or in-app payment processing market are foreclosed from entering these markets as Apple maintains "gatekeeper power" over these respective markets.[178] Therefore, Apple protects the market of iOS app distribution and in-app payment processing by using the App Store as the only method to distribute iOS-compatible apps.[179]

This case draws a powerful distinction between *Microsoft* and *Epic* in that Apple, unlike Microsoft, does not provide any other choice to its consumers than to use both the App Store and thus Apple's IAP system.[180] An iOS user, by virtue of using an iOS mobile device, must use Apple's App Store and Apple's IAP system to access to a third-party developer's content and purchase digital goods.[181] The Apple App Store cannot be uninstalled from an iOS mobile device, and a consumer cannot directly download iOS-compatible programs from third-party developers.[182] An iOS user is limited to what Apple permits through the App Store and thus subjects its customers

176. *Id.*

177. *Id.* at 82.

178. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334.

179. *Id.*

180. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 3–4.

181. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 342 ("Many developers have stressed that, because Apple dictates that the App Store is the only way to install software on iOS devices and requires apps offering "digital goods and services" to implement the IAP mechanism, Apple has illegally tied IAP to the App Store. Consumers with iOS devices account for a disproportionately high amount of spending on apps—spending twice as much as Android users.").

182. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 3–4; *see also Remove Built-In Apple Apps from the Home Screen on Your iOS 10 Device or Apple Watch*, APPLE SUPPORT, https://support.apple.com/en-us/HT204221# [https://perma.cc/93W7-GZT8].

to any fees Apple ultimately imposes upon developers through its IAP system.[183]

While this new generation of technology firms rely on technology not anticipated by the *Microsoft* court, the analysis surrounding the *Microsoft* decision sheds light on limitations of antitrust regulations today.[184] The *Microsoft* decision has been used by other courts to further carve out this "high-tech exceptionalism" to antitrust enforcement.[185] In effect, "if a tie can be said to improve a high-tech product in any way, the competitive effects of its design are beyond antitrust reproach."[186]

IV. THE FUTURE OF ANTITRUST

"Technological tying" or "tech-tying" occurs when a firm with a dominant position in one market increases interoperability with its own products by engaging in foreclosure of competition or leveraging.[187] This phenomenon of vertical integration in digital aftermarkets is omnipresent across all major tech companies, including other large companies such as Microsoft, Amazon, and Google.[188] These firms play an integral role in the American digital economy, not just due to their significant and durable market power, but also due to the services they provide, such as communication, commerce, and information services that countless other industries consistently rely upon.[189] However, the continued monopolization by these same firms has substantially reduced "consumer choice, eroded innovation and entrepreneurship in the U.S. economy, weakened the vibrancy of the free and diverse

183. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 4.

184. Chris Butts, *The Microsoft Case 10 Years Later: Antitrust and New Leading "New Economy" Firms*, 8 NW. J. TECH. & INTELL. PROP. 275, 285 (2010).

185. Rebecca H. Allensworth, *Antitrust's High-Tech Exceptionalism*, 130 YALE L.J. F. 563, 603 (2021).

186. *Id.*

187. John M. Newman, *Anticompetitive Product Design in the New Economy*, 39 FLA. ST. U. L. REV. 681, 683 (2012).

188. *See generally* STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 287; *see generally* United States v. Microsoft Corp., 253 F.3d 34, 240 (D.C. Cir. 2001).

189. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 10.

press, and undermined Americans' privacy."[190] Firms exploit this monopolistic power to gain control of other vertical markets by "establishing an infrastructure that renders them uniquely suited to serve their customers."[191]

A. Tech-Tying, Effective Through Leveraging

Leveraging is a broad theory within antitrust law, rather than a right of action itself such as tying. Leveraging "occurs when a firm exploits its monopoly power in one market in order to extend that power to an adjacent market, subsequently exercising market power in that market by raising prices or restricting output or quality."[192] Generally, leveraging "encompass[es] any form of conduct that makes it harder for third parties to distribute their products or services through a platform, while benefitting the platform owner's competing product."[193] Although the doctrine of leveraging has "lost substantial favor," demonstrating a defendant's leverage may be critical for plaintiffs attempting to prove a firm engaged in tech-tying.[194] In the digital era, this manifests when platform owners pre-install their own software as a means of self-promotion and block other developers from creating competing products.[195] Firms such as Apple create both the mobile device operating system and the applications that "sit on top of" its own platforms.[196]

This raises the question as to what exactly Apple is tying. Apple directly controls iOS mobile app distribution through the App Store.[197] By funneling all app downloads and purchases through the App Store, Apple

190. *Id.* at 12.

191. Patrick F. Todd, *Digital Platforms and the Leverage Problem*, 98 NEB. L. REV. 486, 522 (2019) (quoting Verizon Communs., Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398, 407–08 (2004)).

192. *Id.* at 488.

193. *Id*. at 489.

194. SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

195. Todd, *supra* note 191, at 489.

196. *Id.* at 497.

197. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334–35.

can also require its consumers to use Apple's IAP system.[198] In its complaint, Epic argues that Apple has unlawfully tied the App Store to Apple's IAP system.[199] This, however, may not capture the full scope of Apple's tying conduct.

The tying appears to be happening twofold: first, Apple conditions the use of its mobile iOS operating system with the App Store as the sole means of iOS-compatible app distribution;[200] and second, Apple ties the App Store to its IAP system for making app-related purchases for virtual goods.[201] Apple compels the consumer to utilize its App Store without any competing alternatives and prohibits users from deleting the Apple App Store.[202] As a result, Apple is able to maintain its "gatekeeper" status over the app distribution market for iOS devices[203] and therefore require consumers and app developers alike to use Apple's IAP system.[204] App developers allege that Apple "actively undermines the open web's progress" on its own iOS devices in order to "to push developers toward building native apps on iOS rather than using web technologies."[205]

Apple maintains complete control over iOS smartphones by disallowing any competitors in the aftermarkets of iOS app distribution and in-app

198. *Id.* at 339 ("Apps are not permitted to. . .offer their own payment processing mechanism in the app to avoid using Apple's IAP.").

199. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 53.

200. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 335.

201. *See generally Remove built-in Apple apps from the Home screen on your iOS 10 device or Apple Watch, supra* note 185; *see also App Store Review Guidelines*, *3.2.2. Unacceptable*, APPLE.COM (Feb. 1, 2021), https://developer.apple.com/app-store/review/guidelines/#in-app-purchase [https://perma.cc/R7T8-R9Y9]; *see also* Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 53.

202. *See generally Remove built-in Apple apps from the Home screen on your iOS 10 device or Apple Watch*, *supra* note 185; STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334.

203. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334.

204. *Id.* at 342.

205. *Id.* at 335.

payment processing.[206] In the U.S., Apple enjoys "significant and durable" market power in the smartphone, mobile operating system, and mobile app store markets, with more than half of all domestic smartphones running on Apple's iOS.[207] Globally, Apple returned to the number one position at the close of 2020 Q4 in the mobile device market, capturing 23.4% of the market share with the highest shipment volume in history by a single vendor.[208] Apple thus leverages its market power in the iOS aftermarkets to require consumers and third-party developers to use Apple's App Store and subsequently its IAP system.[209]

In the instant case, the market at issue is not the smartphone market at large. Like in *Kodak* and *Microsoft*, the market in question is the aftermarkets of in iOS app distribution and in-app payment processing.[210] Apple creates an absolute barrier to entry for third parties that either wish to distribute iOS-compatible apps or provide alternative payment processing systems for digital commerce on iOS smartphones.[211] The Apple App Store's net revenue alone was estimated at $17.4 billion for the 2020 fiscal year.[212] Analytics have shown that, on its own, the App Store would rank at 64 in the Fortune 500.[213] Apple also has yet to produce any evidence that its App Store is not the exclusive method of app distribution for iOS devices or that Apple does not maintain monopoly control of these aftermarkets.[214]

Through its tied products, Apple exerts a "supra-competitive" 30% commission over developers which developers then pass on to the consumer

206. *Id.* at 334–35.

207. *Id.* at 334.

208. *Smartphone Shipments Return to Positive Growth in the Fourth Quarter Driven by Record Performance by Apple, According to IDC*, IDC (Jan. 27, 2021), https://www.idc.com/getdoc.jsp?containerId=prUS47410621 [https://perma.cc/FVE5-ZDCU].

209. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 102, 334, 341–42.

210. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 16, 28.

211. *See* Ball, *supra* note 118.

212. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 344–45.

213. *Id.*

214. *Id.* at 335.

by inflating in-app prices.[215] Due to consumer lock-in and high switching costs, Apple may also be able to raise its commission on third-party developers without losing any meaningful consumer sales in the OEM market of smartphones.

Apple argues that its 30% commission is "hardly unique" within the industry and compares itself to other platform owners.[216] Apple invented this 30% standard in 2009 when the tech company began enforcing its 30% commission fees—a rate that has since become "the industry standard" for digital goods.[217] Yet, the actual figure of 30% is not precisely the issue. Apple has reduced this 30% commission to 15% for certain "reader" or subscription-based apps after its first operating year.[218] Further, Apple does not exert the same 30% commission over purchases of physical items through iOS apps.[219]

The issue is that Apple has unparalleled discretion to implement arbitrary rules or fees—the "our bat, our ball, our rules" approach[220]—to the detriment of other would-be competitors in the aftermarkets of iOS app

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215. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 16–17 ("Apple also uses its power to exploit app developers through misappropriation of competitively sensitive information and to charge app developers supra-competitive prices within the App Store . . . In the absence of competition, Apple's monopoly power over software distribution to iOS devices has resulted in harm to competitors and competition, reducing quality and innovation among app developers, and increasing prices and reducing choices for consumers."); *see also* Nilay Patel, *Apple's App Store Fees are 'Highway Robbery,' says House Antitrust Committee Chair*, VERGE (June 18, 2020, 3:21 PM), https://www.theverge.com/2020/6/18/21295778/apple-app-store-hey-email-fees-policies-antitrust-wwdc-2020 [https://perma.cc/KF3Y-EUQE] (House Antitrust Committee Chair Rep. David Cicilline: "You cannot simply allow someone merely because they invented a system or a product to continue to enjoy that kind of monopoly power . . . . It's contrary to our laws. It's unfair to new developers, new startups, and it hurts consumers.").

216. Apple, Inc.'s Opposition to Motion for Temporary Restraining Order at 5, Epic Games, Inc. v. Apple, Inc., No. 3:20-cv-05640-YGR (N.D. Cal. 2020).

217. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 98.

218. *Id.* at 339–41.

219. Ball, *supra* note 118.

220. Ben Lovejoy, *Opinion: Apple's Antitrust Issues Won't Go Away; the Company Should Act Now*, 9TO5MAC (June 17, 2020, 7:08 AM), https://9to5mac.com/2020/06/17/apples-antitrust-issues/ [https://perma.cc/MP6T-ZDX4].

distribution and in-app payment processing.[221] Apple's 30% commission on the sale of digital goods is "non-negotiable."[222] Apple owns each adjacent market which relies on the former, thus leveraging its complete market power over these iOS aftermarkets.[223] Should an app developer disagree with Apple's policies, they risk losing access to over one-billion iOS users.[224]

Furthermore, other competitors operate in the payment processing market at large— and at a much cheaper price.[225] It has been speculated that Apple's expenses to run the App Store, when compared against the revenue made from the App Store, would justify charging no more than 3.65% to app developers.[226] As one app developer suggested, Apple's stance on the status of its payment system "distorts competition in payment processing by making access to its App Store conditional on the use of [Apple's] IAP for in-app purchases, thus excluding alternative payment processors."[227] Like Epic, other developers would prefer to offer in-house payment processing options, as is customary with many online retailers selling physical goods.[228]

B. Apple's Anticompetitive Conduct Outweighs Any Procompetitive Justifications

Like the *Microsoft* case, Epic urged the court to evaluate Apple's tying under the per se approach or, in the alternative, under the rule of reason

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221. Ball, *supra* note 118 ("[Apple] is inhibiting this future Internet. And it does so via tolls, controls, and technologies that not only deny what made and still makes the open web so powerful, but also prevents competition, and prioritize Apple's own profits.").

222. *Id.*

223. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 16-17; *see also* Patel, *supra* note 215.

224. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 3.

225. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8.

226. *Id.* ("Other developers have noted that alternative payment processing providers charge significantly lower rates than Apple's fee for IAP. Match Group estimates that Apple's expenses related to payment processing 'justify charging no more than 3.65% of revenue.'").

227. *Id.* at 343.

228. *Id.* at 346.

analysis.[229] Under a rule of reason analysis, Epic would also have to demonstrate "the anticompetitive effects of tying . . . [outweigh] the procompetitive justifications for the arrangement."[230] In response, Apple asserts its conduct should be protected from redress under antitrust laws due to Apple's "legitimate business justifications."[231] Apple claimed that its conduct was reasonable "at all times" and "undertaken in good faith to advance legitimate business interests and had the effect of promoting, encouraging, and increasing competition."[232]

Apple presents various justifications for its conduct, such as the claim that linking its app store to its iOS is a "product-design decision," meant to protect its "integrated tech ecosystem."[233] Apple also argues that it uses the App Store as a security measure to protect its users from any potentially malicious apps by thoroughly vetting all apps it permits in the App Store.[234] Additionally, Apple characterizes its 30% fee as a commission or distribution fee, rather than a payment processing fee, insisting that the fee "reflects the value of the App Store as a channel for the distribution of developers' apps and the cost of many services" incurred by Apple to maintain the App Store.[235] Apple further asserts that it maintains control over the App Store to ensure that all iOS apps are up to Apple's "high standards for privacy, security, content, and quality."[236] Apple's rationale for this 30% fee has also evolved over time.[237] For example, back in 2011, Apple CFO Peter Oppenheimer claimed the fee charged by the App Store was implemented to ensure

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229. *See* Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 54.

230. Piraino, Jr., *supra* note 88, at 104.

231. Apple, Inc.'s Answer, Defenses, and Counterclaims, *supra* note 127, at 36.

232. *Id.*

233. Allensworth, *supra* note 185, at 603.

234. Apple, Inc.'s Opposition to Motion for Temporary Restraining Order, *supra* note 217, at 5.

235. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 343.

236. Apple, Inc.'s Answer, Defenses, and Counterclaims, *supra* note 127, at 4.

237. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 344.

that Apple received "just a little over break even" in exchange for operating the App Store.[238]

However, Epic noted in its Complaint that Apple fails to exert similar control over its personal computers.[239] Apple's MacBook users are free to download programs outside of the Apple-controlled App Store and can make direct purchases outside of the IAP system.[240] Consumers can still access Fortnite through their Apple computers, without having to route through the Apple App Store to download the game or use Apple's IAP system to purchase any virtual goods.[241] This indicates that the alleged privacy concerns Apple raises extend only to its mobile devices and not its personal computers. Apple also does not impose its typical 30% commission for the purchase of physical goods,[242] suggesting that this fee operates more arbitrarily than Apple claims.

Kodak similarly argued its tying arrangement was justified for the following reasons: "(1) to promote inter-brand equipment competition by allowing Kodak to stress the quality of its service; (2) to improve asset management by reducing Kodak's inventory costs; and (3) to prevent ISOs from free-riding on Kodak's capital investment in equipment, parts and service."[243] Yet, the Court rejected Kodak's justifications, calling attention to Kodak's inconsistent actions and failure to provide adequate evidence to supports its alleged justifications.[244] As in *Kodak,* Apple's justifications likely do not outweigh the anticompetitive nature of Apple's conduct. Apple, in allowing such freedom on its other devices, demonstrates Apple can financially afford to allow competing iOS app distributors, and that data privacy concerns are not a legitimate business justification.

238. *Id.*

239. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 6.

240. *Id.* at 22.

241. *Id.* at 6.

242. Ball, *supra* note 118.

243. *Eastman Kodak Co. v. Image Tech. Servs.*, 504 U.S. 451, 483 (1992).

244. *Id.* at 484–85.

C. Shifting the Antitrust Paradigm

Accordingly, both the iOS app distribution and in-app payment processing are two distinct markets, even if Apple's products are functionally linked. Therefore, presently or on appeal, the Court should find that Apple has unlawfully conditioned the use of its iOS platforms to its App Store, and thus to its IAP system. Apple owns both the hardware, the iPhone, and the operating system, iOS, and thus conditions the operability of Apple's own apps and all third-party apps on the use of Apple's App Store to operate the mobile device as a whole.[245] Apple goes a step further to exert additional control over any in-app sales of digital goods by tying its IAP system to its App Store, the sole means of app distribution for iOS devices.[246] Each step in this vertical chain represents distinct markets: the smartphone market, the iOS app distribution market, and the iOS in-app payment processing market. Apple uses its market dominance in the iOS mobile device market to unfairly leverage and ultimately control the aftermarkets of both iOS app distribution and in-app payment processing.[247] Apple's market power may manifest in a variety of ways, such as "lower quality, lower privacy protection, less creation of new business/entry, less variety of political viewpoints, and, importantly, less investments in innovation."[248]

The courts should seek a balance between promoting fair market structures and protecting the right of technology companies to exert control over their product by extending antitrust protection to entrepreneurs and independent businesses.[249] In the absence of retroactively splitting monopolistic tech companies, courts should scrutinize a company's potential threat of vertical integration and how a company may leverage this power in aftermarkets. By moving away from "high-tech exceptionalism," the courts should reject the *Microsoft* rationale that improving a high-tech product grants a

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245. Epic Games, Inc.'s Complaint for Injunctive Relief, *supra* note 12, at 53.

246. *Id.*; STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 342.

247. *See generally* STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8, at 334–46.

248. STIGLER COMMITTEE ON DIGITAL PLATFORMS, GEORGE J. STIGLER CTR. FOR THE STUDY OF THE ECON. AND ST., FINAL REPORT, 8 (2019), https://research.chicagobooth.edu/-/media/research/stigler/pdfs/digital-platforms—-committee-report—-stigler-center.pdf [https://perma.cc/8CMP-W8Q7].

249. *Id.* at 392.

firm reprieve from antitrust enforcement.[250] The courts should thus abandon the short-sighted, consumer-centered paradigm of antitrust, opting instead to examine the "competitive process itself" by scrutinizing both the structure of the firm and the relevant markets.[251] In finding for Epic, the Court here would demonstrate that tech firms cannot evade meaningful antitrust enforcement where their conduct hinders competition.

Given the confused state of current law, it would benefit the courts if Congress were to provide clarity through legislation. Among other things, the legislature should direct courts to protect competition in addition to consumers when adjudicating antitrust claims. In strengthening scrutiny of vertical restraints, the legislature can make this clear: tech-tying is anticompetitive conduct. While the courts may be slow to clarify antitrust jurisprudence, legislative changes would offer "faster and more certain" path to antitrust enforcement against the emerging trend of tech-tying.[252] As an increasing number of U.S. markets are controlled by a shrinking number of firms, the legislature must act now to implement antitrust reform.[253]

D. Looking Forward

The same day Epic filed suit against Apple, Apple announced its plans to launch "AppleOne," a product that will bundle their existing services of streaming, music, iCloud storage, news and much more.[254] As a consumer, the prospect of finally combining all streaming services may be exciting, as it will allow many to cut down on various virtual subscriptions. Apple will offer a way to streamline and simplify this process, for seemingly less money.[255] Consequently, it may be difficult to imagine how restricting Apple would benefit the consumer when Apple brings remarkable convenience

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250. Allensworth, *supra* note 185, at 602–03.

251. Lina M. Khan, *Amazon's Antitrust Paradox*, 126 YALE L.J. 710, 717 (2017).

252. Steven C. Salop, *Dominant Digital Platforms: Is Antitrust Up to the Task?*, 130 YALE L.J. F. 563, 586 (2021).

253. Khan, *supra* note 251, at 803–04.

254. Mark Gurman, *Apple Readies Subscription Bundles to Boost Digital Services*, BLOOMBERG (Aug. 13, 2020, 3:00 AM), https://www.bloomberg.com/news/articles/2020-08-13/apple-readies-apple-one-subscription-bundles-to-boost-services?sref=18veDlX6 [https://perma.cc/3FJZ-FC2Y].

255. *Id.*

to our lives. However, this again raises the central issue—how much control should Apple be allowed to exert? A $2 trillion market cap company is unprecedented,[256] as is the technology at consumers' fingertips.

Since the filing of Epic's lawsuit, other companies such as Spotify Technology SA and Match Group Inc. have joined Epic against these tech giants by creating the Coalition For App Fairness.[257] The Coalition's mission is to promote "fair treatment by these app stores and the platform owners who operate them."[258] As "Big Tech" companies clash with smaller third-party developers, the courts and legislature will face an increasing need for clear guidance on how best to navigate complex antitrust issues. The legislature must also enact reforms to antitrust laws to account for the growing phenomenon of tech-tying and clarify the confusing standards for analyzing tying claims, both within and beyond technological markets.[259]

V. CONCLUSION

Epic should prevail on its claims of tying against Apple. While Apple has every right to operate its own App Store and offer services exclusive to its devices, Apple cannot be permitted to continue this "forced bundling."[260] The solution is clear: allow iOS users to download iOS-compatible apps from other sources and allow app developers to use alternative payment processing systems.[261] This does not preclude Apple from offering both its own App Store as a means of iOS app distribution and Apple's IAP system as an in-app payment mechanism. Both may serve as *competing* options for iOS users.

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256. Klebnikov, *supra* note 6.

257. Mark Gurman, *Spotify, Match Launch Coalition to Protest App Store Rules*, BLOOMBERG (Sept. 24, 2020, 3:45 AM), https://www.bloomberg.com/news/articles/2020-09-24/spotify-match-launch-coalition-to-protest-app-store-rules [https://perma.cc/877T-UJLW].

258. *Our Vision for the Future*, COALITION FOR APP FAIRNESS, *https://appfairness.org/our-vision/* [http://archive.today/EMNDo].

259. STAFF OF S. COMM. ON ANTITRUST, COM. AND ADMIN. L. OF THE COMM. ON THE JUDICIARY, *supra* note 8.

260. Ball, *supra* note 118.

261. *Id.*

However, Epic will face significant hurdles due to the current judicial hostility toward antitrust[262] and inconsistent tying jurisprudence.[263] Epic is hardly alone in experiencing Apple's anti-competitive behavior and consumers may have little hope in overcoming the steep cost of switching platforms. Absent any meaningful intervention by the legislature to also codify laws prohibiting the practice of tech-tying in digital aftermarkets, Apple and other "Big Tech" firms' conduct may remain entirely unchecked.

This result may be counter-intuitive to our sense of intellectual property rights and conflict with deregulatory free-market ideology. It is true that Apple creates technology that many consider essential to our daily lives. You may be reading this Comment on your MacBook or scrolling on your iPhone. However, the "our bat, our ball, our rules" [264] mentality of high-tech firms will inevitably leave consumers, entrepreneurs, and other smaller companies vulnerable. Unregulated capitalism has consistently trended toward the formation of monopolistic firms with incredible power to wield over consumers and competitors alike.[265] In order for healthy competition to thrive, fair conditions must be maintained and cultivated through both the courts and the legislature to prevent further monopolization in high-tech markets.

262. *See generally* SULLIVAN & HARRISON, *supra* note 17, at § 5.02.

263. *Id.*

264. Lovejoy, *supra* note 220.

265. Stucke & Ezrachi, *supra* note 19.