

Digital Duty to Deal, Data Portability, and Interoperability

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INTRODUCTION

A “duty to deal” is a remedy commonly supported by advocates of more aggressive antitrust enforcement in the digital economy. The basic concept of a duty to deal is disclosed in its name: a duty to deal would subject dominant firms to a regulatory requirement to do business with a competitor. For example, a monopolist subject to a duty to deal may be required to sell outputs to or purchase inputs from its rivals. The idea of a duty to deal has a long history in industries that are characterized by network effects and economies of scale, such as telecommunications and railroads. For instance, the Kingsbury Commitment was a 1913 antitrust settlement that required AT&T to interconnect its telephone network with those of its rivals;¹ and the 1912 *Terminal Railroad* case required the operators of a railroad “essential facility” to allow competing railroad companies access to that facility.² The purported need for such duties to deal is that industries such as these—and such as the contemporary tech industry—may operate most efficiently (for producers and consumers alike) when organized as monopolies or oligopolies, which limits the viability of competitive entry and margins along which competition is possible. The appeal of an antitrust duty to deal is that the benefits of a dominant firm’s efficient structure may be preserved, and competition facilitated, by allowing competitors to offer their own services while making use of that dominant firm’s infrastructure. This outcome can be hard to realize in practice, however, as the potential of an antitrust duty to deal can create negative incentives for both dominant firms and their actual and potential competitors.

The idea of an antitrust duty to deal has gained traction in the discussion about

¹ The Kingsbury Commitment is discussed *infra*, at notes 49-53 and accompanying text.

² *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912).

so-called “Big Tech” due to the prevalence of network effects in the industry. In principle, the allure of the duty-to-deal remedy in such markets is that it preserves the benefits that result from firms operating at efficient scale while facilitating competition between those firms and other firms that have not obtained such scale. In contrast, in an industry characterized by network effects, producers and consumers alike could be harmed by remedies that reduce the size of or de-densify relevant networks (such as breaking up a firm).

The basic challenge of relying on a duty to deal as an antitrust remedy stems from the very concern that it is meant to address: because the ostensible harms that the duty is meant to address occur in the presence of significant network effects that limit the viability of an efficient competitive market, there is often no market (or other reliable data) available upon which to base the terms of that duty. Merely establishing prices for mandated exchanges is a fraught process—one that, if done poorly, can substantially disrupt a market and ultimately harm consumers. This is especially likely when undertaken by a regulator sympathetic to competitors or unsympathetic to a dominant firm.

As Justice Breyer noted in a case decided while he was a judge on the First Circuit:

[H]ow is a judge or jury to determine a “fair price?” Is it the price charged by other suppliers of the [monopoly] product? None exist. Is it the price that competition “would have set” were the [market] not monopolized? How can the court determine this price without examining costs and demands, indeed without acting like a rate-setting regulatory agency, the rate-setting proceedings of which often last for several years? . . . Must it be [sufficient] for all independent competing firms to make a “living profit,” no matter how inefficient they may be? If not, how does one identify the “inefficient” firms? And how should the court respond when costs or demands change over time, as they inevitably will?³

In this chapter, we discuss the development of the duty to deal doctrine in antitrust law, its application to the digital economy, and proposals for specific duties to deal, such as data portability and interoperability.

³ *Town of Concord v. Boston Edison Co.*, 915 F.2d 17, 25 (1st Cir. 1990).

Part I outlines the development of the duty to deal doctrine in antitrust law. The development of the doctrine in the United States will be compared to that in the European Union. Popular economic justifications for the doctrine and key cases will be explored. Part II then situates this doctrine within the digital economy, focusing on the importance of getting the contours of the doctrine right in that economy. As we shall see, the law and economics of the duty to deal caution against its application to dynamic, digital markets. This will be illustrated by looking at cases where it has been applied. Part III focuses on two specific categories of duties to deal: data portability and interoperability.

I. DUTY TO DEAL IN ANTITRUST LAW

A duty to deal is one of several closely related concepts in antitrust law. It is a remedy to an anticompetitive refusal to deal—most often arising when a dominant firm discontinues a preexisting business relationship with a competitor.⁴ A duty to deal on specific terms may be prescribed as a remedy for a firm that had anticompetitively “raised rivals’ costs.”⁵ The duty can also arise as a consequence of a firm’s product being deemed an “essential facility.”⁶ No matter under which heading the duty arises, the basic

⁴ See, e.g., *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 598 n.23 (1985) (allowing the district court’s injunction requiring the monopolist to deal with its competitor to stand).

⁵ See Willard K. Tom & Gregory F. Wells, *Raising Rivals’ Costs: The Problem of Remedies*, 12 GEO. MASON L. REV. 389 (2003) (explaining the difficulties of fashioning remedies in raising rivals’ costs cases). See also *United States v. Microsoft*, 231 F. Supp. 2d 144 (D.D.C. 2002) (imposing a conduct remedy on remand after the D.C. Circuit vacated the district court’s previous divestiture order).

⁶ See *Terminal Railroad*, 224 U.S. at 392 (“as this was a mere bridge company, it was essential that railroad companies desiring to use it should have railway connections with it on each side of the river”). See also *MCI Commc’ns Corp. v. AT&T*, 708 F.2d 1081, 1132–33 (7th Cir. 1983):

The case law sets forth four elements necessary to establish liability under the essential facilities doctrine: (1) control of the essential facility by a monopolist; (2) a competitor’s inability practically or reasonably to duplicate the essential facility; (3) the denial of the use of the facility to a competitor; and (4) the feasibility of providing the facility.

In the EU context, see Communication from the Commission: Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings ¶ 78, O.J. (C 45) 7, 18 [hereinafter “EC Guidance”] (“The concept of refusal to supply covers a broad range of practices, such as . . . a refusal to grant access to an essential facility or a network.”). For

characteristics and criticism are largely the same. The discussion below provides a brief overview of the understanding of this duty in both the U.S. and Europe, along with a discussion of the Supreme Court’s error-cost analysis of duties to deal in the *Trinko* case.

A. *The United States*

In the United States, as “a general matter” antitrust law does not require a business to deal with a rival.⁷ As far back as 1919, the Supreme Court said that “[i]n the absence of any purpose to create or maintain a monopoly, the [Sherman Act] does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal.”⁸

There have arisen some notable exceptions to this right, however. In *Lorain Journal Co. v. United States*,⁹ the Supreme Court held a newspaper liable under the antitrust laws for refusing to sell advertising to those who patronized a radio station that was its rival in the “mass dissemination of [] news and advertising.”¹⁰ In *Otter Tail Power Co. v. United States*,¹¹ the Supreme Court held a power company liable under a duty to deal theory, noting that it refused to sell wholesale to municipal power systems “solely to prevent municipal power systems from eroding its monopolistic position.”¹² And in *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, the leading American case invoking a duty to deal, the Supreme Court held a ski resort liable for ending a profitable business partnership

more on the Essential Facilities Doctrine, see Tad Lipsky, *The Essential Facilities Doctrine*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

⁷ See *Verizon Commc’ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004).

⁸ *United States v. Colgate & Co.*, 250 U.S. 300, 307 (1919).

⁹ 342 U.S. 143 (1951).

¹⁰ *Id.* at 153.

¹¹ 410 U.S. 366 (1973).

¹² *Id.* at 378.

selling joint passes with another ski resort.¹³

In these cases, the Court deemed it important that there seemed to be no valid business justification for refusing to deal with rivals. As the Court more recently noted in *Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP*, these cases emphasized the importance of the defendant having ended a “voluntary (*and thus presumably profitable*) course of dealing” ostensibly in order to harm its rivals.¹⁴ This termination of a course of dealing that had presumably been profitable at a prior time suggests “a willingness to forsake short-term profits to achieve an anticompetitive end.”¹⁵

The *Trinko* Court found *Aspen Skiing* and similar cases to be “at or near the outer boundary of [Sherman Act] § 2 liability.”¹⁶ There the Court held Verizon did *not* have an antitrust duty to interconnect with rivals, particularly in light of the highly regulated nature of the telecommunications industry. The Court found that “the defendant’s prior conduct sheds no light upon the motivation of its refusal to deal” due to the regulatory mandates Verizon was subject to under the Communications Act.¹⁷ Absent a prior history of voluntary dealing, and in light of the regulatory backstop of the Communications Act (which created regulatory duties to deal), the Court was unwilling to impose an antitrust duty to deal.

Collectively, these cases outline the general contours of the duty to deal in American antitrust law. The cases support the proposition that foregoing a prior voluntary course of conduct is the strongest evidence that may suggest an

¹³ See *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585, 609–11 (1985).

¹⁴ *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 409 (2004) (emphasis in original).

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.* See also *id.* (“In *Aspen Skiing*, the defendant turned down a proposal to sell at its own retail price, suggesting a calculation that its future monopoly retail price would be higher. Verizon’s reluctance to interconnect at the cost-based rate of compensation available under § 251(c)(3) tells us nothing about dreams of monopoly.”).

anticompetitive refusal to deal. Some commentators argue for broader tests to establish an antitrust duty to deal; for example, a “no economic sense” test or identification of foregone profits.¹⁸ Both of these approaches—which generally have not been embraced by the courts—attempt to get at the question identified in *Aspen Skiing*—whether, but for anticompetitive intent, a firm would have refused to deal with a rival. But these tests fail to get at the question whether a firm would *voluntarily* continue to deal on given terms. By focusing on purely *economic* sense or profitability, they fail to capture the business judgements and qualitative assessments that are often at the heart of the competitive enterprise.

B. The European Union

The approach to the duty to deal differs in the European Union. There, the “essential facilities” doctrine allows for broader application of a duty to deal for dominant firms. For instance, the European Commission’s guidance document on the application of Article 102 (previously Article 82) reads:

The concept of refusal to supply covers a broad range of practices, [including] a refusal to grant access to an essential facility or a network.

The Commission does not regard it as necessary for the refused product to have been already traded: it is sufficient that there is demand from potential purchasers and that a potential market for the input at stake can be identified. Likewise, it is not necessary for there to be actual refusal on the part of a dominant undertaking; ‘constructive refusal’ is sufficient. Constructive refusal could, for example, take the form of unduly delaying or otherwise degrading the supply of the product or involve the imposition of unreasonable conditions in return for the supply.

Finally, instead of refusing to supply, a dominant undertaking may charge a price for the product on the upstream market which, compared to the price it charges on the downstream market, does not allow even an equally efficient competitor to trade profitably in the

¹⁸ See Gregory J. Werden, *Identifying Exclusionary Conduct Under Section 2: The “No Economic Sense” Test*, 73 ANTITRUST L.J. 413 (2006) (arguing for a “no economic sense” test); A. Douglas Melamed, *Exclusionary Conduct Under the Antitrust Laws: Balancing, Sacrifice, and Refusals to Deal*, 20 BERKELEY TECH. L.J. 1247 (2005) (arguing for a “profit sacrifice” test).

downstream market on a lasting basis (a so-called ‘margin squeeze’).¹⁹

The EC’s Guidance also sets out three criteria for determining when a refusal to deal becomes an abuse of dominance:

1. The refusal relates to a product or service that is objectively necessary to be able to compete effectively on a downstream market (“indispensability”);
2. The refusal is likely to lead to the elimination of effective competition on the downstream market (“elimination of competition”); and
3. The refusal is likely to lead to consumer harm (“consumer harm”).²⁰

The EU’s approach to monopolization would likely find liability in many situations where the US approach would not.²¹ In duty to deal cases, the EU requires neither an actual refusal to deal nor an end to a voluntary course of dealing, as in *Aspen* and *Trinko*.

The EU’s approach to a “margin squeeze” is also different than US law. As a contrasting example, take *Pacific Bell Telephone Co. v. linkLine Communications, Inc.*,²² where the Supreme Court held that in the absence of either a duty to deal under *Aspen* or predatory pricing under *Brooke Group*, there is no basis for a price squeeze theory under Section 2 of the Sherman Act. US law rejects a margin squeeze theory while the EU embraces it.

C. The Errors Costs of Duties to Deal

The economic argument for limiting the duty to deal is based upon the costs of

¹⁹ EC Guidance at ¶¶ 78–80.

²⁰ *Id.* at ¶ 81.

²¹ See Alden Abbott, *A Brief Comparison of European and American Antitrust Law*, 9–13 (Univ. of Oxford Competition Law & Policy Guest Lecture Programme, Paper (L) 02/05, 2005), https://www.law.ox.ac.uk/sites/files/oxlaw/cclp_1_02-05.pdf (noting the differences in approach between the EU and the US on monopolization cases).

²² 555 U.S. 438 (2009).

getting it wrong. In a seminal article, Judge Frank Easterbrook argued antitrust law should seek to minimize the sum of error and decision costs in order to maximize consumer welfare and reduce the likelihood of self-defeating antitrust interventions.²³ The relevant costs include the costs of sanctioning violations when the conduct did not harm competition, known as “false positives”; the costs of failing to sanction violations when the conduct did harm competition, known as “false negatives”; and the costs of the legal process itself.²⁴ The EU’s competition law jurisprudence seeks to avoid false negatives and condemns ambiguous conduct so as to avoid the harms of monopolization.²⁵ US law, on the other hand, requires greater caution when intervening in markets than the EU. More aggressive intervention risks false positives that may make pro-competitive conduct illegal and thereby deter it, while the false negatives that may result from less aggressive enforcement can be self-correcting over time through ordinary competition (particularly given that supra-competitive profits possible in non-competitive markets can invite entry) and that continued anticompetitive conduct will invite further subsequent litigation.²⁶ Costs of the legal process include not only the costs

²³ See Frank H. Easterbrook, *The Limits of Antitrust*, 63 TEX. L. REV. 1 (1984).

²⁴ *Id.* at 16 (“The legal system should be designed to minimize the total costs of (1) anticompetitive practices that escape condemnation; (2) competitive practices that are condemned or deterred; and (3) the system itself.”). For more on the error cost framework, see Geoffrey A. Manne, *Error Costs in Digital Markets*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

²⁵ See *Comparative Look at Competition Law Approaches to Monopoly and Abuse of Dominance in the US and EU: Hearing Before the S. Comm. on Antitrust, Competition Pol’y, & Consumer Rights* (2018) (Statement of Geoffrey Manne, President, International Center for Law & Economics), <https://laweconcenter.org/wp-content/uploads/2018/12/Geoffre-A-Manne-Testimony-Why-US-Antitrust-Law-Should-Not-Emulate-European-Competition-Policy-2018-12-19.pdf> (“The EU’s ‘precautionary principle’ approach is the antithesis of [the US approach]. It is rooted in a belief that markets do not—or, more charitably, are unlikely—to function well in general, and certainly not sufficiently to self-correct in the face of monopolization.”).

²⁶ See Easterbrook, *supra* note 23, at 15 (“In which direction should these rules err? For a number of reasons, errors on the side of excusing questionable practices are preferable . . . the economic system corrects monopoly more readily than it corrects judicial errors . . . A practice once condemned is likely to stay condemned, no matter its benefits. A monopolistic practice wrongly excused will eventually yield to competition, though, as the monopolist’s higher prices attract rivalry.”).

of litigation, but the costs of decision-making by the courts and the costs of enforcement.²⁷

The Roberts Supreme Court has largely incorporated this framework into antitrust analysis.²⁸ For instance, the Court recently ruled that antitrust should consider both sides of a two-sided market together because “[a]ny other analysis would lead to ‘mistaken inferences’ of the kind that could ‘chill the very conduct the antitrust laws are designed to protect.’”²⁹ In reaching this conclusion, the Court cited *Matsushita* (noting that “we must be concerned lest a rule or precedent that authorizes a search for a particular type of undesirable pricing behavior end up by discouraging legitimate price competition”) and *Leegin* (noting that courts should avoid “increas[ing] the total cost of the antitrust system by prohibiting procompetitive conduct the antitrust laws should encourage”).³⁰ This line of cases makes clear the court’s ongoing concern with minimizing error costs.

The Court has found the error cost framework particularly important with respect to the duty to deal, most explicitly in *Trinko*. There the Court started its economic analysis by noting:

The mere possession of monopoly power, and the concomitant charging of monopoly prices, is not only not unlawful; it is an important element of the free-market system. The opportunity to charge monopoly prices—at least for a short period—is what attracts “business acumen” in the first place; it induces risk taking that produces innovation and economic growth. To safeguard the incentive to innovate, the possession of monopoly power will not be found unlawful unless it is accompanied by an element of anticompetitive conduct.

²⁷ See *id.* at 12–13 (on litigation costs: “The higher the stakes, the more firms are willing to spend on discovery and litigation. The marginal week of discovery or trial just might mean saving a few millions or tens of millions of dollars. Litigation costs are the product of vague rules combined with high stakes, and nowhere is that combination more deadly than in antitrust litigation under the Rule of Reason.”); *id.* at 12 (on costs of decision-making and enforcement: “Judges and justices rightly protest that courts cannot make these judgments. Of course judges cannot do what such open-ended formulas require. When everything is relevant, nothing is dispositive. Any one factor might or might not outweigh another, or all of the others, in the factfinder’s contemplation.”).

²⁸ See Thomas A. Lambert & Alden F. Abbott, *Recognizing the Limits of Antitrust: The Roberts Court Versus the Enforcement Agencies*, 11 J. COMPETITION L. & ECON. 791 (2015) (examining the Roberts Court’s antitrust jurisprudence).

²⁹ *Ohio v. Am. Express Co.*, 138 S. Ct. 2274, 2287 (2018).

³⁰ *Id.*

Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities. Enforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited. Moreover, compelling negotiation between competitors may facilitate the supreme evil of anti-trust: collusion.³¹

The Court then weighed the “slight benefits of antitrust intervention” against a “realistic assessment of its costs.”³² The Court noted the especially costly nature of “[m]istaken inferences and the resulting false condemnations” that chill the pro-competitive conduct antitrust is designed to protect.³³ But the Court also noted that even if there were no false positives, the enforcement costs would be very high in duty to deal cases because “[e]ffective remediation of violations of regulatory sharing requirements will ordinarily require continuing supervision of a highly detailed decree”;³⁴ this is not something antitrust courts are equipped to do. In other words, the *Trinko* Court considered the error and enforcement costs of imposing a duty to deal in circumstances where the underlying conduct is ambiguous as to consumer welfare.

The alleged harms that result from a monopolist’s refusal to deal are economically very similar to the harm from raising rivals’ costs. Often, claims of refusal to deal concern vertical arrangements in which an upstream monopolist that also competes downstream is charged with an antitrust violation by downstream rivals that rely on the upstream monopoly.³⁵ But as the Court recognized in *Trinko*, an upstream provider may have become a purported monopolist “by establishing an infrastructure that renders them

³¹ *Trinko*, 540 U.S. at 407–08 (emphasis in original).

³² *Id.* at 414.

³³ *Id.* (citing *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 594 (1986)).

³⁴ *Id.* at 414–15.

³⁵ See, e.g., *Pac. Bell Tel. Co. v. linkLine Commc’ns, Inc.*, 555 U.S. 438 (2009) (adjudicating and rejecting such a “price squeeze” theory of antitrust liability).

uniquely suited to serve their consumers.”³⁶ But where this is the case, the *Alcoa* exhortation cautions that “The successful competitor, having been urged to compete, must not be turned upon when it wins”³⁷ lest we find that “[c]ompelling such firms to share the source of their advantage . . . lessen[s] the incentive for the monopol[ist], the rival, or both to invest in those socially beneficial facilities.”³⁸

In sum, antitrust law in the United States presumptively allows market participants, even monopolists, to choose whether and on what terms it will deal with rivals. The exception is if a monopolist sacrifices profits by giving up a voluntary course of dealing, because this would show that its intent must be to harm competition. The error cost decision framework of law and economics explains why avoiding false positives through this type of lenient rule will minimize harm to consumer welfare.

II. DUTY TO DEAL IN THE DIGITAL ECONOMY

The duty to deal has the potential to be a very important doctrine in the digital economy because many Big Tech companies have created infrastructure that competitors rely upon.³⁹ Big Tech firms also often compete in those markets they create. For instance, Google has both a search engine and Google Shopping.⁴⁰ Amazon created a marketplace for third-party sellers but also sells some products under its own label.⁴¹ And Apple has

³⁶ *Trinko*, 540 U.S. at 407–08.

³⁷ 148 F.2d 416,430 (2d Cir. 1945).

³⁸ *Trinko*, 540 U.S. at 407–08.

³⁹ See, e.g., Online Platforms and Market Power, Part 6: Examining the Dominance of Amazon, Apple, Facebook, and Google: Hearing Before the Subcomm. Antitrust, Commercial, and Administrative Law (Jul. 29, 2020), <https://judiciary.house.gov/calendar/eventsingle.aspx?EventID=3113>.

⁴⁰ See Charley Connor, *Google Battles EU Over Legality of Self-Preferencing*, GLOBAL COMPETITION REV. (Feb. 12, 2020), <https://globalcompetitionreview.com/article/1214488/google-battles-eu-over-legality-of-self-preferencing>.

⁴¹ See Randal C. Picker, *Breaking up Amazon? Platforms, Private Labels and Entry*, TRUTH ON THE MARKET (Jul. 17, 2019), <https://truthonthemarket.com/2019/07/17/breaking-up-amazon-platforms-private-labels-and-entry/>.

its App Store and its own apps.⁴² There are fears that if these platforms decided they did not want to deal with rivals anymore, competition would be harmed.⁴³

But application of duty to deal jurisprudence also comes with unique challenges. Its interactions with intellectual property and industry standards, network effects, barriers to entry, lock-in, and switching costs all require analysis.

A. A Historical Perspective: AT&T's One System Policy

Colgate (1919) is generally viewed as the first American case relating to an antitrust duty to deal. The concept, however, is older and can be seen, for instance, in the telephone and railroad industries. Both industries have long been viewed as natural monopolies where it is often more desirable to have a single network offering service to all users than to have multiple networks.

Arguably the most important event in the history of AT&T—and the history of American telecommunications—was Theodore Vail's emergence from retirement in 1907 to become the president of the company. At the time, AT&T was in dire financial condition due to growing competition from rival local telephone companies. At the time, it was not uncommon for cities and towns to have two local telephone companies whose networks were not interconnected,⁴⁴ meaning that a customer on AT&T's network could not call a customer on a rival network.

Vail responded to this competition bluntly: he decreed that AT&T would no longer

⁴² See Ben Sperry, *Does Apple's "Discrimination" Against Rival Apps in the App Store Harm Consumers?*, TRUTH ON THE MARKET (Oct. 16, 2019), <https://truthonthemarket.com/2019/10/16/does-apples-discrimination-against-rival-apps-in-the-app-store-harm-consumers/>.

⁴³ See *infra* nn. 86-100 and accompanying text.

⁴⁴ See Richard Gabel, *The Early Competitive Era in Telephone Communication, 1893–1920*, 34 LAW & CONTEMP. PROBS. 340, 345 (1969) (“The rise of the independent companies resulted in a substantial amount of service competition during this period. Out of 1,051 U.S. cities with a 1902 population greater than 4,000, 1,002 had telephone facilities. The independents provided exclusive service in 137 of these and Bell in 414; the remaining 451 communities—almost half—received service from two or more companies.”) (citing BUREAU OF THE CENSUS, TELEPHONES AND TELEGRAPHS (1902)).

compete in these markets. Rather, it would either buy its rivals or exit the market.⁴⁵ It simply didn't make sense to have multiple, competing, non-interconnected networks. This transition culminated in what became AT&T's central operating policy, and also the policy that has defined American telecommunication for the past 100 years: "universal service," or the idea that anyone on any telephone network should be able to call anyone on any other telephone network. This gave rise to AT&T's credo, adopted in its 1910 Annual Report: *One System, One Policy, Universal Service*.⁴⁶

In order to realize this vision, AT&T began standardizing its telephone equipment across all the local markets in which it operated. As it purchased competing carriers, it transitioned them to its standardized technology; and as it exited markets where it chose to forego competition, it refused to connect (that is, it refused to deal with) competing networks. AT&T rapidly grew in market share and its competitors rapidly lost share.⁴⁷ This led AT&T's competitors to turn to the Department of Justice with antitrust complaints in 1911, and the government to file an antitrust suit against AT&T in 1913.⁴⁸

⁴⁵ See *id.* ("In 1907 the Baker-Morgan banking interests gained control of the Bell System and replaced President Frederick Fish with Theodore Vail. Vail substantially reversed a number of Bell policies, emphasizing absorption of the competition in preference to the earlier policy of expansion of Bell-constructed facilities. This change in emphasis resulted in a rapid diminution in the independents' proportion of total industry telephones. The decline continued until the independents' share reached its present ratio of about fifteen per cent.")

⁴⁶ See ANNUAL REPORT OF THE DIRECTORS OF AMERICAN TELEPHONE AND TELEGRAPH COMPANY TO THE SHAREHOLDERS (1910). See also AT&T, *Milestones in AT&T History*, AT&T (2008), https://web.archive.org/web/20080522110342/http://www.corp.att.com/history/milestone_1908.html.

⁴⁷ See Gabel, *supra* note 44, at 352 ("With the curtailment of its own rate of internal expansion, the Bell System, beginning in 1907, launched an aggressive program of acquiring independent telephone properties. The effect of this change in policy is demonstrated by the shift in the ratio of telephones between the two segments of the industry. In 1907 the independents owned 3.0 million stations, while Bell owned 3.1 million. By 1912, there were 3.6 million independent stations and 5.1 million Bell stations.").

⁴⁸ See *id.* ("Bell's acquisition attempts were strongly resisted by the independents, who made complaint to the Attorney General, George Wickersham. They were joined in charging antitrust violations by the Postal Telegraph-Mackay interests, because the Bell System had earlier succeeded in acquiring control of Western Union Telegraph Company, and the physical consolidation of Bell System and Western Union properties threatened to undercut Postal Telegraph markets.").

This suit established one of the most important duties to deal in American history—albeit through a settlement instead of a judicial opinion. In late 1913, in order to avoid litigation, AT&T entered into what is known today as the Kingsbury Commitment.⁴⁹ In this commitment AT&T agreed, among other things, both to stop buying competing telephone companies without government approval and to allow those companies to connect their telephone networks to its network.⁵⁰ That is, AT&T agreed to a duty to deal with its rivals.

This duty to deal—which was later enshrined in the Communications Act of 1934⁵¹ and became a core element of the 1996 Telecommunication Act's⁵² vision of facilitating competition in the telephone industry—was only the beginning of AT&T's duty to deal saga. The subsequent century can be understood in terms of the government's attempt to implement this duty to deal. During the midcentury years, AT&T's regulated monopoly status meant struggles on the one hand to set prices charged to consumers (because AT&T had a regulatory duty to deal with all consumers, offering service even to those on which it lost money, in exchange for which it was allowed to charge other consumers more than it would in a competitive market). And on the other hand, these regulated prices necessitated government regulation of how AT&T dealt with its competitors in adjacent markets.⁵³

⁴⁹ *Id.* (“As a result of these complaints, AT&T vice-president N. C. Kingsbury met with the Attorney General and later in 1913 drafted an agreement which became known as the Kingsbury Commitment.”).

⁵⁰ See Letter of N.C. Kingsbury, Vice President of AT&T, to the Attorney General of the United States (Dec. 19, 1913), <https://www.washingtonpost.com/blogs/the-switch/files/2013/12/KC1-NC-Kingsbury-VP-of-ATT-letter-to-AG.pdf>.

⁵¹ Communications Act of 1934, Pub. L. 97-259, 48 Stat. 1064 (codified at 47 U.S.C. § 151).

⁵² Telecommunications Act of 1996, Pub. L. 104-104, 49 Stat. 1526 (1996).

⁵³ For instance, telephone switches grew increasingly computerized at the same time as the computer industry was still a fledgling. This created challenges for the FCC in how to attribute AT&T's R&D costs. These costs were related to both its regulated telephone business and its efforts to enter the unregulated market for competitive computer services. Attributing R&D costs associated with entry into the competitive computer services market to its telephone business (which received a regulatorily-guaranteed rate of return) could give AT&T an anti-competitive advantage in the unregulated computer market. The FCC

This entire era is best described as “a mess,”⁵⁴ as courts and regulators tried to establish rates, address AT&T’s use of regulated rates to move into adjacent industries,⁵⁵ and address AT&T’s refusals to deal with competitors,⁵⁶ all of which led to the antitrust case breaking up AT&T in 1984.⁵⁷ But the Incumbent Local Exchange Operators (“ILECs”) coming out of the broken-up AT&T still were governed by state regulatory duties to deal, which were only more complicated post-break-up as regulators had to design and implement a system of explicit cross subsidies between independent telephone companies that had previously been calculated implicitly by internalizing duties to provide service within that AT&T monopoly.⁵⁸

The mess worsened with the passage of the 1996 Telecommunications Act, which

struggled with these issues in the *Computer Inquiries*. See *In re Regulatory & Policy Problems Presented by the Interdependence of Computer and Communication Services & Facilities (First Computer Inquiry)*, Notice of Inquiry, 7 FCC 2d 11, (1966); *Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC 2d 384 (1980).

⁵⁴ See, e.g., James Chen, *Price-Level Regulation and its Reform*, 99 MARQ. L. REV. 931, 931 (2016) (stating “Conventional rate-of-return regulation richly deserves its derogatory reputation as ‘the most speculative undertaking . . . in the history of Anglo-American jurisprudence.’”).

⁵⁵ See generally *Computer Inquiries*, *supra* note 53. AT&T’s “predatory cross-subsidization” between its regulated telephone business and adjacent businesses was one of the focuses of the 1982 suit that led to the break-up of AT&T in 1984. See *United States v. AT&T*, 552 F.Supp. 131 (D.D.C. 1982). The resolution of this case was a settlement known as the Modified Final Judgement (MFJ), which was itself a modification of the settlement reached in the 1956 litigation involving AT&T’s efforts to leverage its regulated telephone business to compete in the unregulated computer industry. See *United States v. Western Elec. Co.*, Civil Action No. 17-49 (1956).

⁵⁶ See Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust in the Internet Age*, 17 HARV. J.L. TECH. 85, 93–95 (2003) (discussing the cases of Hush-A-Phone, Carterfone, and MCI, all of whom the United States compelled AT&T to allow network access).

⁵⁷ See Andrew Pollack, *Bell System Breakup Opens Era of Great Expectations and Great Concern*, N.Y. TIMES, Jan. 1, 1984, § 1, at 12.

⁵⁸ The FCC, for instance, began to transition from Rate of Return rate regulation to price cap regulation, partially in order to force AT&T to deal with its competitors on more market-based terms. This, however, prompted significant concerns about decline in telephone service quality in the 1980s. In addition, the FCC now had to make once-implicit cross-subsidies explicit to cover AT&T’s obligation to provide service to all customers, including at a loss, which required assigning dollar values — that cannot easily meaningfully be calculated — to these transactions.

required that the ILECs provide access to individual pieces of their networks (Unbundled Network Elements, or UNEs), and allow interconnection between their networks, on regulated terms and at regulated prices.⁵⁹ The 1996 Telecom Act was the greatest experiment in a regulatory duty to deal ever undertaken. Its primary result was over a decade of litigation as the FCC and courts struggled to define what elements of an ILEC's network constituted UNEs that had to be offered under the terms of the Act,⁶⁰ and the terms under which they had to be offered.⁶¹

The lesson of this history is simply that it is far easier to establish that there is a “duty to deal” than it is to define what that duty actually entails. Telling a firm that it needs to deal with a competitor does not tell us the pricing, quality, or any other terms of those deals. And, as then-Judge Breyer noted in the quotation near the opening of this chapter, the duty-to-deal remedy is most likely adopted in response to monopolization. As he asked, “How can the court determine this price without examining costs and demands, indeed without acting like a rate-setting regulatory agency, the rate-setting proceedings of which often last for several years?” AT&T's history extends this rhetorical question by asking whether even those rate-setting proceedings, working prospectively, often fail to effectively establish the contours of a duty to deal. If a rate-setting agency, aided by substantial expertise and resources devoted to the regulation of a single firm, has such difficulties implementing a duty to deal, how fraught must be the enterprise for a generalist antitrust court?

⁵⁹ See Doug Dawson, President, CCG Consulting, *Eliminating Unbundled Network Elements (UNEs), POTs & PANs* (May 30, 2018), <https://potsandpansbyccg.com/2018/05/30/eliminating-unbundled-network-elements-unes/>, for a description of UNEs and their utility to non-facilities-based telecom providers.

⁶⁰ *AT&T v. Iowa Util's Bd*, 525 U.S. 366 (1999); *United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir., 2004). Rejecting challenges to the FCC fourth order attempting to implement the 1996 Act's UNE requirements, the D.C. Circuit noted that “Because we conclude the Commission's fourth time is a charm, we deny all petitions for review.” *Covad Commc'n Co. v. FCC*, 450 F.3d 528 (D.C. Cir. 2006).

⁶¹ *Verizon Commc'n Inc. v. FCC*, 535 U.S. 467 (2002).

B. Current Perspectives in US Antitrust Law: *FTC v. Qualcomm* & *Viamedia v. Comcast*

The complicated application of rules from *Aspen* and *Trinko* in digital markets has at times confounded courts. For instance, the District Court for Northern District of California in *FTC v. Qualcomm* held that Qualcomm had a duty to deal with rival chipmakers.⁶² The District Court was then overturned by the Ninth Circuit Court of Appeals.⁶³

That case dealt with a situation where Qualcomm's patented technology was chosen by a standard developing organization (SDO) for use in the creation of interoperable chips for cell phones.⁶⁴ The FTC alleged, among other things, that Qualcomm had a duty to sell licenses for its chips, for which it held standard-essential patents (SEP), to other members of the SDO, including rival chipmakers, on fair, reasonable, and non-discriminatory terms (FRAND).⁶⁵ Though Qualcomm did not assert its patents against rival chipmakers, it also did not sell licenses on a per-chip basis, instead selling licenses to device makers (OEMs) only at the handset level.⁶⁶

The District Court for the Northern District of California ruled Qualcomm had a duty to deal because it had, some 20 years prior, sold licenses for chips to rivals.⁶⁷ As a

⁶² *FTC v. Qualcomm Inc.*, 411 F. Supp. 3d 658, 751 (N.D. Cal. 2019) [hereinafter "QC DC Opinion"].

⁶³ *FTC v. Qualcomm Inc.*, No. 19-16122 (9th Cir. Aug. 11, 2020), <https://cdn.ca9.uscourts.gov/datastore/opinions/2020/08/11/19-16122.pdf> [hereinafter "QC 9th Cir. Opinion"].

⁶⁴ *QC DC Opinion*, 411 F. Supp. at 671–72.

⁶⁵ *See id.* at 671 (citing *FTC v. Qualcomm*, No. 17-CV-00220-LHK, 2018 WL 5848999, at *3 (N.D. Cal. Nov. 6, 2018) ("a SEP holder must commit to TIA that: "A license under any Essential Patent(s), the license rights which are held by the undersigned Patent Holder, will be made available to all applicants under terms and conditions that are reasonable and nondiscriminatory."); *id.* at 758–61 (holding that Qualcomm has a duty to deal after applying the *Aspen* factors).

⁶⁶ *See id.* at 673 ("At some point, Qualcomm stopped licensing rival modem chip suppliers and instead started licensing only OEMs at a 5% running royalty on the price of each handset sold. These licenses are called Subscriber Unit License Agreements ("SULA").").

⁶⁷ *See id.* at 760:

Licensing rivals was also profitable for Qualcomm, as Qualcomm received royalties on patent licenses to modem chip suppliers. In a 1999 email, Steve Altman (then a Qualcomm lawyer, later Qualcomm

remedy, the District Court imposed a duty to deal, requiring that Qualcomm sell chips on FRAND terms to rival chipmakers.⁶⁸

Interoperable networks for cell phones give rise to network effects. Among the benefits of having SDOs is the availability of chips that enable a cell phone to communicate with any other phone, on any network. SDOs must balance encouraging innovators to join the organization, which involves *ex ante* incentives to invest in patented technology that could be chosen as the standard, and policing abusive market power that may arise *ex post* if patented technology is chosen as the standard.⁶⁹ FRAND

President) stated to Marv Blecker (QTL Senior Vice President) that Qualcomm had licensed modem chip suppliers: “ASIC licensees pay royalties to QUALCOMM at 3% with no minimum dollar amount.” CX8177-001.

However, Qualcomm voluntarily stopped licensing its rivals. Eric Reifschneider (QTL Senior Vice President and General Manager) told the IRS that Qualcomm no longer licensed its rivals: “We don’t collect license fees or royalties at—for chip sets, and we haven’t done so for some time now.” CX6786R at 15:9-11. Later in the IRS meeting, Reifschneider again emphasized that Qualcomm voluntarily stopped licensing its rivals: “So we’d gotten to the point where we decided you know what? We’re not even going to try to collect license fees and royalties from guys who make chips.” *Id.* at 32:14-16.

Thus, because Qualcomm previously licensed its rivals but voluntarily terminated that practice even though it was profitable, the Court concludes that Qualcomm voluntarily terminated a profitable course of dealing, and that the first factor relevant to the antitrust duty to deal is present in this case.

⁶⁸ *See id.* at 821 (“Qualcomm must make exhaustive SEP licenses available to modem-chip suppliers on fair, reasonable, and non-discriminatory (“FRAND”) terms and to submit, as necessary, to arbitral or judicial dispute resolution to determine such terms.”).

⁶⁹ *See* Dirk Auer & Julian Morris, *Governing the Patent Commons*, at 19 (ICLE Intellectual Property & Licensing Research Program, White Paper 2019-No. 1, 2019), <https://laweconcenter.org/wp-content/uploads/2019/08/Auer-Morris-Governing-the-Patent-Commons.pdf>:

[A] critical challenge for SDOs is to ensure that their internal regulations remain “incentive compatible”. To maximize their technological output, SDOs must attract the right mix of implementers and innovators. They thus need to design internal procedures that strike a balance between the sometimes diverging interests of these stakeholders. This is no simple task. Although there are numerous ways in which these rules may favor a particular group of participants, allocating the profits of standardization is perhaps the most the most [sic] salient. To a first approximation, SEP holders will tend to favor internal rules that allow them to charge prices which are close to the monopoly benchmark (though not the double marginalization one). Conversely, implementers will generally prefer policies that limit the returns of SEP holders (so long as this does not dry up the supply of inventions).

See also, Joanna Tsai, *Standard Setting Organizations, Intellectual Property, and Standardization: Fundamentals and Recent Proposals*, in THE GAI REPORT ON THE DIGITAL ECONOMY (2020).

obligations are designed to prevent “patent hold-up,” by which SEP holders can extract a larger royalty from implementers.⁷⁰ But if reviewing courts reduce royalties to SEP holders too far, there the reverse problem of “patent hold-out” could arise as innovators have reduced incentives to pay for a license or even to join the SDOs that make patented technology available to them.⁷¹

The FTC dropped its duty to deal argument in its brief in the Ninth Circuit.⁷² The FTC was forced to concede the District Court got the duty to deal analysis wrong, in large part because its own factual findings did not support the legal conclusion that Qualcomm had a duty to deal.⁷³

The Ninth Circuit analyzed the District Court’s factual findings under the *Aspen* standards. First, it found that Qualcomm did not terminate a voluntary and profitable course of dealing since Qualcomm had last entered into a non-exhaustive license agreement in 1999,⁷⁴ before it had market power, and due to changes in patent law had

⁷⁰ For an introduction to patent hold-up, see, for example, Thomas F. Cotter, Erik Hovenkamp, & Norman Siebrasse, *Demystifying Patent Holdup*, 73 WASH. & LEE L. REV. 1501, 1517–29 (2019); Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 1993 (2007).

⁷¹ See generally Richard A. Epstein & Kayvan B. Noroozi, *Why Incentives for Patent Holdout Threaten to Dismantle FRAND, and Why it Matters*, 32 BERKELEY TECH. L. J. 1381 (2018) (discouraging an “implementer-centric view of FRAND’s origins and purposes”). See also Gerard Llobet & Jorge Padilla, *Should Patent Hold-Out Concerns Trump Patent Hold-Up Misgivings?*, TRUTH ON THE MARKET (Jul 18, 2019), <https://truthonthemarket.com/2019/07/18/should-patent-hold-out-concerns-trump-patent-hold-up-misgivings/> (arguing that holdout should be taken more seriously by antitrust authorities).

⁷² See Br. of FTC, (Nov. 22, 2019), https://www.ftc.gov/system/files/documents/cases/144_2019_11_22_ftc_answering_brief.pdf at 30 (“The FTC does not argue that Qualcomm has a duty to deal with its rivals under the heightened *Aspen/Trinko* standard.”); see *id.* at 69 (“The FTC does not argue that Qualcomm has a duty to deal with its rivals under the heightened *Aspen/Trinko* standard.”).

⁷³ See Geoffrey Manne & Ben Sperry, *Why the FTC had to Abandon the Duty to Deal Argument Against Qualcomm*, TRUTH ON THE MARKET (Jan. 16, 2020), <https://truthonthemarket.com/2020/01/16/why-the-ftc-had-to-abandon-the-duty-to-deal-argument-against-qualcomm/>

⁷⁴ These “non-exhaustive” license agreements were intended to allow rivals to use their patented technology without being able to transfer those rights to the handset makers. See QC 9th Cir. Opinion, at 14 n.7 (“Previously, in the 1990s, Qualcomm provided ‘non-exhaustive licenses’ to rival chip suppliers, charging a royalty rate on their chipset sales. QC DC Opinion at 754. (According to Qualcomm, these were actually ‘non-exhaustive, royalty-bearing agreements with chipmakers that explicitly did not grant rights

altogether ceased even that before 2006 (when it gained market power).⁷⁵ Second, Qualcomm’s change in its licensing policy was not a profit-sacrifice in order to drive out competition, but pursuit of a much more lucrative licensing strategy.⁷⁶ Third, unlike in *Aspen Skiing*, Qualcomm did not single out any one competitor; its no-license, no-chip policy applied equally to all.⁷⁷

In contrast, the Seventh Circuit Court of Appeals in *Viamedia v. Comcast* reversed a district court decision dismissing a refusal to deal complaint against Comcast,⁷⁸ noting the similarity between Comcast’s conduct and the conduct of Aspen Skiing Co.⁷⁹ The market at issue in *Viamedia* involved advertising representation services (“ad rep”) for multichannel video programming distributors (MVPDs).⁸⁰ Comcast both offered ad rep services and controlled the underlying infrastructure known as Interconnects, which was set up for cable companies to sell ads in regional areas on better terms.⁸¹

The court found it particularly relevant that, from 2003 to 2012, Viamedia had a contractual agreement with Comcast to sell ads through Interconnects in the Chicago and

to the chipmaker’s [OEM] customers.’ Appellant’s Opening Br. at 45.”).

⁷⁵ QC 9th Cir Opinion, at 33–34.

⁷⁶ *Id.* at 34 (“Qualcomm responded to the change in patent-exhaustion law by choosing the path that was ‘far more lucrative,’ both in the short term and the long term, regardless of any impacts on competition.”).

⁷⁷ *See id.* at 35 (“Qualcomm applies its OEM-level licensing policy equally with respect to all competitors in the modem chip markets and declines to enforce its patents against these rivals even though they practice Qualcomm’s patents (royalty-free). Instead, Qualcomm provides these rivals indemnifications through the use of ‘CDMA ASIC Agreements’ —the Aspen Skiing equivalent of refusing to sell a skier a lift ticket but letting them ride the chairlift anyway.”).

⁷⁸ *See Viamedia, Inc. v. Comcast Corp.*, 951 F.3d 429, 453–54 (7th Cir. 2020).

⁷⁹ *See id.* at 459–60.

⁸⁰ *See id.* at 442.

⁸¹ *See id.* at 443:

This unusual market structure thus involves three levels of competition: (1) MVPDs compete against one another for subscribers; (2) some vertically integrated MVPDs’ ad rep services arms compete against Viamedia (and potentially against each other) for clients; and (3) MVPDs compete with one another for some sales of their spot avails to advertisers.

Detroit markets.⁸² Viamedia provided ad rep services to RCN in Chicago and to WOW! in Chicago and Detroit.⁸³ In December 2011, Comcast notified Viamedia it would no longer permit access to the Interconnects.⁸⁴ Viamedia alleged this terminated a voluntary course of dealing and Comcast's refusal to deal sacrificed short-term profits in the interest of the longer-term goal of harming competition.⁸⁵ Viamedia further alleged that MVPDs no longer used Viamedia's ad rep in the markets where Comcast refused to allow them to sell ads on Interconnects.⁸⁶

In reinstating the complaint, the court did not reject Comcast's efficiency justifications but noted that they were not relevant at the motion to dismiss stage where all facts alleged by the plaintiff were accepted as true.⁸⁷ Comcast plans to seek review in the Supreme Court,⁸⁸ which, if granted, would likely clarify the reach of *Aspen post-Trinko*.

C. A European Perspective

The EU's approach to the duty to deal in the digital economy is best exemplified

⁸² See *id.* at 443–44.

⁸³ See *id.*

⁸⁴ See *Viamedia, Inc.*, 951 F.3d at 444.

⁸⁵ See *id.* at 459 (citing *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 409 (2004)):

In light of the similarities, unless the Court meant to limit *Aspen Skiing* to ski resorts, we see no sound basis to distinguish Viamedia's case as a matter of law. Comcast's alleged conduct, absent compelling evidence to the contrary, indicates its "calculation that its future monopoly retail price would be higher" by foreclosing its ad rep services competitor.

⁸⁶ See *id.* ("Comcast's refusal to deal with Viamedia has left its MVPD customers in these markets no practical choice but to turn over their ad sales business, along with their sensitive business information and a large percentage of their ad revenue, to their dominant MVPD competitor.").

⁸⁷ See *id.* at 460 ("[B]alancing anticompetitive effects against hypothesized justifications depends on evidence and is not amenable to resolution on the pleadings, at least where the plaintiff has alleged conduct similar to that in *Aspen Skiing*.").

⁸⁸ See Joint Status Report at 1, *Viamedia, Inc. v. Comcast Corp.*, 335 F. Supp. 3d 1036 (N.D. Ill. 2018) (ECF No. 395).

by the early 2000s enforcement action against Microsoft.⁸⁹ There, the EC deemed harmful Microsoft's refusal to "provide its competitors with 'interoperability information' and to allow its use for the purpose of developing and distributing products competing with Microsoft's own products."⁹⁰ The courts held the refusal to deal by Microsoft violated Article 82.

As mentioned in Section I.B., the three elements of a refusal to deal case in the EU are (1) indispensability, (2) elimination of competition, and (3) consumer harm. In refusal to deal cases dealing with intellectual property, the EU also considers another factor: preventing the emergence of a new product market.⁹¹ But in *Microsoft*, the Court of First Instance introduced a few complexities by liberally construing factors in favor of the plaintiff. First, the court understood "eliminating competition" as referring to "effective" competition rather than all competition.⁹² It also construed preventing the emergence of a new market liberally by saying the factor was satisfied by the prevention of a technical development.⁹³

⁸⁹ See Case T-201/04 R, *Microsoft v Commission* (Dec. 22, 2004), <http://curia.europa.eu/juris/showPdf.jsf?text=&docid=57268&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=14373836>.

⁹⁰ *Id.* at ¶ 19.

⁹¹ See Case *Magill*, Joined cases C-241/91 P and C-242/91 P, *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd (ITP) v Commission of the European Communities*, 1995 E.C.R. I-00743 (appeal from Case T-69/89, *Radio Telefis Eireann v Commission of the European Communities*, 1991 E.C.R. II-00485).

⁹² See Case T-201/04 R, *Microsoft v Commission* (Judgment of the Court of First Instance, Sept. 17, 2007), at ¶ 563, <http://curia.europa.eu/juris/liste.jsf?num=T-201/04> ("Nor is it necessary to demonstrate that all competition on the market would be eliminated. What matters, for the purpose of establishing an infringement of Article 82 EC, is that the refusal at issue is liable to, or is likely to, eliminate all effective competition on the market. It must be made clear that the fact that the competitors of the dominant undertaking retain a marginal presence in certain niches on the market cannot suffice to substantiate the existence of such competition.").

⁹³ See *id.* at ¶ 647 ("The circumstance relating to the appearance of a new product, as envisaged in *Magill* and *IMS Health*, cited in paragraph 107 above, cannot be the only parameter which determines whether a refusal to license an intellectual property right is capable of causing prejudice to consumers within the meaning of Article 82(b) EC. As that provision states, such prejudice may arise where there is a limitation not only of production or markets, but also of technical development.").

Moreover, unlike under US law, the plaintiff did not need to allege there had previously been a voluntary course of dealing. Microsoft had never provided interoperability information to Sun Microsystems. But under EU competition law, its refusal to deal was judged anticompetitive because Java, Sun's putative competitor to Windows, needed to be interoperable with Windows in order to have any chance of success. This is inconsistent with the standards of *Aspen* and *Trinko* in US antitrust law, because there was no allegation that Microsoft discontinued a voluntary and profitable course of dealing.

The ongoing Google Shopping case will also grapple with the digital duty to deal. On appeal to the EU's General Court, Google is arguing the EC was actually relying on a refusal to supply theory and failed to meet the criteria.⁹⁴ The EC has long argued that it was not relying upon that theory. However, it is noteworthy that the EC's remedy was to give competing online comparison shopping services access to Google's Shopping Unit, which suggests that the problem indeed was a refusal to supply that service to competitors.

If characterized as a refusal to supply case, the EC would have to prove that Google is a dominant undertaking that refused to supply a service essential to support competition in a downstream market.⁹⁵ Google would be able to argue that under EU case law, it is not an abuse for a dominant undertaking to favor itself by restricting to itself the use of its own asset.⁹⁶ Google would also argue the EC has not established that Google's Shopping Unit is indispensable to other online comparison shopping services.

It is not clear whether the reviewing court will reach these arguments in *Google*

⁹⁴ See Lesley Hannah & Claus Wenzler, *The Google Shopping Decision and Whether Digital Platforms Can Constitute Essential Facilities*, HAUSFELD (May 20, 2020), https://www.hausfeld.com/news-press/the-google-shopping-decision-and-whether-digital-platforms-can-constitute-essential-facilities?lang_id=1.

⁹⁵ Cf. Case 6-7/97, *Bronner v. Mediaprint*, 1998 E.C.R. I-7817, ¶ 27.

⁹⁶ See Hannah & Wenzler, *supra* note 94.

Search, but the duty to deal remains in need of further clarification in the EU digital context.

III. SPECIFIC DUTIES TO DEAL: DATA PORTABILITY AND INTEROPERABILITY

There are two specific categories of duties to deal that are commonly discussed as remedies in cases involving digital markets: data portability and interoperability. The idea of data portability is that users of one service (that is, who are part of that service's network) should be able to take their data with them to another service. Interoperability is a closely related idea: dominant firms should engineer their platforms so that competing firms' services can seamlessly work with those of dominant firms. The basic economic rationales for these ideas are, respectively, to reduce switching costs and to reduce the barriers to entry that network effects can create.

Data portability, for instance, might require a social media company to allow a user to download all of her posts and personal information and thus be able to import them into a competing service. Interoperability may, in a weak form, require a social media company to use standardized file formats (e.g., XML for user data; JPEG for images). In a stronger form, it may require that a social media company engineer (or re-engineer) their systems to use industry-defined APIs that would allow competitors' users to post directly to or receive posts directly from that firm's customers.

We can see other examples in the telecommunications sector, discussed above. For instance, local number portability, which allows telephone customers to keep their phone numbers as they change service providers, has had dramatic procompetitive effects and was important to establishing competitive local carriers following adoption of the 1996 Telecommunications Act.⁹⁷ Similarly, one of the underlying principles of the Act was to

⁹⁷ STIGLER COMMITTEE ON DIGITAL PLATFORMS, FINAL REPORT 102–04 (2019) [hereinafter STIGLER REPORT], <https://www.publicknowledge.org/wp-content/uploads/2019/09/Stigler-Committee-on-Digital-Platforms-Final-Report.pdf>.

require both incumbent local exchange carriers to interconnect with competitors at any technically feasible point, and new entrants into the telecommunications market to design their networks to support interconnection.⁹⁸ This history, however, also demonstrates the non-trivial nature of such mandates: giving meaning to the obligation to allow interconnection at “any technically feasible point” gave rise to years of litigation and a trip to the Supreme Court.⁹⁹

A. Calls for Data Portability and Interoperability

Data portability and interoperability advocates have called for their use both in legislation and as antitrust remedies against Big Tech in the US and the EU. In the US, for instance, the advocacy-focused think tank Public Knowledge has argued that both should be required in federal privacy legislation based upon the UK’s Open Banking Initiative.¹⁰⁰ Similarly, the Open Technology Institute has proposed a Data Portability Act modeled upon the EU’s General Data Protection Regulation (GDPR) and the California Consumer Protection Act (CCPA).¹⁰¹ A coalition of academics from the Stigler Center’s Committee on Digital Platforms offered forced interoperability¹⁰² and data portability mandates¹⁰³ as possible solutions to the market power of Big Tech.

Multiple reports from United Kingdom have called for data portability or

⁹⁸ Cf. 47 C.F.R. § 51.305 (Part 51 of this title is called “Interconnection.”)

⁹⁹ See *id.* § 51.305(a)(2); Implementation of the 1996 Act’s interconnection requirements was a central issue in *AT&T v. Iowa Utils Bd* 525 U.S. 366 (1999), and associated litigation discussed *supra*, note 60. Related questions have been raised before the Supreme Court as recently as 2011. See *Talk America, Inc. v. Michigan Bell Telephone Co.*, 564 U.S. 50 (2011).

¹⁰⁰ See Gus Rossi & Charlotte Slaiman, *Interoperability = Privacy + Competition*, PUBLIC KNOWLEDGE (Apr. 26, 2019), <https://www.publicknowledge.org/blog/interoperability-privacy-competition/>.

¹⁰¹ See Eric Null & Ross Schulman, *The Data Portability Act: More User Control, More Competition*, NEW AMERICA (Aug. 19, 2019), <https://www.newamerica.org/oti/blog/data-portability-act-more-user-control-more-competition/>.

¹⁰² STIGLER REPORT, *supra* note 97, at 18.

¹⁰³ *Id.* at 109.

interoperability as well. The Furman Report called for personal data mobility and data openness, which encompasses the ideas of data portability and interoperability, as competition measures.¹⁰⁴ The Competition & Markets Authority's report, *Online Platforms and Digital Advertising*, called for the Digital Markets Unit to be empowered to take on issues related to interoperability in order to promote digital competition.¹⁰⁵

There is at least one exception to this international consensus. The Australian Competition & Consumer Commission (ACCC) Digital Platforms Inquiry considered the benefits of data portability and interoperability requirements but did not recommend them because it did not think they would either significantly reduce the network effects of online platforms or reduce barriers to entry.¹⁰⁶

In the EU, on the other hand, calls for data portability and interoperability have led to action. For instance, interoperability has been a remedy in competition law cases, like the *Microsoft* and *Google Search* cases described above. On top of that, the EC identified a lack of interoperability as a top item on its Digital Agenda for Europe.¹⁰⁷ In

¹⁰⁴ See UNLOCKING DIGITAL COMPETITION: REPORT OF THE DIGITAL COMPETITION EXPERT PANEL 74 (2019), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/785547/unlocking_digital_competition_furman_review_web.pdf (“Enabling personal data mobility may provide a consumer-led tool that will increase use for new digital services, providing companies with an easier way to compete and grow in data-driven markets. However, in some markets, the key to effective competition may be to grant potential competitors access to privately-held data.”).

¹⁰⁵ See COMPETITION & MARKETS AUTHORITY, ONLINE PLATFORMS AND DIGITAL ADVERTISING: MARKET STUDY FINAL REPORT 24 (2020), https://assets.publishing.service.gov.uk/media/5efc57ed3a6f4023d242ed56/Final_report_1_July_2020_.pdf (recommending “[i]ncreasing consumer control over data, which includes providing choices over the use of data and facilitating consumer-led data mobility; Mandating interoperability to overcome network effects and

coordination failures; Mandating third-party access to data where data is valuable in overcoming barriers to entry and expansion and privacy concerns can be effectively managed.”).

¹⁰⁶ See AUSTRALIAN COMPETITION & CONSUMER COMMISSION, DIGITAL PLATFORMS INQUIRY: FINAL REPORT 115–16 (2019), <https://www.accc.gov.au/system/files/Digital%20platforms%20inquiry%20-%20final%20report.pdf>.

¹⁰⁷ See *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A Digital Agenda for Europe*, at 5, COM (2010) 245 final (May 19, 2010), <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF>.

order to promote greater interoperability the Digital Agenda calls for standard-making by private entities to be facilitated by public policy.¹⁰⁸ The new European Interoperability Framework (EIF) was developed and adopted by the EC in 2017 to facilitate interactions among government agencies, called public administrations.¹⁰⁹

The EU has also taken steps to effectuate data portability. Article 20 of GDPR requires data portability, stipulating that a user “shall have the right to receive the personal data concerning him or her, which he or she has provided to a controller, in a structured, commonly used and machine-readable format and have the right to transmit those data to another controller without hindrance.”¹¹⁰

Some have argued that interoperability requirements should be required of Big Tech companies as antitrust remedies in the US.¹¹¹ This flows from the idea that the lack of interoperability with other platforms is what gives major online platforms market power, as competition shifts from competition *in* the market to competition *for* the

¹⁰⁸ See *id.* at 15 (“The Commission will examine the feasibility of measures that could lead significant market players to license interoperability information while at the same time promoting innovation and competition.”).

¹⁰⁹ See EUROPEAN COMMISSION, NEW EUROPEAN INTEROPERABILITY FRAMEWORK: PROMOTING SEAMLESS SERVICES AND DATA FLOWS FOR EUROPEAN PUBLIC ADMINISTRATIONS 4 (2017), https://ec.europa.eu/isa2/sites/isa/files/eif_brochure_final.pdf. This includes, for instance, agencies like the Ministry of Finance, the Prime Minister’s Office, etc. depending on the nomenclature of each country’s government.

¹¹⁰ See Regulation 2016/679, of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data and Repealing Directive 95/46/EC, at 2016 O.J. (L 119) 5, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&qid=1597384369740&from=EN>.

¹¹¹ See FIONA M. SCOTT MORTON & DAVID C. DINIELLI, OMIKYAR NETWORK, ROADMAP FOR AN ANTITRUST CASE AGAINST FACEBOOK 2 (2020), <https://www.omidyar.com/sites/default/files/Roadmap%20for%20an%20Antitrust%20Case%20Against%20Facebook.pdf> (“We do not address potential remedies in this paper, except to note that, because of the market’s network effects and tendency to tip, remedial measures might need to include mandatory interoperability among competing platforms and complements.”). Ironically, there are also rumors that moves towards interoperability by Facebook could also be subject to antitrust suit. See John D. McKinnon & Emily Grazer, *FTC Weighs Injunction Against Facebook Over How Its Apps Interact*, WALL ST. J. (Dec. 12, 2019), <https://www.wsj.com/articles/ftc-weighs-seeking-injunction-against-facebook-over-how-its-apps-interact-11576178055>.

market.¹¹²

Mandating interoperability runs into legal and practical issues. First, mandating interoperable platforms requires some of the very coordination between firms that antitrust laws normally seek to deter.¹¹³ Therefore, it should not be embraced without attention to whether firms are using it to evade the competitive dynamics that antitrust law is meant to protect. Indeed, interoperability among currently dominant online platforms could exacerbate rather than reduce their market power.¹¹⁴ For instance, if something like the data portability project among Facebook, Twitter, Google, and Apple were to be mandated in a format which is friendly to the incumbents but not to new

¹¹² See Morton & Dinielli, *supra* note 111, at 17:

But the principal challenges to multi-homing in social networks result from decisions made by Facebook itself. Consumers easily could subscribe to (and provide their data to) only those social networks whose collection of services and polices were most attractive to them if the services were fully interoperable. We can imagine a social network market that worked more like the current phone system: a user of one social network could post and reach friends who were members of different social networks through interoperability protocols. In such a world an entrant could attract users who want better privacy protections while staying in touch with friends who remain on Facebook, for example. That is not the world we inhabit[;]

id. at 16:

This is the situation in social networks. Choosing a platform determines with whom a user can communicate. Strong network effects make such platforms subject to a phenomenon called tipping. Because users all want to belong to the platform where their friends are, a market that starts out with multiple platforms will not stay that way. When one platform gains a slight advantage, it becomes the platform of choice for new users because it has more of their friends on it. Users who want to interoperate tend to all join the leading platform, causing the market to tip. As the result of this “winner-takes-all” dynamic whereby a single market participant (among several or many) rapidly gains monopoly or near monopoly power, there is little competition in a market after it has tipped. Economists describe competition in this kind of market as occurring *ex ante*, when multiple rivals are all vying for the monopoly position. Competition is for the market, rather than in the market, other than by sufficiently differentiated competitors.

See also Edwin Chadwick, *Results of Different Principles of Legislation and Administration in Europe; of Competition for the Field, as compared with the Competition within the Field of Service*, 22 J. ROYAL STATISTICAL SOC'Y. 381 (1859).

¹¹³ See *Verizon Commc'ns, Inc. v. Law Offices of Curtis V. Trinko, LLP*, 540 U.S. 398, 408 (2004) (“[C]ompelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion.”).

¹¹⁴ For instance, some have argued for antitrust scrutiny against Facebook for trying to create greater interoperability between Facebook, Messenger, and WhatsApp. See McKinnon & Grazer, *supra* note 111.

entrants, then it could actually have an exclusionary effect.¹¹⁵

Second, it is unclear how interoperability would be practically enforced. Courts are generally unable to oversee this process.¹¹⁶ An expert regulator may be better positioned than a generalist court, but it too would be highly dependent on the regulated platforms to design and implement any interoperability plan. Once again we see echoes of the midcentury challenges the FCC faced in regulating AT&T,¹¹⁷ and the challenges it faced at the turn of the century when implementing the Telecom Act's interoperability mandates.¹¹⁸

B. Opening Up the Network—or the Economics of Data Portability and Interoperability

A mandatory duty to deal is often a problematic remedy for addressing antitrust concerns. The basic argument for imposing a duty to deal as an antitrust remedy is deceptively simple: network effects can create an effective barrier to competitive entry and, where such barriers are achieved or maintained through anticompetitive means, a remedy to address them is appropriate.¹¹⁹ But network effects often create substantial value for consumers, so a remedy that would reduce network effects (such as breaking up firms) is undesirable.

¹¹⁵ See, e.g., Gabriel Nicholas & Michael Weinberg, *Data Portability and Platform Competition: Is User Data Exported from Facebook Actually Useful to Competitors?*, ENGELBERG CENTER ON INNOVATION LAW & POLICY, NYU LAW SCHOOL (Nov. 2019), <https://www.law.nyu.edu/centers/engelberg/pubs/2019-11-06-Data-Portability-And-Platform-Competition>.

¹¹⁶ See *Trinko*, 409 U.S. at 408 (“Enforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing—a role for which they are ill suited.”).

¹¹⁷ See *supra*, notes 53–55 (discussing the challenges the FCC faced in disentangling AT&T's regulated telephone business from its efforts to enter into the unregulated market for computer services).

¹¹⁸ See *supra*, notes 59–61 (discussing the decade-long legal fights over the FCC's efforts to implement the 1996 Telecommunications Act's unbundling and interconnection obligations).

¹¹⁹ See, e.g., *United States v. Microsoft*, 231 F. Supp. 2d 144 (D.D.C. 2002) (imposing a duty to deal on remand). But note that, as discussed in III.A, many jurisdictions are considering whether to impose duties to deal on a regulatory basis, even without any anticompetitive conduct on the part of firms that have created such networks.

Still, in principle, a duty to deal that requires a monopolist to open up its network to competitors could facilitate entry while reducing any loss of benefits stemming from pro-consumer network effects—if, that is, the duty to deal could be implemented costlessly, which is rarely the case. To be sure, there are instances where firms may engage in anticompetitive conduct in order to obtain or maintain a monopoly position. In those cases, some antitrust remedy is appropriate and may include imposing a duty to deal; in such cases it may be appropriate to think of the remedy as a form of disgorgement, in which the firm is required to invest its ill-gotten gains into opening up its network to competitors in a way that preserves consumer value while facilitating entry. But where there is no underlying anticompetitive conduct, duties to deal serve no remedial purpose and may come at a substantial cost to consumers. It is therefore troubling to see so many countries considering imposing duties to deal as a precautionary, regulatory measure.

Concerns about using a duty to deal as an antitrust remedy in digital markets fall into three categories: the direct costs of imposing such a duty, the effects on static competition, and the effects on dynamic competition. It is easy to imagine a world of interoperable networks, but it is more difficult to actually design such a world. The design challenges account for the direct costs of duties to deal. An antitrust duty to deal necessarily arises only where one of the parties is averse to a voluntary course of dealing. As a result, it falls to the antitrust authorities and courts to determine the terms of the duty to deal. This is easier said than done, especially in complex, rapidly changing markets.

As an example, consider again the history of AT&T and the telecommunications industry. In the *Computer Inquiries*, the FCC spent nearly two decades trying to define the terms on which AT&T could deal with the computer industry—an effort ended by the antitrust suit breaking up AT&T, not by the FCC's efforts proving fruitful. Another example is to be found in the Telecommunications Act of 1996, at its core a statute that

created a duty for incumbent telecommunications carriers to deal with competitive entrants into the market. Implementation of the Act led to over a decade of litigation that ended up in the Supreme Court multiple times.¹²⁰ Arguably, the Telecommunications Act failed to achieve its primary goals: to the extent the communications industry has become more competitive over the past 25 years, it did so largely with thanks to unprecedented technological innovation on the part of cellular and cable communications companies.

The effort to impose duties to deal in the telecommunications industry is particularly telling because it is a heavily regulated industry comprising a relatively small number of firms and a dedicated, expert regulator. Indeed, for most of the 20th century the industry was based upon a simple, relatively static technology well understood by the FCC. Yet the FCC and the courts consistently struggled to implement duties to deal.

Given these failures, it is hard to imagine successfully implementing a duty to deal in digital markets, which are dynamic industries built upon rapidly changing technologies. Indeed, modern computer systems are often so complicated that the entirety of how they work is incomprehensible even to the engineers who build them¹²¹ — not to mention the widespread adoption of machine learning algorithms into many of the platforms that dominate the digital economy.¹²²

To take just one specific example of the potential unanticipated costs of implementing data portability or interoperability duties, consider their potential effects on data security and privacy. Data security and privacy are both important issues in the digital marketplace. Indeed, in the minds of those who are most keen to find competition problems in digital markets, data security and privacy are arguably equal in importance

¹²⁰ See *Verizon Commc'ns v. FCC*, 535 U.S. 467 (2002); *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366 (1999).

¹²¹ See, e.g., Mike Ananny & Kate Crawford, *Seeing without knowing: Limitations of the transparency ideal and its application to algorithmic accountability*, 20 *NEW MEDIA & SOCIETY* 973 (2016).

¹²² See, e.g., Darrell M. West & John R. Allen, *How artificial intelligence is transforming the world*, BROOKINGS (Apr. 24, 2018), <https://www.brookings.edu/research/how-artificial-intelligence-is-transforming-the-world/>.

to competition issues. Yet the data portability and interoperability mandates run at cross purposes to data security and privacy.¹²³ The idea of data portability and interoperability mandates is to make it easier for users and firms to access the very information that those concerned about data security and privacy want to ensure is difficult to access. Making it easier for authorized third parties to access information, by definition, also makes it easier for unauthorized parties to do so.

In addition to these direct costs, imposing duties to deal in digital markets will affect how firms compete with one another in both static and dynamic terms. Experience under the Telecommunications Act of 1996 shows there is likely to be less dynamic competition, in the form of innovation, and more static competition along narrow margins. For instance, a firm that avails itself of its dominant competitor's network will need to maintain some level of compatibility with that network in order to maintain the benefits of the network effects that result from interoperability. The competitor, therefore, will have less ability to compete by offering new or improved core functionalities; instead, it will focus on repackaging or reselling the services already offered by the dominant firm.¹²⁴

More perniciously, reliance on an antitrust duty to deal opens up use of the courts and antitrust laws as a means by which non-competitive firms can attempt to "compete," albeit by a fundamentally anticompetitive means, with more capable firms; the more duties to deal are imposed, the more frequently firms will seek to avail themselves of them. Because it is difficult to fully specify the terms of a duty to deal, imposing one as a

¹²³ See Peter Swire & Yianni Lagos, *Why the Right to Data Portability Likely Reduces Consumer Welfare: Antitrust and Privacy Critique*, 72 MD. L. REV. 335, 373–75 (2013).

¹²⁴ See *Verizon Commc'ns*, 535 U.S. at 550 (Breyer, J., concurring in part and dissenting in part) ("firms that share existing facilities do not compete in respect to the facilities that they share, any more than several grain producers who auction their grain at a single jointly owned market compete in respect to *auction* services.") *cf.* Mattia Nardotto et al., *Unbundling the Incumbent: Evidence from UK Broadband*, J. EUR. ECON. ASS'N 330, 332–35 (2015) (noting that the UK's telephone network began as an AT&T-style monopoly).

remedy in any given case is an invitation for future lawsuits regarding compliance. Once again, this was the story of the Telecommunications Act of 1996.

Likewise, a data portability mandate would empower every competitor to make demands for access to any of a firm's data arguably subject to that mandate—and those demands would be backed by a colorable threat of agency or judicial review. Similarly, with regard to an interoperability mandate, the threat of agency or judicial intervention effectively shifts the costs of designing systems for interoperability from the competitor, which wants the benefits of interoperability, to the incumbent firm, which must now facilitate it.

Perhaps the most important aspect of a duty to deal in digital markets is how it may affect dynamic competition—in particular, its effects on innovation. As an initial matter, noted above, a duty to deal mandate is likely to shift resources away from dynamic competition (e.g., trying to build a new, better, service) and to static competition (trying to obtain access to and repackage or resell existing services). It is debatable whether this increased static “competition” is, in fact, beneficial to consumers. It is unquestionable, however, that a reduction in dynamic competition would be a loss for consumers. The duty to deal itself reduces the expected flow (that is, net present value) of future revenues from successful innovations—which, in turn, will reduce the amount that firms are willing to invest in potentially disruptive innovation.

Indeed, this reduction in investment is likely to happen under either a “European” (to use an only slightly unfair characterization) approach, in which mere acquisition of significant market power is sufficient to trigger a duty to deal, or an “American” approach in which imposing an antitrust duty to deal remedies some improper conduct to obtain or maintain market power. Given current discussions about data portability and interoperability mandates, an American firm may understandably be concerned that failure to design its products in a way that facilitates interoperability could be interpreted as exclusionary conduct. To be sure, that alone ought not be sufficient to sustain an

antitrust claim; there are good reasons not to design systems for interoperability¹²⁵ and, even if a firm does achieve market power, there are good reasons not to redesign systems to facilitate interoperability.¹²⁶ Regardless, the clever antitrust plaintiff would be remiss not to argue that a firm with market power had deliberately designed its systems to create barriers to entry and that failure to redesign its systems was a means of anticompetitively maintaining its market power. Combined with a few “hot docs” containing robust puffery, such a claim could easily be accepted by a court.¹²⁷ Given the consequent risk that a firm’s investment in innovation could be rewarded with a mandatory divestment of any rewards arising from that investment, it is likely that many firms would forego or reduce their investment in innovation.

CONCLUSION

There are increasing calls to use antitrust and other regulatory duties to deal in order to address competition concerns in the digital economy. Interest in these tools is driven by a belief that mandating interoperability between platforms in the network industries that make up this market is a low-cost way to maintain the benefits created by these platforms—which are characterized by network effects and economies of scale—while facilitating competition among them. But history tells a cautionary tale, suggesting that implementing such duties is often more difficult and less beneficial than their proponents recognize.

Imposing a duty to deal, whether as an antitrust remedy or through a regulation

¹²⁵ See Timothy Bresnahan & Manuel Trajtenberg, *General Purpose Technologies “Engines of Growth?”*, 65 J. ECONOMETRICS 83, 94–96 (1995). See also Christopher Yoo, *Modularity Theory and Internet Policy* 2016 U. ILL. L. REV 1 (2016).

¹²⁶ See Joel Spolsky, *Things You Should Never Do, Part I*, JOEL ON Software (Apr. 6, 2000) <https://www.joelonsoftware.com/2000/04/06/things-you-should-never-do-part-i/> (never rewrite code from scratch).

¹²⁷ See, e.g., Geoffrey A. Manne & Marcellus Williamson, *Hot Docs vs. Cold Economics: The Use and Misuse of Business Documents in Antitrust Enforcement and Adjudication*, 47 ARIZ. L. REV. 609 (discussing the sensational nature of “hot” documents in adjudicatory processes, and their relative lack of substantive usefulness).

requiring interoperability or data portability, risks reducing the incentives that competition law is designed to promote. U.S. antitrust law seeks to avoid false positives in its duty to deal jurisprudence for precisely this reason. Moreover, the history of trying to implement a duty to deal for AT&T during its years as a regulated monopoly shows the practical difficulty of enforcing that duty. The agencies considering interoperability and data portability requirements in the U.S. and the E.U. should proceed with caution—and those arguing for them should bear a heavy burden to demonstrate those requirements are needed and will likely prove beneficial to competition.