Antitrust Enforcement in the Digital Economy: U.S.

Kristian Stout

INTRODUCTION

Antitrust enforcement in digital and high-tech markets is not disconnected from traditional antitrust theory or practice. Yet, unique features of firms operating in digital and other high-tech markets *can* necessitate modification of doctrine. For example, modern antitrust enforcement in digital markets needs to take seriously the presence of network effects in two-sided markets and the procompetitive justifications for various kinds of product design decisions that may otherwise appear to harm competitors under older models of antitrust enforcement. The goal, however, remains enforcement of the consumer welfare standard, even if enforcers and courts must be sensitive to features particular to digital markets.[1]

This chapter takes the 2001 D.C. Circuit opinion in *Microsoft* as an inflection point in digital antitrust enforcement. With that case we can first clearly see all of the various threads pulled together that run through modern antitrust enforcement in high tech cases. This chapter begins with a brief overview of the precursor cases that informed enforcement up until the late 1990s before devoting attention to *Microsoft* and the subsequent cases that shape modern antitrust enforcement in digital markets.

I. OLDER CASES/INVESTIGATIONS

In order to understand the state of modern antitrust enforcement in digital markets, it is necessary to understand how precursors to modern doctrine and enforcement biases developed. Although there are undoubtedly a wide range of cases that arguably could be thought of as informing how concepts such as market definition,

[1] For further discussion on network effects and the consumer welfare standard, see *supra* Section I of this Report.

effects analysis, and essential facilities (to name just a few) developed the kernels of enforcement theories applied in digital markets today, what follows is a cross-section that provides a useful foundation.

A. The AT&T Cases

The AT&T cases set an important tone in antitrust enforcement around the treatment of firms engaged in networked technologies. In 1949, DOJ brought a case against AT&T and its subsidiary, Western Electric, under various provisions of the Sherman Act, alleging that "the defendants had monopolized and conspired to restrain trade in the manufacture, distribution, sale, and installation of telephones, telephone apparatus, equipment, materials, and supplies."[2] The core of the complaint was that AT&T had improperly leveraged its legally granted monopoly over the telephone networks to disadvantage rivals in various direct and adjacent markets.[3] That case settled in 1956, leaving AT&T under a consent decree that "precluded AT&T from engaging in any business other than the provision of common carrier communications services; precluded Western Electric from manufacturing equipment other than that used by the Bell System; and required the defendants to license their patents to all applicants upon the payment of appropriate royalties."[4] In 1974, DOJ filed a new antitrust suit against AT&T, and sought structural separation between AT&T and its various Bell Operating Companies ("BOCs"), as well as the divestiture of Western Electric.[5] In 1982, the parties filed a Modification of Final Judgment that, with minor alterations by the reviewing court, was accepted and resulted in AT&T divesting itself of its regional BOCs.[6] Notably,

[2] United States v. Am. Tel. & Tel. Co., 552 F. Supp. 131, 135–36 (D.D.C. 1982).

[3] *Id.*

[4] *Id.* at 137–38.

[5] *Id.* at 140.

[6] *Id.* at 141.

at this time the "line of business" restrictions imposed by the 1956 consent decree were removed, thus allowing AT&T to enter into adjacent businesses, such as data processing and computers.[7]

The case was important for a number of reasons, not least of which was that it represented DOJ's willingness to intervene in complex, networked industries. The reviewing court of the 1982 consent decree—foreshadowing what would today be seen as a neo-Brandeisian view of antitrust enforcement—indeed felt that such intervention was mandated by the nature of US antitrust laws:

> The only pervasive two-way communications system is the telephone network. It is crucial in business affairs, in providing information to the citizenry, and in the simple conduct of daily life. In its present form, AT & T has a commanding position in that industry. The men and women who have guided the Bell System appear by and large to have been careful not to take advantage of its central position in America's economic life. There is no guarantee, however, that future managers will be equally careful. In any event, it is antithetical to our political and economic system for this key industry to be within the control of one company. For these reasons, the Court concludes that the loosening of AT & T's control over telecommunications through the divestiture of the Operating Companies will entail benefits which transcend those which flow from the narrowest reading of the purpose of the antitrust laws.[8]

Although not an essential facilities case in the strict sense, the language the court used in describing the necessity of restructuring the firm verges on the justification for the doctrine. It was "crucial in business affairs," as well as in the "simple conduct of daily life." The managers of the system only refrained from taking advantage of America by virtue of AT&T's central importance through self-restraint. Thus, the necessity was to, in effect, make the single AT&T firm *less* essential to American life by restructuring it into separate companies.

In pursuing this course, however, the court completely underestimated the scale efficiencies entailed in managing a large network under AT&T. Indeed, by the turn of the

[7] *Id.*

[8] *Id.* at 165.

century, many of the BOCs had reconsolidated in order to once again realize those efficiencies.[9]

B. The IBM Case

After a two-year investigation into a wide range of practices, DOJ brought a case against IBM in 1969.[10] DOJ claimed that IBM was illegally maintaining its monopoly over general-purpose computers via predatory pricing, illegally bundled hardware and software, and announcing speculative products with the purpose of depressing interest in rivals' products.[11]

As remains common today, the government framed its case around a very narrow market definition that only encompassed manufacturers of "complete systems of general-purpose computers."[12] Thus, DOJ did not construe smaller firms that only competed for pieces of IBM's overall business as relevant competitors.

The IBM case emerged from the *ALCOA* tradition that would allow punishment of firms that merely became large by outcompeting rivals.[13] But during the very long period of time the matter was pending (from 1969–82) the center of gravity shifted in antitrust enforcement. After *Berkey Photo*,[14] merely being a dominant firm was no longer enough to support an inference of violation of the antitrust laws. Consequently, after more than a decade of trying to substantiate a case, DOJ dropped the matter.[15]

---

[9] *See* Jose Pagliery, *How AT&T Got Busted Up and Pieced Back Together*, CNN BUSINESS (May 20, 2014, 09:30 AM), https://money.cnn.com/2014/05/20/technology/att-merger-history/index.html

[10] John E. Lopatka, United States v. IBM*: A Monument to Arrogance*, 68 ANTITRUST L.J. 145, 146–47 (2000).

[11] *Id.* at 147.

[12] *Id.* (The modern analog is perhaps best exemplified by the European Commission's Android decision wherein the market was defined in a way where iOS did not exert competitive pressure on Android).

[13] United States v. Aluminum Co. of Am., 148 F.2d 416 (2d Cir. 1945) [hereinafter *ALCOA*].

[14] Berkey Photo, Inc. v. Eastman Kodak Co., 603 F.2d 263 (2d Cir. 1979).

[15] Edward T. Pound, *Why Baxter Dropped the I.B.M. Suit*, N.Y. TIMES, Jan. 9, 1982 (§ 2), at 37, *https://www.nytimes.com/1982/01/09/business/why-baxter-dropped-the-ibm-suit.html?searchResultPosition=1*.

The IBM case is an early example of the way that enforcers miss the larger dynamics at play in fast-moving technologically intensive industries. The market is envisioned by enforcers as static, and future activity is only imagined along familiar, known vectors. But over the course of the investigation and litigation the entire computing landscape changed under IBM, and effectively nullified the government's claims. Between 1968 and 1982, IBM's market share for "electronic data processing" fell from 50 percent to 36 percent.[16] And even as mainframe computers gave way to mini- and micro- computers, IBM did not significantly enter those newer markets until the early 1980s.[17] Surely some of that is attributable to a response to the litigation, but much of it was also a result of IBM failing to adequately adapt to changes in consumer demand as competitors redefined the market itself instead of choosing to compete along known vectors.

C. OAG v. FTC

OAG v. FTC was an early case that foreshadowed modern discussions of two-sided markets and data possession, as well as something like a duty to deal or essential facilities argument in that context.[18] OAG was a "monopolist provider" of detailed flight route information in a printed guide that it published.[19] OAG challenged an FTC Order that prohibited it from "arbitrarily discriminating against any air carrier or class of carriers in publishing connecting flight listings."[20] The FTC focused its complaint on the fact that OAG did not include all commuter flight routes in its guide, and thus biased its

[16] David Levy & Steve Welzer, *System Error: How the IBM Antitrust Suit Raised Computer Prices*, AEI J. GOV'T & SOC'Y, Sept./Oct. 1985, at 27, 29, https://www.cato.org/sites/cato.org/files/serials/files/regulation/1985/9/v9n5-6.pdf.

[17] *Id.*

[18] Official Airline Guides, Inc. v. FTC, 630 F.2d 920 (2d Cir. 1980).

[19] *Id.* at 921.

[20] *Id.*

publication in favor of larger commercial providers.[21] The court acknowledged that "substantial evidence supports the Commission's findings of significant competition between certificated and commuter carriers, and of injury to that competition, as well as the finding that OAG "arbitrarily" refused to publish the connecting flight schedules of commuter carriers."[22]

OAG, in its turn, cited *US v. Colgate* for the proposition that merely disadvantaging competitors or other third-party firms was an insufficient basis for finding that the Sherman Act had been violated.[23] The FTC acknowledged that its own argument was novel in light of *US v. Colgate*, but that firms should be chastised when they exercise otherwise permissible business judgment in an arbitrary fashion:

> The Commission did not find in the present case "any purpose to create or maintain a monopoly," but went on to say that "the philosophy of Colgate must give way to a limited extent where the business judgment is exercised by a monopolist in an arbitrary way." The Commission conceded that its result "may be inconsistent to some extent with the theory of the Colgate doctrine."[24]

The court disagreed, worrying that extending the FTC's authority to allow for review of the arbitrariness of business judgment would create a concerning degree of discretionary enforcement:

> [W]e think enforcement of the FTC's order here would give the FTC too much power to substitute its own business judgment for that of the monopolist in any decision that arguably affects competition in another industry. Such a decision would permit the FTC to delve into, as the Commission itself put the extreme case, "social, political, or personal reasons" for a monopolist's refusal to deal.[25]

To frame *OAG v. FTC* in modern terms, OAG in a sense was seen as operating something like a two-sided platform, in that it worked with airlines on one side in order to provide flight listings to consumers on the other side. In the process it was therefore in

---

[21] *Id.* at 924.

[22] *Id.*

[23] *Id.* at 925 (citing United States v. Colgate & Co., 250 U.S. 300, 307 (1919)).

[24] *Id.* at 925.

[25] *Id.* at 927.

possession of a commanding degree of information, and its product design decisions were influential on firms that wished to rely on it to reach consumers. The FTC also attempted to describe OAG's data as something like an essential facility (though it did not explicitly do so), and asserted that by possessing that data, OAG obtained an additional obligation to act fairly above and beyond base-line antitrust duties. The court ultimately disagreed with this characterization, however.[26]

D. The FTC Microsoft Investigation

There were a series of government investigations throughout the 1990s that set the stage for the ultimate *Microsoft* case. The FTC began investigating Microsoft in 1990.[27] The investigation originally arose as a result of a partnership between Microsoft and IBM in the joint production of a new operating system (over which IBM would later assume sole control).[28]

The investigation expanded beyond its initial focus, and came to "cover[] a wide range of allegations, including that Microsoft had provided its own applications software developers with critical information about Microsoft's operating systems not provided to competing applications software developers, and that it had announced the development of operating system software in order to discourage original equipment manufacturers of personal computers (PC OEMs) from using competing operating systems (a practice the district court later called "vaporware")"[29] Strikingly, many of these allegations were similar to those brought against IBM over twenty years earlier.

Ultimately the FTC was deadlocked on whether to bring suit against Microsoft, and

---

[26] *Id.*

[27] George Bittlingmayer & Thomas W. Hazlett, DOS Kapital: Has Antitrust Action Against Microsoft Created Value in the Computer Industry? (June 2, 1998) (unpublished manuscript), https://ssrn.com/abstract=99832.

[28] Deborah A. Garza, *The Court of Appeals Sets Strict Limits on Tunney Act Review: The Microsoft Consent Decree*, ANTITRUST, Fall 1995, at 21, 21–22.

[29] *Id.*

the investigation was suspended.[30] In an unusual development, the DOJ opted to pick up the investigation once the FTC had dropped it, laying the basis for its subsequent and well-known case against Microsoft in the mid and late 1990s.[31]

II. *MICROSOFT* AND ITS AFTERMATH

A. Microsoft

The 2001 D.C. Circuit *Microsoft* decision looms large in the modern enforcement context of the digital economy as it grapples with how courts should understand phenomena like product design and integration by large incumbents in markets characterized by strong network effects.

DOJ pursued Microsoft with antitrust claims in a number of different ways. First, it picked up from the FTC's terminated investigation and filed a civil complaint against Microsoft in July 1994 along with a consent order.[32] The 1994 Consent Order focused on Microsoft's licensing practices, in particular on the requirements that OEMs pay Microsoft a royalty for every x86 system shipped, regardless of whether Windows was preinstalled or not,[33] as well as on Microsoft's use of nondisclosure agreements with external developers.[34] The 1994 Consent Decree also contained a provision forbidding Microsoft from "enter[ing] into any License Agreement in which the terms of that agreement are expressly or impliedly conditioned upon . . . the licensing of any other Covered Product, Operating System Software product or other product (provided, however, that this provision in and of itself shall not be construed to prohibit Microsoft

[30] *Id.*

[31] *Id.*

[32] United States v. Microsoft Corp., 56 F.3d 1448, 1451 (D.C. Cir. 1995).

[33] Note the similarity to *FTC v. Qualcomm Inc.*, 935 F.3d 752 (9th Cir. 2019), and the Commission's disdain for Qualcomm's requirement of a blanket licensing for its IP, regardless of whether the OEMs actually implemented the technology.

[34] United States v. Microsoft Corp., 56 F.3d 1448, 1351 (D.C. Cir. 1995).

from developing integrated products)."[35]

In an action brought to enforce the 1994 Consent Decree, DOJ alleged that Microsoft violated this provision by marketing Windows and Internet Explorer—then still distinct pieces of software—as a package.[36] The D.C. Circuit held that such bundling did not violate the consent decree.[37]

Shortly before that decision was rendered, DOJ filed a separate antitrust action challenging Microsoft's conduct against Netscape under the Sherman Act.[38] Microsoft had begun integrating Internet Explorer directly into Windows in such a way that users could not remove the web browser, a move that DOJ considered to be unlawful tying.[39] DOJ also alleged that Microsoft was trying to illegally maintain its monopoly in the Intel-compatible operating system market as well as attempting to monopolize the browser market with these moves.[40] DOJ ultimately only prevailed on the limited set of its claims that focused on Microsoft's use of a so-called "applications barrier to entry" (discussed *infra*) to protect its monopoly.

In many ways, DOJ's case was of a piece with *IBM*. *Microsoft* was predicated on the notion that a firm that had developed a dominant technology paradigm would continue to indefinitely enjoy dominance over that paradigm, and, perhaps more naively, that the paradigm would indefinitely continue to shape some important technological market. Thus, any product design alterations that Microsoft made would be suspected of being used to reinforce its dominance over the paradigm. As with *IBM*, absent from the case was serious consideration that it would ultimately be lateral competition that would

---

[35] United States v. Microsoft Corp., 147 F.3d 935, 939 (D.C. Cir. 1998).

[36] *Id.*

[37] *Id.* at 950–52.

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

[39] *Id.*

[40] *Id.*

reduce Microsoft's dominance by undermining the dominant paradigm.

As such, this case represents a prime example of the inhospitality tradition of antitrust[41]—an approach that is woefully common in how modern enforcers and courts approach novel conduct in the technology context.

Four important features of the case left an indelible mark on high-technology cases: how the court construed the relevant market, the design choices involved in product integration, the treatment of entry barriers in markets characterized by network effects (what we would today refer to as two-sided markets), and how tying claims apply in technology markets.

1. Market Definition

On appeal, the court accepted the district court's market definition of "the licensing of all Intel-compatible PC operating systems worldwide."[42] In reaching this definition, the court drew a narrow boundary around the conceivable scope of competition, excluding operating system producers like Apple, as well as potential new entrants that would compete on different terms to undermine the market, such as things like "handheld devices and portal websites."[43] Notably, the court also refused to include "middleware":

> Microsoft argues that, because middleware could usurp the operating system's platform function and might eventually take over other operating system functions (for instance, by

[41] *See, e.g.*, Oliver E. Williamson, *Economics and Antitrust Enforcement: Transition Years*, ANTITRUST, Spring 2003, at 61, 64 (arguing that the government's position in *United States v. Arnold, Schwinn & Co*. reflected misconceptions about economics leading it to view customer and territorial restraints "'not hospitably, in the common law tradition, but inhospitably in the tradition of antitrust'"); Alan J. Meese, *Price Theory, Competition, and the Rule of Reason*, 2003 U. ILL. L. REV. 77, 124 (2003) (arguing that the inhospitality tradition of antitrust "manifested itself in the form of extreme hostility toward any contractual restraint on the freedom of individuals or firms to engage in head-to-head rivalry"); Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1, 4 (1984) ("Donald Turner once described the 'inhospitality tradition of antitrust.' The tradition is that judges view each business practice with suspicion, always wondering how firms are using it to harm consumers.").

[42] United States v. Microsoft Corp., 253 F.3d 34, 52 (D.C. Cir. 2001).

[43] *Id.* at 57.

> controlling peripherals), the District Court erred in excluding Navigator and Java from the relevant market. The District Court found, however, that neither Navigator, Java, nor any other middleware product could now, or would soon, expose enough APIs to serve as a platform for popular applications, much less take over all operating system functions. Again, Microsoft fails to challenge these findings, instead simply asserting middleware's "potential" as a competitor.[44]

In retrospect, the market definition was proven by circumstances to be far too narrow, as, less than a decade after the opinion, Microsoft found itself rapidly ceding ground to exactly that set of competitors: smartphones and tablets, on the one hand, and light-weight Internet-connected devices such as Chromebooks on the other.[45] The court's market definition focused on the capability of potential competitors to "take over all operating system functions," highlighting the degree to which competition could only be understood to work within the existing technological paradigm.

Thus, the exclusion of middleware reveals flaws in how DOJ and the reviewing courts understood the software market. Although it's true that no middleware product arose to perfectly replicate Windows, and therefore assume its place as the dominant "Intel-compatible operating system," this view of competition with respect to operating systems is too cramped. It is true that Windows competed with other full-fledged operating systems, like Mac OS and Linux. But Microsoft believed at the time—and history has shown it to be true—that competition in high tech markets rarely, if ever, comes from upstart products that arise to completely replace a dominant player.[46] Java—the middleware product that was central in Microsoft's competitive thoughts at the

---

[44] *Id.* at 53.

[45] Leo Sun, *How Microsoft Corporation Lost These 6 Markets*, MOTLEY FOOL (Jan. 31, 2018, 9:32 AM), https://www.fool.com/investing/2018/01/31/how-microsoft-corporation-lost-these-6-markets.aspx.

[46] *See, e.g.*, Geoffrey Manne & Alec Stapp, *This Too Shall Pass: Unassailable Monopolies That Were, in Hindsight, Eminently Assailable*, TRUTH ON THE MKT. (Apr. 1, 2019), https://truthonthemarket.com/2019/04/01/this-too-shall-pass-unassailable-monopolies-that-were-in-hindsight-eminently-assailable/ ("IBM, Microsoft and Nokia were not beaten by companies doing what they did, but better. They were beaten by companies that moved the playing field and made their core competitive assets irrelevant.") (quoting Benedict Evans (@benedictevans), TWITTER (Apr. 6, 2018, 2:00 PM), https://twitter.com/benedictevans/status/982317093088518148.

time—did indeed become very important as a provider of APIs and software applications that were modular and cross-platform. And as cloud computing arose, the nature of enterprise computing shifted, and the need for the particular feature set represented by Windows shifted. Thus, something like Google's suite of productivity applications could become viable cloud-based replacements for Microsoft's tightly integrated office suite. The future of competition for Windows, in short, was not to replace Windows, but to modularize the functionality of Windows such that its centrality to computing would diminish as consumers were able to spread computing tasks across multiple devices and the cloud.

In contrast to the market definition in *Microsoft*, the government unsuccessfully attempted to draw a similarly narrow market definition in the *Oracle*/*Peoplesoft* merger two years later. In 2003, Oracle's acquisition of Peoplesoft was challenged by DOJ and nine states under Section 7 of the Clayton Act.[47] Peoplesoft and Oracle created software products that fulfilled a variety of business needs, including software to enable "human resources management" ("HRM") and "enterprise resource planning" ("ERP").[48] DOJ attempted to limit the potential scope of competition by restricting the geographic scope to only US software providers, and also attempted to define the relevant product market as only "high function" software suites.[49] DOJ, however, was unable to demonstrate why software vendors abroad could not reasonably sell into the US market.[50] The court also held that "[t]he equivocal and vague evidence presented by plaintiffs at trial does not permit the court to exclude mid-market vendors, outsourcing or best of breed solutions from any product market that includes ERP software sold by Oracle, PeopleSoft and

[47] United States v. Oracle Corp., 331 F. Supp. 2d 1098 (N.D. Cal. 2004).

[48] *Explore PeopleSoft Products*, Oracle (2020), https://www.oracle.com/applications/peoplesoft/products.html.

[49] *Oracle*, 331 F. Supp. 2d at 1123 ("Plaintiffs offer a product market of high function HRM [human relations management] and FMS [financial management systems] and a geographic market of the United States").

[50] *Id.* at 1176–77.

SAP."[51] Thus, in contrast to *Microsoft*, the court pushed back on DOJ's attempt to exclude smaller and more modular competitors that could compete with Oracle and Peoplesoft along more limited dimensions.[52]

Drawing relatively narrow market definitions and excluding competitors that develop alternative markets unfortunately continues to be a common practice for enforcers. See, for example, the EU Android case in which Apple's iOS was excluded as a competitor to Android.[53] Calls to pursue Amazon for monopolizing "e-commerce" suffer from the same defects as well, insofar as they fail to account for both offline retail competition, as well online, non-retail providers like Google with its Shopping search vertical.[54]

2. Product Design and Improper Integration

When considering anticompetitive effects, the court applied the traditional burden shifting approach in monopolization cases:

> [I]f a plaintiff successfully establishes a prima facie case under § 2 by demonstrating anticompetitive effect, then the monopolist may proffer a "procompetitive justification" for its conduct. If the monopolist asserts a procompetitive justification—a nonpretextual claim that its conduct is indeed a form of competition on the merits because it involves, for example, greater efficiency or enhanced consumer appeal—then the burden shifts back to the plaintiff to rebut that claim.[55]

As part of its *prima facie* case, the government acknowledged that Microsoft had acquired a monopoly over "Intel-compatible operating systems" on the merits, but

---

[51] *Id.* at 1158.

[52] *See id.* at 1176–77.

[53] Press Release, Eur. Comm'n, Antitrust: Comm'n Fines Google €4.34 Billion for Illegal Pracs. Regarding Android Mobile Devices to Strengthen Dominance of Google's Search Engine (July 18, 2018), https://ec.europa.eu/commission/presscorner/detail/en/IP_18_4581 [hereinafter EC Google Press Release].

[54] Lisa Lacy, *3 Reasons Google's New Shopping Listings Are Really About Amazon*, ADWEEK (Apr. 23, 2020), https://www.adweek.com/brand-marketing/3-reasons-googles-new-shopping-listings-are-really-about-amazon/.

[55] United States v. Microsoft Corp., 253 F.3d 34, 59 (D.C. Cir. 2001).

claimed that it used special features of its dominant position to anticompetitively extend and maintain that monopoly.[56] Two particular allegations stand out as particularly relevant for the modern digital economy. First, DOJ alleged that Microsoft improperly integrated IE and Windows in order to disadvantage rivals, and, second, that it used a so-called "applications barrier to entry" to protect itself from competition on the merits.

a. Improper Integration

The D.C. Circuit was skeptical about condemning product design changes as anticompetitive:

> In a competitive market, firms routinely innovate in the hope of appealing to consumers, sometimes in the process making their products incompatible with those of rivals; the imposition of liability when a monopolist does the same thing will inevitably deter a certain amount of innovation. This is all the more true in a market, such as this one, in which the product itself is rapidly changing.[57]

Nevertheless, the court largely agreed that the integration of IE into Windows effected ends that were not competition on the merits, and thus had anticompetitive effects.[58] Yet, the court failed to be adequately sensitive to just how complex the dynamics of high technology industries can be. One of the middleware competitors at the heart of the case—Netscape—for instance was thought to suffer foreclosure from distribution channels as a result of Microsoft leveraging its dominance with OEMs and internet access providers to obtain default installation of IE in lieu of other browsers (like Netscape).[59] But Netscape was also notably pursuing a highly unusual strategy in the years during the pendency of the case in which it opted to completely rewrite its codebase.[60] This had the effect of Netscape not

---

[56] *Id.* at 67 (2001) ("Plaintiffs plainly made out a prima facie case of harm to competition in the operating system market by demonstrating that Microsoft's actions increased its browser usage share and thus protected its operating system monopoly from a middleware threat and, for its part, Microsoft failed to meet its burden of showing that its conduct serves a purpose other than protecting its operating system monopoly").

[57] *Id.* at 65.

[58] *Id.* at 65–66.

[59] *See id.* at 67.

[60] Joel Spolsky, *Things You Should Never Do, Part I*, JOEL ON SOFTWARE (Apr. 6, 2000), https://www.

shipping a new version of its browser or features for nearly three years, essentially a competitive eternity in software.[61] Perhaps Microsoft's conduct was churlish in some respects, but it occurred in a broader dynamic competitive context that was not adequately grasped by the court.

Microsoft also failed to rebut a number of the improper integration claims asserted by DOJ, and thus the court ruled against it in those respects.[62] Indeed, the product integration aspects of the case are a good illustration of the burden shifting framework the court applied. Just as Microsoft failed to offer procompetitive justifications in response to DOJ's *prima facie* case on two points, DOJ in turn failed to respond to Microsoft's procompetitive justification on a third point (that it was more efficient to allow in-application web browsing in certain contexts).[63]

b. Entry Barriers and the "Applications Barrier to Entry"

Much more of the action in the case occurred around what the opinion refers to as the "applications barrier to entry"—which the court said was a "structural barrier that protects the company's future position."[64] The "applications barrier to entry" has two primary characteristics: "(1) most consumers prefer operating systems for which a large number of applications have already been written; and (2) most developers prefer to write for operating systems that already have a substantial consumer base."[65] Further, "[t]his "chicken-and-egg" situation ensures that applications will continue to be written for the already dominant Windows, which in turn ensures that consumers will continue

joelonsoftware.com/2000/04/06/things-you-should-never-do-part-i/.

[61] *Id.*

[62] United States v. Microsoft Corp., 253 F.3d 34, 67 (D.C. Cir. 2001).

[63] *Id.*

[64] *Id.* at 55.

[65] *Id.*

to prefer it over other operating systems."[66]

Implicit in the "applications barrier to entry," at least from a modern vantage point, is the fact that such a barrier would only truly arise in the normal case in the presence of strong network effects on a two-sided platform. In fact, the Court did wrestle with whether "old economy" monopoly antitrust doctrines apply to new technological markets characterized by network effects.[67]

The court properly observed that, even where network effects could lead to a form of entrenchment, such entrenchment was ultimately fleeting owing to rapid creative destruction cycles that transform the market directly.[68] Microsoft, naturally, contended that the operating system market was characterized by these network effects,[69] though it fell short of directly referring to Windows as a platform or two-sided market.[70] Even if it had done so, however, the allegation likely would not have changed the outcome of the case. The court believed that, even if the Windows platform were characterized by strong, positive network effects, such a reality

> does not appreciably alter our mission in assessing the alleged antitrust violations in the present case. As an initial matter, we note that there is no consensus among commentators on the question of whether, and to what extent, current monopolization doctrine should be amended to account for competition in technologically dynamic markets characterized by network effects.[71]

And it is not just the court that failed to adequately appreciate the importance of network effects to the case, as Microsoft made "no claim that anticompetitive conduct should be assessed differently in technologically dynamic markets."[72]

---

[66] *Id.*

[67] *Id.* at 49.

[68] *Id.*

[69] *Id.* at 50.

[70] *Id.*

[71] *Id.*

[72] *Id.*

Nonetheless, in many ways Microsoft can be thought of as a proto-two-sided market case. In particular, the leveraging theory of the case, described as an "applications barrier to entry", only makes sense if Microsoft were able to rely on power it obtained using network effects on one side of the platform to cultivate a strong customer base on the other. However, had the court fully considered arguments about network effects and two-sided markets, the "applications barrier to entry" theory would have been much more difficult to maintain. In particular, had the court actually considered the two sides of developers and consumers as tightly bound by positive network effects, it would have potentially taken more seriously the negative feedback loop that can occur and quickly erode the value of one or the other side of a platform.

Thus, the inhospitality dimension of the case arises insofar as courts and enforcers are unwilling to allow a more dynamic picture of how network effects truly function, and how they fail to insulate firms from a wide variety of competition—which was the case in *Microsoft.*

In this regard, the government committed two important errors. First, it failed to credit Microsoft properly with being the progenitor of the technological ecosystem it had indeed created—thus automatically casting a doubtful eye on all of the challenged conduct that, if viewed more properly in context, was much more sensibly understood as part of the firm's effort to bootstrap and perpetuate that ecosystem. The second major error was that the "applications barrier to entry" theory pushed by the government was relied upon by the court to use short term effects on competitors as a proxy for harm to consumers. This not only discounted the long-term investment considerations necessary for Microsoft to generate the ecosystem in the first place, but also entirely discounted or ignored the necessary cost-benefit calculation that should be undertaken around an "applications barrier to entry."

In particular, if the so-called barrier is effective, it is only effective because that barrier is a visible extension of the software ecosystem that supports a whole range of

developers and peripherals manufacturers. Thus, even if we assume that competitive OS makers are relatively disadvantaged by the network effects of the Windows OS, the third-parties that work inside that ecosystem are massively benefitted by the presence of a market they do not have to develop, and educational opportunities to quickly bring them up to speed creating viable products for that ecosystem.

On the margins, some resources that may have gone into creating competitor operating systems will instead go into creating complementary software products for Windows—but so what? It's *possible* that this is an inferior state of affairs, but the reviewing courts and enforcement agencies in *Microsoft* completely failed to grapple with this reality.

In effect, despite acknowledging that it had acquired a monopoly position through superior acumen, the government sought to punish Microsoft for being *too* successful. Because of the so-called "applications barrier" any move that Microsoft made to improve its product quality would appear to be anticompetitive leveraging. Thus, by integrating Internet Explorer into its operating system, and potentially increasing the value of Windows to third-party developers (but also potentially making it harder for browser developers to offer as high-quality a product), Microsoft was accused of acting anticompetitively. Nearly any product improvement it made that also made Windows more valuable could be cast as extending or relying upon an anticompetitive "applications barrier to entry."

And, as noted above, this is of a piece with the standard—and still unfortunately common—approach to antitrust analysis of tech industries. The rumors about the percolating cases, as well as existing cases (particularly from the EU), against Google, Amazon, and Apple are almost entirely cut from the *IBM* and *Microsoft* cloth in this respect. The EU Android case was essentially a tying accusation against Google, alleging that it was anticompetitively linking access to its Play Store with requirements on OEMs that they install a suite of other Google apps by default on Android devices, despite the

procompetitive justifications entailed in keeping a coherent ecosystem together.[73]

The Google Search case from the EU—the US analog of which appears to be up for consideration by DOJ and state attorneys general[74]—commits the same sort of fallacies as the *Microsoft* cases.

Google was essentially accused of anticompetitive "self-preferencing" by redesigning search results so that users less frequently had to click through to third-party web sites for answers to common queries. But such an allegation only makes sense if one views the Google Search results in static snapshots that are disconnected from an ongoing optimization process that both benefits searchers as well as some set of content providers, while also sometimes disadvantaging other content providers that had historically relied on a certain way of Google search working.

3. Tying

The government ultimately won *Microsoft*, but on appeal lost on many of the more speculative theories it advanced, in particular its attempt to make out a claim that Microsoft was illegally tying Internet Explorer to the Windows Operating system.[75] Central to the court's rejection of per se tying rules, was a sensitivity to the idea that innovative industries may make product design choices that include integration, and a per se rule would chill this sort of potential procompetitive conduct:

> While the paucity of cases examining software bundling suggests a high risk that per se analysis may produce inaccurate results, the nature of the platform software market affirmatively suggests that per se rules might stunt valuable innovation. . . . First, as we explained in the previous section, the separate-products test is a poor proxy for net efficiency from newly integrated products. . . . Second, because of the pervasively innovative character of platform software markets, tying in such markets may produce efficiencies that courts have not previously encountered and thus the Supreme Court had not factored into the per se rule

[73] *See* EC Google Press Release, *supra* note 53.

[74] Brent Kendall & John D. McKinnon, *Justice Department, State Attorneys General Likely to Bring Antitrust Lawsuits Against Google*, WALL STREET J. (May 15, 2020, 4:32 PM), https://www.wsj.com/articles/justice-department-state-attorneys-general-likely-to-bring-antitrust-lawsuits-against-google-11589573622.

[75] United States v. Microsoft Corp., 253 F.3d 34, 95–96 (D.C. Cir. 2001).

as originally conceived.[76]

As a result, the standard that emerged from *Microsoft*—although still subject to debate—presents a high burden for plaintiffs attempting to allege tying claims in the context of software and other forms of high technology.

The court was hesitant to presume that, in software (and possibly other high technology markets) that were very dynamic and categorized by rapid change, integration of products was per se unlawful. Otherwise, if a provider simply integrated new features into a software product, it could be accused of tying, even when such an integration clearly benefits consumers. Tellingly, on remand to the district court, DOJ dropped this claim.[77]

*B. Post-*Microsoft *Cases and Investigations*

In the wake of *Microsoft,* investigations (with accompanying closing letters) as well as cases have continued to grapple with the unique nature of network effects in the context of platform business models, the potential for leveraging, as well as the extent to which digital services can allow enforcement to inch toward treating providers as "essential." What follows is an overview of these developments.

1. The FTC's Google investigation

In 2012, the Federal Trade Commission initiated an investigation of a wide variety of Google's business practices.[78] Directly relevant here, the FTC was examining how Google operated its search engine, and whether its practices were designed to

---

[76] *Id.* at 92–93.

[77] *Cf.* United States v. Microsoft Corp., No. CIV. A. 94-1564, 1995 WL 505998, at *1 (D.D.C. Aug. 21, 1995) (The case on remand did not include tying claims).

[78] Statement of the Federal Trade Commission Regarding Google Search Practices, *In the Matter of Google Inc.*, FTC File No. 111-0163 (Jan. 3, 2013), https://www.ftc.gov/sites/default/files/documents/public_statements/statement-commission-regarding-googles-search-practices/130103brillgooglesearchstmt.pdf [hereinafter Google Closing Statement].

anticompetitively disadvantage rivals.[79] The investigation arose out of allegations from competitors such as Yelp that Google intentionally altered its search algorithms to systematically disadvantage competing providers of information verticals (like restaurant reviews). There was evidence that at least some FTC staff believed that an antitrust case should be brought against Google on non-search issues (such as how it ran its advertising business).[80] The FTC ultimately dropped the investigation after Google agreed to voluntarily amend some of its business practices, particularly in the ad tech space.

The Commission reviewed approximately 9 million pages of evidence in the course of the investigation.[81] Although it did find some evidence that suggested Google may have tailored its search algorithms to preference its own products, the Commission ultimately concluded that the overall effect of its modifications was to the benefit of consumers.[82]

The upshot of the closing of the investigation is that the FTC extensively examined allegations of self-preferencing, and, even where there was some evidence to support a claim of self-preferencing that was harmful to competitors, the Commission was willing to balance that against procompetitive justifications that benefit consumers.[83] This is distinct from the EC's approach in its Google Shopping decision.[84]

---

[79] *Id.* at 1.

[80] Brody Mullins, Rolfe Winkler & Brent Kendall, *Inside the U.S. Antitrust Probe of Google*, WALL STREET J. (Mar. 19, 2015, 7:38 PM), https://www.wsj.com/articles/inside-the-u-s-antitrust-probe-of-google-1426793274.

[81] FTC Statement on Google, *supra* note 78, at 1.

[82] *Id.*

[83] *Id.* at 3 ("In sum, we find that the evidence presented at this time does not support the allegation that Google's display of its own vertical content at or near the top of its search results page was a product design change undertaken without a legitimate business justification").

[84] *See, e.g.*, Geoffrey A. Manne, *The Real Reason Foundem Foundered* (Int'l Ctr. for Law & Econ., Antitrust & Consumer Protection Rsch. Program, White Paper No. 2018-02, 2018), https://laweconcenter.org/wp-content/uploads/2018/05/manne-the_real_reaon_foundem_foundered_2018-05-02-1.pdf. For more on self-

The FTC's closing letter tracks aspects of the *Microsoft* court's unwillingness to intervene in software design decisions, citing the importance of design choices as procompetitive differentiating factors in antitrust analyses:

> Product design is an important dimension of competition and condemning legitimate product improvements risks harming consumers. Reasonable minds may differ as to the best way to design a search results page and the best way to allocate space among organic links, paid advertisements, and other features. And reasonable search algorithms may differ as to how best to rank any given website. Challenging Google's product design decisions in this case would require the Commission—or a court—to second-guess a firm's product design decisions where plausible procompetitive justifications have been offered, and where those justifications are supported by ample evidence. Based on this evidence, we do not find Google's business practices with respect to the claimed search bias to be, on balance, demonstrably anticompetitive, and do not at this time have reason to believe that these practices violate Section 5.[85]

The results of various international investigations into Google on these practices have been mixed. On the one hand, in 2018, India fined Google $21M for "abuse of dominance" in its search practices.[86] In June of 2017, the EU issued a €2.4B fine against Google. There, the EC held that Google had anticompetitively altered its search algorithm to demote rivals as well

---

preferencing and the various Google investigations, see Michael Salinger, *Self-Preferencing*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

[85] FTC Statement on Google, *supra* note 78, at 3. Compare this with the FTC's willingness to second-guess design choices in its Section 5 consumer protection capacity. *See, e.g.*, Dissenting Statement of Commissioner Joshua D. Wright, In the Matter of Apple, Inc., FTC File No. 1123108, at 1 (Jan. 15, 2014) ("The Commission . . . substitutes its own judgment for a private firm's decisions as to how to design its product . . ."), https://www.ftc.gov/sites/default/files/documents/public_statements/dissenting-statement-commissioner-joshua-d.wright/140115applestatementwright.pdf, Press Release, Fed. Trade Comm'n, FTC, Amazon to Withdraw Appeals, Paving Way for Consumer Refunds Related to Children's Unauthorized In-App Charges (Apr. 4, 2017), https://www.ftc.gov/news-events/press-releases/2017/04/ftc-amazon-withdraw-appeals-paving-way-consumer-refunds-related; *see also Humility, Institutional Constraints and Economic Rigor: Limiting the FTC's Discretion: The FTC at 100: Views from the Academic Experts Before the H. Comm. on Energy & Com.*, 113th Cong. 7–9 (2014) (statement of Geoffrey A. Manne, Exec. Dir. Int'l Ctr. for L. & Econ.),

https://docs.house.gov/meetings/IF/IF17/20140228/101812/HHRG-113-IF17-Wstate-ManneG-20140228.pdf.

[86] Aditya Kalra & Aditi Shah, *India's Antitrust Watchdog Fines Google $21m for "Search Bias"*, DISRUPTIVE.ASIA (Feb. 9, 2018), https://disruptive.asia/google-guilty-search-bias/.

as excluded rivals by placing its comparison shopping service more advantageously than their services.[87]

On the other hand, the Canadian Competition Bureau started investigating Google on similar grounds in 2013, and dropped the case in April 2016 finding no violations for search manipulation or promotions of its own services.[88]

2. Nielsen/Arbitron Merger

As we have seen, enforcement agencies are willing to venture in speculative directions when construing market definition. In 2013, for example, the FTC voted 2-1 to impose conditions on the Nielsen/Arbitron merger.[89] The market the FTC construed for the case did not even exist at the time of the merger. According to the Commission, "[a]lthough there is no commercially available national syndicated cross-platform audience measurement service today, demand for such a service by advertisers and media companies is increasing."[90] The Commission believed that Nielsen and Arbitron were the two firms best poised to potentially create that new market, and, therefore, felt it appropriate to impose conditions on the merger.[91] The exact conditions on the merger

---

[87] Press Release, Eur. Comm'n, Antitrust: Comm'n Fines Google €2.42 Billion for Abusing Dominance as Search Engine by Giving Illegal Advantage to Own Comparison Shopping Serv. (July 18, 2018), https://ec.europa.eu/commission/presscorner/detail/en/IP_17_1784.

[88] *See* Position Statement, Can. Competition Bureau, Competition Bureau Statement Regarding Its Investigation into Alleged Anti-Competitive Conduct by Google (Apr. 19, 2016), https://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/04066.html.

[89] Complaint, In the Matter of Nielsen Holdings N.V. and Arbitron, Inc., FTC Docket No. C-4439 (Sept. 20, 2013),

https://www.ftc.gov/system/files/documents/cases/140228nielsenholdingscmpt.pdf; *see also* Decision & Order, In the Matter of Nielsen Holdings N.V. and Arbitron, Inc., FTC Docket No. C-4439 (Feb. 24, 2014) https://www.ftc.gov/system/files/documents/cases/140228nielsenholdingsdo.pdf (approving divestiture of Linkmeter).

[90] Complaint ¶ 10, In the Matter of Nielsen Holdings N.V. and Arbitron, Inc., FTC Docket No. C-4439 (Sept. 20, 2013),

https://www.ftc.gov/system/files/documents/cases/140228nielsenholdingscmpt.pdf.

[91] *Id.*

were not as important as the fact that the FTC used its authority to shape a *potential* market—one that did not exist—and thus, could not reasonably rely on anything approaching economic analysis to reach its decision. As then-Commissioner Wright observed in dissent:

> The Commission thus challenges the proposed transaction based upon what must be acknowledged as a novel theory—that is, that the merger will substantially lessen competition in a market that does not today exist.
>
> [W]e . . . do not know how the market will evolve, what other potential competitors might exist, and whether and to what extent these competitors might impose competitive constraints upon the parties.[92]

This approach, however, suggests an analytical precursor to the *FTC v. Qualcomm* case (discussed *infra*) where the district court was willing to infer anticompetitive behavior from the fact that particular competitors were harmed. In *Nielsen/Arbitron*, the Commission believed that a simple collation of a variety of facts substituted for an economic analysis (which was plainly impossible given the fact that the market did not even exist). According to The FTC's then-Director of the Bureau of Competition:

> The Commission based its decision not on crystal-ball gazing about what might happen, but on evidence from the merging firms about what they were doing and from customers about their expectations of those development plans. From this fact-based analysis, the Commission concluded that each company could be considered a likely future entrant, and that the elimination of the future offering of one would likely result in a lessening of competition.[93]

In other words, despite the absence of actual economic evidence, circumstantial evidence of intent to potentially create a new market sufficed to intervene in the merger.

---

[92] Dissenting Statement of Commissioner Joshua D. Wright, Nielsen Holdings N.V. and Arbitron Inc., FTC File No. 131-0058 (Sept. 20, 2013), https://www.ftc.gov/sites/default/files/documents/public_statements/dissenting-statement-commissioner-joshua-d.wright/130920nielsenarbitron-jdwstmt.pdf.

[93] Deborah L. Feinstein, Dir., Fed. Trade Comm'n Bureau of Competition, The Forward-Looking Nature of Merger Analysis, Address at Advanced Antitrust U.S. 21 (Feb. 2014),

https://www.ftc.gov/system/files/documents/public_statements/forward-looking-nature-merger-analysis/140206mergeranalysis-dlf.pdf.

3. Ohio v. American Express

Ohio v. American Express was the Supreme Court's first explicit effort to deal with two-sided markets, which are important to many platform-based firms in the digital economy. In *Ohio v. American Express*, plaintiffs alleged that American Express imposed anticompetitive "antisteering" provisions on merchants.[94] These provisions forbade merchants from redirecting customers to forms of payment that charged merchants lower fees than American Express. According to the plaintiffs' theory, these provisions were used by American Express to raise its prices, reduce the number of credit card transactions, or otherwise stifle competition.[95]

Relevant to the broader digital economy, the case concerned the proper definition of antitrust relevant markets, as well as how to deal with competitive effects analysis in two-sided markets.[96]

At the trial level, the district court acknowledged that there was a strong connection between the "merchants" side of Amex's platform and the "consumer" side.[97] Nonetheless, the court merely referred to them as "deeply interrelated" and, therefore, failed to engage with Amex's platform as a two-sided market.[98] Construed as separate markets, the court separated the competitive effects analysis between each discrete market.[99]

On appeal, the Second Circuit disagreed, describing Amex's platform as a single "highly interdependent" two-sided market.[100] Thus, according to the Second Circuit, the

---

[94] Ohio v. Am. Express Co., 138 S. Ct. 2274, 2287 (2018).

[95] *Id.*

[96] For more on this, see John M. Yun, *Overview of Network Effects & Platforms in Digital Markets*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

[97] United States v. Am. Express Co., 88 F. Supp. 3d 143, 151 (E.D.N.Y. 2015).

[98] *Id.*

[99] *Id.*

[100] United States v. Am. Express Co., 838 F.3d 179, 185, 197–98 (2d Cir. 2016).

effects analysis must occur for the two-sided platform as a whole, and not separately for each side.[101]

The question presented on writ of certiorari to the Supreme Court explicitly focused on effects analysis: "did the Government's showing that Amex's anti-steering provisions stifled price competition on the merchant side of the credit-card platform suffice to prove anticompetitive effects and thereby shift to Amex the burden of establishing any procompetitive benefits from the provisions?"[102] The Court, however, took a step back in the analysis, and framed the case as a question about market definition.[103]

The Court largely agreed with the Second Circuit's view of the importance of the interrelated markets for effects analysis, but held that before effects can be considered, market power and market structure must be assessed[104]—both of which can only occur once a market has been properly defined.[105] Indeed, it is impossible to properly judge the anticompetitive effect of conduct if the market upon which said effect is directed is improperly defined.

The full implications of the case are not yet clear. In particular, the Court limited its holding to two-sided "transaction" markets that "facilitate a single, simultaneous transaction between participants."[106] Important to the Court in delineating these particular markets, is the instantaneous nature of the transactions:

> Because they cannot make a sale unless both sides of the platform simultaneously agree to use their services, two-sided transaction platforms exhibit more pronounced indirect network

[101] *Id.* at 197–98.

[102] Petition for Writ of Certiorari at i, *Am. Express*, 138 S. Ct. 2274 (No. 16-1454).

[103] *Am. Express*, 138 S. Ct. at 2285.

[104] *Id.* at 2284.

[105] *Id.* at 2285.

[106] *Id.* at 2286.

effects and interconnected pricing and demand.[107]

Thus, if the Court intended to limit its market-definition analysis to two-sided "transaction" markets, the degree of simultaneity or the relative intensity of network effects could have a bearing on the analysis. Indeed, even critics of the opinion have noted that the Supreme Court's opinion is far more constrained than was the Second Circuit's opinion, insofar as the opinion does not obviously apply to what could be an incredibly broad range of two-sided platforms "as diverse as malls, sports leagues, real estate agents, stock exchanges, and most tech platforms."[108]

4. Sabre/Farelogix Merger

One recent case to interpret *American Express*, the *Sabre/Farelogix* merger review, introduces a wrinkle into the two-sided market analysis. Sabre operates a "Global Distribution System" ("GDS") for travel services as a two-sided platform, connecting airlines on one side, and travel agencies on the other.[109] Its ostensible competitor, Farelogix, on the other hand, sells a software package directly to airlines that allows them to disintermediate GDS services.[110] Thus, Farelogix's services do not operate as a two-sided platform.[111] Both Sabre and Farelogix viewed each other as competitors for a diverse set of businesses in the airline segment of the market—although their products were not perfect substitutes.[112]

The court ruled in favor of the defendants, holding that "DOJ has not identified a

---

[107] *Id.*

[108] Tim Wu, *The* American Express *Opinion, the Rule of Reason, and Tech Platforms*, 7 J. ANTITRUST ENF'T 117, 118 (2019).

[109] United States v. Sabre Corp., No. CV 19-1548-LPS, 2020 WL 1855433 at *7 (D. Del. Apr. 7, 2020), *vacated as moot*, No. 20-1767, 2020 WL 4915824 (3d Cir. 2020).

[110] *Id.* at *10.

[111] *Id.* at *11.

[112] *Id.* at *15.

proper relevant market."[113] According to the court, following *Ohio v. American Express*, "[a]s a matter of antitrust law, Sabre, a two-sided transaction platform, only competes with other two-sided platforms, but Farelogix only operates on the airline side of Sabre's platform."[114]

But it is not clear that *Ohio v. American Express* requires this result. The Supreme Court did indeed say "[o]nly other two-sided platforms can compete with a two-sided platform for transactions."[115] Yet, this was a conclusion that emerged as a result of analyzing the nature of simultaneous "transaction" platforms that were categorized by strong, positive network effects on both sides of the platform. As the Court noted:

> Because they cannot make a sale unless both sides of the platform simultaneously agree to use their services, two-sided transaction platforms exhibit more pronounced indirect network effects and interconnected pricing and demand. Transaction platforms are thus better understood as "suppl[ying] only one product"—transactions.[116]

By characterizing the product as a "transaction" there is a 'but for" sense of inseparability between the agreement of both sides of the platform. A consumer *must* pay a particular merchant at a particular time and a particular credit card network facilitates that relationship. The transaction itself is ephemeral and cannot exist but for the facilitation of the platform.

Perhaps travel booking services are of the same nature, but it seems far less likely to constitute as strong a set of network effects, at least for the purposes of horizontal merger analysis. A consumer is essentially indifferent whether they use a GDS or directly book through an airline's website (which is a service that Farelogix facilitated). Indeed, the court acknowledged that metasearch sites have begun mixing travel offerings from

---

[113] *Id.* at *32.

[114] *Id.*

[115] *Am. Express*, 138 S. Ct. at 2287.

[116] *Id.* at 2286.

both GDS-facilitated and direct offer sources.[117] Thus, in a very real sense, the particular business model (two-sided or one-sided) is essentially irrelevant for determining an antitrust-relevant market in this case.

None of this is to say that *Ohio v. American Express's* command that two-sided markets matter during market definition analysis is null. Indeed, even if the *United States v. Sabre Corp*. court erred in how it construed *Ohio v. American Express*, it did so in an illuminating manner.[118] The focus on whether Sabre intermediated between two sides of a transaction illuminates that in some contexts, the interrelation could be *very* meaningful, notably in the context of vertical mergers and vertical conduct. How a firm internally arranges its business processes can have a tremendous impact on the competitive effects of a particular acquisition or course of conduct. Indeed, it may be the case that the logic of *Ohio v. American Express* needs to be extended more broadly in vertical analysis, even if it is of relatively attenuated utility when looking at horizontal mergers.

5. Apple v. Pepper

Apple v Pepper[119] was the first opportunity for the Supreme Court to consider the bounds of existing antitrust law in the context of two-sided markets since its *Ohio v. Amex* decision. Unfortunately, it avoided discussing two-sided markets, and instead opted to fit an analysis of Apple's platform into an ill-fitting existing doctrine.

Apple v. Pepper arose from a complaint by four iPhone owners in 2011 who alleged that Apple's control of its App Store, combined with its 30 percent required revenue share

---

[117] *Sabre Corp.*, at *5.

[118] Notably, the Third Circuit recently set aside the district court's opinion as moot, since the parties abandoned the deal. Mike Leonard, *Sabre–Farelogix Ruling Made Moot by Scrapped Deal*, BLOOMBERG L. (July 20, 2020 11:44 AM), https://news.bloomberglaw.com/mergers-and-antitrust/sabre-farelogix-ruling-made-moot-by-scrapped-deal-3d-cir-says. But, as it set aside the ruling, the Third Circuit took the opportunity to note that its decision "should not be construed as detracting from the persuasive force of the district court's decision, should courts and litigants find its reasoning persuasive." *Id.*

[119] 139 S. Ct. 1514 (2019).

and its prohibition on allowing third-party app installations amounted to antitrust violations.[120]

Apple moved to dismiss for failure to state a claim, arguing that the customers had purchased apps from the app developers directly, not Apple, and therefore lacked standing to sue Apple per *Illinois Brick's* indirect purchaser doctrine.[121]

Apple's App Store is arguably best defined as a two-sided market—potentially even a two-sided "transaction" market. On one side, developers provide a supply of apps to the App Store platform, and on the other, consumers browse for both free and paid apps to install on their devices. Although the apps do not spring into existence at the moment a user decides to engage with the platform, the network effects on both sides are positive and very strong: users value the App Store by virtue of a large number of developers providing apps, and developers value the App Store by virtue of having a large pool of consumers ready to purchase apps.

Nonetheless, the Supreme Court passed on the opportunity to consider standing doctrine in the context of two-sided platforms. Neither the decision nor the dissent mentions *Ohio v. American Express*, or even the two-sided market context in which the transactions at issue in both cases take place (save for one passing reference to Apple's "platform" in the dissent).[122] Instead, the Court characterized the app-user plaintiffs as direct purchasers in a traditional retail context, stating that: "[i]t is undisputed that the iPhone owners bought the apps directly from Apple. Therefore, under *Illinois Brick*, the iPhone owners were direct purchasers who may sue Apple for alleged

---

[120] *Id.* at 1519.

[121] *Id.* ("Apple moved to dismiss the complaint, arguing that the iPhone owners were not direct purchasers from Apple and therefore may not sue").

[122] *Id.* at 1527–28 (Gorsuch, J., dissenting) ("The lawsuit alleges that Apple is a monopolist retailer and that the 30% commission it charges developers for the right to sell through its platform represents an anticompetitive price").

monopolization."[123]

If we ignore the literature of two-sided markets as well as the Court's *Ohio v. American Express* precedent, application of the indirect purchase doctrine is facially accurate. Yet there is a sense in which the Court missed an opportunity to more properly wrestle with standing doctrine in two-sided market cases. As noted above, in *Ohio v. American Express*, the Court required that the first task before performing an effects analysis is to properly characterize the relevant market. Logically, the same task is required for standing in order to determine a litigant's relationship to the proper market under *Illinois Brick*. The Court never discussed the relevant product market; instead, it simply asserted that "we have consistently stated that 'the immediate buyers from the alleged antitrust violators' may maintain a suit against the antitrust violators." [124] But of what product or service are the plaintiffs the "immediate buyers" from Apple?

Instead, the Court cited the judicial efficiency rationales for *Illinois Brick*, and found the same justifications to exist for allowing app purchasers to sue Apple directly.[125] Yet, the Court failed to analyze how the nature of two-sided markets might be implicated when looking at the same judicial efficiency rationales.

Indeed, it may be that the standing issue would have come out identically: properly construed as a two-sided market, it could easily be imagined that purchasers on one-side of the market would have standing to sue the platform itself.[126] Until a future opportunity arises, however, lower courts will need to develop a standing doctrine

---

[123] *Id.* at 1520.

[124] *Id.* (quoting Kansas v. UtiliCorp United Inc., 497 U. S. 199, 207 (1990)).

[125] *Id.* at 1524.

[126] *See generally* Geoffrey A. Manne & Kristian Stout, *The Evolution of Antitrust Doctrine After* Ohio v. Amex *and the* Apple v. Pepper *Decision That Should Have Been*, 98 NEB. L. REV. 425 (2019) ("Under the proper conception of the market, it is difficult to maintain that either side does not have standing to sue the platform for alleged anticompetitive conduct relating to the terms of its overall pricing structure, whether the specific terms at issue apply directly to that side or not.").

tailored to two-sided markets without guidance from the Supreme Court.

6. The AT&T /Time Warner Merger

In the AT&T/Time Warner merger, DOJ attempted to employ a leveraging theory.[127] DOJ was unsuccessful at the trial level, which allowed the merger to proceed,[128] and the D.C. Circuit affirmed.[129] In truth, the case was a fairly conventional application of vertical merger principles, and the D.C. Circuit readily applied the identical rule of reason framework as that applied by the district court.[130]

The case was, as is typical in vertical merger cases, about weighing the procompetitive efficiencies against the potential inefficiencies or anticompetitive effects likely to arise; indeed, the government even conceded from the beginning that the merger was likely to produce procompetitive efficiencies.[131] Thus, the government framed its case as a rebuttal against the procompetitive efficiencies, relying on a theory of bargaining leverage:

> The government's increased leverage theory is that "by combining Time Warner's programming and DirecTV's distribution, the merger would give Time Warner increased bargaining leverage in negotiations with rival distributors, leading to higher, supracompetitive prices for millions of consumers."[132]

The case, then, turned on whether the anticipated price increases to consumers because of potentially increased bargaining leverage outweighed the procompetitive benefits the government conceded would arise from integration.[133] DOJ lost, however, in large part because it failed to adduce sufficient evidence even to support its theory of

---

[127] United States v. AT&T, Inc., 310 F. Supp. 3d 161, 198 (D.D.C. 2018), *aff'd*, 916 F.3d 1029 (D.C. Cir. 2019).

[128] *Id.* at 200–242, 253.

[129] United States v. AT&T, Inc., 916 F.3d 1029, 1047 (D.C. Cir. 2019).

[130] *Id.* at 1032.

[131] *See AT&T*, 310 F. Supp. 3d at 194 ("The Government concedes that the challenged merger, like most vertical mergers, will result in significant benefits to customers of the merged company").

[132] *AT&T*, 916 F.3d at 1035.

[133] *Id.* at 1047–48.

bargaining leverage that was more compelling than empirical evidence presented by AT&T demonstrating that historical experience with pricing data pointed in the opposite direction.[134]

The larger lesson from the AT&T/Time Warner case is that, consistent with the recently revised vertical merger guidelines, "vertical mergers often benefit consumers . . . which tends to lessen the risks of competitive harm."[135] And though vertical mergers are not "invariably innocuous", vertical merger analysis tends to be more complicated and fact-specific, leading to a lesser presumption against vertical integration than is found more commonly in the horizontal context.[136]

7. FTC v. Qualcomm

In *FTC v. Qualcomm,* the Federal Trade Commission alleged a variety of speculative theories—notably ones that would have treated Qualcomm as something like an "essential facility," or that attempted to construe mere contractual violations as antitrust-relevant harms.[137] In the waning days of the Obama Administration, the FTC filed an antitrust suit against Qualcomm, most notably targeting as anticompetitive Qualcomm's so-called "No License, No Chips" policy.[138] The FTC alleged that, under this policy, Qualcomm would refuse to sell its chips to manufacturers that did not also accept a license covering Qualcomm's intellectual property.[139] The thrust of the argument, as captured by amici on the case on appeal, was that the "No License, No Chips" policy made it "more expensive for OEMs to purchase competitors' chipsets, and thereby

---

[134] *Id.* at 1037.

[135] U.S. DEP'T OF JUSTICE & FED. TRADE COMM'N, VERTICAL MERGER GUIDELINES 2 (2020).

[136] *Id.*

[137] 411 F. Supp. 3d 658 (N.D. Cal. 2019).

[138] *See* Complaint at 15, *FTC v. Qualcomm Inc.*, 411 F. Supp. 3d 658 (N.D. Cal. 2019) (No. 17-CV-00220-LHK), ECF No. 1.

[139] *Id.* at 14.

disadvantage[d] rivals and create[d] artificial barriers to entry and competition in the chipset markets."[140] The district court agreed, ruling that Qualcomm's business practices allowed it to charge "unreasonably high royalty rates" for its technology.[141] The FTC's complaint and the district court's decision were novel, insofar as they would have shifted antitrust liability away from the actual conduct of a defendant to the appropriateness of a particular business model.

On review, the Ninth Circuit overturned the district court, refuting a variety of the pillars that had supported the opinion below. The court entirely dismissed the FTC's theory that Qualcomm was under an antitrust "duty to deal" with rival chip manufacturers by granting licenses.[142] Although it found none of the necessary *Aspen Skiing* elements present that are necessary to make out such a claim,[143] one notable highlight is that the FTC had completely failed to substantiate "profit sacrifice" by Qualcomm based upon the firm's particular selection of licensing models that it believed would yield the greatest long and short term profits.[144]

Some aspects of the district court's opinion bear scrutiny, either because they were not dealt with in the Ninth Circuit's analysis or were rebutted in important ways. First, the district court, misinterpreting *Microsoft*, held that, in government actions seeking injunctions, courts may "infer 'causation' from the fact that a defendant has engaged in anticompetitive conduct that 'reasonably appears capable of making a significant contribution to . . . maintaining monopoly power.'"[145] The actual language from *Microsoft*

---

[140] Brief of *Amici Curiae* Law and Economics Scholars Supporting the Plaintiff at 10, FTC v. Qualcomm, 969 F.3d 974 (9th Cir. 2020) (No. 19-16122).

[141] *Qualcomm*, 411 F. Supp. 3d at 773.

[142] *Qualcomm*, 969 F.3d at 995.

[143] *Id.*

[144] *Id.* at 994 n.15.

[145] *Qualcomm*, 411 F. Supp. 3d at 804–05. The Ninth Circuit acknowledged the district court's assertion here without expanding. *See Qualcomm*, 969 F.3d at 992.

indicates that *causation* of an anticompetitive harm can be inferred, however, not that anticompetitive *effect* could be inferred.[146]

Under a standard error-cost approach, anticompetitive effect must be proved through an economic assessment.[147] Other than in exceptional circumstances, the error-cost framework requires courts to refrain from making inferences of anticompetitive effect.

Second, the district court also allowed a speculative "evasion of a competitive constraint" theory to prevail in the case that would have had the effect of imposing antitrust liability on firms for a whole range of activity not currently thought of as antitrust-relevant. Blurring the lines between "Fair, Reasonable, and Nondiscriminatory" ("FRAND") contractual obligations and antitrust law, the district court found that Qualcomm violated antitrust law by breaching FRAND commitments. The problem, of course, is that antitrust law is only focused on *antitrust* duties to deal, not *any* duty to deal. The court believed that Qualcomm had purposely evaded its FRAND obligations and avoided patent exhaustion in order to defeat price competition in the market. This conclusion is completely unsupported by prior Supreme Court and D.C. Circuit precedent.[148]

The Ninth Circuit agreed. It examined the "evasion" theory, and found that the

---

[146] United States v. Microsoft Corp., 253 F.3d 34, 58 (D.C. Cir. 2001) ("the plaintiff . . . must demonstrate that the monopolist's conduct indeed has the requisite anticompetitive effect"); *cf.* Rambus Inc. v. FTC, 522 F.3d 456 (D.C. Cir. 2008) (holding, in a standard-setting case, that the FTC had failed to prove that Rambus's allegedly deceptive nondisclosure of its patent portfolio yielded an anticompetitive effect).

[147] *See generally* Thom Lambert & Alden F. Abbott, *Recognizing the Limits of Antitrust: The Roberts Court Versus the Enforcement Agencies*, 11 J. COMPETITION L. & ECON. 791 (2015) (comparing the Supreme Court's use of error-cost approach in the modern era with that of the American antitrust agencies). The Court has endorsed the error-cost approach. *See* Pac. Bell Tel. Co. v. Linkline Commc'ns, Inc., 555 U.S. 438 (2009); Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004); Brooke Group Ltd. v. Brown & Williamson Tobacco Corp., 509 U.S. 209 (1993). For more on the error cost framework, and error cost analysis as it relates to the digital economy, see Geoff Manne, *Error Costs in Digital Markets*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

[148] *See* NYNEX Corp. v. Discon, Inc. 525 U.S. 128 (1998); *Rambus*, 522 F.3d 456.

only precedent the FTC relied upon to support that theory was extremely narrow and depended upon elements that were not present in the case.[149]

In the context of understanding antitrust in digital markets, it is important to be sensitive to creative theories of "evasion" offered by enforcement agencies. As Joshua D. Wright has previously noted:

> [T]he objection to the "evasion" of any constraint approach is . . . that it opens the door to enforcement actions applied to business conduct that is not likely to harm competition and might be welfare increasing.[150]

Thus, it is inappropriate for a court to infer harm from mere harm to a competitor (by e.g. violating a FRAND commitment), unless that conduct clearly points to an anticompetitive effect. Ultimately, "evasion of constraint" theories boil down to a belief that defendants simply injure their rivals, with no specific antitrust harm alleged. In this way, enforcement agencies can continue to try theories much like that in *OAG v. FTC*[151] where the FTC attempted to expand the Sherman Act to encompass business conduct that was merely "arbitrary."

In other words, under the FTC's view of *FTC v. Qualcomm* and *OAG v. FTC*, a firm with an immoral or otherwise "bad" business model can be brought to heel with antitrust law.

C. Approved Mergers

The historical record on approved transactions relevant to digital markets, most of which were vertical, may or may not prove an accurate guide for the future conduct of the agencies. Increasingly, there is interest to review past mergers, which, if followed, suggests that future mergers would likewise be subject to more skepticism.[152] Thus, it is

---

[149] *See Qualcomm*, 969 F.3d at 996–97.

[150] Joshua D. Wright, Ovation *Reconsidered: A Response to Commissioner Leary*, TRUTH ON THE MKT. (July 23, 2009), https://truthonthemarket.com/2009/07/23/ovation-reconsidered-a-response-to-commissioner-leary/

[151] 630 F.2d 920 (2d Cir. 1980); *see supra* notes 18–26 and accompanying text.

[152] *See, e.g.*, Lauren Feiner, *Facebook Drops On Report FTC Is Looking at Instagram, WhatsApp Acquisitions in*

useful to consider the mergers that have been approved and, where available, the statements of the reviewing agencies that illuminate the reasons for approval (and conditions, where applicable).

The following mergers were cleared, essentially without public comment:

- In 2016, Microsoft completed its acquisition of LinkedIn.[153] The FTC opted not to investigate the Microsoft/LinkedIn merger, while the EC cleared the merger with conditions.[154]
- The FTC cleared Microsoft's purchase of Skype in 2011 with an early termination.[155]
- The FTC voted 5-0 to close its investigation into Facebook's acquisition of Instagram in 2012.[156]
- Facebook's 2014 acquisition of WhatsApp cleared FTC review as well, although in that case the FTC did issue a letter warning the two companies that they would be required to honor privacy commitments to users after completion of the merger.[157]

Antitrust Probe, CNBC (Aug. 1, 2019 4:00 PM), https://www.cnbc.com/2019/08/01/ftc-reportedly-scrutinizing-facebooks-purchase-of-instagram-whatsapp.html; Mark Bergen & Ben Brody, *Google's Waze Deal Is a Likely Target in FTC Antitrust Sweep*, BLOOMBERG (Feb. 14, 2020 7:16 AM), https://www.bloomberg.com/news/articles/2020-02-14/google-s-waze-deal-is-a-likely-target-in-new-ftc-antitrust-sweep.

[153] Press Release, Microsoft Corp., Microsoft to Acquire LinkedIn (June 13, 2016), https://news.microsoft.com/2016/06/13/microsoft-to-acquire-linkedin/.

[154] April Glaser, *Marc Benioff Says Companies Buy Each Other for the Data, and the Government Isn't Doing Anything About It*, VOX (Nov. 15, 2016 12:06 PM), https://www.vox.com/2016/11/15/13631938/benioff-salesforce-data-government-federal-trade-commission-ftc-linkedin-microsoft; Press Release, Eur. Comm'n, Mergers: Comm'n Approves Acquisition of LinkedIn by Microsoft, Subject to Conditions (Dec. 6, 2016), https://europa.eu/rapid/press-release_IP-16-4284_en.htm.

[155] Fed. Trade Comm'n, Early Termination Notice No. 20110881: Microsoft Corporation; Skype Global S.a.r.l. (June 16, 2011) https://www.ftc.gov/enforcement/premerger-notification-program/early-termination-notices/20110881.

[156] Press Release, Fed. Trade Comm'n, FTC Closes Its Investigation Into Facebook's Proposed Acquisition of Instagram Photo Sharing Program (Aug. 22, 2012), https://www.ftc.gov/news-events/press-releases/2012/08/ftc-closes-its-investigation-facebooks-proposed-acquisition.

[157] *See* Alexei Oreskovic, *Facebook Says WhatsApp Deal Cleared by FTC*, REUTERS (Apr. 10, 2014 12:02 PM), https://www.reuters.com/article/us-facebook-whatsapp/facebook-says-whatsapp-deal-cleared-by-ftc-

- Google's purchase of Waze went unchallenged by the FTC in 2013.[158]

Certain mergers, even where approved, either had a public statement with conditions applied, or involved an important dissent.

1. Google/DoubleClick

The 2007 Google/DoubleClick merger was cleared by the FTC in a 4-1 vote.[159] The majority based its closing of the investigation on three theories of potential competitive harm, which it believed Google's conduct did not meet.

First, the Commission examined whether the merger "threatened to eliminate direct and substantial competition between Google and DoubleClick."[160] The Commission refrained from viewing Google and DoubleClick as operating in an "all advertising market," and also from viewing their separate products as substitutes.[161] Google and DoubleClick therefore operated in distinct horizontal markets, and thus had no direct competitive overlap.

Second, the Commission examined the potential competition between Google's in-house ad serving product that was still in development with that offered by DoubleClick.[162] Since the market was already both highly competitive and highly concentrated, Google's entry was unlikely to be a significant competitive factor for the

---

idUSBREA391VA20140410; Letter from Jessica L. Rich, Dir., Bureau of Consumer Protection, Fed. Trade Comm'n, to Erin Egan, Chief Priv. Officer, Facebook, and Anne Hoge, Gen. Couns., WhatsApp Inc. (Apr. 10, 2014), https://www.ftc.gov/public-statements/2014/04/letter-jessica-l-rich-director-federal-trade-commission-bureau-consumer.

[158] *FTC Closes Probe into Google's $1B Waze Buy*, LAW360 (Nov. 6, 2013), https://www.law360.com/articles/486509/ftc-closes-probe-into-google-s-1b-waze-buy.

[159] *See* Fed. Trade Comm'n, Statement of Federal Trade Commission Concerning Google/DoubleClick, FTC File No. 071-0170 (Dec. 20, 2007), https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf.

[160] *Id.* at 7.

[161] *Id.*

[162] *Id.* at 8.

existing market.[163] Moreover, DoubleClick did not possess market power, thus Google would be likewise unable acquire market power through the acquisition.[164]

Finally, the Commission considered a variety of vertical theories of leveraging, including tying and bundling, which it ultimately found unsupported by the record.[165] Primarily, the Commission believed these theories failed because, despite having a leading market share, DoubleClick's lack of market power would make it, both pre and post-merger, unable to effectuate any of the possible leveraging strategies.[166]

In dissent, former Commissioner Pamela Jones Harbour offered a different vision for how Section 7 of the Clayton Act should have been applied to the fast-developing market for online advertising.[167] In particular, she noted areas of competitive overlap where the merger would threaten to reduce competition.[168] First, she disagreed with the majority that Google's in-house ad-serving solution was not a serious competitor that would be capable of constraining competition.[169] Commissioner Harbour noted that Google's existing beta product development would have created its own efficiencies, a fact that tended to negate the presence of merger-specific synergies in her opinion.[170]

Commissioner Harbour also believed that Google and DoubleClick were both direct competitors in the market for "remnant" ad space—ad space on web pages that had not already been sold to major publishers and was therefore considered less desirable

---

[163] *Id.*

[164] *Id.*

[165] *Id.* at 9.

[166] *Id.* at 10.

[167] *See* Dissenting Statement of Commissioner Pamela Jones Harbour, In the Matter of Google/DoubleClick, FTC File No. 071-0170 (Dec. 20, 2007), https://www.ftc.gov/sites/default/files/documents/public_statements/statement-matter-google/doubleclick/071220harbour_0.pdf.

[168] *Id.* at 1.

[169] *Id.*

[170] *Id.* at 2.

to advertisers.[171] The majority characterized this market as highly fragmented, and that no evidence was presented that DoubleClick was poised to be a major player in this area.[172] Commissioner Harbour, however, would have been content to rely on the puffery in DoubleClick's marketing materials describing its full-service products in order to support blocking the merger on horizontal grounds.[173]

More broadly, outside of the narrow competitive overlaps she identified, Commission Harbour believed that the "combination of Google and DoubleClick likely will affect the evolution of the entire online advertising market—especially in light of existing network effects, and the tremendous additional network effects the transaction will generate."[174] She characterized the review as a case of first impression, owing to unique overlap of consumer protection and competition issues present in the merger of the firms' disparate data sets.[175]

Moreover, she felt that the combination would allow the combined firm to better leverage network effects in order to "accelerate a convergence between search and display" advertising markets.[176] The end result, she feared, was the ability to create much more targeted advertising, though the she did not spell out exactly why this would constitute a harm to consumers.[177]

It was similarly unclear how another harm Commissioner Harbour feared actually constituted a harm:

> Post-merger, the combined Google/DoubleClick will become a "super-intermediator" with access to unparalleled data sources. In this role, Google/DoubleClick may be able to match up buyers and sellers in ways that more fully maximize the value of all advertising space. As the

[171] *Id.* at 2.

[172] *Id.*

[173] *Id.*

[174] *Id.* at 4.

[175] *Id.*

[176] *Id.* at 7.

[177] *Id.*

> merged firm's dataset grows, data-driven algorithms may perform at least as well as direct sales—if not better—in choosing which advertisements to display to generate the greatest return on investment. If this were to occur, the value of intermediated "remnant" space might approach (or surpass) the value of directly-sold "premium" advertisements, in terms of the ability to place the right message in front of the right Internet users at the right moment.[178]

Thus, the potential "harm" was that the combined firm would be able to better match advertisers with available inventory so as to better provide maximum value. Indeed, even in dissent, Commissioner Harbour had to "acknowledge that behavioral targeting may create economic efficiencies that would—in the short run—be attractive to the parties' advertiser and publishing customers."[179] Nonetheless, even with the actual competition concerns outweighed by procompetitive justifications, Commissioner Harbour maintained that the large size of the merged firm's dataset would serve as an entry barrier to competing firms.[180]

She was likewise concerned that data and privacy issues would be relegated to consumer protection issues going forward, and would not be considered as first-class competition issues.[181] Having said that, she acknowledged—and this is perhaps why privacy as a first-order competition issue is so hard to evaluate—that "[t]he truth is, we really do not know what Google/DoubleClick can or will do with its trove of information about consumers' Internet habits."[182]

2. Google/AdMob

In 2010, the FTC voted 5-0 to close its investigation of Google's acquisition of mobile advertising company AdMob "after thoroughly reviewing the deal and concluding that it is unlikely to harm competition in the emerging market for mobile

---

[178] *Id.* at 8.

[179] *Id.* at 8.

[180] *Id*. For more on big data as a barrier to entry, see John M. Yun, *The Role of Big Data in Antitrust*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

[181] *Id.* at 9.

[182] *Id.* at 10.

advertising networks."[183]

Senator Herb Kohl, Chairman of the Subcommittee on Antitrust, Competition and Consumer Rights, had sent a letter to the FTC urging it to pay "close attention" to the deal, in part because it would allow Google to expand its dominance in the desktop search and search marketing to include mobile display advertising.[184] Of course, that objection on its own either undermined concerns about the merger, or was self-refuting. If the relevant market was mobile display advertising —at the time a relatively small share of total advertising—then

> it represents a small fraction of a larger market and this transaction is competitively insignificant. Moreover, acknowledging that mobile advertising competes with online search advertising does more to expand the size of the relevant market beyond the narrow boundaries it is usually claimed to occupy than it does to increase Google's share of the combined market.[185]

In its closing letter, however, the FTC focused on more immediate changes to the mobile advertising market, pointing out that, in addition to a number of smaller competitors, Apple had recently entered the mobile ad network market, creating both a major competitor in the market, and also uncertainty as to how successfully AdMob would be able to compete with Apple's native solution.[186]

3. XM/Sirius

The XM/Sirius merger offered a relatively robust view into DOJ's review process, even though it opted not to challenge the merger. DOJ issued a closing statement in

---

[183] Fed. Trade Comm'n, Statement of the Commission Concerning Google/AdMob, FTC File No. 101-0031 (May 21, 2010), https://www.ftc.gov/sites/default/files/documents/closing_letters/google-inc./admob-inc/100521google-admobstmt.pdf.

[184] Press Release, Sen. Herb Kohl, (D-WI), Kohl Urges Close Scrutiny of the Proposed Google AdMob Merger (Apr. 6, 2010), https://web.archive.org/web/20120316194515/http://www.kohl.senate.gov/newsroom/pressrelease.cfm?customel_dataPageID_1464=3555.

[185] Geoffrey A. Manne, *Assessing the Claims that the Google-AdMob Merger Will "Leverage Google's Dominance" and Also Kill Kittens*, TRUTH ON THE MKT. (Apr. 7, 2010), https://truthonthemarket.com/?s=admob&orderby=relevance&order=DESC.

[186] *See id.*

March 2008, reporting that it would not challenge the merger because

> the evidence did not show that the merger would enable the parties to profitably increase prices to satellite radio customers for several reasons, including: a lack of competition between the parties in important segments even without the merger; the competitive alternative services available to consumers; technological change that is expected to make those alternatives increasingly attractive over time; and efficiencies likely to flow from the transaction that could benefit consumers.[187]

As Thomas Hazlett has noted, the market definition question in this merger was the primary focus.[188] In this regard, the question was whether the relevant market should be defined merely as "satellite radio broadcasting" or should also include terrestrial sources, like traditional AM and FM radio.[189]

DOJ opted to include terrestrial radio in the definition, and therefore believed that the combined firm would not be able to profitably raise prices in the face of the remaining competition.[190] DOJ also believed that, even were price increases possible, the combined firm was likely to realize substantial operational efficiency as a result of the deal.[191] Indeed, even a year after the deal closed the firm was close to bankruptcy, and it wasn't until two years later that the firm realized its first quarterly profit—suggesting that the efficiencies it realized were sorely needed.[192]

4. Comcast/NBC

In 2010, Comcast proposed to enter into a joint venture with General Electric, in

---

[187] Press Release, U.S. Dep't of Justice, Statement of the Department of Justice Antitrust Division on Its Decision to Close Its Investigation of XM Satellite Radio Holdings Inc.'s Merger with Sirius Satellite Radio Inc. (Mar. 24, 2008), https://www.justice.gov/archive/opa/pr/2008/March/08_at_226.html [hereinafter DOJ Sirius/XM Closing Statement].

[188] *See* Thomas W. Hazlett, *Some Dynamics of High-Tech Merger Analysis in General and with Respect to XM–Sirius*, 4 J. COMPETITION L. & ECON. 753, 756 (Aug. 2008).

[189] DOJ Sirius/XM Closing Statement, *supra* note 187.

[190] *See id.*

[191] *Id.*

[192] Franklin Paul, *Sirius Posts Profit, Sees Big Subscriber Growth*, REUTERS (Feb. 25, 2010, 8:01 AM), https://www.reuters.com/article/us-siriusxm/sirius-posts-profit-sees-big-subscriber-growth-idUKTRE61O2Z920100225.

which Comcast would become a 51% owner of NBC Universal and General Electric would own 49%.[193] The merger was largely a vertical integration of Comcast's existing cable video business with NBCU's programming library (in addition to certain other ancillary properties, such as Universal Studios).[194] Some horizontal issues did exist, insofar as Comcast owned some cable network assets—but Comcast's share of the relevant market was fairly small.[195]

In addition to DOJ's review (along with five states) of the antitrust issues implicated by the merger,[196] the FCC also reviewed the deal because it involved the transfer of spectrum licenses.[197] Both DOJ and the FCC imposed conditions on the merger.

Most notably, DOJ's conditions were aimed at guaranteeing that the merged firm would be unable to obtain bargaining leverage by withholding content from rival video programmers.[198] Comcast was forced to cede managerial control over Hulu,[199] and it was also forbidden from using its position as a cable provider to punish video programmers that opted to acquire video programming from non-NBCU sources.[200]

---

[193] *Panel on the Comcast and NBCUniversal Merger Before the H. Comm. on the Judiciary*, 111th Cong. 1 (2010) (prepared testimony of Thomas W. Hazlett, Professor of Law, George Mason University), https://web.archive.org/web/20120928182644/http://judiciary.house.gov/hearings/pdf/Hazlett100225.pdf.

[194] *Id.*

[195] Applications and Public Interest Statement at 2, Fed. Commc'ns Comm'n, In the Matter of General Electric Co. and Comcast Corp., https://ecfsapi.fcc.gov/file/7020394237.pdf ("Although Comcast owns and produces some cable programming channels and online content, Comcast owns relatively few national cable networks, none of which is among

the 30 most highly rated, and, even including its local and regional networks, Comcast accounts

for a tiny percentage of the content industry.").

[196] *Cf.* Proposed Final Judgment at 1, United States v. Comcast Corp., No. 1:11-CV-00106 (D.D.C. Sept. 1, 2011).

[197] *Cf.* Memorandum Opinion and Order at 1, Fed. Commc'ns Comm'n, In the Matter of Applications of Comcast Corp., General Electric Company and NBCUniversal, Inc. MB Docket No. 10-56 (Jan. 20, 2011), https://docs.fcc.gov/public/attachments/FCC-11-4A1.pdf.

[198] *See* Proposed Final Judgement, *supra* note 196, at 8–13.

[199] *Id.* at 14–15.

[200] *Id.* at 18.

The FCC's ability to condition the merger arises from its authority to review the transfer of spectrum licenses in order to ensure that the transactions are in the public interest.[201] One of the more interesting features of this transaction was exactly how far the FCC was willing to go in its imposition of conditions ostensibly in the public interest.[202] For instance, despite the FCC's mandate centering on the use of public spectrum, the Commission imposed requirements on how the merged firm would negotiate with other MVPDs, encouraged the development of *online* sources of competition, and adopted "voluntary" commitments that shaped how Internet access service would be provisioned across Comcast's network.[203]

In their concurrence, Commissioners McDowell and Atwell Baker noted that

> The Commission's approach to merger reviews has become excessively coercive and lengthy...In this instance, our review exceeded its limited statutory bounds. Many of the conditions in the Memorandum Opinion and Order (Order) and commitments outlined in separate letter agreements were agreed to by the parties. The resulting Order is a wide-ranging regulatory exercise notable for its "voluntary" conditions that are not merger specific. The same is true for the separate "voluntary" commitments outlined in Comcast's letter of agreement dated January 17, 2011. While many of these commitments may serve as laudable examples of good corporate citizenship, most are not even arguably related to the underlying transaction. In short, the Order goes too far.[204]

CONCLUSION

Many questions remain open for antitrust enforcement in digital markets. This chapter surveyed the course of the law in this area, and points to many of them, but inevitably more will emerge. Nonetheless, it is worth taking note of some of the

---

[201] 47 U.S.C. § 310(d) ("No construction permit or station license, or any rights thereunder, shall be transferred, assigned, or disposed of in any manner, . . . to any person except upon application to the Commission and upon finding by the Commission that the public interest, convenience, and necessity will be served thereby.").

[202] *See generally* Joint Concurring Statement of Commissioners Robert M. McDowell & Meredith Attwell Baker, Fed. Commc'ns Comm'n, In the Matter of Applications of Comcast Corporation, General Electric Company, and NBC Universal, Inc. For Consent to Assign Licenses and Transfer Control of Licensees, MB Docket No. 10-56 (Jan. 20, 2011), https://docs.fcc.gov/public/attachments/DOC-304134A4.pdf.

[203] *See id.*; Memorandum Opinion and Order, *supra* note 197.

[204] Joint Statement, *supra* note 202.

flashpoints for conflict in the future enforcement of antitrust in digital markets discussed above. Two main issues are going to be at the forefront of many of the cases brought in the foreseeable future.

First, enforcers continue to seek narrow market definitions that help them more easily allege monopolization and related vertical harms. And with the tentative acceptance of two-sided markets as important to market definition by the Supreme Court, the struggle over market definition will only become more complicated.

Second, because of network effects, fast turnover, and fluid boundaries between product markets among many firms, enforcers will be tempted to try novel theories, or novel interpretations of existing theories in order to develop otherwise difficult to substantiate cases. The FTC's approach in *Qualcomm* was emblematic of this, insofar as it attempted to prove that Qualcomm was anticompetitively evading constraints simply by deploying its intellectual property in a manner with which the FTC disagreed. The tying claim in *Microsoft* and the analogous theories brought against Google by the European Commission likewise attempt to shift the obligation onto firms to justify their product design and other innovation decisions.