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Tim Wu
Columbia Law School, twu@law.columbia.edu

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Antitrust via Rulemaking: Competition Catalysts

Tim Wu[†]

In its March 26, 2016 issue, *The Economist* magazine announced that "America needs a giant dose of competition."[1] Its study of industry concentration and profits suggested that, after decades of consolidation, competition had decreased across a broad range of the American economy.[2] An April 2016 issue brief by the Council of Economic Advisors reached similar conclusions, stating that "competition appears to be declining" due to "increasing industry concentration, increasing rents accruing to a few firms, and lower levels of firm entry and labor market mobility."[3]

The promotion of competition in the American economy is a task that has traditionally fallen to the enforcement agencies at the federal and state level, relying on the main antitrust statutes.[4] However, the challenge of declining competition has also prompted interest in the use of regulatory alternatives to antitrust to "catalyze" competition.[5] The strategy involves using industry-specific statutes, rulemakings, or other tools of the regulatory state to achieve the traditional competition goals associated with the antitrust laws.[6] Hence, "antitrust via rulemaking."

While conducting competition policy outside of the main antitrust laws is not entirely new, it came into some prominence through an April 15, 2016 Executive Order issued by the White House.[7] In that order, the President charged the executive agencies as follows:

> Executive departments and agencies with authorities that could be used to enhance competition (agencies) shall, where consistent with other laws, use those authorities to promote competition, arm consumers and workers with the information they need to make informed choices, and eliminate regulations that restrict competition without corresponding benefits to the American public.[8]

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† Isidor and Seville Sulzbacher Professor at Columbia Law School. The author was previously an advisor to the National Economic Council in the Executive Office of the President, and some of the ideas are drawn from that period. The opinions expressed within are not to be attributed to anyone other than the author. I thank Tom Merrill for comments.

1 *Too Much of a Good Thing*, ECONOMIST (Mar. 26, 2016), http://www.economist.com/news/briefing/21695385-profits-are-too-high-america-needs-giant-dose-competition-too-much-good-thing.

2 *Id.* ("One way American firms have improved their moats in recent times is through creeping consolidation . . . . The weighted average share of the top four firms in each sector has risen from 26% to 32%.").

3 COUNCIL OF ECON. ADVISERS, BENEFITS OF COMPETITION AND INDICATORS OF MARKET POWER 4 (2016), https://obamawhitehouse.archives.gov/sites/default/files/page/files/20160414_cea_competition_issue_brief.pdf.

4 *Id.* at 8.

5 *See id.* at 11–12.

6 *Id.*

7 Exec. Order No. 13,725, 81 Fed. Reg. 23,417 (Apr. 15, 2016).

8 *Id.*

In the field of administrative law, there is a longstanding debate over the relative merits of rulemaking and adjudication.[9] Beginning in the 1960s there was a decisive shift among most agencies toward rulemaking.[10] However, with exceptions (most of which are described here), the promotion of competition – the antitrust regime – remains rooted in an adjudication model, and might even be described as stuck there. More effective and widespread promotion of competition may require more widespread and effective use of pro-competitive rulemaking by a broader variety of agencies.

This paper has two goals. The first goal is to better describe the regulatory tools used by agencies and government—the so-called "competitive catalysts." This paper attempts to develop both a vocabulary and basic theoretical account that helps to understand how rulemaking can promote competition. It does so by providing a taxonomy of major tools used to catalyze competition. Among the tools are:

- *Separation or Quarantine Rules:* Aimed at breaking longstanding ties or bundles;

- *Pro-competitive Deregulation*: The elimination or softening of regulatory barriers to entry or costs of competition;

- *Switching Cost Reducers*: Rules designed to reduce the costs of switching between competitors;

- *Levelers*: Rules designed to help equalize the conditions of competition in some way, such as common-carriage rules; and

- *Price Transparency regimes*: Rules meant to prevent firms from hiding elevated prices.

This descriptive work is important because this is an area where the vocabulary now used is particularly confusing.[11] For instance, the word "deregulation" has been used both to describe the

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[9] *See, e.g.*, William T. Mayton, *The Legislative Resolution of the Rulemaking Versus Adjudication Problem in Agency Lawmaking*, 1980 DUKE L.J. 103, 103–04; Jeffrey J. Rachlinski, *Rulemaking Versus Adjudication: A Psychological Perspective*, 32 FLA. ST. U. L. REV. 529, 529–30 (2005).

[10] See Reuel E. Schiller, Rulemaking's Promise: Administrative Law and Legal Culture in the 1960s and 1970s, 53 Admin. L. Rev. 1139, 1147 (2001); Thomas W. Merrill and Kathryn Tongue Watts, *Agency Rules with the Force of Law: The Original Convention*, 116 Harv. L. Rev. 467, 546-49 (2002).

[11] Much of the confusion arises from the association between government action and the restriction of competition. It is true that laws and regulations do sometimes deliberately impede competition—as in the awarding of patent rights or of exclusive franchises. But they can also promote competition—consider the Sherman Act and Clayton Acts, or some of the schemes considered below, like the Hatch-Waxman Act's promotion of the market entry of generic drugs. *See* Sherman Antitrust Act, 15 U.S.C. §§ 1–7 (2012) (effective July 2, 1890); *see also* Clayton Act, 15 U.S.C. §§ 12–27 (2012) (effective Oct. 15, 1914); Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-

removal of regulations, *and* also the enactment of new regulations intended to promote competition.[12] Phrases like "light-touch" regulation are equally vague, and are often better described as pro-competitive regulation.

A second goal of the paper is the admittedly difficult goal of trying to understand why some competition initiatives have worked, while others fail. As these are highly complex industries and regulatory initiatives, any such analysis cannot be definitive. Nonetheless, a study of the efforts to jump-start competition yields patterns from which best-practices might be derived, and from which any future regulator should learn.[13] The paper concludes with a list of best-practices or rules-of-thumb for those who would hope to use laws to catalyze competition in the future.

The paper proceeds in three parts. Part I provides background and context. Part II discusses some of the economic theory behind pro-competitive regulation and provides a taxonomy and description of the major categories of pro-competitive regulation. Part III discusses both the potential, but also the limitations and possible perils of regulatory competition policy.

I. **Background**

This section describes the traditional divide between the "regular" and regulated industries, and the later 20th Century movement to introduce competition into the regulated industries. It then describes several major statutory schemes that can be considered ancestors of today's pro-competitive regulatory efforts. Finally, it discusses more recent pro-competitive efforts, particularly as found in the second term of the Obama administration.

History

The contemporary interest in competition catalysts can be understood as an evolution of the nation's approach towards regulated industries and as such, an evolution of the deregulation movement that began in the late 1970s and 1980s. In context, what this paper describes is a broadening of some of the regulatory techniques discussed by Joseph Kearney and Thomas Merrill in 1998 to reach a larger set of industries, and using a wider set of tools.[14]

417, 98 Stat. 1585 (1984) [hereinafter Hatch-Waxman Act]. And some laws do neither, like public safety or consumer protection rules. The latter may impose costs on businesses, but that's very different than saying that such costs affect competition.

[12] Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1325 (1998).

[13] Another effort in this vein is SUCCESSES AND FAILURES IN REGULATING AND DEREGULATING UTILITIES: EVIDENCE FROM THE UK, EUROPE, AND THE USA (Colin Robinson ed., 2004).

[14] *See* Kearney & Merrill, *supra* note 12.

For most of the 20th century, the antitrust paradigm and the public utility paradigm were the mainstays of economic regulation in the United States.[15] (A third approach, nationalization, was never particularly popular in the United States, despite a few experiments, like the brief nationalization of AT&T).[16] The antitrust paradigm presupposed markets that were capable of competition, but were also vulnerable to cartelization or monopolization.[17] Antitrust enforcement pursued by the Justice Department and the Federal Trade Commission was prosecutorial, case driven, and inescapably motivated by some concept of wrongful conduct causing harm. It existed in contrast to the public utility paradigm, which in its original form, presupposed an industry that could not reasonably be left entirely to its own devices, for one reason or another.[18] The origins of public utilities lay in the common law concept that some businesses were "public callings," or, in the phrase used by Lord Hale, "affected with a publick interest."[19] As the Supreme Court put it:

> Property does become clothed with a public interest when used in a manner to make it of public consequence, and affect the community at large. When, therefore, one devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good, to the extent of the interest he has thus created.[20]

There was more than one public consideration for which an industry might find itself in category of a public calling, utility or regulated industry. Examples included the potential for price gouging and a desire for consistent service (energy, electricity, and the telephone system), public safety (medicines, nuclear power), public-service goals (broadcasting), or systemic economic risk (banking and insurance). By the New Deal most of these industries would be governed by a federal commission, and sometimes state commissions as well, forming, as a whole, what came to be called the "regulated industries."[21] The new agencies and their rules typically sought to control entry and exit, regulate prices, or to directly regulate how the industry conducted its business to ensure public safety, financial stability or other public goals.[22]

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[15] *See id.* at 1329–30.

[16] *See* RICHARD R. JOHN, NETWORK NATION: INVENTING AMERICAN TELECOMMUNICATIONS 400–05 (2010).

[17] *See* E. THOMAS SULLIVAN & JEFFREY L. HARRISON, UNDERSTANDING ANTITRUST AND ITS ECONOMIC IMPLICATIONS 1–5 (6th ed. 2014) ("Antitrust law is the study of competition. It is a body of law that seeks to assure competitive markets through the interaction of sellers and buyers in the dynamic process of exchange. . . . [T]he promotion of competition through restraints on monopoly and cartel behavior clearly emerges as the first principle of antitrust.").

[18] *See* Kearney & Merrill, *supra* note 12, at 1325.

[19] LORD HALE, *De Portibus Maris*, *in* A TREATISE IN THREE PARTS (1675), *reprinted in* 1 A COLLECTION OF TRACTS RELATIVE TO THE LAW OF ENGLAND 45, 77–78 (Francis Hargrave ed., 1787).

[20] Munn v. Illinois, 94 U.S. 113, 126 (1876).

[21] The history is briefly summarized in ROBERT B. HORWITZ, THE IRONY OF REGULATORY REFORM: THE DEREGULATION OF AMERICAN TELECOMMUNICATIONS 65–76 (1989). *See also* CASS R. SUNSTEIN, AFTER THE RIGHTS REVOLUTION: RECONCEIVING THE REGULATORY STATE 17–21 (1990) (detailing the evolution of the regulatory state, from the writing of the Constitution to New Deal Constructionism).

[22] *See* SUNSTEIN, *supra* note 21, at 19–24.

In practice, most of the traditionally regulated industries were those providers of services thought essential to the economy, or in some other way raised public concerns, such as energy, transportation, telecommunications, banking and credit, medical services, alcohol and insurance.[23] The laws did not uniformly follow the same model. Some of the regulatory regimes had explicitly pro-competitive goals that went beyond the Sherman Act—such as the Alcohol Administration Act,[24] which has explicit competition mandates built into it.[25]

From the 1970s through the 1990s, the basic regulatory industry paradigm changed dramatically in several ways. First, a so-called deregulatory movement generally sought reductions or eliminations of regulations from the New Deal and placed more faith in competition.[26] The full history of the deregulation movement is lengthy and complex,[27] but the principal criticism, made by Fred Kahn among others, was that competition was indeed possible in industries where it was thought hopeless, that natural monopoly had become a self-fulfilling prophecy, and the industry might be at least partially deregulated without compromising public goals.[28] This led, in main part, to laws or rulemakings abolishing controls on market entry and pricing, especially in the telecommunications, airline, trucking and rail industries.[29]

Second, while sometimes confusingly described as deregulation, some agencies also began using regulation to promote competition. This was a development with its origins at the Federal Communications Commission in the late 1960s and early 1970s, which sought, for example, to promote new technologies like VHF/UHF broadcasting and cable television as competitors to mainstream broadcasting, and sought to allow competition with the AT&T monopoly in long-distance services and handsets.[30] By the 1990s, as Joseph Kearney and Thomas Merrill would observe, in at least some agencies, "[t]he role of the agency has been transformed from one of protecting end users to one of arbitrating disputes among rival providers and, in particular,

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[23] *See* HORWITZ, *supra* note 21, at 71.

[24] Federal Alcohol Administration Act, 27 U.S.C. §§ 201–205 (2012) (prohibiting, for example, vertical arrangements in which retailers must exclusively deal with certain wholesalers of alcoholic beverages).

[25] *Id.* § 205(a).

[26] RICHARD H. K. VIETOR, CONTRIVED COMPETITION: REGULATION AND DEREGULATION IN AMERICA 330 (1994) ("What had changed most was the New Deal's fundamental premise, namely that competition was the problem. Now government itself was viewed as the problem-at best, a necessary evil.").

[27] *See generally* REGULATORY ISSUES SINCE 1964: THE RISE OF THE DEREGULATION MOVEMENT (Robert F. Himmelberg ed., 1994) (providing insight into deregulation from several perspectives); MARTHA DERTHICK & PAUL J. QUIRK, THE POLITICS OF DEREGULATION (1985) (detailing the historical background surrounding deregulation and explaining the political debate for deregulation reform); VIETOR, *supra* note 26 (addressing specific case studies relating to economic regulation).

[28] *See* ALFRED E. KAHN, THE ECONOMICS OF REGULATION: INSTITUTIONAL ISSUES (1971). *See also* RICHARD A. POSNER, NATURAL MONOPOLY AND ITS REGULATION (1999) (discussing whether the concept of natural monopoly can justify the imposition of regulatory controls).

[29] *See* KAHN, *supra* note 28; *see also* POSNER, *supra* note 28.

[30] *See* HORWITZ, *supra* note 21, at 221–63.

overseeing access to and pricing of 'bottleneck' facilities that could be exploited by incumbent firms to stifle competition."[31]

A Closer Look at the 1970s-90s

A full canvasing of the efforts to catalyze competition would be beyond the scope of this paper. Nonetheless, we can usefully learn from five well-known late-20th century statutes and one-rulemaking as important landmarks in the first wave of pro-competitive laws: the Airline Deregulation Act of 1978, the FTC's 1978 Eyeglass Rule, the Hatch-Waxman Act (enacted in 1986), and two FCC efforts: the *Carterfone* regime and the 1996 Telecom Act. Without claiming that these laws were necessarily the most economically significant, they each came to industries with known competition problems and used rules to try to improve the conditions of competition therein.[32]

1. The Airline Deregulation Act of 1978 was an important effort to remove regulatory barriers to entry.[33] The act was the brainchild of economist and bureaucrat Alfred Kahn, and an early project of then-Congressional staffer Stephen Breyer.[34] It is a complex statute; as relevant here, its most important aspect was the removal of constraints of entry and exit imposed by the Civil Aeronautics Board (which was itself eliminated).[35] The immediate impact of the law was to allow the market entrance of a series of low cost airlines like Southwest Airlines, People Express Airlines, and others, to challenge the existing carriers with lower priced flights.[36] In the short term, the statute succeeded in its self-defined goal of increasing competition and saving consumers money.[37]

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[31] Kearney & Merrill, *supra* note 12, at 1326.

[32] There is, of course, an enormous amount of scholarship that has considered each of these statutes in depth and from various angles. The goal here is not to make any contribution to the debates surrounding these statutes, but to gain an understanding of the specific techniques used by each. *See, e.g.*, STEVEN MORRISON & CLIFFORD WINSTON, THE ECONOMIC EFFECTS OF AIRLINE DEREGULATION (1986) (analyzing the effects of airline deregulation on both travelers and the airline industry); CONG. BUDGET OFFICE, HOW INCREASED COMPETITION FROM GENERIC DRUGS HAS AFFECTED PRICES AND RETURNS IN THE PHARMACEUTICAL INDUSTRY (1998), https://www.cbo.gov/sites/default/files/105th-congress-1997-1998/reports/pharm.pdf (examining the extent to which competition from generic drugs has increased since the Hatch-Waxman Act); ROBERT W. CRANDALL, COMPETITION AND CHAOS: U.S. TELECOMMUNICATIONS SINCE THE 1996 TELECOM ACT (2005) (arguing that the 1996 Telecommunications Act inappropriately invited state and federal regulators to micromanage competitive entry into local telecommunications markets).

[33] Airline Deregulation Act of 1978, Pub. L. No. 95-504, 92 Stat. 1705 (1978).

[34] Christopher DeMuth et al., *Foreword* to STEPHEN BREYER, ECONOMIC REASONING AND JUDICIAL REVIEW, at vii (2004).

[35] *See* Airline Deregulation Act of 1978.

[36] *Summer Airline Fare Skirmishes Begin*, N.Y. TIMES (June 15, 1981), http://www.nytimes.com/1981/06/15/business/summer-airline-fare-skirmishes-begin.html; Daniel F. Cuff, *How To Start An Airline: People Express Poised To Fly*, N.Y. TIMES (Apr. 26, 1981), http://www.nytimes.com/1981/04/26/business/how-to-start-an-airline-people-express-poised-to-fly.html?pagewanted=all&mcubz=1.

[37] Steven A. Morrison & Clifford Winston, *Airline Deregulation and Public Policy*, 245 SCIENCE 707, 708 (1989) (finding that increased competition stemming from deregulation had provided travelers and carriers with $14.9 billion of annual benefits).

The longer-term assessment is been more mixed, particularly after the major airlines consolidated into a small number of firms and displayed signs of oppressive oligopoly practices, such as coordinated pricing and degraded customer service.[38]

2. The Hatch-Waxman Act (more formally, the Drug Price Competition and Patent Term Restoration Act), was an effort to trim some of the inherently anti-competitive aspects of FDA drug regulation and the U.S. patent system.[39] It sought to allow generic drugs to reach the market as quickly as possible after the expiration of a patent, as opposed to being further delayed by many years of regulatory proceedings.[40] It also tinkered with the patent system, giving patent owners some benefits, like a partial extension of the patent period to account for the time spent in the regulatory approval process, while also creating incentives for generic drug companies to invalidate bad patents.[41]

The Hatch-Waxman is notable as an effort to diminish the anti-competitive effects of pervasive regulation, as opposed to effecting a complete or partial deregulation. The Act's rollout was, predictably, the subject of some short-term problems, and the implementation has perhaps not been a complete success—especially given the propensity of the generic and brand-name drug companies to collude to try and avoid its pro-competitive impact.[42] As Scott Hemphill points out, aspects of the statute's design made collusion attractive, by offering a clear bounty to the colluders, serving as a reminder that even regulatory efforts to catalyze competition can have unexpected consequences.[43]

Nonetheless, even by 1994, the Congressional Budget Office was estimating billions in consumer savings, while investment in new drugs continued to rise.[44] Since the passage of the act, the generic pharmaceutical association estimates that generic drugs have grown to become 88% of the prescribed drugs in the United States.[45] The association found that $254 billion in savings in 2014 can be attributed to generic pharmaceuticals, some amount of which must be attributed to the legislation.[46]

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[38] *See A Lack of Competition Explains the Flaws in American Aviation*, ECONOMIST (Apr. 22, 2017), https://www.economist.com/news/leaders/21721201-americans-are-treated-abysmally-their-airlines-they-should-look-europe-lessons-lack; Tim Wu, *Why I Left United Airlines,* NEW YORKER (Nov. 14, 2014), http://www.newyorker.com/business/currency/leaving-united-airlines-after-merger.

[39] Hatch-Waxman Act, Pub. L. No. 98-417, 98 Stat. 1585 (1984).

[40] Gerald J. Mossinghoff, *Overview of the Hatch-Waxman Act and Its Impact on the Drug Development Process*, 54 FOOD & DRUG L.J. 187, 189–91 (1999).

[41] *Id.*

[42] C. Scott Hemphill, *Paying for Delay: Pharmaceutical Patent Settlement as a Regulatory Design Problem*, 81 N.Y.U. L. REV., 1553, 1562–77 (2006).

[43] *Id.* at 1578–95.

[44] CONG. BUDGET OFFICE, *supra* note 32, at ix.

[45] *Generic Drug Savings in the U.S. Seventh Annual Edition: 2015*, GENERIC PHARMACEUTICAL ASS'N (Oct. 19, 2016), http://www.gphaonline.org/media/wysiwyg/PDF/GPhA_Savings_Report_2015.pdf.

[46] *Id.*

3. The FCC's *Carterfone* rule is a classic, and arguably the most successful example of a what we later call a "separation" rule. AT&T, in the 1960s, enjoyed a "super-monopoly" that encompassed multiple, adjoining markets, including local telephony, long-distance, handsets, and various associated services.[47] The services were "tied"—one could not buy local service without also getting an AT&T telephone.[48] Seeking to promote competition in the sale of handsets, the FCC required that AT&T create a standardized wall-jack into which any telephone could be plugged, regardless of whether it was produced by the Bell system.[49]

The Bell system, which has a storied history of resistance to pro-competitive laws, fought the standard phone jack.[50] Most scholars agree however, that the standardized jack—a separation rule—was one of the most successful competition catalysts.[51] Over time, it not only yielded more competition in telephone handsets, but led to increased innovation in the attachment market, which had been carefully controlled by AT&T.[52] The years after the adoption of the standardized jack yielded technologies including the answering machine, fax machine, and the home modem, among other inventions.[53] Meanwhile, based on those technologies, entire new industries grew, such as popular "dial-up" network on the model of AOL or Compuserve, which in turn served as the backbone of the popular Internet. In short, the standardized phone jack was, arguably, the spark that yielded a massive, and economically defining quality of newly unplugged innovation.

The most important point that can be drawn from the success of the *Carterfone* rule is that the most successful rulemakings will see their significance not the competition they introduce in the targeted industry (in this case, the market for physical telephones) but by easing barriers to market entry in related markets or even new markets unknown at the time of regulation. In Schumpeterian terms, the best rulemakings don't just spark competition within the industry, but rather set the table for the birth of entirely new industries which may even come to destroy the original target.[54] Of course, predicting that such a thing will happen is not exactly easy, given that we live and regulate in the present, but the potential must be kept in mind.

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[47] THE MASTER SWITCH, *supra* note 49, at 304–05. *See generally* Tim Wu, The Super Monopoly (unpublished manuscript) (on file with author).

[48] JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE 62–63 (2005).

[49] *See id.* at 138–40.

[50] *Id.* at 58–59 (resistance coming in the form of requiring what was called a "protective coupling" device).

[51] Tim Wu, *Wireless Carterfone*, 1 INT'L J. OF COMM. 389, 395–97 (2007) [hereinafter *Wireless Carterfone*]. *See also Joint Petition for Rulemaking to Resolve Various Outstanding Issues Concerning the Implementation of the Commc'ns Assistance for Law Enf't Act*, RM-10865, Comments of the Ctr. for Democracy & Tech. (Apr. 12, 2004).

[52] NUECHTERLEIN & WEISER, *supra* note 82.

[53] *Wireless Carterfone*, *supra* note 85.

[54] See JOSEPH A. SCHUMPETER, CAPITALISM, SOCIALISM, AND DEMOCRACY 83-84 (1950).

4. The most notable failure dating from the 70s–90s was the 1996 Telecommunications Act's unbundling rules. The 1996 Act itself was a successor to a long series of pro-competitive FCC rulemakings and the 1984 AT&T antitrust decree.[55] At the time it was billed as an effort to introduce competitive forces into every part of the telecommunications industry, "to let any communications business compete in any market against any other."[56] Unlike Hatch-Waxman, the Telecommunications Act was targeted not at a *regulatory* barrier to entry, but a *private* barrier: the monopolized bottleneck that is the "last-mile" of copper telephone lines connecting homes and businesses to the telephone network. The Act, in that sense, looked much like an antitrust remedy regime backed into a statute. That it was designed to replace the consent decree, which had governed the Bell System since 1984, may help explain the Act's purpose.[57]

The Act was exceptionally complex, but its central remedy was understood to its effort to promote competition in local communications services, the historic core of the AT&T monopoly. The most dramatic remedy was its unbundling, or shared facilities, regime that allowed companies to lease the local Bell Company's lines at an extremely reasonable price, so as to provide their own service over those lines.[58] In theory, the premise was that the consumer would choose between a number of competing resellers of telephone and perhaps broadband services, all of whom were in fact relying on the same underlying wires.[59] Despite sharing the same infrastructure, differential competition would come in matters of price, marketing, and additional services provided.[60] The law promised a golden age of competition in an industry that hadn't seen much of it.

Things didn't work as planned, and by the early 2000s the Act was being widely decried as a failure.[61] By then, the new firms that had relied on the Act to provide new services had nearly all been destroyed by the Bells, who has also seized the opportunity to remerge back into just a few

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55 United States v. Am. Tel. & Tel. Co., 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom.*; Maryland v. United States, 460 U.S. 1001 (1983).

56 *The Telecommunications Act of 1996*, FCC (June 20, 2013), https://www.fcc.gov/general/telecommunications-act-1996. For the statute in full, *see* Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 15, 18, and 47 U.S.C.).

57 TIM WU, THE MASTER SWITCH: THE RISE AND FALL OF INFORMATION EMPIRES 244 (2010) [hereinafter THE MASTER SWITCH].

58 Telecommunications Act of 1996 § 251.

59 *See* JEAN-JACQUES LAFFONT & JEAN TIROLE, COMPETITION IN TELECOMMUNICATIONS 20–26 (1999) (describing the regulatory design of unbundling and other remedies).

60 *Id.*

61 *See generally* Lawrence Gasman, *Why The Telecommunications Act is Failing*, CATO INST., (Jan. 6, 1997), https://www.cato.org/publications/commentary/why-telecommunications-act-is-failing (arguing that Congress should revisit the 1996 Act); *Lessons from 1996 Telecommunications Act: Deregulation Before Meaningful Competition Spells Consumer Disaster*, CONSUMERS UNION (Feb. 2000), http://consumersunion.org/pdf/lesson.pdf [hereinafter *Lessons from 1996 Telecommunications Act*] (finding that the 1996 Act incorrectly deregulated cable television). *See also* Gene Kimmelman, Mark Cooper & Magda Herra, *The Failure of Competition Under the 1996 Telecommunications Act*, 58 FED. COMM. L.J. 511 (2006).

large firms.[62] Nonetheless, with the passage of time, the harsh assessments of the law have come to seem overstated. Viewed as a whole, the Act did have numerous provisions that were arguably successful: for example, telephone companies were allowed to enter the cable industry, and did, and cable companies to enter telephony (which they did as well). It also created useful tools, like "forbearance" authority, which allows the agency to hold back aspects of regulation that it sees as unnecessary, so as to make possible so called "light touch" regulation.[63] That authority was used, for example, during the 2015 Net Neutrality rulemaking.[64] It cannot be denied, however, that the feature billed as the main act—the unbundling—was a bust.

There are two main explanations as to why the unbundling rules failed. The first tends to place the blame on Congress for naively believing that a regulatory unbundling scheme could produce competition and blames the FCC for implementing the law in too aggressive a manner.[65] This theory also asserts that the unbundling rules prevented "real" competitive entry, that is, entry based on investments in new infrastructure.[66] Another camp believes that the law was sound in principle, noting the success of similar laws in Europe,[67] but blames the phone companies for thwarting the law.[68] For example, the Consumers Union alleged that the Bells "refused to open their markets by dragging their feet in allowing competitors to interconnect, refusing to negotiate in good faith, litigating every nook and cranny of the law, and avoiding head-to-head competition like the plague."[69] This explanation also blames regulators for not cracking down more severely on the Bells for their misfeasance.[70] The two conclusions may not be inconsistent: it is certainly possible that the law was too optimistic, that is, if you accept that the industry would be determined to resist the law, and have enough litigation and lobbying resources to do so effectively.

We may generalize the point. Competition catalysts, if successful, will result in lost profits for the previously dominant firms and gains by competitors or new entrants. Hence, if not particularly good citizenship on their part, dominant firms apparently see it worthwhile to invest in efforts to delay, defeat or nullify any efforts to spark competition in their industry, as the Bells did with the unbundling rules. The upshot is that, as in tax policy or criminal law, a predictable level of

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[62] THE MASTER SWITCH, *supra* note 49, at 238–55.

[63] 47 U.S.C. § 160 (2012).

[64] *See generally Protecting and Promoting the Open Internet*, GN Dkt. No. 14–28, Report & Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601 (2015) [hereinafter *Open Internet Order*].

[65] *Introduction* to THE TELECOMMUNICATIONS CHALLENGE: CHANGING TECHNOLOGIES AND EVOLVING POLICIES 16 (Charles W. Wessner ed., 2006).

[66] Robert W. Crandall, Allan T. Ingraham & Hal J. Singer, *Do Unbundling Policies Discourage CLEC Facilities-Based Investment*, 4 B.E. J. OF ECON. ANALYSIS & POL'Y 3 (2004).

[67] *See* NEXT GENERATION CONNECTIVITY: A REVIEW OF BROADBAND INTERNET TRANSITIONS AND POLICY FROM AROUND THE WORLD 84 (Berkman Ctr. for Internet & Soc'y at Harv. U. ed., 2010) (describing success of unbundling regimes in other countries).

[68] *See, e.g.*, Marvin Ammori, *Competition and Investment in Wireline Broadband*, *in* . . . AND COMMUNICATIONS FOR ALL: A POLICY AGENDA FOR A NEW ADMINISTRATION 81, 87–90 (Amit M. Schejter ed., 2009).

[69] *Lessons from 1996 Telecommunications Act*, *supra* note 53, at 1.

[70] *Id.*

investment in forms of evasion, avoidance and legal challenge strategies must be taken into account in the design of competition catalysts.[71]

5. A final example, serving as an important contrast to the 1996 Telecom Act is the FTC's 1977 eyeglass rules (otherwise known as the Ophthalmic Practice Rules or "Prescription Release Rule").[72] Optometrists had long formally or informally tied the provision of eye-examinations with the sale of glasses.[73] The doctors either sold an eye-examination and eye-glasses as a bundle, refused to release prescriptions, or charged a fee for the release of the prescription so as to discourage buying eyeglasses from an unaffiliated party.[74] The FTC, in a rulemaking, required the optometrist to provide a prescription, with which the consumer could then patronize the glasses provider of choice, including those providing less costly alternatives.[75] Here are critical parts of the eyeglass rule, which describes itself as a "separation" rule:

> It is an unfair act or practice for an ophthalmologist or optometrist to:
>
> (a) Fail to provide to the patient one copy of the patient's prescription immediately after the eye examination is completed. . . .
>
> (b) Condition the availability of an eye examination to any person on a requirement that the patient agree to purchase any ophthalmic goods from the ophthalmologist or optometrist.[76]

The rule was such a success that it is more or less taken for granted, and seems to require only limited amounts of ongoing enforcement, which perhaps is the best evidence of a successful rule.[77] Like the 1996 Act, there was a duty was imposed on the industry, but one key source of successful implementation seems to have been a simple and standardized measure of compliance.

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[71] *Cf.* Tim Wu, *When Code Isn't Law*, 89 VA. L. REV. 679, 691–95 (2003) (describing investments in tools of legal avoidance).

[72] Advertising of Ophthalmic Goods and Services, 43 Fed. Reg. 23,992 (June 2, 1978) (to be codified at 16 C.F.R. pt. 456).

[73] *Id.* at 23,998.

[74] *Id.*

[75] Separation of Examination and Dispensing, 16 C.F.R. § 456.2 (2017).

[76] *Id.*

[77] The FTC did send out 38 warning letters in 2016, suggesting some industry resistance. FTC, *FTC Issues Warning Letters Regarding Agency's Eyeglass Rule* (May 13, 2016), https://www.ftc.gov/news-events/press-releases/2016/05/ftc-issues-warning-letters-regarding-agencys-eyeglass-rule.

Lessons

Viewing the comparative fate of these regimes provides a good initial opportunity to discuss some of the lessons that can be drawn from the efforts made through the 70s through 90s. The first lesson is obvious only on reflection: that laws reducing regulatory barriers to entry may often be more easily effective than those reducing private barriers to entry. This follows because the regulatory barrier lies directly within the government's control, while the private barriers require forcing or encouraging a private company do something it inherently does not want to (namely, face more competition).

Second, the failure of the 1996 unbundling rules might be said to confirm the idea that anticompetitive efforts, and government generally, may do better with "thou shall nots" than "thou shalls"—imposing prohibitions instead of affirmative duties.[78] But this conclusion may easily be taken too far. As *Carterfone* and the eyeglass rule suggests, it isn't true that affirmative duties designed to create competition are inherently doomed. It is, rather, that they must be very well designed. There needs to be a simple and standardized measure of success, and ideally one that is in some important way "self-executing"—its compliance is open and obvious, and might even be policed by consumers themselves.

Third, and finally, the success of *Carterfone* suggests that the holy grail – rarely achieved – is not always sparking competition in the targeted industry, but promoting the growth of entirely new industries that are in their infancy or undreamed of at the time of regulation. That is is, of course, easier said than done, but may in the long run be more important than introducing price competition in a targeted industry.

II. Theory & Taxonomy

Having considered a few of the earlier efforts in this area, we might take a step back, and try to describe the mechanism by which pro-competitive laws operate. Whatever their particular form, the catalysts of competition can be understood to come back to one simple mechanism: reducing the costs of being a competitor.

In their classic 1983 paper, "Raising Rivals Costs," Steven Salop and David T. Scheffman observed that among the easiest ways for a dominant firm to reduce competition is to raise the costs of its rivals, or competitors, using any means necessary.[79] Competition catalysts can be understood

[78] Tim Wu, *Why Have a Telecommunications Law? Anti-Discrimination Norms in Communications*, 5 J. ON TELECOMM. & HIGH TECH. L. 15, 43 (2006).

[79] Steven C. Salop & David T. Scheffman, *Raising Rivals' Costs*, 73 AM. ECON. REV. 267, 267 (1983).

as following the inverse of the same logic: increasing competition by reducing the costs faced by would-be competitors.

Here are some of the original examples of costs that Salop and Scheffman thought a firm might profitably try to raise for its rivals:

> A variety of exclusionary practices can be characterized as conduct that raises rivals' costs. . . . Inducing suppliers to discriminate against rivals is a less extreme variant of the same conduct. Similarly, according to Oliver Williamson's analysis of the Pennington case, an industry-wide wage contract raised the costs of the labor intensive competitive fringe more than it raised the costs of the more capital-intensive dominant firms.
>
> If there are scale economies or other entry barriers in retailing, exclusive dealing arrangements can raise small rivals' costs of distribution. As emphasized in the rent-seeking literature, product standards and other government regulations can raise rivals' relative compliance costs. Advertising expenditures and R & D races can also be used to raise rivals' costs. For example, suppose that increased advertising expenditures initiated by the most efficient advertiser must be matched in effective intensity by less efficient rivals. Advertising strategy might be profitable even absent the demand increasing effect of the advertising. Disadvantaging competitors can provide a benefit that exceeds its costs, if the strategy allows the dominant firm to increase price or market share.[80]

As the paper suggests, in any market there are various costs of either being a competitor or of bringing a product to market. (The phrase "barrier to entry" usually refers to the latter cost). Among others, it may be necessary to encourage consumers to endure the costs of switching from one firm to another, to license intellectual property, to gain access to wholesale distribution or retail space, or to advertise sufficiently to gain consumer attention. The higher these costs of competition, all else being equal, the less contested the market will be, and vice versa. A competition catalyst is, therefore, simply any regulation or modality which reduces a given cost of competing in a given market for one or more competitors.

If we allow that a competition catalyst or pro-competitive law be defined by reducing a cost of competition, it follows that we can understand or taxonomize the major types by which cost they reduce. The taxonomy is also a reaction to the fact that much of the current language used in this area is extremely confusing. This probably stems from the fact that, owing to the history of the

[80] *Id.* at 267–68.

regulated industries law, there exists a false association with the idea of government action and of the hindrance or blocking of competition. This misconception has led to confusions when, for example, the phrase "deregulation" is used to refer to the enactment of more, albeit pro-competitive, regulations.[81]

What is most needed is a better vocabulary for talking about pro-competitive laws and regulation. What follows is an initial effort that is not necessarily comprehensive, but may be useful in understanding the taxonomy. It works by categorizing pro-competitive laws based on the "target" of the rule, that is, the barrier to competition that the law seeks to deal with.

Table 1. A Taxonomy of Competition Catalysts

Nickname	Target	Examples
Separation Rules	Industry Tie-ins	Carterfone, Eyeglasses
Deregulation	Regulatory Barriers	Airline Deregulation
Switching Cost Reducers	Switching Costs	Number Portability
Price-Transparency Rules	Lack of Information	Airline Prices
Equalizers	Integration, Scale	Common Carriage, NN, Beer
Patent Reducers	Patents	FRANDs, Hatch-Waxman[82]

1. **Separation Rules (Quarantines or Tie-breakers)**

It is not unusual for an industry or firm with power in one product market to try to control or dominate adjacent markets.[83] In antitrust language, one means of trying to do so is called the "tying arrangement,"[84] which is part of a broad category of efforts to use power in one market to gain it in another known as "monopoly leveraging."[85] A tying arrangement exists when a firm, one way or another, forces the customer who wants product A to also buy product B as well. The tying arrangement is a very close relative to the "integrated product" and "the bundle"—the common

[81] Kearney & Merrill, *supra* note 12, at 1324–25.

[82] The patent reducers are not considered at length in this paper.

[83] *See, e.g.*, Annabelle Gawer & Michael A. Cusumano, *How Companies Become Platform Leaders*, 49 MIT SLOAN MGMT. REV. 28, 30–31 (2008) (describing how dominant companies, such as Google and Qualcomm, have used their single market dominance to expand into alternate markets).

[84] N. Pac. Ry. Co. v. United States, 356 U.S. 1, 5–6 (1958) ("For our purposes a tying arrangement may be defined as an agreement by a party to sell one product but only on the condition that the buyer also purchases a different (or tied) product . . . .").

[85] *See* Robin C. Feldman, *Defensive Leveraging in Antitrust*, 87 GEO. L.J. 2079, 2079 (1999) (defines leveraging as "when a monopolist uses power in one market to induce or foreclose sales in another market and thereby monopolize both").

point being that one way or another, two or more products are combined in some way and sold as one, often to the detriment of competitors in one of the markets.[86]

Separation rules or "tie-breakers" are efforts to encourage competition by preventing firms from forcing or pressuring consumers from taking two or more products instead of one. Whether in the face of a long-term sustained monopoly, or an industry-wide practice,[87] the rule promotes competition in adjacent or attached markets by "breaking" the tie, or separating the markets.[88] When done right, as we shall see, the separation rule can be a very effective and important spur to competition.

Successful and Failed Separation Rules.

The grand success of the *Carterfone* and Eyeglass rules, described earlier, led the FCC, FTC and other agencies to other efforts to duplicate the approach, with varied levels of success. For example, the contact lens industry is governed by FTC regulations similar to the eyeglass rules, albeit provided by statute.[89] Eye doctors are, as with the eyeglass rule, required to give the consumer a prescription after an examination without extra charge, with which the customer can use to shop around for the best deal.[90] The contact lens rules can be described as a qualified success – while not a failure, they have, overall, been less effective in promoting competition for a number of reasons.[91] For one thing, the law was unable to mandate a prescription system with the same simplicity as the eyeglass rules. Ostensibly for reasons of consumer protection, the law tolerates the writing of prescriptions that expire every year (requiring, of course, another trip to the eye-doctor) and are brand specific.[92] Second, the optometrists, for whatever reasons, have a greater tendency to resist and violate the contact lens rules by not issuing prescriptions or falsely denying requests to verify prescriptions.[93] In 2016, in recognition of these problems, the FTC proposed new rules that aimed

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86 As antitrust lawyers define a "bundle," the consumer has the option of buying the constituent products separately and if the product is considered integrated, then, technically, there is no tie between the two products. *See* David S. Evans & Michael Salinger, *Why Do Firms Bundle and Tie? Evidence from Competitive Markets and Implications for Tying Law*, 22 YALE J. ON REG. 37 (2005); Jefferson Par. Hosp. Dist. No. 2 v. Hyde, 466 U.S. 2, 39 (1984) (O'Conner, J. concurring) (describing the necessity of two products for an actionable tying claim).

87 *Cf.* C. Scott Hemphill & Tim Wu, *Parallel Exclusion*, 122 YALE L.J. 1182 (2013) (proposing the recognition of parallel exclusion as a form of monopolization).

88 *See supra* Section II.1.

89 *See* Fairness to Contact Lens Consumers, 15 U.S.C. §§ 7601–7610 (2012); Contact Lens Rule, 16 C.F.R. pt. 315 (2017).

90 Fairness to Contact Lens Consumers § 7601.

91 *See* Christopher Versace, *The FTC Finally Sees The Light On Contact Lenses*, FORBES (Jan. 17, 2017, 3:29 PM), https://www.forbes.com/sites/chrisversace/2017/01/17/the-ftc-finally-sees-the-light-on-contact-lenses/#75c347516dde (arguing the rule has been less than effective with the FTC suing businesses like 1-800 Contacts and effectively protecting brick and mortar retailers from competition).

92 16 C.F.R. §§ 315.2 –315.6.

93 *FTC Issues Warning Letters Regarding the Agency's Contact Lens Rule*, FTC (Apr. 7, 2016), https://www.ftc.gov/news-events/press-releases/2016/04/ftc-issues-warning-letters-regarding-agencys-contact-lens-rule.

at tougher enforcement of the existing rules.[94] As this suggests, even relatively simple separation schemes may require at least some level of public oversight.

Meanwhile, the FCC has also tried more than once to replicate its winning *Carterfone* approach for cable set-top boxes. The goal has been to break the tying arrangement between the cable operator's lines and the converter boxes that are usually found on top of a television set (the "set-top box"). By requiring that consumers use the boxes provided by the cable company, the industry earns an estimated $7 billion per year, making a good case for a separation rule.[95] Unfortunately, the first generation of those rules serves as a caricature of a failed separation regime.

The 1996 Telecommunications Act mandated that the FCC develop a regime to separate the set-top box from cable service.[96] The rule instructed the FCC to "adopt regulations to assure the commercial availability . . . of converter boxes, interactive communications equipment, and other equipment used by consumers to access . . . [cable television]."[97] Working with industry, moving slowly the FCC in 2003 promulgated the "CableCARD" regime.[98]

The CableCARD was, and is, a specialized physical card that a consumer requests from the cable company and plugs into a device which then functions as a competing set-top box.[99] For example, TiVo sells a competing set-top box with special functionality.[100] The customer pays a monthly fee for the service of around $14.99.[101] The card is sent in the mail or obtained through a visit to the operator's office.[102]

Unfortunately, the rule failed to introduce notable competition into the set-top box market. As with the unbundling rules, the cable industry's foot-dragging, litigation, law-breaking and outright sabotage did not exactly help matters.[103] By 2009, the FCC had admitted that the regime had failed

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[94] Contact Lens Rule, 81 Fed. Reg. 88,526 (proposed Dec. 7, 2016) (to be codified at 16 C.F.R. pt. 315).

[95] Ex Parte from TiVo Inc., *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, CS Docket No. 97-80, PP Docket No. 00-67, MB Docket Nos.12-328, 14-16, & 14-42, CSR-8740-Z, CSR-8876-Z, 1 (Mar. 27, 2014), *available at* https://ecfsapi.fcc.gov/file/7521095660.pdf [hereinafter TiVo Ex Parte].

[96] *See* Telecommunications Act of 1996 § 304; *see* Competitive Availability of Navigation Devices, 47 U.S.C. § 549(a) (2012).

[97] 47 U.S.C. § 549(a).

[98] Commercial Availability of Navigation Devices and Compatibility Between Cable Systems and Consumer Electronics Equipment, 68 Fed. Reg. 66,734 (Nov. 28, 2003) (to be codified at 47 C.F.R. pt. 15 & 76).

[99] *Digital Cable Compatibility: CableCARD-Ready Devices*, FCC, https://www.fcc.gov/reports-research/guides/digital-cable-compatibility-cablecard-ready-devices (last visited Oct. 6, 2017).

[100] *User Experience*, TIVO, https://business.tivo.com/products-solutions/ux.html (last visited Oct. 6, 2017).

[101] *Service Plans*, TIVO, https://www.tivo.com/buytivo/popups/popup_servicePlans.html (last visited Oct. 6, 2017).

[102] *See CableCARD: Know Your Rights*, FCC (Dec. 9, 2015), https://www.fcc.gov/media/cablecard-know-your-rights. *See also FAQs: About CableCARD™ Decoders*, TIVO, https://www.tivo.com/buytivo/faqs/about_cablecarddecoders (last visited Oct. 6, 2017).

[103] *See* Harold Feld, *My Insanely Long Field Guide to the War on CableCARD — Part I: More Background Than You Can Possibly Imagine*, WETMACHINE (Oct. 19, 2014), http://www.wetmachine.com/tales-of-the-sausage-factory/my-

(or more precisely, it admitted that "The Commission's CableCARD rules have resulted in limited success in developing a retail market for navigation devices.").[104] Unlike the phone jack or an eyeglass prescription, it seems that most consumers have no idea what the CableCARD is, let alone know how to ask for one; and only a few vendors tried to make use of the rule.[105] The fact that it must be known about, requested, paid for (through a monthly fee) and that its provisioning is within the control of the industry who may simply refuse to provide the card, or otherwise make it hard to get, make it not at all surprising that the regime failed.[106] The clearest measure of the CableCARD's failure is the fact that the market for set-top boxes remains at some $20 billion per year, with cable companies controlling over 99% of the market in every jurisdiction.[107] And the FCC's 2016 effort to improve on CableCARD with a new rule was successfully blocked by the cable industry and its allies.[108]

The Importance of Clean Cuts

With these examples in hand, we can continue our discussion of when separation rules succeed or fail. First, as the adage goes "when butchering, you need to cut at the joint, not at the bones." The tie-breakers that have been most successful make a cut between two things that are identifiably or obviously separate products and services, whether by tradition, or based on the physical properties of the products or services involved. We can see that the eyeglass rule, by making the cut between the service (examination) and the product (the glasses) came away with cleanly divided markets, and the same can be said of the contact lenses rules.

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insanely-long-field-guide-to-the-war-on-cablecard-part-i-more-background-than-you-can-possibly-imagine/; TiVo Ex Parte, *supra* note 94.

[104] *Comment Sought on Video Device Innovation*, GN Dkt. Nos. 09-47, 09-51, 09-137, CS Dkt. No. 97-80, Public Notice, 24 FCC Rcd. 14,280, 4 (2009), *available at* https://apps.fcc.gov/edocs_public/attachmatch/DA-09-2519A1.doc.

[105] *See* Nate Anderson, *FCC Admits CableCARD a Failure, Vows to Try Something Else*, ARS TECHNICA (Dec. 4, 2009, 10:38 AM), https://arstechnica.com/tech-policy/2009/12/fcc-admits-cablecard-a-failure-vows-to-try-something-else.

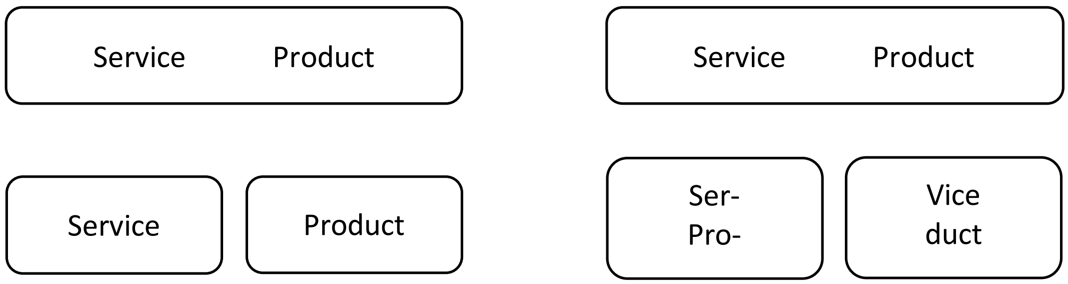
[106] *See id.*; *see also* Shiva Stella, *Finding from Senators Markey, Blumenthal Highlight Need for Cable Box Reform*, PUBLIC KNOWLEDGE (July 30, 2015), https://www.publicknowledge.org/press-release/findings-from-senators-markey-blumenthal-highlight-need-for-cable-box-refor.

[107] *See Expanding Consumer's Video Navigation Choices and Commercial Availability of Navigation Devices*, MB Dkt. No. 16-42, CS Dkt. No. 97-80, Report & Order, 31 FCC Rcd. 1544, (2016) (Statement of Commissioner Mignon L. Clyburn), https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-18A3.pdf.

[108] Jon Brodkin, *FCC Chairman Pai Takes Wheeler's Set-Top Box Plan off the Table*, ARS TECHNICA (Jan. 30, 2017, 3:08 PM), https://arstechnica.com/information-technology/2017/01/fcc-chairman-pai-takes-wheelers-set-top-box-plan-off-the-table/.

<u>Fig 1. Cuts Need to be Clean</u>

Clean Cut **Unclean Cut**



In contrast, the 1996 Telecom Act's unbundling rules, in most of their variations, created an unclean cut. The product created was a prescribed mixture of the incumbent carrier's product and the competitors' product.[109] The creation necessarily left the incumbent with power over its competitor's product delivery, a position that they repeatedly exploited.[110] The CableCARD regime, similarly, produced a regime where the consumer needed to deal with the incumbent in order to gain access to a competing product.

The cleanness of the cut is not the only issue, for as we've discussed before, industry resistance makes an enormous difference. The Bell companies engaged in exceptional, outlandish, and illegal resistance to the mandates of the 1996 Act, and the cable companies were nearly as resolute in their resistance to the CableCARD.[111] This isn't to say that regulators should surrender to industry resistance. But it does mean, as stated above, that separation rules must take into account the incentive and the ability of the incumbent to sabotage, delay, or otherwise make the scheme ineffective.

How effective lawbreaking will be also depends on the design of the regime. At the risk of belaboring the point, a key difference between the (successful) phone jack and the (failed) CableCARD regimes is that the phone jack allowed the competing phone manufacturer and the consumer to have a direct, non-intermediated relationship. The CableCARD left the cable company with an intermediary role, which, predictably, stunted the relationship. It was as if, following a divorce proceeding, the former spouse remained in the house.

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[109] To be sure, such mixed products have been successful in other contexts—consider Spotify or Netflix's Red envelopes—but in those cases there were existing horizontal divisions inherent in the design of the mail system of Internet.

[110] *See generally* THE MASTER SWITCH, *supra* note 49, at ch. 18.

[111] *See Lessons from 1996 Telecommunications Act*, *supra* note 53; Feld, *supra* note 102.

Second, it is worth returning to the question of what is demanded of consumers. The prescription script generated by the eyeglass rule was easy to understand and use. The standardized telephone jack and left the consumer with nothing to do but buy a telephone and plug it in. In contrast, other rules like the cable set-top box rule and the mobile phone handset rules have required some set of complex unlocking procedures that typically depend on calling an incumbent to help out, which it has limited interest in doing. When a pro-competitive scheme depends on affirmative action by the incumbent for its success, one may predict less success.

The rule of thumb, therefore is this: an effective separation rule, and the standard involved, must eliminate, to the extent possible, any active role played by the incumbent in the relationship between the consumer and a would-be consumer.

2. **Deregulation: Pro-competitive Removal of Regulatory Barriers**

Some of the most effective pro-competitive laws work by eliminating or reducing regulatory barriers to entry. The word "deregulation" is usually used in this context, though sometimes in very confusing ways. It is important to distinguish between pro-competitive deregulation—which is targeted specifically at catalyzing competition—and deregulation generally. Weakening or eliminating public protections and consumer protection measures may be deregulatory, but not necessarily in the pro-competitive manner meant here. For example, reducing emissions requirements for automakers would save the industry money, but not make it more competitive in any obvious way.

The classic example of pro-competitive deregulation was, as we've already seen, the 1978 Airline Deregulation Act, which eliminated existing constraints imposed by the Civil Aeronautics Board on market entry and exit.[112] A more recent example is the FDA's 2016 effort to open the market in hearing aids.[113] Hearing aids have long required an examination and fitting process, and the aids are usually sold in a bundle with the examination.[114] The market is occupied by an oligopoly of providers, and the prices are high, as compared to the costs of other electronics.[115] According to PCAST, a 2014 survey found that the average price of one hearing aid was $2,363, with premium models costing $2,898; given that most people require two hearing aids, the prices are in the $4,700–$5,600 range.[116] Despite rapid decreases in the prices of comparable electronic devices, there has

[112] Airline Deregulation Act, Pub. L. No. 95-504, 92 Stat. 1705 (1978).

[113] Press Release, U.S. Food & Drug Admin., FDA Takes Steps to Improve Hearing Aid Accessibility (Dec. 7, 2016), http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm532005.htm.

[114] PRES. COUNCIL OF ADVISORS ON SCI. & TECH., REPORT ON AGING AMERICAN & HEARING LOSS: IMPERATIVE OF IMPROVED TECHNOLOGIES 3 (2015), http://hearingloss.org/sites/default/files/docs/PCAST_Hearing_Tech_LetterReport_FINAL.pdf.

[115] *Id.* at 2.

[116] *Id.* at 1.

been little price reduction or innovation in hearing aids.[117] The high price, apparently, has discouraged usage of hearing aids: PCAST estimates that only 15-30% of people who need hearing aids actually get them.[118]

In December 2016, pursuant to the Competitive Initiative, the FDA announced that "it does not intend to enforce the requirement that individuals 18 and up receive a medical evaluation or sign a waiver prior to purchasing most hearing aids," and that the FDA had a committed to "consider creating a category of over-the-counter (OTC) hearing aids that could deliver new, innovative and lower-cost products to millions of consumers."[119] The rulemakings are not yet complete, but the pro-competitive, deregulatory logic intrinsic to the effort should be obvious.

Some pro-competitive deregulation seeks not to eliminate but lessen the burden on competitors. The Hatch-Waxman Act, discussed above, did not eliminate the FDA, but did make it easier for generics to get drugs to market, through the abbreviated new drug application (ANDA).[120] It carefully limited, without eliminating, the FDA's power to slow market entry.

The greatest concern surrounding pro-competitive deregulation must be that which accompanies any deregulatory action. It is the weakening of the protections for the public that (hopefully) motivated regulation in the first place, whether concerns of public safety, consumer protection, or the systemic stability of the industry or the broader economy. The danger, in other words, is that under the banner of "increased competition" regulators may be persuaded to weaken important protections.[121]

There are also potentially unforeseeable dangers from deregulating part, but not all, of an industry. Here, the well-known partial deregulation of the California energy market provides one example of the dangers of a purportedly pro-competitive regime.[122] In that case, hoping to increase competition in the generation of electricity, the State forced the divestiture of some 20% of generating capacity, deregulated wholesale pricing, while retaining a monopolized retail delivery and pricing.[123] The setup was quickly abused by opportunistic wholesalers, especially Enron, who created artificial shortages so as to drive wholesale pricing through the roof.[124] The consequence

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117 *Id.* at 2.

118 *Id.* at 1.

119 U.S. Food & Drug Admin., *supra* note 112.

120 Hatch-Waxman Act, Pub. L. No. 98-417, 98 Stat. 1585 (1984).

121 *Cf.* RICHARD A. POSNER, A FAILURE OF CAPITALISM: THE CRISIS OF '08 AND THE DESCENT INTO DEPRESSION (2009).

122 The Electric Utility Industry Restructuring Act, CAL. PUB. UTIL. CODE § 330 (1996).

123 *Id.*

124 *See Hearings on Examining Enron: Electricity Manipulation and the Effect on the Western States Before the Subcomm. on Consumer Affairs, Foreign Commerce and Tourism of the S. Comm. on Commerce, Sci., and Transp.*, 107th Cong (2002).

was the near-collapse of the California energy utility, PG&E, enormous public costs, and a lesson in the dangers of partial deregulation.[125]

The California deregulation scheme was an exceptionally bad design, but it should not be taken as dictating that it is impossible to have deregulation of the anti-competitive aspects of a regime without destroying other public protections. For example, the Hatch-Waxman Act, while promoting competition, has not resulted in the collapse of the prescription drug system, nor has it led to an abandoned public safety regime. The latter point is important: for there was no assumption by the drafters of Hatch-Waxman that competition would somehow, magically, take care of public safety issues.

The lesson that might be taken from this area is this: that pro-competitive deregulation can be extremely effective in introducing competition, but that competition goals should be seen as separate from public safety or consumer protection concerns. Indeed, the introduction of lower-cost competitors may sometimes require expanded protections for the public.

3. Switching Cost Reducers

Switching costs are a barrier to competition because they require that a competitor not just be slightly better, but quite a bit better to compensate for the costs incurred in changing providers. (Hence, Geico's injunction to switch insurance providers: "15 minutes could save you 15% or more").[126] This is particularly the case for businesses where the customer has a long-term, dependent relationship, such as one might have with an accountant, family physician or an airline. A sense of the importance of switching costs can be understood by thinking of the difference between switching one's cable company with deciding to patronize a new restaurant.

Companies are well aware of the importance of switching costs. New entrants or companies in the competitive fringe often undertake promotions that try to lower the costs of switching in various ways. Meanwhile, those with large customer bases usually try to increase switching costs in ways subtle or less so. Many companies make it difficult to quit, or ensure that it will take considerable time and effort to return to previous levels of comfort. They may require multiple steps to cancel an account, including a phone call, a personal visit to the local office or similar measures. The loss of something important—like a well-known phone number or a list of contacts—may also discourage switching, as do long-term loyalty programs, like the frequent flier programs of airlines.

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[125] *See generally* PAUL W. MACAVOY, THE UNSUSTAINABLE COSTS OF PARTIAL DEREGULATION, ch. 4 (2007).
[126] *GEICO could save you money*, GEICO, https://www.geico.com/save/money/ (last visited July 10, 2017).

Pro-competitive regulation in this area usually consists of trying to isolate the source of switching costs and then reduce them through regulation. Arguably the most successful effort in this area has been the "number portability" rules adopted by the FCC for the mobile phone market.[127] Boiled down, the rules require that consumers be allowed to "bring along" their numbers when they change service providers—so that a number, say 202-421-5445 may follow you as you switch from Verizon to AT&T to T-Mobile and so on. The premise is that losing one's number represents a switching cost that the regulation eliminates. Portability is broadly relied on by consumers; and the estimated savings to consumers in terms of lower prices offered by the lower-cost "mavericks" T-Mobile and Sprint have been estimated in the billions.[128] Meanwhile, while hard to measure, some of the significance of the portability rules may lie in promoting the growth of wireless telephony, as a whole, as a competitor to wireline telephony.

The tool of reducing switching costs through regulation or encouraging best-practices is not, at present widely used, outside of the telephone context. However, it may be of increasing importance in an era where people store large parts of their personal information (email correspondence, photos, lists of friends) online.[129] Consider, for example, if you wanted to stop using Google, Gmail, and associated companies for whatever reason. How difficult would it be to access and "port" to all of your photos, emails and so on? If you wanted to quit Facebook for a competitor, can you bring along your network of friends? As it stands, data portability is the subject of only voluntary regimes which are sometimes quite limited in their scope. Given the financial importance of the major platforms and relative dearth of competition, it is not impossible to imagine data portability rules, modeled on number portability rules, specifically designed to reduce switching costs.

4. Leveling the Playing Field / Common Carrier Regulation

The advantages of economies of scale, vertical integration, and control over distribution or retail channels have obvious implications for competition in nearly every industry. Regulatory "equalizers," or facility rules are rules that mandate anti-discrimination and create a level playing field for those who depend on the facility.

The antidiscrimination aspects of the old common carrier rules adopted for a variety of transportation technologies, from freight trains through canals, can be understood as the ancestor to

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[127] 47 C.F.R. § 52.20 (1996).

[128] *New Report Finds Efficient Number Portability Saved U.S. Consumers Billions of Dollars*, NEUSTAR (Mar. 8, 2013), https://www.neustar.biz/about-us/news-room/press-releases/2013/report-finds-efficient-number-portability-saved-us-consumers-billions.

[129] Alexander MacGillivray & Jay Shambaugh, *Exploring Data Portability*, WHITE HOUSE BLOG (Sept. 30, 2016, 11:27 AM), https://www.whitehouse.gov/blog/2016/09/30/exploring-data-portability.

facility rules. Common carrier rules have the purpose and effect of requiring the carrier to treat all customers equally and transparently—whether at the consumer level, or at the producer level.[130]

Consider two competing oil refineries S and C, who need reach their retailers by train. In the absence of common carrier rules, S can cut a deal with the railroad to carry his freight for less and C's for more, thereby raising C's costs of competition, even if C has a better or cheaper product. As antitrust aficionados will recognize, this was one one of the strategies undertaken by Standard Oil to maintain its monopoly over oil refining.[131] Under a common carriage regime, where the trains are required to carry freight at the same rates for all customers, S and C's competition depends more on the relative merits of their products.

The most obvious modern manifestation of such rules are the Net Neutrality rules first proposed in the early 21st century for Internet carriage.[132] The basic idea behind the Net Neutrality rules was to require the main Internet carriers not to discriminate as between the senders of information over the Internet, and not accept payment for faster carriage.[133] As such, among the goals of the Net Neutrality rules has been to promote competition on the merits, and a Darwinian innovation policy.[134]

Another historic example of an effort to level a playing field are the state and federal rules governing competition in the alcohol industries. Both the federal government and most states have rules that seek to protect the economic independence of producers, retailers and distributors of alcoholic beverages.[135] As such, the rules largely prevent any one company from using its power at one vertical level of the economy to influence competition in other layers—so that, for example, InterBev, the dominant beer brewer, may not bribe retailers to ensure carriage of only their brands, at the expense of smaller competitors (like craft beer).[136]

At their best, these kind of rules can promote the kind of Schumpeterian innovation described earlier, by creating a platform from which new firms or indeed entirely new industries might get started. The Net Neutrality policies and rules, which protected the Internet as an innovation platform, are arguably the most successful of such rules over the early 21st century.

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130 *See* ICC v. Balt. & O.R. Co., 145 U.S. 263, 275 (1892) ("[T]he principles of the common law applicable to common carriers . . . demand[s] little more than that they should carry for all persons who applied, in the order in which the goods were delivered at the particular station, and that their charges for transportation should be reasonable.").

131 See Eliot Jones, The Trust Problem in the United States 72-77 (1921).

132 *See* original proposal in Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141 (2003).

133 *Id.*

134 *See id.*

135 Federal Alcohol Administration Act, 27 U.S.C. §§ 201–205 (2012). An overview of some of the laws can be found in Roni Elias, *Three Cheers for Three Tiers: Why the Three-Tier System Maintains Its Legal Validity and Social Benefits After* Granholm, 14 DEPAUL BUS. & COM. L.J. 209 (2015).

136 Federal Alcohol Administration Act, §§ 201–205.

5. Truth-in-Pricing Rules

Price transparency rules are different than some of the others discussed in this paper, because they do not necessarily reduce the costs of competition, rather, they try to prevent distortions in the competitive process created by drip pricing, hidden fees, or other forms of deceptive pricing.[137]

The most straightforward truth-in-pricing rules require "all-in" pricing, that is, the advertising or display of any fees that are mandatory, or effectively so, and therefore part of the price. Other price transparency rules require the disclosure of important optional fees, like baggage fees for airlines.[138]

The National Economic Council has described a variety of reasons, related to competition, that pricing schemes may be of concern. They include:

> "Deceptive pricing may also inhibit the competitive process. Specifically, it may hurt the ability of a price-cutting competitor to take business away from a more expensive rival. The creation of consumer confusion and wariness around actual prices may make consumers disbelieve advertised prices, making it harder for the genuine price-cutter to attract consumers. Moreover, the higher-priced rival may use hidden fees to effectively shroud its comparatively higher prices. This may reduce real price competition.
>
> Fourth, unusual pricing practices may facilitate "follow-the-leader" pricing among competitors. The setting of "standard" add-on fees, which are in theory not part of the negotiated price, provides an ideal anchor for tacit coordination because they are typically set at the national level and fluctuate less frequently than the base prices themselves. As a result, for example, such fees make it easier for the airline industry to implement and sustain prices without an explicit agreement. In this example, the major airlines would likely find it easier to implement and sustain a 'standard' change fee of $250 as it may be easier to coordinate on that price than the prices for travel itself.[139]

The Department of Transportation, for example, has imposed such rules on the airline industry, requiring that they list charges like gasoline surcharges and taxes in the price presented to

[137] Charlie Anderson, *Follow the Fees*, WHITE HOUSE BLOG (Dec. 28, 2016, 2:31 PM), https://www.whitehouse.gov/blog/2016/12/28/follow-fees.

[138] Guidance on Disclosure of Policies and Charges Associate with Checked Baggage, 73 Fed. Reg. 28,854 (May 19, 2008).

[139] NAT'L ECON. COUNCIL, THE COMPETITION INITIATIVE AND HIDDEN FEES (2016).

consumers on their web site and on search engines.[140] A Department of Transportation proposed rulemaking would also require that baggage fees and change fees be disclosed.[141]

Part III: Potential and Perils

There is much potential, but also possible perils in any usage of rules to pursue the goals of antitrust. The potential, not necessary to repeat at length, lies in opening markets long-closed to effective competition, and the consequent gains for consumers and the economy. It also lies in the promotion of competition using a tool other than litigation-driven, ex post antitrust investigations, which have inherent limitations.

Yet, if the track-record of the last several decades suggests anything, it is that not all such schemes succeed. This paper has attempted to develop some rules-of-thumb that might help future law-makers or regulators design pro-competitive rules that succeed. They are, to summarize:

(1) Government elimination of public, regulatory barriers is a more direct remedy than efforts to eliminate private barriers; regimes that require affirmative action by an incumbent are more challenging;
(2) If the goal is opening a market through a separation rule, a clean cut that yields a real market is desirable;
(3) If possible, the incumbent must be reduced to a passive role, at best, in the relationship between consumer and competitor;
(4) Standards should be simple, and ideally passive in the manner just described;
(5) Removing regulatory barriers to entry does not necessitate removing public protections; indeed, protections may need to be stronger.

In closing, there are several further dangers that ought to also be considered:

First, a poorly designed regime may both fail to create any additional competition and worse, serve to insulate the industry from antitrust scrutiny. Cases like *Trinko* or *Credit-Suisse*, which demand deference to comprehensive regulatory schemes, create the danger of nullifying antitrust oversight.[142] Even if technically, the industry remains subject to the antitrust laws (through, for

[140] 49 Fed. Reg. 49,330 (Dec. 20, 1984) (now codified as amended at 14 C.F.R. §299.84(a)).

[141] Office of the Press Secretary, *Fact Sheet: Obama Administration Announces New Actions to Spur Competition in the Airline Industry, Give Consumers the Information They Need to Make Informed Choices*, WHITE HOUSE (Oct. 18, 2016), https://www.whitehouse.gov/the-press-office/2016/10/18/fact-sheet-obama-administration-announces-new-actions-spur-competition.

[142] Verizon Commc'ns Inc. v. Law Offices of Curtis V. Trinko, LLP 540 U.S. 398 (2004); Credit Suisse Sec. (USA) v. Billing, 551 U.S. 264 (2007); *see Hearings on Life After Trinko and Credit Suisse: The Role of Antitrust in Regulated Industries Before the Subcomm. on Courts and Competition Policy of the H.R Comm. on the Judiciary*, 11th Cong. (2010).

example, a savings clause), the mere existence of the regime may make competition agencies hesitant to act. When it comes to cable set-top boxes, for example, the badly designed CableCARD regime has done little to spark competition or save consumers money. However, it does seem to have been effective at keeping antitrust enforcers at bay.

Second, a poorly designed regime, or a market that, in fact, does not support a large number of competitors, may simply add a regulatory burden, without much benefit for consumers, competitors, or anyone at all.

Third, the cause of using laws to ensure "competition" can be used as an excuse to erode consumer protection or other public measures that really have nothing to do with the conditions of competition. Given a public issue—say, the dangers of a product or service—it does not necessarily follow that a competitive market will be any more inclined to address the issue on its own. Indeed, the industry may be less inclined due to the pressures of competition. In this sense, it may sometimes be important to increase consumer protections when increasing competition – the story of the airline industry makes this point particularly clear.

Finally, it is a simple truth that any regulatory system, even an avowedly pro-competitive law, can be used to forestall, entrench, and otherwise damage competition. This is a challenge to which there is no simple solution, other than ongoing vigilance.

These warnings and rules of thumb are not intended to dissuade lawmakers or regulators from using rules to promote competition. As the greatest successes show, there lies enormous potential in using the power of rulemaking to promote the goals of the antitrust statutes, and the best and most successful rules have transformed industries for the better.

Conclusion

Decades of experience have suggested that both adjudications and rules have their merits and disadvantages. The specific history of the antitrust laws, and their relative age, has given adjudication (or litigation) a central role in creating antitrust policy. Nonetheless, as the more successful examples here illustrated suggested, it is well worth asking whether the goals of antitrust policy might be well achieved using industry-specific rules, whether promulgated by the antitrust agencies themselves, or other agencies.