

THE GREAT TRANSFORMATION OF REGULATED INDUSTRIES LAW

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The nation's approach to regulating its transportation, telecommunications, and energy industries has undergone a great transformation in the last quarter-century. The original paradigm of regulation, which was established with the Interstate Commerce Act's regulation of railroads beginning in 1887, was characterized by legislative creation of an administrative agency charged with general regulatory oversight of particular industries. This approach did not depend on whether the regulated industry was naturally competitive or was a natural monopoly, and it was designed to advance accepted goals of reliability and, in particular, non-discrimination. By contrast, under the new paradigm, which is manifested most clearly in the Telecommunications Act of 1996, the goals of regulation have become the promotion of competition and maximization of consumer choice. The role of agencies has been reduced to monitoring access and pricing of "bottleneck" monopolies such as the local telecommunications loop and electricity distribution systems.

Having described this transformation in six core common carrier and public utility industries—railroads, airlines, trucks, telecommunications, electricity, and natural gas—the Article sets out on a quest to find its causes. No consistent pattern of institutional leadership can be discerned in any of the three types of government actors with the power to compel change: the regulatory agencies, the courts, and the Congress. This suggests that the causes are rooted in deep-seated economic and social forces, such as technological changes, and chain reactions that have emerged as regulatory reform in one industry segment has spread to another segment. The Article concludes that the two most persuasive explanations are that key interest groups have discovered that regulatory change is in their interests, and that an ideological consensus has emerged among economists and other policy elites that the original paradigm entails risks of regulatory failure that exceed the risks of market failure under the new paradigm.

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TABLE OF CONTENTS

INTRODUCTION AND OVERVIEW.....	1324
I. THE GREAT TRANSFORMATION: COMPETITION THROUGH REGULATION	1329
A. Relations Between Providers and End-Users	1330
1. Detariffing	1330
2. Unbundling.....	1340
3. Ending Cross-Subsidies	1346
B. Relations Among Providers.....	1349
1. Interconnection.....	1350
2. Offering Network Service Elements to Competitors	1353
3. Mandatory Sale for Resale.....	1357
C. Role of the Regulator	1359
D. Central Tenets of the New Paradigm	1363
II. INSTITUTIONAL SOURCES OF CHANGE.....	1364
A. The Agencies	1365
B. The Courts	1369
1. The Courts as Catalyst	1370
2. The Courts as Brake	1377
C. Congress	1380
III. ECONOMIC AND SOCIAL CAUSES OF THE TRANSFORMATION...	1383
A. Technological Change	1384
B. Chain Reactions	1390
C. The Role of Interest Groups	1393
D. Perceptions of Regulatory Failure	1397
IV. THE FUTURE OF THE GREAT TRANSFORMATION	1403
CONCLUSION	1408

INTRODUCTION AND OVERVIEW

No aspect of public regulation affects more Americans than the law governing common carriers and public utility companies. Each time we place a telephone call, hire a trucking company, travel by train or plane, or even merely light or heat our homes, we enter into transactions that historically have been closely regulated by a variety of government entities. Relations with firms in these fields, which are frequently grouped together under the term "regulated industries," pervade the everyday affairs of individuals and institutions.

The law governing these regulated industries has been undergoing a great transformation in the last twenty-five years. These changes are typically referred to as "deregulation."¹ But if "deregulation" means that a system of public regulation is abolished and replaced by exclusive reliance on market transactions, this is an inaccurate characterization of

1. See, e.g., Jeffrey L. Harrison et al., *Regulation and Deregulation* (1997); Elizabeth Pendley, *Deregulation of the Energy Industry*, 31 *Land & Water L. Rev.* 27 (1996).

what is happening.² Some of the earliest manifestations of the transformation, such as the Airline Deregulation Act of 1978,³ were genuinely deregulatory in this sense. However, more recent legal changes, most notably the landmark Telecommunications Act of 1996,⁴ can hardly be described in such simple terms. The Telecommunications Act contains over 100 pages of new regulatory requirements, directs the Federal Communications Commission (FCC) to commence more than a dozen rulemaking proceedings, and is being implemented through scores of arbitrations throughout the states, each of which is subject to judicial review. Like recent changes sweeping the natural gas and electric industries, the Telecommunications Act establishes a very different legal framework from the one that prevailed before. But it does not represent the end of regulation—rather, it is a system of regulation transformed. We will therefore describe the changes taking place in regulated industries law not in terms of “regulation” versus “deregulation,” but in terms of a transformation from the “original paradigm” of regulation to a “new paradigm” of regulation.

The original paradigm was established over 100 years ago with the enactment in 1887 of the Interstate Commerce Act.⁵ That paradigm was characterized by legislative creation of an administrative agency whose task was to oversee an industry providing common carrier or public utility services. The firms in the industry remained privately owned, but they were closely monitored by the agency to ensure that they provided services in standardized packages at standardized prices to all similarly situated end-users and to ensure that those services were reliable. To achieve the legal regime’s goal of standardization in services and prices (“non-discrimination”), providers were required to file their rates and services with the agency in public tariffs from which no deviation was permitted, and the agency reviewed complaints by end-users about these prices and services. To promote reliability, the agency strictly limited entry and exit in the industry and regulated rates so that providers earned adequate (but not “excessive”) profits.

This legal regime has been giving way over the last quarter-century to a very different paradigm. The new paradigm is more fully realized in some industries than in others, but certain common themes and features, most well-developed in the Telecommunications Act, are now clearly discernible. Instead of striving for equality of treatment among end-users and reliability of service, the new paradigm seeks to encourage multiple

2. Others have decried the “regulation/deregulation” dichotomy as forced or misleading. See, e.g., Ian Ayres & John Braithwaite, *Responsive Regulation: Transcending the Deregulation Debate* 3–18 (1992); Richard B. Stewart, *Reconstitutive Law*, 46 *Md. L. Rev.* 86 (1986). So far, however, they have failed to displace the common locution.

3. Pub. L. No. 95-504, 92 Stat. 1705 (codified as amended in scattered sections of 49 U.S.C.).

4. Pub. L. No. 104-104, 1996 U.S.C.C.A.N. (110 Stat.) 56 (to be codified in scattered sections of 47 U.S.C.).

5. 24 Stat. 379 (1887).

providers to offer different packages of services at different prices to end-users, on the theory that competition among these providers will enhance consumer welfare. Thus, in one regulated industry after another, we see a movement to eliminate tariffed services in favor of contractual choice, to unbundle standardized packages of services in order to allow end-users to select among different service elements, and to eliminate restrictions on entry in order to encourage competition among multiple providers. The role of the agency has been transformed from one of protecting end-users to one of arbitrating disputes among rival providers and, in particular, overseeing access to and pricing of "bottleneck" facilities that could be exploited by incumbent firms to stifle competition.⁶

One would think that such a substantial change in the philosophy and practice of regulation in essential industries would occasion close attention from the legal academy. And, indeed, in some industries, particular changes have been the subject of scholarly examination. For example, the recent Telecommunications Act, which is said to affect as much as one-sixth of the American economy,⁷ has attracted some discussion and debate.⁸ The significant breakup of the Bell System in the early 1980s also received some academic attention, although less than was probably warranted and most of this from disciplines other than law.⁹ The extraordinary Airline Deregulation Act received enough favorable publicity to help propel one of its architects out of the academy all the way to the Supreme Court.¹⁰

These and other assessments of changes in regulated industries law, however, have tended to be isolated to particular industries. With a few

6. A bottleneck facility is "a monopoly input needed by both its owner and its owner's competitors in the final product market." William J. Baumol et al., *Parity Pricing and Its Critics: A Necessary Condition for Efficiency in the Provision of Bottleneck Services to Competitors*, 14 *Yale J. on Reg.* 145, 145 (1997); see also William J. Baumol & J. Gregory Sidak, *Toward Competition in Local Telephony* 7-10 (1994) (defining "bottlenecks" or "essential facilities" as services or facilities that local exchange carriers could use to force rivals "to bend to [their] will or to destroy those rivals altogether"). Examples include the copper wire loops that connect users to local telephone exchanges and the distribution lines that deliver electricity to homes.

7. See, e.g., Lawrence J. Spiwak, *What Hath Congress Wrought? Reorienting Economic Analysis of Telecommunications Markets After the 1996 Act*, *Antitrust*, Spring 1997, at 32; Mike Mills, *Telecommunications Bill Passed: Clinton to Sign Measure That Would Have Wide Impact on Consumers*, *Wash. Post*, Feb. 2, 1996, at A1.

8. See, e.g., Symposium, *Telecommunications Law: Unscrambling the Signals, Unbundling the Law*, 97 *Colum. L. Rev.* 819 (1997); Symposium, 29 *Conn. L. Rev.* 117 (1996).

9. See, e.g., *After the Breakup: Assessing the New Post-AT&T Divestiture Era* (Barry G. Cole ed., 1991); *Breaking Up Bell: Essays on Industrial Organization and Regulation* (David S. Evans ed., 1983); Robert W. Crandall, *The Role of the U.S. Local Operating Companies*, in *Changing the Rules: Technological Change, International Competition, and Regulation in Communications* 114 (Robert W. Crandall & Kenneth Flamm eds., 1989); Alan Stone, *Wrong Number: The Breakup of AT&T* (1989); Peter Temin, *The Fall of the Bell System* (1987).

10. See Stephen Breyer, *Regulation and Its Reform* *passim* (1982).

exceptions, legal academics have not essayed an overarching treatment of the changes that span this area of the law.¹¹ This is in notable contrast to many other broad categories of the law—such as constitutional, contract, criminal, employment, family, and products liability law—where attempts to offer an integrated and systematic understanding of key legal principles are quite common.

Our objective is to fill this substantial gap in the legal literature. To do so, we will analyze the changes in economic regulation that have occurred in the last twenty-five years in six core regulated industries: four “common carriers”—railroads, airlines, trucks, and telecommunications companies—and two “public utilities”—electricity and natural gas. While we selected these six industries for a variety of reasons—which include their importance to the economy, the need to keep the inquiry within manageable bounds, and our familiarity with them—the most important and overriding reason is that they all come within the classic definition of regulated industries.¹² The fact that these six industries are collectively undergoing a transformation that shares important common elements is by itself an important phenomenon, and suggests that similar changes are likely to occur in other regulated industries. We should also make clear at the outset that we are considering only economic regulation in the conventional sense. The burgeoning field of social regulation—including environmental laws, workplace and product safety rules, civil rights laws, and consumer protection laws—are beyond our purview. Indeed, the shift toward greater encouragement of competition in regulated industries law has no obvious counterpart in the field of social regulation, where government mandates continue to proliferate.¹³

Part I describes the great transformation by delineating the most important ways in which the new paradigm in regulated industries law differs from the original paradigm. Rather than simply reviewing the

11. Among the most prominent exceptions are Professor Richard Pierce and now-Justice Stephen Breyer, both of whom we draw upon in this work. Breyer's work necessarily tapered off after his appointment to the bench in 1979—indeed, the discussions in his 1982 book, see *supra* note 10, focus almost exclusively on events that had occurred before his appointment. The bulk of Pierce's work has focused on the natural gas and electric industries. See, e.g., *infra* notes 67, 97, 138, 274 (citing sources).

12. See Richard J. Pierce, Jr. & Ernest Gellhorn, *Regulated Industries 1* (3d ed. 1994) (describing regulated industries as those where the government historically has exercised the power to “limit entry into or exit from the business, regulate the type or amount of a product or service offered, set the price and quality provided, and determine the sale terms and level of profits allowed”); see also James C. Bonbright et al., *Principles of Public Utility Rates 7–16* (2d ed. 1988) (discussing definition of public utilities). We do not suggest that there are or can be no other “regulated industries” in the sense that we use the term; other obvious examples include intercity buses, cable television, and water supply systems. Indeed, the Department of Justice's recently commenced antitrust action against the nation's largest computer software company has been said to suggest implicitly that the company should be treated as a kind of regulated industry. See David Bank, *Is Microsoft a New “Public Utility”?*, *Wall St. J.*, May 19, 1998, at B1.

13. See *infra* text accompanying notes 344–345.

changes that have occurred industry by industry, we proceed synthetically, in an effort to map the overall topography of change. Not all the changes that we highlight have occurred in all industries, but they have emerged with enough frequency that we can now identify the distinctive features of the new regulatory order with some confidence.

We proceed by examining several sets of relationships in which regulated industries are involved. First, we discuss relations between regulated firms and their end-users, and emphasize three trends: The pricing of services through publicly filed tariffs is being superseded by individually chosen and sometimes individually negotiated contracts; the provision of integrated service packages is being replaced by choices among unbundled service elements; and the use of pervasive cross-subsidies is giving way to pricing more closely tied to costs. Second, with respect to relations among regulated firms, we note that the new paradigm seeks in various ways to promote competition among providers, rather than to preserve monopolies or limit competition. Finally, in terms of relations between firms and their regulators, we find that the traditional system of pervasive regulatory oversight and control is being dismantled in favor of one in which the function of the agency is primarily to ensure that bottleneck facilities having natural monopoly features do not impede competition among providers.¹⁴

Parts II and III represent an effort to identify the causes of this great transformation. Part II considers whether any institutional actor—the agencies, the courts, or the legislature—can be considered the prime architect of the transformation. Surprisingly, administrative agencies have often vigorously promoted regulatory change, thereby leading to some curtailment of their own power. However, each agency necessarily has been concerned with the industries under its own limited jurisdiction, and therefore no single agency can be credited with directing the general pattern of change we see. The courts, too, have often weighed in on questions affecting the pace and direction of regulatory change. But while the courts sometimes have acted as catalysts for regulatory change, other times they have functioned as brakes, slowing the process down.

14. A natural monopoly exists when service can be provided more efficiently by one firm than by two or more. See generally William W. Sharkey, *The Theory of Natural Monopoly* (1982); Thomas Hazlett, *The Curious Evolution of Natural Monopoly Theory, in Unnatural Monopolies 1–25* (Robert W. Poole, Jr. ed., 1985); Pierce & Gellhorn, *supra* note 12, at 43–49. At one time, it was thought that the critical feature of such industries was the presence of economies of scale over the projected range of output. See Bonbright et al., *supra* note 12, at 21–22. Today, it is recognized that economies of either scale or scope can make a single firm the most efficient provider. See *id.* at 23–24; Sharkey, *supra*, at 54–83. There has long been a strand of thought that is skeptical about whether any monopoly can exist for long without government regulation. See generally Herbert Hovenkamp, *Technology, Politics, and Regulated Monopoly: An American Historical Perspective*, 62 *Tex. L. Rev.* 1263 (1984). That strand lives on among some economists strongly influenced by public choice theory. See *infra* text accompanying notes 351–361. But the consensus view remains that monopoly is the “natural” form of industrial organization in some industries or at least in some industry segments.

There is no consistent pattern of decisions that corresponds to the shape the transformation has assumed. Finally, Congress clearly has played a vital role, though often one of ratifying changes that have initially occurred at the administrative level. Moreover, although Congress was active in legislating changes in the transportation industries in the late 1970s and more recently promoted massive regulatory change in the telecommunications and electricity industries, for most of the 1980s it was curiously quiet and allowed the transformation to proceed in other arenas. We thus conclude that no consistent pattern of institutional leadership can be discerned that might help explain the great transformation.

Part III searches for more deep-seated economic and social forces that might account for what we term the great transformation. We consider four explanations: that the transformation has been driven by technological changes; that it has been produced by a series of chain reactions as regulatory change in one industry has caused further change in that industry or other industries; that key interest groups have discovered that regulatory change is in their interests; and that the transformation reflects an ideological consensus among economists and other policy elites that the original paradigm entails unacceptable risks of regulatory failure. We find support for all four explanations, but argue that the more general explanations—the interest group theory and the consensus concerning regulatory failure—should be given primacy of place in accounting for what is a general phenomenon.

Part IV wraps up the discussion with some speculations about the future course of the transformation. We offer the tentative predictions that competition will continue to replace regulation in industry segments that do not have natural monopoly characteristics, and that the role of regulatory agencies will increasingly become the minimalist one of arbitrating between providers to assure that natural monopoly bottlenecks do not interfere with this competitive process. But we do not think it likely, at least in the foreseeable future, that the unfettered market will supplant public regulation. Instead, the modern administrative state in regulated industries law will live on—not abolished, but transformed.

I. THE GREAT TRANSFORMATION: COMPETITION THROUGH REGULATION

The last several decades have witnessed great and still-evolving changes in the regulation of the nation's transportation, telecommunications, and energy industries. Beginning in the late nineteenth century, the dominant model of regulation viewed these various industries, or their individual constituent parts, as best served by a limited number of service providers that would be overseen by a regulatory commission concerned with maintaining standardized packages of services and prices. But this model of regulation, which we term the original paradigm of regulated industries law, has been giving way—at times steadily, at times by dramatic leaps—to a new paradigm emphasizing, to the maximum degree feasible, consumer choice among multiple competing providers.

This transformation necessarily has had emphases and manifestations that are peculiar to particular industries. For example, the breakup of the Bell System has no precise analogue in the transportation industries simply because in those industries there was no single service provider that had a comparable vertical or horizontal monopoly over any form of transportation. But, as we explain below, many of the regulatory changes in the railroad, trucking, and airline industries that emerged in the late 1970s have substantial parallels in the transformation taking place today in telecommunications, natural gas, and electricity. For purposes of our discussion, we divide these common changes in regulated industries law into three basic groups: changes in relations between providers and end-users, changes in relations between providers, and changes in the role of regulators. Although these divisions are somewhat artificial—for example, certain changes in relations with end-users could not occur unless regulators permitted other providers to enter a market—they are helpful guideposts in our effort to map the topography of the transformed law of regulated industries.

A. *Relations Between Providers and End-Users*

We begin with the most publicly visible and ultimately most important changes regarding regulated industries: those in relations between providers and end-users or consumers. Today, the relationship between service providers and end-users in many industries operates substantially differently from the original paradigm, which was conceived in the late nineteenth century and which predominated for the first three-quarters of this century.¹⁵ Although the changes vary to some extent according to the industry, there are a number of common themes running throughout each industry. At a broad level, the changes reflect the displacement of the traditional model designed to produce uniformity and reliability with one designed to maximize variety, choice, and low prices.

This general change in the way in which carriers and end-users structure their relations is defined more precisely by three trends in regulated industries over the past two decades. These trends can be captured by the phrases “detariffing,” “unbundling,” and “elimination of cross-subsidies.” We examine each of these trends in turn.

1. *Detariffing.* — For almost a century, public utility companies and common carriers had one common characteristic: All were required to

15. The widespread use today of the term “customers” to refer to end-users testifies to some of these changes. While both that term and the term “subscribers” have long been used, it is our impression that in those industries no longer characterized by natural monopolies, the term “subscriber” is used much less frequently than previously, perhaps because the term may connote a sense that the recipient of service lacks alternatives to a public utility company’s offerings. Compare *MCI Telecomms. Corp. v. AT&T*, 512 U.S. 218, 231–32 (1994) (using term “customers” in speaking of those taking service under a long-distance carrier’s filed tariffs), with *Ambassador, Inc. v. United States*, 325 U.S. 317, 321–26 (1945) (using term “subscribers” in same context).

offer their customers service under rates and practices that were just, reasonable, and non-discriminatory. Moreover, Congress and the states specified precisely how this objective would be carried out. The federal and state legislatures created regulatory commissions, required carriers to file with these commissions public tariffs setting forth the carriers' rates and other terms and conditions of service, and required end-users to take any service under these public tariffs. In the last twenty-five years, however, the common carrier industries have been steadily shedding this characteristic; contractual choice, rather than the standardized tariff, is rapidly becoming the predominant basis for carrier-customer relationships. Tariffs remain the rule of the day in the electric and natural gas industries, but this too could change if competition reaches the retail level of these industries.

The progenitor of the historically dominant model was the Interstate Commerce Act, which Congress enacted in 1887 to regulate interstate railroads.¹⁶ Under this model, all common carriers or public utility companies in a particular industry are required to include in their filed tariffs (or "schedules") all rates and any regulations, practices, or classifications that affect those rates.¹⁷ Deviation from these tariffs is strictly prohibited under any circumstances, unless the regulatory commission concludes that the carrier's rates fail to meet the statutory requirement of being just, reasonable, and not unreasonably discriminatory. Even where a customer has been quoted a lower rate and has relied on that quotation, the Supreme Court has held that the tariff rate rather than the contract rate prevails.¹⁸

This extraordinarily strict rule, which would eventually be called the "filed rate doctrine,"¹⁹ was deemed necessary because non-discrimination

16. Act of Feb. 4, 1887, ch. 105, 24 Stat. 379. The act was also known by its enactment date or its initial words ("An act to regulate commerce") and was formally named the Interstate Commerce Act by the Transportation Act of 1920. See Act of Feb. 28, 1920, ch. 91, 41 Stat. 456, 457; Act of May 8, 1920, ch. 172, 41 Stat. 589. The Interstate Commerce Act was itself modelled in part on various English statutes. See Clyde B. Aitchison, *The Evolution of the Interstate Commerce Act: 1887-1937*, 5 *Geo. Wash. L. Rev.* 289, 299 & n.22 (1937) (and sources cited). But cf. Jordan Jay Hillman, *Competition and Railroad Price Discrimination: Legal Precedent and Economic Policy* 31, 42 n.150 (1968) ("English experience . . . was not a decisive factor" in Congress's intent or "the final form of the statutory sections"). In addition to containing a helpful summary of the act's evolution, Aitchison's article discusses events leading up to its passage and also cites numerous other secondary sources addressing railroads and their regulation in the late nineteenth and early twentieth centuries.

17. See, e.g., Interstate Commerce Act § 6 (codified before repeal at 49 U.S.C. § 6 (1976)) (railroads); see also *infra* notes 31-38 (other industries).

18. See, e.g., *Maislin Indus., U.S., Inc. v. Primary Steel, Inc.*, 497 U.S. 116, 130-32 (1990); *Louisville & Nashville R.R. v. Maxwell*, 237 U.S. 94, 97-98 (1915); *Texas & Pac. Ry. v. Mugg*, 202 U.S. 242, 245 (1906); see also *AT&T v. Central Office Tel., Inc.*, 118 S. Ct. 1956, 1964-65 (1998) (tariff provides sole measure of carrier's duty even if customer was promised faster and better services).

19. The cases announcing and strictly enforcing this rule date back to the nineteenth century, see *Gulf, Colo. & S.F. Ry. v. Hefley*, 158 U.S. 98, 101-03 (1895), and were legion in

was unquestionably the overriding goal of the Interstate Commerce Act, taking precedence even over the "just and reasonable" requirement.²⁰ To achieve this purpose, the carrier's tariffs, which were filed with the Interstate Commerce Commission (ICC) and made available for public inspection both there and elsewhere, defined all aspects of the carrier-customer relationship.²¹

The origins of this non-discrimination goal can be found in the social forces that led to the passage of the Interstate Commerce Act. In post-Civil War America it was widely believed—"especially . . . in the large agricultural states of the Middle West"²²—that railroads were routinely engaged in unequal treatment of particular shippers, localities, and commodities. These grievances found an eloquent voice in Senator Shelby M. Cullom of Illinois. After holding hearings throughout the country, Senator Cullom's committee issued a report stating that "discrimination in one form or another" was "the principal cause of complaint against the management and operation of the transportation system of the United States."²³ According to the report, "[i]t is substantially agreed by all parties in interest that the great desideratum is to secure equality, so far as practicable, in the facilities for transportation afforded and the rates charged by the instrumentalities of commerce."²⁴

Although it has now become a commonplace to associate the tariff-filing system with regulation of monopolies,²⁵ this is an ahistorical view of

the Supreme Court in the early part of this century, see, e.g., *Keogh v. Chicago & N.W. Ry.*, 260 U.S. 156, 162-63 (1922) (and cases cited); *Texas & Pac. Ry. v. Abilene Cotton Oil*, 204 U.S. 426, 439-40 (1907) (and cases cited). As early as 1915, the Court referred to the "doctrine of the conclusiveness of the filed rates," *George N. Pierce Co. v. Wells Fargo & Co.*, 236 U.S. 278, 286 (1915), but the term "filed rate doctrine" apparently was not used by courts until 1969, see *Cities Serv. Gas Co. v. FPC*, 424 F.2d 411, 417 (10th Cir. 1969). The first use by the Supreme Court was in 1981. See *Arkansas-Louisiana Gas Co. v. Hall*, 453 U.S. 571, 573 (1981).

20. The Supreme Court so stated on numerous occasions:

It cannot be challenged that the great purpose of the act to regulate commerce, whilst [also] seeking to prevent unjust and unreasonable rates, was to secure equality of rates as to all and to destroy favoritism, these last being accomplished by requiring the publication of tariffs and by prohibiting secret departures from such tariffs, and forbidding rebates, preferences and all other forms of undue discrimination.

New York, N.H. & H. R.R. v. ICC, 200 U.S. 361, 391 (1906); see also 1 A.G.J. Priest, *Principles of Public Utility Regulation* 285 (1969) ("Even exorbitant rates probably have generated less irritation and exasperation than discriminatory practices."). See generally Isaac Beverly Lake, *Discrimination by Railroads and Other Public Utilities* (1947); Herbert Hovenkamp, *Regulatory Conflict in the Gilded Age: Federalism and the Railroad Problem*, 97 *Yale L.J.* 1017, 1044-54 (1988) (and sources cited).

21. See, e.g., *Maislin*, 497 U.S. at 126-27 (and cases cited).

22. 1 Bernard Schwartz, *The Economic Regulation of Business and Industry: A Legislative History of U.S. Regulatory Agencies* 17 (1973).

23. S. Rep. No. 46, Pt. I, 49th Cong., at 182 (1886) [hereinafter Cullom Report].

24. *Id.*

25. See, e.g., *Orscheln Bros. Truck Lines, Inc. v. Zenith Elec. Corp.*, 899 F.2d 642, 645 (7th Cir. 1990); *Policy and Rules Concerning Rates for Competitive Carrier Services and*

the matter. The railroads of the late nineteenth century were a mix of monopoly and competitive transportation lines, with short hauls (e.g., Elkhart, Indiana to Chicago) frequently being served by only one carrier but long hauls (e.g., New York to Chicago) served by multiple carriers. The result was rates that were often higher on the short monopoly routes than on substantially longer hauls. However, these disparities, which were rooted in monopoly power over certain “captive shippers,” were not the only source of popular unhappiness. The public also reacted against the varying rates and treatment of different shippers on the competitive routes.²⁶ Indeed, the Cullom Report noted that discrimination is “most conspicuous when and where competition is most active.”²⁷ The committee accordingly concluded that whereas “competition [is] a safeguard against extortion” (i.e., the excessive rates that a monopoly can exact), “experience has shown that it is no safeguard against discrimination.”²⁸ Thus, it was vigorous competition, as much as anything else, that gave rise to the wide variety of kickbacks, gratuities, and other devices that agitated much of the public. By 1887, the populist movement that had arisen in opposition to these “preferences,” which were associated with large, monied, better-situated, and particularly corporate interests, could no longer be resisted, and the first major federal regulatory statute was enacted.²⁹

This history is central to understanding the original paradigm of regulated industries law. The Interstate Commerce Act—in its substantive requirements of just, reasonable, and non-discriminatory rates and practices, in its procedural device of publicly filed tariffs setting forth these rates and practices, and in its disallowance of deviations from the tariffs—was essentially copied by Congress and the states into numerous subse-

Facilities Authorizations Therefor, 84 F.C.C.2d 445, 448–63 (1981) (subsequent history omitted); see also *MCI Telecomms. Corp. v. AT&T*, 512 U.S. 218, 235–39, 245 (1994) (Stevens, J., dissenting); *Maislin*, 497 U.S. at 138, 145–46 n.11 (Stevens, J., dissenting).

26. See George W. Hilton, *The Consistency of the Interstate Commerce Act*, 9 J.L. & Econ. 87, 93–94 (1966); Hovenkamp, *supra* note 20, at 1044–54; see also Hillman, *supra* note 16, at 1–35.

27. Cullom Report, *supra* note 23, at 189.

28. *Id.* at 191–92.

29. We do not wish to oversimplify the forces that led to the passage of the Interstate Commerce Act, a topic on which much scholarly ink has been spilled. See, e.g., Herbert Hovenkamp, *Enterprise and American Law, 1836–1937*, at 131–48 (1991) (“the historical record shows . . . rather consistent lobbying and litigation by the railroads *against* state regulations, but substantial railroad support for federal regulation”) (quoted material at 136); Gabriel Kolko, *Railroads and Regulation, 1887–1916* (1965) (the leading advocates and beneficiaries of federal regulation were the railroads themselves); Thomas S. Ulen, *The Market for Regulation: The ICC from 1887 to 1920*, 70 *Am. Econ. Rev.* 306, 306–07 (1980) (“three separate groups . . . constituted the principal demanders of federal regulation”: farmers in the upper Midwest and on the edges of the Great Plains, merchants and farmers in the East, and the railroads themselves). We believe, however, that the centrality of the act’s anti-discrimination purpose and provisions as set forth in the text is well established.

quent regulatory acts.³⁰ For example, by 1938, Congress had imposed this model on the interstate components of the shipping,³¹ stockyard,³² telephone,³³ telegraph,³⁴ trucking,³⁵ electric,³⁶ gas,³⁷ and aviation³⁸ industries. The reason for this replication had nothing to do with the structure of these industries. Some were natural monopolies; others were highly competitive. Rather, it simply was generally accepted that an administrative system based on filed tariffs was the appropriate approach to regulating public utility and common carrier services, and that government oversight of the market was required to ensure the accepted goals of reasonableness, non-discrimination, and reliable service.³⁹

30. To be sure, many states regulated railroads—including their rates—even before 1887. See, e.g., Cullom Report, *supra* note 23, at 63–137 (detailed summary of provisions of state statutes and operations of state commissions as of 1886); Paul Teske et al., *Deregulating Freight Transportation: Delivering the Goods* 24–25 (1995) (overview of state efforts to oversee railroad operations). But it was in part the perceived inefficacy of some of these regulatory schemes (particularly after the Supreme Court's decision in *Wabash, St. Louis & Pac. Ry. v. Illinois*, 118 U.S. 557 (1886)) that impelled Congress to act, and, in all events, the Interstate Commerce Act became the progenitor of much state regulation. (For an incisive account of the interplay between state regulation of railroad rates and its effect on interstate systems both before and after the *Wabash* decision and the passage of the Interstate Commerce Act, see Hovenkamp, *supra* note 29, at 125–68.)

31. See Shipping Act, ch. 451, §§ 14–18, 39 Stat. 728, 733–35 (1916) (codified as amended at 46 U.S.C. app. §§ 812, 814–817 (1994)).

32. See Packers and Stockyards Act, ch. 64, §§ 304–307, 42 Stat. 159, 164–65 (1921) (codified as amended at 7 U.S.C. §§ 205–208 (1994)).

33. See Communications Act of 1934, ch. 652, §§ 201–203, 48 Stat. 1064, 1070–71 (codified as amended at 47 U.S.C. §§ 201–203 (1994)).

34. See *id.*

35. See Motor Carrier Act, ch. 498, §§ 216–218, 49 Stat. 543, 558–63 (1935) (codified as amended and before repeal at 49 U.S.C. §§ 316–318 (1976)).

36. See Federal Power Act, ch. 687, § 213, 49 Stat. 838, 851–52 (1935) (codified as amended at 16 U.S.C. § 824d (1994)).

37. See Natural Gas Act, ch. 556, § 4, 52 Stat. 821, 822–23 (1938) (codified as amended at 15 U.S.C. § 717c (1994)).

38. See Civil Aeronautics Act of 1938, ch. 601, §§ 403–404, 52 Stat. 973, 992–94 (codified as amended and before repeal at 49 U.S.C. §§ 483–484 (1952)); see also Federal Aviation Act of 1958, Pub. L. No. 85-726, §§ 403–404, 72 Stat. 731, 758–60 (replacing sections 403 and 404 of the 1938 act in materially the same language) (codified as amended and before repeal at 49 U.S.C. § 1373–1374 (1976)).

39. See, e.g., Paul Stephen Dempsey, *The Rise and Fall of the Civil Aeronautics Board—Opening Wide the Floodgates of Entry*, 11 *Transp. L.J.* 91, 95–108 (1979) (describing reasons for Congress's enactment of Civil Aeronautics Act of 1938); Charles A. Webb, *Legislative and Regulatory History of Entry Controls on Motor Carriers of Passengers*, 8 *Transp. L.J.* 91, 91–99 (1976) (discussing the purposes, motives, and concerns that led Congress to model Motor Carrier Act of 1935 on previous enactments governing other regulated industries). Throughout this article, we concentrate almost exclusively on changes in regulation at the federal rather than the state level. Partly this reflects limits of space (and our expertise). But it also reflects the greater importance of federal regulation, both in the sense that state regulation (or deregulation) often cannot be made effective without prior changes in federal law, and in the sense that federal law has, since the adoption of the Interstate Commerce Act, served as a model that much state regulation has emulated.

By the 1970s, this consensus was crumbling. Policy elites and their economic advisers began to call for greater competition in regulated industries, most prominently in the transportation sector.⁴⁰ The rejection of the original paradigm came first in the airline industry. Although the impetus for change came in part from forces within the executive branch and the regulatory commission,⁴¹ Congress delivered the coup de grâce.

The Airline Deregulation Act of 1978 was revolutionary in its approach. Although it nominally maintained the requirement that carriers' rates and practices be just, reasonable, and non-discriminatory, it eliminated the Interstate Commerce Act's model for ensuring the fulfillment of those requirements: the duty of carriers to file their rates in tariffs with a government regulator.⁴² Further, a company proposing to serve a particular route was no longer required to persuade the government that its proposal was required by the "public convenience and necessity."⁴³ Indeed, the Civil Aeronautics Board (CAB)—the government entity that had overseen the rates, determined the public interest, and made the entry-and-exit decisions in this industry—was eventually abolished.⁴⁴ Carriers were effectively free to serve whatever routes they desired (if they could acquire airport gates) and to charge whatever rates they wanted.

Other transportation industries also shifted from rate-regulated carriage, with a regulatory commission relying on tariff filings to oversee the type, price, and quality of service, to a contract-based regime. Railroads took a large step in that direction with the Railroad Revitalization and Regulatory Reform Act of 1976 (commonly called the "4R Act"), where Congress limited the ICC's authority to review railroads' rates for reasonableness to situations where a carrier had "market dominance."⁴⁵ The ICC itself thereafter changed its policy with regard to contract rates. Specifically, in 1978, the ICC abandoned its view that contract rates are inherently discriminatory and therefore must be "deemed unlawful per

40. See Martha Derthick & Paul J. Quirk, *The Politics of Deregulation* 35–45 (1985) (describing this phenomenon).

41. For a discussion of the role of these institutions in airline deregulation, see *infra* text accompanying notes 189–201, 346–348; see also Breyer, *supra* note 10, at 320, 325–26, 328–29.

42. See 49 U.S.C. app. § 1551(a)(2)(A) (1988).

43. 49 U.S.C. § 1371(a), (d)(1) (1976) (repealed); see also Dempsey, *supra* note 39, at 95. This requirement had been copied from the Interstate Commerce Act, as it had been amended in 1920, into numerous subsequent regulatory enactments. Compare 49 U.S.C. § 1(18) (1976) (repealed), with, e.g., Communications Act of 1934, § 214, 47 U.S.C. § 214 (1994), and Motor Carrier Act of 1935, §§ 206(a)(1), 207(a), 49 U.S.C. §§ 306(a)(1), 307(a) (1976) (repealed).

44. See 49 U.S.C. app. § 1551(a)(1)(A), (a)(3) (1988); see also Civil Aeronautics Board Sunset Act of 1984, Pub. L. No. 98-443, 98 Stat. 1703.

45. Pub. L. No. 94-210, § 202(b), (c)(i), 90 Stat. 31, 35 (1976) (codified as amended at 49 U.S.C. § 10709(c) (1994)).

se."⁴⁶ The agency's new position permitting contract rates was eventually upheld by the courts.⁴⁷

Congress largely completed the transformation of rail regulation when it enacted the Staggers Rail Act of 1980.⁴⁸ The Act expressly authorized the use of carrier-customer contracts, which Congress viewed as "a significant aspect of the new freedom allowed to carriers to market rail transportation more effectively."⁴⁹ The grounds for disapproving contracts were intentionally limited, and the contracts were "to be enforced in the courts and not at the Commission."⁵⁰ When Congress finally abolished the ICC as of January 1, 1996 (and transferred its remaining functions to the Surface Transportation Board),⁵¹ the House Committee could state that "the railroad industry has operated in an essentially deregulated environment" since 1980.⁵²

In the past two decades, carrier-customer relations in the trucking industry also have moved from being governed primarily by regulation to a contract regime. The Motor Carrier Act of 1980 marked the beginning of this process. Although it retained the requirement that truckers file their rates in tariffs with the ICC,⁵³ the 1980 law permitted truckers to

46. *Guaranteed Rates, Sault Ste. Marie, Ont., Canada, to Chicago, Ill.*, 315 I.C.C. 311, 323 (1961); see *Change of Policy, Railroad Contract Rates, Ex Parte No. 358-F* (I.C.C. Nov. 9, 1978) (adopting general policy statement concluding that contract rate agreements have a number of significant transportation benefits which must be weighed against possible adverse consequences on a case-by-case basis); *Change of Policy, Railroad Contract Rates*, 361 I.C.C. 205, 210 (1979) (denying petition for rulemaking).

47. See *Sea-Land Serv., Inc. v. ICC*, 738 F.2d 1311, 1316-19 (D.C. Cir. 1984).

48. Pub. L. No. 96-448, 94 Stat. 1895.

49. H.R. Conf. Rep. No. 96-1430, at 100 (1980), reprinted in 1980 U.S.C.C.A.N. 4110, 4132.

50. *Id.*

51. See *ICC Termination Act of 1995*, Pub. L. No. 104-88, 109 Stat. 803.

52. H.R. Rep. No. 104-311, at 90 (1995), reprinted in 1995 U.S.C.C.A.N. 793, 802; see also Frank J. Dooley & William E. Thoms, *Railroad Law a Decade After Deregulation* 9-10 (1994) (explaining that "relatively few commodities move at tariff rates" and that "a good deal of carriage charges are negotiated between the railroads and the shippers of bulk commodities").

53. See 49 U.S.C. §§ 10761(a), 10762(a)(1) (1988) (repealed). Congress similarly maintained in 1980 the requirement that truckers obtain certificates of convenience and necessity from the ICC before they could serve a particular route, but substantially reduced the difficulty of obtaining them. See *infra* note 119. The result of Congress's liberalized entry policies (and other regulatory reforms) has been a near-quadrupling of the number of licensed carriers. Whereas in 1980 there were approximately 14,000 ICC-licensed carriers, "almost all descended from the 28,000 carriers that received grandfather authority when the [original] Motor Carrier Act took effect in 1935," Breyer, *supra* note 10, at 226 (footnote omitted), by 1995 that number had grown to 55,000 carriers. See H.R. Rep. No. 104-311, at 92, reprinted in 1995 U.S.C.C.A.N. at 804. Congress eliminated the licensing requirement in 1995 when it terminated the ICC. See Pub. L. No. 104-88, § 101, 109 Stat. 803, 804. Although it simultaneously imposed a requirement that truckers register with the Secretary of Transportation, this registration requirement is not an entry restriction equivalent to the former certificate or licensing scheme. See H.R. Rep. No. 104-311, at 115, reprinted in 1995 U.S.C.C.A.N. at 827 ("[r]egistration is based on safety fitness and

“hold both common and contract operating authority”—a change in policy that effectively eliminated the prohibition on discrimination.⁵⁴ Subsequent legislative and administrative developments have almost completely abolished the tariff-filing requirement even for common carriers. The Negotiated Rates Act of 1993⁵⁵ reduced the ability of carriers or their successors (e.g., bankruptcy trustees) to enforce a filed rate over an unfiled contract rate and permitted the filing of so-called “range tariffs”—tariffs that set forth a range of rates that might apply to a particular shipment and thus do not perform the traditional tariff role of rendering rates “fixed” or “definite and certain.”⁵⁶ Only one year later, the Trucking Industry Regulatory Reform Act of 1994 eliminated tariff-filing requirements for individually determined rates; this affected some 90 percent of the annual 1.4 million tariff filings with the ICC.⁵⁷ When Congress thereafter abolished the ICC, it proceeded still further, confining the tariffing requirement to only two categories of traffic.⁵⁸ Thus, contracts have truly replaced standardized tariff offerings as the defining element of trucking companies’ relations with their customers.

Outside the transportation industries, detariffing has proceeded more slowly, but has been advancing at least in the telephone industry. Detariffing in the long-distance telecommunications market has taken a long and winding path. After experimenting in the early 1980s with making tariffs optional for non-dominant carriers,⁵⁹ the FCC attempted in

financial responsibility and shall be withheld if the carrier does not meet these requirements”); 49 U.S.C. §§ 13901–13908 (Supp. II 1996).

54. Petition to Institute Rulemaking on Negotiated Motor Common Carrier Rates, 5 I.C.C.2d 623, 633 (1989) (“motor common carriers that desire for some reason to discriminate among shippers in their rates (for example, to offer lower rates to large shippers) may do so lawfully simply by obtaining contract carrier authority”) (footnotes omitted). For an overview of historical and modern developments in the law of common carriage, see Jurgen Basedow, *Common Carriers: Continuity and Disintegration in U.S. Transportation Law*, 13 *Transp. L.J.* 1 (1983); Jürgen Basedow, *Common Carriers—Continuity and Disintegration in U.S. Transportation Law: Part II*, 13 *Transp. L.J.* 159 (1984).

55. Pub. L. No. 103-180, § 5(b), 107 Stat. 2044, 2050 (1993).

56. *Arizona Grocery Co. v. Atchison, T. & S.F. Ry.*, 284 U.S. 370, 383–84 (1932); cf. *Southwestern Bell Corp. v. FCC*, 43 F.3d 1515 (D.C. Cir. 1995) (range tariffs not permitted under Communications Act of 1934).

57. See H.R. Rep. No. 104-311, at 92, reprinted in 1995 U.S.C.C.A.N. at 804.

58. See H.R. Rep. No. 104-311, at 113, reprinted in 1995 U.S.C.C.A.N. at 825; 49 U.S.C. § 13702(a) (Supp. II 1996). The two remaining categories that require tariffs are movements by or with a water carrier in noncontiguous domestic trade and movements of household goods paid for by the householder. Indeed, only in the former case must the tariffs actually be filed with the Surface Transportation Board, the ICC’s limited successor; for the latter traffic category, the “tariffs” need merely be available for inspection by the Board or by shippers. See 49 U.S.C. § 13702(b), (c) (Supp. II 1996).

59. “[I]n the long-distance market, this amounted to a distinction between AT&T [the only dominant carrier] and everyone else” *MCI Telecomms. Corp. v. AT&T*, 512 U.S. 218, 221 (1994). Since then, even AT&T has been reclassified as a non-dominant carrier. See *Motion of AT&T Corp. to Be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd. 3271, 3357 (1995) (subsequent history omitted).

1985 to prohibit non-dominant carriers from filing any tariffs for their services. It concluded that the tariff-filing system "imposes unnecessary costs on [non-dominant] carriers, their subscribers, and society generally," and that without tariffs customers would be better able to obtain "services that meet their specific needs" and carriers would be more likely to develop "innovative service offerings."⁶⁰ This mandatory detariffing was struck down by the D.C. Circuit as inconsistent with the Communications Act.⁶¹ Undeterred, the FCC switched to a "permissive detariffing" policy, referred to as "forbearance" because the agency announced that it would "forbear" from enforcing against non-dominant carriers the Communications Act's requirement that "every" carrier "shall" file tariffs containing "all" its rates. This policy was also invalidated, this time by the Supreme Court, on the ground that the FCC's statutory authority to "modify" tariff-filing requirements did not empower it to make such a fundamental change as to eliminate the obligation for virtually all long-distance carriers.⁶²

But these setbacks were only temporary. Change to the filed-rate system finally arrived the way the Supreme Court had said it should: in the form of new legislation.⁶³ In the Telecommunications Act, Congress gave the FCC the "forbearance" authority that the Supreme Court had denied it under the original provisions of the Communications Act.⁶⁴ The precise scope of this power remains uncertain, and long-distance carriers and the FCC are still skirmishing over mandatory detariffing (favored by the FCC) versus permissive detariffing (the preference of the carriers). In all events, it is clear that the FCC sees little value in tariffs; in its view, as

60. Policy and Rules Concerning Rates for Competitive Carrier Services and Facilities Authorizations Therefor, 99 F.C.C.2d 1020, 1031 (1985) (subsequent history omitted).

61. See *MCI Telecomms. Corp. v. FCC*, 765 F.2d 1186 (D.C. Cir. 1985). Although regulated companies frequently chafe at tariffs because they preclude some flexibility, tariffs also convey some less-remarked-upon advantages on carriers—particularly if the carriers can pick and choose which of their services are tariffed. In particular, tariffs can be used to limit a carrier's liability. See, e.g., *Boston & Maine R.R. v. Hooker*, 233 U.S. 97, 108 (1914).

62. See *MCI Telecomms. Corp.*, 512 U.S. at 224–34. Recalling its Interstate Commerce Act precedents from earlier in the century, the Court noted that "[t]here is not only a relation, but an indissoluble unity between the provision for the establishment and maintenance of rates until corrected in accordance with the statute and the prohibitions against preferences and discrimination." *Id.* at 230 (quoting *Texas & Pac. Ry. v. Abilene Cotton Oil Co.*, 204 U.S. 426, 440 (1907)). A subsequent last-gasp effort by the FCC to use its original statutory authority to gut the tariff-filing requirement—by adopting a policy permitting carriers to file tariffs containing "ranges of rates"—was also rejected by the courts. See *Southwestern Bell Corp. v. FCC*, 43 F.3d 1515 (D.C. Cir. 1995).

63. See, e.g., *MCI Telecomms. Corp.*, 512 U.S. at 234.

64. See 47 U.S.C.A. § 160(a) (West Supp. 1998) (requiring FCC to "forbear from applying any regulation or any provision of [the Communications Act] to a telecommunications carrier" if the FCC determines that, among other things, "enforcement of such regulation or provision is not necessary to ensure that the charges, practices, classifications, or regulations [of the carrier] . . . are just and reasonable, and not unjustly or unreasonably discriminatory").

long as competitive options are available, "the legal relationship between carriers and customers will much more closely resemble the legal relationship between service providers and customers in an unregulated environment."⁶⁵

Not all regulated industries, or even all telecommunications services, have been detariffed. As a rule, in the segments of these industries still served by monopolies, the tariff requirements remain in place. For example, local exchange companies (LECs) such as the Bell Operating Companies (BOCs) continue to be required by the FCC to file tariffs for various access services (e.g., enabling long-distance companies to reach end-users such as residential customers) on the theory that they still possess market power for those services.⁶⁶ For a similar reason, detariffing in the natural gas and electric industries has also lagged behind the transportation industries and the telecommunications industry. Transmission of both natural gas and electricity is still thought to be a natural monopoly⁶⁷—a service that can be provided more efficiently by one firm than by two or more. Where it is assumed that service will continue to be pro-

65. Policy and Rules Concerning the Interstate, Interexchange Marketplace, 11 FCC Rcd. 20730, 20762 (1996) (subsequent history omitted). It should also be observed that, even short of detariffing, the telecommunications industry during the period of the great transformation experienced in part the same migration toward purely contractual relations between carrier and customer that marked the transportation industries. This can be seen in proceedings concerning AT&T's Tariff 12 beginning in the late 1980s. Under that tariff, AT&T offered various "options," each of which was a package of services designed to meet the needs of a single specific corporate customer, and the tariffed rate for each option was lower than the sum of the various rates that the customer would have paid if it had separately purchased each service in the package. Although AT&T's competitors for this corporate business (which under the FCC's policy at the time were not similarly burdened by a tariff-filing requirement) challenged these tariff provisions as unreasonably discriminatory, the D.C. Circuit ultimately agreed with the FCC that such preferential rates could be justified by the fact that "the customer forfeits the flexibility of determining the precise way in which AT & T will provide the services." *Competitive Telecomms. Ass'n v. FCC*, 998 F.2d 1058, 1060 (D.C. Cir. 1993).

66. See, e.g., *Electronic Tariff Filing System (ETFS)*, DA 98-914, 1998 FCC LEXIS 2562 (FCC May 28, 1998); *Expanded Interconnection with Local Telephone Company Facilities*, 9 FCC Rcd. 5154 (1996) (subsequent history omitted). In implementing the Telecommunications Act of 1996, the FCC groups LECs into the categories of incumbent LECs (also called "ILECs"), such as the BOCs and the other local telephone companies that have traditionally provided local telephone service on a state-franchised monopoly basis, and non-incumbent or competitive LECs (also called "CLECs"), which the Act envisions as both interconnecting and competing with the ILECs. See, e.g., *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 FCC Rcd. 15499, 15506 (1996) (subsequent history omitted). Consistent with traditional terminology, we use the term "LEC" to refer to incumbent LECs.

67. See *infra* note 299 (citing FERC orders). But cf. Richard J. Pierce, *Reconsidering the Roles of Regulation and Competition in the Natural Gas Industry*, 97 *Harv. L. Rev.* 345, 379-82, 384-85 (1983) (arguing that the market power of gas pipelines has been overestimated).

vided by a monopoly, tariffs continue to be used to ensure that all have non-discriminatory access to such service segments.⁶⁸

Overall, therefore, we find the following pattern with respect to tariffing. Under the original paradigm, all regulated industries provided services pursuant to publicly filed tariffs. Tariffs were required whether the industry was competitive or monopolistic, primarily as a prophylaxis against discrimination. Implicit in this policy was the understanding that “discrimination” is any differential pricing of services provided to similarly situated end-users. This is a definition grounded in a social policy of equal treatment. Under the new paradigm, tariffing is being eliminated for all regulated services that can be provided on a competitive basis, and is retained only for those service segments regarded as natural monopolies. Implicit in this new policy is the understanding that “discrimination” cannot exist in a competitive market, and hence is a concern only when a single dominant firm has monopoly power. This is a definition grounded in economic theory. Thus we see that regulatory changes designed to promote competition entail, as a closely associated concomitant measure, proposals that regulated services be detariffed.

2. *Unbundling*. — A second aspect of the great transformation of regulated industries law can be seen in the form in which end-users acquire services from carriers. Under the original paradigm derived from the Interstate Commerce Act, customers received predetermined, non-negotiable service packages. For example, telecommunications services were offered as a single package of “end-to-end” service: customer premises equipment, inside wiring, and local service were all “bundled into a single tariffed package”; long-distance usage was separately measured, “but access to the service itself was likewise part of the same monopoly package.”⁶⁹ Under the new paradigm, by contrast, carriers are required to unbundle such end-to-end service into constituent parts in order to allow end-users to mix and match different service elements to suit their own needs and tastes.

Nowhere is this contrast between the original paradigm and the new paradigm more evident than in the telecommunications industry. The simple but important example of regulation of customer premises equipment—e.g., telephones, answering machines, and similar equipment—encapsulates the evolving attitude toward packaging of integrated services.

68. See, e.g., Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation, FERC Stats. & Regs. (CCH) ¶ 30,939, at 30,414–15 (1992) [hereinafter FERC Order No. 636] (subsequent history omitted) (natural gas transmission); Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities and Transmitting Utilities, FERC Stats. & Regs. (CCH) ¶ 31,036, at 31,732–67 (1996) [hereinafter FERC Order No. 888] (subsequent history omitted) (electricity transmission).

69. Michael K. Kellogg et al., Federal Telecommunications Law § 2.8, at 92 (1992).

For most of this century, it was assumed that one would obtain customer premises equipment only from the local telephone company. Indeed, the “foreign attachments” provisions in the tariffs of the Bell System, which provided local telephone service to more than 80 percent of the nation’s subscribers, expressly prohibited use of any device not provided by the telephone company.⁷⁰ Although it has become fashionable to suggest or at least imply that this restriction stemmed solely from a desire by the Bell System to leverage its state-franchised local monopolies (the BOCs) into a monopoly in the inherently competitive market for customer premises equipment,⁷¹ these suggestions are not accompanied by evidence from the historical record that this was the self-conscious motivation of Bell executives, or of the federal and state regulators that approved this arrangement. Rather, the prohibition on foreign attachments was supported by the apparently genuinely held belief that use of such attachments would in fact cause harm to the telecommunications network and an apparently genuine (if misconceived) belief that the public simply did not need competitive choices among providers of customer premises equipment.⁷²

In all events, although the lawfulness of this restriction was called into question as early as 1956 in the *Hush-a-Phone* case,⁷³ the FCC did not begin requiring carriers to unbundle customer premises equipment from local phone service until the late 1960s.⁷⁴ And although the FCC then remarked that “[n]o one entity need provide all interconnection equipment . . . any more than a single source is needed to supply the parts of a space probe,”⁷⁵ it was not until well into the 1970s that the FCC fully unbundled customer premises equipment and local telephone service.⁷⁶ Since then, customers receiving local telephone service from a BOC have had the option of obtaining customer premises equipment along with that service or, instead, procuring such equipment from another company.

The transition to a fully competitive marketplace was finally realized only after the FCC, acting in the early 1980s, coupled this unbundling

70. See *id.* § 10.4.1, at 499 & n.1.

71. See, e.g., *id.* § 10.4.1, at 499; Jim Chen, *The Legal Process and Political Economy of Telecommunications Reform*, 97 *Colum. L. Rev.* 835, 843–844 (1997); David O. Stewart, Note, *Competition in the Telephone Equipment Industry: Beyond *Teletent**, 86 *Yale L.J.* 538, 544–50 (1977).

72. See, e.g., *Hush-A-Phone Corp.*, 20 *F.C.C.* 391, 420 (1955), *rev’d*, 238 *F.2d* 266 (D.C. Cir. 1956); see also Stewart, *supra* note 71, at 546 n.33 (describing “possible dangers to ‘system integrity’ posed by defective equipment”).

73. *Hush-A-Phone Corp. v. United States*, 238 *F.2d* 266 (D.C. Cir. 1956).

74. See *Use of the Carterfone Device in Message Toll Tel. Serv.*, 13 *F.C.C.2d* 420 (1968) (subsequent history omitted).

75. *Id.* at 424.

76. See *North Carolina Utils. Comm’n v. FCC*, 552 *F.2d* 1036 (4th Cir. 1977); *North Carolina Utils. Comm’n v. FCC*, 537 *F.2d* 787 (4th Cir. 1976).

with mandatory detariffing of customer premises equipment.⁷⁷ The FCC explained the new regime with a statement that succinctly summarizes the philosophy underlying the new paradigm:

In general, bundling of goods and services may restrict the freedom of choice of consumers and restrains their ability to engage in product substitution. Unless the goods and services in the bundle exactly match the preferences of consumers, consumer satisfaction may be reduced by bundling. Thus, consumer satisfaction could be increased by changes in the marketing structure that allow the users, rather than the vendors, to determine the bundle of goods and services that get purchased.⁷⁸

The telecommunications industry has also produced what is thus far the greatest unbundling of all in regulated industries: the separation of long-distance telecommunications services from local service. Historically, the Bell System not only dominated local exchange service throughout the nation, but also possessed a virtual monopoly on long-distance service.⁷⁹ Any other carrier's entry into the interstate portion of this market would be permitted only if it persuaded the FCC that "the public convenience and necessity" "required" such entry.⁸⁰

The FCC long adhered to a single-provider model for long-distance service. For example, it made no effort to compel local telephone companies, including the Bell System's BOCs, to permit long-distance companies other than AT&T to interconnect with the LECs' networks. But a combination of factors—some highly fortuitous—led to what one commentator termed the FCC's "inadvertently creat[ing] a competitive long-distance communications market."⁸¹

This creation, which had its origins in a series of administrative decisions concerning "private line" services, was slow in unfolding. In 1959, the FCC authorized private companies to operate their own microwave

77. The FCC took this additional step in order to complete the deregulation of customer premises equipment and "foster[] a regulatory scheme which separates the provision of regulated common carrier services from competitive activities that are independent of, but related to, the underlying utility service." Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry), 77 F.C.C.2d 384, 447 (1980) (subsequent history omitted).

78. *Id.* at 442 (footnote omitted).

79. This monopoly was possible because there was no requirement that AT&T permit its BOCs to interconnect with other long-distance companies. A 1913 agreement between the Bell System and the Department of Justice, which was called the "Kingsbury Commitment" after the name of the Bell System vice-president who had negotiated it, provided that the Bell System would connect independent local phone companies to the Bell System's long-distance network, but made no provision for interconnecting other long-distance carriers to the Bell System's local telephone companies. See Gerald W. Brock, *The Telecommunications Industry: The Dynamics of Market Structure* 155 (1981); Kellogg et al., *supra* note 69, § 1.3.3, at 16.

80. 47 U.S.C. § 214 (1994). This standard was the same as that in other acts that also were based on the Interstate Commerce Act. See, e.g., *supra* note 43 (citing statutes).

81. Breyer, *supra* note 10, at 311.

transmission facilities.⁸² A decade later, the FCC authorized Microwave Communications, Inc., the forerunner of today's MCI Telecommunications Corp., to sell private-line microwave service to business firms between Chicago and St. Louis.⁸³ In a subsequent general rulemaking, the *Specialized Common Carrier Services* proceeding, the Commission authorized other companies to provide such private line services as well.⁸⁴ None of these decisions contemplated that new entrants into the long-distance market would become full-fledged competitors with AT&T.⁸⁵

But competition could not be easily confined to private-line services. When MCI revised its tariffs in 1974 to offer an expanded service, called "Execunet," that would provide a competitive alternative to AT&T's basic switched service, the FCC rejected the tariffs.⁸⁶ As one close observer recalled the matter, direct competition with AT&T "was not part of the 'original intent' of *Specialized Common Carrier*."⁸⁷ But on judicial review of this decision, Judge J. Skelly Wright held for the D.C. Circuit that MCI already had sufficient authority for its Execunet service, at least absent an affirmative conclusion by the agency that the public interest required an AT&T monopoly in the long-distance industry.⁸⁸ The FCC soon acquiesced, and the rest, as they say, is history. Before long, ordinary residential customers could obtain their long-distance telephone service from companies that were not part of the Bell System, such as MCI or Southern Pacific Communications (a predecessor to Sprint).⁸⁹ Long-distance service had been unbundled from local service.

Another striking example of unbundling is provided by the natural gas industry.⁹⁰ Unbundling has been more extensive in the natural gas context than in some other industries because the Natural Gas Act of

82. See Allocation of Frequencies in the Bands Above 890 Mc., 27 F.C.C. 359, 405 (1959).

83. See Applications of Microwave Communications, Inc. for Constr. Permits, 18 F.C.C.2d 953 (1969) (4-3 decision), recons. denied, 21 F.C.C.2d 190 (1970).

84. See Establishment of Policies and Procedures for Consideration of Application to Provide Specialized Common Carrier Services in the Domestic Public Point-to-Point Microwave Radio Service, 29 F.C.C.2d 870, recons. denied, 31 F.C.C.2d 1106 (1971), aff'd sub nom. Washington Utils. & Transp. Comm'n v. FCC, 513 F.2d 1142, 1169 (9th Cir. 1975).

85. Even the most vigorous advocates of liberalized entry regarded the primary benefit of private line services as the addition of "a little salt and pepper of competition to" traditional public utility law's "rather tasteless stew of regulatory protection." Chen, supra note 71, at 845 (quoting Applications of Microwave Communications, Inc., 18 F.C.C.2d at 978 (statement of Commissioner Johnson)).

86. See MCI Telecomms. Corp., 60 F.C.C.2d 25, 58 (1976).

87. Glen O. Robinson, *The Titanic Remembered: AT&T and the Changing World of Telecommunications*, 5 Yale J. on Reg. 517, 524 (1988).

88. MCI Telecomms. Corp. v. FCC, 561 F.2d 365, 380 (D.C. Cir. 1977) [hereinafter *Execunet I*].

89. See Robinson, supra note 87, at 524 & nn.27-28 (and FCC decisions cited).

90. Unbundling has been important in the electricity industry as well, but so far it has primarily affected the beginning of the chain of production—power generation—rather

1938, though largely modelled on the Interstate Commerce Act, "failed to require interstate pipelines to offer transportation services to third parties wishing to ship gas."⁹¹ Consequently, pipelines were not common carriers, and they typically sold a bundled product consisting of gas, interstate transportation, and storage services. Moreover, they were able "to use their monopoly power over gas transportation to create and to maintain monopsony power in the market for the purchase of gas at the wellhead and monopoly power in the market for the sale of gas to LDCs [i.e., local distribution companies]."⁹²

Nevertheless, a combination of congressional and federal regulatory efforts has transformed the natural gas industry in the last twenty years. The process started with the enactment of the Natural Gas Policy Act of 1978 (NGPA),⁹³ which began phasing out regulation of wellhead prices charged by producers of natural gas.⁹⁴ The Federal Energy Regulatory Commission (FERC), which in 1977 succeeded to the jurisdiction of the former Federal Power Commission (FPC) over interstate wholesale sales of natural gas,⁹⁵ then issued a series of orders designed to increase the access of local distribution companies to lower-cost gas and to stimulate competition. Most notable were FERC orders 436 and 636, issued in 1985 and 1992 respectively.⁹⁶ In essence, these orders "required [interstate] natural gas pipelines to provide service on an unbundled basis; henceforth, pipelines were required to sell natural gas, transportation service, and storage service as separate products and services."⁹⁷ Thus, for exam-

than end-users. Consequently, we postpone discussing it until Part I.B.2. See *infra* Part I.B.2.

91. *GMC v. Tracy*, 117 S. Ct. 811, 816 (1997). For a helpful overview of the traditional structure and regulation of the natural gas industry, see *Pierce*, *supra* note 67, at 348-50.

92. Richard J. Pierce, *The Evolution of Natural Gas Regulatory Policy*, 10 *Nat. Resources & Env't*, Summer 1995, at 53, 53-54.

93. Pub. L. No. 95-621, 92 Stat. 3350 (codified as amended at 15 U.S.C. §§ 3301-3432 (1994)).

94. See *Tracy*, 117 S. Ct. at 816. This process was completed in the Natural Gas Wellhead Decontrol Act of 1989, Pub. L. No. 101-60, 103 Stat. 157 (codified in scattered sections of 15 U.S.C.).

95. See Department of Energy Organization Act, Pub. L. No. 95-91, 91 Stat. 565 (1977) (codified in scattered sections of U.S.C., including 42 U.S.C. § 7172 (1994)).

96. See Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol, FERC Order No. 436, FERC Stats. & Regs. (CCH) ¶ 30,665 (1985) (subsequent history omitted); FERC Order No. 636, FERC Stats. & Regs. (CCH) ¶ 30,939 (1992).

97. *Pierce & Gellhorn*, *supra* note 12, at 342. FERC Orders 436 and 636 and associated congressional, FERC, and state initiatives have generated an extensive body of secondary literature befitting such a reworking of a multibillion dollar industry. For just a few examples, see Arthur S. DeVany & W. David Walls, *The Emerging New Order in Natural Gas: Markets Versus Regulation* (1995); Edward C. Gallick, *Competition in the Natural Gas Pipeline Industry* (1993); A. Lawrence Kolbe et al., *Regulatory Risk: Economic Principles and Applications to Natural Gas Pipelines and Other Industries* (1993); Richard J. Pierce, Jr., *The State of the Transition to Competitive Markets in Natural Gas and Electricity*, 15 *Energy L.J.* 323 (1994); Charles G. Stalon & Reinier H.J.H. Lock, *State-Federal Relations in the Economic Regulation of Energy*, 7 *Yale J. on Reg.* 427

ple, local distribution companies could purchase gas from producers at the wellhead and require pipelines merely to provide transport.

Many of the changes in the natural gas industry have not been visible to the residential or commercial end-user of natural gas, because the typical customer of the interstate pipeline traditionally has been and remains a local distribution company, which is a closely regulated monopoly service provider. But the unbundling of services has had large effects in the industrial end-user market. Under the system of open access to interstate pipelines that emerged in the mid-1980s, as the Supreme Court has explained, “larger industrial end-users began increasingly to bypass utilities’ local distribution networks by ‘construct[ing] their own pipeline spurs to [interstate] pipeline[s].’”⁹⁸ These users have thus been able to negotiate directly with competing producers, using the interstate pipeline as a provider of transportation service only. In addition to these substantial changes in regulatory policy at the federal level, the gas market has experienced some less extensive unbundling at the local distribution level.⁹⁹ For example, many state public utility commissions (PUCs) “have followed FERC’s lead in authorizing, or compelling, local distribution companies to make sales and transportation service available separately to at least some classes of consumers.”¹⁰⁰

Thus, in a variety of industries, we see that services previously packaged together by a single provider are being unbundled to allow end-users to select and combine different service elements, often from competing providers. Of course, at a certain point, the transaction costs of assembling unbundled service elements from different providers could become prohibitive for end-users. But the solution here too would seem to be to allow the market, rather than the regulator or monopoly providers, to do the bundling. Thus, it is contemplated that after the Telecommunications Act is fully implemented, various competing providers ranging from AT&T and MCI to the LECs will offer “one stop shopping” for telecommunications services, including local, long distance, cellular, Internet access, and remote video (cable or direct satellite TV).¹⁰¹ Indeed, one can imagine that firms will emerge that will offer “bundled” packages of different utility services—all of the above plus electricity and gas, for example. Unbundling thus does not necessarily mean fragmenta-

(1990); Christian S. Gerig, Comment, *Appalachian Natural Gas* and FERC Order 636: The Deregulation Dilemma, 24 *Cap. U. L. Rev.* 761 (1995).

98. *Tracy*, 117 S. Ct. at 817 (alteration in original) (quoting Joseph Fagan, From Regulation to Deregulation: The Diminishing Role of the Small Consumer Within the Natural Gas Industry, 29 *Tulsa L.J.* 707, 723 (1994)).

99. Because section 1(b) of the Natural Gas Act bars FERC from exercising jurisdiction over “local distribution of natural gas,” 15 U.S.C. § 717(b) (1994), regulatory changes in this area are the province of the states.

100. *Pierce & Gellhorn*, supra note 12, at 344–45.

101. See Thomas G. Krattenmaker, *The Telecommunications Act of 1996*, 29 *Conn. L. Rev.* 123, 131–51 (1996).

tion; it means contractual choice, including the choice as to whether to receive services in packages.

3. *Ending Cross-Subsidies.* — A third major change in the relationship between providers and end-users concerns the provision of subsidies to certain classes of customers. The original paradigm was characterized by widespread cross-subsidies, meaning that some customers paid rates in excess of the fully allocated costs of service in order to allow other customers to be charged rates less than the fully allocated costs of service. Typically, customers in urban areas subsidized customers in rural areas, and business customers subsidized residential customers.¹⁰² These subsidies were justified in the name of the ideal of universal service—the goal of making common carrier and public utility services available to every customer who wanted them. Without cross-subsidies, it was assumed, many high-cost end-users would lack basic common carrier and utility services.

The new paradigm does not necessarily repudiate the universal service ideal. To be sure, in some industries, most prominently railroads and airlines, the introduction of competition has meant the collapse of cross-subsidies and the loss of service to some small communities.¹⁰³ The Telecommunications Act, however, includes a more explicit and far-reaching commitment to universal service than ever existed before.¹⁰⁴ The Act adopts the “principle[]” that “rural, insular, and high cost” customers should be able to obtain services “at rates that are reasonably comparable to rates charged for similar services in urban areas.”¹⁰⁵ It says that those entitled to “[u]niversal service” include “low-income consumers”¹⁰⁶ and “health care providers for rural areas.”¹⁰⁷ Most remarkably, it provides that, without regard to any cost differentials, a “discount” must be afforded to “[e]ducational providers and libraries” wherever located.¹⁰⁸

102. See, e.g., Paul Stephen Dempsey, *Transportation Deregulation—On a Collision Course?*, 13 *Transp. L.J.* 329, 356 (1984) (airlines); David L. Kaserman & John W. Mayo, *Cross-Subsidies in Telecommunications: Roadblocks on the Road to More Intelligent Telephone Pricing*, 11 *Yale J. on Reg.* 119, 144–45 (1994).

103. See Paul Stephen Dempsey, *The Social and Economic Consequences of Deregulation* 202–09 (1989). But see Steven Morrison & Clifford Winston, *The Economic Effects of Airline Deregulation* 47–50 (1986) (suggesting that loss of service to small communities was on account of temporary diversion of fleets to other markets and increased fuel prices).

104. See 47 U.S.C.A. § 254 (West Supp. 1998).

105. *Id.* § 254(b)(3).

106. *Id.*

107. *Id.* § 254(h)(1)(A).

108. *Id.* § 254(h)(1)(B). This last provision reflects a congressional desire to underwrite the “information superhighway,” a notion fashionable within the “high-tech wing of the Democratic party, with its Silicon Valley and educational constituencies.” Eli M. Noam, *Will Universal Service and Common Carriage Survive the Telecommunications Act of 1996?*, 97 *Colum. L. Rev.* 955, 961 (1997).

But the most important change with respect to universal service subsidies lies not in who gets them, but rather in the mechanism for funding them. The introduction of competition in regulated industries makes it difficult if not impossible to rely on cross-subsidies to fund universal service objectives. Once customers are free to contract with either the incumbent utility or a competing provider, competitive pressures will tend to undermine any effort to maintain cross-subsidies.

To illustrate, suppose the incumbent utility (which has a universal service obligation) charges a business customer \$2 per unit, of which \$1.50 represents the fully allocated costs of the service and \$0.50 represents a cross-subsidy for high-cost rural residential customers. A competitor that does not have to worry about the universal service obligation has an incentive to offer the same service for \$1.50, and of course is likely to capture the business at this price. The incumbent will therefore be pressured to reduce its rate to the business customer to \$1.50 in order to keep the business. If it does this, however, there is no longer any cross-subsidy available to support the high-cost rural residential customer.

The tension between competition and cross-subsidies has long been recognized. For many years, representatives of the Bell System pejoratively described would-be competitors as seeking to “creamskim” customers,¹⁰⁹ meaning that they wanted to offer rates to certain customers closer to actual costs than these customers previously had been charged. As long as such “creamskimming” was prohibited, regulators had substantial “discretionary power to engage in a variety of redistribution programs.”¹¹⁰ Once the commitment is made to replace monopoly with competition, this discretionary power is sharply curtailed.

How then can universal service obligations be funded once competition and freedom of contract prevail? The Telecommunications Act directs the FCC to develop “specific, predictable, and sufficient mechanisms” to assure that universal service obligations are funded on “an equitable and nondiscriminatory basis” by “[e]very telecommunications carrier that provides interstate telecommunications services.”¹¹¹ The FCC has ruled that this universal service fund should incorporate a principle of “competitive neutrality” among providers and technologies.¹¹² In effect, then, what we are likely to see in telecommunications is the replacement of pervasive and largely concealed cross-subsidies with a single

109. See, e.g., *United States v. AT&T*, 552 F. Supp. 131, 161 & n.126 (D.D.C. 1982), *aff'd mem. sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

110. *Pierce*, *supra* note 97, at 345.

111. 47 U.S.C.A. § 254(d) (West Supp. 1998); see also *id.* § 254(b)(4) (equitable and non-discriminatory contribution).

112. Federal-State Joint Board on Universal Service, 12 FCC Rcd. 8776, 8799–8803 (1997) (subsequent history omitted).

competitively neutral tax (actually called a "fee") of much higher visibility.¹¹³

The net effect of the Telecommunications Act on the subsidies available to end-users will depend on the combined effect of two forces. On the one hand, the Act creates new constituencies for universal service subsidies (low-income consumers, libraries and schools, etc.), which will press for generous subsidies and therefore high fees. On the other hand, by effectively eliminating hidden cross-subsidies, and requiring that any subsidies be funded through what amounts to an excise tax on long-distance services, the Act gives other users, and especially the long-distance providers, an incentive to oppose generous funding of subsidies in order to keep fees low.

However those competing forces are ultimately resolved in the telecommunications industry, it is clear that the issue of subsidies will become a much more contentious one in regulated industries law. For example, state statutes permitting competition in the local electric industry will have to address the question of how much of a subsidy rural and low-income households should get and who should pay for it.¹¹⁴ Under the original paradigm, the process of subsidizing some end-users at the expense of others remained largely hidden from view. The cross-subsidies that made this possible were buried in a maze of regulatory complexity, and very few people were aware that a portion of their transportation or utility bill either was paying for someone else's service or was being paid for by someone else. Under the new paradigm, the issue of subsidies must be brought into the open, and hence becomes politicized.¹¹⁵

113. This is the general solution to the funding of universal service obligations advocated by economists. See, e.g., Baumol et al., *supra* note 6. In essence, economists have urged that universal service obligations be funded through some competitively neutral mechanism other than carrier-to-carrier pricing, such as general tax revenues or a system of end-user charges. See J. Gregory Sidak & Daniel F. Spulber, *The Tragedy of the Telecommons: Government Pricing of Unbundled Network Elements Under the Telecommunications Act of 1996*, 97 *Colum. L. Rev.* 1081 (1997); William J. Baumol & Thomas W. Merrill, *Does the Constitution Require That We Kill the Competitive Goose? Pricing Local Phone Services to Rivals*, 73 *N.Y.U. L. Rev.* 1122 (1998).

114. See Peter Navarro, *A Guidebook and Research Agenda for Restructuring the Electric Industry*, 16 *Energy L.J.* 347, 411-14 (1995). One of the most detailed state statutes, that of Illinois, adopts a relatively modest subsidy program. The statute creates a "Supplemental Low-Income Energy Assistance Fund," funded by monthly charges of \$0.40 payable by residential customers, \$4.00 by small commercial and industrial customers, and \$300.00 by large commercial and industrial customers. Monies collected in this fund are to be used for payments to utilities on behalf of qualifying low-income customers and for the provision of weatherization services for low-income customers. See *Illinois Electric Service Customer Choice and Rate Relief Law of 1997*, 1997 *Ill. Legis. Serv.* 90-561, § 85 (to be codified at 305 *Ill. Comp. Stat.* 20/13).

115. This process has already begun, as reflected in the recent brouhaha over subsidizing Internet access for schools and libraries. See, e.g., Karen Tumulty & John F. Dickerson, *Gore's Costly High-Wire Act*, *Time*, May 25, 1998, at 52 (noting that long-distance phone companies that had been ordered by the FCC to pay for program to wire every classroom and library to the Internet "are threatening to add a new charge to the

In general, the demise of cross-subsidies should push rates closer to incremental costs for most end-users. Thus, low-cost end-users should see their rates fall; high-cost end-users should see their rates rise. The realignment of prices toward costs will be offset in part by the payment of explicit universal service subsidies to certain favored classes of end-users. But political pressures will likely mean that these subsidies will only partially blunt the impact that the realignment of the rate structure will have on high-cost end-users, especially in areas where the legislature fails to adopt an effective universal service guarantee.

B. *Relations Among Providers*

Relations with end-users are not the only dimension of the great transformation. Changes have been equally pronounced in relations that common carriers and public utilities have with other service providers—competitors, potential competitors, or firms in closely related markets. Many of these changes, of course, have been the driving force behind elements of the transformation discussed above with respect to relations with end-users. For example, there could have been no effective unbundling of local and long-distance telecommunications service if competition had not developed in the latter market, and that in turn could not have happened without the BOCs' and other LECs' being required to permit interconnection by AT&T's long-distance competitors. Indeed, in many industries, as a result of unbundling and interconnection requirements, the line between end-users and other providers shifts according to which stage in the distribution of services one is considering.

In each of the regulated industries with which we are concerned—railroads, airlines, trucking, telecommunications, gas, and electricity—the federal regulatory commissions historically have been primarily concerned with regulating firms' relations with end-users, not with competitors. Indeed, to the extent that looking beyond the carrier-customer relationship was necessary, under the original paradigm these agencies tended to devote themselves to *minimizing* competition even where the industry characteristics were not those of a natural monopoly. For example, the ICC was unreceptive to applications for entry into the interstate trucking market prior to the passage of the Motor Carrier Act of 1980—basically denying the necessary certificate if the carriers already serving

long-distance bill of residential consumers"); The Gore Tax, Wall St. J., June 12, 1998, at A10 (editorializing against FCC's plan and stating that long-distance companies had done "the right thing" in announcing that the five percent surcharge would be listed separately on consumers' phone bills); Keep Internet Funding for Schools, N.Y. Times, June 12, 1998, at A20 (editorializing in favor of FCC's plan and arguing that long-distance companies, "stand[ing] to reap enormous financial benefits from deregulation," should "in fact be absorbing th[e] cost" of the plan); Seth Schiesel, Budget Is Cut for a Plan to Put Schools and Libraries on Line, N.Y. Times, June 13, 1998, at A8 (reporting FCC decision, by a one-vote margin, that rejected proposal to eliminate plan for connecting schools and libraries to the Internet but instead reduced the plan's budget by more than 40 percent).

the route were providing "adequate" service.¹¹⁶ The CAB was similarly indisposed to fostering competition in aviation during most of the agency's existence.¹¹⁷ And, as described above, the FCC was in no rush to permit competition for AT&T's core long-distance business.¹¹⁸ Under the original paradigm, in short, each carrier had either a monopoly right (electricity, gas, telecommunications) or an oligopoly right (railroads, airlines, trucks) to a defined service territory.

The goal of the new paradigm, in contrast, is to promote competition in as many industries and industry segments as possible. Accomplishing this goal in the industries served by oligopolies has required little more than changing the legal standard by which agencies evaluate entry applications¹¹⁹ or, better yet, eliminating such government control.¹²⁰ After all, trucking companies typically do not depend on one another for any aspect of the provision of service to end-users.

In contrast, the road to universal competition is somewhat sinuous in the industries formerly governed by the monopoly norm, especially where there are bottleneck facilities that have natural monopoly features. Competing long-distance carriers require access to the wires connecting each individual home and business if they are to complete calls—and these wires are owned by the incumbent local telephone company. Competing electric power generators, if they are to sell power, require access to local distribution systems—again, owned by the incumbent utility. In these industries, it has been necessary to impose a series of new regulatory obligations on companies that own bottleneck facilities so that competition can flourish in other service segments of the industry. These obligations, which can be seen as an extension and redefinition of "common carrier" duties, include interconnection duties, the provision of unbundled service elements to competitors, and mandatory sale to competitors for resale.

1. *Interconnection.* — Because the original paradigm viewed monopoly (or oligopoly) service as appropriate, companies in industries that

116. See Breyer, *supra* note 10, at 226.

117. See *id.* at 205–06. "Between 1950 and 1974, for example, the board had received seventy-nine applications from companies wishing to enter the domestic scheduled airline industry; it granted none." *Id.* at 205; see also Michael A. Katz, *The American Experience Under the Airline Deregulation Act of 1978—An Airline Perspective*, 6 *Hofstra Lab. L.J.* 87, 88 (1988) ("not one new airline began operations as a large passenger air carrier between 1938 and 1978").

118. See *supra* text accompanying notes 79–89.

119. For example, the Motor Carrier Act of 1980 changed the standard whereby the ICC evaluated applications to enter interstate trucking markets. Whereas under the Motor Carrier Act of 1935 an otherwise qualified applicant (basically one that was "fit, willing, and able") had to demonstrate that its entry was "required by the present or future public convenience and necessity," 49 U.S.C. § 307(a) (1976) (repealed), such an applicant could be excluded after 1980 only if the ICC concluded that such entry was "inconsistent with the public convenience and necessity," 49 U.S.C. § 10922(b)(1) (1982) (repealed).

120. Such was the case with the Airline Deregulation Act of 1978 and, more recently, with trucking. See *supra* notes 43–44, 53 and accompanying text.

possessed bottleneck facilities had limited duties to grant access to other companies. Particularly noteworthy was the absence of any duty on the part of the Bell System to provide interconnections between long-distance companies seeking to compete with AT&T Long Lines and the Bell System's local customers.¹²¹ Although the FCC eventually imposed an interconnection duty, even well into the 1970s neither the Bell System nor the FCC regarded this as a general obligation.¹²²

Indeed, part of the genius of the 1982 consent decree breaking up the Bell System (termed the "Modification of Final Judgment" or "MFJ") was the so-called "equal access" obligation imposed on the post-divestiture Bell Operating Companies. The MFJ required the divested BOCs—the entities that possess most of the local telephone monopolies throughout the country—to provide unaffiliated long-distance carriers access to the local exchanges that was "equal in type, quality, and price" to that given to the BOCs' former long-distance affiliate, AT&T.¹²³ This obligation subsequently was extended to local exchange carriers of the largest independent (i.e., non-Bell) telephone company, GTE Corp.,¹²⁴ and then by the FCC to virtually all LECs.¹²⁵

The goal of the equal access obligation in the MFJ was to reduce the ability of the companies with bottleneck facilities to discriminate against one or more of the various companies competing in the long-distance business. The Department of Justice argued, however, that history (and the evidence that it had introduced before Judge Harold H. Greene in its antitrust case against the Bell System) had demonstrated that it was also necessary to eliminate any *incentive* on the part of the monopoly companies to engage in such discrimination.¹²⁶ The MFJ sought to accomplish this by the line-of-business restrictions it imposed on the divested Regional Bell Operating Companies (RBOCs).¹²⁷ Among other things,

121. See *supra* note 79 (discussing Kingsbury Commitment).

122. See *MCI Telecomms. Corp. v. FCC*, 580 F.2d 590 (D.C. Cir. 1978) [hereinafter *Execunet II*].

123. MFJ § II.A, reprinted in *United States v. AT&T*, 552 F. Supp. 131, 227 (D.D.C. 1982), *aff'd mem. sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

124. See *United States v. GTE Corp.*, 603 F. Supp. 730, 744 (D.D.C. 1984); see also *infra* note 236 (distinguishing GTE from the Bell companies).

125. See *MTS and WATS Market Structure Phase III*, 100 F.C.C.2d 860 (1985), *recons. denied*, FCC 86-4, 59 Rad. Reg. 2d (P & F) 1410 (1986). "More than 99% of the nation's lines have now been converted to equal access." *Long Distance Market Shares Third Quarter 1997*, App. 3, 1998 FCC LEXIS 133, *48 (Jan. 1998).

126. See *AT&T*, 552 F. Supp. at 186-89, 194-95.

127. The RBOCs are the seven separate "regional" companies that were created as part of the breakup of the Bell System to serve as holding companies for the BOCs. More popularly known as "Baby Bells," the seven divested RBOCs were Ameritech, Bell Atlantic, BellSouth, NYNEX, Pacific Telesis, Southwestern Bell, and US West. Under a series of recent and proposed mergers among these companies, their number is set to reduce to four. See Laura M. Holson, *2 Bell Companies Are Set to Rejoin in \$60 Billion Deal*, N.Y. Times, May 11, 1998, at A1 (reporting that SBC, formerly known as Southwestern Bell, already having acquired Pacific Telesis, had reached a deal to acquire Ameritech; noting

these restrictions prohibited the RBOCs, "directly or through any affiliated enterprise," from providing any long-distance service.¹²⁸ This structural bar was designed to ensure that no company again would have "both the ability and the incentive" to thwart competition" in competitive or potentially competitive telecommunications markets.¹²⁹ The Telecommunications Act similarly reflects skepticism about whether an equal access requirement is sufficient to prevent abuses of power over bottleneck facilities. For it not only carries forward the MFJ's equal access requirement, but also links RBOC entry into the long-distance market to the development of competition in their local markets.¹³⁰

Equal access obligations in other industries have not been accompanied by a correlative exclusion of the obligated company from providing services in related industry segments that require access. For example, recent statutory and regulatory changes in the electricity industry have required owners of transmission lines to provide equal access (termed "open access" in this industry) to other generators of power.¹³¹ Although these regimes may include separate-subsidiary requirements, they have not imposed the MFJ's rigorous structural division of vertically integrated companies into unaffiliated entities providing either monopoly or competitive functions.

Whether open-access requirements alone will be sufficient to deter abuse of monopoly power in these industries without something like the line-of-business restrictions of the MFJ is unclear. It may be that the inherent characteristics of the gas and electric industries do not afford the same opportunities for abuse of monopoly power as the telecommunications industry.¹³² After all, when end-users take gas or electricity from a network, they are not drawing on energy that was specifically intended for them when entered into the network—as is the case with a telephone

that Bell Atlantic had previously acquired NYNEX; and discussing the antitrust scrutiny of these acquisitions).

128. MFJ § II(D)(1), reprinted in *AT&T*, 552 F. Supp. at 227; see *United States v. Western Elec. Co.*, 12 F.3d 225, 227 (D.C. Cir. 1993).

129. *AT&T*, 552 F. Supp. at 187 (quoting Department of Justice). The Bell System's incentive to impede competition arose from its involvement (through AT&T Long Lines and Western Electric) in competitive or potentially competitive businesses such as long distance and manufacturing, and its ability to do so derived from its bottleneck control (through the BOCs) over the local exchanges upon which the competitive businesses were dependent.

130. See 47 U.S.C.A. § 271 (West Supp. 1998).

131. See Timothy J. Brennan et al., *A Shock to the System: Restructuring America's Electricity Industry* 6-7, 31, 61-63 (1996); Navarro, *supra* note 114, at 379-96.

132. Cf. *United States v. Western Elec. Co.*, 673 F. Supp. 525, 574 (D.D.C. 1987) (explaining basis for Department of Justice view that "[p]articularly in a technologically dynamic industry such as telecommunications, there is little possibility that regulation is capable of detecting or preventing the very subtle forms of discrimination that would be available to the BOCs") (quoting Department of Justice, May 20, 1982 Response to Public Comments, at 58), *aff'd in part, rev'd in part*, 900 F.2d 283 (D.C. Cir. 1990).

call.¹³³ Thus, targeted discrimination against competing providers by the entity with control of a bottleneck facility is substantially more difficult to accomplish in the gas and electric industries than in telecommunications, and the introduction of open-access obligations alone may suffice.¹³⁴

The recent adoption of open-access requirements in the gas and electricity industries has nonetheless in one sense wrought a more significant change for those industries than the MFJ's imposition of equal access obligations did for telecommunications. Whereas the BOCs had had some interconnection obligations dating at least back into the early 1970s, interstate gas pipelines and electric-power transmitters (and local distribution companies in both industries) were not even common carriers under the original paradigm.¹³⁵ Today, by contrast, they are evolving toward a model where they function largely as common carriers for other providers.¹³⁶

2. *Offering Network Service Elements to Competitors.* — We have previously explained the disaggregation of the end-to-end service historically provided to end-users—in particular, the unbundling ordered by the FCC (and ensured by the MFJ and the Telecommunications Act) in the telecommunications industry, and by FERC Orders Nos. 436 and 636 in the natural gas industry. In addition to offering unbundled services to end-users, providers have been required to provide unbundled service elements or components to other providers, including competitors. Thus, entities that compete with the incumbent provider for end-users also are often its customers.

This type of mandated dual role is already upon us in the electricity industry. Indeed, the elimination of the traditional vertically integrated electric company—a single utility providing generation, transmission, and distribution under a monopoly franchise—is a reality in some places. Pierce and Gellhorn have summarized the traditional market structure in the electric industry:

Until 1978, virtually all electricity service was provided on a fully bundled basis by one of hundreds of integrated firms. The integrated utility generated its own electricity, transmitted that electricity across its high voltage lines, and distributed the electricity

133. For some observations on policy issues raised by this fundamental technological difference between the telephone and electricity industries, see Paul L. Joskow, *Restructuring, Competition and Regulatory Reform in the U.S. Electricity Sector*, 11 *J. Econ. Persp.* 119, 122 (1997).

134. For an argument that for other reasons the electricity industry nonetheless would be better off through vertical de-integration (such that the typical integrated company would become a distribution company subject only to state PUC regulation, a transmission company subject only to FERC authority, and a generation company with the status of an "exempt wholesale generator" under the Energy Policy Act of 1992), see Richard J. Pierce, Jr., *The Advantages of De-Integrating the Electricity Industry*, *Elec. J.*, Nov. 1994, at 16, 20.

135. See, e.g., Pierce, *supra* note 67, at 382–83.

136. See Pendley, *supra* note 1, at 44–45.

to all customers in its service territory. Since it had a legally conferred monopoly in its service area, its rates to consumers were regulated.¹³⁷

Since then, and especially in recent years, many of these companies have been required to unbundle various parts of electricity service—particularly, to separate transmission from power generation.

Most prominently, FERC Order No. 888, issued in 1996, works a fundamental restructuring of the interstate electric industry.¹³⁸ Recognizing that “[electric] transmission service continues to be a natural monopoly,”¹³⁹ Order No. 888 forbids companies that control transmission facilities from leveraging that monopoly power into the upstream market for generating electricity or the downstream market for delivering it to end-users. Prompted by the Energy Policy Act of 1992,¹⁴⁰ among other developments, Order No. 888 does this by requiring companies to permit third parties to transmit electricity over the companies’ lines (a practice known as “wheeling”), and to do so under terms and conditions no less favorable than those offered to the transmitters’ own generating affiliates. In other words, like natural gas companies subject to FERC’s regulation, interstate electric companies are now required to use their transmission lines to serve as carriers of other companies’ power. The purpose of this new order of relations is “to ensure that customers have the benefits of competitively priced generation.”¹⁴¹

FERC’s Order No. 888 directly affects only the wholesale market for electric power, not the provision of electric service to end-users. This is because FERC’s power over electricity markets is much more limited than its power over natural gas. The generation and distribution of electricity have traditionally been regulated by state public utility commissions—quite unlike the transportation of natural gas, which has long been pri-

137. Pierce & Gellhorn, *supra* note 12, at 347.

138. FERC Order No. 888 is only one of the more important points in the transition to competitive electric markets. For more detailed summaries of the causes and manifestations of this transformation, see, e.g., Pierce & Gellhorn, *supra* note 12, at 347–50; Bernard Black & Richard Pierce, Jr., *The Choice Between Markets and Central Planning in Regulating the U.S. Electric Industry*, 93 *Colum. L. Rev.* 1339 (1993); Joseph T. Kelliher, *Pushing the Envelope: Development of Federal Electric Transmission Access Policy*, 42 *Am. U.L. Rev.* 543 (1993); Pierce, *supra* note 97. For a skeptical view of the benefits of the transformation, see Richard D. Cudahy, *Retail Wheeling: Is This Revolution Necessary?*, 15 *Energy L.J.* 351, 357 (1994).

139. FERC Order No. 888, FERC Stats. & Regs. (CCH) ¶ 31,036, at 31,652 (1996).

140. Pub. L. No. 102-486, 106 Stat. 2776 (codified in scattered sections of 16 U.S.C.).

141. FERC Order No. 888, FERC Stats. & Regs. (CCH) ¶ 31,036, at 31,652 (1996). Even apart from this unbundling and common-carriage obligation, the traditional industry structure of a vertically integrated power company that transmitted power it generated itself has been displaced in many instances by state-imposed competitive generation requirements. For example, by 1994, even in advance of FERC Order No. 888, “most state PUCs ha[d] already made the decision to rely on competitive contracting [as opposed to power companies’ constructing their own facilities] as the primary vehicle for adding new generating capacity.” Pierce, *supra* note 97, at 329.

marily interstate in nature.¹⁴² Thus, many entities involved in providing electricity service to end-users are not subject to the unbundling process that is nearing completion at the federal regulatory level.¹⁴³

Unbundling beyond FERC's jurisdiction is determined state by state. Indeed, "[t]he Energy Policy Act [of 1992] specifically prohibits FERC from authorizing retail wheeling, i.e., use of a transmission line to transmit electricity owned by a third party to a consumer," whereas states retain the authority to mandate such retail competition.¹⁴⁴ At the time FERC issued Order No. 888, it noted that at least twelve states had retail wheeling proposals, legislation, or pilot programs underway, and forty-one states were actively involved in investigating a restructuring of their electric power markets.¹⁴⁵ Only ten months later FERC could report that "every state but one has proposed or is considering or developing retail competition programs."¹⁴⁶ While it is beyond our purview to detail these specific state changes, there can be no question that the unbundling of electric utility services is well under way in some states even to the point of retail customers' exercising the previously unknown ability to switch electricity providers.¹⁴⁷

142. Cf. Brennan et al., *supra* note 131, at 33 (explaining that "a much larger portion of investor-owned [electric] utility revenues are overseen by state regulators than by federal regulators"); Pierce, *supra* note 97, at 331 (noting that "jurisdictional dichotomy" of electricity industry does not exist in natural gas industry).

143. This is not to suggest that all aspects of the FERC-ordered transformation have reached their final form. Having been the subject of several rounds of petitions for reconsideration before the agency, FERC Order No. 888 is currently the subject of numerous petitions for review which have been consolidated in the United States Court of Appeals for the District of Columbia Circuit. See *Electric Shorts*, *Foster Elec. Rep.*, Mar. 4, 1998, at 25, available in LEXIS, Energy Library, Allnws File (reporting transfer of cases from Second Circuit to D.C. Circuit) (on file with the *Columbia Law Review*). Although it is conceivable that the court could overturn FERC's basic decision to permit wholesale wheeling, it is more likely, given FERC's previous experience before that court with respect to natural gas deregulation, that the court will be concerned with (concededly important) details such as the fact that those exiting the power system can be made to bear the so-called stranded costs. See *infra* text accompanying notes 266-270.

144. Pierce & Gellhorn, *supra* note 12, at 350.

145. See FERC Order No. 888, FERC Stats. & Regs. (CCH) ¶ 31,036, at 31,651 n.101 (1996).

146. Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, FERC Stats. & Regs. (CCH) ¶ 31,048, at 30,184 (1997) (Order No. 888 on rehearing).

147. In the state that has received the most attention for its retail wheeling undertakings, the response by consumers has thus far been tepid. See *Power Deregulated. Consumers Yawn. California's Effort to Promote Plan for Electricity Is Off to a Slow Start*, *N.Y. Times*, Feb. 26, 1998, at D1 (reporting that in the five months "so far, a minuscule 25,000 customers out of 9.9 million have switched [electric] providers" in California and that "similar experiments in Massachusetts, Rhode Island and Vermont encountered public responses every bit as tepid as California's"). It is too early to predict whether this lack of interest will continue.

The most extensive unbundling of service elements for the benefit of other providers is that contemplated by the Telecommunications Act.¹⁴⁸ In an effort to go beyond even the MFJ and break down the local bottlenecks to whatever proves to be their irreducible core, Congress imposed a series of duties on incumbent local exchange carriers such as the BOCs. In addition to interconnection and equal access obligations (noted above) and resale obligations (noted below), all such LECs also now have

[t]he duty to provide, to any requesting telecommunications carrier for the provision of a telecommunications service, non-discriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable, and nondiscriminatory An incumbent local exchange carrier shall provide such unbundled network elements in a manner that allows requesting carriers to combine such elements in order to provide such telecommunications service.¹⁴⁹

The theory behind this provision is that competition will come more quickly to local telephony if potential competitors can patch together telephone systems by constructing some new facilities on their own and leasing other needed network elements from the incumbent LECs.

Widespread proceedings have been instituted at both the federal and state levels to implement the obligation to provide unbundled network service elements and to implement other interconnection requirements under sections 251 and 252 of the Telecommunications Act of 1996.¹⁵⁰ The RBOCs have some incentives to satisfy these requirements, for such unbundling is a prerequisite for their entrance into the long-distance market.¹⁵¹ Given the enormity of the stakes involved, it is perhaps not surprising that disputes over the pricing of unbundled network elements—and in particular over whether the FCC or the state PUCs are to take the lead in establishing general pricing principles—have bogged down the implementation of the Act's local competition provisions. The

148. It should also be noted that proposals to unbundle service elements have been advanced (but not adopted) in the railroad industry. See, e.g., Makeda F. Jahanshahi, *The U.S. Railroad Industry and Open Access*, 65 *J. Transp. L. Logistics & Pol'y* 22 (1997) (and sources cited); see also Blood on the Tracks: Overworked Railroads Are Wreaking Economic Havoc, *U.S. News & World Rep.*, Oct. 27, 1997, at 52, 58 (describing how open access would work in railroad industry, summarizing arguments in support and industry reaction, and noting that "[i]n structure, the idea is analogous to market-driven reforms imposed on such former monopolies as telephone companies and utilities").

149. 47 U.S.C.A. § 251(c)(3) (West Supp. 1998).

150. See generally *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997), cert. granted sub nom. *AT&T Corp. v. Iowa Utils. Bd.*, 118 S. Ct. 879 (1998); Jim Chen, *TELRIC in Turmoil*, *Telecommunications in Transition: A Note on the Iowa Utilities Board Litigation*, 33 *Wake Forest L. Rev.* 51 (1998); Thomas B. Romer, Comment, "Negotiate in Good Faith As to What?" An Analysis of the Good Faith Negotiation Clause of the Telecommunications Act of 1996, 69 *U. Colo. L. Rev.* 257 (1998).

151. See 47 U.S.C.A. § 271(c)(2)(B)(ii) (West Supp. 1998).

Supreme Court has agreed to resolve the jurisdictional dispute and presumably will rule by the end of June 1999.¹⁵²

3. *Mandatory Sale for Resale.* — A third fundamental way in which the relationships among providers have changed has been through the imposition of resale requirements in a number of industry segments. Specifically, carriers have been required to permit other entities to first act as customers and then turn around and resell the service that they have purchased. Such so-called “resale” obligations have proved indispensable in some circumstances to the introduction of competition not only into industries characterized by monopoly bottlenecks, but also into industry markets where provision of nationwide service is essential but fixed costs are high.

The FCC’s imposition of resale requirements was critical to the development of competition in the long-distance industry. Under the original paradigm, limitations on resale were a standard tariff provision for the Bell System.¹⁵³ These resale bars were analogous to the “foreign attachment” provisions in AT&T’s tariffs, for each constituted a limitation by the carrier of how its customers could use the service to which they subscribed.¹⁵⁴

The FCC took a decisive initial step toward change in 1976 when it struck down tariff provisions restricting resale of AT&T’s private line services.¹⁵⁵ This decision made possible the development of a new category of telecommunications companies: “resellers,” which buy service at the discounts available for bulk purchases and then resell portions to custom-

152. See *AT&T v. Iowa Utils. Bd.*, 118 S. Ct. 879 (1998), granting cert. in *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997). Oral argument in this case is expected to take place in October 1998. One can get some sense of the extraordinary economic stakes at issue in the implementation of the Telecommunications Act from the fact that the captions in the Eighth Circuit proceedings, denominating the various challenges to the FCC’s rule and the parties attacking and defending it, alone run more than 30 printed pages. See 120 F.3d at 753–84.

153. For example, although it may seem a distant memory in this day of hotel “mark-ups” for long-distance calls, time was that carriers’ tariff provisions prohibiting resale thereby precluded such charges. See, e.g., *Ambassador, Inc. v. United States*, 325 U.S. 317 (1945) (affirming lower court order enforcing AT&T tariff provision prohibiting resale); see also *Mackay Radio and Tel. Co.*, 6 F.C.C. 562 (1938) (finding that Mackay Radio and Telegraph Company had violated section 214 of the Communications Act of 1934 by extending, without first securing a certificate of convenience and necessity from the FCC, public telegraph service into a new territory by means of a wire telegraph circuit leased from another carrier); Richard McKenna, *Preemption Under the Communications Act*, 37 Fed. Comm. L.J. 1, 18 n.46 (1985) (contrasting *Ambassador, Inc.* and *Mackay Radio and Telegraph Co.* with certain 1970s cases).

154. See *supra* text accompanying notes 69–78.

155. See *Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities*, 60 F.C.C.2d 261, 286 (1976) (subsequent history omitted). Relying on precedents under the Interstate Commerce Act, the FCC held that carriers may not “deny service to prospective resellers merely because they lack a ‘communications requirement of [their] own for . . . use’ of private line service.” *Id.* at 284 (citing *ICC v. Delaware, L. & W. R.R.*, 220 U.S. 235 (1911)).

ers whose individual usage requirements would not enable them to buy in such bulk.

Although the FCC's 1976 "private line" resale ruling did not directly affect other common carriers such as MCI, the FCC's subsequent ruling in 1980 extending the resale principle to encompass AT&T's basic switched services was essential in ensuring the development of a competitive long-distance market. The FCC later explained:

This decision reduced entry barriers for the long-distance marketplace in two important ways. First, it reduced the capital requirements necessary for entry by permitting new entrants to offer regional or even nationwide service without constructing their own facilities. Second, it reduced the incentive of AT&T to engage in price discrimination to meet competition, thereby giving assurance to new entrants that they would be able to compete successfully in the marketplace.¹⁵⁶

The FCC's mandatory resale obligations—imposed at a time when the FCC's commitment to competition was spotty¹⁵⁷—turned out to be indispensable in the inadvertent creation of a competitive long-distance market.

The Telecommunications Act of 1996 also relies on mandatory resale obligations in its attempt to introduce competition to local telephony. Section 251 requires LECs not only to permit other companies to resell their services, but also to facilitate such resale by selling to these other companies at wholesale prices.¹⁵⁸ This use of resale goes well beyond the FCC's resale policy deployed in the long-distance market, for there the FCC did not impose a requirement that carriers do anything other than eliminate restrictions on resale and, in fact, explicitly contemplated that resale would disappear as facilities-based carriers were forced by resellers' arbitrage to eliminate non-cost-based volume discounts.¹⁵⁹ Resale at wholesale rates thus constitutes, along with the equal access and unbundling obligations discussed above, a key means by which Congress intends to introduce as much competition as possible into the local exchange business.

156. Competition in the Interstate Interexchange Marketplace, 5 FCC Rcd. 2627, 2630 (1990) (subsequent history omitted).

157. See *supra* text accompanying notes 79–89 and *infra* text accompanying notes 206–208.

158. State commissions are to determine these prices by taking the incumbent LECs' retail rates and "excluding the portion thereof attributable to any marketing, billing, collection, and other costs that will be avoided by the incumbent [LEC]." 47 U.S.C.A. § 252(d)(3) (West Supp. 1998). The precise jurisdictional line between the authority of the FCC and that of state commissions over pricing is currently pending before the Supreme Court. See *supra* notes 150–152 and accompanying text.

159. See, e.g., MCI Telecomms. Corp., 81 F.C.C.2d 568, 573 (1980).

C. Role of the Regulator

There has also been a fundamental reworking of the relationship between regulated firms and government agencies. The original paradigm was based on the assumption that regulatory agencies had to exercise pervasive control over regulated industries in order to protect the end-user—the consumer. The traditional regulatory agencies, such as the ICC, CAB, FCC, and FPC, pursued this objective through four distinguishing functions.¹⁶⁰

First, the regulatory agency would make the initial and central determination of whether companies would be permitted to enter the industry. We have already had occasion to discuss the vigor with which agencies exercised this power to exclude, modelled on the power granted the ICC with regard to railroads.¹⁶¹ For example, the FCC only grudgingly approved MCI's entry into one small part of the long-distance market and then spent much of the next decade trying to protect AT&T's monopoly in that market.¹⁶² For decades, the ICC, which gained authority over trucking through the Motor Carrier Act of 1935, and the CAB, which regulated airlines, were similarly hostile to applications for entry into those industries.¹⁶³ These latter transportation examples disclose that agencies often disfavored new entry not on the ground that provision of service was a natural monopoly, but because they thought that such entry would lead to "destructive competition."¹⁶⁴ Indeed, in rejecting new entry applications, many agencies reasonably believed that they were simply following Congress's directives. For how could new entry be "*required* by the present or future public convenience and necessity"¹⁶⁵ if the market was already being served by an existing carrier?

Second, the agency and not market forces "regulated the type or amount of a product or service offered."¹⁶⁶ It is true that, once permitted to enter the industry or at least some market segment, regulated firms retained primary responsibility for proposing new services and the cir-

160. See *supra* note 12 (citing Pierce & Gellhorn).

161. See, e.g., *supra* notes 43, 53, 79–89, 116–118 and accompanying text. This authority over entry was matched by a correlative authority to control exit from these industries. See, e.g., 47 U.S.C. § 214 (1994); 49 U.S.C. § 1(18) (1976) (repealed). Regulatory control over entry and exit had originated with state regulation of railroads in the 1870s and gradually spread to other regulated industries at both the state and federal levels. See William K. Jones, *Origins of the Certificate of Public Convenience and Necessity: Developments in the States, 1870–1920*, 79 *Colum. L. Rev.* 426, 433–501 (1979).

162. See *supra* notes 83–87 and accompanying text.

163. See *supra* notes 116–117 and accompanying text.

164. See, e.g., Bonbright et al., *supra* note 12, at 38–40; 2 Alfred E. Kahn, *The Economics of Regulation: Principles and Institutions* 5–6 (1971).

165. 49 U.S.C. § 307(a) (1976) (repealed) (emphasis added) (pre-1980 standard governing ICC entry determinations for trucking industry); see also, e.g., 49 U.S.C. § 1371(d)(1) (1976) (repealed) (setting standard for CAB determinations for airline entry as whether proposed entry "is required by the public convenience and necessity").

166. Pierce & Gellhorn, *supra* note 12, at 1.

cumstances under which these would be offered—doing so by means of the tariff filings that are discussed above.¹⁶⁷ The regulator then retained the authority to enforce the firm's obligation to provide "reasonable, adequate and safe service."¹⁶⁸ Agencies at least occasionally used this authority to control the nature of services offered. For example, it was on this basis that the FCC attempted to confine MCI to private-line services.¹⁶⁹ Illustrations of agency attempts to control service offerings may be found in other regulatory areas as well.¹⁷⁰

Third, under the original paradigm, the regulator carefully reviewed and approved rates that regulated companies could charge.¹⁷¹ The central mechanism for ensuring this control was again the carrier's tariff. This is not to suggest that each rate was actually reviewed by the regulator. However, in some industries such as the electricity industry at the state level and the telecommunications industry, regulators typically gave close scrutiny to major proposed rate changes. The regulator further could set maximum rates if, on the basis of its review, it concluded that the carrier had set rates that were unreasonably high (or minimum rates if too low). The rate structure could also be reviewed to police alleged discrimination.

Fourth, regulators determined the level of profits that utilities and carriers would earn. This was usually done in cost-of-service ratemaking proceedings in which regulators attempted to determine a utility's costs and the amount of its invested capital (multiplied by a reasonable rate of return).¹⁷² These were frequently massive proceedings in which regula-

167. See generally *AT&T v. FCC*, 487 F.2d 865 (2d Cir. 1973); 1 Priest, *supra* note 20, at 342-44 (1969).

168. 1 Priest, *supra* note 20, at 276.

169. See *MCI Telecomms. Corp.*, 60 F.C.C.2d 25, 39 (1976) (subsequent history omitted); see also *supra* text accompanying notes 85-88 (discussing FCC's effort and judicial reaction).

170. See, e.g., Robert M. Hardaway, *Transportation Deregulation (1976-1984): Turning the Tide*, 14 *Transp. L.J.* 101, 123 (1985) (describing Southern Railway's lengthy battle in 1960s to obtain ICC approval of new type of railroad car); Aaron J. Gellman, *Surface Freight Transportation*, in *Technological Change in Regulated Industries* 174-78 (William M. Capron ed., 1971) (discussing delays in railroad innovation caused by regulatory review). Another frequently cited example of an agency's delaying the rollout of a new service is the FCC's treatment of cellular telephone service. But for the FCC, it has been asserted, "[n]ationwide cellular service could have been in place at least a decade earlier [than 1983]." Peter Huber, *Law and Disorder in Cyberspace: Abolish the FCC and Let Common Law Rule the Telecoms* 68-69 (1997); cf. John W. Berresford, *The Impact of Law and Regulation on Technology: The Case History of Cellular Radio*, 44 *Bus. Law.* 721, 731-35, 740 (1989) (acknowledging this delay and appearing to attribute it to the FCC, though defending it).

171. See generally Charles F. Phillips, Jr., *The Regulation of Public Utilities: Theory and Practice* 131-45 (3d ed. 1993) (listing state and federal regulatory commissions and summarizing their powers).

172. See *Bonbright et al.*, *supra* note 12, at 108-23 (cost of service), 210-32 (rate base), 302-39 (rate of return); 1 Kahn, *supra* note 164, at 25-54; 1 Priest, *supra* note 20, at 45-226.

tors would examine in detail, among other things, the historical costs incurred by a regulated company and precisely how much money the company expected to have to spend in various areas (e.g., salaries, advertising, raw materials such as fuel). While cost-of-service ratemaking was not the only regulatory approach for fixing regulated industries' profits, it was the dominant mode in the original paradigm and was applied even to such non-natural-monopoly businesses as airlines and trucks.¹⁷³

Finally, even apart from these direct roles in supervising which companies could sell which products or services and at which prices, regulatory agencies were also involved extensively in passing upon the legality and wisdom of many proposed corporate transactions. For example, whereas in the ordinary business world the question of whether and under what terms and conditions to issue securities is left to the discretion of individual companies, state regulators (as well as the Securities and Exchange Commission) have typically been required to approve a regulated company's decision to issue securities.¹⁷⁴ Another example of corporate oversight can be found in the requirement that regulated industries receive agency approval before entering into a merger.¹⁷⁵

Under the new paradigm, the regulator plays a far more limited role. Instead of comprehensively overseeing an industry in order to protect the end-user, its principal function is to maximize competition among rival providers, in the expectation that competition will provide all the protection necessary for end-users. Specifically, the regulator is expected to intervene only when there is some reason to conclude that a regime of market-based transactions will not suffice to advance competition, as where one firm in the industry owns a bottleneck facility that has natural monopoly characteristics. In effect, the agency becomes a limited-jurisdiction enforcer of antitrust principles, applying a version of the "essential facilities" doctrine in a single industry.¹⁷⁶ Furthermore, where such intervention occurs, the role of the regulator is more likely to consist of setting the background rules that help define an industry's structure than superintending the competitive behavior of rival providers or the details of transactions within that industry. Although this transformation has been greatest in the transportation industries—where the federal regulatory agencies have been eliminated—it also has been extensive in both the telecommunications and energy industries as well.

If one conceives of the regulator under the original paradigm as a sort of ice cap, covering all aspects of the regulated industry, then the

173. See Breyer, *supra* note 10, at 37–59 (detailing cost-of-service ratemaking); *id.* at 210–12 (application to airlines); *id.* at 227–34 (trucking).

174. See generally 2 Priest, *supra* note 20, at 467–87 (and authorities cited) (chapter discussing regulatory control over securities).

175. See, e.g., *id.* at 731–50 (and authorities cited) (chapter concerning railroad mergers); *id.* at 676–80 (airline mergers).

176. See *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912) (invoking "essential facilities" doctrine under the Sherman Antitrust Act).

objective under the new paradigm is to melt away the sphere of regulatory oversight to the smallest industry segment possible—the so-called bottleneck monopoly. Telecommunications provides an illustration of this transformation in the regulator's role. Under the original paradigm, as we have described, one carrier provided bundled end-to-end service pursuant to its filed tariffs. This service included products and services that are now—and could have been then—regarded as separate from one another. AT&T thus provided (through its Bell System) customer premises equipment (which itself was designed and manufactured by the Bell System's Western Electric subsidiary), inside wire, access to the local loop, carriage over the local switched network, and, finally, long-distance or "intercity" service. The regulators oversaw all of these services (with a jurisdictional divide between the FCC and the state PUCs based on an interstate-intrastate distinction).¹⁷⁷ At the same time, AT&T was excluded from such non-common-carriage activities as computers and information services.¹⁷⁸

The regulatory ice cap covering all this activity has largely melted away under the new paradigm. The FCC has ruled that provision of customer premises equipment is not common carriage and thus is not subject to Title II of the Communications Act, including the tariffing requirements.¹⁷⁹ Customer premises equipment is now provided competitively. At the other end of the spectrum, long-distance service is also subject to competition, and the FCC recently concluded that no long-distance carrier—not even AT&T—possesses market dominance in the interstate domestic market.¹⁸⁰

That is not the extent of the transformation. In addition, the FCC no longer regulates rates on a traditional cost-of-service basis. As a general matter, there is *no* rate regulation for long-distance service,¹⁸¹ and even for the still-monopoly access services provided by the BOCs and other LECs, the FCC applies a modified system based on "price caps."¹⁸² The basic notion here is to set a ceiling on rates and allow firms to retain any additional profits that they can earn by cutting costs, thereby creating

177. See *Louisiana Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 360 (1986).

178. This restriction existed by virtue of a 1956 consent decree between the United States and AT&T. See *United States v. Western Elec. Co.*, 1956 Trade Cas. (CCH) ¶ 68,246 (D.N.J. 1956). The reason that the 1982 consent decree is known as the "Modification of Final Judgment," or "MFJ," is that it was technically a modification of the 1956 decree. See *United States v. AT&T*, 552 F. Supp. 131, 141 n.31, 226 (D.D.C. 1982), *aff'd mem. sub nom. Maryland v. United States*, 460 U.S. 1001 (1983).

179. See *supra* note 77 and accompanying text (and authority cited).

180. See *Motion of AT&T Corp. to Be Reclassified as a Non-Dominant Carrier*, 11 FCC Rcd. 3271, 3356 (1995) (subsequent history omitted).

181. See *id.* at 3281; *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, 85 F.C.C.2d 1, 31–33 (1980).

182. See *Policy and Rules Concerning Rates for Dominant Carriers*, 4 FCC Rcd. 2873, 2877 (1989) (subsequent history omitted).

an incentive to act efficiently.¹⁸³ Further, telephone companies, including the LECs, are now free to offer non-common-carriage services, whether they are related to their traditional offerings (as are information services, for example) or are entirely distinct (as with real-estate services, for example). While separate-subsidiary and accounting regulations generally apply, such activities are not otherwise overseen or superintended by the regulator.

In short, in telecommunications, we now confront a new regulatory paradigm that little resembles the old. Only the local loop—the thus-far irreducible-bottleneck facility—is still fully regulated. Once the Telecommunications Act is fully implemented, the rest will be subject to competition. This transformation captures the ideal of the new paradigm—at least if one adds the hope (of most) and expectation (of some) that technological innovation will eliminate the last bottleneck altogether and with it all the regulation that characterized the original paradigm.¹⁸⁴

Although the details vary, the story is largely the same throughout regulated industries. In the natural gas industry, for example, rate regulation has melted down to the rates charged by interstate pipelines (still considered to be a natural monopoly) and by local distribution companies. But there is a foreseeable goal of doing away with the former as soon as pipeline density increases and maybe eventually doing away with the latter, at least for industrial customers. And the transformation could scarcely be greater than in the transportation industries, for the rise of the notion that regulators should superintend only natural monopoly industry segments has led to the outright demise of the two agencies (the ICC and CAB) that, between them, regulated the various transportation industries.

D. *Central Tenets of the New Paradigm*

We are now in a position to summarize the central tenets of the new paradigm in regulated industries law. The new paradigm seeks to subject to ordinary contractual relations all common carrier and public utility services that can be provided by multiple competing providers. In industries and industry segments with few natural monopoly features, this means complete detariffing, elimination of all entry restrictions, and outright abolition of the control of an administrative agency (airlines, trucking, customer premises equipment). In industries and segments where

183. See generally Jordan Jay Hillman & Ronald R. Braeutigam, *Price Level Regulation for Diversified Public Utilities* (1989) (setting forth rationale for price cap regulation).

184. For an overview of the technological developments, one or more of which may lead to the overcoming of the local loop bottleneck, see generally *Wireless Technologies: Special Report*, *Scientific American*, Apr. 1998, at 69. In eliminating regulation, some would not even wait for elimination of the bottleneck. See Huber, *supra* note 170, at 151, 153; see also *infra* text accompanying notes 350–357, 380–381 (discussing the likelihood of and problems with such an approach).

services have been bundled together through vertical and horizontal integration, this means that segments that can be provided competitively must be unbundled and opened to competition (long-distance telephony, natural gas production, electricity generation). Once competition is introduced, cross-subsidies will disappear and universal service obligations either will be promoted through the imposition of competitively neutral taxes (telephony, perhaps electricity) or will be ignored (railroads, airlines).

Given the near-complete reliance on market transactions in industries and industry segments that can be made competitive, the focus of the agencies necessarily turns to those market segments that have natural monopoly characteristics. Here, the great concern is that incumbent providers that control bottleneck facilities will use their monopoly power to discriminate against competitors in the service segments that have been opened to competition. To prevent this from happening, a new set of regulatory obligations—including the duty to interconnect, to lease unbundled network elements, and to sell services for resale—is imposed on the owners of such bottleneck facilities and becomes the focal point of regulatory attention. In effect, the owners of natural monopoly facilities assume new common carrier duties toward their competitors, and these duties are regarded as more important than those they owe to their traditional customers. The role of the agency correspondingly shifts from protecting the end-user to implementing a version of the essential facilities doctrine originally developed under the antitrust laws.

II. INSTITUTIONAL SOURCES OF CHANGE

What has caused this great transformation of regulated industries law over the last quarter-century? Because the changes during this time period have been so similar throughout these different industries, we first explore the possibility that the changes have had a common institutional source. Specifically, this Part examines the role that various institutional actors with the power to compel change—the regulatory agencies, the courts, and Congress—have played in the transformation.¹⁸⁵ Examining the role of different institutions provides us with important clues about the causes of the transformation. If we found that Congress or the agencies have played the dominant role, we would likely look to political forces as explanations for the change. Conversely, if the courts were the architects of change, we might focus on the importance of legal doctrine. But if it turns out that no clear pattern of institutional leadership can be discerned, then this suggests that we must look to more deep-seated economic and social forces. Besides being a useful preliminary to under-

185. We do not separately discuss the Department of Justice because its authority to seek enforcement of the antitrust laws, though a significant factor in aspects of the great transformation in telecommunications, depends on judicial action. We therefore discuss the Department's role in considering the undertakings of the courts. See *infra* text accompanying notes 244–246; see also *supra* text accompanying notes 123–129.

standing the causes of the great transformation, examining the part played by different institutions gives us another "view of the cathedral,"¹⁸⁶ which is helpful in coming to a fuller understanding of a highly complex phenomenon.

A. *The Agencies*

In the late 1960s and early 1970s, it became fashionable to regard administrative agencies as being "captured" by the industries they were charged with regulating.¹⁸⁷ One would predict, on the basis of this theory, that administrative agencies would play only a negative role in the great transformation.¹⁸⁸ After all, the agency's authority to set rates and determine the level of firms' profits, not to mention its authority to make entry and exit decisions, was the source of its power. And the perpetuation of this power was what made agency personnel attractive candidates for post-government employment in the private sector and for other favors from the regulated industry. Insofar as deregulation would strip the agency of much of its power, capture theory would suggest that agencies would resist the transformation with the utmost tenacity.

It may come as a surprise, therefore, to learn that federal regulatory agencies often played a significant affirmative role in promoting the cause of regulatory change. The CAB provides perhaps the most striking case in point. For most of its existence, the CAB was the archetype of the captured agency: It allowed air carriers to engage in collective price-fixing, effectively prevented any new competitive trunk carriers from emerging, and carefully limited the number of carriers allowed to serve any given route so as to preserve the "adequacy" of the incumbent carriers' revenues.¹⁸⁹ Then, starting in the early 1970s, the CAB began to receive some nudges from other important political actors. In 1970, the D.C. Circuit pointedly accused the CAB of being a captured agency, and ordered it to open its rate-fixing proceedings to include public representatives.¹⁹⁰ This was followed by a decision in 1975 that chastised the agency for putting insufficient weight on the value of competition in deciding whether to award additional route authority.¹⁹¹ That same year, Senator

186. Cf. Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 Harv. L. Rev. 1089, 1089-90 n.2 (1972) (emphasizing the value of developing different ways of looking at complex legal phenomena—just as Monet developed different ways of depicting the Cathedral at Rouen).

187. See generally Thomas W. Merrill, *Capture Theory and the Courts: 1967-1983*, 72 Chi.-Kent L. Rev. 1039, 1059-67 (1997) (discussing influence of capture theory on the legal system during these years).

188. For a brief exposition of the interest group theory of politics and references to leading authorities, see *infra* notes 321-322 and accompanying text.

189. See Breyer, *supra* note 10, at 197-221; Bradley Behrman, *Civil Aeronautics Board*, in *The Politics of Regulation 75* (James Q. Wilson ed., 1980).

190. See *Moss v. CAB*, 430 F.2d 891, 900-02 (D.C. Cir. 1970).

191. See *Continental Airlines v. CAB*, 519 F.2d 944, 954 (D.C. Cir. 1975).

Edward M. Kennedy's subcommittee held hearings on the economic effects of the CAB's regulatory practices.¹⁹² Carefully orchestrated by Stephen Breyer, then on leave from Harvard Law School, these hearings seemed to suggest that deregulation would yield lower prices for consumers without any sacrifice in safety or service quality—a conclusion hotly disputed by the agency and the airlines.¹⁹³

Shortly thereafter, the agency's policies began to shift. President Ford's chairman, John Robson, explained later that he had few views on airline regulatory policy before he took office. But once there, he found that deregulation was a topic that "had gained some momentum and attracted some attention."¹⁹⁴ This convinced him to steer the agency in a new direction: "It seemed to me that the CAB provided a unique opportunity to do something—to be at a place at a time when something was happening. It was clear there was going to be action on the CAB frontier"¹⁹⁵

After the election of President Carter, Robson was replaced by Alfred E. Kahn in 1977. Kahn was a prominent regulatory economist who had achieved a considerable reputation as a reformer while head of the New York Public Service Commission.¹⁹⁶ His nomination by President Carter was a clear signal to proceed full speed ahead with deregulation. Kahn responded with vigor, reorganizing the agency and installing a staff of "bomb throwers."¹⁹⁷ Taking advantage of the broad and discretionary language of the Federal Aviation Act, Kahn's CAB encouraged widespread fare discounting and greatly liberalized entry.¹⁹⁸ He then led the successful effort to lobby Congress to adopt the landmark Airline Deregulation Act of 1978,¹⁹⁹ which locked the new policies in place.²⁰⁰

Clearly, it would be going too far to suggest that the CAB was an instigator of regulatory change. The agency did not begin to change its ways until the political winds began to shift strongly in the direction of reform. On the other hand, the agency was anything but an impediment

192. See Oversight of Civil Aeronautics Board Practices and Procedures: U.S. Senate Comm. on the Judiciary, Subcomm. on Admin. Practice and Procedure, 94th Cong. (1975).

193. See Derthick & Quirk, *supra* note 40, at 40, 43–44; Breyer, *supra* note 10, at 317–40.

194. Derthick & Quirk, *supra* note 40, at 69 (interview with John Robson).

195. *Id.*

196. See Thomas K. McCraw, *Prophets of Regulation* 243–59 (1984).

197. See *id.* at 274–75.

198. See *id.* at 275–80.

199. Pub. L. No. 95-504, 92 Stat. 1705 (codified as amended in scattered sections of 49 U.S.C.).

200. See Paul Stephen Dempsey, *The State of the Airline, Airport, and Aviation Industries*, 21 *Transp. L.J.* 129, 146–47 (1992). For a more extensive description of how "[t]he CAB performance during the chairmanship of Alfred Kahn from 1977 to 1978 violated both the capture and survival propositions about the behavior of regulators," see Anthony E. Brown, *The Politics of Airline Deregulation* 156–57, 166–67 (1987) (quotation at 166).

to change. Once it decided to cast its lot with the cause of deregulation, it moved with alacrity and became the principal force pushing for legislation that would make the new deregulatory policy permanent. Most remarkably, this legislation scheduled the agency itself for execution on December 31, 1984.²⁰¹

With respect to telecommunications, the FCC also failed to conform to the stereotype of the captive agency, although its performance was decidedly more mixed than that of the CAB. Among its reform initiatives, the FCC ordered the cancellation of the Bell System's and other carriers' tariff provisions prohibiting use of non-company customer premises equipment (termed "foreign attachments").²⁰² It approved (by a 4-3 vote) MCI's application to provide private-line telecommunications service.²⁰³ It later ordered the Bell System to permit MCI and other specialized common carriers to establish interconnections with the BOCs.²⁰⁴ And the agency undertook lengthy (and in some instances still ongoing) efforts to detariff competitive services beginning in the 1980s.²⁰⁵

On the other hand, the FCC spent substantial time and energy resisting increased competition in the telecommunications industry. The FCC reluctantly commenced the unbundling process for customer premises equipment, acting only when required to by a court case referred to it under the primary jurisdiction doctrine some 12 years after the *Hush-a-Phone* case.²⁰⁶ And notwithstanding its initial authorization of private microwave carriage, the FCC spent years attempting to restrict MCI to that limited service and ordered it to cancel its Execunet tariffs after MCI had revised the tariffs in order to offer service in competition with AT&T's basic service. It was only when the courts intervened that MCI found a refuge from the FCC.²⁰⁷ In short, for much of the time of the great transformation, the FCC was an obstacle that had to be overcome in the movement to the new paradigm.²⁰⁸

FERC came to the cause of reform later than either the CAB or the FCC. But once it became convinced of the merits of opening significant segments of the energy markets to competition, it became probably the most consistent and important administrative agency in promoting the transition to the new paradigm. This was particularly true in the natural gas industry, where FERC's imposition of extensive unbundling and open-access requirements was a substantial cause of the transformation of the industry in the 1980s and early 1990s. "[I]n a relatively short period

201. See Dempsey, *supra* note 200, at 148, 151.

202. See *supra* notes 70-78 and accompanying text (and authorities cited).

203. See *supra* note 83 and accompanying text.

204. See *supra* text accompanying notes 83-89, 121-122.

205. See *supra* notes 59-65 and accompanying text.

206. See *supra* note 74 and accompanying text (and authority cited).

207. See *supra* notes 88-89 and *infra* notes 239-243 and accompanying text.

208. For a particularly vehement argument that the FCC historically has held back competition and protected monopoly, see Huber, *supra* note 170, *passim*.

of time,'” as has been suggested elsewhere, FERC “injected an unprecedented amount of competition into the regulatory process, and, perhaps more enduring, began to persuade the other players—executives and state regulators—to look to markets rather than men for the solution to some of the problems that have long bedeviled the gas . . . industry.”²⁰⁹ But even here, it would be inaccurate to imply that FERC was altogether a free agent in its transformative decisions. This is evidenced by its own characterization in Order No. 436 that the combination of congressional enactments and judicial interpretations of those enactments meant that “we have no choice under the [Natural Gas Act]” but to proceed.²¹⁰

The ICC was probably the least proactive of the agencies in generating proposals for regulatory reform. In the decade of the 1970s, the ICC commissioners were generally more hostile to reform than were the leaders of the CAB, the other independent agency with jurisdiction over transportation.²¹¹ Nevertheless, President Carter eventually was able to install a commission that began to dismantle regulatory barriers.²¹² At that point, the congressional supporters of continued regulation acquiesced in the Motor Carrier Act of 1980, which they regarded as a kind of backfire designed to keep the reform effort from getting out of hand.²¹³

All in all, however, the agencies have played a significant affirmative role in the great transformation. There can be little doubt that the agencies have been in the forefront of the effort to promote the cause of regulatory competition.²¹⁴ They have lent their expertise and their credibility to the cause. They have acted as lobbyists for reform before Congress, and as its defenders before the courts. Their performance is quite inconsistent with what the capture theory would have predicted.²¹⁵

Yet even if several of the agencies acted in ways that were highly supportive of the transformation, it would be impossible to credit the agen-

209. Richard J. Pierce, Jr., *The Unintended Effects of Judicial Review of Agency Rules: How Federal Courts Have Contributed to the Electricity Crisis of the 1990s*, 43 *Admin. L. Rev.* 7, 15 (1991) (quoting Charles J. Cichetti et al., “Hesse Moved Debate . . . to Center Stage,” (Letter to the Editor) *Nat. Gas Week*, Dec. 11, 1989).

210. *Regulation of Natural Gas Pipelines After Partial Wellhead Decontrol*, FERC *Stats. & Regs. (CCH)* ¶ 30,665, at 31,490 (1985) (subsequent history omitted).

211. See Derthick & Quirk, *supra* note 40, at 73.

212. See Lawrence S. Rothenberg, *Regulation, Organizations, and Politics: Motor Freight Policy at the Interstate Commerce Commission* 223–31 (1994).

213. See Derthick & Quirk, *supra* note 40, at 171–74; Dorothy Robyn, *Braking the Special Interests: Trucking Deregulation and the Politics of Policy Reform* 29–30, 52–56 (1987); Rothenberg, *supra* note 212, at 231–41.

214. One observer has gone so far as to “conclude[] in a review of the deregulation movement ‘that major administrative reform is a necessary prerequisite to statutory reform.’” Brown, *supra* note 200, at 155 (quoting Christopher C. DeMuth, *A Strong Beginning on Reform, Regulation*, Jan.–Feb. 1982, at 15, 18).

215. Cf. Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 *Colum. L. Rev.* 1, 167 (1998) (arguing that it is “clear” that “[s]trong claims about the inevitability of regulatory failure due to regulated parties’ privileged access to regulatory decisionmakers are untenable”).

cies with overall responsibility for these changes. It is reasonably clear that they would not have deliberately initiated the process of deregulation if left to their own devices. It is also reasonably clear that the processes of deregulation started by the agencies would have stalled or would have been reversed by concerted opposition of industry incumbents if Congress had not intervened to ratify the agencies' action or spur them onward. Further, no one agency has had authority over more than a portion of the regulated industries landscape. No doubt there was some emulation: The favorable publicity that Kahn garnered for his efforts at the CAB probably attracted the envy of the chairmen of other regulatory agencies. But if there was a pattern of influence, it was through the transmission of ideas, not the exercise of governmental power. It seems safe to say that the great transformation would not have occurred—at least not with the speed at which it did—without the surprising support of the agencies. But they were not the architects of the change, since their authority was too limited and too fragmented to allow them to act in such a capacity.

B. *The Courts*

One looking for an institutional author of the transformation will have to look elsewhere—perhaps to the courts. Because the courts act in a review capacity, their involvement in regulatory reform differs from that of other branches of government. Although lacking the same policymaking authority as Congress and regulatory commissions, the courts affect the pace, extent, or manner of regulatory change each time they decide a case involving legislative or administrative regulatory policies—whether they ratify, overturn, or require the government to reconsider a particular policy. A consistent pattern of decisions by the courts could in theory have a profound influence in accelerating the process of reform, or spreading it from one industry to the next.

When we examine the judicial performance in greater detail, however, we find that the courts have been anything but consistent in cases implicating regulatory reform. Simplifying greatly, we identify two types of judicial decisions. On some occasions, the courts have acted as catalysts for change. They have had this effect both by disapproving certain regulation on constitutional grounds and by overturning on narrower, statutory grounds agencies' attempts to close off certain markets to competition. In other instances, however, the courts have served as a brake on affirmative legislative and, in particular, agency attempts to transform regulation of industry. The courts have played this latter role in a number of ways, primarily by protecting the reliance or other interests of incumbent firms and by enforcing longstanding interpretations of statutes even where agencies had attempted to maneuver around them to realize their vision of regulatory change. We group the courts' decisions into the two categories of catalyst and brake, and discuss them respectively, but there is not always a crisp division between the categories.

1. *The Courts as Catalyst.* — There can be no question that in some industries the courts have pried open doors to competition that legislators or regulators preferred to keep shut. Though proceeding in the name of generally familiar-sounding doctrines, this judicial intervention has occurred in surprising and unexpected ways.

This has been especially true in the arena of telecommunications litigation, where the Constitution has been used to overcome some barriers to competition. In so ruling, the courts have not relied on the constitutional doctrines that one might have expected to encounter in the past. For example, neither the Commerce Clause, nor the Contracts Clause, nor substantive due process has played an appreciable role in knocking down regulatory barriers. Rather, the First Amendment has become the preferred constitutional assault vehicle for telecommunications companies challenging government regulation.

The use of the First Amendment as an instrument of deregulation is part of one of the most dramatic changes in constitutional law in the last quarter-century: the birth and coming of age of the commercial speech doctrine. As has been recounted elsewhere,²¹⁶ Supreme Court precedent prior to 1975 imposed no First Amendment limits on regulation of “purely commercial advertising.”²¹⁷ The Court then repudiated this approach,²¹⁸ and shortly thereafter developed a four-part test to assess whether commercial speech is protected by the First Amendment.²¹⁹ Most recently, the Court came within one vote of holding that “complete bans on truthful, nonmisleading” commercial speech should be given no more deference than such restrictions of non-commercial speech.²²⁰ Not since the demise of the negative implication of *Munn v. Illinois*²²¹ and of the economic substantive due process typified by *Lochner v. New York*²²²

216. See, e.g., Alex Kozinski & Stuart Banner, *The Anti-History and Pre-History of Commercial Speech*, 71 *Tex. L. Rev.* 747 (1993); Thomas W. Merrill, *Comment, First Amendment Protection for Commercial Advertising: The New Constitutional Doctrine*, 44 *U. Chi. L. Rev.* 205, 207–13 (1976).

217. *Valentine v. Chrestensen*, 316 U.S. 52, 54 (1942).

218. See *Bigelow v. Virginia*, 421 U.S. 809, 818–21 (1975); *Virginia Bd. of Pharmacy v. Virginia Citizens Consumer Council, Inc.*, 425 U.S. 748, 761–70 (1976).

219. See *Central Hudson Gas & Elec. Corp. v. Public Serv. Comm’n*, 447 U.S. 557, 566 (1980).

220. *44 Liquormart, Inc. v. Rhode Island*, 517 U.S. 484, 502–04 (1996) (principal opinion of Stevens, J., joined by Kennedy & Ginsburg, JJ.); see *id.* at 518–28 (Thomas, J., concurring).

221. 94 U.S. 113 (1877). *Munn* had held that an Illinois law regulating the prices that warehouses could charge for the storage of grain was constitutional because these businesses were “affected with a public interest.” 94 U.S. at 126, 130. The Court subsequently relied on this rationale to strike down price regulation of some other businesses on the grounds that they were *not* similarly affected. See, e.g., *Pierce & Gellhorn*, *supra* note 12, at 81–82 (collecting cases). Eventually, in *Nebbia v. New York*, 291 U.S. 502 (1934), the Court discredited this rationale for reviewing regulation of business, stating that “there is no closed class or category of businesses affected with a public interest” and upholding price regulation of the dairy industry. 291 U.S. at 536.

222. 198 U.S. 45 (1905).

has American business had such success in challenging the constitutionality of government regulations.²²³

Use of the First Amendment as a wedge to insert firms into markets from which the government had sought to exclude them is more recent still. In some instances, firms have used the First Amendment merely as a secondary argument—an example being the RBOCs' claim after divestiture that their exclusion from information-services businesses by virtue of the MFJ violated their First Amendment rights.²²⁴ At other times, however, the First Amendment has served as the weapon of first resort and has proven quite effective. Most notably, beginning in 1993, several of the RBOCs challenged, on freedom-of-speech grounds, a provision of the Cable Communications Policy Act of 1984 that essentially prohibited local telephone companies from owning cable television franchises in the areas in which they provided local telephone service.²²⁵ The purpose of this provision, like the MFJ's exclusion of the RBOCs from long distance, was to prevent the LECs from cross-subsidizing cable services with revenues from their franchised monopoly telephone systems. The RBOCs persuaded several courts of appeals that the restriction on their ability to provide cable in their telephone service areas violated their First Amendment right of free speech. Before the Supreme Court could resolve the issue, Congress repealed the statute in the Telecommunications Act.²²⁶

One observer has termed the RBOCs' success in these cable/telephone-company cross-ownership cases as "mark[ing] a startling change in

223. Quite unlike *Lochner*, the Supreme Court's willingness to strike down economic regulation under the First Amendment has been generally celebrated by commentators. See, e.g., Laurence H. Tribe, *American Constitutional Law* § 12-15, at 890-904 (2d ed. 1988); Alex Kozinski & Stuart Banner, *Who's Afraid of Commercial Speech?*, 76 *Va. L. Rev.* 627, 651-53 (1990); see also Martin H. Redish, *The First Amendment in the Marketplace: Commercial Speech and the Values of Free Expression*, 39 *Geo. Wash. L. Rev.* 429 (1971) (pre-*Bigelow* article arguing for First Amendment protection of commercial speech). But see Thomas H. Jackson & John Calvin Jeffries, Jr., *Commercial Speech: Economic Due Process and the First Amendment*, 65 *Va. L. Rev.* 1, 30-31 (1979) (criticizing Court's extension of First Amendment protection to commercial speech and terming it a revival of *Lochner* in another guise).

224. See *United States v. Western Elec. Co.*, 673 *F. Supp.* 525, 585-86 (D.D.C. 1987), *aff'd in part, rev'd in part*, 900 *F.2d* 283 (D.C. Cir. 1990); *United States v. Western Elec. Co.*, 767 *F. Supp.* 308 (D.D.C. 1991), *aff'd*, 993 *F.2d* 1572 (D.C. Cir. 1993). The RBOCs obtained entry to this business on other grounds. See *United States v. Western Elec. Co.*, 774 *F. Supp.* 11, 12 n.2 (D.D.C. 1991).

225. See 47 *U.S.C.* § 533(b)(1) (1994).

226. See *Chesapeake & Potomac Tel. Co. v. United States*, 42 *F.3d* 181, 190-204 (4th Cir. 1994), *vacated and remanded for consideration of mootness*, 516 *U.S.* 415 (1996); see also Huber, *supra* note 170, at 83, 228 (citing other cases). The Supreme Court accepted the United States' request to review the Fourth Circuit's decision in *Chesapeake & Potomac*, and the case was briefed and argued before Congress's action halted the proceedings. Huber speculates "from the oral argument" in *Chesapeake & Potomac* that "the phone companies were set to win the votes of all nine Justices." Huber, *supra* note 170, at 83.

the legal landscape.”²²⁷ This is because the RBOCs and other telephone companies are now able to challenge, on First Amendment grounds, restrictions on any service that combines carriage and content. These claims are not assured of success, as is evident from the Supreme Court’s recent decision that cable television companies can be required to dedicate some of their channels to carrying local broadcast stations.²²⁸ But the narrowness of the Court’s majority in that case,²²⁹ the extraordinary scrutiny to which this so-called “must carry” rule imposed by Congress was subjected,²³⁰ and the current Court’s general receptiveness to First Amendment claims²³¹ all suggest that the First Amendment will continue to be a powerful weapon for telephone companies attacking certain forms of regulation or fending them off in the first instance.²³²

In addition, the telecommunications industry has seen the courts intrude on congressional regulation on a constitutional ground even more remarkable than the First Amendment: viz., the Bill of Attainder Clause. On December 31, 1997, one of the RBOCs persuaded a federal judge in Wichita Falls, Texas, that the provisions of the Telecommunications Act that restrict the RBOCs from offering long-distance service in areas where they control the local exchange monopolies are unconstitutional because they do not apply to companies other than the RBOCs (i.e., to the so-called “independents” such as GTE).²³³ It did not matter that the RBOCs had lobbied heavily for congressional enactment of the 1996 Act,²³⁴ that

227. Huber, *supra* note 170, at 83.

228. See *Turner Broad. System, Inc. v. FCC*, 117 S. Ct. 1174, 1184 (1997).

229. The Court’s decisions in both this and a previous appeal in the “must carry” litigation were by 5-4 votes, and the majorities were also fragmented among themselves. See *id.* at 1183 (noting that four separate opinions were filed); *Turner Broad. System, Inc. v. FCC*, 512 U.S. 622, 624-25 (1994) (five separate opinions).

230. The government was required to introduce “substantial evidence” demonstrating “that the must-carry provisions further important governmental interests . . . and [that] the provisions do not burden substantially more speech than necessary to further those interests.” *Turner*, 117 S. Ct. at 1184. This entailed more than “18 months of factual development . . . yielding a record of tens of thousands of pages of evidence, comprised of materials acquired during Congress’ three years of preenactment hearings, as well as . . . expert submissions, sworn declarations and testimony, and industry documents. . . .” *Id.* at 1185 (internal quotations and citations omitted).

231. See, e.g., *Reno v. ACLU*, 117 S. Ct. 2329 (1997) (striking down provisions of the Communications Decency Act of 1996); *O’Hare Truck Serv. v. City of Northlake*, 518 U.S. 712 (1996) (invalidating independent contractor’s termination for political reasons); *Board of County Comm’rs v. Umbehr*, 518 U.S. 668 (1996) (same); *44 Liquormart, Inc. v. Rhode Island*, 517 U.S. 484 (1996) (striking down state law limiting price advertising of alcoholic beverages).

232. See Lance Liebman, *Foreword: The New Estates*, 97 *Colum. L. Rev.* 819, 828-32 (1997); Fred H. Cate, *Telephone Companies, The First Amendment, and Technological Convergence*, 45 *DePaul L. Rev.* 1035 (1996). For an intelligent overview of the First Amendment in the context of electronic communications, see Richard Klingler, *The New Information Industry: Regulatory Challenges and the First Amendment* (1996).

233. See *SBC Communications, Inc. v. FCC*, 981 F. Supp. 996, 1002-07 (N.D. Tex. 1997).

234. See *infra* note 329 and accompanying text.

the long-distance restriction in the Act was more favorable to the RBOCs than the MFJ proscription that it replaced,²³⁵ or that the Act continued an historical injunction to which the RBOCs' corporate predecessor (i.e., the old AT&T, on behalf of the vertically integrated Bell System) but not other companies had agreed.²³⁶ This ruling was recently reversed on appeal by a divided panel of the Fifth Circuit.²³⁷ Had the decision stood, one of the RBOCs (the former Southwestern Bell) would have been able quickly to provide local and long-distance service bundled together—which would have been the first time since the breakup of the Bell System that customers in the BOCs' service areas (which contain the vast bulk of the nation's telecommunications subscribers) could receive such bundled service from one company.²³⁸

In all events, one should expect constitutional challenges to regulation to be made with increasing frequency. The attractiveness of these arguments, as reflected in the cases of the past two decades, is not difficult to understand. Courts confront constitutional challenges in many contexts and are comfortable with them, even when the particular chal-

235. For example, Congress permitted the RBOCs immediately to provide long-distance services on calls originating outside of the regions where they control the local telephone monopolies and on cellular telephone calls. See 47 U.S.C.A. § 271(b)(2), (b)(3), (g)(3) (West Supp. 1998). The MFJ had banned RBOC provision of both "extraregional" and cellular long-distance services. See *United States v. Western Elec. Co.*, 890 F. Supp. 1, 6 (D.D.C. 1995) (loosening, but only minimally, the MFJ's ban on some of these services), vacated as moot, No. 95-5137, 1996 U.S. App. LEXIS 7285 (D.C. Cir. Feb. 16, 1996).

236. See *United States v. Western Elec. Co.*, 797 F.2d 1082, 1087-88 (D.C. Cir. 1986) (rejecting RBOC claim that MFJ could not bind it). The only other telephone company that combined substantial local operations and long-distance service was also sued by the United States on antitrust grounds, but the consent decree settling that case did not restrict the company from such vertical integration, see *United States v. GTE Corp.*, 603 F. Supp. 730, 733-37 (D.D.C. 1984) (explaining reasons for this difference from the MFJ), and the 1996 Telecommunications Act's provisions concerning long-distance services accordingly apply only to the RBOCs.

237. *SBC Communications, Inc. v. FCC*, No. 98-10140 (5th Cir. Sept. 4, 1998); see also Chen, *supra* note 150, at 59 (terming the district court's ruling a "rogue decision" and correctly predicting that it would be overturned on appeal).

238. Another RBOC believes that its entry into basic long-distance service is imminent, see Seth Schiesel, *Bell Atlantic Wins Backing to Add Service*, N.Y. Times, Apr. 7, 1998, at B1 (reporting that based on conditional approval from the Department of Justice and the New York Public Service Commission, Bell Atlantic hopes to persuade the FCC to permit it to offer long-distance service by January 1, 1999), although previous such RBOC efforts under the Telecommunications Act of 1996 have been unsuccessful. See, e.g., *Application of Ameritech Michigan Pursuant to Section 271 of the Communications Act of 1934, as amended, to Provide In-Region, InterLATA Services in Michigan*, 12 FCC Rcd. 20543 (1997). The RBOCs are also expected to argue that AT&T's recent proposal to gain access to end-users via a merger with Telecommunications Inc. (TCI), one of the nation's largest cable companies, means that the RBOCs should no longer be excluded from long-distance service. See Peter Elstrom et al., *At Last, Telecom Unbound: AT&T-TCI Could Deliver on the Promise of Melding Telephones, TVs, and Computers*, Bus. Wk., July 6, 1998, at 24; Catherine Yang, *This Could Be the Breakthrough Merger*, Bus. Wk., July 6, 1998, at 29.

lenge arises in a complex, highly regulated context where they would generally defer to more expert bodies. As a related matter, constitutional arguments are frequently easier for a challenger to articulate and for a court to understand than some other potential arguments. These other arguments, moreover, are frequently unappealing, because, even if successful, they do not necessarily strike a death blow against regulation as some constitutional arguments do. And perhaps most importantly in an evaluation of the incidence of constitutional arguments in regulated industries, the amount of money at stake is frequently so massive that it would be economically unreasonable *not* to raise the argument. There is no better example of this last point than the RBOCs' bill-of-attainder challenge to their exclusion from part of the long-distance business.

The telecommunications industry has also provided the most significant instances where statutory (as opposed to constitutional) review has acted as a catalyst in moving an industry away from the single-service provider model and toward the new paradigm described above. This occurred in a series of D.C. Circuit decisions in the 1970s involving the long-distance industry. As we described previously, the FCC had attempted to limit MCI and other specialized common carriers to providing specialized private line services, which fell far short of full-fledged competition with AT&T's basic switched services.²³⁹ In reversing this decision, the court of appeals did not question the FCC's authority to conclude that the "public interest" required that AT&T face no competition for basic switched services. Indeed, the court acknowledged that "there may be very good reasons for according AT&T *de jure* freedom from competition in certain fields."²⁴⁰ But the reasons for favoring a single service provider could not include "simply that AT&T got there first."²⁴¹ In all events, according to the court, the FCC would be required to conclude affirmatively—and explain its reasoning for any such conclusion—that competition with AT&T's basic services was not in the public interest.

Although nominally requiring only a fuller explanation from the FCC, this ruling, along with follow-on decisions by the same court,²⁴² has been aptly termed "the beginning of the end":

Execunet would be as devastating to AT&T as the iceberg was to the Titanic. On remand the Commission instituted a rulemaking proceeding to consider the scope of competition in AT&T's switched service markets, concluding in 1980 that there should

239. See *supra* text accompanying notes 83–88.

240. *Execunet I*, 561 F.2d 365, 380 (D.C. Cir. 1977).

241. *Id.*

242. See, e.g., *Execunet II*, 580 F.2d 590 (D.C. Cir. 1978) (requiring AT&T through its BOC subsidiaries to provide local interconnections for MCI). *Execunet II* has been characterized as a "rambling, poorly reasoned . . . decision" that, "[t]hough dubious as a matter of law, . . . had profound implications." Kellogg et al., *supra* note 69, § 12.5.2, at 608–09.

be open competition and unlimited resale of switched services.²⁴³

Thus, through the routine device of granting a petition for review of an FCC decision rejecting a tariff, the D.C. Circuit helped to ensure the transformation of the telecommunications industry. Of course, it is impossible to conclude definitively that the turn to the competitive model in telecommunications would not have occurred—or would have occurred substantially differently—in the absence of such decisions. It seems fairly certain, though, that the D.C. Circuit's decisions at a minimum ensured and expedited the change.

Finally, another way in which courts have influenced the pace, scope, or form of the transformation of regulated industries has been through their jurisdiction over antitrust actions—both those brought by the government and those brought by private parties claiming damages. Again, the most significant examples come from telecommunications and involve the Bell System. We have already discussed the most significant of these: the government's lawsuit, commenced in 1974, that resulted in the consent decree, known as the MFJ, which broke up the Bell System by requiring that AT&T divest itself of its local exchange companies. While there is no question that the "Prime Mover" of the lawsuit was the United States Department of Justice,²⁴⁴ Judge Harold H. Greene's presiding over the case was of extraordinary importance. First, Judge Greene ensured that the case moved through a massive discovery process to trial.²⁴⁵ Second, Judge Greene's rulings on important mid-course matters—such as whether state and federal regulations gave AT&T certain immunity and how the United States could establish liability—made clear to AT&T which way he was likely to rule at the end of the day, and impelled it, after eleven on-and-off months of trial, to capitulate while it could still exercise some modicum of influence over the form of the decree.²⁴⁶

243. Robinson, *supra* note 87, at 524.

244. *United States v. Western Elec. Co.*, 900 F.2d 283, 292 (D.C. Cir. 1990).

245. This alone was no small accomplishment. See Thomas D. Morgan, *Economic Regulation of Business* 826 (1976) (prospect that government's then-pending antitrust claim against Bell System "is ever litigated" would be "a bold assumption, given the scope of discovery alone which would be involved"). For a description of how Judge Greene guided the case to trial, see Temin, *supra* note 9, at 202–03, 210.

246. See, e.g., *United States v. AT&T*, 461 F. Supp. 1314, 1328–29 (D.D.C. 1978) (holding that the FCC's regulation of AT&T did not render company immune to antitrust action); *United States v. AT&T*, 524 F. Supp. 1336, 1379 (D.D.C. 1981) (holding that government could establish antitrust violation under less stringent test of liability than that urged by AT&T); see also Temin, *supra* note 9, at 202–03, 251–54, 261–62 (describing Judge Greene's rulings and apparent likely future actions); Robert E. Taylor, *Picking Targets: Antitrust Enforcement Will Be More Selective, Two Big Cases Indicate*, *Wall St. J.*, Jan. 11, 1982, at 1 (reporting that "[m]ost observers believe the trial was going badly for the Bell System"). But see Paul W. MacAvoy & Kenneth Robinson, *Winning by Losing: The AT&T Settlement and Its Impact on Telecommunications*, 1 *Yale J. on Reg.* 1, 21–31 (1983) (assessing merits of government's case against AT&T and concluding, without much assessment of Judge Greene, that neither finding of liability nor, assuming liability, remedy of divestiture would have been a likely result). For a succinct account of the

Though less remembered, private antitrust suits also played a critical role. By the time AT&T agreed on January 8, 1982 to the historic divestiture under the MFJ, it faced a staggering 50-plus such suits seeking damages.²⁴⁷ The Bell System's historic agreement to divest itself of the BOCs was attributed in part to this continuing stream of pending and contemplated private antitrust suits.²⁴⁸ This is not to suggest that the Bell System lost most of these cases. In fact, it fared reasonably well when the cases were decided.²⁴⁹ But as long as the vertically integrated company remained in a business where it had a monopoly over bottleneck facilities to which its competitors in adjacent markets required access, every Bell System success, and every competitor failure, could be a regulatory complaint, an antitrust suit, or both.

Our point is not that the courts have commonly been the primary driving force behind the great transformation of regulated industries law—they have not. But they do serve from time to time as catalysts, and this should not be forgotten lest certain changes that might well not have occurred without judicial intervention be erroneously seen in retrospect as having been inevitable.

A simple example illustrates the point. Among the many private antitrust suits against the Bell System in the 1970s was one filed in Washington, D.C. by Southern Pacific Communications (the predecessor to Sprint). Southern Pacific lost that lawsuit when, after a 33-day bench trial, Judge Charles R. Richey ruled for AT&T. So persuaded was Judge Richey by the Bell System's argument that, as the D.C. Circuit lamented on review (even while affirming), his opinion not only "strongly expressed his personal policy view that an AT&T monopoly, and not competition, is in the public interest in the telecommunications industry," but also "simply copied—word-for-word (including even typographical errors)—most of AT&T's proposed findings of fact and conclusions of law."²⁵⁰

government's antitrust suit against the Bell System and its settlement in the MFJ, see John R. McNamara, *The Economics of Innovation in the Telecommunications Industry* 41–46 (1991).

247. See Brock, *supra* note 79, at 287; see also *Southern Pacific Suit Dismissed Against AT&T*, Wall St. J., Dec. 22, 1982, at 4C (discussing other such suits).

248. See, e.g., Taylor, *supra* note 246, at 1.

249. See, e.g., Temin, *supra* note 9, at 333–34 (discussing lawsuits brought by MCI and Southern Pacific); *infra* note 250 and accompanying text (describing AT&T's victory in Southern Pacific case). Even when AT&T lost, its losses tended not to be significant. For example, although MCI initially won a \$1.8 billion jury verdict (once the award was trebled) on its antitrust claims against AT&T, this damages award was set aside on appeal in *MCI Communications Corp. v. AT&T*, 708 F.2d 1081, 1160–69 (7th Cir. 1983), and AT&T fared well at the retrial on damages. See Christine Winters, *AT&T A Winner in Damages Suit: Only \$37.8 Million Awarded to MCI*, Chi. Trib., May 29, 1985, at 1 (although verdict would "automatically . . . be trebled to \$113.4 million," proclaiming this "a clear-cut victory" for AT&T because "MCI had sought \$5.8 billion").

250. *Southern Pac. Communications Co. v. AT&T*, 740 F.2d 980, 983 (D.C. Cir. 1984).

But for a quirk of history, this—and not the MFJ—might have been the result of the government's suit. Both the government's and Southern Pacific's cases against AT&T had originally been assigned to the same judge, Judge Joseph C. Waddy. When Judge Waddy died, the government's case was reassigned to Judge Greene, while Southern Pacific's case went to Judge Richey. As one observer has noted, “[h]ad the docket assignments been reversed, Sprint might be a good bit richer, and the Bell System might still be intact today.”²⁵¹ Thus is the course of history influenced by small events.

2. *The Courts as Brake.* — In contrast to their role as catalyst, the courts have served at times as a brake, restraining change or requiring agency consideration of reliance or other interests of those already in an industry. In some industries, judicial decisions of this sort have had a significant effect on the course of the transformation.

Detariffing has been one area in which the courts have restrained agency efforts to move away from the original paradigm of regulated industries law. The most notable example arose in the trucking industry. In its initial deregulation of the trucking industry in 1980, Congress maintained the tariff-filing requirement. This was largely regarded as a formality by those in the industry, however, because revised tariffs could be filed and made effective on one day's notice and could incorporate deals struck with individual customers (so long as the rates set forth were nominally open to all those willing and able to meet the tariffs' terms and conditions). Given this practical insignificance, many truckers stopped filing tariffs. Problems arose, however, when numerous trucking companies went bankrupt (casualties of the new competition in the industry) and bankruptcy trustees sought to collect from customers the difference between the negotiated rate and the rate embodied in the carriers' tariffs actually on file. Against a formidable array of opposition—including not only most industry participants but also the ICC itself—the Court “surprised all participants in the trucking market”²⁵² by holding in *Maislin Industries, U.S., Inc. v. Primary Steel, Inc.* that not even the agency's broad power to prohibit “unreasonable practices” could be used to permit deviation from the filed-rate doctrine.²⁵³

Similarly, on several different occasions in the 1980s and 1990s, courts concluded that the FCC lacked the authority to do away with the tariff-filing obligation set forth in section 203 of the Communications Act. Although the Supreme Court's decision to this effect has received attention mostly because it is regarded as the apogee (or nadir, depending on one's perspective) of the Court's reliance on dictionary definitions in construing statutes,²⁵⁴ the Court also emphasized that the structure of

251. Huber, *supra* note 170, at 90.

252. Pierce & Gellhorn, *supra* note 12, at 340.

253. 497 U.S. 116, 130–31 (1990).

254. See *MCI Telecomms. Corp. v. AT&T*, 512 U.S. 218, 225–28 & nn.2–3 (1994); William N. Eskridge, Jr. & Phillip P. Frickey, *The Supreme Court, 1993 Term—Foreword*:

the statute required this conclusion, for discrimination could scarcely be policed effectively without tariffs.²⁵⁵

The main effect of the courts' filed-rate doctrine decisions such as *Maislin* and *MCI v. AT&T* has been to require congressional authorization for agency efforts to detariff (which was eventually forthcoming).²⁵⁶ But other judicial decisions have had a more permanent effect on the ultimate characteristics of the new paradigm of regulated industries law. This has been particularly true in the natural gas area.

More than in any other regulated industry, the transformation of the natural gas industry has involved the courts and the federal regulatory agency in a back-and-forth process, with the courts acting as both catalyst and brake. This process began after Congress's enactment of the Natural Gas Policy Act of 1978,²⁵⁷ which provided for a gradual phase-out of regulation of producer prices. One of the consequences of this partially deregulated producer-price system was that in the late 1970s and early 1980s pipelines and producers entered into contracts containing so-called "take-or-pay clauses." These contract provisions can be summarized as "requiring the pipelines either to purchase a specified percentage of the producer's deliverable gas or to make 'prepayments' for that percentage anyway."²⁵⁸ When market prices proved to be substantially lower than the contract prices, these take-or-pay obligations escalated into billions of dollars of pipeline liabilities.²⁵⁹ FERC then adopted a set of regulatory policies designed to afford the pipelines some relief. Specifically, FERC announced that pipelines could "sell gas at deeply discounted prices for use only by consumers who certified that they otherwise would switch to other gas supplies or to alternative fuels less expensive than the pipeline's regulated price of gas,"²⁶⁰ and that pipelines could "transport gas at lowered prices to 'non-captive consumers'—large industrial end-users capable of switching to alternative fuels—without any obligation to provide the same service to 'captive consumers.'"²⁶¹

The D.C. Circuit struck down FERC's policies in a set of companion cases.²⁶² In essence, the court reasoned that FERC's attempt to give pipe-

Law as Equilibrium, 108 Harv. L. Rev. 26, 73-75 (1994); William Safire, On Language: *Scalia v. Merriam-Webster*, N.Y. Times, Nov. 20, 1994, § 6, at 30.

255. See *supra* note 62 (quoting 512 U.S. at 230).

256. See *supra* notes 55-58 and 63-65 and accompanying text.

257. Pub. L. No. 95-621, 92 Stat. 3350 (codified as amended at 15 U.S.C. §§ 3301-3348 (1994)).

258. *Associated Gas Distribs. v. FERC*, 824 F.2d 981, 1021 (D.C. Cir. 1987).

259. For example, "in 1983 pre-payment liabilities for the period between 1982 and 1985 were predicted to reach \$7 billion." *Id.*

260. *Pierce*, *supra* note 209, at 16.

261. *Maryland People's Counsel v. FERC*, 761 F.2d 780, 781 (D.C. Cir. 1985) [hereinafter *MPC II*].

262. See *Maryland People's Counsel v. FERC*, 761 F.2d 768 (D.C. Cir. 1985) [hereinafter *MPC I*]; *MPC II*, 761 F.2d 780 (D.C. Cir. 1985). The D.C. Circuit also struck down a successor policy to the "special marketing program" at issue in *MPC I*. See

lines more flexibility in dealing with consumers having ready access to low-cost alternatives, while not extending similar benefits to captive customers, "was unduly discriminatory, unjust, and unreasonable within the meaning of the NGA."²⁶³ This was not all bad news for the agency, for the ruling pushed FERC in the direction of a more far-reaching policy which it previously had proposed to adopt.²⁶⁴ Specifically, in response to these D.C. Circuit decisions, FERC issued its landmark Order No. 436, which effectively required pipelines to provide open access to their facilities.²⁶⁵ FERC's extraordinarily significant decision to unbundle pipeline services thus originated, to a great extent, in the D.C. Circuit's resistance to the agency's previous policy.

The court's subsequent decision upholding most of Order No. 436 commenced a new round of back-and-forths with FERC that caused one prominent commentator to lament in 1991 that the decision on Order No. 436 "was FERC's last success in obtaining judicial acceptance of its gas policy initiatives."²⁶⁶ While the subsequent series of decisions does not require recounting here, it is important to note that "[t]he judicial challenges to FERC's changes in regulatory policy focused almost entirely on the transition cost issue."²⁶⁷ Of particular concern was the question of liability for "stranded costs," i.e., sunk costs that could not be recovered because of competitive pressures.²⁶⁸ The result of the back-and-forth process—wherein the courts "revers[ed] and remand[ed] about a dozen FERC attempts to deal with transition cost issues over a five-year period"—was that FERC ultimately "allow[ed] its regulatees to reallocate to their customers 100 percent of the cost of the transition to the unbundled service regime implemented in Order 636."²⁶⁹ FERC's unhappy experience with the courts on the issue of who would bear transition costs in the natural gas industry undoubtedly is the reason that FERC determined in its subsequent unbundling of the electric industry to permit utility companies to recover 100 percent of their stranded costs.²⁷⁰

Maryland People's Counsel v. FERC, 768 F.2d 450 (D.C. Cir. 1985); see also *Associated Gas*, 824 F.2d at 1020.

263. Pierce, *supra* note 209, at 16.

264. See *id.*

265. See *supra* notes 96–97 and accompanying text; see also *supra* text accompanying notes 132–134. In upholding this aspect of Order No. 436, the D.C. Circuit noted that its previous decision in *MPC II*, referred to above, had come "about as close to endorsing the Commission's [new] approach as Article III permits." *Associated Gas*, 824 F.2d at 1000.

266. Pierce, *supra* note 209, at 18; see also *id.* at 10 n.14, 15 ("FERC's current record of remands and reversals by appellate courts is unprecedented in regulatory history.") (quoting A.B.A. Util. Sec. Newsl., Jan. 1990, at 7).

267. Pierce, *supra* note 97, at 325.

268. See generally J. Gregory Sidak & Daniel F. Spulber, *Deregulatory Takings and the Regulatory Contract: The Competitive Transformation of Network Industries in the United States* (1997) (overview of stranded costs debate).

269. Pierce, *supra* note 97, at 326.

270. Cf. FERC Order No. 888, FERC Stats. & Regs. (CCH) ¶ 31,036, at 31,789 (1996) (describing treatment of stranded costs in electric industry and noting that "[w]e learned

At the end of the day, it is impossible to say whether the courts have been more of a catalyst in the great transformation of regulated industries law or more of a brake. Overall, the role of the courts appears to be akin to that of a random variable, sometimes accelerating the process of change, sometimes slowing it down, but never really shaping the ultimate direction or content of the changes taking place around them. Whether courts have performed a valuable function in these cases is at best debatable.²⁷¹ What is not debatable is that the courts cannot claim to be the architects of the great transformation. Certainly, the theories that the courts have propounded in support of their most notable decisions—whether it be the First Amendment or the hard-look doctrine in the catalytic cases, or the idea of *stare decisis* or the hard-look doctrine in the cases that act as a brake—bear no affinity with the ideas that underlie the new paradigm in regulated industries law.

C. Congress

That leaves the legislature. Without question, Congress has played a substantial role in the great transformation of regulated industries law. Yet there are three features about the legislative performance that call into question whether Congress can be regarded as having exercised institutional leadership.

First, Congress has generally not made the first move in opening up regulated industries to greater competition. As two respected students of the early reform measures have observed:

Customarily, in American government, major new policies are first set forth in statutes enacted by Congress; then in due course administrative agencies carry them out. In the case of airlines, trucking and telecommunications deregulation, however, this sequence was largely reversed. The commissions took the first formal steps toward procompetitive deregulation without new statutory instructions and proceeded to elaborate them with ever-increasing boldness. Serious legislative activity, beyond merely investigatory hearings, came later.²⁷²

from our experience with natural gas that, as both a legal and a policy matter, we cannot ignore these costs”).

271. Compare Pierce, *supra* note 209 (arguing that courts have no comprehension of the big picture and nitpick agency decisions in ways that can lead to severe dysfunction in policymaking), with Jim Rossi, *Redeeming Judicial Review: The Hard Look Doctrine and Federal Regulatory Efforts to Restructure the Electric Utility Industry*, 1994 *Wis. L. Rev.* 763 (1994) (conceding that judicial review has inhibited agency decisionmaking but defending it as protector of “deliberative democratic values”).

272. Derthick & Quirk, *supra* note 40, at 96; see also Clifford Winston, *Economic Deregulation: Days of Reckoning for Microeconomists*, 31 *J. Econ. Literature* 1263, 1264–66 (1993) (“[C]ongressional action was not the sole source of the deregulation movement and, in fact, was often the last step in the process.”); Thomas S. Ulen, *Book Review: Anthony Ogus, Regulation: Legal Form and Economic Theory*, 17 *Int’l Rev. L. & Econ.* 293, 295 (1997) (“more typically, Congress keeps its distance from the regulators and allows the courts to hold the agencies accountable”).

This role reversal is less evident with respect to later reform measures. With respect to natural gas and electricity reform, for example, Congress has occasionally interceded in ways that have moved the process forward after FERC has reached an impasse. And although the central disputes resolved by the Telecommunications Act were defined by previous fights among contending interests in court and before the FCC, there can be no question but that the Act sets forth a comprehensive blueprint for a new order far more sweeping than anything that would have been produced by continued litigation and administrative action. Still, it would be difficult to say that Congress has played the role of the initial policymaking body with respect to most of the great transformation.

Second, congressional involvement in the transformation has been intermittent. Federal regulatory reform legislation has been concentrated in two waves: one in the last half of the 1970s, the other in the early to mid-1990s. The reasons why Congress has been more active at these times, and relatively quiescent in the 1980s, are unclear. In the late 1970s, Congress played a major role in getting the transformation under way. This is particularly true in the transportation industries, where Congress in relatively short order enacted the 4R Act of 1976, the Airline Deregulation Act of 1978, the Motor Carrier Act of 1980, and the Staggers Rail Act of 1980.²⁷³ Within this same time period, Congress also enacted the Natural Gas Policy Act of 1978, which, even if an “abysmal failure,” as some have asserted,²⁷⁴ got the regulatory reform ball rolling for FERC in the natural gas area. In general, however, Congress moved to the forefront of the great transformation in these years largely only in the transportation industries.²⁷⁵

During the 1980s, Congress stood mostly on the sidelines. For example, Congress played no substantial role in the telecommunications industry until 1996, by which time the FCC and the courts had already moved a large way toward the new paradigm. The entire opening up of the manufacturing and long-distance telecommunications markets during these years was the result of efforts by the FCC (prodded at times by the courts) and the Department of Justice. The most that can be said of Congress in this regard is that it resisted—or at least did not act upon—the Bell System’s pleas that it be given protection from the Department of Justice’s antitrust suit that led to divestiture (or the RBOCs’ subsequent pleas that the MFJ’s line-of-business restrictions be lifted).²⁷⁶ Both in the

273. See *supra* text accompanying notes 41–54.

274. Richard J. Pierce, Jr., *Reconstituting the Natural Gas Industry from Wellhead to Burnertip*, 9 *Energy L.J.* 1, 12 (1988).

275. Even in these industries, of course, it would be a mistake to suppose that Congress was alone in promoting the transformation. See, e.g., Richard D. Stone, *Administrative Deregulation of the Railroads: The ICC’s Change of Philosophy*, 61 *Transp. Prac. J.* 278, 283–88 (1994) (discussing ICC’s actions in the decade preceding the Staggers Rail Act of 1980).

276. See, e.g., Temin, *supra* note 9, at 175–90 (Bell System); *infra* note 329 and accompanying text (RBOCs).

early 1980s and for substantially more than a decade afterwards, Congress was unable to come to a consensus concerning whether and what type of significant telecommunications legislation should be passed.

Toward the end of the 1980s, this relatively dormant congressional period ended, and a second wave of legislation commenced. The most dramatic breakthrough was the Telecommunications Act of 1996, which was many years in the making and wrought the most complex and far-reaching regulatory change to date. Other substantial congressional actions during this period were the Natural Gas Wellhead Decontrol Act of 1989, which can be succinctly characterized as having "ratified FERC's major changes in regulatory policy,"²⁷⁷ and the Energy Policy Act of 1992, which authorized electricity sales by "exempt wholesale generators" (or EWGs) and mandated that FERC require owners of electricity transmission lines to provide equal access to their facilities. This second phase of congressional enactments also included legislation designed to clean up the administrative and judicial debris resulting from implementation of Congress's first wave of legislation from 1976 to 1980. Examples include the Negotiated Rates Act of 1993, passed in response to *Maislin* and other decisions, and the ICC Termination Act of 1995.²⁷⁸

Finally, it should be noted that, even when Congress has acted, it has usually done so very slowly. The foregoing telecommunications example demonstrates this, as does the 1978 NGPA, which was enacted only "[a]fter twenty-eight years of frequent consideration . . . and nineteen months of continuous bitter debate."²⁷⁹

For each of these reasons, it would be difficult to award Congress the mantle of architect of the great transformation. Its role has been reactive, irregular, and often ponderously slow. Without a doubt Congress, like the agencies and the courts, has had a substantial effect in causing the great transformation of regulated industries law. But it, like these other government actors, cannot be regarded as the driving force behind the change.

* * * *

At the end of the day, the conclusion must be reached that none of the institutional actors with the power to compel change can be considered the author of the great transformation. The agencies have played a surprisingly supportive role. But they had to be prodded into action by the courts or Congress, and no single agency had a sufficiently broad jurisdiction to coordinate the forces of change. The courts have been schizophrenic in their response to regulatory change, sometimes propelling it forward, sometimes holding it back. And they have always acted in the name of legal doctrines that do not themselves dictate any particular

277. Pierce & Gellhorn, *supra* note 12, at 343.

278. See *supra* text accompanying notes 55-58.

279. Pierce, *supra* note 274, at 11.

regulatory policy. Congress has played a vital role. But it was often the last to act, and in many instances seems to have been less interested in uncorking the forces of change than in keeping them bottled up.

III. ECONOMIC AND SOCIAL CAUSES OF THE TRANSFORMATION

To this point, we have established two propositions: first, that a wide-ranging transformation sharing many common features is taking place throughout regulated industries law, and second, that there is no consistent pattern of leadership such that one institution of government could be said to be the primary architect of this great transformation. The combination of these two propositions strongly suggests that the transformation is being driven by deep-seated economic and social forces—forces that affect all the industries under consideration and transcend the particular historical episodes in any particular industry.

Identifying these forces takes us into largely uncharted waters. Although there are many advocates applauding or opposing “deregulation,” only a handful of scholars have offered positive accounts of what we have denominated the great transformation, and virtually all of these accounts focus only on the first wave of changes that took place in the late 1970s.²⁸⁰ Moreover, because the transformation is still going on around us, we lack the critical distance that may be necessary to offer generalizations about the causes of fundamental legal change. What follows, therefore, is necessarily tentative in nature.

We will consider four economic and social explanations for recent regulatory changes, arranged in order of increasing generality: (1) that the great transformation has been caused by technological changes; (2) that it has been caused by a series of chain reactions brought about by the introduction of competition in one industry which has destabilized the status quo in another industry; (3) that it is the product of interest group politics; and (4) that it reflects an ideological consensus among policy elites that the risks of regulatory failure associated with the original paradigm are greater than the risks of market failure associated with competition. The first two explanations presuppose that the transformation has produced real efficiency gains widely shared throughout society. Thus, these explanations implicitly embrace a version of the public interest theory of regulation. The latter two explanations are agnostic as to whether the transformation will in fact produce real efficiency gains, but focus instead on the *distributional* consequences of regulatory change and the *perceptions* of efficiency gains shared by policy elites. Consequently, these

280. See, e.g., Derthick & Quirk, *supra* note 40; The Political Economy of Deregulation: Interest Groups in the Regulatory Process (Roger G. Noll & Bruce M. Owen eds., 1983); Dennis Swann, *The Retreat of the State: Deregulation and Privatization in the UK and US* (1980); Richard H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America* (1994).

explanations are more congruent with public choice or social construction theories of regulation.

Our assessment is that all four factors have probably played some role in unleashing the great transformation. Since the transformation is a general phenomenon, however, there is some reason to think that the more general explanations (nos. 3 and 4) have greater force than do the more specific explanations (nos. 1 and 2).

A. *Technological Change*

It is often suggested, usually in the context of discussing one industry,²⁸¹ but sometimes in conjunction with a broader overview of regulatory changes, that what we have termed the great transformation is being driven by technological change. In its most common form, the argument is as follows. The original paradigm was created because of widespread perceptions of market failure in regulated industries, most prominently the presence of natural monopolies. In recent decades, however, advances in technology have eliminated many of the natural monopoly features of these industries, or at least have significantly reduced their scope. As the technological conditions demanding that industries be structured as monopolies have disappeared, the regulatory systems predicated on monopoly and restricted entry have been dismantled. *Cessante ratione legis, cessat et ipsa lex.*

The technological change argument (like the next argument, which is based on chain reactions) presupposes that there are significant efficiency gains to be obtained in moving from a monopolistic or oligopolistic industrial structure to a competitive market structure, provided that competition is feasible. The argument for the superior efficiency of competition in industries that do not have significant natural monopoly attributes (such as airlines and trucking) is straightforward and has long been accepted by most economists.²⁸² Imposing regulatory barriers to entry and restricting price competition in such an industry creates what amounts to a legalized cartel. Such a legalized cartel, relative to a competitive market, will result in reduced output, increased prices, and diminished aggregate social welfare.²⁸³ Studies conducted before the first wave of regulatory reform showed that unregulated segments of the trucking and airline industries had significantly lower prices than regulated (i.e., oligopolistic) segments.²⁸⁴ Studies conducted since those re-

281. See, e.g., Huber, *supra* note 170, at 168–73 (telecommunications); Navarro, *supra* note 114, at 353, 357 (electricity generation).

282. See, e.g., 2 Kahn, *supra* note 164, at 251–323 (1971); see also Breyer, *supra* note 10, at 15–19.

283. See, e.g., Richard A. Posner, *Antitrust Law: An Economic Perspective* 8–22 (1976).

284. See, e.g., Michael Levine, *Is Regulation Necessary? California Air Transportation and National Regulatory Policy*, 74 *Yale L.J.* 1416 (1965); William Jordan, *Airline Regulation in America* (1970); Theodore E. Keeler, *Airline Regulation and Market*

forms were implemented show more complex effects, but generally also conclude that “average prices of air travel, trucking, and long-distance telephoning are down substantially, producing not only consumer savings but net welfare improvements in the billions of dollars each year.”²⁸⁵

By a similar logic, an industry characterized by multiple service segments could achieve efficiency gains by unbundling the potentially competitive service segments from the natural monopoly segments, and limiting regulation to the latter. This is the central premise underlying the deregulation of field production of natural gas and the unbundling of bulk gas sales from pipeline transmission services; the deregulation of electricity generation and the unbundling of bulk electric power sales from transmission and distribution; and the unbundling of customer premises equipment, long-distance service, information services, and now (potentially) all elements of local exchange service under the Telecommunications Act. It is too early to assess the efficiency effects of these reforms, but the expectation is that lower average prices and net welfare gains will be substantial.²⁸⁶

It is occasionally suggested that the mere existence of efficiency gains in moving from monopoly or oligopoly to competition is sufficient to explain the great transformation.²⁸⁷ This is not correct. The magnitude of the efficiency gains must be weighed against the transitional costs of moving from a regime of regulation to one of competition, as well as the transaction costs of operating under a regime of competition after the

Performance, 3 *Bell J. Econ. & Mgmt. Sci.* 399 (1972); Thomas Gale Moore, *Deregulating Surface Freight Transportation*, in *Promoting Competition in Regulated Markets* 55 (Almarin Phillips ed., 1975); see also Teske et al., *supra* note 30, at 38 n.79, 68 n.28 (citing sources).

285. Alfred E. Kahn, *Deregulation: Looking Backward and Looking Forward*, 7 *Yale J. on Reg.* 325, 342–43 (1990); see Teske et al., *supra* note 30, at 44 n.101, 75 (citing studies suggesting annual customer gains from airline and trucking deregulation of \$6 billion and \$38 billion respectively); Robert W. Hahn & John A. Hird, *The Costs and Benefits of Regulation: Review and Synthesis*, 8 *Yale J. on Reg.* 233, 250 (1991) (placing the total annual savings from regulatory changes in the airline, trucking, rail, natural gas, oil, and telecommunications industries at between \$33.6–42.9 billion); Winston, *supra* note 272, at 1284 (estimating the annual benefits from deregulation as between \$36–46 billion in 1990 dollars).

286. See, e.g., Kenneth W. Costello & Robert J. Graniere, *The Outlook for a Restructured U.S. Electric Power Industry: Lessons from Deregulation*, *Elec. J.*, May 1997, at 81, 91 n.19 (citing one study estimating that electric industry restructuring could save consumers \$60 billion or more and another estimating consumer savings of \$108 billion annually with the economy as a whole benefiting on net by \$24 billion annually); Pierce, *supra* note 97, at 324 (commenting that the transition to a competitive natural gas market “has enhanced consumer welfare by billions of dollars per year”).

287. See, e.g., Black & Pierce, *supra* note 138, at 1350–54 (portraying potential efficiency gains from introduction of competition in electricity industry as making deregulation inevitable).

transformation is complete. The transition will take place only if the benefits in terms of gains from competition clearly outweigh the costs.²⁸⁸

Technological change enters the picture as an exogenous variable that explains a sudden discontinuity in the benefit-cost equation. If existing technology makes an industry a natural monopoly, then there would be little in the way of efficiency gains from dismantling regulation and introducing competition, because the competitive process will lead to a weeding out of competitors until only a single provider remains. Absent regulation, the transaction costs to customers of adjusting to a market dominated by a monopoly provider (for example, the need to negotiate complex long-term contracts) would be extremely high.²⁸⁹ However, if we hypothesize that new technologies are introduced that make it possible for more than one firm to operate in an industry, this would mean that the industry is ripe for achieving the efficiency gains associated with moving from monopoly to competition, and (putting aside transition costs) that the transaction costs would be no greater than those encountered in other competitive markets in which contractual exchange predominates.²⁹⁰

288. This proposition is essentially the same one that Harold Demsetz used to explain the origin of private property rights. See Harold Demsetz, *Toward a Theory of Property Rights*, 57 *Am. Econ. Rev. Papers & Proc.* 347 (1967). Demsetz posited that a property rights regime is a form of collective action designed to reduce the externalities produced when resources exist in an open-access commons. See *id.* at 347-52. He hypothesized that such a property rights regime will be created when the benefits in terms of reducing externalities exceed the costs of creating and sustaining the new property rights regime. See *id.* at 350. The Demsetz argument can be generalized to any situation in which one institutional arrangement generates inefficiencies relative to other possible arrangements. For examples of such a generalization, see Thomas W. Merrill, *Golden Rules for Transboundary Pollution*, 46 *Duke L.J.* 931, 972-76 (1997) (international environmental law regimes); Carol M. Rose, *Rethinking Environmental Controls: Management Strategies for Common Resources*, 1991 *Duke L.J.* 1, 31-32 (different stages in environmental protection regimes); David E. Van Zandt, *The Market as a Property Institution: Rules for Trading of Financial Assets*, 32 *B.C. L. Rev.* 967, 975 (1991) (international financial markets). The great transformation of regulated industries law may represent another example.

289. See Oliver E. Williamson, *Franchise Bidding for Natural Monopolies in General and with Respect to CATV*, 22 *Bell J. Econ.* 73, 82, 102 (1976).

290. The efficiency gains hypothesis may help explain why the legislative aspects of the transformation have occurred largely in two waves—the first in the late 1970s, the second in the 1990s. The first wave involved industries or industry segments that were already competitive or where natural monopoly barriers did not stand in the way of developing competitive markets—airlines, trucking, railroads, and long-distance service. Competition could be introduced fairly easily in these industries, and so the efficiency gains were large and foreseeable. Conversely, the transitional costs were not great because most assets in these industries (except for railroad track) are redeployable and hence are unlikely to be stranded by competition. And the transaction costs of going forward after the transition need not be great, especially if the regulatory apparatus simply disappears (as in the case of the CAB and, for most purposes, the ICC), resulting in a clean substitution of a regime of contract for regulation.

The second wave of legislation, in contrast, has centered on common carrier and public utility services having significant natural monopoly features, the strategy now being

We have no doubt that there is some merit to the technological change argument in some circumstances. Some regulated industries—most prominently telecommunications and the airline industry—have experienced rapid technological changes in the post-war period. In particular, many observers believe that the collapse of the Bell System monopoly and the Telecommunications Act's mandate of universal competition in telecommunications markets are the product of dramatic technological changes that have rendered the natural monopoly theory obsolete in this industry.²⁹¹ For example, advances in electronic switching technology and in computers were probably a necessary condition of moving to competition in the long-distance telephone industry. The newer switching technology allows the LECs to originate and terminate calls from multiple long-distance carriers, something that would have been prohibitively expensive using switchboard operators.²⁹² Similarly, the advent of wireless and satellite communications capabilities may eventually overcome the LECs' bottleneck monopoly that exists in the form of the local copper wire loops connecting individual homes and businesses with local exchanges.²⁹³

Looking at the larger picture, however, we find the technological innovation argument unpersuasive in most instances. Consider the railroad industry. Railroads have for most of this century experienced tortoise-like rates of technological innovation.²⁹⁴ This is especially true with respect to the critical facility that gives railroading its natural monopoly

to unbundle these services in order to allow competition in segments not characterized by natural monopoly. The efficiency gains from this strategy are more uncertain, resting largely on a new economic theory. See *infra* text accompanying notes 362–365 (discussing development of contestable markets theory). The transitional costs are often massive, especially in the electricity industry, which is faced with a large stranded-cost problem that must be resolved in order to complete the transformation. See Pierce, *supra* note 97, at 335–38. (Whether there are likely to be large stranded costs from the introduction of competition in local telephone markets is more debatable. Compare William J. Baumol & Thomas W. Merrill, *Deregulatory Takings, Breach of the Regulatory Contract, and the Telecommunications Act of 1996*, 72 N.Y.U. L. Rev. 1037, 1057–61 (1997) (stranded costs predicted to be negligible), with J. Gregory Sidak & Daniel F. Spulber, *Givings, Takings, and the Fallacy of Forward-Looking Costs*, 72 N.Y.U. L. Rev. 1068, 1164 (1997) (stranded costs likely to be large).) And the transaction costs that remain after competition is introduced are likely to be high, because regulators have a continuing role to play in setting prices and terms for access to the remaining bottleneck monopolies. Thus, the delay in moving to competition in these “second-wave” industries can be explained by the more problematic efficiency gains and the higher transitional and transaction costs.

291. See, e.g., Daniel Yergin & Joseph Stanislaw, *The Commanding Heights: The Battle Between Government and the Marketplace That Is Remaking the Modern World* 347 (1998) (“it was technological change that really undermined AT&T’s monopoly and the regulatory system that went with it”). But see Paul Eric Teske, *After Divestiture: The Political Economy of State Telecommunications Regulation 6–7* (1990) (collecting varying scholarly explanations of reasons for breakup of the Bell System).

292. See Huber, *supra* note 170, at 77–78, 82, 111.

293. See *id.* at 106–09.

294. See, e.g., Gellman, *supra* note 170.

aspect—railroad track. The ballast, wooden ties, and steel rails used for railroad roadbed and track in the period immediately prior to deregulation were not significantly different from those used at the beginning of the century.²⁹⁵ Yet notwithstanding this static technological state, railroad transportation was largely deregulated in a relatively short period of time in the late 1970s and early 1980s. Whatever the explanations for this phenomenon, technological innovation overcoming the high fixed costs of constructing and maintaining railroad track is not one of them.

A similar story can be told about natural gas pipelines and wholesale electricity transmission grids. To be sure, there have been refinements in transmission technology in both industries, and it is clear that electricity can be wheeled over much greater distances today than was thought possible forty years ago.²⁹⁶ But the basic technology of transmission in both industries today is little changed from that developed many decades ago. The principal difference in the gas industry is that the network of interstate pipelines has become increasingly dense over the years,²⁹⁷ and in the electric industry transmission lines have been interconnected in regional grids to a much greater extent than was the case up through the immediate post-war period.²⁹⁸ In neither case, however, has there been a technological “breakthrough” that would allow us to say that the natural monopoly aspect of gas and electricity transmission has been eliminated.²⁹⁹ And yet, as in the case of railroads, we have seen significant movement toward competition in both industries.

The picture is similar with respect to trucking. No doubt there have been many small refinements in diesel truck tractors and trailer rigs over the last several decades. But there have been no major breakthroughs in trucking technology.³⁰⁰ A more plausible candidate for technological change in the trucking industry would be the construction of the federal Interstate Highway System, which was largely completed in the decade

295. See Terry Breen, *Railroads in Transition: Better but Not Different*, *Modern Railroads*, Oct. 1979, at 51, 54.

296. See, e.g., Asghar Zardkoohi, *Competition in the Production of Electricity*, in *Electric Power: Deregulation and the Public Interest* 63, 64–66 (John C. Moorhouse ed., 1986); Black & Pierce, *supra* note 138, at 1345.

297. See Pierce, *supra* note 97, at 333–34; Pendley, *supra* note 1, at 32–45.

298. See Office of Technology Assessment, U.S. Congress, *Electric Power Wheeling and Dealing: Technological Considerations for Increasing Competition*, OTA-E-409, at 53 (1989); see also Scott Fenn, *America's Electric Utilities: Under Siege and in Transition* 12–13 (1981) (discussing rise of regional power pools); Richard F. Hirsh, *Technology and Transformation in the American Electric Utility Industry* 56–58 (1989) (same).

299. See FERC Order No. 888, FERC Stats. & Regs. (CCH) ¶ 31,036, at 31,652 (1996) (“transmission [of electricity] continues to be a natural monopoly”); FERC Order No. 636, FERC Stats. & Regs. (CCH) ¶ 30,939, at 30,393 (1992) (“pipeline control of the [gas] transportation system [remains] a natural monopoly”).

300. Cf. Gellman, *supra* note 170, at 178–81 (discussing constraints on highway transport as of 1971, noting no substantial technological deficiencies, and observing that constraints were generally regulatory rather than technological).

before enactment of the Motor Carrier Act of 1980.³⁰¹ The interstate system clearly improved the performance of motor carriers and permitted a large increase in the size of the fleet.³⁰² But again, the change has been quantitative rather than qualitative and took place gradually over several decades. In any event, no one believes that there was ever a natural monopoly in the motor carrier industry to begin with, so there is no bottleneck to point to that these technological changes can be regarded as having overcome.

Even in industries that have experienced high rates of technological innovation, a closer look suggests that technological change is a problematic explanation for the transformation. With respect to long-distance telephone service, for example, it is true that the early challenge to AT&T's Long Lines division was from MCI and other private line providers, which used microwave transmission technology rather than the traditional coaxial cable. Microwave transmission, unlike coaxial cable, has roughly constant average costs with increasing usage rather than falling average costs;³⁰³ thus, the advent of microwave transmission might be thought to have overcome the natural monopoly characteristics of long-distance service. Ironically, however, by the time the courts and the FCC had opened the door to general competition in the long-distance market, the technology of choice had shifted again—this time to fiber optic cable, which like the original coaxial cable, and unlike microwave transmission, *does* have natural monopoly features.³⁰⁴ So even the story of the transformation from regulation to competition in long distance is difficult to explain in terms of technological change.

The technology story also seems implausible because the coming of competition has had variable impacts on the degree of technological sophistication in common carrier and public utility services. In the airline industry, for example, the introduction of competition has meant that in many regional markets carriers have substituted smaller propeller-driven planes for jets.³⁰⁵ In other words, competition has resulted in a reversion (in part) to use of a less advanced form of technology. Similarly, competition in the wholesale electric generation market is likely to result in the

301. See Craig Stock, *The Great Infrastructure Debate*, J. Com., Oct. 30, 1992, at 6A; see also John Brannon Albright, *At 40,253 Miles, the Interstate Highway System Is 95 Percent Complete*, N.Y. Times, July 19, 1981, § 10, at 5; cf. James I. Scheiner, *The Effect of the Interstate System on Short-Haul Air Passenger Demand*, 1 *Transp. Sci.* 286 (1967).

302. See Tom Lewis, *Divided Highways: Building the Interstate Highways, Transforming American Life* 286–87 (1997).

303. See Sam Peltzman, *The Economic Theory of Regulation After a Decade of Deregulation*, in *Brookings Papers on Economic Activity: Microeconomics* 1, 30 (Martin Neil Baily & Clifford Winston eds., 1989).

304. See Huber, *supra* note 170, at 17, 80, 104–06.

305. See, e.g., General Accounting Office, *Deregulation: Increased Competition Is Making Airlines More Efficient and Responsive to Consumers* 30–31 (1985); Adam Bryant, *A Wrinkle in the Jet Age: Propeller Planes*, N.Y. Times, May 23, 1994, at A1; George Marsh, *Propellers Bite Back*, *Commuter World*, Oct.–Nov. 1990, at 13.

displacement of large and enormously complicated nuclear generating plants with small and relatively simple gas-turbine-powered plants.³⁰⁶ The gas turbines represent a refinement of conventional technology developed in response to demands for greater flexibility in meeting uncertain load growth.³⁰⁷ But they are unquestionably a less advanced form of technology than nuclear plants.

Indeed, if there is a dominant causal relationship between regulatory and technological change, it might be more plausible to say that regulatory changes lead to changes in technology, rather than vice versa. This certainly appears to be the case in the railroad industry, long the sluggard in terms of innovation.³⁰⁸ More impressionistically, there may be some tendency for deregulation to cause a shift in the scale of technology from larger to smaller, as in the airline and electric generation industries. In any event, technological change is at best a modest explanatory factor in understanding the transformation.

B. *Chain Reactions*

A second explanation (which could easily be seen as a complement to the first) hypothesizes that the great transformation has come about through a series of chain reactions: Once the process starts—for whatever reason, including technological innovation in one industry—it is difficult for it to stop until it is complete.³⁰⁹ Like the technological change argument, the chain reaction argument presupposes that the underlying benefit-cost equation has shifted in such a way as to make a competitive market structure feasible where previously, because of natural monopoly, it was not. Now, however, the hypothesized exogenous change that causes the shift is another change in regulation elsewhere in the legal system. This initial change could be caused by any number of factors, ranging from new technology to ad hoc political events. But once unleashed, regulatory change rapidly spreads.

Several possible chain reaction mechanisms can be identified. Decontrol in one industry could give rise to pressure for decontrol in an-

306. See, e.g., Energy Information Administration, U.S. Dep't of Energy, Annual Energy Outlook 1998 with Projections to 2020, at 5 (1997) (projecting that, between 1996 and 2020, no nuclear power plants will be built, many existing nuclear units will be retired early, and "[t]he natural-gas-fired share of electricity generation (excluding cogenerators) more than triples, from 9 percent to 31 percent").

307. See Hirsh, *supra* note 298, at 163–64.

308. See *Deregulation: Perspectives of Economist/Regulators: Hearing Before the Joint Econ. Comm., 101st Cong. 29 (1990)* (statement of Darius W. Gaskins, Jr., former Chairman of the ICC); cf. James M. MacDonald, *Railroad Deregulation, Innovation, and Competition: Effects of the Staggers Act on Grain Transportation*, 32 *J.L. & Econ.* 63, 92 (1989) (arguing that regulated pricing for railroads retarded, and deregulation re-stimulated, the adoption of unit cars for grain shipments by the railroad industry).

309. As Kahn has observed, "partial deregulation has introduced a host of asymmetries and distortions, which have been and are still being resolved primarily by further liberalizations." Kahn, *supra* note 285, at 333.

other industry that competes against the first, as a kind of defensive reaction. Alternatively, reform in one industry that provides inputs into another industry could trigger reform in the second industry. Finally, partial deregulation in an industry could give rise to pressure for further or complete deregulation in that industry.

All three of the foregoing chain reactions arguably have been observed in the last twenty years. One possible example of a defensive chain reaction is provided by the deregulation of the motor carrier industry. ICC regulation was originally extended to trucks in 1935 in part to protect the struggling rail industry against a new form of competition from a substitute service.³¹⁰ When the ICC, prodded by the Carter White House, began to liberalize regulation of the trucking industry in the late 1970s,³¹¹ it is plausible to assume that this was similarly threatening to the railroads. The railroads' intense advocacy of the relaxation of controls in the Staggers Rail Act of 1980 may have been motivated in part by their need for greater freedom to respond to competition from trucks and also by their need to raise rates on captive traffic in order to offset losses from trucking competition.³¹²

Another and more striking example of a defensive chain reaction is supplied by the Telecommunications Act. The RBOCs pressed to be allowed to enter the long-distance market for almost fifteen years.³¹³ When it finally appeared that they had the votes in Congress to achieve their objective, the existing long-distance carriers responded by demanding that local telephone markets be opened up as a condition precedent to allowing the RBOCs to enter the long-distance market. This was a second-best solution as far as the long-distance carriers were concerned. Undoubtedly, most would have preferred to keep the RBOCs bottled up, but if the RBOCs were to enter long distance and could offer customers "one-stop shopping" (both local and long-distance service), then the incumbent long-distance carriers wanted to be able to offer one-stop shopping too. To do this, however, they had to get Congress to open the local market.³¹⁴

310. See Robyn, *supra* note 213, at 12–14; Hardaway, *supra* note 170, at 116 & n.69 (and sources cited); Webb, *supra* note 39, at 97; see also John Richard Felton, Background of the Motor Carrier Act of 1935, *in* Regulation and Deregulation of the Motor Carrier Industry 3, 4–13 (John Richard Felton & Dale G. Anderson eds., 1989) (providing overview of various interest groups' positions on trucking regulation leading up to the 1935 act). Prior to the 1920s, railroads had enthusiastically supported the improvement of roads and highways, assuming that trucks and automobiles would be used to deliver additional passengers and freight to the railroads. See Lewis, *supra* note 302, at 21–22, 286.

311. See Rothenberg, *supra* note 212, at 223–31.

312. See, e.g., Marcus Alexis, The Political Economy of Federal Regulation of Surface Transportation, *in* The Political Economy of Deregulation: Interest Groups in the Regulatory Process 115, 128–29 (Roger G. Noll & Bruce M. Owen eds., 1983).

313. See *infra* note 329 and accompanying text.

314. For another example of deregulation in one industry leading to deregulation in another industry, see Teske et al., *supra* note 30, at 138–44 (describing how airline

There is also evidence that regulatory reform in one market has triggered reform in another market that uses the services of the first as an input. The primary example might be the gradual decontrol of the natural gas market in the 1980s and its impact on the bulk electricity market. The transformation of the natural gas industry—in particular the deregulation of wellhead prices of natural gas—over time resulted in significant declines in the prices of delivered natural gas and increases in production.³¹⁵ As natural gas thus became cheaper and more plentiful, this stimulated interest in using natural gas as a fuel for electric power generation. Gas was always regarded as a more environmentally friendly fuel for power generation than coal. Now it was also economically competitive. The interest in gas-powered generation contributed to the development of a new generation of gas turbine generators, which could be owned and operated by independent power producers.³¹⁶ The possibility of plentiful and cheap wholesale electric power supplied by these independent producers has in turn stimulated the movement for unbundling in the electric power generation market.

Finally, there is evidence that partial deregulation of an industry can give rise to internal pressures for further deregulation. The natural gas industry provides one illustration, where decontrol of wholesale markets led to pressure for lifting of regulation at the retail level. As Black and Pierce explain:

Wholesale producers soon sought regulatory permission to sell directly to large consumers, at prices well below those charged by local gas distribution companies, while large consumers threatened to move their operations if denied access to cheap gas. Some producers proposed to build new pipelines, exempt from state regulation, to serve large customers. Regulators had little choice but to allow retail competition as well.³¹⁷

The telecommunications industry is the most striking example, however. Reform started with customer premises equipment, spread to long-distance service, then to information services, and finally to local services. After the fully integrated vertical Bell monopoly started to be disassembled, firms operating in one segment of the market continually pressed to

deregulation helped lead to federal preemption of most economic regulation of intrastate trucking).

315. See Richard J. Pierce, Jr., *The Regulatory Treatment of Mistakes in Retrospect: Canceled Plants and Excess Capacity*, 132 U. Pa. L. Rev. 497, 504 (1984); Adam D. Samuels, *Comment, Reliability of Natural Gas Service for Captive End-Users Under the Federal Energy Regulatory Commission's Order No. 636*, 62 Geo. Wash. L. Rev. 718, 726 (1994).

316. See Henry R. Linden, *Operational, Technological and Economic Drivers for Convergence of the Electric Power and Gas Industries*, *Elec. J.*, May 1997, at 14; see also Raymond S. Hartman, *The Efficiency Effects of Electric Utility Mergers: Lessons from Statistical Cost Analysis*, 17 *Energy L.J.* 425, 436 (1996) (noting that "independent power production has been further stimulated by the decline in natural gas prices").

317. Black & Pierce, *supra* note 138, at 1351.

be allowed to enter other segments, which created pressure to extend the scope of the reform.

To be sure, the chain reaction theory, standing alone, fails to provide a complete account of the great transformation. The theory cannot account for the initial change that triggers the chain reaction. Nor does it explain why there is a predisposition to move in a certain direction (more competition) rather than the opposite (more regulation). After all, in other times and places, we have seen chain reactions of expanding regulation: For example, regulation of railroads gave rise to regulation of inland waterways, oil pipelines, trucks, and buses in part to make the original regulation more effective,³¹⁸ and the FCC agreed to regulate cable TV in order to protect broadcasting.³¹⁹ Nevertheless, we think that the phenomenon of chain reaction helps explain why regulatory change has occurred simultaneously or nearly simultaneously in so many industries.

C. *The Role of Interest Groups*

Students of politics have shown some interest in what we term the great transformation—more so than legal academics, although probably less than the phenomenon deserves given its importance.³²⁰ The feature that has most intrigued such analysts is that deregulation appears to run counter to the interest group theory of politics.³²¹ This theory, as developed by George Stigler, Mancur Olson, and others, posits that the political system is a kind of market in which groups with high per capita stakes and low costs of organizing will generally “outbid” groups with low per capita stakes and high costs of organizing.³²² A primary prediction of the theory is that concentrated interests, such as producer groups and unions, will be able to obtain legislation and regulation protecting their interests at the expense of diffuse groups such as consumers.

Regulatory reform, however, appears to present an example of political change in which concentrated interests—industry incumbents and unions—lose out to diffuse interests, to wit, consumers and future rivals

318. See Swann, *supra* note 280, at 23.

319. See *United States v. Southwestern Cable Co.*, 392 U.S. 157, 165–67 (1968).

320. See, e.g., Derthick & Quirk, *supra* note 40; McCraw, *supra* note 196, at 303–04; Swann, *supra* note 280, at 32–41; Vietor, *supra* note 280, at 11–16.

321. For a basic exposition of the interest group theory of politics, a principal component of modern public choice theory, see Daniel A. Farber & Philip P. Frickey, *Law and Public Choice: A Critical Introduction* (1991); Neil K. Komesar, *Imperfect Alternatives: Choosing Institutions in Law, Economics, and Public Policy* 53–89 (1994); Croley, *supra* note 215, at 34–41; Thomas W. Merrill, *Institutional Choice and Political Faith*, 22 *L. & Soc. Inquiry* 959, 959–64 (1997).

322. See, e.g., Mancur Olson, *The Logic of Collective Action* 33–36 (1965); George J. Stigler, *The Theory of Economic Regulation*, 2 *Bell. J. Econ. & Mgmt. Sci.* 3 (1971), reprinted in George J. Stigler, *The Citizen and the State: Essays on Regulation* 114, 119–28 (1975).

for market shares and jobs.³²³ Indeed, careful case studies of the first wave of regulatory reform have confirmed that the interest group theory of politics cannot account for these initiatives. Probably the best-known case study, by Martha Derthick and Paul Quirk, examined the deregulations of the airline, trucking, and long-distance industries.³²⁴ The authors found that in each case incumbent firms and their unions strenuously opposed regulatory change.³²⁵ They uncovered very little evidence that these parties asked for deregulation or, "at any rate, engaged in enough political activity to have much effect on the outcome."³²⁶

When we cast our gaze beyond the three industries examined by Derthick and Quirk, however, the proposition that interest group influence has been suspended seems more questionable. For example, railroad decontrol, which also took place as part of the initial wave, was supported with considerable fervor by the railroad industry.³²⁷ Railroads wanted greater flexibility to abandon unprofitable lines and to raise rates on demand-inelastic traffic. The final shape of the Staggers Rail Act of 1980 was hammered out in a negotiated compromise between established interest groups much in the way the interest group theory of politics would predict.³²⁸

The second wave of reform legislation has also tended to conform much more closely to the picture of the political system painted by the interest group theory of politics. The story of telecommunications regulation after the breakup of the Bell monopoly is largely one in which a classic concentrated interest—the RBOCs—assiduously pursued every political avenue available in an effort to enter the markets off-limits to them under the MFJ. They pressured the Justice Department, lobbied the FCC, litigated before Judge Greene and the D.C. Circuit, and sought repeatedly to get friendly members of Congress to sponsor legislation overturning the line-of-business restrictions.³²⁹

323. This point has not gone entirely unnoticed in the legal literature. See, e.g., Peter L. Kahn, *The Politics of Unregulation: Public Choice and Limits on Government*, 75 *Cornell L. Rev.* 280, 286–87 (1990); Mark Kelman, *On Democracy-Bashing: A Skeptical Look at the Theoretical and "Empirical" Practice of the Public Choice Movement*, 74 *Va. L. Rev.* 199, 220–23 (1988).

324. See Derthick & Quirk, *supra* note 40.

325. See *id.* at 21.

326. *Id.* But see Peltzman, *supra* note 303, at 18–41 (arguing that firms in some regulated industries did not oppose deregulation because the economic rents they had originally earned were beginning to dissipate).

327. See Alexis, *supra* note 312, at 129.

328. See *Congress Passes Rail Deregulation Bill, Sends It to President Carter*, *Traffic World*, Oct. 6, 1980, at 27, 27–28.

329. See Thomas W. Hazlett, *Explaining the Telecommunications Act of 1996: Comment on Thomas G. Krattenmaker*, 29 *Conn. L. Rev.* 217, 237–38 (1996); see, e.g., Peter H. Stone, *Some Hard Facts About Soft Money*, *Nat'l J.*, Mar. 23, 1996, at 672 (describing the "big chunks of soft money" contributed by RBOCs and others to Washington political operations "at critical junctures" in the drafting of the Telecommunications Act of 1996, whose "stakes were staggering [because] the legislation

The Telecommunications Act of 1996 was the successful culmination of these efforts. At the center of the Act are provisions abolishing the MFJ and permitting the RBOCs to enter the equipment-manufacturing and long-distance businesses. In this last respect, the quid pro quo extracted by the established long-distance carriers was that the RBOCs and other LECs would first have to open their local exchange markets to competition.³³⁰ Other features of the legislation, including cable TV and broadcasting provisions, also bear the mark of provider influence. All in all, the basic shape of the legislation was determined largely through a process of negotiated give-and-take among rival groups of providers.

Similar, if less stark, struggles among rival producers can be discerned in the gas and electric industries. In the natural gas industry, pipelines that had signed long-term take-or-pay contracts during the era of price controls and natural gas shortages found themselves, after partial decontrol, at a disadvantage relative to those that could take advantage of lower prices on uncontrolled "new" gas.³³¹ The encumbered pipelines demanded relief from these long-term contracts; on the other side of the coin, the promisees insisted on compensation if the contracts were abrogated.³³² In the electric industry, Congress inadvertently created a lobby for open access to the interstate grid when it adopted the Public Utility Regulatory Policies Act of 1978 (PURPA), requiring utilities to purchase the output of cogenerators and small power producers.³³³ Independent power producers have since become an active force pushing for greater access to interstate power grids.³³⁴

In addition to struggles among rival producer groups, there is also evidence that powerful consumer groups have played a greater role in more recent reform initiatives. It is always instructive to consider who are the winners and who are the losers from major policy changes. With re-

set the conditions for how the regional Bell operating companies could enter the \$70 billion-a-year long-distance market"); Alicia Mundy, *Winners and Losers*, *Adweek*, May 8, 1995, at 24 (describing bill that after modifications became the Telecommunications Act and stating that "[t]he RBOC lobbyists are hailed as new power players in Washington"); Mike Mills, *The New Kings of Capitol Hill: Regional Bells Use Lobbying Clout to Push for New Markets*, *Wash. Post*, Apr. 23, 1995, at H1 (describing political contributions and evidence of the "Bells' clout"); Mark Lewyn, *The Baby Bells and Their Rivals Nuke It Out on the Hill*, *Bus. Week*, Oct. 21, 1991, at 89, 89 ("the free-for-all [over whether to remove the MFJ's manufacturing restriction on the RBOCs] is turning into one of the most expensive lobbying campaigns in some time"); Mary Lu Carnevale, *Baby Bells Grow Up*, *Wall St. J.*, Nov. 9, 1990, at R46 (describing the RBOCs' multi-pronged efforts, "[e]ver since [the RBOCs] were born in 1984," to have the MFJ's line-of-business restrictions removed); Frances Seghers, *The Baby Bells Become Problem Children for AT&T*, *Bus. Week*, Jan. 18, 1988, at 60, 60-61 (describing the RBOC lobbying blitz of the FCC, executive branch, and Congress against the MFJ's line-of-business restrictions).

330. See generally Krattenmaker, *supra* note 101, at 136-42.

331. See *Associated Gas Distribs. v. FERC*, 824 F.2d 981, 995-96 (D.C. Cir. 1987); Fagan, *supra* note 98, at 718-20.

332. See De Vany & Walls, *supra* note 97, at 6-8; Vietor, *supra* note 280, at 159-60.

333. 16 U.S.C. § 824a-3 (1994).

334. See Black & Pierce, *supra* note 138, at 1347-48.

spect to changes in telecommunications (both long distance and presumably local exchange service), electricity, and gas, the big winners appear to be large commercial and industrial users of these services. They are the ones that have obtained the largest discounts and the greatest array of new service options in telecommunications.³³⁵ To date, they are also almost the only ones that have received direct benefits from competition in the electric and gas industries. Ordinary residential consumers have received little or nothing. And if regulatory reform results in elimination of or reduction in traditional cross-subsidies, the disparities in benefits between large commercial and industrial customers and residential (especially rural residential) customers will become even greater.

Note that this pattern of winners and losers is very much consistent with what the interest group theory of politics would predict. Business and commercial consumers are a more concentrated and organized interest than residential and rural customers. Not surprisingly, industrial customers have started to form lobbying groups pressing for further decontrol of public utilities.³³⁶ Although there may be independent justifications for reform on efficiency grounds, all this suggests the possibility that the movement toward competition may be explained by the interest group theory after all, especially in the second wave featuring the big-ticket entries of telecommunications, electricity, and gas.³³⁷

It is true that interest group theory does not provide a complete explanation for the great transformation. The findings of Derthick and Quirk and others about the lack of interest group influence in the early deregulation of airlines and trucks remain unrefuted.³³⁸ But the great transformation would not have happened—at least in most industries—unless there were concentrated groups that stood to gain disproportionately from the change and that therefore had an interest in continually

335. Cf. Teske, *supra* note 291, at 9–12 (suggesting that “large users and potential competitors [as opposed to direct competitors such as MCI] played a crucial role . . . in [AT&T’s] divestiture [of the BOCs]”).

336. See Black & Pierce, *supra* note 138, at 1352.

337. Another factor that may be of some importance is that public concern with reliability and equality of utility services has declined in recent decades. This is partly a function of expectations. In the 1920s, when telephone and electric services were new and subject to frequent interruptions, reliability was an obvious concern; today, after decades in which uninterrupted high-quality service has been the norm, anxiety about reliability has naturally dissipated. It is also partly a function of a relative decline in the importance of certain common carrier and utility services as inputs for many small businesses and households. A North Dakota farm in the 1920s could be driven out of business by a “discriminatory” rail rate that increased its costs of getting grain to the market relative to other farms. Today, trucks can provide competition to rail service in the transportation of grain, thus reducing the extreme risk posed by exclusive dependence on the railroad.

338. See, e.g., Robyn, *supra* note 213, at x, *passim* (Motor Carrier Act of 1980 “represented a case where diffuse interests triumphed over fire-in-the-belly resistance from narrow economic groups”). But cf. Teske, *supra* note 291, at 126 (distinguishing in this regard “deregulation of airlines and trucking” from telecommunications).

pressing for change in a variety of forums (including not just agencies and Congress but also the courts).

The emergence of interest groups, such as large industrial users, that stand to gain from deregulation has been important because these groups have kept the issue on the political agenda. If the only factors supporting deregulation were overall efficiency gains and elite opinion about the risks of regulatory failure, then chances are that, after an initial burst of reformist enthusiasm, the entrenched interests would reassert themselves, and would successfully block any fundamental alteration of the old regime. The creation of interest groups eager for changes—such as the RBOCs in telecommunications, the independent power producers with respect to electricity, and large industrial customers in several different industries—has acted as a counterweight to the incumbent providers and their unions. These new interest groups have acted as a battering ram, continually pressing the cause of reform on the political system until at some point, the underlying conditions favoring change—the efficiency gains and new policy presuppositions—have allowed the great transformation to burst through another legal barrier.

D. *Perceptions of Regulatory Failure*

A final explanation for the transformation which is encountered in the literature is that it is symptomatic of a larger “capitalist revolution” sweeping the world. Thus, Alfred Kahn, in looking back on the first wave of deregulation starting in the late 1970s, has concluded that the “most fundamental” cause was “the rediscovery all over the world of the virtues of the free market.”³³⁹ Richard Vietor reaches a similar conclusion: “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.”³⁴⁰ Or, as a recent book puts it, what we have termed the great transformation is part of a “movement from an era in which the state sought to seize and control the commanding heights of the economy to an era in which the ideas of free markets, competition, privatization, and deregulation are capturing the commanding heights of world economic thinking.”³⁴¹

The hypothesis that the transformation is being driven by changing ideas about the relative merits of markets and governments is supported by international developments. Throughout the developed world, countries are either deregulating or privatizing public utilities, including railroads, natural gas, electricity, airline, and telecommunications providers.³⁴² There are, of course, important differences in the pace and

339. Kahn, *supra* note 285, at 330.

340. Vietor, *supra* note 280, at 330.

341. Yergin & Stanislaw, *supra* note 291, at 365.

342. See, e.g., International Energy Agency, *Natural Gas Transportation: Organisation and Regulation* (1994); Telecommunications Politics: Ownership and Control of the Information Superhighway in Developing Countries (Bella Mody et al. eds.,

direction of the change, especially given that most other countries start from a baseline of state ownership rather than public regulation of privately owned utilities. But the trend is unmistakable and nearly universal. This remarkable congruence in the evolution of policy across otherwise dissimilar societies strongly suggests that a significant degree of ideological consensus has emerged about the virtues of markets as the dominant mode of industrial organization for delivering public utility services.³⁴³

It is important not to overstate the degree to which ideas about the relative merits of markets and government regulation have changed. Government regulation in the United States is expanding rather than retracting in many areas. The first wave of the great transformation occurred in the 1970s during the trailing years of what has been called a "rights revolution" featuring unprecedented expansion of government authority over product safety, worker safety, employment discrimination, and the environment.³⁴⁴ This type of social regulation continues to expand, although perhaps at a slower pace than in the early 1970s. To take just one example, in the area of employment law we have seen—during the same period of time in which the great transformation in regulated industries law has been taking place—a dramatic expansion in legal protection for disabled persons, new rules against sexual harassment, mandatory parental leaves, and plant-closing laws.³⁴⁵

Moreover, many of the great partisans of the ongoing expansion of social regulation—Senator Edward M. Kennedy comes to mind as a particularly striking example—have also been leading advocates of the trans-

1995); George Williams, *The Airline Industry and the Impact of Deregulation* 67–161 (rev. ed. 1994); John Armstrong, *Unplugged? The Effect of the New World Electric Power Order on Renewable Energy Industries*, 22 N.C. J. Int'l L. & Com. Reg. 449 (1997); Alexander J. Black, *European Law and Public Utility Open Access*, 10 Fla. J. Int'l L. 117 (1995); Cosmo Graham, *Privatization—The United Kingdom Experience*, 21 Brook. J. Int'l L. 185, 202–06 (1995) (discussing electricity, gas, telecommunications, and water); Alan S. Gutterman, *Japanese Securities Markets: The Impact of Privatization and Deregulation of Japan's Public Enterprises*, 12 U. Pa. J. Int'l Bus. L. 589 (1991) (discussing, inter alia, telecommunications, airline, and railroad industries); Amy Lin, *Telecommunications Competition in the European Union After France v. Commission—The Terminal Equipment Case*, 9 Conn. J. Int'l L. 355 (1994); Diane Preston, *Privatization of Energy in Argentina and Brazil: A Roadmap for Developing Countries*, 48 Admin. L. Rev. 645 (1996); Ingo Vogelsang, *Micro-Economic Effects of Privatizing Telecommunications Enterprises*, 13 B.U. Int'l L.J. 313 (1995); Rafael X. Zahralddin & C. Todd Jones, *Venture Capital Opportunities and Mexican Telecommunications After Passage of the NAFTA and the Ley de Inversion Extranjera*, 20 Del. J. Corp. L. 899 (1995).

343. On the importance of ideas in generating regulatory change, see Peter H. Schuck, *The Politics of Rapid Legal Change: Immigration Policy in the 1980s*, in *The New Politics of Public Policy* 47, 77–85 (Marc K. Landy & Martin A. Levin eds., 1995); James Q. Wilson, *The Politics of Regulation*, in *The Politics of Regulation* 357, 393–94 (James Q. Wilson ed., 1980).

344. See, e.g., Cass R. Sunstein, *After the Rights Revolution: Reconceiving the Regulatory State* (1990).

345. For a critical overview of these developments, see Walter Olson, *The Excuse Factory: How Employment Law Is Paralyzing the American Workplace* (1997).

formation of regulated industries law. These supporters see deregulation as part of a larger package of “consumer protection” measures, not as a celebration of free markets. Conversely, the pace of legislative reform slowed somewhat during the Reagan and Bush years relative to what we have seen during the two principal waves of such deregulation, which have coincided with the Carter and Clinton administrations. Yet Presidents Reagan and Bush consistently embraced the market and decried government regulation to a far greater extent than Presidents Carter and Clinton, both of whom sent decidedly more mixed messages.

Nevertheless, if we confine ourselves to considering elite opinion about economic regulation of common carriers and public utilities, there can be no doubt that the perceptions of regulatory failure are in the ascendancy, while perceptions of market failure are in decline. Nowhere is this clearer than within the economics profession. There has been a broad consensus among economists since the early 1970s, if not before, that the original paradigm of active government regulation makes no sense as applied to industries without any natural monopoly features—such as trucking and airlines.³⁴⁶ This broad consensus was eventually translated to key White House staffers in the Ford and Carter administrations, which in turn led to the appointment of economists such as Alfred Kahn, Elizabeth Bailey, Darius Gaskins, and Marcus Alexis to serve as commissioners on the CAB and the ICC.³⁴⁷ On the congressional side, the consensus among economists clearly influenced key staffers such as Stephen Breyer in advising Senator Kennedy about what sorts of issues he could champion in order to position himself as the pro-consumer presidential candidate.³⁴⁸

Beliefs within the economics profession about the proper treatment of regulated industries have changed in three important respects in recent decades. First, economists today tend to be less apprehensive about the phenomenon of natural monopoly as a type of market failure than they were in the past. Second, economists tend to regard public regulation more skeptically than was true in earlier generations. Third, a new theory—generally known as the theory of contestable markets—has emerged which is widely viewed as justifying a much more minimalist

346. See Peltzman, *supra* note 303, at 18 (noting that if early deregulation measures had been put to a vote of the American Economic Association, “all the initiatives would have passed with large majorities”).

347. See Derthick & Quirk, *supra* note 40, at 78–79, 85 (CAB); Rothenberg, *supra* note 212, at 236–37 (ICC). An interesting question is whether these agencies’ roles in the great transformation are largely attributable to an increasing influence of economists relative to lawyers at the agencies. Cf. Marc Allen Eisner & Kenneth J. Meier, *Presidential Control Versus Bureaucratic Power: Explaining the Reagan Revolution in Antitrust*, 34 *Am. J. Pol. Sci.* 269, 282–84 (1990) (presenting evidence that the changing antitrust policy of the Department of Justice in the 1980s was caused not by presidential or congressional politics, but by the hiring of more economists in the Department).

348. On the role that the airline deregulation hearings played in Senator Kennedy’s presidential ambitions, see Derthick & Quirk, *supra* note 40, at 106–07.

form of regulation of natural monopolies than the pervasive oversight associated with the original paradigm.

The first two changes—a declining concern with natural monopoly and a concomitant rise in skepticism about the effects of public regulation—can be seen in their starkest form in the writings of economists closely associated with the Chicago School. When the original paradigm was created, economists at the University of Chicago as elsewhere thought that the central issue raised by natural monopoly was whether it should be controlled by public regulation or through state ownership.³⁴⁹ Starting in the 1960s, however, the terms of the debate significantly shifted. At least among the economists at Chicago, the relevant issue became whether it was better to regulate natural monopolies or simply to leave them unregulated.³⁵⁰

The basic case for leaving natural monopolies unregulated was set forth by Milton Friedman.³⁵¹ Friedman conceded that there are industries where one supplier may provide output more efficiently than multiple providers.³⁵² He also noted that there are in principle three ways to structure such an industry: public ownership, regulated private monopoly, or unregulated private monopoly.³⁵³ Europe and most of the rest of the world opted for the first choice; the United States, of course, adopted the second—the original paradigm. Friedman, however, iconoclastically argued that the third choice—unregulated private monopoly—was in fact the best of an imperfect set of options.

Friedman's principal argument for unregulated private monopolies was a negative one: that regulated monopolies would exercise *de jure* rather than merely *de facto* monopoly power. A *de facto* monopoly will be constrained in the short run by the existence of substitute services, and in the long run will stimulate rivals to develop technological innovations permitting them to enter the market and capture a portion of the economic rents earned by the monopolist.³⁵⁴ In contrast, Friedman believed, *de jure* monopolists would capture the regulators and would thus be able to restrict output and raise prices more than unregulated private monopolies would.³⁵⁵ Friedman's theory was bolstered by empirical studies showing that public regulation has had no appreciable effect on utility

349. See Harry M. Trebing, *The Chicago School Versus Public Utility Regulation*, in *The Chicago School of Political Economy* 311 (Warren J. Samuels ed., 2d ed. 1993).

350. See *id.*; Swann, *supra* note 280, at 130–39.

351. See Milton M. Friedman, *Capitalism and Freedom* 119–60 (1962). The thesis was subsequently systematized and restated by Harold Demsetz, see Harold Demsetz, *Why Regulate Utilities?*, 11 *J.L. & Econ.* 55, 65 (1968), and by a young Richard Posner. See Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 *Stan. L. Rev.* 548, 620 (1969).

352. See Friedman, *supra* note 351, at 128.

353. See *id.*

354. See *id.* at 128–29.

355. See *id.* at 139–44.

prices over the long run.³⁵⁶ Some of Friedman's ideas—most particularly the notion that public utilities tend to capture regulators and bend the system of regulation to their own advantage—subsequently became a kind of orthodoxy shared by conservative and liberal economists alike.³⁵⁷

Various studies have identified other or derivative reasons why regulation fails, even if the underlying industry structure is characterized by natural monopoly. The best known is the Averch-Johnson hypothesis, which posits that cost-of-service rate regulation creates an incentive for utilities to make excessive capital investments in order to boost their rate of return.³⁵⁸ Although attempts to confirm the theory empirically have been inconclusive,³⁵⁹ there can be little doubt that electric utilities operating under cost-of-service regulation made very expensive investments in nuclear power plants in the 1960s and 1970s that in retrospect appear unwarranted. Similarly, many observers believe that the pre-divestiture Bell monopoly gold-plated its physical plant.³⁶⁰ Alfred Kahn and others have also argued that the extensive cross-subsidies that characterize regulation of natural monopolies are inherently inefficient (whatever one thinks of their distributional consequences).³⁶¹ To the extent that regulatory reform causes providers to shift toward setting prices closer to marginal costs for different classes of customers, such inefficiencies will be reduced.

356. See, e.g., George J. Stigler & Claire Friedland, *What Can Regulators Regulate?: The Case of Electricity*, 5 *J.L. & Econ.* 1 (1962), reprinted in George J. Stigler, *The Citizen and the State: Essays on Regulation* 61 (1975); see also Nina W. Cornell & Douglas W. Webbink, *Public Utility Rate-of-Return Regulation: Can It Ever Protect Consumers?*, in *Unnatural Monopolies* 27, 33–36 (Robert W. Poole, Jr. ed., 1985) (and sources cited) (indicating that regulation may lead to higher prices as regulated firms pass on costs of technology lag to the customer).

357. See Merrill, *supra* note 187, at 1059–67 (and sources cited).

358. See Harvey Averch & Leland Johnson, *The Behavior of the Firm Under Regulatory Constraint*, 52 *Am. Econ. Rev.* 1053, 1058 (1962).

359. See Paul L. Joskow & Roger C. Noll, *Regulation in Theory and Practice: An Overview*, in *Studies in Public Regulation* 1, 13 (G. Fromm ed., 1981). For empirical studies tending to support the Averch-Johnson effect in the electric industry, see Léon Courville, *Regulation and Efficiency in the Electric Utility Industry*, 5 *Bell J. Econ. & Mgmt. Sci.* 53, 72 (1974); H. Craig Petersen, *An Empirical Test of Regulatory Effects*, 6 *Bell J. Econ.* 111, 124 (1975); Robert M. Spann, *Rate of Return Regulation and Efficiency in Production: An Empirical Test of the Averch-Johnson Thesis*, 5 *Bell J. Econ. & Mgmt. Sci.* 38, 50 (1974).

360. See, e.g., F.M. Scherer, *Industrial Market Structure and Economic Performance* 533–35 (1st ed. 1970).

361. See, e.g., 1 Kahn, *supra* note 164, at 190–91. It has been demonstrated, for example, that if the demand of rural customers for utility service is lower than that of urban customers (because rural customers are fewer in number), and the marginal cost of serving rural customers is higher than the marginal cost of serving urban customers, then setting the price of service for all customers at a point midway between the marginal cost of rural customers and urban customers will produce a net loss in consumer welfare. See Swann, *supra* note 280, at 142–43 (demonstrating the point with a simple graphic exposition).

The Chicago School position that even natural monopolies should simply be deregulated has yet to be embraced by mainstream economists. However, in the late 1970s, William Baumol and others developed the theory of contestable markets, which suggested that lowering entry and exit barriers could produce efficiency gains, even if only one firm served an industry at any given time.³⁶² This theory suggested that even natural monopoly industries should be opened to competition, as long as regulators establish and enforce competitively neutral prices for access to bottleneck facilities.³⁶³ Baumol's "domesticated" version of the case for eliminating traditional entry controls and rate-of-return regulation has been immensely influential with the professional staffs of agencies such as the FCC, FERC, and the Justice Department, which increasingly have included professionally trained economists among their numbers.³⁶⁴ It has also plainly been influential with congressional staff. The theory of contestable markets is the intellectual foundation on which the local competition provisions of the Telecommunications Act rest, and has been the lodestar that the FCC has used to guide its implementation of those provisions.³⁶⁵

Changing ideas about market failure and regulatory failure within the economics profession thus have almost certainly played a critical role in the great transformation. On the question of how best to regulate common carriers and public utilities, the views of the mass electorate are "weakly articulated and greatly baffled."³⁶⁶ Into this policy vacuum step the professional economists, who offer very confident assessments about what sort of industrial structure will maximize economic efficiency and consumer welfare. These views filter into the political system through

362. See, e.g., William J. Baumol et al., *Weak Invisible Hand Theorems on the Sustainability of Multiproduct Natural Monopoly*, 67 *Am. Econ. Rev.* 350 (1977); John C. Panar & Robert D. Willig, *Free Entry and the Sustainability of Natural Monopoly*, 8 *Bell J. Econ.* 1 (1977); William J. Baumol, *Contestable Markets: An Uprising in the Theory of Industry Structure*, 72 *Am. Econ. Rev.* 1 (1982); William J. Baumol et al., *Contestable Markets and the Theory of Industry Structure* (1982); Elizabeth E. Bailey & William J. Baumol, *Deregulation and the Theory of Contestable Markets*, 1 *Yale J. on Reg.* 111 (1984). For a somewhat critical take on the theory, see William B. Tye, *The Theory of Contestable Markets: Applications to Regulatory and Antitrust Problems in the Rail Industry* (1990).

363. See, e.g., Baumol & Sidak, *supra* note 6, at 93-116; William J. Baumol & J. Gregory Sidak, *The Pricing of Inputs Sold to Competitors*, 11 *Yale J. on Reg.* 171, 178-89, 201 (1994).

364. See Eisner & Meier, *supra* note 347, at 275-77, 280-84 (discussing growth of economists' influence in the Department of Justice, beginning in the early 1970s).

365. See generally *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, 11 *FCC Rcd.* 15499 (1996) (subsequent history omitted); cf. Sidak & Spulber, *supra* note 268, at 307-42 (criticizing FCC's approach to applying contestable markets principles in local competition proceedings under the 1996 Act).

366. Marc K. Landy & Martin A. Levin, *The New Politics of Public Policy*, in *The New Politics of Public Policy* 282 (Marc K. Landy & Martin A. Levin eds., 1995) (quoting Wilson Carey McWilliams, *Two-Tier Politics and the Problem of Policy*, in *The New Politics of Public Policy*, *supra*, at 268).

advice provided by the White House Council of Economic Advisors, the Office of Management and Budget, and other elite offices.

This transmission of ideas unquestionably has had a pronounced effect on the shape of public policy. Every president from Gerald Ford to Bill Clinton has devoted significant political capital to the cause of regulatory reform. The reason for this, without a doubt, is that they have been convinced by their advisors that such a transformation will enhance the overall performance of the economy, and thus contribute to one of the most important variables determining presidential approval ratings.³⁶⁷ Gerald Ford, for example, became a convert to deregulation because he thought—perhaps naively—that deregulation would help “whip inflation.”³⁶⁸ President Carter became an even more fervent proponent of deregulation, which he saw as a partial cure for chronic stagflation.³⁶⁹ Later presidents have supported regulatory reform because they thought that it would stimulate productivity gains and improve anemic growth rates.³⁷⁰ In short, for the last quarter-century, three Republican and two Democratic presidents have consistently supported decontrol of regulated industries, on the understanding that this would expand the size of the economic pie. This has helped convince administrative agencies and ultimately Congress that regulatory reform is desirable. Without this bedrock conviction at the highest levels of our political system, the great transformation would not have occurred.

IV. THE FUTURE OF THE GREAT TRANSFORMATION

It remains to offer some brief thoughts about the future path of the great transformation. To be sure, we have no crystal ball. Indeed, as lawyers our comparative advantage is probably more backward-looking than forward-looking.³⁷¹ Nevertheless, we can at least outline from a legal perspective what appear to be the three ideal-typical trajectories for future evolution. (In reality, the law will probably follow some path that constitutes a blending or compromise of at least two of these three trajectories.) First, the legal system could revert toward a system that more

367. See George C. Edwards III, *Presidential Approval: A Sourcebook* 135–36 (1990).

368. See Derthick & Quirk, *supra* note 40, at 45–50.

369. See *id.* at 53–54.

370. Examples would include President Reagan’s Executive Order 12,291, see Exec. Order No. 12,291, 3 C.F.R. 127 (1982) (subsequent history omitted), reprinted as note after 5 U.S.C. § 601 (1988), which mandated general cost-benefit analysis of major federal regulatory initiatives, and President Clinton’s National Performance Review, see Al Gore, *From Red Tape to Results: Creating a Government That Works Better and Costs Less* 32–33 (National Performance Committee ed., 1993), which posed numerous suggestions for enhancing the efficiency of government and reducing regulatory burdens on the economy.

371. See Merrill, *supra* note 187, at 1115; cf. 1 Bruce Ackerman, *We the People: Foundations* 98–99 (1991) (characterizing judges as passengers sitting in a caboose, looking backward over the terrain unfolding behind them (but giving no indication as to whether any of them had been given a preferential rate)).

closely approximates the original paradigm (or perhaps even sees state ownership of public utilities). Second, the legal system could continue to follow the current path that places critical reliance on the concept of natural monopoly. The task of regulatory agencies under this trajectory would generally be to control access to and pricing of these natural monopoly service elements, but otherwise to foster open competition in all common carrier and public utility markets. Third, the legal system could gravitate toward the position that Milton Friedman outlined in 1962 in which natural monopoly plays no role; this would mean dismantling the system of active regulation of public utilities altogether, leaving technological innovation, market forces, and antitrust and common-law actions as the only forms of discipline.

The first of these pathways—a return in whole or part to the original paradigm—strikes us as the least plausible vision of the future. To be sure, as competition spreads to local telephony and electricity, complaints about the quality and reliability of service could rise, and this in turn might create sentiment for returning to the world of restricted service territories, limits on new entry, and administered prices.³⁷² The experience with airline and long-distance telecommunications deregulation suggests that there surely will be such complaints.³⁷³ But it also suggests that providers will respond by regarding these complaints as marketing opportunities, and that the market will segment into customers who are more concerned with price (and willing to tolerate some shortcomings in service) and those who are more concerned with quality (and willing to pay a premium for it). These market segments will be served by different providers or perhaps even by different service options offered by a single provider.

We also think it unlikely that concerns about discrimination will again mount to the heights that existed at the beginning of the original paradigm. One reason for this is that the extreme dependency on a single provider that characterized the early years under the original paradigm is unlikely to reemerge. The percentage of transactions that customers have with monopoly or oligopoly providers has steadily declined throughout this century,³⁷⁴ and this trend is highly unlikely to be reversed. The only scenario in which public concern about discrimination might return to its previous intensity would be if the economy entered a severe and prolonged depression in which competitive pressures on small businesses (a potent political force instrumental in the creation of the original paradigm) became intense, *and* competitive alternatives to particular modes of transportation, communications, or power generation disappeared. We think the odds that both of these things will happen are small.

372. See Cudahy, *supra* note 138, at 357; see also James F. Bromley, A Trip Back to the Age of Faith, 59 *Transp. Prac. J.* 389, 394 (1992).

373. See, e.g., Dempsey, *supra* note 103, *passim*.

374. See Bonbright et al., *supra* note 12, at 583.

If we are correct in these predictions, then the real choice to be made in the future is between a world of regulatory transformation and a world of deregulation. By regulatory transformation, we mean the emerging paradigm that we describe in Part I, where public agencies continue to monitor access to, and the pricing of, monopoly bottlenecks in the provision of public utility services, such as the local distribution systems in the electric and natural gas industries. By deregulation, we mean a world in which active administrative control of public utilities simply ends, and utility services are governed by the same legal rules that determine entry, pricing, and access for other commodities and services. In such a world, "natural monopoly" as a separate economic category justifying positive regulation would disappear, and what we know as public utilities or common carriers would be governed by the same rules of contract, tort, and antitrust that apply to auto parts distributors. The FCC, FERC, and state PUCs would follow the CAB and the ICC into the sunset.

Significantly, the American legal system has not yet moved beyond the transformation model. The far-reaching Telecommunications Act envisions a world in which all segments of the electronic communications industries—including local telephony, wireless, long distance, cable television, and broadcasting—are open to competition, and indeed converge and blur beyond recognition. But the Act also envisions that the FCC and the state PUCs will continue to stand guard assuring competitors access to bottleneck service segments—at prices that do not inhibit the emergence of true competition. Thus, there is no mandate for a "withering away" of the FCC or the state PUCs; they simply get a new job description. Similarly, even the most far-reaching legislative proposals to bring competition to electric and natural gas markets do not call for the abolition of federal and state regulatory agencies which will watch over the natural monopoly segments of these distribution systems.

The fact that the legal system has yet to cross the "natural monopoly" line does not mean that it will not do so in the near future. In keeping with what we have seen to date, the determination of whether the great transformation will breach this line will be a function of elite perceptions of regulatory failure and interest group politics. The first variable will be influenced critically by the future course of what may be called the "public choice" vision of government regulation.³⁷⁵ The second will depend on whether a powerful concentrated interest emerges that adopts complete deregulation as its preferred political position.

The public choice conception of regulation, in keeping with Milton Friedman's original critique, tends to view all positive regulation of entry and pricing as yielding greater deadweight costs than any unregulated market would, even in an industry where it is conceded that one firm will operate more efficiently than two. There is some evidence that this per-

375. See *supra* notes 321–322 and accompanying text.

spective is gaining ground among economists.³⁷⁶ But it has not yet displaced the mainstream perspective of those who study industrial organization, which remains deeply uncomfortable with the idea of monopoly.³⁷⁷ Antitrust law and economics are the most prominent illustration of this. Although antitrust scholarship has witnessed considerable retrenchment in terms of defining when a monopoly exists and what kind of conduct constitutes misuse of monopoly power, so far few antitrust scholars (and certainly no courts) have been willing to renounce the idea that monopoly is dangerous to economic health. Those who share this conviction are likely to resist the suggestion that “natural monopoly” should cease to be an occasion for heightened regulatory oversight.

The public choice perspective is also vulnerable insofar as its central premise—that positive regulation is always inferior to market ordering—is usually advanced as an article of faith rather than by empirical demonstration. The history of the great transformation that we have recounted—in which regulatory agencies often led the charge for regulatory reform—should by itself be enough to give pause before one asserts any invariant hypothesis about the behavior of regulators. Contrary to the theory popular in the late 1960s and early 1970s, agencies do not always behave as the hopeless captives of their client industries.³⁷⁸

Moreover, there are good reasons why the comparative institutional choice between positive regulation and deregulation, insofar as it applies to natural monopoly service segments, will continue to be regarded as at best a difficult one in which deregulation has no clear advantage. No doubt positive regulation has ample flaws, including—sometimes—industry capture. But market ordering would be far from costless, especially in industries in which there is a “natural” tendency (for whatever reason) for only one firm to survive. Other providers or customers using the output of this industry would have to resort to elaborate long-term contracts to protect their interests, and such contracts would entail high transaction and litigation costs.³⁷⁹ And insofar as the behavior of the incumbent firm would be disciplined by antitrust oversight rather than positive regulation, this would in effect simply replace one regulatory regime (that of the administrative agency) with another (that of the Department of Justice and the courts). Lawyers would be generally happy with this substitution, but it is not clear that it would produce better results at lower costs.

376. See, e.g., Robert W. Crandall, *Is It Time to Eliminate Telephone Regulation?*, in *Telecommunications Policy: Have Regulators Dialed the Wrong Number?* 17, 22 (Donald L. Alexander ed., 1997); Walter J. Primeaux, Jr., *Total Deregulation of Electric Utilities: A Viable Policy Choice*, in *Unnatural Monopolies* 121, 121 (Robert W. Poole, Jr. ed., 1985).

377. See William F. Shughart II, *Public-Choice Theory and Antitrust Policy*, in *The Causes and Consequences of Antitrust: The Public-Choice Perspective* 7, 18–19 (Fred S. McChesney & William F. Shughart II eds., 1995).

378. See *supra* text accompanying notes 187–215.

379. See Hazlett, *supra* note 329, at 17.

As to the interest group dimension, the obvious candidates to champion complete deregulation would be the incumbent utilities that currently operate natural monopoly bottlenecks.³⁸⁰ If the mainstream analysis of monopoly is correct, complete deregulation, in conjunction with the high natural barriers to entry that the incumbents would enjoy, would allow them to earn monopoly profits. But whatever temptation this prospect might offer is likely to be severely tempered by the thought that the elimination of positive regulation would bring with it a more vigorous regime of antitrust scrutiny. Certainly, the experience of the Bell System monopoly in the late 1970s when the hounds of antitrust law were unleashed should give any incumbent utility monopolist serious pause before advocating complete deregulation.³⁸¹ Thus, it also remains uncertain, at this point in time, whether any energized and well-organized interest group will emerge advocating complete deregulation.

In sum, we cautiously predict that the most likely path of the great transformation is the current one: a mixed system of competition through regulation. In all industries and industry segments where more than one firm can effectively operate, positive regulation will continue to give way to competition. But in industries or, rather, industry segments where one firm can operate more efficiently than two, positive regulation will continue to exist under the guise of regulatory superintendence of natural monopoly bottlenecks. In this narrow but critical domain, regulation will continue to be perceived as a superior instrument to a regime of common-law entitlements and antitrust scrutiny.³⁸² Of course, this prediction could be dead wrong. Virtually no lawyers would have predicted in 1975 that in less than a quarter-century competition would be coming to local telephone services and electric power generation.³⁸³ And our powers to see the future are no greater than those of our predecessors.

380. For example, a recent book advocating complete deregulation of the telecommunications industry was written by a legal representative of the RBOCs. See Huber, *supra* note 170; see also Joseph D. Kearney, *Twilight of the FCC?*, 1 *Green Bag* 2d 327, 328 (1998) (reviewing Huber's book in light of this undisclosed fact). It is appropriate to note here that we have at times provided legal services to AT&T.

381. See *supra* text accompanying notes 244–251 (AT&T faced major government suit and over 50 private suits); see also Taylor, *supra* note 246, at 1 (recounting congressional staff member's estimate that, if AT&T litigated the government's antitrust case to judgment and lost, piggyback private suits "could cost AT&T \$14 billion").

382. The shrinking of the domain of positive regulation will almost surely result in an expansion of antitrust scrutiny, even in areas where agencies retain jurisdiction. This is because one of the variables in determining whether compliance with positive regulation confers antitrust immunity is the degree to which the regulatory regime is incompatible with competition. See 9 Earl W. Kintner & Joseph B. Bauer, *Federal Antitrust Law* 10–11, 18–19 (1989). To the extent that the regulatory regime is transformed into one designed to promote competition, this clearly reduces the tension between regulation and the application of the antitrust laws.

383. To be sure, this does not distinguish lawyers from economists, who also failed to predict the transformation. See Peltzman, *supra* note 303, at 41.

CONCLUSION

There is a pronounced tendency in legal scholarship to concentrate on potential or impending additions to the corpus of legal regulation. The law reviews are filled with articles about new or emerging rights, regulatory requirements, and causes of action. However, there tends to be very little commentary on apparent subtractions from the corpus of regulation. To a considerable extent, this is a rational response. It is probably important that the legal community channel its attention to areas where the future demand for legal services will be greatest. But the radical disparity in scholarly focus also has its costs, for it can produce severe gaps in the legal community's understanding about the evolving shape of the universe in which it operates.

The great transformation in regulated industries law that has been taking place since around 1975 is a prime example of how scholarly neglect of subtractions can leave the legal community largely oblivious to legal changes of enormous significance. Most legal scholars and lawyers are only dimly aware of the monumental changes that have been taking place in common carrier and public utility law in recent years. A small number have some grasp of the changes taking place in one industry. Only a handful have any sense of how the legal landscape has shifted overall. The fact that the changes that we have discussed are widely advertised as "deregulation" probably contributes to the complacent sense that public law has no on-going role to play with respect to common carrier and public utility services.

Our objective in this article has been to close this gap in understanding. In large terms, the transformation is one from hostility to competition to the maximum promotion of competition. Publicly filed tariffs are giving way to contracts, standardized packages of services are being unbundled, and cross-subsidies are being rooted out in favor of pricing based on incremental costs. But as regulatory reform has moved beyond the first wave—in which industries that are not natural monopolies, such as airlines, trucks, and long-distance telephony, were opened to competition—new complexities, defining a new role for regulation, have emerged.

The second wave of the transformation, which began in the late 1980s and continues today, entails the breakup into separate segments of what were formerly vertically and/or horizontally integrated public utility monopolies, so that the segments that are not natural monopolies can be opened to competition. This project entails the creation of a new set of legal duties for firms in regulated industries toward other firms, including interconnecting firms and competitors. These duties, which did not exist under the original paradigm of regulation, include duties of interconnection, offering unbundled network service elements to competitors, and selling services to competitors for resale. With the rise of these new duties toward other firms, and the diminishing significance of duties toward end-users, the role of the administrative agencies is being radically

redefined. Rather than comprehensively overseeing the industry in order to ensure reliable and uniform services, the primary role of the agency is to act as the facilitator of competition. Specifically, the agency, operating now like a limited-jurisdiction antitrust enforcer, must stand watch over the remaining natural monopoly bottlenecks, in order to assure that the inter-firm duties of interconnection and so forth are being properly defined and enforced. Thus, the transformation entails a continuing—but redefined—role for public regulation.

Perhaps the most important question raised by the great transformation is how this massive shift in the legal landscape came about in such a relatively short period of time. We have argued that no legal institution has been the architect of these changes. The independent regulatory commissions, the courts, and Congress all took important steps, but none of these institutions played a consistent leadership role. Instead, the source of these changes must be found in more deep-seated economic, political, and intellectual forces. The candidates we find most persuasive include the rise of powerful interest groups that stand to benefit from regulatory change and changing ideas among policy elites about regulatory failure.

Our assessment of the causes of the transformation is, however, necessarily a tentative one. Even more tentative is our prediction that the transformation will continue to abide by the natural monopoly/non-natural monopoly line, and will not spill over into a general deregulation of all public utility industry segments. But the initial step in understanding a phenomenon is to recognize that it exists. That has been our central objective here. The legal community must come to understand that a great transformation is taking place in regulated industries law. Once that knowledge is absorbed, our collective understanding of the wider implications of this dramatic change and its future course can be expected to progress more rapidly.